Job Management Partner 1 Version 10

Job Management Partner 1/Integrated Management - Service Support Configuration and Administration Guide

3021-3-364-10(E)

Notices

■ Relevant program products

P-242C-8FAL Job Management Partner 1/Integrated Management - Service Support version 10-50 (for Windows Server 2012, Windows Server 2008, and Windows Server 2003)

P-242C-8UAL Job Management Partner 1/Integrated Management - Service Support Advanced Edition version 10-50 (for Windows Server 2012, Windows Server 2008, and Windows Server 2003)

For details about the applicable OS versions, and the service packs and patches required for *Job Management Partner 1*/Integrated Management - Service Support, see the *Release Notes*.

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■ Microsoft product screen shots

Microsoft product screen shots are used according to the Microsoft Corporation's guidelines.

■ Microsoft product name abbreviations

This manual uses the following abbreviations for Microsoft product names.

Abbreviation	Full name or meaning
Active Directory	Microsoft(R) Windows Server(R) 2003 Active Directory
	Microsoft(R) Windows Server(R) 2008 Active Directory
	Microsoft(R) Windows Server(R) 2012 Active Directory

Abbreviation		Full name or meaning
Excel		Microsoft(R) Office Excel
IIS		Microsoft(R) Internet Information Services
Internet Explorer	Internet Explorer	Microsoft(R) Internet Explorer
	Windows Internet Explorer	Windows(R) Internet Explorer(R)
MSCS		Microsoft(R) Cluster Service
Windows 2000		Microsoft(R) Windows(R) 2000 Advanced Server Operating System
		Microsoft(R) Windows(R) 2000 Datacenter Server Operating System
		Microsoft(R) Windows(R) 2000 Professional Operating System
		Microsoft(R) Windows(R) 2000 Server Operating System
Windows 7		Microsoft(R) Windows(R) 7 Enterprise
		Microsoft(R) Windows(R) 7 Professional
		Microsoft(R) Windows(R) 7 Ultimate
Windows 8		Microsoft(R) Windows(R) 8 Professional
		Microsoft(R) Windows(R) 8 Enterprise
		Microsoft(R) Windows(R) 8.1 Professional
		Microsoft(R) Windows(R) 8.1 Enterprise
Windows Server 2003	Windows Server 2003	Microsoft(R) Windows Server(R) 2003, Enterprise Edition
		Microsoft(R) Windows Server(R) 2003, Standard Edition
		Microsoft(R) Windows Server(R) 2003 R2, Enterprise Edition
		Microsoft(R) Windows Server(R) 2003 R2, Standard Edition
	Windows Server 2003(x64)	Microsoft(R) Windows Server(R) 2003, Enterprise x64 Edition
		Microsoft(R) Windows Server(R) 2003, Standard x64 Edition
		Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition
		Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition
Windows Server 2008		Microsoft(R) Windows Server(R) 2008 Enterprise
		Microsoft(R) Windows Server(R) 2008 Standard
		Microsoft(R) Windows Server(R) 2008 R2, Datacenter
		Microsoft(R) Windows Server(R) 2008 R2, Enterprise
		Microsoft(R) Windows Server(R) 2008 R2, Standard
Windows Server 2012		Microsoft(R) Windows Server(R) 2012 Datacenter
		Microsoft(R) Windows Server(R) 2012 Standard

Abbreviation	Full name or meaning
Windows Server 2012	Microsoft(R) Windows Server(R) 2012 R2 Datacenter
	Microsoft(R) Windows Server(R) 2012 R2 Standard
Windows Vista	Microsoft(R) Windows Vista(R) Business
	Microsoft(R) Windows Vista(R) Enterprise
	Microsoft(R) Windows Vista(R) Ultimate
Windows XP	Microsoft(R) Windows(R) XP Home Edition
	Microsoft(R) Windows(R) XP Professional
WSFC	Windows Server(R) Failover Cluster

Windows 2000, Windows 7, Windows 8, Windows Server 2003, Windows Server 2008, Windows Server 2012, Windows Vista, and Windows XP are sometimes referred to as *Windows*.

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Summary of amendments

The following table lists changes in this manual (3021-3-364-10 (E)) and product changes related to this manual.

Changes	Location
Windows Server 2012 R2 was added to the list of supported operating systems.	--
JP1/IM - Service Support Advanced Edition was added as a JP1/IM - Service Support product. Users of JP1/IM - Service Support Advanced Edition can now save Items registered in the Item management database to the Item storage database. It is now possible to specify XL size for an Item management database. • jssdbbackup.bat command (backs up databases) • jssdbinit.bat command (initializes databases) • jssdbrecovery.bat command (recovers the database) • jssdbrorg.bat command (reorganizes the Item management database) • jsshadbinit.bat command (initializes the database in a cluster environment) • jsshasetup.bat command (sets up JP1/IM - Service Support for a cluster environment) • jsshaunsetup.bat command (performs unsetup of JP1/IM - Service Support in a cluster environment) • jssitemstore command (store Items) • jssitemstoredbexpand.bat command (expands the Item storage database area) • jssitemstoredbrotate command (rotates Item storage databases) • jssitemstoredbsetup.bat command (sets up the Item storage database) • jsssetup.bat command (sets up JP1/IM - Service Support) • jssstoreitemdel.batcommand (deletes multiple stored Items) • jssunsetup.bat command (performs unsetup of JP1/IM - Service Support) • Configuration file for expanding an Item storage database (jssitemstoredbexpandinfo.bat) • Configuration file for setting up an Item storage database (jssitemstoredbinfo.bat) • User log definition file (jp1itemstore.conf) • User log definition file (jp1itemstoredbrotate.conf)	*1.6*, *2.1.2*, *2.2.1*, *3.1*, *3.2.1*, *3.2.2*, *3.2.3*, *3.3*, *3.4*, *3.5.6*, *3.6*, *3.6.1*, *3.7*, *3.7.2*, *3.8*, *3.9*, *3.10*, *3.11*, *3.13*, *3.16*, *3.19*, *3.20*, *3.20.1*, *3.20.2*, *5.12.1*, *5.13*, *5.13.1*, *5.13.2*, *5.13.3*, *5.13.4*, *6.1*, *6.3.1*, *6.3.2*, *6.4*, *6.4.3*, *6.5*, *6.5.1*, *6.6*, *6.6.1*, *6.6.2*, *8.13*, *9.1.4*, *9.2*, *9.5*, *9.5.1*, *9.5.2*, *9.9*, *9.9.1*, *9.9.2*, *9.10*, *10.1.1*, *10.2.1*, *10.2.7*, *10.2.9*, *10.2.10*, *10.2.11*, *10.2.12*, *10.2.13*, *10.2.14*, *10.2.15*, *11. List of commands*, *11. Commands that cannot be executed at the same time*, *11. Status of services when commands are executed*, *11. jss_log.bat (collects data)*, *11. jsscollectdata (counts Item information)*, *11. jssitemcount (counts Items)*, *11. jssitemdeletion (centrally places Items into the Waiting to be deleted status)*, *11. jssitemimport (imports Item information)*, *11. jssitemlist (outputs a list of Items)*, *11. jssdbbackup.bat (backs up databases)*, *11. jssdbinit.bat (initializes databases)*, *11. jssdbrecovery.bat (recovers a database)*, *11. jssdbrorg.bat (reorganizes the Item management database)*, *11. jssdbstatchk.bat (checks the database status)*, *11. jsshadbinit.bat (initializes the database in a cluster environment)*, *11. jsshasetup.bat (sets up JP1/IM - Service Support in a cluster environment)*, *11. jsshaunsetup.bat (performs unsetup of JP1/IM - Service Support in a cluster environment)*, *11. jssitemstore (stores Items)*, *11. jssitemstoredbexpand.bat (expands an Item storage database)*, *11. jssitemstoredbrotate (rotates Item storage databases)* , *11. jssitemstoredbsetup.bat (sets up an Item storage database)*, *11. jsssetup.bat (sets up JP1/IM - Service Support)*, *11. jssstoreitemdel.bat (deletes stored Items)*, *11. jssunsetup.bat (performs unsetup of JP1/IM - Service Support)*, *12. List of definition files*, *12. When the definition is applied after a definition file is changed*, *12. Configuration file for expanding an Item storage database (jssitemstoredbexpandinfo.bat)*, *12. Configuration file for setting up an Item storage database (jssitemstoredbinfo.bat)*, *12. User log definition file (jp1itemcount.conf)*, *12. User log definition file (jp1itemstore.conf)*, *12. User log definition file (jp1itemstoredbrotate.conf)*, *13.2.2*, *14.2.3*, *A.1*, *A.2*, *Appendix D*, *D.1*, *D.2*, *H.2*, *Appendix I*
By using the Item Management window function, users can now work with Items that were registered within a specific time frame. • System property file (hptl_jp1_imss_main_setting.properties)	*3.1*, *3.2*, *3.2.3*, *3.4.1*, *3.9*, *5.10*, *8.11*, *12. System property file (hptl_jp1_imss_main_setting.properties)*

Changes	Location
The status of multiple Items can now be changed to *Acknowledged* or *Close* in a batch operation. In addition, a consolidated JP1 event for completed-action linkage can now be issued when the status of multiple Items are changed to *Close* in a batch operation. • System property file (hptl_jp1_imss_main_setting.properties) • Configuration file for issuing JP1 events (hptl_jp1_imss_jp1event_setting.properties) • Definition file for status-change JP1 events (hptl_jp1_imss_jp1event_status.properties)	*3.1, 3.7, 3.7.1, 3.7.2, 3.9, 3.12.1, 4.1.4, 5.11.1, 8.15.1, 12. Configuration file for issuing JP1 events (hptl_jp1_imss_jp1event_setting.properties), 12. System property file (hptl_jp1_imss_main_setting.properties), Appendix E, E.1, E.2, E.3*
View permission can now be set for individual Items. • jssrefaclsetup (sets up view permission settings for individual Items) • User log definition file (jp1refaclsetup.conf)	*1.3.4, 3.2.1, 3.2.2, 3.3, 3.4, 3.5.3, 3.5.5, 3.6, 3.8.1, 3.10, 3.11, 3.11.1, 3.16, 3.16.3, 3.20.1, 5.2.1, 5.2.3, 8.1, 8.5.1, 8.12, 8.13, 9.10, 10.1.1, 11. List of commands, 11. Status of services when commands are executed, 11. jssitemedit (edits an Item), 11. jssitementry (registers an Item) , 11. jssrefaclsetup (sets up view permission settings for individual Items), 12. List of definition files, 12. When the definition is applied after a definition file is changed, 12. File for Item information entries (Optional), 12. File for extended Item information entries (Optional), 12. User log definition file (jp1refaclsetup.conf), 14.2.3, A.1, A.2*
Items can now be created based on existing Items registered in JP1/IM - Service Support.	*3.2.1, 3.2.2, 3.3.1, 3.5.2*
Items registered in JP1/IM - Service Support can now be printed.	*3.1, 3.2.1, 3.2.2, 3.3.1, 3.9, 3.10*
The number of Items registered in JP1/IM - Service Support can now be checked. In addition, a message is now output if the number of Items drops below the predefined threshold when Items are counted. • jssitemcount (command to count Items) • System property file (hptl_jp1_imss_main_setting.properties) • User log definition file (jp1itemcount.conf)	*3.5.6, 3.20.1, 3.20.2, 8.13, 9.10, 10.1.1, 11. List of commands, 11. Status of services when commands are executed, 11. jssitemcount (counts Items), 12. List of definition files, 12. When the definition is applied after a definition file is changed, 12. System property file (hptl_jp1_imss_main_setting.properties), 12. User log definition file (jp1itemcount.conf), 14.2.3, A.1, A.2*
Access-permission information can be set by using a command, and can be output to a CSV file by using a command. • jssaclexport (command to export access-permission information) • jssaclimport (command to import access-permission information) • File for Item information entries (Optional) • User log definition file (jp1aclexport.conf) • User log definition file (jp1aclimport.conf)	*3.11, 8.6, 8.13, 9.10, 10.1.1, 11. List of commands, 11. Status of services when commands are executed, 11. jssaclexport (exports access-permission information), 11. jssaclimport (imports access-permission information), 12. List of definition files, 12. When the definition is applied after a definition file is changed, 12. Access privileges input file (Optional), 12. User log definition file (jp1aclexport.conf), 12. User log definition file (jp1aclimport.conf), 14.2.3, A.1, A.2*
Item information that can be reported by email was added. • Email definition file (jp1imss_mail_setting.conf)	*3.12.2, 12. Email definition file (jp1imss_mail_setting.conf)*
The status of JP1/IM - Service Support databases can now be checked. • jssdbstatchk.bat (command to check the database status)	*3.20.1, 3.20.2, 5.13.1, 5.13.2, 5.13.3, 10.2.11, 11. List of commands, 11. Status of services when commands are executed, 11. jssdbstatchk.bat (checks the database status)*
Precautionary notes on running anti-virus software were added.	*5.16*

Changes	Location
Version upgrading procedures were added.	*6.1*, *6.2.3*, *6.4*, *6.4.2*, *6.6.1*, *6.6.2*, *8.15.1*, *8.19*, *9.2*, *9.3*, *9.8*, *9.8.1*, *9.9.1*, *11. jsshasetup.bat (sets up JP1/IM - Service Support in a cluster environment)*, *11. jsssetup.bat (sets up JP1/IM - Service Support)*
The following messages were added: • KNAB10035-E • KNAB11044-E to KNAB11048-E • KNAB12014-E • KNAB20041-I to KNAB20043-I • KNAB20150-I to KNAB20151-I • KNAB20277-I to KNAB20299-I • KNAB20300-I to KNAB20303-I • KNAB22028-W to KNAB22030-W • KNAB24114-E to KNAB24115-E • KNAB24226-E to KNAB24233-E • KNAB26097-E • KNAB26157-E • KNAB26159-E to KNAB26161-E • KNAB26163-E • KNAB26165-E to KNAB26168-E • KNAB26170-E to KNAB26174-E • KNAB26176-E • KNAB26178-E to KNAB26186-E • KNAB26188-E to KNAB26198-E • KNAB26223-E • KNAB28033-E to KNAB28036-E • KNAB28105-E • KNAB28121-E to KNAB28125-E • KNAB99050-E	*13.1*, *13.5*, *13.6*, *13.8*
The following message was deleted: • KNAB20274-I	*13.1*, *13.6*
The operator action was changed for the following messages: • KNAB12001-E • KNAB24002-E • KNAB26144-E • KNAB28011-E	*13.5*, *13.6*
The system action was changed for the following messages: • KNAB13005-W • KNAB26149-E	*13.5*, *13.6*
The explanation was changed for the following messages: • KNAB20026-I • KNAB20028-I • KNAB20272-I • KNAB22022-W	*13.6*
The message text was changed for the following messages: • KNAB20125-I	*13.6*

Changes	Location
• KNAB20133-I • KNAB26154-E	*13.6*
The message text and operator action were changed for the following messages: • KNAB26102-E to KNAB26103-E	*13.6*

In addition to the above changes, minor editorial corrections were made.

Preface

This manual describes the functions of Job Management Partner 1/Integrated Management - Service Support (hereafter *JP1/IM - Service Support*). This manual also describes how to set up a JP1/IM - Service Support system and how to operate JP1/IM - Service Support.

In this manual, Job Management Partner 1 is abbreviated to *JP1*.

The following products are referred to collectively as *Job Management Partner 1/Integrated Management - Service Support* or *JP1/IM - Service Support* in this manual.

- Job Management Partner 1/Integrated Management - Service Support[#]
- Job Management Partner 1/Integrated Management - Service Support Advanced Edition

#
> Referred to as *JP1/IM - Service Support (Standard)* in this manual.

■ Intended readers

This manual is intended for readers who satisfy the both of the following conditions:

- System administrators who build an environment for operating JP1/IM - Service Support, and who define processes of service support that JP1/IM - Service Support can provide for the IT service management
- Users having a basic knowledge of Windows Server 2012, Windows Server 2008, or Windows Server 2003

■ Organization of this manual

This manual is organized into the following parts:

PART 1: Overview
> This part provides an overview of JP1/IM - Service Support. This part also describes the Item resolution sequence and the JP1/IM - Service Support system configuration.

PART 2: Functionality
> This part describes the JP1/IM - Service Support functions. This part also describes the functions that can be used when JP1/IM - Service Support is linked with other products.

PART 3: Configuring JP1/IM - Service Support
> This part describes the policies for designing a JP1/IM - Service Support system so that the system can operate according to the service support requirements.

PART 4: Designing JP1/IM - Service Support
> This part describes how to install and set up JP1/IM - Service Support, and how to build a JP1/IM - Service Support environment.

PART 5: Maintenance
> This part describes how to maintain JP1/IM - Service Support.

PART 6: Reference

This part describes the commands and definition files that can be used with JP1/IM - Service Support. This part also describes the messages output by JP1/IM - Service Support.

PART 7: Troubleshooting

This part describes actions to be taken if problems occur in JP1/IM - Service Support.

■ Manual suite

The JP1/IM - Service Support manual set contains two manuals, including this one. Read the manual appropriate for the purpose.

Job Management Partner 1 Version 10 Job Management Partner 1/Integrated Management - Service Support Configuration and Administration Guide (3021-3-364(E))

This manual should be read by system administrators who manage and maintain JP1/IM - Service Support. It provides an overview of JP1/IM - Service Support, and describes its functionality, installation and setup, and how to use the product.

Job Management Partner 1 Version 10 Job Management Partner 1/Integrated Management - Service Support Operator's Guide (3021-3-365(E))

This manual should be read by users who will be using the graphical interface JP1/IM - Service Support to perform operations. It describes the operations you can perform from the windows and dialog boxes of JP1/IM - Service Support.

The on-screen operations related to Items are described only in the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*. On-screen operations that relate to building the JP1/IM - Service Support environment are described in the *Job Management Partner 1/Integrated Management - Service Support Configuration and Administration Guide* and the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*.

■ Conventions: Fonts and symbols

The following table explains the text formatting conventions used in this manual:

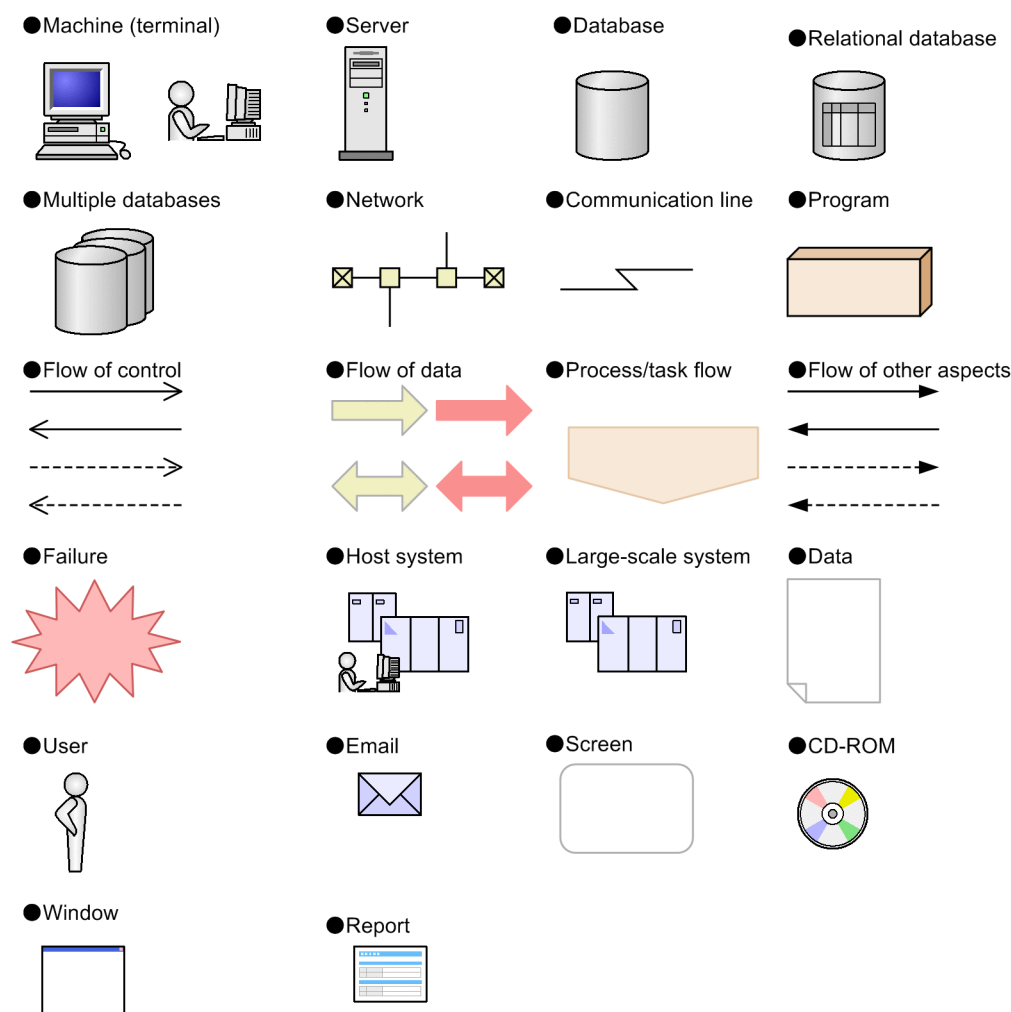| Text formatting	Convention
Bold	Bold characters indicate text in a window, other than the window title. Such text includes menus, menu options, buttons, radio box options, or explanatory labels. For example: • From the **File** menu, choose **Open**. • Click the **Cancel** button. • In the **Enter name** entry box, type your name.

Italic	Italic characters indicate a placeholder for some actual text to be provided by the user or system. For example:
	• Write the command as follows:
	  `copy` *source-file target-file*
	• The following message appears:
	  `A file was not found. (file = `*file-name*`)`
	Italic characters are also used for emphasis. For example:
	• Do *not* delete the configuration file.

`Monospace`	Monospace characters indicate text that the user enters without change, or text (such as messages) output by the system. For example:

Text formatting	Convention
Monospace	• At the prompt, enter `dir`. • Use the `send` command to send mail. • The following message is displayed: `The password is incorrect.`

The following table explains the symbols used in this manual:

Symbol	Convention
|	In syntax explanations, a vertical bar separates multiple items, and has the meaning of OR. For example: `A|B|C` means A, or B, or C.
{ }	In syntax explanations, curly brackets indicate that only one of the enclosed items is to be selected. For example: `{A|B|C}` means only one of A, or B, or C.
[ ]	In syntax explanations, square brackets indicate that the enclosed item or items are optional. For example: `[A]` means that you can specify `A` or nothing. `[B|C]` means that you can specify `B`, or `C`, or nothing.
...	In coding, an ellipsis (...) indicates that one or more lines of coding have been omitted. In syntax explanations, an ellipsis indicates that the immediately preceding item can be repeated as many times as necessary. For example: `A, B, B, ...` means that, after you specify `A, B,` you can specify `B` as many times as necessary.
<u>perm</u>	In syntax explanations, underlined characters indicate the value that the system will use if none of the values enclosed in square brackets is specified. For example: `[A|B]` means that if neither `A` nor `B` is specified, the system assumes that `A` is specified.

■ Conventions: Diagrams

This manual uses the following conventions in diagrams:

●Machine (terminal)　　●Server　　●Database　　●Relational database

●Multiple databases　　●Network　　●Communication line　　●Program

●Flow of control　　●Flow of data　　●Process/task flow　　●Flow of other aspects

●Failure　　●Host system　　●Large-scale system　　●Data

●User　　●Email　　●Screen　　●CD-ROM

●Window

●Report

■ Conventions: Installation Folders

In this manual, the paths of files whose location can be specified by the user are written in *italics*. The file names that can be freely specified by users are also written in *italics*.

The following table lists and describes the paths used in this manual.

Installation folder	Convention
IM-SS-path	The folder where JP1/IM - Service Support is installed. The default installation folder[#] is either *system-drive*:`\Program Files \Hitachi\JP1SS` or *system-drive*:`\Program Files (x86)\Hitachi\JP1SS`
IM-M-path	The folder where JP1/IM - Manager is installed
system-drive	The drive on which the operating system is installed
system-root-folder	The folder that contains the OS system files
user-specified-folder	A folder that can be freely specified by users
shared-folder	A folder for containing shared files on a shared disk in a cluster environment

#

The folder where JP1/IM - Service Support is installed by default.

■ Conventions: Meaning of "Administrator permissions" in this manual

In this manual, *Administrator permissions* refers to Administrator permissions for the local PC. The local user, domain user, or user of the Active Directory environment can perform tasks requiring Administrator permissions if granted Administrator permissions for the local PC.

■ Conventions: Meaning of "default" in this manual

The term *default* in this manual describes the initial state of JP1/IM - Service Support after a new installation. In this state, command arguments and the keys in definition files might be assigned an initial value. This value is called a *default value*.

The term default does not apply when no value is specified for a command arguments or a key in a definition file.

■ Entering two-byte characters in the user interface

Characters entered in JP1/IM - Service Support are converted to UTF-8 encoding. This means that two-byte characters are converted to three or four bytes. Take this into consideration when entering two-byte characters.

Contents

Part 2: Functionality

3   Functions of JP1/IM - Service Support   69

Part 3: Designing JP1/IM - Service Support

5   Designing JP1/IM - Service Support   195

Part 4: Configuring JP1/IM - Service Support

6   Installing and Setting Up JP1/IM - Service Support   255

7   Starting and Stopping JP1/IM - Service Support   275

Part 5: Maintenance

10   JP1/IM - Service Support Maintenance   383

Part 6: Reference

11   Commands   412

Appendixes   1029

1

Overview of JP1/IM - Service Support

This chapter provides an overview of JP1/IM - Service Support.

It also describes the flow of Item resolution using JP1/IM - Service Support.

1.1 About JP1/IM - Service Support

JP1/IM - Service Support has its conceptual basis in ITIL (Information Technology Infrastructure Library) practices, and was developed with the goal of reducing the workload and improving the efficiency of service support operations in the context of IT service management. ITIL is a set of guidelines seeing widespread adoption, especially in Europe, that systematize the building and operation of IT systems.

The features of JP1/IM - Service Support allow its users to visualize the flow of system construction and operation in an ITIL context, and lets specialists engaged in the construction and operations of the system share information about the work they perform. You can also exercise control over information sharing by using access permissions to limit the information available to each user.

The first part of this section describes the role of service support in IT service management, and the second describes how JP1/IM - Service Support contributes to effective service support.

1.1.1 Role of service support in IT service management

The recent advances in information technology have made the effective use of IT assets an essential part of doing business. IT systems consisting of hardware, software, and the networks that bind them together are spreading at an unprecedented pace, growing ever larger and more complex year on year. The concept of *IT service management* meets this challenge head-on, supporting business operations and services by managing the operation of IT systems in a manner that seeks quality commensurate with the resources invested.

IT service management is a process-focused approach to IT system management that describes everything from the relationship between a system and its users to the staff and resources involved in its operation as units of activity called *processes*.

ITIL categorizes the core processes that underpin IT service management as *service support* and *service delivery*. Service support is concerned with how day-to-day issues such as user inquiries and system faults are quickly resolved. Service delivery is concerned with medium and long term ability to provide consistent services to users. Service support is described in greater detail below.

Generally, user inquiries and system faults that arise in the day-to-day operation of an IT system need to be dealt with quickly. Although it is important to make the appropriate workaround available as soon as possible, the root cause still needs to be found. The ensuing investigation may lead to suggestions for radical measures including changes to the systems involved. This can be too demanding a task for one team, and lead to delays in problem resolution.

One approach to problem resolution is to have separate processes for different tasks. For example, one process might present workarounds to the user, another might perform root cause investigation and present the solution to the user, and yet another might propose system changes and plans for their implementation. The end result is better efficiency and greater throughput.

The following figure shows this approach in an ITIL context.

Figure 1–1: Workflow in an ITIL service support framework
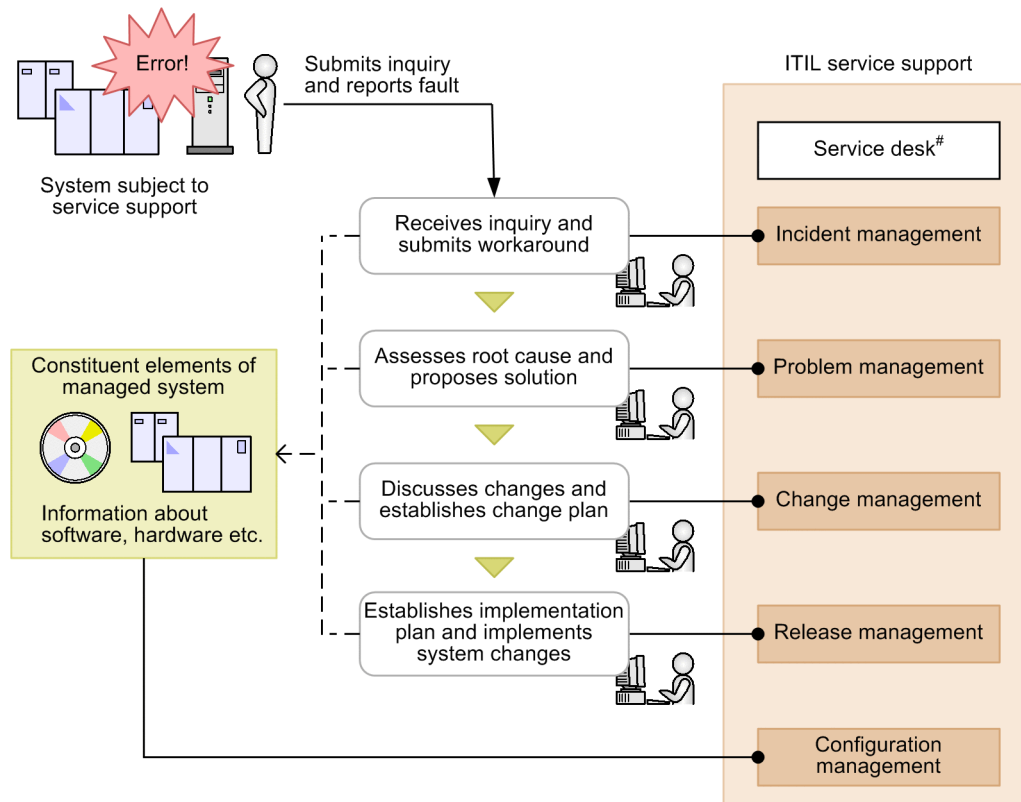
Legend:

▷ : Issues unresolvable at a given process are escalated to the next process

– — → : Information available for reference as needed

▭ : Process defined in ITIL

#: The service desk acts as a single point of contact for service support. It is not a formal
    process in ITIL.

The processes in the ITIL framework are described below.

Incident management

User inquiries and events that threaten to disrupt normal system operation are managed as *incidents*. Incident
management aims to ensure that queries are answered appropriately and workarounds are made available as soon
as possible.

Incidents that are beyond the scope of the incident management process can be escalated to problem management.

Problem management

Problem management manages, as *problems*, user inquiries, system faults, and other matters that warrant further
investigation. This process diagnoses the root cause of problems and identifies permanent solutions.

If feedback needs to be made to the incident management process, a request to that effect can be made. If problem
management determines that a user document or the system itself needs changing, a *request for change (RFC)* can
be raised and escalated to the change management process.

Change management

Change management is triggered by a request for change, and involves a careful assessment of potential changes
and their implementation, taking into consideration the risk of system failures and the impact of the change on
business operations. This assessment and the resulting proposal involve a team made up of people who have roles
in the construction, operation, and use of the affected systems. In ITIL, these are called *Change Advisory Board*

(CAB) members. The meetings at which CAB members assess the situation and come up with proposals are called *Change Advisory Board (CAB) Meetings*.

If the meeting results in a change plan, the plan is passed to the release management process to be implemented. The results of the RFC are also reported to the problem management process.

Release management

The release management process is responsible for establishing implementation plans based on proposed changes to affected systems. It is also responsible for building, testing, and deploying changes according to these implementation plans.

After implementing the changes, the release management team reports back to the change management and configuration management processes.

Configuration management

Configuration management is a process that manages the configuration information for managed systems. Configuration information consists of interrelated information about hardware, software, and other resources that can be made available to other processes as needed.

If the release management process results in a system change, the configuration management team is required to update the configuration information to reflect the change.

1.1.2 Supporting service support operations with JP1/IM - Service Support

JP1/IM - Service Support centrally manages user inquiries, system faults, and the problems and considerations that derive from these system faults as *Items* requiring resolution.

JP1/IM - Service Support allows users to visualize these Items in the context of a service support process. By viewing the information in JP1/IM - Service Support, operators responsible for each process can gain insight into the nature of the Items requiring resolution, finding out what needs to be done and by when.

The following figure shows an overview of how JP1/IM - Service Support assists the service support process.

Figure 1–2: Approach to service support in JP1/IM - Service Support

Flow of service support operations

Legend:

▷ : Issues unresolvable at a given process are escalated to the next process

▧ : Process defined in ITIL

┄┄ ┄┄ : Process work board

#: Configuration management is realized using the functionality of a linked product (JP1/AIM).
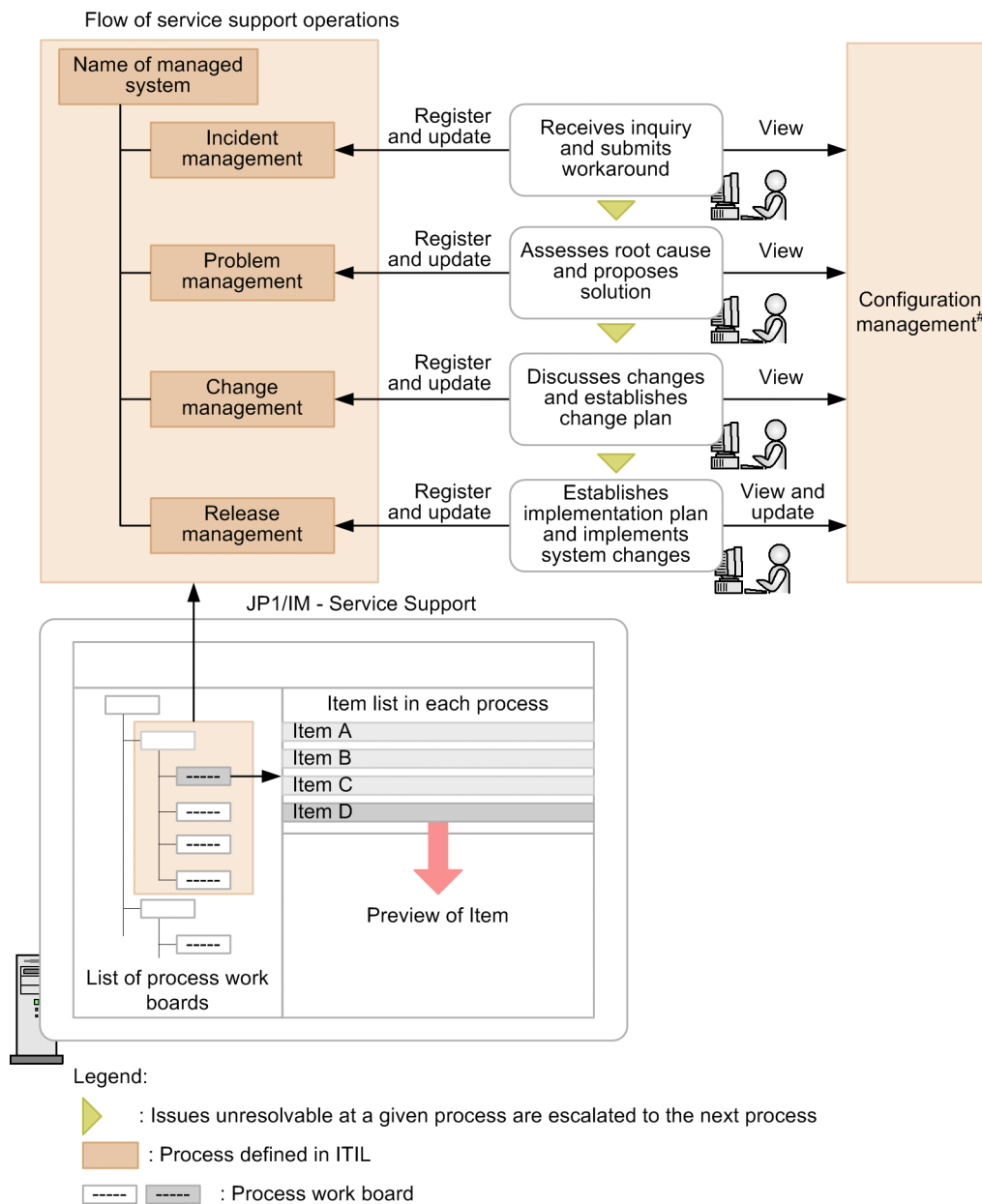
JP1/IM - Service Support provides elements called *process work boards* which serve as a place where systems under management and the processes in those systems can be organized and managed. These systems and processes are clearly laid out in the list of process work boards, allowing Items to be managed at the process level. You can also display the Items associated with each process in list form, and preview each Item from the list.

By accessing JP1/IM - Service Support, you can keep track not just of your own work, but also that of others. Access to shared information about Items occurring in other processes and how they are being dealt with can be a useful reference as you work on the Items in your field of responsibility.

Also, by outputting information about registered Items and work histories, you can analyze managed systems for weaknesses and bottlenecks.

1.2 Features of JP1/IM - Service Support

This section describes the features of JP1/IM - Service Support.

1.2.1 Centrally managing user inquiries and system faults as Items requiring resolution

By using JP1/IM - Service Support, you can register and centrally manage inquiries from users, faults that occur within the system, and the various secondary issues that arise, as Items that require resolution.

The following figure shows an overview of centralized Item management.

Figure 1–3: Centralized Item management
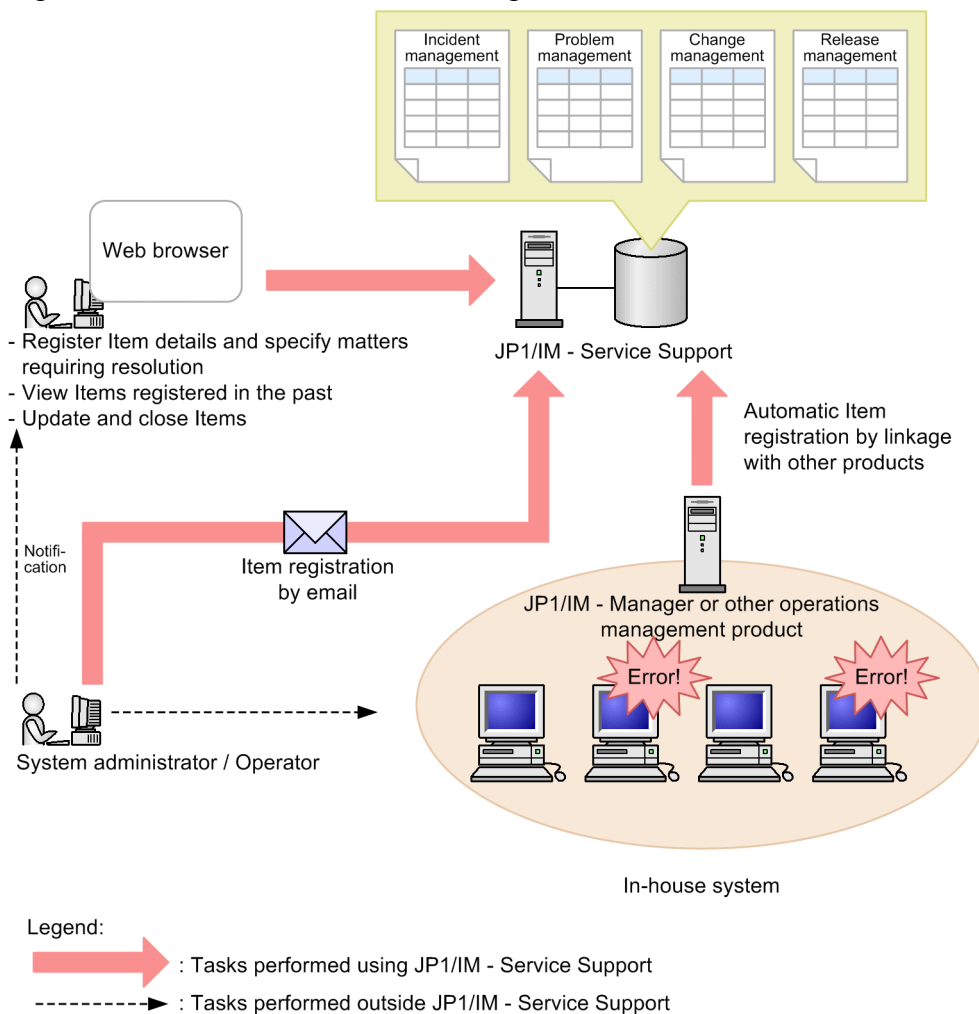
You can register Items from a Web browser, by executing a command, or by email. A Web browser is most often used to submit inquiries received from users. Commands are most often used to automatically register system faults as Items, and email is used to submit Items easily without logging in to JP1/IM - Service Support. Note that JP1/IM - Service Support does not itself detect system faults, nor does it provide functionality that automatically executes a command when a fault is detected. As such, it must be linked with an operations management product such as JP1/IM - Manager in order to automatically submit Items by command or email.

JP1/IM - Service Support centrally manages registered Items in an *Item management database*. Items registered in the Item management database can be viewed and updated from a Web browser. When an Item is updated, the old information is retained in the Item management database as historical information, where it remains available for future reference.

Items are organized by system and process in the Web interface, and you can apply filters so that only the relevant Items are displayed. You can also configure JP1/IM - Service Support to notify concerned parties by email when an Item approaches the deadline for resolution. These functions give users of JP1/IM - Service Support easy access to information about registered Items and their progress towards resolution, letting the user devote his or her time to resolving the Items at hand.

> **▌ Reference note**
>
> JP1/IM - Service Support provides templates that you can use to enter Item information. Because each process has different management requirements, the templates for each process have different fields.
>
> In this manual, these templates are called *Item forms*. Item forms can be customized to suit the user. You can also customize the Item status, and by doing so change the general procedure for processing the Item.

1.2.2 Providing quick access to workarounds based on past occurrences

By seeing how similar Items were resolved in the past, users can minimize the time it takes to identify the cause of a problem and come up with a solution. This ensures that faults and inquiries are dealt with quickly.

The following figure shows how a user might approach an Item based on how similar Items were handled in the past.

Figure 1–4: Example of handling an Item based on past occurrences

Register the incident

Added to Item list
Incident M
:
Incident G
:
Incident A
Notification | Registration
JP1/IM - Service Support

View responses to past incidents

Comparing incidents
Incident M
:
Similar
Incident G
:
Wait for resolution
Fault!
Search
JP1/IM - Service Support

Submit workaround based on past incidents, recover from error

Create workaround
Incident M
Related Item
Incident G
Workaround
Create with reference to past solutions to incident G
Apply workaround and recover from fault
Workaround
JP1/IM - Service Support

Legend:
→ : Tasks performed using JP1/IM - Service Support
- - - -► : Tasks performed outside JP1/IM - Service Support

When notified of a fault, the user must register it in JP1/IM - Service Support to establish a work history. The user can then begin his or her investigation by searching for similar Items that have occurred in the past. In JP1/IM - Service Support, you can specify a variety of search criteria such as the date and time when the Item occurred, the priority of the Item, and the work status of the person responsible. By conducting a search with these criteria specified, you can limit the search results to Items that match the criteria.

Similar Items can be used as a reference when planning a course of action. Users who are working on a particular Item can also add a similar Item as a related Item. Having entered the information into JP1/IM - Service Support, the user can submit the proposed workaround to the contact person and have the issue resolved.

1.2.3 Passing an Item to another process according to its content

When an Item has characteristics that make it more suited to be handled by another process, you can pass responsibility for the Item to that process. With functions such as automatic email notification, JP1/IM - Service Support allows Items to be smoothly passed to the appropriate team.

The following figure shows an example of passing responsibility for an Item.

Figure 1–5: Passing responsibility for an Item
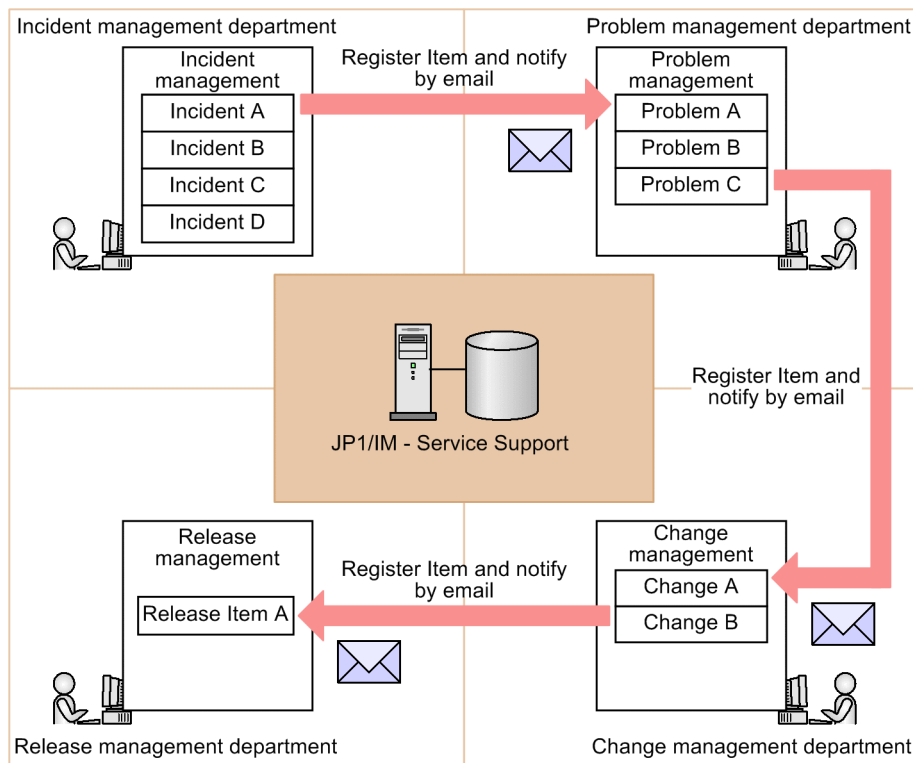
You can delegate Items elsewhere by selecting the relevant Items from the list of registered Items and registering them with another process. At this time, an email can be automatically sent to the person responsible for the process.

In JP1/IM - Service Support, this is called *escalation*. Escalated Items retain the Item information that is likely to be useful for the receiving entity. The Item is now categorized as a related Item, allowing the user to view the status of the Item at its destination.

1.2.4 Improving the flow of processes from occurrence to resolution

JP1/IM - Service Support can output the information it has gathered about Items to CSV files, which you can use to analyze trends in user inquiries and system faults. By analyzing how often Items are generated on a daily, weekly, and monthly basis, and analyzing which systems generate a disproportionate number of Items, JP1/IM - Service Support facilitates problem resolution at a fundamental level.

By analyzing when Items were submitted and how long users take to investigate and resolve each Item, you can also explore whether delays might be caused by specific individuals or their approach to problem resolution.

The following figure shows an example of creating an analysis report based on information gathered about past Items.

Figure 1–6: Using Item information in analysis reports
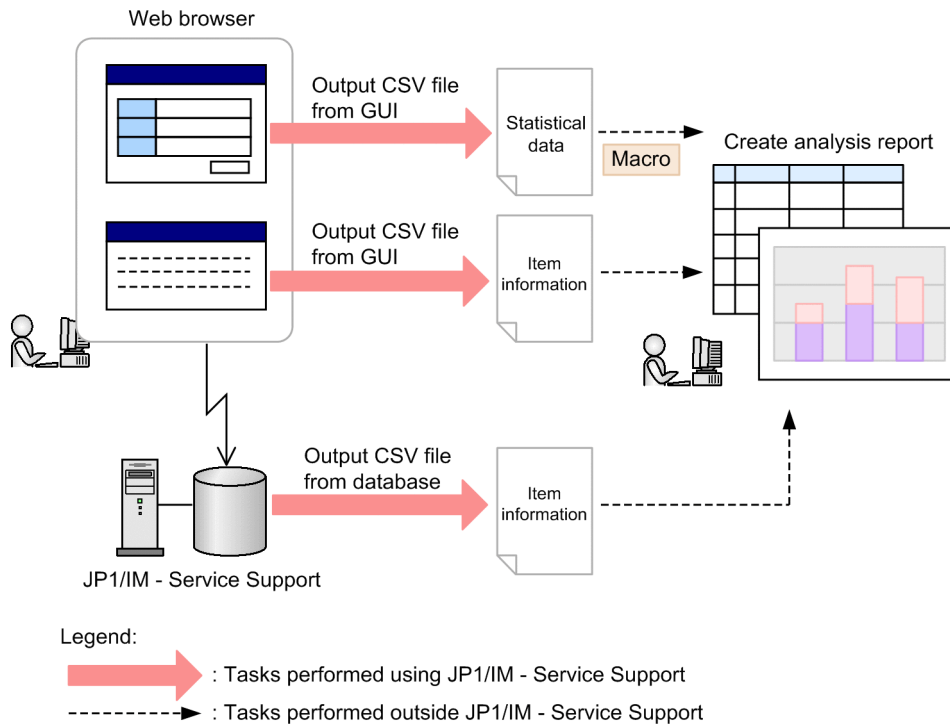
Two types of information can be output to CSV files: statistical data that reflects Item totals, and Item information. You can output statistical data to CSV files from the GUI. You can also use the sample macros provided by JP1/IM - Service Support to create analysis reports from the statistical data in a CSV file.

You can output Item information to CSV files from the GUI or by using commands. You can then use the resulting files as analysis reports in spreadsheet software and analysis tools.

1.2.5 Managing workers responsible for each process

JP1/IM - Service Support provides the following three functions to help manage users of JP1/IM - Service Support. Used together, these functions ensure that the appropriate permissions are granted to the workers who need them.

(1) User information management

JP1/IM - Service Support allows you to manage information about its users. This includes the user IDs and passwords required to log in to JP1/IM - Service Support, and personal information such as the user's affiliations, email addresses, and telephone numbers.

(2) Role management

The users managed by JP1/IM - Service Support can be grouped according to their field of responsibility. The title assigned to such a group is called a *role*.

By defining roles, you can grant users in each role permission to access the information they need to carry out their duties.

For example, suppose that you form a team responsible for dealing with incidents in system A. By creating an *A system - Incident response* role and assigning it to the team members, you ensure that everyone has the appropriate set of permissions.

There are two types of role: user-created roles that can be created and defined by users, and system roles defined in the system. User-created roles are created, as in the example above, to facilitate the activity the user performs. System roles are assigned to users who build the environment for JP1/IM - Service Support.

(3) Access permission management

In JP1/IM - Service Support, you can allocate fine-grained access permissions to individual users and roles that govern the access individuals have to Items in each process.

For example, members of the incident response department might have full control in the context of the incident management process, but only view permission for problem management and other processes. Detailed permissions can also be assigned within a given process. For example, a specialist might have permission to create and edit Items, with the administrator having the permissions needed to review and approve the work of the specialist.

1.2.6 Managing Item statuses system-wide

JP1/IM - Service Support can manage the status of Items across the entire system based on the Item information centrally managed in the Item management database. Item statuses are summarized for each process. From this summary data, you can collectively manage the statuses of Items being processed in JP1/IM - Service Support.

You can limit the information that contributes to the summarized Item statuses according to the access permissions of the user who views the information. This presents users with summary data that reflects their area of responsibility, allowing the identification of processes where a backlog of Items is forming and Items whose deadline is approaching. The following figure shows how Item statuses are managed according to the user's area of responsibility.

Figure 1–7: Managing Item statuses according to areas of responsibility
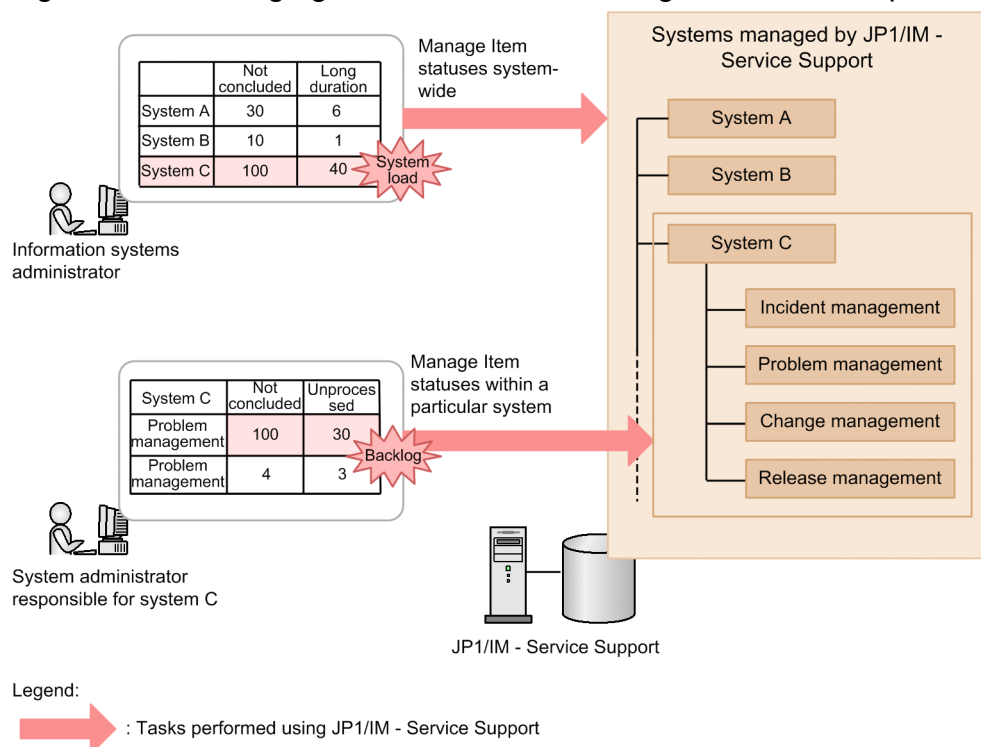
The information systems administrator, who oversees all systems, sees data that summarizes Item statuses across every system managed by JP1/IM - Service Support. By comparing the statuses across the systems, he or she can address problems in specific systems through better load distribution or other improvements.

In contrast, the system administrator for system C sees a summary of Item statuses in system C only. He or she can identify backlogs of unprocessed Items in the incident management process and submit the issue for resolution by the process work board administrator.

1.3 Examples of JP1/IM - Service Support operation

This section presents examples of JP1/IM - Service Support operation.

1.3.1 Use as an inquiry management system

You can use JP1/IM - Service Support to share and manage user inquiries that relate to system faults and operation, as Items (incidents) requiring resolution.

An operation example is shown below.

Figure 1–8: Example of use as an inquiry management system
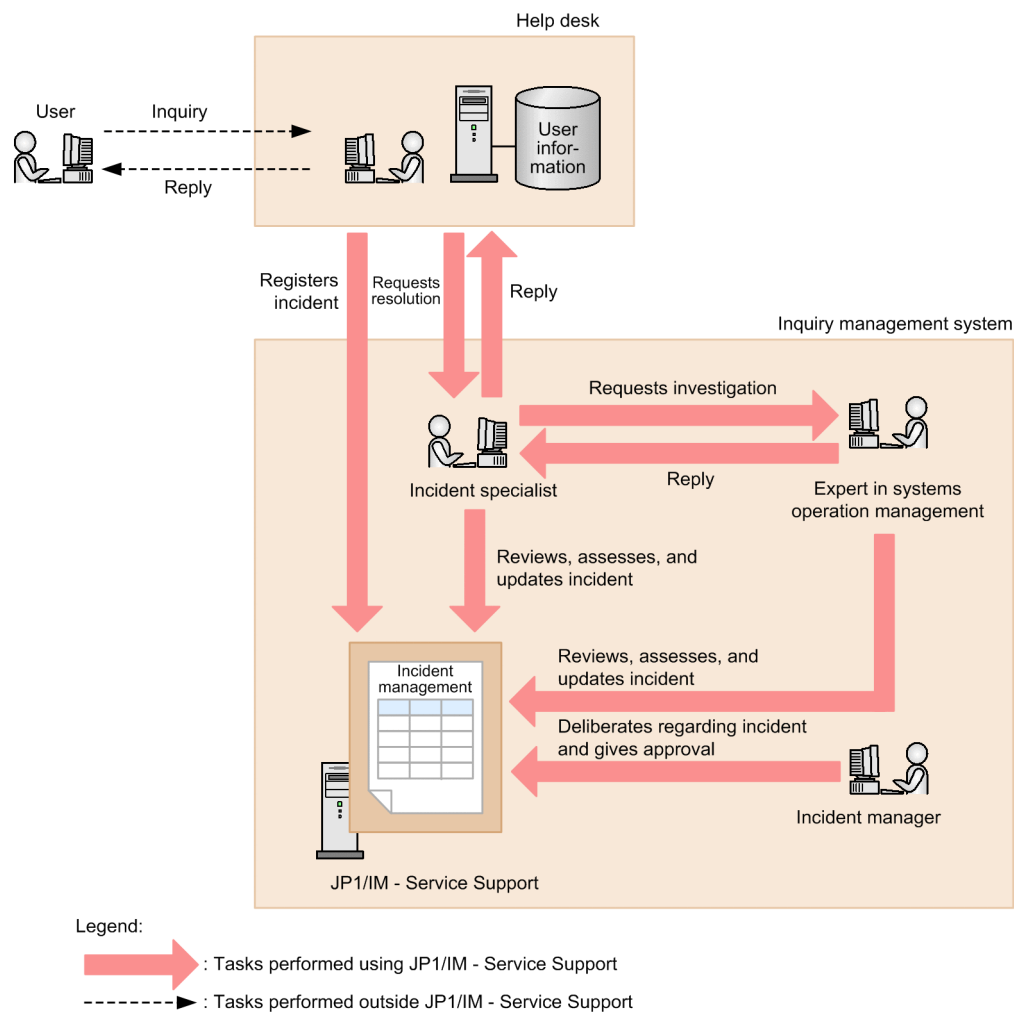
First, the helpdesk receives a user inquiry, registers the inquiry as an incident, and submits it to the incident specialist for resolution.

The incident specialist reviews the details of the incident, looks into whether similar incidents have occurred in the past, and requests support from someone specialized in system operations management. The system operations manager then reviews the details of the incident, and updates the database to reflect their findings.

The incident specialist updates the incident with the results of his or her findings, and submits the incident to the incident manager for approval. The incident manager reviews the incident and gives his or her approval.

Having gained approval, the incident specialist replies to the helpdesk with details of the incident. The helpdesk then responds to the user based on the reply from the incident specialist.

Supplementary note:

- The functions of JP1/IM - Service Support ensure that contact among staff goes smoothly as the incident is dealt with.

- JP1/IM - Service Support does not keep information about the users of the systems it manages. This information needs to be managed by a separate entity such as the Help Desk.

1.3.2 Managing operation of in-house systems

JP1/IM - Service Support can be used by information management departments that perform incident management, problem management, change management, and release management for in-house systems. By linking with JP1 products, JP1/IM - Service Support can serve as a comprehensive Item management solution across all in-house systems.

The following figure shows an operation example.

Figure 1–9: Example of use in information management departments for in-house systems

Information management department responsible for in-house systems

Incident specialist — Requests response → Problem management specialist — Requests response → Change manager — Requests response → Release manager

Registers and assesses Item | Registers and assesses Item | Registers and assesses Item | Registers and assesses Item

JP1/IM - Service Support

| Incident management | Problem management | Change management | Release management |

Views and authorizes Items

Manager of each process

Inquiry | Reports workaround | Automatic error registration | View configuration information

In-house system

Operations management

System administrator

JP1 platform (operations management product)

Fault detection

Fault!

User

Legend:

→ : Tasks performed using JP1/IM - Service Support

⇢ : Tasks performed outside JP1/IM - Service Support

In this example, the system administrator detects a fault in an in-house system and notifies the information management department. JP1/IM - Service Support also receives an error report from other products in the JP1 family.

Based on the inquiry from the system administrator, the incident specialist reviews the Item automatically registered by JP1/IM - Service Support, and begins an investigation. If the incident is difficult to resolve, the incident specialist escalates it to the problem management specialist. The problem management specialist can also escalate the incident further if needed.

Details of the task and its status in each process are recorded in JP1/IM - Service Support. At each stage, approval can be sought from the administrator of the process as needed.

The response to the system administrator ultimately comes from the incident specialist, not from the workers or managers responsible for each task.

1.4 Overview of Item resolution using JP1/IM - Service Support describes in detail how an incident is followed through to its resolution.

1.3.3 Improving release management efficiency

Part of release management involves activity like adding hard disk space and memory capacity to servers. By linking with JP1/AO, you can automate and streamline tasks associated with these configuration changes. You can also use single sign-on to display, from JP1/IM - Service Support, the window from which you can submit the relevant JP1/AO service.

The following figure shows an operation example.

Figure 1–10: Example of streamlining release management
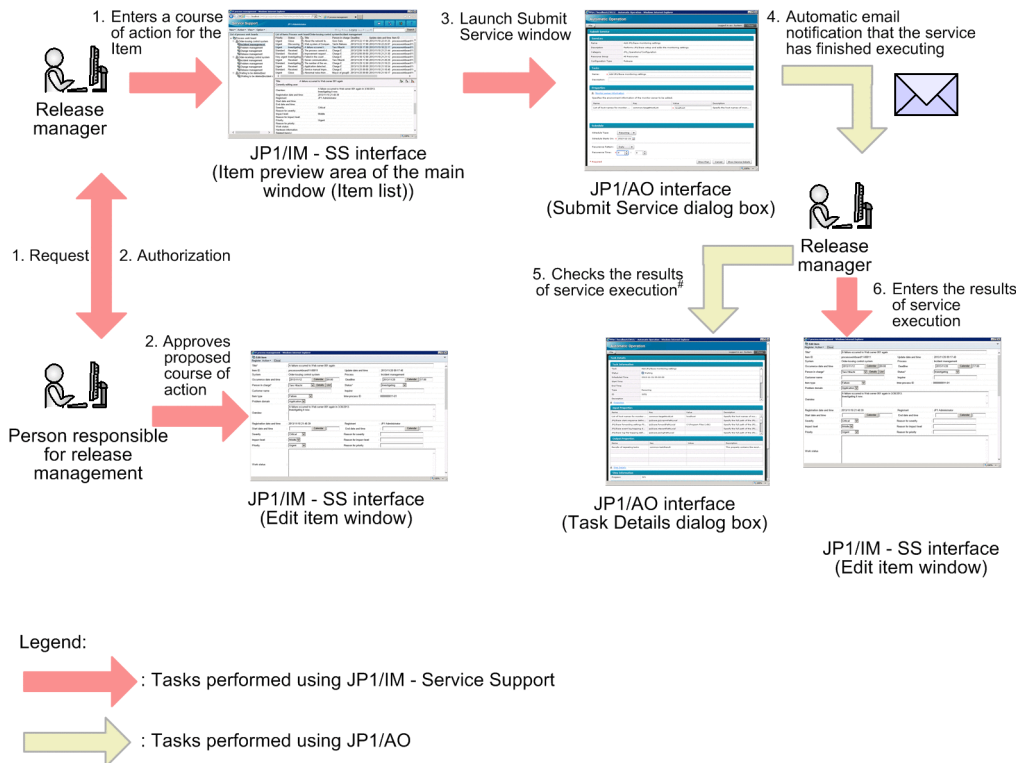
1. The release manager enters the proposed action in the registered Item, and submits it for approval.

2. The release-management representative reviews the proposed action and gives his or her approval.

3. The release manager opens the relevant JP1/AO Submit Service dialog box from the JP1/IM - Service Support window.

4. The release manager views the proposed work in the Item entered in JP1/IM - Service Support, and manually enters the elements required to execute the service.

   When the service finishes executing, an email is sent to the user who submitted the service for execution.

5. The release manager views the execution results of the service in the JP1/AO Task Details dialog box by clicking the URL in the notification email.

6. The release manager logs in to JP1/IM - Service Support, opens the Edit item window for the item, and enters the results of the JP1/AO service execution.

   You can make these results easy to access later by entering the URL of the relevant JP1/AO Task Details window in the **Related information** field.

For details on linking with JP1/AO, see *4.4 Linkage with JP1/AO*. For details on how to use the user authentication functionality of JP1/Base, see *5.15 Considering the authentication method*.

1.3.4 Controlling view permissions for individual Items

Large-scale environments can consist of large numbers of systems, and the Items generated in these environments are often significant to more than one system. In this scenario, a system called a *base system* can be set up to be shared among the systems in the environment. When a base system is in place, a JP1/IM - Service Support user (person in charge) can escalate incidents that relate to multiple systems to the base system for processing. Because access permissions in JP1/IM - Service Support apply at the process work board level, all users with access permission for the base system are able to view Items that have been escalated to the base system. Inevitably, this includes users who have no direct involvement with the Item. By assigning view permissions for individual Items, you can prevent these escalated Items from being shown to users to whom they are irrelevant.

The following figure shows an operation example in which view permissions are set for individual Items:

Figure 1–11: Example of setting view permissions for individual Items
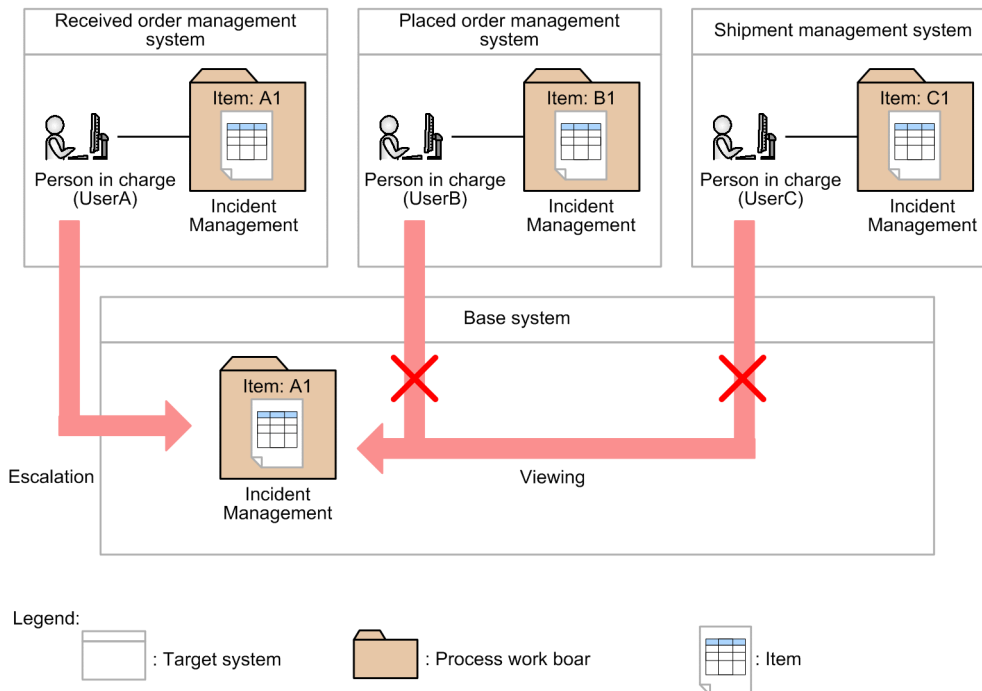
In this example, the environment incorporates a received order management system, a placed order management system, a shipment management system, and a base system. The person in charge of each system (user A, user B, and user C) has view permission for the process work board of his or her own system, and that of the base system. When the option to set view permissions for individual Items is enabled, you can stop others from seeing Item A1 by assigning view permission for Item A1 to user A only. This makes user A an *Item view permissions owner* for Item A1.

For details on setting view permissions for individual Items, see *3.11 Item access control*.

1.4 Overview of Item resolution using JP1/IM - Service Support

The following figure shows an example of the general procedure from incident to resolution using JP1/IM - Service Support.

Figure 1–12: Flow from incident to resolution
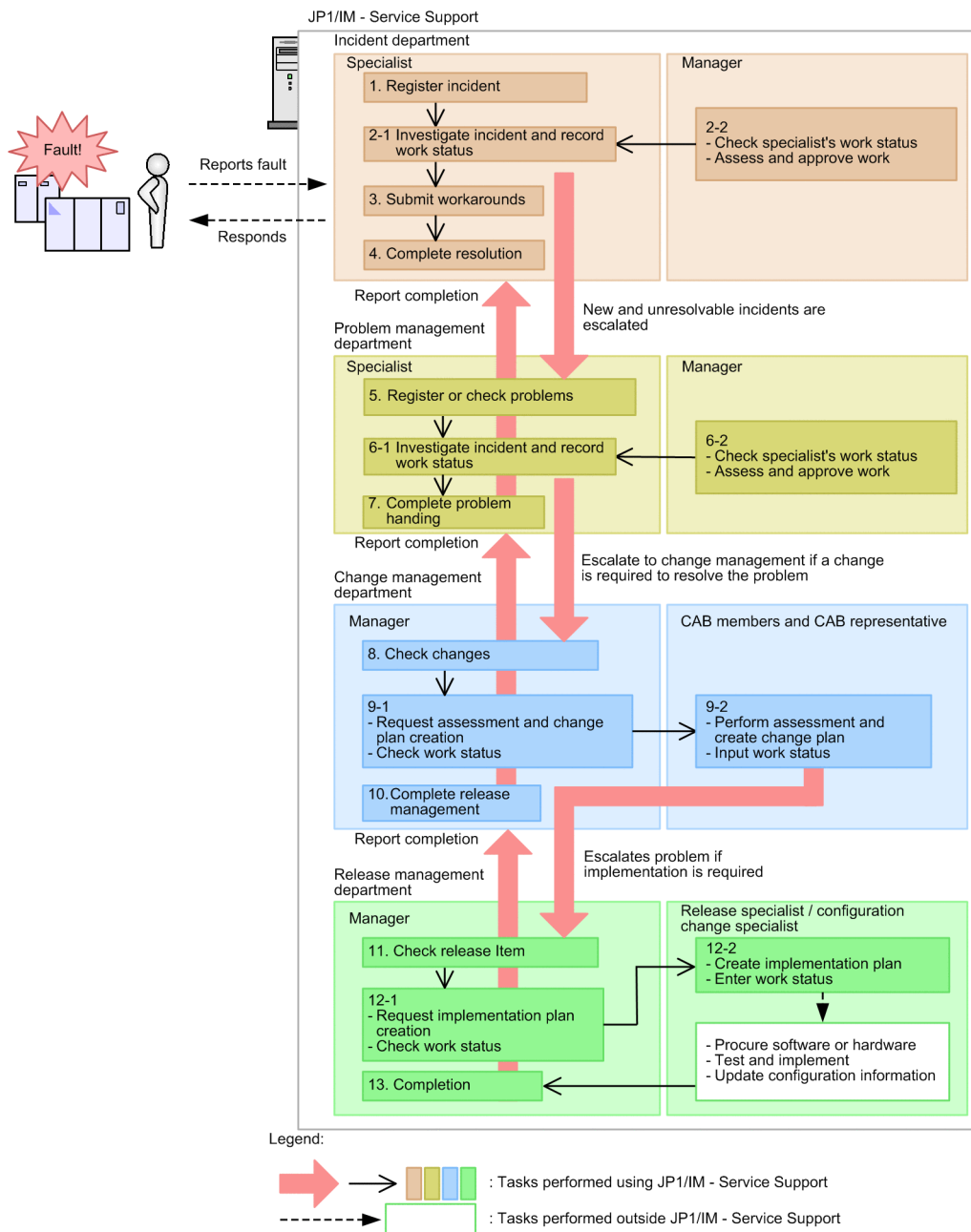
The description below uses the number in the figure to refer to each step.

1. Register incident

   The incident specialist receives an error report from the user, and registers the incident.

2-1 Investigate incident and record work status

   The incident specialist assesses whether the incident is a known one. If the incident is determined to be unknown, it is escalated to problem management.

   At this stage, the incident specialist also updates the incident to reflect the work done.

2-2 Check specialist's work status/Assess and approve work

The incident manager reviews the work status of the specialist. At this stage, the manager can also assess and approve Items as needed.

3. Submit workarounds

The incident specialist makes a workaround available to the user.

4. Complete resolution

With the consent of the user, the incident specialist closes the incident.

5. Register or check problems

The problem management specialist registers the problem, or reviews a problem registered by a department that handled the incident.

6-1 Investigate incident and record work status

The problem management specialist assesses whether the problem is a known one. If this assessment shows that the incident is unknown, the problem management specialist begins working towards a resolution. If this process indicates that a system change will be needed, the incident is escalated to change management.

At this stage, the problem is updated in the database to reflect the work done.

6-2 Check specialist's work status/Assess and approve work

The problem manager reviews the work status of the problem management specialist. At this stage, the manager can also assess and approve problems as needed.

7. Complete problem handing

The problem management specialist closes the problem as soon as a conclusion is reached. If the problem was escalated from the incident department, the incident department is notified that a solution has been reached.

8. Check changes

The change manager reviews the changes registered by the problem management team.

9-1 Request assessment and change plan creation/Check work status

The change manager issues a request to the CAB members and CAB representative to assess the proposed changes registered by problem management and create a change plan. The change manager also checks for updates that reflect this activity.

9-2 Perform assessment and create change plan/Input work status

CAB members hold a meeting where they assess the proposed changes and create a change plan. After this stage, CAB members update the change plan to reflect the work done.

The CAB representative reviews and approves the result of the assessment and the proposed change plan. The change plan is then escalated to the release management team as a release Item, to begin the process of implementing the changes in the system.

10. Complete release management

When notified by the release management team that the release process has finished, the change manager conducts a review after a certain length of time has passed. The Item is updated to reflect the result, and the process of problem handling is concluded.

At this point, the problem management department is notified that the process has completed.

11. Check release Item

The release manager reviews the release Item registered by the change management group.

12-1 Request implementation plan creation/Check work status

The release manager issues a request to the release specialist to create an implementation plan for the release Item registered by the change management process. The release manager then checks the database for updates that reflect this activity.

12-2 Create implementation plan/Enter work status

The release specialist creates an implementation plan, engages in hardware or software procurement or other activities within the confines of his or her role, and tests and installs the hardware or software. The release specialist then updates the release Item to reflect the work done.

The configuration change specialist is notified that the change has been implemented and updates the system configuration. The configuration change specialist updates the release Item to reflect the work done.

13. Completion

The release manager reviews the release Item and makes sure that all tasks have been completed. The release Item is closed as soon as a judgment is made that everything that needs to be done has been done. At this stage, the release manager notifies the change management team that the change has been completed.

1.4.1 Items from submission to resolution

This subsection describes the progress of an Item from the point when the Item is received until its resolution, using the example of an incident. This corresponds to steps 1 to 4 in *1.4 Overview of Item resolution using JP1/IM - Service Support*.

(1) Item registration in response to an incident

The following figure shows an example in which an inquiry from a user is registered as an incident in JP1/IM - Service Support.

Figure 1–13: Example of Item (incident) registration
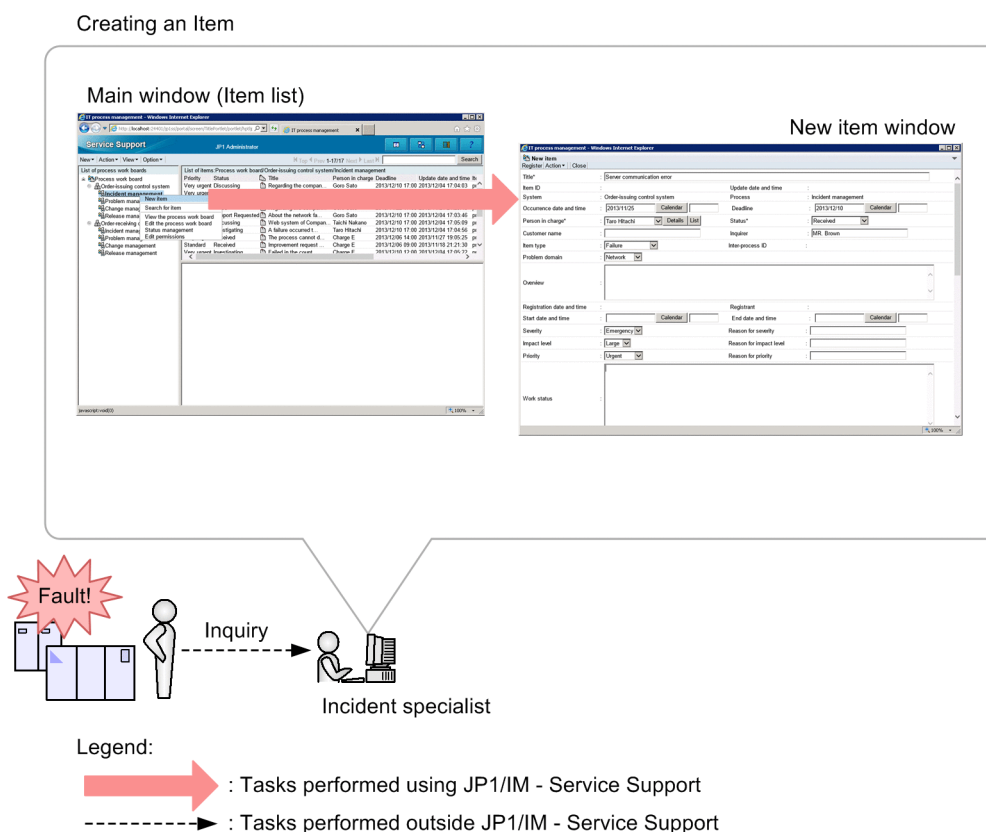
In the main window (Item list), the incident specialist selects the process (Incident Management) for the system where the incident occurred and displays the New item window. After entering the required parameters in the New item

window, the incident specialist selects **Register** from the menu. This registers the incident as an Item in the Item management database of JP1/IM - Service Support.

(2) Investigation

An incident specialist uses the search function to identify whether similar incidents have occurred and been dealt with in the past. He or she also updates the registered Item so that a record is kept of their investigation and the work being done.

The incident manager then reviews the work of the incident specialist. He or she also assesses and approves the information entered into the database by the incident specialist.

The following figure shows an example in which the incident specialist searches for similar Items and records the results of this work in the database, after which the incident manager assesses and approves the work of the incident specialist.

Figure 1–14: Example of searching for similar Items, recording progress, and assessing and approving work

Update work progress

Main window (Item list)

Edit item window

Incident specialist

Checking, reviewing, and authorizing work

Main window (Item list)

History display window

Work status display window

Edit item window

Incident manager

Legend:

: Tasks performed using JP1/IM - Service Support

The incident specialist uses the Specify item search conditions window to look for similar Items that were registered in the past. After entering search conditions in the Specify item search conditions window, the incident specialist clicks the **Search** button. The search results appear in the List of item search results window. The incident specialist can view details of similar Items and how they were resolved by selecting the Item in the search results and opening the View Item window.

To record his or her progress, the incident specialist displays the Edit item window from the main window (Item list) and updates the Item to reflect the work done. The incident manager then reviews the work of the incident specialist in the main window (Item list) and the Work status display window. If the incident specialist's work needs to be assessed or approved, the incident manager can do so by first checking the History display window to see whether issues have been raised with this person's work in the past, and then opening the Edit item window from the main window (Item list) to change the Item status.

(3) Item resolution

The first step towards resolving an Item is to provide a workaround to the user who submitted the inquiry. An Item is only considered to be resolved when it has been dealt with completely based on the supplied workaround.

Figure 1–15: Item resolution

Submitting and applying workarounds
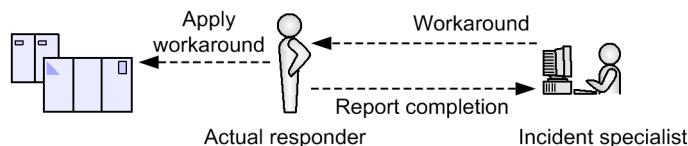
Closing Item
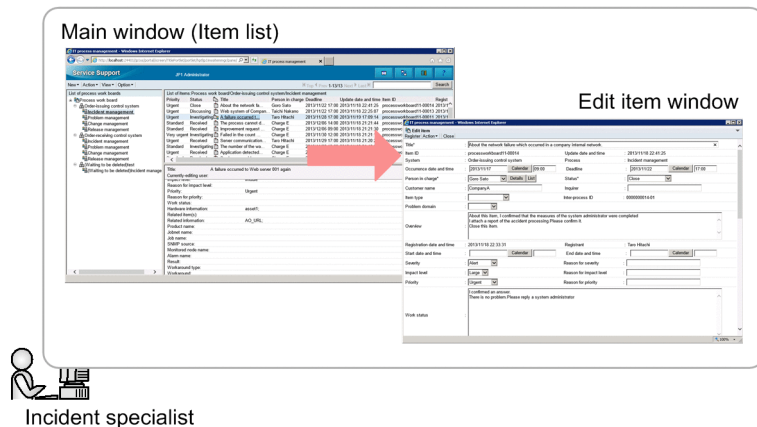
Main window (Item list)

Edit item window

Incident specialist

Legend:

──────▶ : Tasks performed using JP1/IM - Service Support

---------▶ : Tasks performed outside JP1/IM - Service Support

The proposal and implementation of workarounds is not part of JP1/IM - Service Support. An Item can be closed only after the appropriate measures have been offered to the user who submitted the inquiry, or applied to a managed system.

To close an Item, display the Edit item window by selecting the Item in the main window (Item list). In the Edit item window, change the Item status to **Close** and update the Item. The Item is now closed.

1.4.2 Escalation to other processes

This subsection describes the escalation of an Item to another process, using the example of an incident. If the investigation shows that an inquiry does not relate to a known fault, it is escalated to problem management.

Figure 1–16: Escalation

Legend: ⬤➡️ : Tasks performed using JP1/IM - Service Support
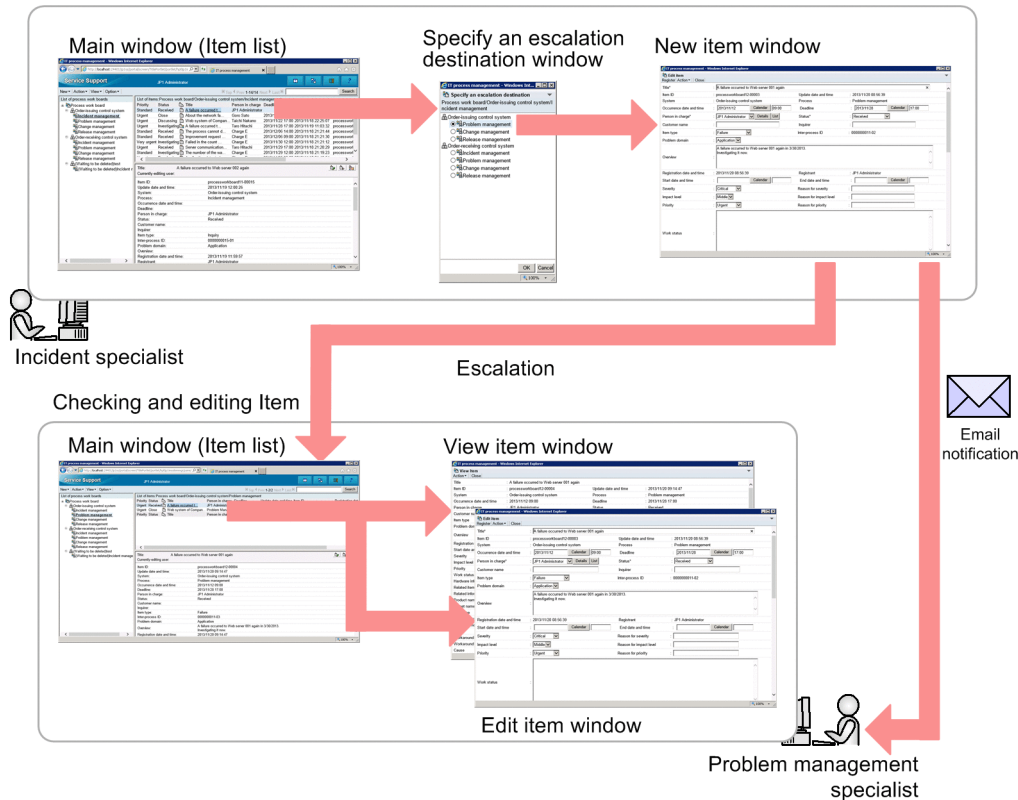
To escalate an Item to another process, you need to select the Item that you want to escalate in the main window (Item list) and open the Specify an escalation destination window. When you specify an escalation destination in the Specify an escalation destination window, the New item window appears with the information of the original Item already filled in. After adding the information needed at the escalation destination, you can register the Item with the target process by selecting **Register** from the menu.
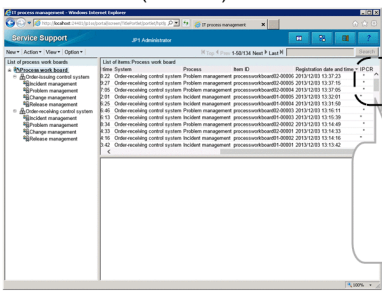
Those in charge of the target process are then required to resolve the Item in the same manner as if they had registered it themselves.

As shown in the following figure, you can view the status of escalated Items at the escalation source.
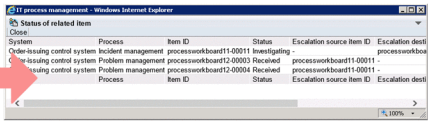
Figure 1–17: Viewing the status of escalated Items

Viewing the status of escalated items

Main window (Item list)

Item association state window

I, P, C, and R stand for processes in the ITIL system.
 I: Incident management
 P: Problem management
 C: Change management
 R: Release management
An asterisk (*) appears to indicate the how far the Item
has been escalated.

Incident specialist

Legend: : Tasks performed using JP1/IM - Service Support

In the Item list of the main window (Item list), you can see whether an Item has been escalated. You can also view the status of escalated Items in the Status of related item window.

1.5 Checking and analyzing progress using JP1/IM - Service Support

In JP1/IM - Service Support, you can check the progress of the service support activity implemented by JP1/IM - Service Support, and analyze operational performance.

The following describes how to check progress and analyze operational performance.

1.5.1 Checking Item statuses from two viewpoints

You can view the status of the Items processed by JP1/IM - Service Support from two viewpoints, the system perspective and the process perspective. The system perspective is appropriate when you want to view the status of Items across every system managed by JP1/IM - Service Support, and the process perspective is most relevant to users who wish to view the status of processes in a specific system in greater detail than the system perspective provides. The user can choose the appropriate viewpoint for the situation.

Figure 1–18: Checking Item statuses

Checking the status of Items across the entire system
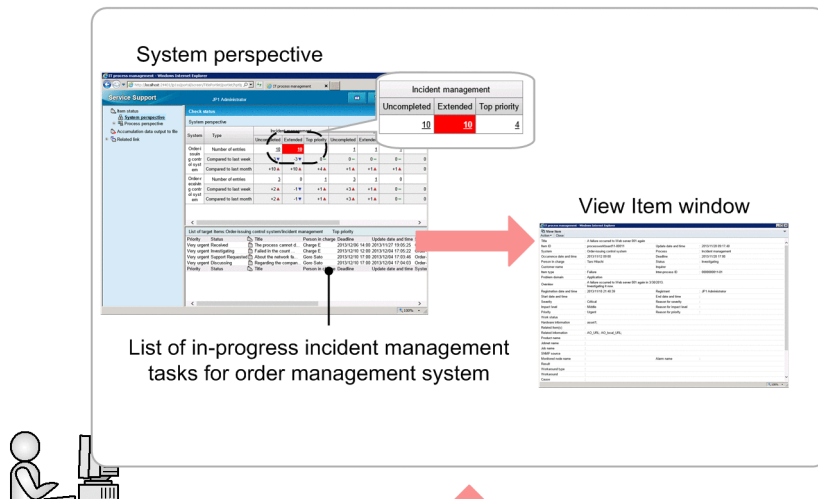
Choose the viewpoint that suits your purpose

Checking the status of Items in a specific system
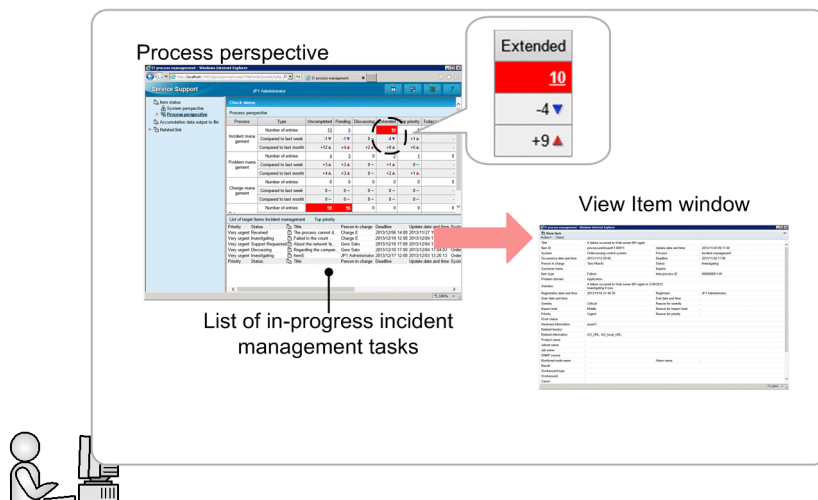
Legend: : Tasks performed using JP1/IM - Service Support

When you click the Item count for the element you want to check, the relevant Items appear in the list at the bottom of the window. You can click an Item in the list to display detailed information about the Item in the View Item window.

1.5.2 Analyzing progress based on statistical data

JP1/IM - Service Support allows you not only to view the day-to-day progress of Items, but also to summarize operational performance over a fixed period and output the results to a CSV file.

Figure 1–19: Outputting statistical data and creating reports

Creating analysis reports based on statistical data

Legend:

→ (solid arrow) : Tasks performed using JP1/IM - Service Support

┈┈┈► (dashed arrow) : Tasks performed outside JP1/IM - Service Support
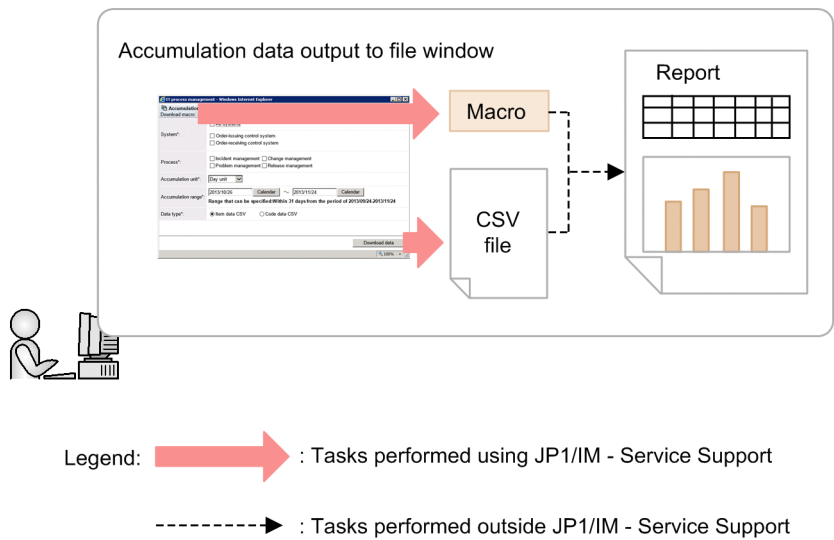
When you specify the output conditions for statistical data in the Accumulation data output to file window and click **Download data**, the statistical data is output to a CSV file. You can also download a macro file that creates reports for use in analysis from the output statistical data.

1.6 Range of JP1/IM - Service Support products

JP1/IM - Service Support is provided as the following products to accommodate different scales of system and organizational needs:

- JP1/IM - Service Support (Standard)
- JP1/IM - Service Support Advanced Edition

Each product is described below.

JP1/IM - Service Support (Standard)

A product intended for use with medium-scale systems. Users of JP1/IM - Service Support (Standard) can manage Items in an Item management database.

JP1/IM - Service Support Advanced Edition

In addition to the core feature set of JP1/IM - Service Support (Standard), this product offers additional features intended for large-scale systems. Users of JP1/IM - Service Support Advanced Edition have use of an Item storage database in addition to an Item management database. Large numbers of past Items that could not be managed in JP1/IM - Service Support (Standard) due to space constraints can be transferred to the Item storage database in JP1/IM - Service Support Advanced Edition.

The Item storage database is composed of two storage areas. You can set up and expand each area independently, allowing you to respond flexibly to changes in circumstances as the number of Items increases. Like Items stored in the Item management database (*managed Items*), you can view the Items stored in the Item storage database (*stored Items*) from the user interface of JP1/IM - Service Support.

The following figure shows the information managed in the Item management database and the Item storage database.

Figure 1–20: Information managed in Item management and Item storage databases
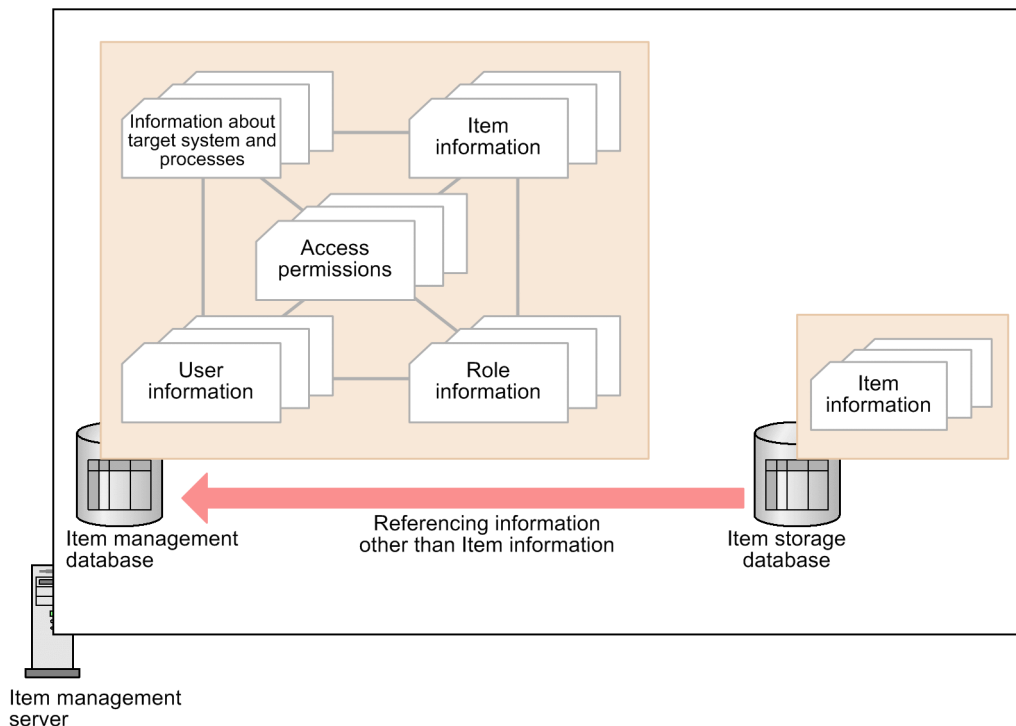
The following figure shows the configuration of the Item storage database:

Figure 1–21: Configuration of Item storage database
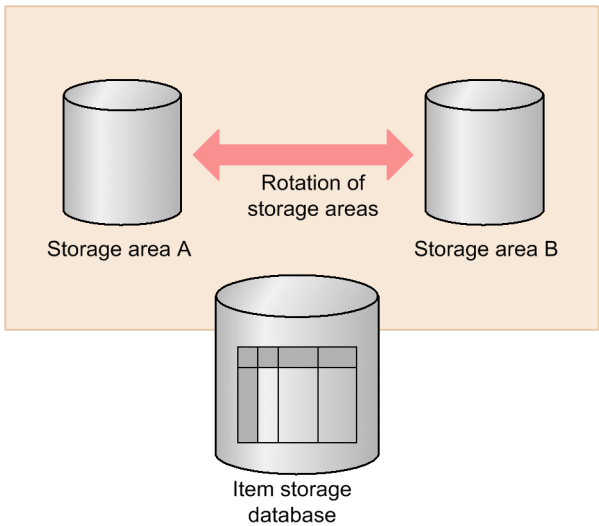
2

Configuration of JP1/IM - Service Support

This chapter describes the configuration of a JP1/IM - Service Support system.

It also describes the operating system requirements and prerequisite programs of JP1/IM - Service Support.

2.1 OS requirements and prerequisite programs

This section describes the operating system requirements and prerequisite programs of JP1/IM - Service Support.

2.1.1 OS requirements and prerequisite programs (for JP1/IM - Service Support (Standard))

The server running JP1/IM - Service Support (Standard) must have one of the following operating systems installed:

Prerequisite operating systems

- Windows Server 2012
- Windows Server 2008
- Windows Server 2003

Computers from which users work in JP1/IM - Service Support must have one of the following operating systems and one of the prerequisite programs installed:

Prerequisite operating systems[#]

- Windows 8
- Windows Server 2012
- Windows 7
- Windows Server 2008
- Windows Vista
- Windows Server 2003
- Windows XP

#

  Specify the same language settings as the server on which JP1/IM - Service Support will operate.

Prerequisite programs

- Windows Internet Explorer 11
- Windows Internet Explorer 10
- Windows Internet Explorer 9
- Windows Internet Explorer 8
- Windows Internet Explorer 7[#]
- Internet Explorer 6.0[#]

#

  Correct operation of the product is only supported in a Japanese environment.

For details on the version and edition (for example Enterprise Edition) requirements of the operating systems and programs, see the release notes.

2.1.2 OS requirements and prerequisite programs (for JP1/IM - Service Support Advanced Edition)

The server running JP1/IM - Service Support Advanced Edition must have one of the following operating systems installed:

Prerequisite operating systems

- Windows Server 2003 (x64)
- Windows Server 2008 (x64)
- Windows Server 2012

Computers from which users work in JP1/IM - Service Support must have one of the following operating systems and one of the prerequisite programs installed:

Prerequisite operating systems#

- Windows 8
- Windows Server 2012
- Windows 7
- Windows Server 2008
- Windows Vista
- Windows Server 2003
- Windows XP

  #

    Specify the same language settings as the server on which JP1/IM - Service Support will operate.

Prerequisite programs

- Windows Internet Explorer 11
- Windows Internet Explorer 10
- Windows Internet Explorer 9
- Windows Internet Explorer 8
- Windows Internet Explorer 7#
- Internet Explorer 6.0#

  #

    Correct operation of the product is only supported in a Japanese environment.

For details on the version and edition (for example Enterprise Edition) requirements of the operating systems and programs, see the release notes.

2.2 System configuration of JP1/IM - Service Support

This section describes the configuration of a JP1/IM - Service Support system.

JP1/IM - Service Support can be used in the system configurations shown below.

2.2.1 Basic system configuration

The JP1/IM - Service Support environment can consist of just a Web browser and a server. The server runs the JP1/IM - Service Support product itself, and the operator uses the Web browser to log in and display the user interface.

(1) JP1/IM - Service Support (Standard)

The following figure shows an example of a basic system configuration for JP1/IM - Service Support (Standard):

Figure 2–1: Example of basic system configuration (JP1/IM - Service Support (Standard))
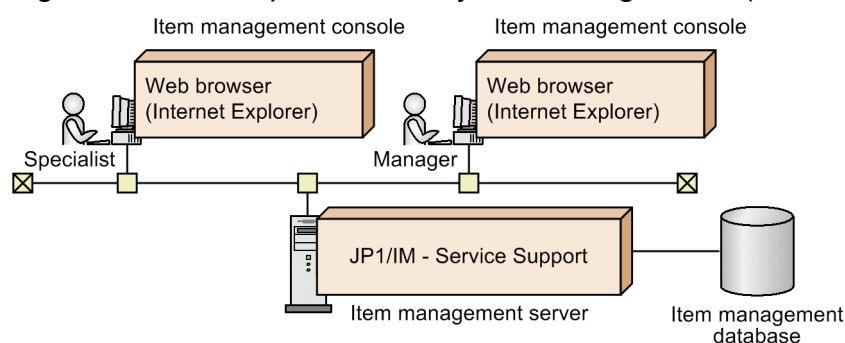
The following describes the programs required on each computer and server.

Item management console

    A computer from which a JP1/IM - Service Support user logs in to JP1/IM - Service Support from a Web browser to view and work with Items. Internet Explorer must be installed on the Item management console.

Item management server

    A server where Items are managed. JP1/IM - Service Support must be installed on the Item management server. In JP1/IM - Service Support (Standard), Items are managed in an Item management database.

(2) JP1/IM - Service Support Advanced Edition

The following figure shows an example of a basic system configuration for JP1/IM - Service Support Advanced Edition.

Figure 2–2: Example of basic system configuration (JP1/IM - Service Support Advanced Edition)
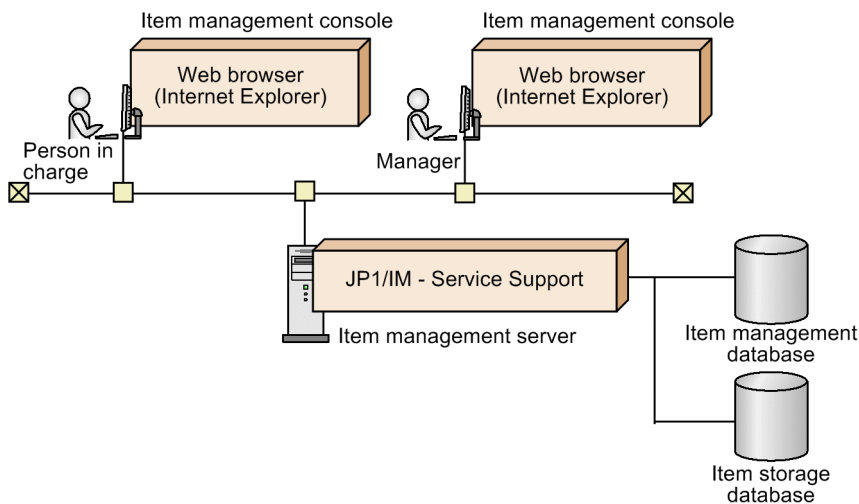
The following describes the programs required on each computer and server.

Item management console

A computer from which a JP1/IM - Service Support user logs in to JP1/IM - Service Support from a Web browser to view and work with Items. Internet Explorer must be installed on the Item management console.

Item management server

A server where Items are managed. JP1/IM - Service Support must be installed on the Item management server. In JP1/IM - Service Support Advanced Edition, Items are managed in an Item management database and an Item storage database.

2.2.2 System configuration using email to manipulate Items

This section describes the configuration of a system in which the operator uses email to work with Items.

(1) System configuration where Item updates are reported by email

The following figure shows an example of a system configuration in which JP1/IM - Service Support is notified by email when an Item is updated.

Figure 2–3: Example system configuration where Item updates are reported by email
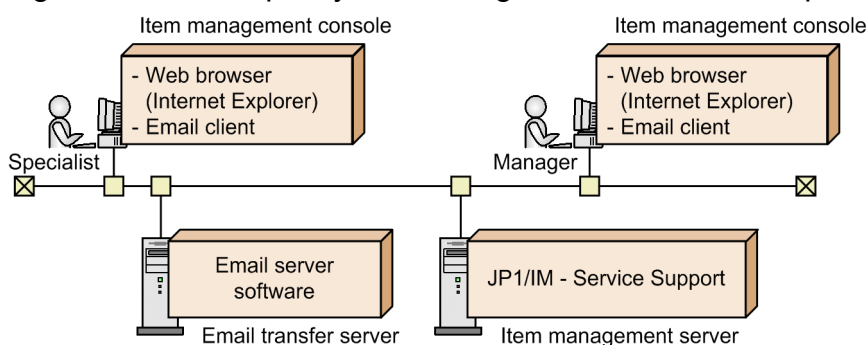
Item management console

A computer from which a user logs in to JP1/IM - Service Support from a Web browser to view and work with Items. Internet Explorer and an email client must be installed on the Item management console.

Item management server

A server where Items are managed. JP1/IM - Service Support must be installed on the Item management server.

Email transfer server

A server that transfers email messages that report changes to Items. The email transfer server must be running email server software that can send email using SMTP.

(2) System configuration where Items are registered by email

The following figure shows an example of a system configuration in which Items are registered in JP1/IM - Service Support by email.

Figure 2–4: Example system configuration where Items are registered by email
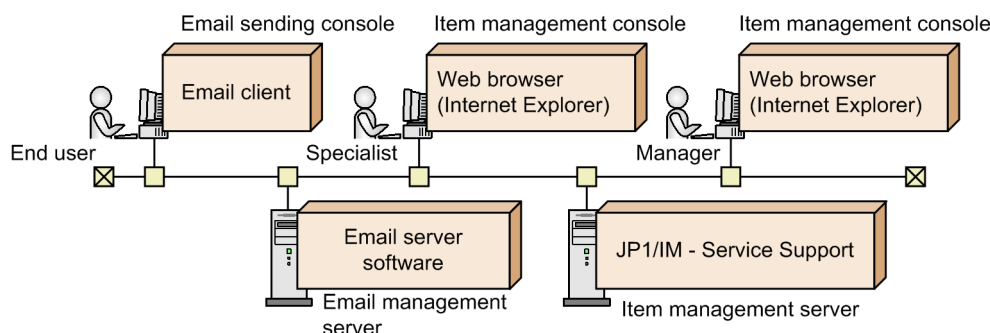
Email sending console

A computer that registers an Item in JP1/IM - Service Support by sending an email. An email client that can send email using the SMTP protocol must be installed on the email sending console.

Item management console

A computer from which a JP1/IM - Service Support user logs in to JP1/IM - Service Support from a Web browser to view and work with Items. Internet Explorer must be installed on the Item management console.

Email management server

A server that manages the emails sent when registering Items by email. An email server that can retrieve email using POP3 must be installed on the email management server.

Item management server

A server where Items are managed. JP1/IM - Service Support must be installed on the Item management server.

2.2.3 System configuration when linking with JP1 products

You can manage Items across an entire system by linking JP1/IM - Service Support with JP1/IM - Manager and JP1/AIM. The following describes examples of system configurations that link with each product.

(1) System configuration for linking with JP1/IM - Manager

The following figure shows an example of a system configuration that links with JP1/IM - Manager.

Figure 2–5: Example system configuration for linking with JP1/IM - Manager
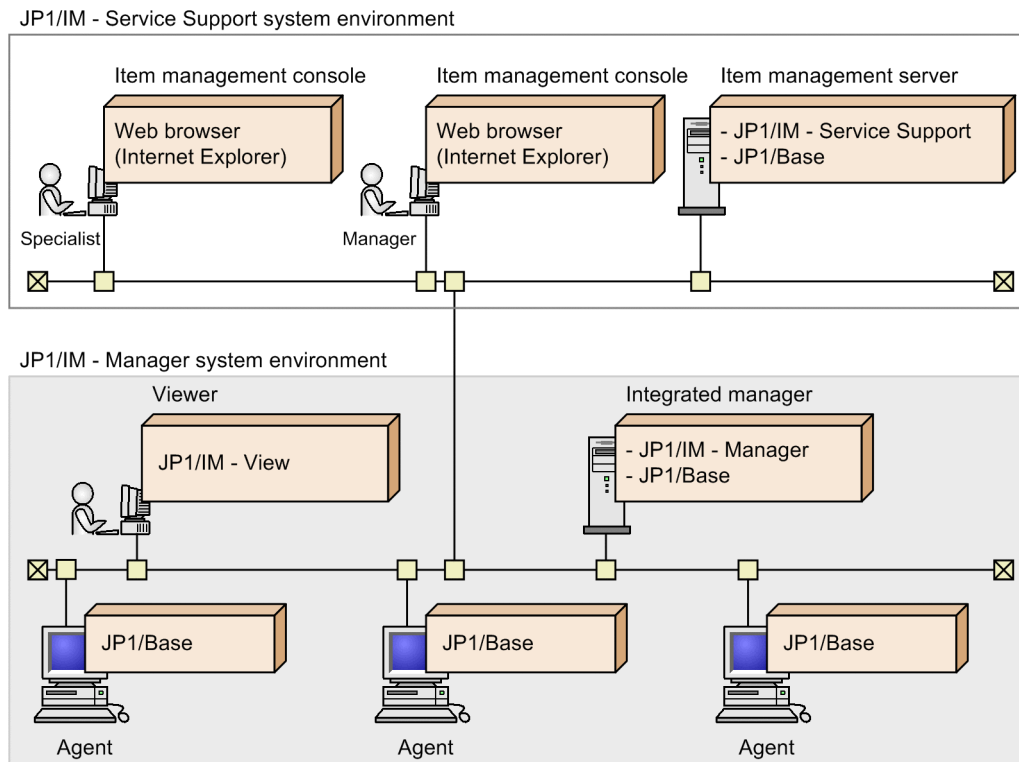
The following describes the programs needed on each computer and server.

Item management console

A computer from which a JP1/IM - Service Support user logs in to JP1/IM - Service Support from a Web browser to view and work with Items. Internet Explorer must be installed on the Item management console.

Item management server

A server where Items are managed. JP1/IM - Service Support must be installed on the Item management server. To link with JP1/IM - Manager, JP1/Base must be installed. The necessary JP1/Base version differs depending on the language environment of the Item management server as follows:

- In a Japanese environment: JP1/Base 10-00 or later
- In an English environment: JP1/Base 10-00 or later
- In a Chinese environment: JP1/Base 10-01 or later

Viewer

A computer on which an operator views JP1 events being managed by the integrated manager.

To view JP1 events managed by the integrated manager, JP1/IM - View must be installed.

You can also access the JP1/IM - Service Support interface from JP1/IM - View, and register Items based on JP1 events managed by the integrated manager.

Integrated manager

The integrated manager is a server that provides integrated system monitoring using JPG/IM - Manager. JPG/IM - Manager 10-00 or later and its prerequisite software JP1/Base must be installed on the integrated manager server.

The events that occur in a system are managed by the integrated manager as JP1 events. JP1/IM - Manager can use automated actions to automatically register these JP1 events as incidents in JP1/IM - Service Support.

When the status of an automatically registered Item changes to *Close*, you can use a predefined automated action to change the status of the JP1 event that triggered the automated action to *Processed*. Also, because JP1/IM - Service

Support issues a JP1 event that notifies an external system of Item information when the status of an Item changes, you can have this status change trigger a variety of actions by defining automated actions in advance.

Agent

A computer that JP1/IM - Manager monitors. To monitor an agent using JP1/IM - Manager, JP1/Base must be installed on the agent.

For details on the particular version of JP1/Base and JP1/IM - View you need to monitor systems using JP1/IM - Manager, and their operating system prerequisites, see the *Job Management Partner 1/Integrated Management - Manager Overview and System Design Guide*.

(2) System configuration for linking with JP1/AIM

The following figure shows an example of a system configuration that links with JP1/AIM.

Figure 2–6: Example system configuration for linking with JP1/AIM
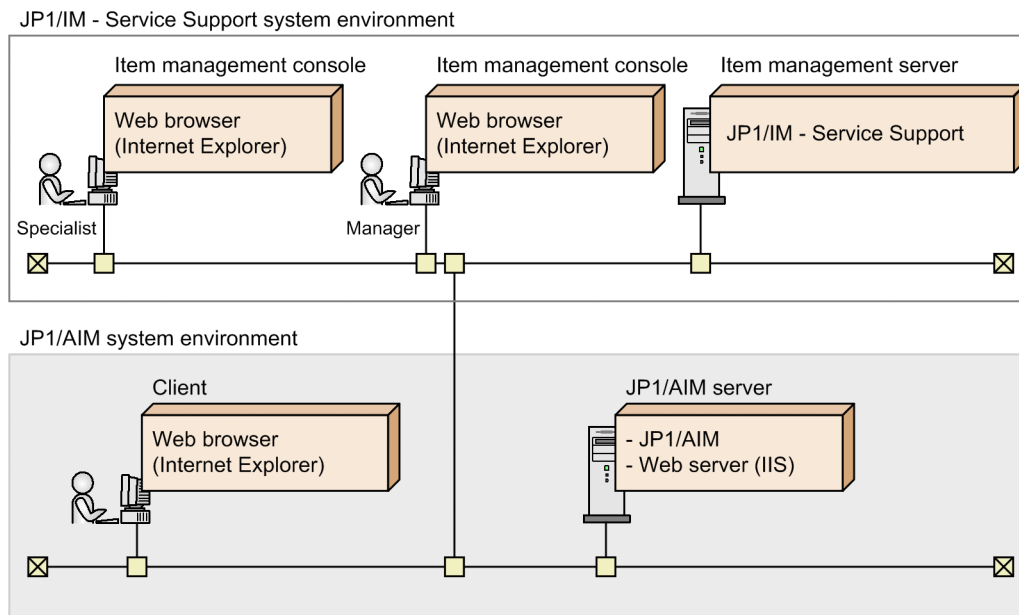
The following describes the programs needed on each computer and server.

Item management console

A computer from which a JP1/IM - Service Support user logs in to JP1/IM - Service Support from a Web browser to view and work with Items. The Item management console can also be used to log in to JP1/AIM to view the management information JP1/AIM has retained in relation to JP1/IM - Service Support.

Internet Explorer must be installed on the Item management console.

Item management server

A server where Items are managed. JP1/IM - Service Support must be installed on the Item management server.

Client

A computer used to view the asset information managed on the JP1/AIM server.

You need a Web browser to view the asset information on the JP1/AIM server.

JP1/AIM server

A server that uses JP1/AIM to manage asset information for systems. JP1/AIM version 09-00 or later and the prerequisite Web server (IIS) must be installed on the JP1/AIM server.

(3) System configuration for linking with JP1/AIM and JP1/Software Distribution

By linking with JP1/Software Distribution, JP1/AIM can manage information collected from managed computers as asset information. The following figure shows an example of a system configuration that incorporates JP1/IM - Service Support into a system configured in this way.

Figure 2–7: Example system configuration when linking with JP1/AIM and JP1/Software Distribution
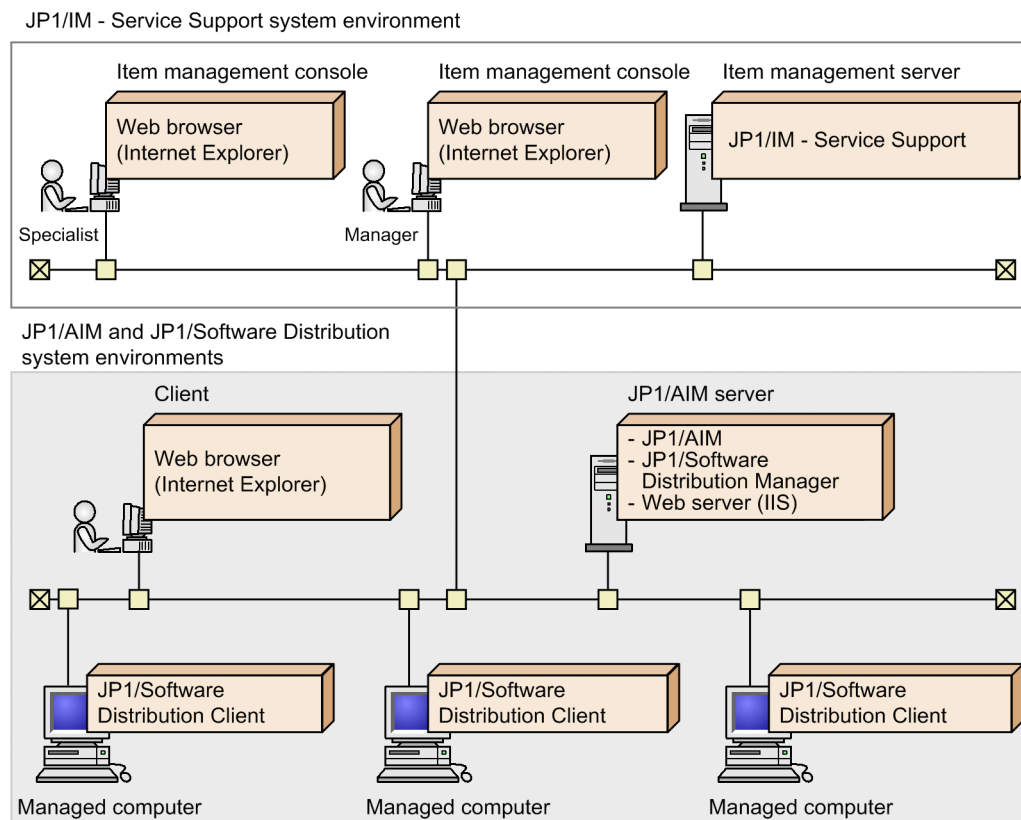
The following describes the programs needed on each computer and server.

Item management console

A computer from which a JP1/IM - Service Support user logs in to JP1/IM - Service Support from a Web browser to view and work with Items. The Item management console can also be used to log in to JP1/AIM to view the management information JP1/AIM retains in relation to JP1/IM - Service Support.

Internet Explorer must be installed on the Item management console.

Item management server

A server where Items are managed. JP1/IM - Service Support must be installed on the Item management server.

Client

A computer used to view the asset information managed on the JP1/AIM server.

You need a Web browser to view the asset information on the JP1/AIM server.

JP1/AIM server

A server that uses JP1/AIM to manage asset information for systems. JP1/AIM version 09-00 or later and the prerequisite Web server (IIS) must be installed on the JP1/AIM server. To collect asset information from computers over the network, JP1/Software Distribution Manager must also be installed. JP1/AIM manages the information collected by JP1/Software Distribution Manager as asset information.

Managed computer

A computer for which asset information is being managed by JP1/Software Distribution Manager.

To collect asset information for JP1/Software Distribution Manager, JP1/Software Distribution Client must be installed.

For details on the versions of the Web browser, IIS, and the linked product JP1/Software Distribution Manager required to manage assets in JP1/AIM and their operating system prerequisites, see the *Job Management Partner 1/Asset Information Manager Planning and Setup Guide*.

(4) System configuration when linking with JP1/AO

The following figure shows an example of a system configuration that links with JP1/AO.

Figure 2–8: Example system configuration when linking with JP1/AO
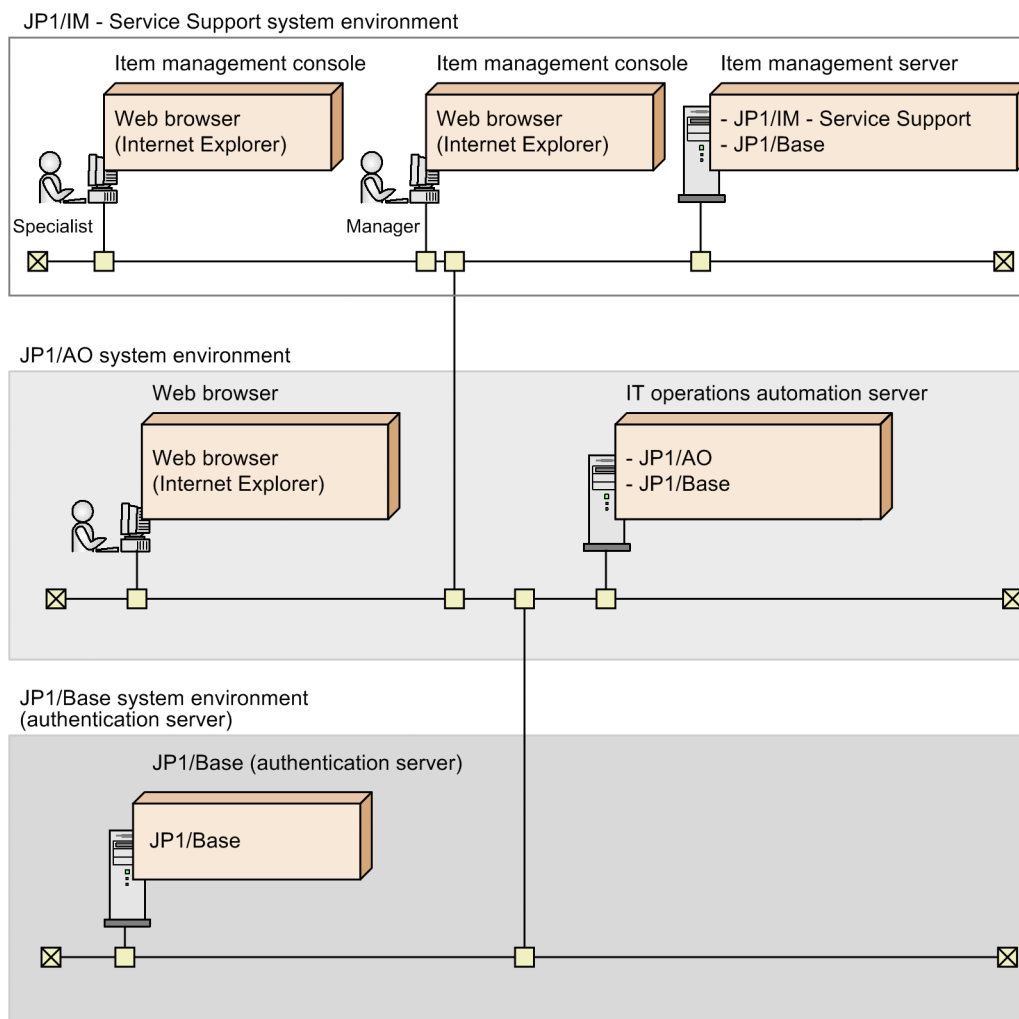
The following describes the programs needed on each computer and server.

Item management console

A computer from which a JP1/IM - Service Support user logs in to JP1/IM - Service Support from a Web browser to view and work with Items.

When you link with JP1/AO, single sign-on capabilities provided by the authentication functionality of JP1/Base allows the JP1/AO Submit Service dialog box associated with the JP1/IM - Service Support Item to open.

Internet Explorer must be installed on the Item management console.

Item management server

A server where Items are managed. JP1/IM - Service Support must be installed on the Item management server. To use the authentication functionality of JP1/Base, JP1/Base must be installed.

Web browser

A computer that runs a service managed by JP1/AO.

To execute a service through JP1/AO, a Web browser must be installed.

IT operation automation server

A server that uses JP1/AO to automate the operating procedures of a system. JP1/AO version 10-10 or later must be installed on the JP1/AO server. To use the authentication functionality of JP1/Base, JP1/Base must be installed.

JP1/Base (authentication server)

An authentication server that uses the authentication functionality of JP1/Base. You can use this authentication functionality to display JP1/AO dialog boxes by a single sign-on process. JP1/Base version 10-10 or later must be installed on the JP1/Base (authentication server) machine.

3

Functions of JP1/IM - Service Support

This chapter describes the functions of JP1/IM - Service Support.

3.1 List of functions

The following table lists the functions of JP1/IM - Service Support, and indicates which functions are available in each edition of the product.

Table 3–1: List of JP1/IM - Service Support functions

Function	Description	Available		See
		Standard	Advanced Edition	
Item management	Allows the user to manage Items by using target systems and process work boards. The operations that can be performed are as follows: listing Items, displaying Item settings, creating Items, editing Items, deleting Items, and canceling deletion of Items. You can also configure JP1/IM- Service Support to only display Items that were registered within a certain time period.	Y	Y	Section 3.2
Item display	Displays Item information, logging status, and other information. Information about Items associated by the escalation function can also be displayed.	Y	Y	Section 3.3
Item search	Allows the user to search for Items.	Y	Y	Section 3.4
Item creation	Allows the user to create Items and can escalate Items to other processes.	Y	Y	Section 3.5
Item editing	Allows the user to edit Items.	Y	Y	Section 3.6
Batch operations on Items	Allows the user to change the status of multiple Items to *Acknowledged* or *Close* in a batch.	Y	Y	Section 3.7
Item deletion	Allows the user to delete Items.	Y	Y	Section 3.8
Item storage	Allows the user to select past Items registered in the Item management database for storage in the Item storage database.	N	Y	Section 3.9
Item printing	Allows the user to print Items.	Y	Y	Section 3.10
Item access control	Allows the user to specify access control settings for Items.	Y	Y	Section 3.11
Email notification	Sends an email to preset users upon occurrences of specific events, such as Item creation and status change.	Y	Y	Section 3.12
Exporting Item information to a CSV file	Exports a listing of Item information or historical data to a CSV file.	Y	Y	Section 3.13
Item form management	Allows the user to customize Item forms or delete unnecessary Item forms.	Y	Y	Section 3.14
Status management	Allows the user to customize Item statuses.	Y	Y	Section 3.15
Work status management	Allows the user to summarize Item information, and to check or output the results.	Y	Y	Section 3.16
User and role management	Allows the user to manage users and their roles. The operations that can be performed are as follows: displaying a listing of user information or role definition information, displaying detailed	Y	Y	Section 3.17

Function	Description	Available		See
		Standard	Advanced Edition	
User and role management	information, adding users and roles, editing users and roles, and deleting users and roles.	Y	Y	Section 3.17
Firewall environment support	Allows the user to set up an environment in which JP1/IM - Service Support is protected by a firewall.	Y	Y	Section 3.18

JP1/IM - Service Support services	JP1/IM - Service Support consists of the following four services:#
	 • JP1/Service Support
	  Controls display of windows.
	 • JP1/Service Support - DB Server
	  Manages the databases used by JP1/IM - Service Support.
	 • JP1/Service Support - Task Service
	  Executes commands at a specified interval.
	 • JP1/Service Support - Web Service
	  Interfaces with the Item management console.
		Y	Y	Section 3.19

Command-driven database operations	Works with the contents of the databases managed by JP1/IM - Service Support using commands.	Y	Y	Section 3.20
Cluster system support	Sets up an environment in which JP1/IM - Service Support is clustered.	Y	Y	Section 3.21
Linkage with other products	Links JP1/IM - Service Support with other products so that Items can be registered automatically or hardware information can be viewed.	Y	Y	Chapter 4

Legend:

Standard: JP1/IM - Service Support (Standard)

Advanced Edition: JP1/IM - Service Support Advanced Edition

Y: Can be used.

N: Cannot be used.

#

In a cluster environment, JP1/Service Support - DB Cluster Service is also required.

3.2 Item management

When you log in to JP1/IM - Service Support, the main window (Item list) shown below first appears. From this window, you can manage target systems, their processes, and Items that are generated in the processes or that must be handled by the processes.

Figure 3–1: Main window (Item list)

Item preview
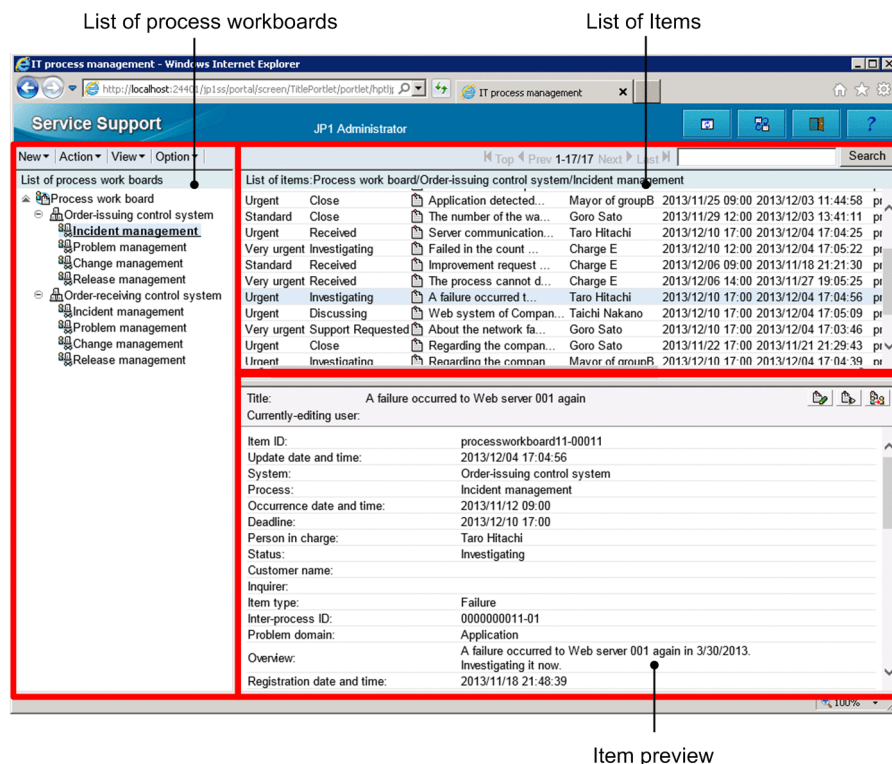
List of process work boards:

> Displays process work boards. The target systems in which process work boards are registered and the processes of the target systems are displayed in a tree format.

List of Items:

> Lists the Items that are registered in JP1/IM - Service Support.

Item preview:

> Displays the details of the Item selected in the list of Items.

When the Item Management window function is enabled, you can only work with Items that were registered within the specified time frame.

3.2.1 Managing Items by using process work boards

In JP1/IM - Service Support, you can use process work boards to centrally manage Items on a target system basis or on a process basis.

Before you can categorize Items by using process work boards, you must define the following settings:

Target system:

This is a setting that allows you to categorize Items by system managed by JP1/IM - Service Support. You can define any target systems.

Process:

This is a setting that allows you to categorize Items by process managed by JP1/IM - Service Support. JP1/IM - Service Support provides four processes listed below. Users cannot define other processes.

- Incident management
- Problem management
- Change management
- Release management

After you have defined target system and process settings, create process work boards for each process. By registering Items in process work boards, you can manage Items on a target system basis or on a process basis.

The following figure shows an overview of categorizing and managing Items by using process work boards.

Figure 3–2: Managing Items by using process work boards
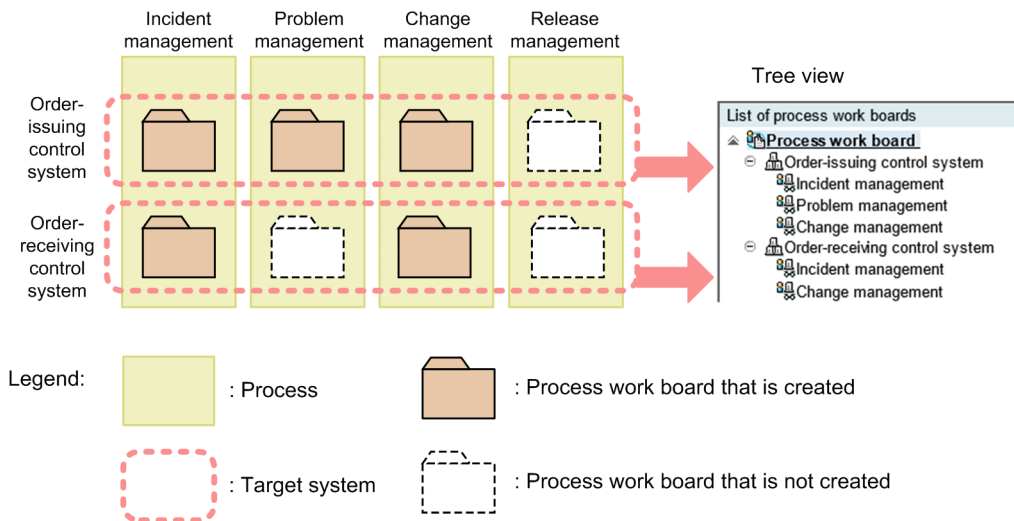
Process work boards that are created are displayed in the list of process work boards in the main window (Item list). The list of process work boards is a tree view that displays process work boards categorized by target system and process hierarchically.

The following describes the target system and process work board settings that can be specified.

(1) Target system settings

A target system can be defined by using the Target system management window. The following figure shows this window.

Figure 3–3: "Target system management" window
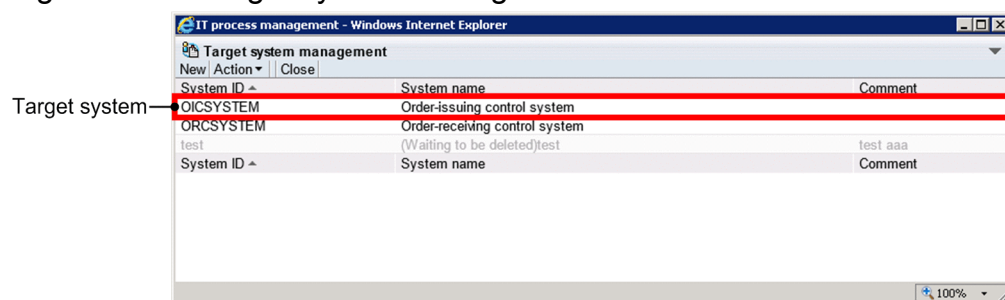
The following describes the settings that can be specified for a target system, and the functions that can be used to define a target system.

(a) Target system settings

The following table lists and describes the settings that can be specified for a target system.

Table 3–2: Target system settings

Setting	Description
System ID	The ID that identifies a target system. Each system ID must be unique within the JP1/IM - Service Support platform.
System name	The name that identifies a target system. Each system name must be unique within the JP1/IM - Service Support platform.
Comment	A brief description of a target system.

(b) Target system definition functions

This subsection describes the functions that are provided by JP1/IM - Service Support to define a target system. Note that the functions described here can be used by only users who belong to the process work board management role. For details about the process work board management role, see *3.17.2 Role management*.

Creating a target system:

You can create a target system by using the Create the target system window.

Editing a target system:

You can edit the settings of a target system by using the Edit the target system window. Note that you cannot edit a target system that is waiting to be deleted. To edit such a target system, you must cancel deletion.

Deleting a target system:

You can delete unnecessary target systems. Before you can do so, make sure that the state of all process work boards in those target systems is not *Operating*.

If you delete a target system in the Target system management window, the target system is placed in the *Waiting to be deleted* state. While the target system is in this state, (Waiting to be deleted) is displayed to the left of the target system name in the list of process work boards in the Target system management window and in the main window (Item list). Note that you cannot edit a target system in this state. After the target system has been deleted, no users other than those who belong to the process work board management role can view the process work boards and Items of the deleted target system.

Note, however, that target systems deleted by using the Target system management window can be restored, because their information remains in the Item management database. For details about restoring a target system, see *Canceling deletion of a target system* below.

To delete a target system completely from the Item management database, use the `jssdelrec` command. For details about this command, see *jssdelrec (deletes data from the Item management database)* in *Chapter 11. Commands*.

If you are using the Item storage database with JP1/IM - Service Support Advanced Edition, the `jssdelrec` command applies to the Items in the Item storage database in addition to those in the Item management database. That is, after you use the `jssdelrec` command to delete a system, you can no longer view its Items in either database.

Canceling deletion of a target system:

If there are target systems that are indicated as *Waiting to be deleted* in the Target system management window, you can restore them to the state that existed before the state changed to *Waiting to be deleted*. If a target system is restored, the process work boards of that target system are also restored to the state that existed before the state changed to *Waiting to be deleted*.

(2) Process work board settings

A process work board can be defined by using the main window (Item list). To create a process work board, use the **New** menu. To view, edit, or delete, use the **Action** menu. This menu can also be used to cancel deletion of a process work board.

The following figure shows the locations of the functions that can be used to define a process work board in the main window (Item list).

Figure 3–4: Process work board definition functions in the main window (Item list)
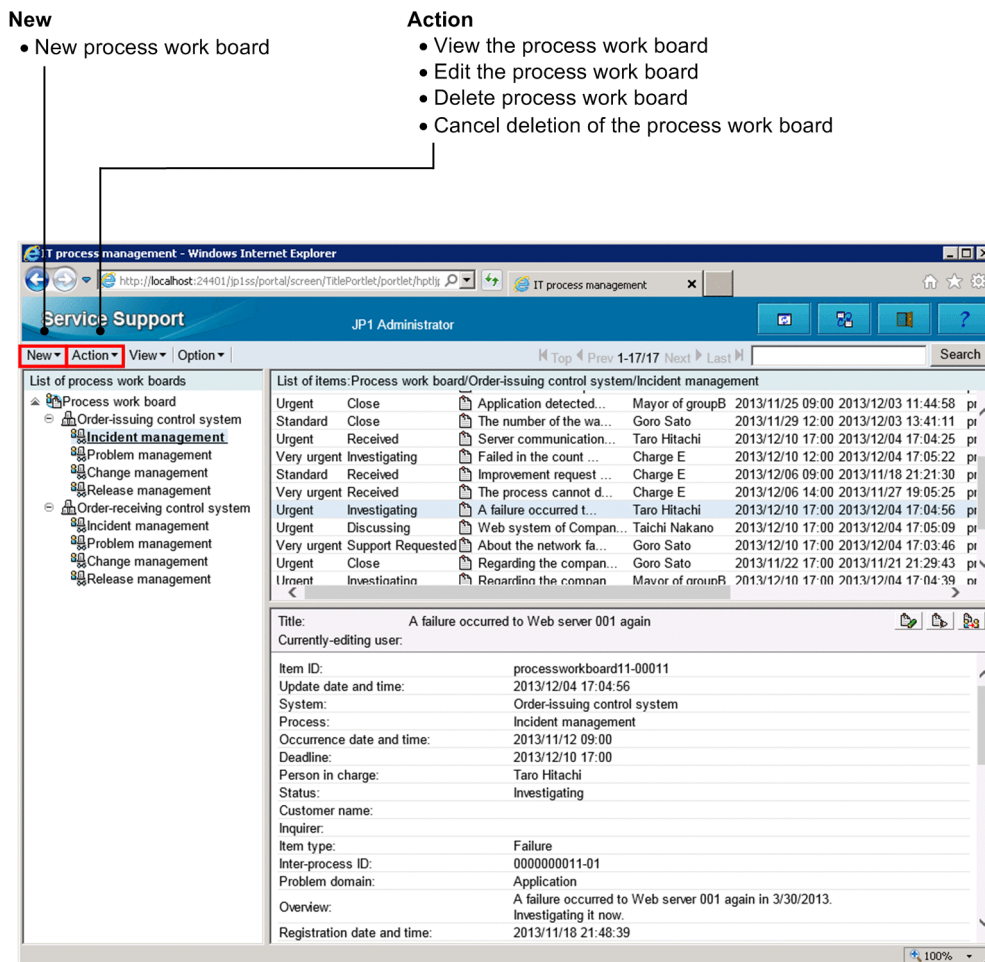
The following describes the settings that can be specified for a process work board and the functions that can be used to define a process work board. The following also describes the process work board states and the operations that can be performed in each state.

(a) Process work board settings

The settings of a process work board can be specified by using the New process work board window or the Edit the process work board window. Each of these windows consists of three tabs. The following figure shows an example of these tabs displayed in the New process work board window.

Figure 3–5: New process work board window
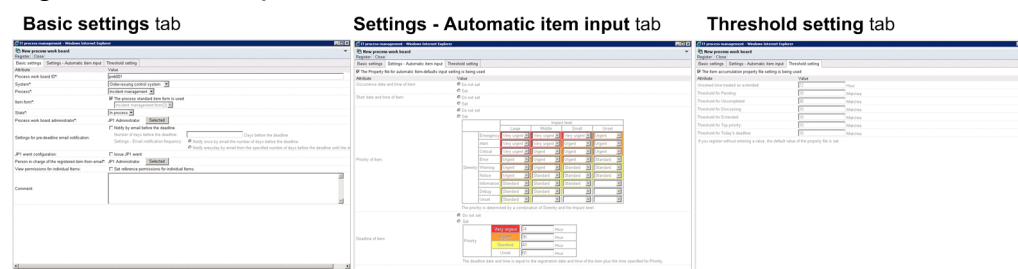
- **Basic settings** tab

  This tab is used to specify the basic settings for a process work board.

- **Settings - Automatic item input** tab

  This tab is used to specify settings whose values can be automatically input during Item registration, such as **Occurrence date and time of item** and **Start date and time of item**. These settings can also be specified by using the property file for automatic Item-defaults input. If you want to specify these settings for a specific process work board only, use the New process work board window or the Edit the process work board window. Note that specifying settings from a window makes the values of the settings displayed in the tab different from values of the corresponding settings in the property file. For details about the property file for automatic Item-defaults input, see *Property file for automatic Item-defaults input (hptl_jp1_imss_pwb_default_setting.properties)* in *Chapter 12. Definition Files*.

- **Threshold setting** tab

  This tab can be used to set the threshold values that are used for display of Item states in the main window (Item status).

The following tables describe the settings that can be specified in the above tabs.

Table 3–3: Process work board settings that can be specified in the "Basic settings" tab

Setting	Description
Process work board ID	Specifies the ID that identifies the process work board. Specify a process work board ID that is unique within the JP1/IM - Service Support platform.
System	Specifies the target system in which the process work board is to be registered. Select one of the target systems that have already been created.
Process	Specifies the process for which the process work board is to be registered. Select one of the following four processes: • Incident management • Problem management • Change management • Release management
Item form	Specifies the Item form to be used for the process work board. To use the process standard Item form, select the check box **The process standard item form is used**. To use an Item form that is

Setting	Description
Item form	different from the process standard Item form, select the desired Item form from the combo box. For details about Item forms, see *3.14 Item form management*.

State	Specifies the operating status of the process work board. Select one of the following four states:
	• **In process**
	  The process work board is preparing for starting operation. If the process work board is in this state, the state can be changed only to **Operating** or **Waiting to be deleted**.
	• **Operating**
	  The process work board can be used. If the process work board is in this state, the state can be changed only to **Under suspension**.
	• **Under suspension**
	  The process work board is being maintained or has stopped. If the process work board is in this state, the state can be changed only to **Operating** or **Waiting to be deleted**.
	• **Waiting to be deleted**
	  The process work board was deleted from the main window (Item list). If the process work board is in this state, the state can be changed only to **Under suspension**.

Process work board administrator	Specifies the user or role that manages the process work board. The process work board manager has the following permissions: • Permission to edit the process work board • Full access permission for the process work board
Settings for pre-deadline email notification	Specifies whether to notify by email the person in charge or the process work board manager that the deadline of an Item is near. For details about this notification, see *3.12 Email notification*.
JP1 event configuration	Use this check box to determine whether to issue a JP1 event from JP1/IM - Service Support when an Item is closed or the status of an Item has changed. For details about issuing JP1 events, see *4.1 Linkage with JP1/IM - Manager*.
Person in charge of the registered item from email	Specifies the user (or role) that will become in charge of Items registered via email. For details about email-driven Item registration, see *3.5.3 Creating an Item by sending an email*.
View permissions for individual Items	Use this check box to specify whether to set view permissions for individual Items. For details on setting view permissions for individual Items, see *3.11 Item access control*.
Comment	Specifies a comment on the process work board.

Table 3–4: Process work board settings that can be specified in the "Settings - Automatic item input" tab

Setting	Description
The Property file for automatic Item-defaults input setting is being used	Use this check box to determine whether to use the values set in the property file for automatic Item-defaults input. If you select this check box, the values set in the file are automatically input.
Occurrence date and time of item	Select either of the radio buttons to determine whether to automatically input the date and time that the Item was generated. If you select **Set**, the date and time that the **New item** window was opened is automatically input. If an Item is created by the Item registration command directly or by the email-driven Item registration command, the date and time that the command was executed is automatically input.
Start date and time of item	Select either of the radio buttons to determine whether to automatically input the date and time that the Item was started. If you select **Set**, the date and time that the **New item** window was opened is automatically input. If an Item is created by the Item registration command directly or by the email-driven Item registration command, the date and time that the command was executed is automatically input.
Priority of item	Select either of the radio buttons to determine whether to automatically input the Item priority, and use the combo boxes to set the combination of the impact and severity levels on which automatic priority input is based.

Setting	Description
Priority of item	If you select **Set**, the priority level is automatically input based on the impact and severity levels that were specified when the Item was created. Automatic input is also performed if the Item was created by the Item registration command directly or by the email-driven Item registration command. The combination of the impact and severity levels can be changed according to the user's operating requirements by using the combo boxes.
Deadline of item	Select either of the radio buttons to determine whether to automatically input the deadline for the Item. If you select **Set**, the deadline for the Item is automatically input. The value that is input automatically is the time that the New item window is opened plus the time period (in hours) entered in the relevant text box. Note that if the Item priority level is changed by using the Edit item window, the deadline is automatically input. You can select either of the following ways to calculate the deadline: • The time that the Edit item window was opened + number of hours specified in the relevant text box • The date and time that the Item was registered + number of hours specified in the relevant text box For details about the settings for calculating the deadline, see *Property file for automatic Item-defaults input (hptl_jp1_imss_pwb_default_setting.properties)* in *Chapter 12. Definition Files*. Note that the deadline is also automatically input if the Item was created by the Item registration command directly or by the email-driven Item registration command. Also note that if the Item priority level is changed by using the Item editing command, the deadline is automatically updated. In any of the above cases, the automatically input deadline is the date and time that the Item was registered plus the number of hours specified in the relevant text box. If the relevant text box is blank, the deadline will not be input automatically.

Table 3–5: Process work board settings that can be specified in the "Threshold setting" tab

Setting	Description
The item accumulation property file is being used	Use this check box to determine whether to use the values set in the Item accumulation property file. If you select the check box, the values set in the file are used to set the threshold values.
Unsolved time treated as extended	Use this text box to specify the threshold value (in hours) for assuming an Item to be an extended Item (an Item that has not been resolved for a long time). If the time set in this text box passes after the Item was registered, the Item is assumed to be an extended Item. The number of extended Items is displayed in the **Extended** column in the main window (Item status).
Threshold for Pending	Use this text box to specify the number of Items as the threshold value for determining whether to highlight the relevant cell in the **Pending** column as an alert in the main window (Item status). If the number of pending Items exceeds the value set in this text box, the relevant cell in the **Pending** column of the process work board is highlighted as an alert in the main window (Item status).
Threshold for Uncompleted	Use this text box to specify the number of Items as the threshold value for determining whether to highlight the relevant cell in the **Uncompleted** column as an alert in the main window (Item status). If the number of uncompleted Items exceeds the value set in this text box, the relevant cell in the **Uncompleted** column of the process work board is highlighted as an alert in the main window (Item status).
Threshold for Discussing	Use this text box to specify the number of Items as the threshold value for determining whether to highlight the relevant cell in the **Discussing** column as an alert in the main window (Item status). If the number of Items under discussion exceeds the value set in this text box, the relevant cell in the **Discussing** column of the process work board is highlighted as an alert in the main window (Item status).
Threshold for Extended	Use this text box to specify the number of Items as the threshold value for determining whether to highlight the relevant cell in the **Extended** column as an alert in the main window (Item status). If the number of extended Items exceeds the value set in this text box, the relevant cell in the **Extended** column of the process work board is highlighted as an alert in the main window (Item status).

Setting	Description
Threshold for Top priority	Use this text box to specify the number of Items as the threshold value for determining whether to highlight the relevant cell in the **Top priority** column as an alert in the main window (Item status). If the number of Items with the top priority exceeds the value set in this text box, the relevant cell in the **Top priority** column of the process work board is highlighted as an alert in the main window (Item status).
Threshold for Today's deadline	Use this text box to specify the number of Items as the threshold value for determining whether to highlight the relevant cell in the **Today's deadline** column as an alert in the main window (Item status). If the number of Items whose deadline is today exceeds the value set in this text box, the relevant cell in the **Today's deadline** column of the process work board is highlighted as an alert in the main window (Item status).

For the criteria for categorizing Items into pending, uncompleted, and other types, see *3.16.2(1) "Check status" area*.

(b) Process work board definition functions

This subsection describes the functions that are provided by JP1/IM - Service Support to define a process work board.

Viewing a process work board:

You can check the settings of a process work board by using the View the process work board window.

Creating a process work board:

You can create a process work board by using the New process work board window.

Editing a process work board:

You can edit the settings of a process work board by using the Edit the process work board window. Note that you cannot edit a process work board whose state is *Waiting to be deleted*. To edit such a process work board, you must cancel deletion of the process work board.

Specifying access control settings for process work boards and Items:

You can specify access control settings so that access to operations on a process work board can be permitted by user or role. For details about specifying access control settings, see *3.11 Item access control*.

Deleting a process work board:

You can delete unnecessary process work boards. Before you can do so, make sure that the state of the process work boards is *In process* or *Under suspension*.

If you delete a process work board in the main window (Item list), (Waiting to be deleted) is displayed to the left of the target system name in the list of process work boards. While a process work board is in the *Waiting to be deleted* state, you cannot edit the access control settings and other settings of the process work board. After the process work board has been deleted, no users other than those who belong to the process work board management role can view the Items of the deleted process work board. In JP1/IM - Service Support Advanced Edition, users can no longer view the Items of the deleted process work board that were stored in the Item storage database.

Note, however, that process work boards deleted by using the main window (Item list) can be restored, because their information remains in the Item management database. For details about restoring a process work board, see *Canceling deletion of a process work board* below.

To delete a process work board completely from the Item management database, use the jssdelrec command. For details about this command, see *jssdelrec (deletes data from the Item management database)* in *Chapter 11. Commands*.

Canceling deletion of a process work board:

If there are process work boards in the *Waiting to be deleted* state, you can restore them to the state that existed before the state changed to *Waiting to be deleted*. If a process work board is restored, the Items of that process work board are also restored to the state that existed before the state changed to *Waiting to be deleted*. This means that Items that had already been in the *Waiting to be deleted* state before the process work board was deleted will be

restored to the *Waiting to be deleted* state, and therefore cannot be viewed after restoration. Cancelling deletion of a process work board can be performed by using the main window (Item list).

(c) Process work board's states and operations that can be performed

The operations that a user can perform on a process work board differ depending on the state of the process work board and the user's authority. Tables 3-6 to 3-8 show the differences.

Table 3–6: Process work board's states and operations that can be performed (by a user that belongs to the process work board management role)

Operation	State			
	In process	Operating	Under suspension	Waiting to be deleted
Viewing the process work board	Y	Y	Y	Y
Editing the process work board	Y	Y	Y	N
Specifying access control settings for the process work board and Items	Y	Y	Y	N
Deleting the process work board	Y	N	Y	N
Canceling deletion of the process work board	N	N	N	Y
Viewing the Items	--	Y	Y	Y
Creating Items	N	Y	N	N
Creating Items based on existing registered Items#	--	Y	Y	Y
Editing Items	--	Y	N	N
Escalating Items	--	Y	N	N
Deleting Items	--	Y	N	N
Printing Items	--	Y	Y	Y

Legend:

　　Y: Can be performed.

　　N: Cannot be performed.

　　--: Not applicable (because no Items exist).

\#

　　Indicates the state of the process work board in which the original Item is registered. For details on the states of the destination process work board, see *Item creation*.

Table 3–7: Process work board's states and operations that can be performed (by a user or role that is a process work board manager and does not belong to the process work board management role)

Operation	State			
	In process	Operating	Under suspension	Waiting to be deleted
Viewing the process work board	Y	Y	Y	Cannot be performed because the process work board is not displayed.
Editing the process work board	Y	Y	Y	
Specifying access control settings for the process work board and Items	Y	Y	Y	

Operation	State			
	In process	Operating	Under suspension	Waiting to be deleted
Deleting the process work board	N	N	N	Cannot be performed because the process work board is not displayed.
Canceling deletion of the process work board	N	N	N	
Viewing the Items	--	Y	Y	
Creating Items	N	Y	N	
Creating Items based on existing registered Items[#1]	--	Y	Y	
Editing Items	--	Y	N	
Escalating Items[#]	--	Y	N	
Deleting Items	--	Y	N	
Printing Items	--	Y	Y	

Legend:

Y: Can be performed.

N: Cannot be performed.

--: Not applicable (because no Items exist).

#1

Indicates the state of the process work board in which the original Item is registered. For details on the states of the destination process work board, see *Item creation*.

#2

To escalate Items from the process work board to another process work board, you must have escalation permission on the other process work board.

Table 3–8: Process work board's states and operations that can be performed (by a user or role that is not a process work board manager, does not belong to the process work board management role, and has permissions to view Items)

Operation	State			
	In process	Operating	Under suspension	Waiting to be deleted
Viewing the process work board	Cannot be performed because the process work board is not displayed.	Y	Y	Cannot be performed because the process work board is not displayed.
Editing the process work board		N	N	
Specifying access control settings for the process work board and Items		N	N	
Deleting the process work board		N	N	
Canceling deletion of the process work board		N	N	
Viewing the Items[#1]		Y	Y	
Creating Items		N	N	
Editing Items		N	N	
Creating Items based on existing registered Items[#2]		Y	Y	
Escalating Items[#3]		Y	N	

Operation	State			
	In process	Operating	Under suspension	Waiting to be deleted
Deleting Items	Cannot be performed because the process work board is not displayed.	N	N	Cannot be performed because the process work board is not displayed.
Printing Items		Y	Y	

Legend:

Y: Can be performed.

N: Cannot be performed.

#1

If view permissions are set for individual Items, the user or role must be set as the view permission owner for the Item. In this manual, the display name for this parameter is **Owner of view permissions for individual Items**.

#2

Indicates the state of the process work board in which the original Item is registered. For details on the states of the destination process work board, see *Item creation*.

#3

To escalate Items from the process work board to another process work board, you must have escalation permission on the other process work board.

3.2.2 Viewing Items that are registered in a process work board

The Items that are registered in a process work board are displayed in the list of Items in the main window (Item list). You can sort the displayed Items or display only the Items that you manage. The Item preview area of the main window (Item list) displays a preview of the Item selected in the list.

If you are using the Item storage database in JP1/IM - Service Support Advanced Edition, Items in the Item storage database also appear in the list.

The following figure shows the list of Items and the Item preview area in the main window (Item list).

Figure 3–6: List of Items and Item preview in the main window (Item list)
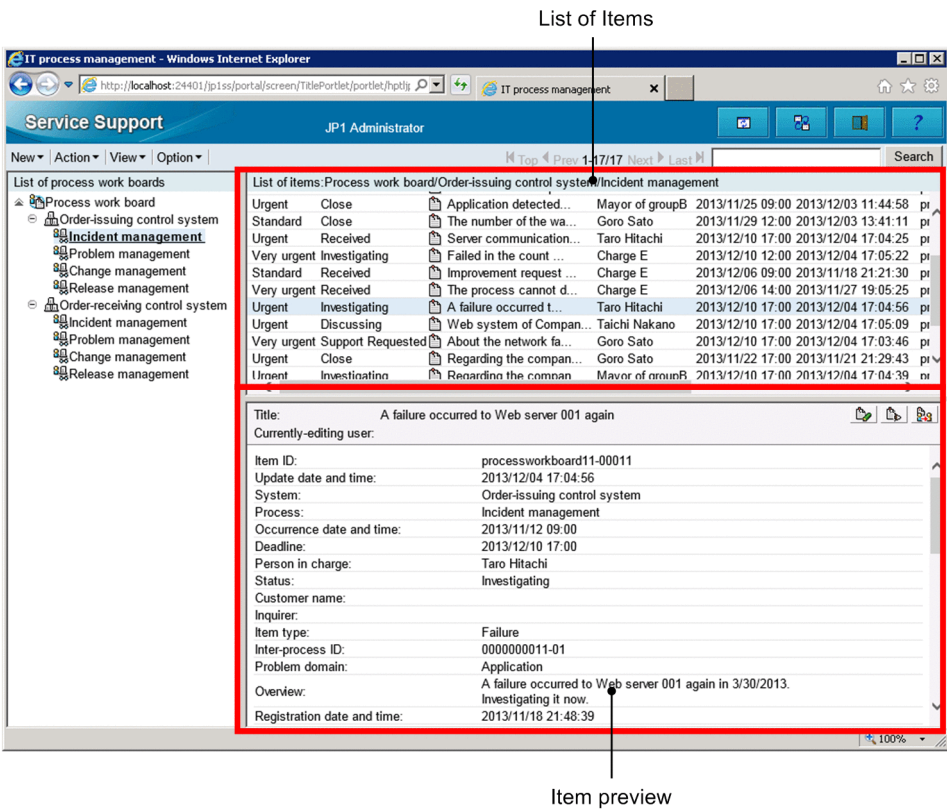
The following describes the list of Items and the Item preview area in the main window (Item list).

(1) List of Items

The Items displayed in the list of Items differ depending on the node selected in the list of process work boards in the main window (Item list). The following describes this difference.

If the **Process work board** node at the top level is selected in the list of process work boards:

The Items that are registered in process work boards whose status is *Operating* or *Under suspension* are displayed. The Items that are registered in the temporary receipt process work board are not displayed. For details about the temporary receipt process work board, see *3.5.3(1) Overview of the temporary receipt process work board and master system*.

If a target system is selected in the list of process work boards:

The Items that are registered in the operating and stopped process work boards in the selected target system are displayed.

If a process work board is selected in the list of process work boards:

The Items that are registered in the selected process work board are displayed.

If you are a user who belongs to the process work board management role, target systems and process work boards in the *Waiting to be deleted* state are also displayed in the list of process work boards. In this case, if you select a target system or process work board in the *Waiting to be deleted* state, the Items registered in the target system or process work board are displayed in the list of Items.

If the option to set view permissions for individual Items is enabled for the process work board, only Items for which the user has view permission appear in the list of Items.

The following table describes the information displayed in the list of Items.

Table 3–9: Information displayed in the list of Items

Information	Description
Priority	The priority of the Item. **Standard**, **Urgent**, or **Very urgent** is displayed.
Status	The current status of the Item. For details about the statuses that can be displayed, see *3.6.1(2) Changing the status*.

Editing-status icon	An icon that indicates the editing status of the Item. There are the following two types of icons:
	• Normal Item icon (📄)
	  Indicates that the Item is not being edited currently.
	• Being-edited Item icon
	  Indicates that the Item is being edited currently. There are the following two icons of this type:
	  📄 : Indicates an Item that you are currently editing. You can edit an Item that you are editing.
	  📄 : Indicates an Item that someone else is currently editing. You cannot edit an Item that is being edited by another user.
	• Stored Item icon (📄)[1]
	  Indicates that the Item is stored in the Item storage database. You cannot edit Items with this icon.

Title	The title of the Item.
Person in charge	The user or role that processes the Item.
Deadline	The deadline of the Item. Items whose deadline has passed are highlighted in red.
Update date and time	The date and time that the Item was last updated.
System	The name of the target system in which the Item is registered.
Process	The name of the process for which the Item is registered.
Item ID	The ID that uniquely identifies the Item within the JP1/IM - Service Support platform. This ID is a combination of the process work board ID and the process work board serial number[2].
Registration date and time	The date and time that the Item was registered in JP1/IM - Service Support.
I (Incident)	For an Item that was created by incident management or has been escalated to incident management, an asterisk (*) is displayed.
P (Problem)	For an Item that was created by problem management or has been escalated to problem management, an asterisk (*) is displayed.
C (Change)	For an Item that was created by change management or has been escalated to change management, an asterisk (*) is displayed.
R (Release)	For an Item that was created by release management or has been escalated to release management, an asterisk (*) is displayed.

#1

This icon appears in systems that use the Item storage database with JP1/IM - Service Support Advanced Edition.

#2

The process work board serial number is a sequence number that uniquely identifies each Item created in a process work board. The following figure shows the relationships among the Item ID, process work board ID, and process work board serial number.

Figure 3–7: Configuration of an Item ID
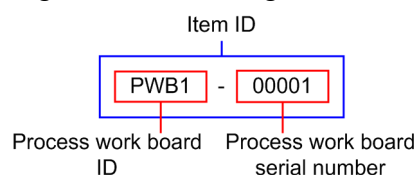
In JP1/IM - Service Support Advanced Edition, the process work board serial number is a six digit number.

You can use the following methods to identify the process work board serial number:

- Using a JP1/IM - Service Support window

  In the View Item window, the string displayed on the right side of a hyphen (-) in the Item ID is the process work board serial number. For example, if the Item ID is `honsyasystem-00001`, the process work board serial number is `00001`.

- Using a CSV file that contains exported Item information

  Process work board serial numbers are included in a CSV file that is output as search results, exported by the `jssitemhistory` command (outputs Item history), exported by the `jssitemlist` command (outputs a list of Items), or the `jssitemexportEx` command (exports extended Item information). For details about outputting search results to a CSV file, see the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*. For details about the `jssitemhistory` command, see *jssitemhistory (outputs Item history)* in *Chapter 11. Commands*. For details about the `jssitemlist` command, see *jssitemlist (outputs a list of Items)* in *Chapter 11. Commands*. For details about the `jssitemexportEx` command, see *jssitemexportEx (exports extended Item information)* in *Chapter 11. Commands*.

- Using a JP1 event issued by JP1/IM - Service Support

  In a JP1 event issued by JP1/IM - Service Support, the string on the right side of a hyphen (-) in the object ID, which is an extended attribute, is the process work board serial number. For example, if the object ID is `honsyasystem-00001`, the process work board serial number is `00001`.

  For details about JP1 events issued by JP1/IM - Service Support, see *4.1 Linkage with JP1/IM - Manager*.

The following describes the operations that can be performed on the list of Items:

View ▾ : Filtering Items

You can filter the items to be displayed. The filter conditions are as follows:

- **My item**

  Only Items that you are in charge of are displayed. The displayed Items include the Items whose *Person in charge* is set to the role that you belong to.

- **Item in progress**

  Only unprocessed Items are displayed. *Unprocessed Items* here refer to Items whose default status is not *Close* and whose process work board is in the *Operating* state.

- **Range of the Item Management window**

  This filter condition appears in environments with the Item Management window function enabled. When you select this filter condition, the "Range of the Item Management window" window appears in which you can move the time frame for which the Item Management window displays Items. After you move the Item Management window, the system only displays events that were registered within the new time frame. For details on the Item Management window function, see *3.2.3 Item Management window function*.

◄ Top ◄ Prev 51-100/134 Next ▶ Last ▶ : Turning the page

You can change the page that displays Items. The list of Items can display only a maximum of 50 Items concurrently. If the number of Items to be displayed exceeds 50, use this function to change the page of the list. The numbers displayed on the above button (`51-100/134`) is an example. These numbers mean that the current page displays Items 51 to 100 of the 134 Items that are registered. Note that the upper limit on the number that can be displayed as the total number of Items is 10,000. If 10,001 or more Items are registered, numbers are displayed on the button in the `1-50/10000+` format.

Priority Status 📄 Title   Person in charge Deadline Update date and time ▾ System   : Sorting Items

You can re-sort the list of Items based on a list column (other than **I**, **P**, **C**, and **R**) by clicking the column header. For the column that is currently used as the sort key, ▲ (ascending order) or ▼ (descending order) is displayed. By default, the list is sorted by registration date and time in ascending order.

You can also click the 📄 column to sort the list by editing status icon. Items are sorted in the following order:

If ▲ is displayed:

1. Items that are not being edited

2. Items currently being edited

3. Items that cannot be edited (stored Items)[#]

If ▼ is displayed:

1. Items that cannot be edited (stored Items)[#]

2. Items currently being edited

3. Items that are not being edited

\#

Items that cannot be edited (stored Items) only appear in systems that use JP1/IM - Service Support Advanced Edition.

(2) Item preview

If an Item is selected in the list of Items in the main window (Item list), the details of the Item are displayed in the Item preview area. The Item preview allows you to check the details of an Item without opening the View Item window. In the Item preview area, all properties of the selected Item, except the attached files, are displayed.

The following describes the operations that can be performed in the Item preview area.

Displaying the user who is editing the Item:

You can display the detailed information about the user who is editing the Item.

Displaying the information linked to a clickable item:

By clicking an item that is displayed as anchor text, you can display the information linked to the item. Clickable items are displayed for the following properties:

- **Related item(s)**

- **Related information**

- **Hardware information**

- **Attached file(s)**

- User-added properties that are displayed as links

Clicking operation icons:

Clicking an operation icon displays a specific window. The following table describes operation icons and the windows that are opened when the icons are clicked.

Table 3–10: Operation icons

Icon	Description
📄	View Item icon. When the user clicks this icon, the View Item window opens.

Icon	Description
#	Edit Item icon. When the user clicks this icon, the Edit Item window opens. This icon appears only when any of the following conditions exist: • The user belongs to the process work board management role. • The user is a process work board manager. • The access control settings allow the user to view and edit the Item. • The access control settings allow the user to view the Item and change the current status of the Item.
#	Escalation icon. When the user clicks this icon, the Specify an escalation destination window opens. Note that this icon does not appear while the Item is being edited by another user.
	Display print window icon. Clicking this icon displays the print window.
	Inherit content to create Item icon. Clicking this icon displays the Specify the registration target window. When you select a process and click **OK**, a New item window appears containing the Item information of the Item displayed in the Item preview area.

\#

    Not shown for stored Items.

3.2.3 Item Management window function

The Item Management window is a function that limits the range of Items a user works with on a daily basis. Enabling the Item Management window function limits the contents of the user interface to Items that were registered in JP1/IM - Service Support within a specific time period. In environments where a large number of Items are registered in JP1/IM - Service Support, this function can filter out Items that are irrelevant to the task at hand, allowing pertinent Items to be more readily identified. Note that in JP1/IM - Service Support Advanced Edition, the Item Management window function applies to Items in the Item storage database in addition to those in the Item management database.

The following figure shows how the Item Management window works.

Figure 3–8: Overview of Item Management window function
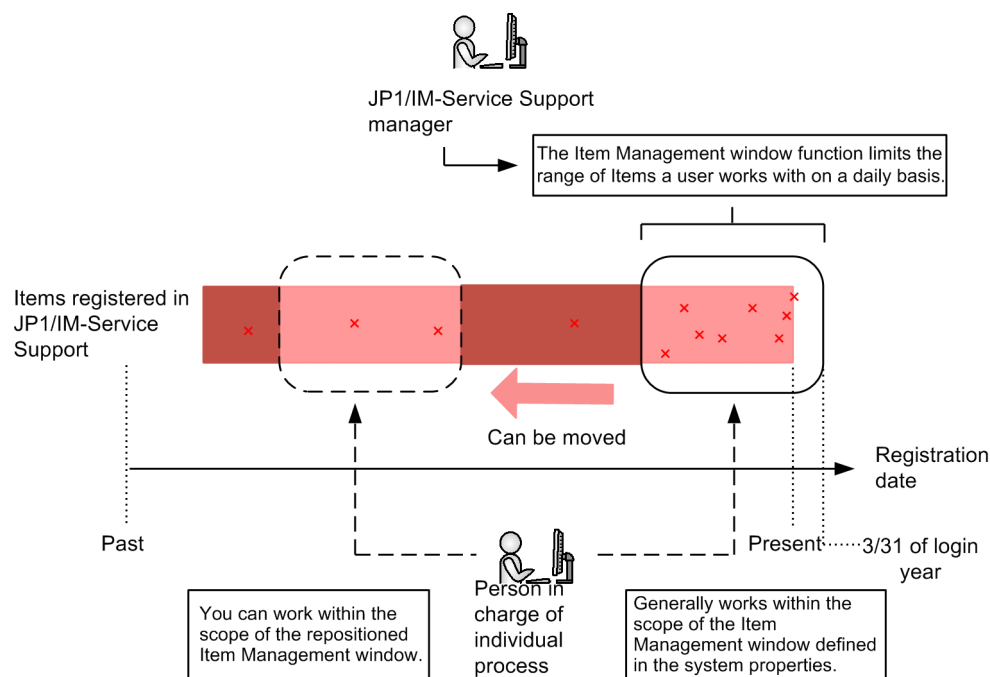
Legend:
×: Uncompleted Item

#:
The year in which the user logged in to JP1/IM - Service Support.

The Item Management window function applies to specific operations performed in JP1/IM - Service Support. The following table lists the operations affected by this function:

Table 3–11: Operations affected by Item Management window function

No.	Operation	Effect of Item Management window
1	Displaying the list of Items in the main window (Item list)	The list of Items only displays Items that were registered within the time period of the Item Management window function.
2	Searching for Items[#]	The time period specified for the Item Management window function is entered in the **Registration date and time** area of the search window.
3	Simple search for Items	The search applies to Items registered within the time period specified for the Item Management window function.

#

For details on how to search for Items and use the simple search area, see *3.4 Item search*.

When you are using the Item Management window function, the period of time specified for the function appears in the menu area of the main window (Item list). The following figure shows the main window (Item list) with the Item Management window function enabled:

Figure 3–9: Main window (Item list) with Item Management window enabled
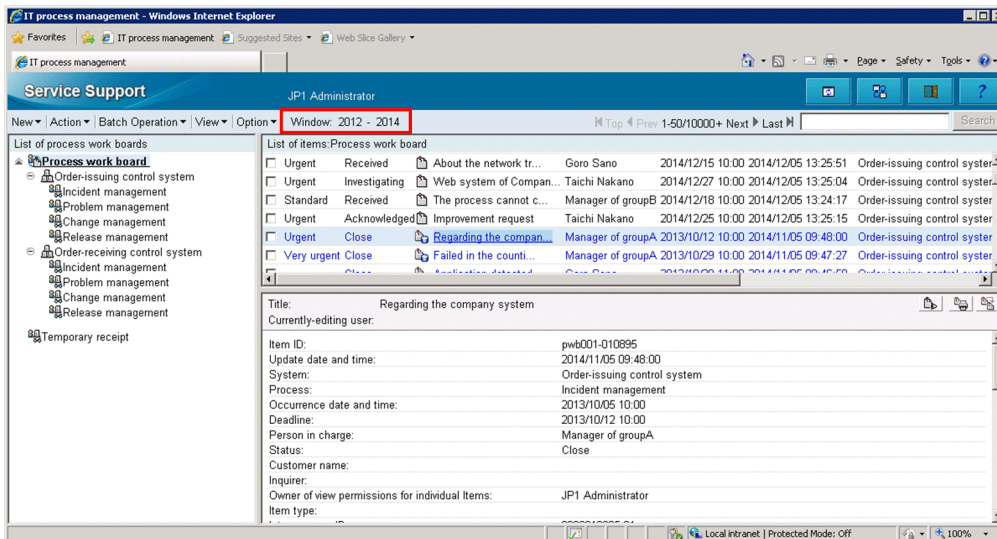
If you intend to use the Item Management window function, specify a registration date and time when you use the `jssitemimport` or `jssitemimportEx` command to register Items. Items registered without specifying a registration date and time will be outside the scope of the Item Management window function.

Configuring the Item Management window function

System administrators are responsible for configuring the Item Management window function. The system administrator must set the span of the Item Management window to an appropriate length of time that permits each person in charge to handle Items that are relevant on a day-to-day basis.

The system administrator can set the span of the Item Management window as a period of time from 1 to 5 years. The range of the Item Management window is from 01/01 of the first year to 12/31 of the last year. The last year of the range is the year in which the person in charge logged in to JP1/IM - Service Support. For example, suppose that the span of the Item Management window is set to three years, and the person in charge logs in to JP1/IM - Service Support on July 1st, 2014. In this case, the range of the Item Management window is 01/01/2012 to 12/31/2014.

You can configure the Item Management window in the system properties file. For details on the system property file, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

(1) Repositioning the Item Management window

The person in charge of each process can reposition the Item Management window in one year increments. If a person in charge wishes to process past uncompleted Items or use past Items as reference material for present-day tasks, he or she can do so by repositioning the Item Management window. You can set the position of the Item Management window in the "Range of the Item Management window" window. This window is shown below.

Figure 3–10: "Range of the Item Management window" window

You can reposition the Item Management window by selecting a different year from the **Displayed range (in years)** combo box. You can select the following years:

- The current year

- Any year from the year in which the oldest Item in JP1/IM - Service Support was registered to the year in which the newest Item in JP1/IM - Service Support was registered

The first year for which Items are displayed is set automatically based on the value of the `hptl_jp1_imss_itemwindow_size` property in the system property file.

When you reposition the Item Management window, it remains in the new position until you log out of JP1/IM - Service Support. The Item Management window reverts to its original position when you log in again.

For details on how to reposition the Item Management window, see the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*.

3.3 Item display

JP1/IM - Service Support provides the following Item display functions:

- Displaying the details of an Item
- Displaying an Item history
- Displaying the work status of an Item
- Displaying related items

If the option to set view permissions for individual Items is enabled for the target process work board, only Items for which the user is an Item view permissions owner are displayed. For details on setting view permissions for individual Items, see *3.11 Item access control*.

If you are using the Item storage database in JP1/IM - Service Support Advanced Edition, each window displays the Items in the Item storage database in addition to those in the Item management database.

The following subsections describe these functions.

3.3.1 Displaying the details of an Item

The details of an Item that is registered in JP1/IM - Service Support can be checked in the View Item window or the Item preview area of the main window (Item list). For example, you might want to see the details of an Item in the following cases: when you need to examine an old Item for resolving the Item that you are in charge of, and when you need to check the detailed work status of the person in charge of an Item.

The following figure shows the View Item window.

Figure 3–11: View Item window

Note that the above figure is an example of the View Item window displaying an Item that is registered in the incident management process. The properties displayed in the window differ depending on the process. The user can customize the properties to be displayed in the window.

If the Item is being edited by another user, the header **Currently-editing user** is added, and the name of that user is displayed.

The following describes the operations that can be performed in the View Item window:

Editing an Item:
> You can edit the Item that is displayed. To do this, from the **Action** menu, select **Edit item** to open the Edit item window. The **Edit item** command is unavailable if the displayed Item is a stored Item.

Canceling the changes:
> You can cancel the changes to the Item that you are editing. To do this, from the **Action** menu, select **Cancel edit** to open the dialog box that asks you whether you really want to cancel the changes to the Item. In this dialog box, if you click the **OK** button, the changes are canceled. The **Cancel edit** command is unavailable if the displayed Item is a stored Item.

Inheriting content to create an Item:
> You can create a new Item based on the Item information of an existing item displayed in the View Item window. To do this, from the **New** menu, select **Inherit Content to Create an Item** to open the Specify the registration target window. When you select a process and click **OK**, a New item window appears containing the Item information of the Item selected in the View Item window. You can then use this information as the basis for a new Item to be created in the process you selected in the initial window.

> You cannot perform this operation if you opened the View Item window from the History display window.

Escalating an Item:
> You can escalate the Item that is displayed. To do this, from the **Action** menu, select **Escalation** to display the Specify an escalation destination window. The **Escalation** command is unavailable if the displayed Item is a stored Item.

Displaying an Item history:
> You can display the work history of the Item that is displayed. To do this, from the **Action** menu, select **History display** to open the History display window.

Displaying the work status:
> You can display a listing of the processing status for the Item that is displayed. To do this, from the **Action** menu, select **Work status display** to display the Work status display window.

Printing an Item:
> You can display a window from which you can print the displayed Item. To do this, from the **Action** menu, select **Display the Print Window** to open the print window.

Displaying the status of related Items:
> You can display the Items associated with the Item that is displayed. To do this, from the **Action** menu, select **Display status of related item** to open the Status of related item window.

Downloading attached files:
> You can download attached files by clicking their names, which are displayed as anchor text in the **Attached file(s)** field.

Displaying the information linked to a clickable item:
> Clickable items are displayed in the **Currently-editing user**, **Person in charge**, **Registrant**, **Hardware information**, **Related item(s)**, and **Related information** fields. You can click such an item to display its detailed or related information.

3.3.2 Displaying an Item log

Each time you edit an Item, a snapshot of the Item at that point of time is saved in JP1/IM - Service Support as a work history. The work history of Items can be displayed in the History display window. In this window, you can also display the work history of Items that were escalated to other processes. Note, however, that to display the work history of an escalated Item, you must have permission to view Items at the escalation destination.

The following figure shows the History display window.

Figure 3–12: History display window

Note that you cannot display detailed information about the following Items although the work history of them is displayed in the History display window:

- Items that were deleted by using the main window (Item list)
- Items waiting to be deleted because the target systems in which the Items were registered have been deleted
- Items waiting to be deleted because the process work boards in which the Items were registered have been deleted
- Items waiting to be deleted because the `jssitemdeletion` command was executed

Note:
If you use the `jssdelrec` command to delete an Item from the Item management database, the work history of the Item will no longer be displayed in the History display window.

The following describes the operations that can be performed in the History display window:

Displaying the information linked to a clickable item:
Clickable items are displayed in the **Title**, **Person in charge**, and **Editor** fields. You can click such an item to display its detailed or related information.

3.3.3 Displaying the work status of an Item

While you are creating or editing an Item, you can enter a comment in the **Work status** field of the Item form. A history of entered comments is displayed in the **List of work status**, which shows the progress of the work on the Item. This list is useful for the administrator when discussing or acknowledging the Item or for the person in charge when retracing the progress of the work on the Item.

The following figure shows the Work status display window.

Figure 3–13: Work status display window
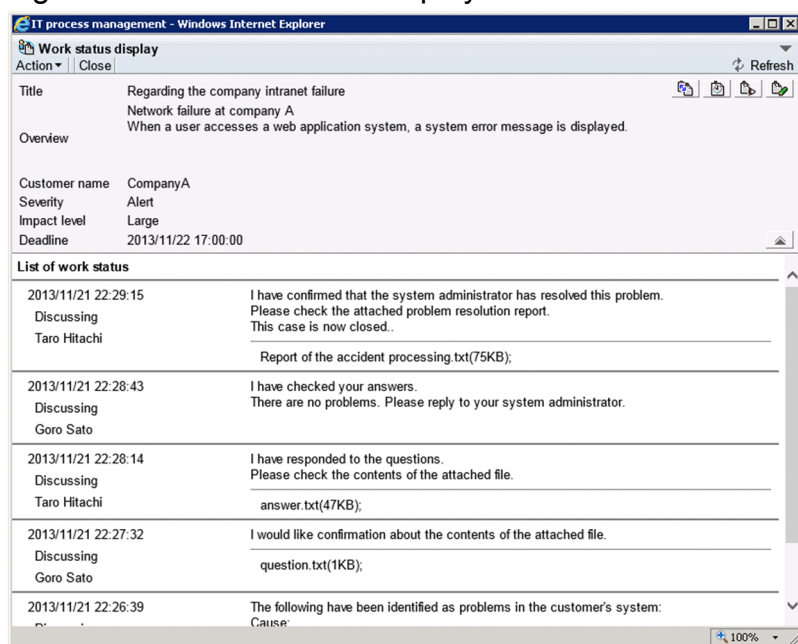
If you click the ![up button] button, all information other than **Title** displayed above the **List of work status** is hidden.

The comment entered in the **Work status** field is added to the **List of work status** each time the Item is updated. In this list, the newest comment is displayed at the top.

You cannot display the Work status display window for an Item that is waiting to be deleted.

If status names are customized, the names of the work statuses that were entered before customization will also be replaced by the new names.

Note that customized Item forms might have no **Work status** field. However, the Work status display window can be displayed for an Item whose form does not have the **Work status** field.

When using the Work status display window to check work progress, delete the existing content of the **Work status** field before entering your own information. This improves the readability of the work progress as a whole.

The following describes the operations that can be performed in the Work status display window:

Displaying the status of related Items:
　　You can display the Items that are associated with the Item that is displayed. To do this, from the **Action** menu, select **Display status of related item** to display the Status of related item window. You can also open this window by clicking the ![icon] icon.

Displaying an Item's history:
　　You can display the work history of the Item that is displayed. To do this, from the **Action** menu, select **History display** to open the History display window. You can also open this window by clicking the ![icon] icon.

Displaying the details of an Item:
　　You can display the details of the Item that is displayed. To do this, from the **Action** menu, select **View item** to open the View Item window. You can also open this window by clicking the ![icon] icon.

Editing an Item:

You can edit the Item that is displayed. To do this, from the **Action** menu, select **Edit item** to open the Edit item window. You can also open this window by clicking the [icon] icon. The **Edit item** command is unavailable if the displayed Item is a stored Item.

Downloading attached files:

You can download attached files by clicking their names, which are displayed as anchor text in the **List of work status**.

Displaying the information linked to a clickable item:

In the **List of work status**, the names of users who edited the Item are indicated as anchor text. You can click such a user name to display detailed or related information about the user.
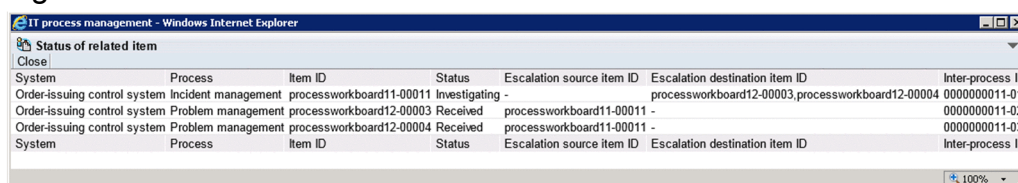
3.3.4 Displaying related Items

If you escalate an Item from a process to another process, the Item at the source process and the Item at the destination process are associated. You can check for related Items in the list of Items in the main window (Item list).

You can also check the latest status of related Items by using the Status of related item window. This window lists all related Items.

The following figure shows the Status of related item window.

Figure 3–14: Status of related item window

The following table describes the elements of the list in the Status of related item window.

Table 3–12: Elements of the list in the Status of related item window

Element	Description
System	The name of the target system that an Item belongs to.
Process	The name of the process that an Item belongs to.
Item ID	The ID that uniquely identifies an Item within the JP1/IM - Service Support platform. This ID is a combination of the process work board ID and the process work board serial number. This ID is automatically assigned.
Status	The current status of an Item. For the types of status, see *3.6.1(2) Changing the status*.
Escalation source item ID	The ID of an escalated Item at the escalation source.
Escalation destination item ID	The ID of an escalated Item at the escalation destination.
Inter-process ID	The ID that identifies a relation between the source and destination Items associated by escalation. This ID is a combination of the related Item serial number[#] and the escalation level number that is incremented each time the Item is escalated. The related Item serial number identifies the Items that have been associated by escalation. The escalation level number of an Item indicates how many times the Item was escalated. This ID is automatically assigned.

\#
    The related Item serial number uniquely identifies each Item created in JP1/IM - Service Support. When an Item is escalated, the same related Item serial number that is assigned to the original Item is also assigned to the escalated Item. The following figure shows how an inter-process ID is composed of the related Item serial number and escalation level number.

Figure 3–15: Configuration of an inter-process ID

Inter-process ID

| 0000000002 | - | 01 |

Related Item   Escalation
serial number   level number
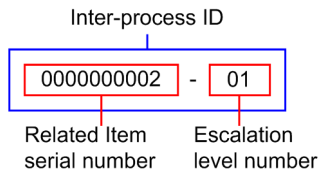
Note that you might not be able to view detailed information about all Items that are displayed as related Items in the Status of related item window. You must belong to the process work board management role to view the detailed information about the following Items:

- Items that were deleted by using the main window (Item list)
- Items waiting to be deleted because the target systems in which the Items were registered have been deleted
- Items waiting to be deleted because the process work boards in which the Items were registered have been deleted
- Items waiting to be deleted because the `jssitemdeletion` command was executed

Note:

- If you use the `jssdelrec` command to delete an Item from the Item management database, the Item will no longer be displayed in the Status of related item window. Because information about the relations with other Items is also deleted, Items might be displayed with incorrect relationships.

- In JP1/IM - Service Support Advanced Edition, if you use the `jssstoreitemdel` command to delete stored Items, the Items will no longer appear in the Status of related Item window. Because information about relationships with other Items is also deleted, Items might be displayed with incorrect relationships.

The following describes the operations that can be performed in the Status of related item window:

Displaying the information linked to a clickable item:
    Clickable items are displayed in the **Item ID**, **Escalation source item ID**, and **Escalation destination item ID**. You can click such an item to display its detailed or related information.

3.4 Item search

You can search JP1/IM - Service Support for registered Items that satisfy certain search conditions. Various conditions are available for searching for Items. You can initiate an Item search with the simple search area of the main window (Item list) or with the Specify item search conditions window. Search results are displayed in the List of item search results window. Note that you cannot search for the following Items:

- Items that you are not permitted to view

- Items that are placed in the *Waiting to be deleted* state by using a window or the `jssitemdeletion` command

When the option to set view permissions for individual Items is enabled for the process work board you are searching, you can only search for Items for which you are a view permissions owner. For details on setting view permissions for individual Items, see *3.11 Item access control*.

In JP1/IM - Service Support Advanced Edition, you can search for stored Items in the Item storage database in addition to the Items in the Item management database.

The following subsections describe how to specify the search range and search conditions, and how to display search results.

3.4.1 Specifying the search range and search conditions

The main window (Item list) provides the simple search area. In this area, you can search for Items simply by entering a character string as a search condition, and clicking a button. If you are using the Item Management window function, the search applies to Items that were registered within the time frame set for the Item Management window function. For details on the Item Management window, see *3.2.3 Item Management window function*. For details about how to perform a simple search for Items, see the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*.

In the Specify item search conditions window, you can specify the search range and search conditions as detailed in the following tables.

Table 3–13: Specifying the search range

Range	Description
Target system	Select the system that you want to search from a combo box.
Target process	Select the process that you want to search from a combo box.

Table 3–14: Specifying the search conditions

Condition	Description

keywords	Enter keywords that you want to use as search conditions in text boxes. You can select the target settings with drop-down lists. The entered keywords are used as partial-match search conditions. You can also include the following special characters in search conditions:
	 • Underscore (_): Indicates any character.
	  For example, the keyword `a_c` can match `aac` and `abc`.
	 • Percent sign (%): Indicates zero or more any characters.
	  For example, the keyword `a%c` can match `ac`, `abc`, and `abbbc`.

Attributes	You can select the severity, Impact level, and other attributes as search conditions from combo boxes. If you click the **Selected** button for an attribute, the Code selection window opens. In this window,

Condition	Description
Attributes	you can select one or more attribute values (codes) that you want to use as search conditions. If you select the **NOT search** check box, the system searches for Items that do not satisfy those conditions. If you select multiple codes for an attribute, they are combined by the OR operator. For example, after selecting **Match all conditions** (AND), if you select codes a_1, a_2, and a_3 for attribute A and select codes b_1, b_2, and b_3 for attribute B, the search will use the following conditional expression: $(a_1 \text{ OR } a_2 \text{ OR } a_3) \text{ AND } (b_1 \text{ OR } b_2 \text{ OR } b_3)$
Date-and-time values	You can specify time values such as **Occurrence date and time** and **Registration date and time**[#] as search conditions for attributes.
Numeric values	You can specify numeric values such as **Cost (planned)** and **Cost (actual)** as search conditions for attributes.
User or role	You can specify users or roles as search conditions for **Registrant** and **Person in charge**.

\#

If you are using the Item Management window function, 01/01 of the first year of the Item Management window is automatically entered as the start date of the **Registration date and time** condition. As the end date, 12/31 of the last year of the Item Management window is automatically entered.

Note that you can edit the date range that is automatically entered. If you edit the dates, the system ignores the range of the Item Management window when conducting the search.

The above search conditions can be combined to filter the search results.

You can select either the **Match all conditions** (AND) or **Match any condition** (OR) option for the conditions under **Search with this keyword** and/or the conditions under **Search with this attribute**. If you use both types of search conditions (keywords and attributes), you cannot specify whether to combine the two types of conditions with the AND operator or the OR operator. The logical operator that will be used between keywords and attributes depends on which of the **Match all conditions** and **Match any condition** options is selected for each of the keywords and attributes. The following table shows how the logical operator that will be used between keywords and attributes is determined.

Table 3–15: How the logical operator that will be used between keywords and attributes is determined

Option selected for keywords	Option selected for attributes	Logical operator
Match all conditions	**Match all conditions**	AND
Match all conditions	**Match any condition**	AND
Match any condition	**Match all conditions**	AND
Match any condition	**Match any condition**	OR

The Specify item search conditions window is opened from the main window (Item list). The search conditions that can be specified and the Items that can be searched for differ depending on the node selected in the process work board list in the main window (Item list). The following table shows this difference.

Table 3–16: Conditions that can be specified and Items that can be searched for

Node selected in the process work board list	Search conditions that can be specified	Items that can be searched for
Process work board (top node)	The display elements for all Items[#]	All Items registered in JP1/IM - Service Support. Note that the range of Items that can be searched for can be specified as described in Table 3-13.
Target system	The display elements for all Items[#]	All Items registered in the selected target system. Note that the range of Items that can be searched for can be specified as described in Table 3-13.

Node selected in the process work board list	Search conditions that can be specified	Items that can be searched for
Process work board	The display elements for the Items that are set in the selected process work board	All Items registered in the selected process work board.

#

> The *Item search item form* is the Item form that is used for only Item searches. You can use it to define the elements to be displayed. For example, you can customize the display elements for Items that are created or displayed on a process basis. Alternatively, you might want to utilize the frequency of use as a filter to decrease the number of display elements. In such cases, you must customize the Item form for Item search. For details about how to customize that Item form, see *8.8 Customizing Item forms*.

Note:

> You cannot search for Items registered in process work boards that are waiting to be deleted.

The following figure shows two examples of the Specify item search conditions window. The one is an example when a target system node was selected before the window was opened, and the other is an example when the **Process work board node** was selected before the window was opened.

Figure 3–16: Two examples of the Specify item search conditions window
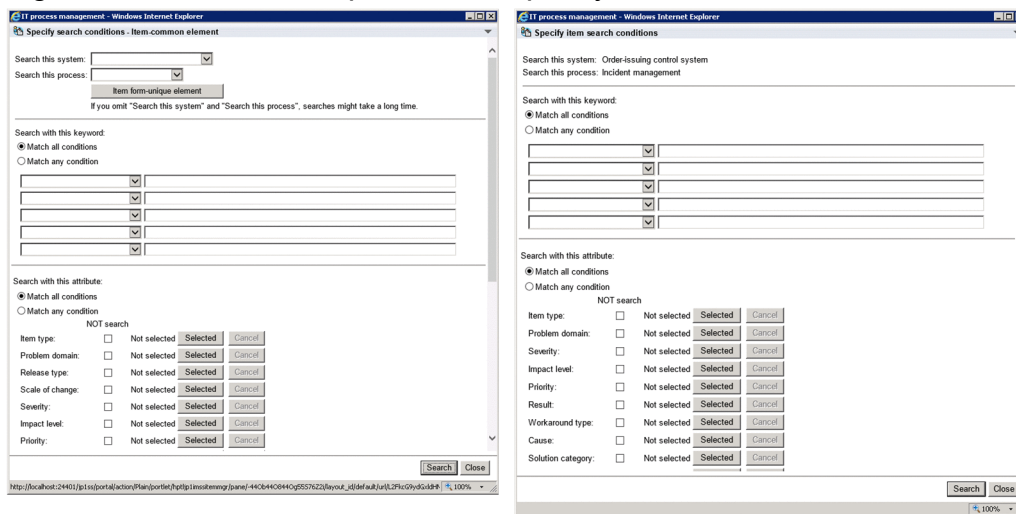
A target system node was selected before the window was opened.

The **Process work boards** node was selected before the window was opened.

If you are using the Item Management window function, the range of the Item Management window appears at the top of the window. The following figure shows the Specify item search conditions window with the Item Management window function enabled:

Figure 3–17: Two examples of the Specify item search conditions window (with Item Management window function enabled)
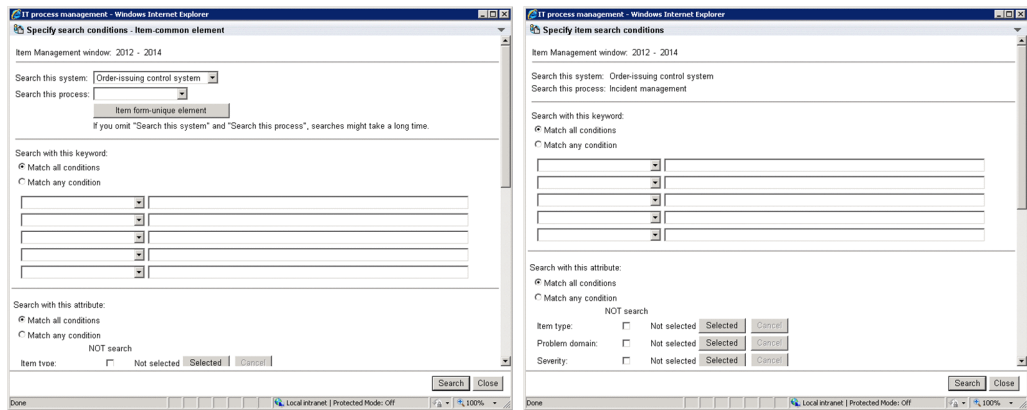
A target system node was selected before the window was opened.

The Process work boards node was selected before the window was opened.

3.4.2 Displaying search results

The results of a simple search or a search that you performed with the Specify item search conditions window are displayed in the List of item search results window.

The following figure shows the List of item search results window.

Figure 3–18: "List of item search results" window
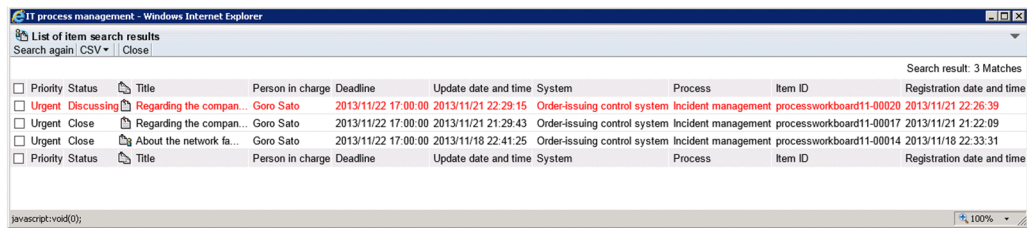
By default, the List of item search results window is sorted by registration date and time in descending order. Note that this window can display a maximum of 100 Items. If the number of Items that satisfy the search conditions exceeds 100, only the first 100 Items are displayed, and other Items are not displayed. In this case, `100+ Matches` is displayed as the number of matching Items. To display 101st and following Items, you must add search conditions to further narrow down the search results. For example, check the registration date and time of the 100th Item, and then click the **Search again** button. When the Specify item search conditions window appears again, enter a time earlier than the registration date and time of the 100th Item as an additional search condition, and then perform a search again.

The following describes the operations that can be performed in the List of item search results window.

Re-searching for Items:

When you click the **Search again** button, the Specify item search conditions window re-appears. In this window, the search conditions that were used for the previous search are displayed. If the previous search was a simple search, the search condition that was used is displayed in **Search with this keyword** in that window. By adding search conditions, you can further narrow down the search results.

Exporting a list of Items to a CSV file:

You can export a list of Items in the search results to a CSV file by clicking the **CSV** button. You can select the Items that you want to export. For details about exporting Items to a CSV file, see *3.13 Exporting Item information to a CSV file*.

Performing batch operations on Items

By clicking the **Batch Operation** button, you can perform batch operations on Items whose check boxes are selected in the List of item search results window. Note that this button only appears in systems where batch operations on Items are enabled. For details on batch operations on Items, see *3.7 Batch operations on Items*.

Displaying the information linked to a clickable item:

Clickable items are displayed in the **Title** and **Person in charge** fields. You can click such an item to display its detailed or related information.

3.5 Item creation

You can create Items in the following ways:
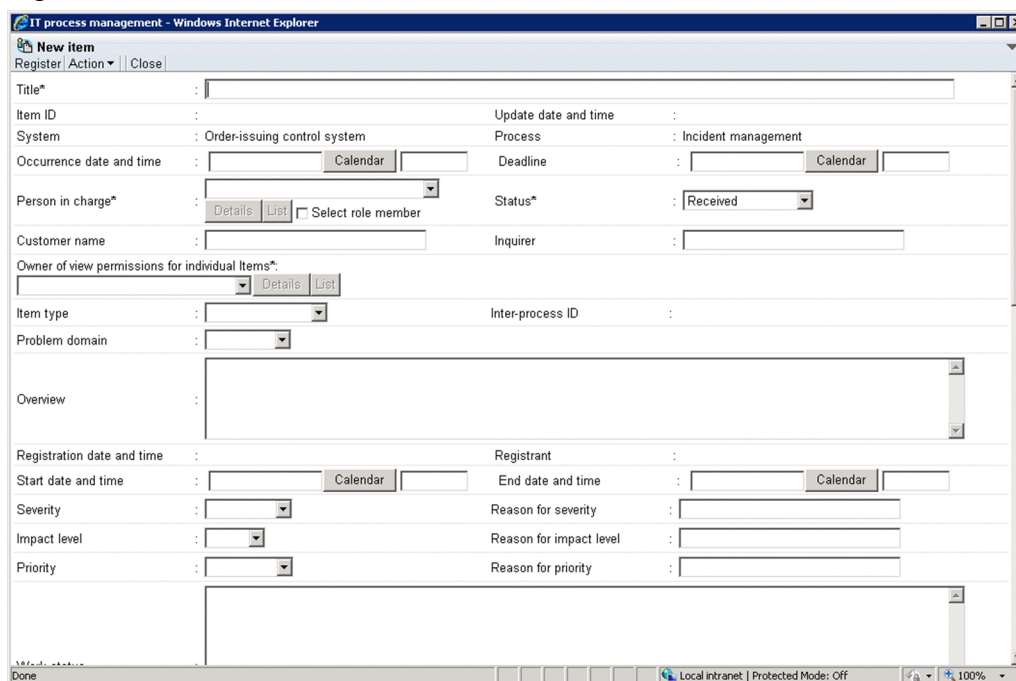
- Using the New item window
- Using the Item information of an existing Item
- Sending an email
- Using the `jssitementry` command

The following subsections describe these ways.

3.5.1 Creating an Item by using the "New item" window

This subsection describes how to create an Item by using the New item window. The following figure shows this window.

Figure 3–19: "New item" window

The following shows the types of settings that can be specified in the New item window, and describes the elements displayed in that window.

(1) Types of settings

There are the following six types of settings for an Item.

- Auto input
  Values are automatically input for these settings.
- Free text
  The user enters text values for these settings. The upper limits on the values that can be entered depend on the individual setting.

- Selectable

  The user selects values from preset values for these settings. Note that the **Person in charge** setting and the **Status** setting are mutually dependent. The values that can be selected for **Person in charge** change depending on the value selected for **Status**. The selectable **Person in charge** values also depend on the access permission settings. For details, see *3.11.2 Editing Item settings: Relationship between the status and person in charge*.

- Date and time

  The user enters date-and-time values for these settings.

- Links

  The user can add links to related Items or information.

- Attached files

  The user can attach files.

(2) Display elements

JP1/IM - Service Support provides a template called an *Item form* for each process. The elements displayed in the New item window are determined by how the template is defined. The following table describes the default settings for the elements that can be displayed in the New item window.

Table 3–17: Default settings for the elements that can be displayed in the "New item" window

Display element	Specification format (maximum)	Item form for			
		Incident management	Problem management	Change management	Release management
Title	Free text (The maximum number of characters is 512 if all of them are half-width alphanumeric characters and about 170 if all of them are full-width characters.)	Y	Y	Y	Y
System	Auto input	Y	Y	Y	Y
Process	Auto input	Y	Y	Y	Y
Item ID	Auto input	Y	Y	Y	Y
Inter-process ID	Auto input	Y	Y	Y	Y
Severity	Selectable from the following: **Emergency**, **Alert**, **Critical**, **Error**, **Warning**, **Notice**, **Information**, **Debug**	Y	Y	Y	Y
Reason for severity	Free text (The maximum number of characters is 512 if all of them are half-width alphanumeric characters and about 170 if all of them are full-width characters.)	Y	Y	Y	Y
Impact level	Selectable from the following: **Small**, **Middle**, **Large**	Y	Y	Y	Y
Reason for impact level	Free text (The maximum number of characters is 512 if all of them are half-width alphanumeric characters and about 170 if all of them are full-width characters.)	Y	Y	Y	Y
Priority	Selectable from the following:	Y	Y	Y	Y

Display element	Specification format (maximum)	Item form for			
		Incident management	Problem management	Change management	Release management
Priority	**Standard**, **Urgent**, **Very urgent**	Y	Y	Y	Y
Reason for priority	Free text (The maximum number of characters is 512 if all of them are half-width alphanumeric characters and about 170 if all of them are full-width characters.)	Y	Y	Y	Y
Item type	Selectable from the following: **Inquiry**, **Failure**, **Customer request**	Y	Y	--	--
Problem domain	Selectable from the following: **Application**, **Middleware**, **OS**, **Hardware**, **Network**, **Process**	Y	Y	--	--
Scale of change	Selectable from the following: **Small scale**, **Middle scale**, **Large scale**	--	--	Y	--
Release type	Selectable from the following: **Package release**, **Full release**, **Delta release**	--	--	--	Y
Status[#1]	Selectable from the following: For incident management: **Received**, **Investigating**, **Support Requested**, **Discussing**, **Acknowledged**, **Close** For problem management: **Received**, **Investigating**, **Discussing**, **Acknowledged**, **Support Requested**, **Close** For change management: **Received**, **Planning**, **Discussing**, **Acknowledged**, **Support Requested**, **Reviewing**, **Close** For release management: **Received**, **Planning**, **Discussing**, **Acknowledged**, **Support Requested**, **Close**	Y	Y	Y	Y
Result	Selectable from the following: For incident management: **Completed**, **Canceled**, **Not confirmed** For problem management: **Change completed**, **Known problem**, **Unknown cause** For change management and release management: **Succeeded**, **Failed (planning error)**, **Failed (human error)**, **Failed (others)**	Y	Y	Y	Y

Display element	Specification format (maximum)	Item form for			
		Incident management	Problem management	Change management	Release management
Occurrence date and time[#2]	Date and time	Y	Y	Y	Y
Solution category	Selectable from the following: **Knowledge**, **Document**, **User solution**, **Secondary support**, **Problem management**, **Third-party investigation**	Y	Y	--	--
Registrant[#3]	Auto input	Y	Y	Y	Y
Registration date and time	Auto input	Y	Y	Y	Y
Person in charge	User, role, or user belonging to a role	Y	Y	Y	Y
Deadline[#2]	Date and time	Y	Y	Y	Y
Start date and time[#2]	Date and time	Y	Y	Y	Y
End date and time[#2]	Date and time	Y	Y	Y	Y
Customer name	Free text (The maximum number of characters is 1,024 if all of them are half-width alphanumeric characters and about 340 if all of them are full-width characters.)	Y	Y	Y	Y
Inquirer	Free text (The maximum number of characters is 255 if all of them are half-width alphanumeric characters and about 85 if all of them are full-width characters.)	Y	Y	Y	Y
Cost (planned)	Integer from 0 to 2,147,483,647	--	--	Y	Y
Cost (actual)	Integer from 0 to 2,147,483,647	--	--	Y	Y
Hardware information	Link to JP1/AIM	Y	Y	Y	Y
Problem component and version	Free text (The maximum number of characters is 1,024 if all of them are half-width alphanumeric characters and about 340 if all of them are full-width characters.)	--	--	Y	--
Related item(s)	Links to related items	Y	Y	Y	Y
Related information	Links to URLs	Y	Y	Y	Y
Overview	Free text (The maximum number of characters is 2,048 if all of them are half-width alphanumeric characters and about 680 if all of them are full-width characters.)	Y	Y	Y	Y

Display element	Specification format (maximum)	Item form for			
		Incident management	Problem management	Change management	Release management
Workaround type	Selectable from the following: **None**, **Not operated**, **Operated in degraded mode**, **Restarted**, **File recovered**, **Change rolled back**, **Others**	Y	Y	--	--
Workaround	Free text (The maximum number of characters is 4,096 if all of them are half-width alphanumeric characters and about 1,365 if all of them are full-width characters.)	Y	Y	--	--
Work status	Free text (The maximum number of characters is 4,096 if all of them are half-width alphanumeric characters and about 1,365 if all of them are full-width characters.)	Y	Y	Y	Y

Cause	Selectable from the following:
	For incident management and problem management:
	    New software error, **Known software error**, **New hardware error**, **Known hardware error**, **Documentation error**, **Document missing**, **User error**, **Specifications**, **Third-party error**, **Process error**
	For change management and release management:
	    Customer request, **Function extension**, **Business requirement**, **Incident and problem fix**, **Process improvement**
		Y	Y	Y	Y

Fundamental cause	Free text (The maximum number of characters is 4,096 if all of them are half-width alphanumeric characters and about 1,365 if all of them are full-width characters.)	Y	Y	--	--
Solution	Free text (The maximum number of characters is 4,096 if all of them are half-width alphanumeric characters and about 1,365 if all of them are full-width characters.)	Y	Y	--	--
Schedule and main steps	Free text (The maximum number of characters is 4,096 if all of them are half-width alphanumeric characters and about 1,365 if all of them are full-width characters.)	--	--	Y	Y
Impact assessment for change	Free text (The maximum number of characters is 4,096 if all of them are half-width alphanumeric characters and about 1,365 if all of them are full-width characters.)	--	--	Y	--

Display element	Specification format (maximum)	Item form for			
		Incident management	Problem management	Change management	Release management
Discussions result	Free text (The maximum number of characters is 2,048 if all of them are half-width alphanumeric characters and about 680 if all of them are full-width characters.)	Y	Y	Y	Y
Free memo column	Free text (The maximum number of characters is 4,096 if all of them are half-width alphanumeric characters and about 1,365 if all of them are full-width characters.)	Y	Y	Y	Y
Product name	Free text (The maximum number of characters is 1,024 if all of them are half-width alphanumeric characters and about 340 if all of them are full-width characters.)	Y	Y	--	--
Jobnet name	Free text (The maximum number of characters is 1,024 if all of them are half-width alphanumeric characters and about 340 if all of them are full-width characters.)	Y	Y	--	--
Job name	Free text (The maximum number of characters is 1,024 if all of them are half-width alphanumeric characters and about 340 if all of them are full-width characters.)	Y	Y	--	--
SNMP source	Free text (The maximum number of characters is 1,024 if all of them are half-width alphanumeric characters and about 340 if all of them are full-width characters.)	Y	Y	--	--
Monitored node name	Free text (The maximum number of characters is 255 if all of them are half-width alphanumeric characters and about 85 if all of them are full-width characters.)	Y	Y	--	--
Alarm name	Free text (The maximum number of characters is 255 if all of them are half-width alphanumeric characters and about 85 if all of them are full-width characters.)	Y	Y	--	--
Attached file(s)	Files (a maximum of five files, each of which is not larger than 5 MB)	Y	Y	Y	Y
Update date and time	Auto input	Y	Y	Y	Y

Legend:

Y: Element that is displayed by default.

--: Element that is hidden by default.

#1

The selectable **Status** values in this table are system-provided values. The values that can actually be selected might be different if the Item form has been customized. For details, see *3.15 Status management*.

#2

Specify a date-and-time value in the *YYYY* / *MM* / *DD hh* : *mm* format. You can specify a value in the range from 1970/01/01 09:00 to 2107/01/01 00:00.

#3

To set a member who belongs to a role, make sure that the `hptl_jp1_imss_assigned_selection_checkbox` entry in the System property file (`hptl_jp1_imss_main_setting.properties`) is set to `display`. If this setting is specified, **Select role member** check box is displayed on the right of the label **Person in charge**. If you select this check box, you can select the name of a member who belongs to the role. In this case, however, you cannot select a role name.

For details about the System property file (`hptl_jp1_imss_main_setting.properties`), see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

The display elements listed in the above table can be customized. For details about customizing display elements, see *3.14 Item form management*.

3.5.2 Creating Items based on existing Items

You can create a new Item based on the contents of an existing Item registered in JP1/IM - Service Support. This approach is useful in the following circumstances:

- You want to create an Item based on the contents of a similar Item

  You can save time entering Item information by using the contents of an existing Item and changing only the parts that need changing.

- You want to re-use an Item as a template
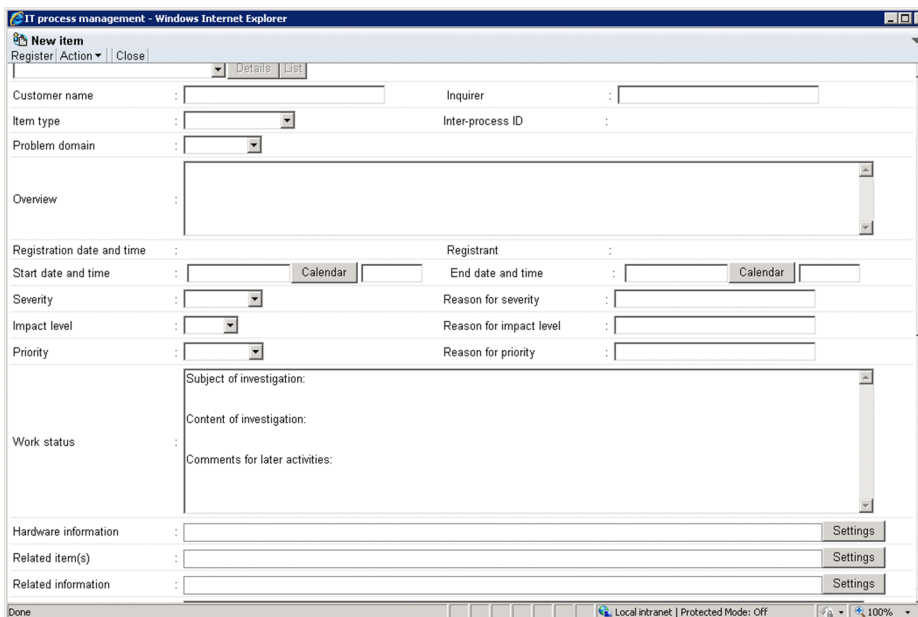
  For example, you might register an Item whose **Work status** field contains the text shown below. By creating new Items based on this Item, you can avoid entering the same information each time, and keep the format consistent between Items.

  Note:

  The Item you prepare as a template is counted when compiling Item statistics. To exclude this kind of Item from statistics, create a dedicated process work board in which to register the Item.

You can change the Item information of an Item that provides a template without stopping operation. If you want to change the Item form, however, you need to register the Item as another Item.

Figure 3–20: Example of registered Item to serve as template

(1) Inheriting Item information

When you create a new Item based on the contents of an existing Item registered in JP1/IM - Service Support, the new Item inherits the Item information of the original Item. Because Items in different processes have different display elements, the Item only inherits Item information for elements that appear in the Item forms of the source and destination processes. Item information is not inherited for the elements listed in the following table:

Table 3–18: Elements for which Item information is not inherited

No,	Element	Description
1	Target system (JIMSD_FORM_SYSTEM)	The new Item is automatically assigned the system name set for the process work board in which the Item is being created.
2	Process (JIMSD_FORM_PROCESS)	The new Item is automatically assigned the process name set for the process work board in which the Item is being created.
3	Item ID (JIMSD_FORM_ITEMID)	Set automatically when the Item is registered in JP1/IM - Service Support.
4	Inter-process ID (JIMSD_FORM_PROCESSITEMID)	
5	Status (JIMSD_FORM_ITEMSTATUSID)	Set by the user who creates the new Item based on the existing Item.
6	Registrant (JIMSD_FORM_REGISTRANT)	The new Item is automatically assigned the name of the user who creates the Item.
7	Person in charge (JIMSD_FORM_ASSIGNED)	
8	Registration date and time (JIMSD_FORM_REGISTDATE)	Set automatically when the new Item is registered in JP1/IM - Service Support.
9	Update date and time (JIMSD_FORM_LASTUPDATE)	
10	Event database serial number (JIMSD_FORM_IMEVENTNO)	Because this information is used to issue consolidated JP1 events for completed-action linkage, it is not set in the new Item.
11	JP1/IM - Manager host name (JIMSD_FORM_IMHOSTNAME)	

The way in which Item information is inherited when the data type of the element differs at the source and destination processes depends on the element being inherited. The following table describes the inheritance of Item information when elements have different data types:

Table 3–19: Item information inheritance when elements have different data types

No.	Element	Description
1	Additional element: Text (JIMSD_FORM_USERTEXT01 to JIMSD_FORM_USERTEXT20)	When the data type is textarea in the Item form at the source process and text in the Item form at the destination process, the system ignores line breaks when inheriting the Item information.
2	Additional element: User (JIMSD_FORM_USEREXTTYPE01 to JIMSD_FORM_USEREXTTYPE05)	When the data type (user or userrole) differs in the Item forms at the source and destination processes, Item information is not inherited for the element.

No.	Element	Description
3	Additional element: Link (`JIMSD_FORM_REFINFO01` to `JIMSD_FORM_REFINFO05`)	When the data type (`aim`, `url`, or `item`) differs in the Item forms at the source and destination processes, Item information is not inherited for the element.

If the automatic input of Item settings is enabled for the target process work board, the automatically input information has priority. This means that the automatically input values are entered in the new Item instead of the Item information of the existing Item. For details on the automatic input of Item settings, see *5.4.3 Using automatic input of Item settings*.

(2) Creating a new Item based on an existing Item

You can create a new Item based on the contents of an existing Item in the following windows:

- Main window (Item list)
- View Item window[#]

#

> You cannot create a new Item based on an existing Item if you opened the View Item window from the History display window.

The existing Item must be selected from a process work board that is in *Operating* status.

For details on how to create a new Item based on the contents of an existing Item, see the *Job Management Partner 1/ Integrated Management - Service Support Operator's Guide*.

3.5.3 Creating an Item by sending an email

This subsection describes how to register an Item in JP1/IM - Service Support by sending an email. The following figure shows an overview of this process.

Figure 3–21: Overview of registering an Item by sending an email
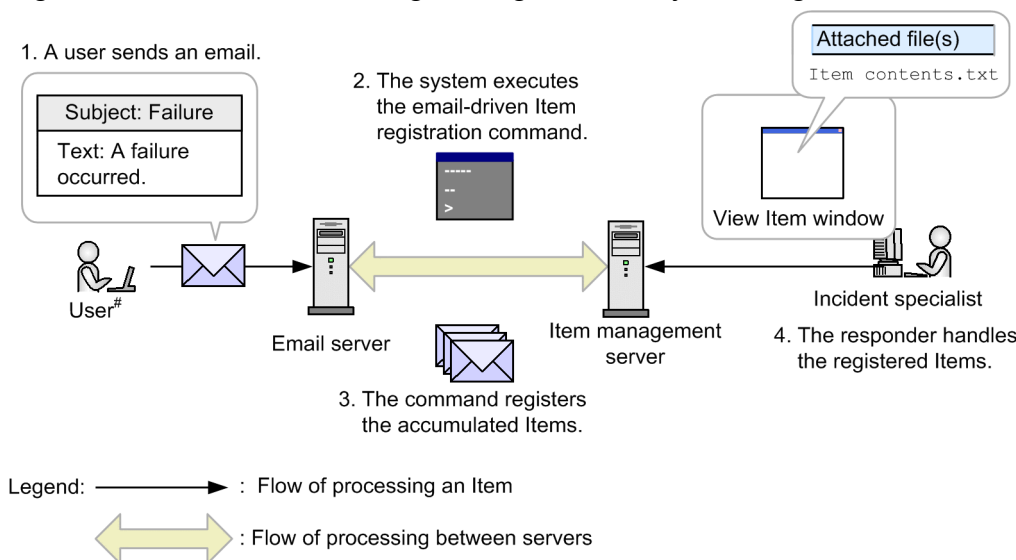
The following describes the steps in the figure:

1. A user sends an email.

   An enterprise system user sends an email that explains a desired Item to a specific address.

   Only users who have previously been set in the Email definition file can send such an email. The Email definition file also contains information such as the destination address and the email server. For details about this file, see *Email definition file (jp1imss_mail_setting.conf)* in *Chapter 12. Definition Files*.

2. The system executes the email-driven Item registration command.

   The Item management server executes the email-driven Item registration command. The JP1/Service Support - Task Service can execute this command at regular intervals. For details about the email-driven Item registration command, see *jssitementrybymail (registers emails as Items)* in *Chapter 11. Commands*.

3. The command registers the accumulated Items.

   The emails that have been accumulated on the email server are registered on the Item management server by an email-driven Item registration command.

   The emails accumulated on the email server are deleted after they are registered on the Item management server. If email-driven registration of an Item fails, the header and text of the relevant email are output to the following folder as a temporary email save file:

   IM-SS-path`\log\command\jssitementrybymail_mail_tmp_file`

4. The responder handles the registered Items.

   The incident specialist reads the text of the emails that have been saved as attached files for the registered Items, and then handles the Items. The incident specialist designated for an Item depends on the process work board of that Item. The user set as **Person in charge of the registered item from email** for the process work board is automatically assigned as the incident specialist. This setting can be specified in the New process work board window or the Edit the process work board window. For details, see *8.14 Setting an environment for registering Items by email*.

(1) Overview of the temporary receipt process work board and master system

The *temporary receipt process work board* is the default process work board in which Items created via email will be registered. If the ID of a specific process work board is specified in the subject of an email, the corresponding Item will be registered in the specified process work board. Items are registered in the temporary receipt process work board for all emails without a process work board ID specified in the subject. The temporary receipt process work board is displayed in the **List of process work boards** in the main window (Item list).

The *master system* is the target system in which the temporary receipt process work board is registered.

The temporary receipt process work board and master system can be created by using either the setup command or by using the command for creating a master system and temporary reception process work board, which is provided specifically for that purpose.

For details about the setup command, see *jsssetup.bat (sets up JP1/IM - Service Support)* in *Chapter 11. Commands*.

For details about the command for creating a master system and temporary reception process work board, see *jsscreatesysandpwb (creates the master system and the temporary receipt process work board)* in *Chapter 11. Commands*.

The following tables lists and describes the settings that can be specified during creation of the temporary receipt process work board and master system.

Table 3–20: Settings that can be specified during creation of the temporary receipt process work board

Setting		Description
Basic settings tab	**Process work board ID**	• If the setup command is used, the following string is set: `jp1TemporaryReceiptProcessWorkBoard` • If the command for creating a master system and temporary reception process work board is used, the string specified as the command's argument is set.
	System[#]	**A master system** is set.
	Process[#]	**Incident management** is set.
	Item form	**The process standard item form is used** check box is selected.
	State	**Operating** is set.
	Process work board administrator	**JP1 administrator** is set.
	Settings for pre-deadline email notification	The **Notify by email before the deadline** check box is not selected.
	JP1 event configuration	The **Issue JP1 event** check box is not selected.
	Person in charge of the registered item from email	**JP1 administrator** is set.
	View permissions for individual Items	The **Set reference permissions for individual Items** check box is not selected.
	Comment	The following string is set: `Temporary receipt of process work board for the item function using email`
Settings - Automatic item input tab		**The Property file for automatic Item-defaults input setting is being used** check box is selected.
Threshold setting tab		**The Item accumulation property file is being used** check box is selected.

#
    The settings other than **System** and **Process** can be edited by using the Edit the process work board window.

Table 3–21: Settings that can be specified during creation of the master system

Setting	Description
System ID	• If the setup command is used, the following string is set: `jp1TemporaryReceiptSystem` • If the command for creating a master system and temporary reception process work board is used, the string specified as the command's argument is set.
System name	**Master system** is set.
Comment	The following string is set: `Master system for the item function using email`

You can edit or delete the temporary receipt process work board in the same way as for other process work boards. Similarly, you can edit or delete the master system in the same way as for other target systems.

(2) Email elements used for registration of an Item

An email sent by the user is registered as an Item as described in the following table.

Table 3–22: Email elements used for registration of an Item

Email element	Description
Subject	The subject of an email sent by the user becomes the title of the Item to be created. The registration-destination process work board can also be specified in the subject. To specify the destination process work board, add #*process-work-board-ID*# at the beginning of the title.
Text	The text of an email is saved in a text file that is attached to the created Item. Therefore, attachment must be permitted in the Item forms that are used for the temporary receipt process work board and other process work boards in which Items might be registered.
Attached files	For security reasons, files must not be attached to any emails that are sent for registering Items. Files attached to such emails are not added to the Item management database. These files are saved in the attachment management folder on the Item management server.

(3) Settings of an Item registered via an email

Any Item registered via an email will have settings as described in the following table.

Table 3–23: Settings of an Item registered via an email

Item settings	Description
Title	The subject of the email is used as the title of the Item. Note that if the ID of the registration-destination process work board was specified in the subject, the ID specification (#*process-work-board-ID*#) is removed.
Item ID	The lowest available Item ID is automatically assigned when the Item is registered.
Update date and time	The date and time that the Item was registered on the Item management server is automatically set.
System	**A master system** is set. If the registration-destination process work board was specified in the subject of the email, the target system of that process work board is set.
Process	**Incident management** is set. If the registration-destination process work board was specified in the subject of the email, the process of that process work board is set.
Person in charge	The **Person in charge of the registered item from email** setting of the registration-destination process work board is specified. Note that the person set as **Person in charge of the registered item from email** is permitted to: • View any Items registered on the destination process work board • Edit any Items registered on the destination process work board when their status is *Received* (status ID: JIMSD_STAT_INQUIRY)
Status	**Received** (status ID: JIMSD_STAT_INQUIRY) is set.
Inter-process ID	The lowest available inter-process ID is automatically assigned when the Item is registered.
Registration date and time	The date and time that the Item was registered on the Item management server is automatically set.
Registrant	**JP1 administrator** is set.
Any one of extended user information 01 to 05[#]	If the option to set view permissions for individual Items is enabled for the target process work board, the user specified in the **Person in charge of the registered item from email** parameter for the target process work board is automatically set.

#

When view permissions are set for individual Items, this element is the extended user information you selected as the basis for assigning those view permissions. Values are not assigned to extended user information 01 to 05 if view permissions are not set for individual Items. For details on element selection when setting view permissions for individual Items, see *8.12 Setting an environment in which view permissions are set for individual Items*.

In addition to the above settings, settings whose values are automatically input might be specified. Automatic input settings can be specified in the Settings - Automatic item input tab of the New process work board window or the Edit the process work board window.

(4) Conditions in which an email is deleted from the email server

After an email that requests Item registration is sent to the email server, when an Item is registered on the Item management server, the email is deleted from the email server. Note, however, that the system might sometimes fail, for some reason, to output a temporary email save file or to save attached files in the attachment management folder. In such cases, the relevant email is not deleted from the email server. The following table shows the conditions under which an email is deleted or is not deleted.

Table 3–24: Conditions under which an email is deleted or is not deleted

Result of email-driven Item registration	Status of files attached to the email		
	No files are attached	Attached files are saved in the attachment management folder	Attached files are not saved in the attachment management folder
Registration succeeded.	Y	Y	N
Registration failed, but a temporary email save file was output.	Y	Y	N
Registration failed, and a temporary email save file was not output.	N	N	N

Legend:
    Y: The email is deleted.
    N: The email is not deleted.

If an email fails to be deleted although conditions for its deletion exist, manually delete the email.

Emails sent from users that are not registered in the email definition file are deleted from the email server.

(5) Notes on email-driven Item registration

- To prevent text corruption in an Item being registered, do not use any platform-dependent characters or any of the following characters in the subject and text of the email: ~, \, ＼ , ～ , ?, － , ￠ , ￡ , ￢

- Do not request creation of an Item using encrypted email. If you do so, text in the Item might be corrupted or registration of the Item might fail.

- If the registration-destination process work board specified in the email subject does not exist, the Item will be registered on the temporary receipt process work board.

- If the registration-destination process work board specified in the email subject is not in the *Operating* state, the Item will be registered on the temporary receipt process work board.

- If the Item form of the registration-destination process work board prohibits file attachment, the Item will be registered on the temporary receipt process work board. However, if the Item form of the temporary receipt process work board also prohibits file attachment, the Item will not be registered.

  Before you register Items, make sure that the Item form of the destination process work board permits file attachment. For details about Item form customization, see *8.8 Customizing Item forms*.

3.5.4 Creating an Item by executing a command

This subsection provides information about how to register an Item directly in the Item management database by executing the `jssitementry` command. If a failure occurs in the target system, Items can be registered automatically by using this command with an operation management product of the target system. For details about the `jssitementry` command, see *jssitementry (registers an Item)* in *Chapter 11. Commands*. For details about linkage with an operation management product, see *Chapter 4. Linkage with Other Products*.

3.5.5 Escalating an Item

An Item that cannot be handled by the current process can be escalated to another process. It is also possible to escalate an Item to a process in another target system. The escalation-destination process can be specified by using the Specify an escalation destination window. Note that you cannot escalate an Item that is being edited by another user. The following figure shows the Specify an escalation destination window

Figure 3–22: "Specify an escalation destination" window
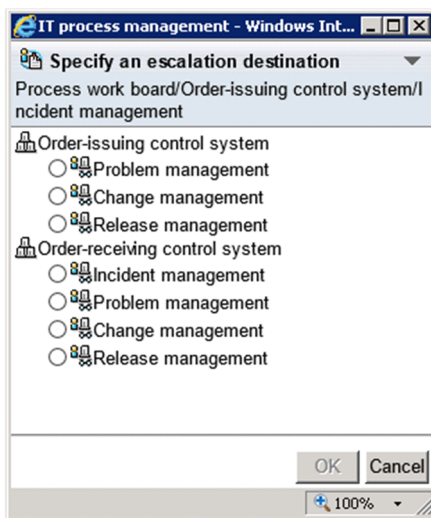
When you specify an escalation destination, the New item window for the destination process opens, displaying the values inherited from the source Item. Note that the displayed Item settings differ depending on the process. Therefore, only the values for the settings that exist in the Item forms of both the source and destination processes are inherited. Also note that there are settings whose values are not inherited from the source Item. The following table lists the values that are not inherited during escalation:

Table 3–25: Settings whose values are not inherited from the escalation source

No.	Setting	Description
1	**Target system**	The target system name that is set on the process work board at the escalation destination is automatically set.
2	**Process**	The process name that is set on the process work board at the escalation destination is automatically set.
3	**Item ID**	A value is automatically set when the escalated Item is registered in JP1/IM - Service Support.
4	**Inter-process ID**	
5	**Registrant**	The name of the user who escalated the Item is automatically set.
6	**Registration date and time**	A value is automatically set when the escalated Item is registered in JP1/IM - Service Support.

No.	Setting	Description
7	**Update date and time**	A value is automatically set when the escalated Item is registered in JP1/IM - Service Support.
8	**Status**	A value is set by the user who escalates the Item.
9	**Person in charge**	
10	**Owner of view permissions for individual Items**	

If the data types of the source and destination settings are different, values are inherited as shown in the following table:

Table 3–26: Inheritance of information between different data types

No.	Setting	Description
1	Added text items (JIMSD_FORM_USERTEXT01 to JIMSD_FORM_USERTEXT20)	If the escalation-source data type is textarea and the escalation-destination data type is text, the value is inherited but all line breaks are deleted.
2	Added users (JIMSD_FORM_USEREXTTYPE01 to JIMSD_FORM_USEREXTTYPE05)	If the escalation-source and escalation-destination data types (user or userrole) do not match, the value is not inherited.
3	Added links (JIMSD_FORM_REFINFO01 to JIMSD_FORM_REFINFO05)	If the escalation-source and escalation-destination data types (aim, url, or item) do not match, the value is not inherited.

3.5.6 Counting the number of registered Items

You can find out how many Items are registered in JP1/IM - Service Support by using the jssitemcount command. The command outputs a warning message when the number of additional Items that can be registered in a process work board falls below a threshold set in the system property file. A warning message is also output when the number of Items registered in a process work board has reached the maximum.

By checking how many Items are registered in JP1/IM - Service Support, you can delete non-essential Items before the maximum number of registered Items is reached. When using JP1/IM - Service Support Advanced Edition, you can refer to the output of the command when considering how many Items to migrate to the Item storage database.

For details on the jssitemcount command, see *jssitemcount (counts Items)* in *Chapter 11. Commands*. For details on the system property file, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

The number of Items that can be registered in a process work board differs between JP1/IM - Service Support products. For details, see *Appendix D. List of limits*.

3.6 Item editing

After an Item is registered in JP1/IM - Service Support, users can add information (such as investigation results) or change the status of the Item according to the progress of handling the Item. These operations are called *editing*.

If the option to set view permissions for individual Items is enabled for a process work board, a user can only edit the Items for which he or she is a view permissions owner. For details on setting view permissions for individual Items, see *3.11 Item access control*.

When using the Item storage database in JP1/IM - Service Support Advanced Edition, you cannot edit Items in the Item storage database.

You can edit an Item by using the Edit item window or the `jssitemedit` command. Each method is described below.

3.6.1 Editing Items in the Edit item window

This section describes how to edit an Item in the Edit item window. The settings that users can edit differ depending on the process. The following figure shows the Edit item window.

Figure 3–23: "Edit item" window

To prevent conflicts, you cannot edit an Item that is being edited by another user. The icons of Items in the list of Items in the main window (Item list) indicate whether the Items are being edited. The following describe these icons:

- Normal Item icon (🗎)

  This icon indicates that the Item is not being edited currently.

- Being-edited Item icon

  This type of icon indicates that the Item is being edited currently. There are the following two icons of this type:

  - 🗎

    This icon indicates an Item that you are currently editing. You can edit an Item that you are editing.

-

    This icon indicates an Item that someone else is currently editing. You cannot edit an Item that is being edited by another user.

- Stored Item icon[#] ( )

    This icon indicates an Item that is stored in the Item storage database. You cannot edit Items in the Item storage database.

#

    This icon appears when you use the Item storage database in JP1/IM - Service Support Advanced Edition.

- You can find out which user is currently editing an Item by viewing the **Currently-editing user** field in the View Item window. You can also display the detailed information about that user.

(1) Editing the contents of an Item

You can edit the contents of an Item after it is registered in JP1/IM - Service Support. For example, you can add investigation results, add links to web pages related to the Item, and attach files.

Note, however, that you cannot edit the following settings because their values are automatically set when an Item is created or updated:

- **System**
- **Process**
- **Item ID**
- **Inter-process ID**
- **Registrant**
- **Registration date and time**
- **Update date and time**

(2) Changing the status

The *status* is a setting that indicates to what extent an Item has been handled. The status names are defined for each process by JP1/IM - Service Support. One of the status names can be selected according to the work progress. The meanings of status names differ depending on the process.

In JP1/IM - Service Support, the user or role that can be selected as the person in charge of the Item changes according to the status. JP1/IM - Service Support performs this control based on the access permission settings. This prevents users from performing operations that are not permitted by their role. For details, see *3.11.2 Editing Item settings: Relationship between the status and person in charge*.

The status names in this subsection are default names. You can customize the status names to fit your operational requirements. For details, see *3.15 Status management*.

The following tables describe the meanings of status names for each process.

Table 3–27: Status names (in the incident management process)

Status name	Description
Received	In response to an incident report from a target system user, a reception specialist registered the incident as an Item.

Status name	Description
Investigating	The investigation specialist who was assigned to the incident is now collecting necessary data or creating an answer.
Support Requested	Problem management staff or external support staff is being asked to handle the incident.
Discussing	The approver is now considering the answer or workaround for the incident.
Acknowledged	The answer or workaround for the incident was approved.
Close	The target system user was answered, and the incident was closed.

Table 3–28: Status names (in the problem management process)

Status name	Description
Received	A problem Item escalated from incident management was registered. No processing for the Item has started yet.
Investigating	An investigation specialist was assigned to the Item, and is now investigating data such as logs.
Discussing	The results of investigation by investigation specialist are being discussed to determine the cause or workaround for the Item.
Acknowledged	The cause or workaround for the Item was approved.
Support Requested	Because a need for system reconfiguration arose, a reconfiguration request is being escalated to the change management.
Close	The problem was solved, and an answer about the cause or workaround was returned to incident management.

Table 3–29: Status names (in the change management process)

Status name	Description
Received	A change Item escalated from problem management was registered. No processing for the Item has started yet.
Planning	A plan consideration specialist was assigned to the Item, and is now creating a plan or evaluating impacts.
Discussing	The change plan created by the plan consideration specialist is being discussed.
Acknowledged	The change plan was approved, and is being circulated.
Support Requested	The approved change plan was escalated to release management, and release work is being requested.
Reviewing	Change or release work was completed, and the results are being reviewed.
Close	The change work was completed.

Table 3–30: Status names (in the release management process)

Status name	Description
Received	A release Item escalated from change management was registered. No processing for the Item has started yet.
Planning	A release specialist was assigned to the Item, and is now creating a release plan.
Discussing	The release plan was created and is being discussed.
Acknowledged	The release plan was approved, and release work has started.

Status name	Description
Support Requested	The release work was completed, and configuration management is being asked to update the configuration database.
Close	The release work was completed.

3.6.2 Editing Items using commands

You can use the jssitemedit command to find and edit an Item in the Item management database, using a process workboard serial number or event database serial number as the search key. When you use the jssitemedit command to edit an Item, the history of the Item is saved to the Item management database. For details on how to edit Items using the jssitemedit command, see *jssitemedit (edits an Item)* in *Chapter 11. Commands*.

3.7 Batch operations on Items

Many of the Items generated in the course of day-to-day operation do not require any further investigation or action by the operator. To reduce operator workload, the *batch operations on Items* function allows you to deal with several of these Items at a time by changing the status of multiple Items in a batch.

When using the Item storage database with JP1/IM - Service Support Advanced Edition, you cannot perform batch operations on Items in the Item storage database.

The following table shows the batch operations you can perform on Items:

Table 3–31: Batch operations that can be performed on Items

No.	Operation	Description
1	Batch approval of Items	Changes the status of Items to *Acknowledged*[#] (JIMSD_STAT_APPROVED).
2	Batch closure of Items	Changes the status of Items to *Close*[#] (JIMSD_STAT_CLOSE).

\#

    This is the default status name. In some environments, custom names might be used. For details, see *3.15 Status management*.

You can perform batch operations on Items from the **Batch Operation** menu in the following windows:

- Main window (Item list)
- List of item search results window

You need to enable batch operations on Items in a property file before you can perform the tasks described in this section. The user who performs the batch operation must also have the appropriate access permissions for the Items he or she is working with. Each of the required settings is described below.

Settings that allow batch operations on Items

    The following settings must be entered before you can perform batch operations on Items:

- Settings that enable batch operations on Items[#]
- Settings that specify which users can perform batch operations on Items[#]
- Setting that specifies how many Items can be edited at a time

    \#

        Separate settings are required for batch approval and batch closure of Items.

    The settings associated with batch operations on Items are entered in the system property file. For details on the system property file, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

Access permissions required for batch operations on Items

    The access permissions required to perform batch operations on Items depend on the batch operation being performed. If a person in charge who lacks the correct access permissions attempts to perform a batch operation on Items, the operation will fail.

    Access permissions required by users who perform batch operations on Items

        The following table shows the access permissions a user must have to perform batch operations on Items:

Table 3–32: Access permissions required for users who perform batch operations

No.	Operation	Permissions required prior to performing batch operation	Permissions required when performing batch operation
1	Batch approval of Items	• Permissions to view Items • Edit permissions for the Item or access permissions for the original status	Permissions to approve Items
2	Batch closure of Items		Permissions to close Items

Access permissions required by person in charge of Items

When performing a batch operation on Items, either of the following access permissions must be assigned to the user who is in charge of the Item or to the role assigned to the user:

- Permissions to view Items and permissions to edit Items

- Access permission for Items in *Close* or *Acknowledged* status

For details on access permissions, see *3.11 Item access control*.

If the option to set view permissions for individual Items is enabled for the process work board, you can only perform batch operations on Items for which you are a view permission owner. For details on setting view permissions for individual Items, see *3.11 Item access control*.

The subsections below describe the general procedure for batch operations on Items, and how to view and interpret the results of a batch operation.

3.7.1 Overview of batch operations on Items

This section describes, in general terms, how to change the status of Items to *Close* in a batch operation.

When you link JP1/IM - Service Support with JP1/IM - Manager, you can use automated actions to automatically register JP1 events managed by JP1/IM - Manager as Items in JP1/IM - Service Support. When you operate the system in this way, JP1 events that do not require any further action will be registered in JP1/IM - Service Support. These Items will remain in the system as uncompleted Items until a user changes their status to *Close*. The batch operations on Items function allows you to identify Items that do not require any further action and collectively change their status. The following figure shows an overview of this process:

Figure 3–24: Batch closure of Items

Check status

JP1/IM - View

View JP1 events

Automatically
register JP1
events

JP1/IM - M

JP1/Base

JP1 events for
completed-action
linkage

JP1/IM - SS

JP1/Base

JP1 events

Error

Host monitored by
JP1/IM - Manager

Operation division

Person in charge

- Checking automatically registered Items
- Checking the status

Further action required | No further action required

Request authorization | Close Items

Operation manager

Approve Items | Review results

Person in charge

Escalate Items

Development division

Investigate Items

• • •

Legend:

JP1/IM - M   : JP1/IM - Manager
JP1/IM - SS : JP1/IM - Service Support

: Flow of processing in JP1/IM - Manager, JP1/Base, and JP1/IM - Service Support

3.7.2 Results of batch operations on Items

You can perform batch operations on Items from the main window (Item list) and the List of item search results window. When you enable batch operations on Items, check boxes appear to the left of Items in the list of Items in the main window (Item list). The person in charge can select the check boxes for the relevant Items and change their status in a batch. The figures below show the main window (Item list) and the List of item search results window in a system with batch operations on Items enabled.

Figure 3–25: Main window (Item list) with batch operations on Items enabled
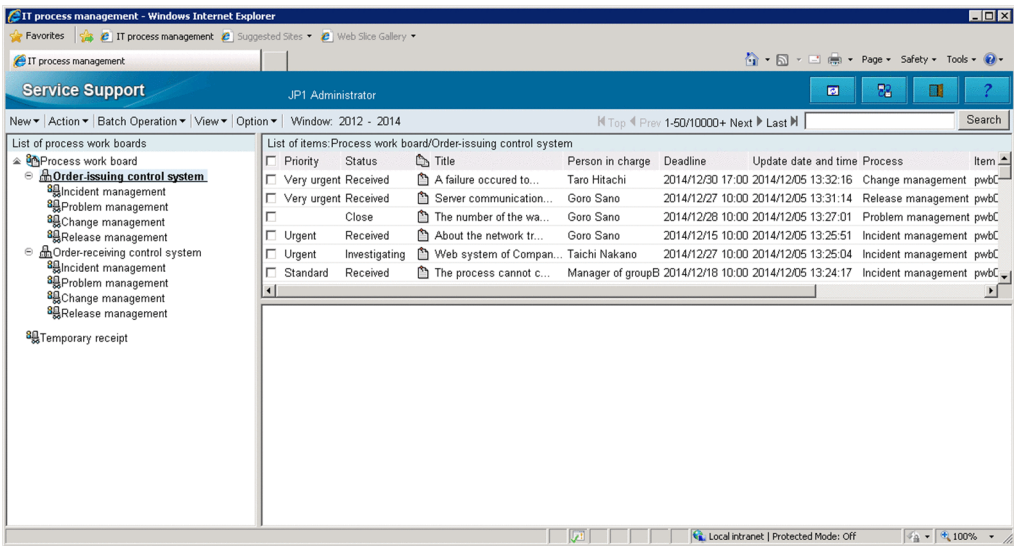
Figure 3–26: List of item search results window with batch operations on Items enabled
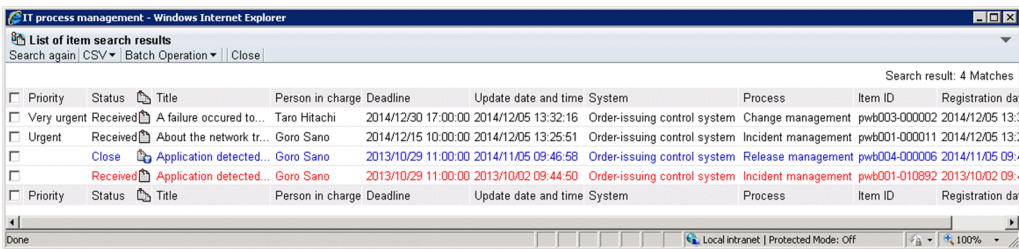
When performing batch operations from the main window (Item list), you cannot specify a number of Items equal to or greater than the maximum number than can be displayed in the list of Items[#].

\#

The maximum number of Items that can be displayed in the list of Items is governed by a setting in the system property file. For details, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

For details on the procedure for performing batch operations on Items, see the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*.

When you perform a batch operation on Items in the main window (Item list) or the List of item search results window, the results of the operation appear in the List of batch operation results window.

The following describes the information displayed in the List of batch operation results window, the JP1 events issued when batch operations on Items are performed, and the sending of notification emails.

(1) Results of batch operations

The results of batch operations in the List of batch operation results window appear in the **Editing results** and **JP1 event** columns.

The following table describes the execution results displayed in the **Editing results** column:

Table 3–33: Execution results in Editing results column

No.	Result[#1]	Description
1	**Success**	The Item was successfully edited.
2	**The Item was deleted.**	Displayed in the following circumstances: • The Item is in *Waiting to be deleted* status • The jssdelrec command was executed and the Item was deleted from the Item Management database
3	**Stored item**[#2]	The Item is a stored Item. The batch operation ends in an error for this particular Item because you cannot edit stored Items.
4	**The max. times an Item can be edited was exceeded.**	The Item has been edited the maximum number of times.
5	**Invalid permission**	The user does not have permission to edit the Item.
6	**Invalid state**	The status of the process work board is one that prevents its Items from being edited.
7	**The Item is being edited.**	The Item is being edited by another user.
8	**Invalid transition**	Displayed in either of the following circumstances: • - You attempted to change the status of the Item to a restricted status • - You are not using the *Acknowledged* status
9	**Invalid operator**	Displayed in either of the following circumstances: • - The person in charge of the Item was deleted before the batch operation was performed • - The person in charge of the Item before the batch operation does not have permission to be assigned to the Item in the new status
10	**A required item is not set.**	A mandatory element was omitted.
11	**Other**	An error such as a database access error occurred.

#1
   If there are several causes of errors for a given Item, causes are shown in order starting from No. 2 in the table.

#2
   Displayed in JP1/IM - Service Support Advanced Edition.

The following table describes the execution results displayed in the **JP1 event** column:

Table 3–34: Execution results in JP1 event column

No.	Result	Description
1	**Succeeded**	The JP1 event was issued successfully.
2	**Failed**	The JP1 event failed to be issued.
3	--	The Item does not issue JP1 events.

(2) JP1 events issued when performing batch operations

You can configure JP1/IM - Service Support to issue the JP1 events in the following table when a user performs a batch operation on Items.

Table 3–35: JP1 events issuable when performing batch operations on Items

No.	JP1 event	Description
1	JP1 event for completed-action linkage	Issued when a batch operation changes the status of an Item to *Close*.

No.	JP1 event	Description
1	(Event ID: 00005F00)	Issued when a batch operation changes the status of an Item to *Close*.
2	Status-change JP1 event (Event ID: 00005F01)	Issued when a batch operation changes the status of an Item to *Close* or *Acknowledged*.
3	Consolidated JP1 event for completed-action linkage (Event ID: 00005F02)	Issued when a batch operation changes the status of multiple Items to *Close* in a system where the consolidation of JP1 events is enabled[#]. This event represents JP1 events for completed-action linkage consolidated for a given host name (element ID: `JIMSD_FORM_IMHOSTNAME`). If the system issues a consolidated JP1 event for completed-action linkage, it does not issue JP1 events for completed-action linkage.

\#
  When consolidation of JP1 events is enabled, a JP1 event for completed-action linkage is issued even if the batch operation only closes a single Item. For details on JP1 events, see *5.11.1 Considering linkage with JP1/IM - Manager*.

To issue JP1 events, you need to enter settings in the following definition files:

- Configuration file for issuing JP1 events

  The settings in this file govern whether the system issues and consolidates JP1 events. For details on the configuration file for issuing JP1 events, see *Configuration file for issuing JP1 events (hptl_jp1_imss_jp1event_setting.properties)* in *Chapter 12. Definition Files*.

- Definition file for status-change JP1 events

  In this file, you can define the extended attributes to record in status-change JP1 events. For details on the definition file for status-change JP1 events, *Definition file for status-change JP1 events (hptl_jp1_imss_jp1event_status.properties)* in *Chapter 12. Definition Files*.

- Definition file for the extended event attributes

  In this file, you can set the name of extended attributes added to status-change JP1 events so that the event names can be displayed in JP1/IM - View. Although this definition file belongs to JP1/IM - Manager, a model file is provided with JP1/IM - Service Support. For details, see *8.15.1 Setting an environment for linking with JP1/IM - Manager*.

(3) Reporting batch operations by email

You can notify the user by email when Items are closed in a batch operation. Because details of the closure of each Item processed in the batch operation must be reported to the person in charge, these notifications are not consolidated even if the system is configured to consolidate JP1 events.

For details on notification by email, see *3.12 Email notification*.

3.8 Item deletion

You can delete Items that were created by mistake or are no longer necessary. You can use the user interface or a command to delete Items from the Item management database. The following subsections describe how to delete Items by using a window and by using a command.

When using the Item storage database in JP1/IM - Service Support Advanced Edition, you cannot delete stored Items individually. You can only delete the storage area as a whole. For this reason, you need to consider in advance how the Item storage database will be used in the JP1/IM - Service Support environment. For details on the Item storage database, see *3.9 Item storage*. For details on the considerations associated with use of the Item storage database, see *5.13 Considering the Item storage database*.

3.8.1 Deleting Items by using a window

This subsection provides information about how to delete Items by using the list of Items in the main window (Item list). Items deleted in this way disappear from the window but remain in the Item management database. Items in this state can be restored by using the jssrev command. To delete Items completely, use the jssdelrec command.

For details about how to delete Items by using the main window (Item list), see the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*. For details about how to delete Items completely from the Item management database by using the jssdelrec command, see *jssdelrec (deletes data from the Item management database)* in *Chapter 11. Commands*. For details about the jssrev command, see *jssrev (cancels batch deletion of Items)* in *Chapter 11. Commands*.

Note that the list of Items in the Status of related item or History display window displays Items that have already been deleted. However, you cannot display detailed information about those Items. Also note that you cannot search for deleted Items. When the option to set view permissions for individual Item is enabled for the process work board, you can only delete Items for which you are a view permission owner. For details on setting view permissions for individual Items, see *3.11 Item access control*.

3.8.2 Deleting Items by using a command

There are two commands that can be used to delete Items:

- jssitemdeletion command

  This command places Items in the *Waiting to be deleted* state. Whereas you can delete only one Item by using a window, you can delete many Items at once by using the jssitemdeletion command. This command is useful when you want to delete test Items created in the test environment or when free space in the Item management database is insufficient.

  For details on how to use the jssitemdeletion command to delete Items in a batch, see *10.2.2 Deleting Items from the Item management database*.

  For details about the jssitemdeletion command, see *jssitemdeletion (centrally places Items into the Waiting to be deleted status)* in *Chapter 11. Commands*.

  You could place necessary Items in the *Waiting to be deleted* state inadvertently by using the jssitemdeletion command. In such a case, you can use the jssrev command to restore those Items from the *Waiting to be deleted* state. For details about the jssrev command, see *jssrev (cancels batch deletion of Items)* in *Chapter 11. Commands*.

- jssdelrec command

After the `jssitemdeletion` command is used to place Items in the *Waiting to be deleted* state, the `jssdelrec` command is used to delete them completely from the Item management database. The `jssdelrec` command can also delete target systems or process work boards that are in the *Waiting to be deleted* state. For details about this command, see *jssdelrec (deletes data from the Item management database)* in *Chapter 11. Commands*.

3.9 Item storage

In JP1/IM - Service Support Advanced Edition, you can move Items from the Item management database to the *Item storage database* when those Items are no longer relevant to the routine operation of the system. By storing past Items in the Item storage database, you can use these Items as a knowledge base to be consulted as needed. When viewing and searching for Items in JP1/IM - Service Support, you do not need to know whether the Item is in the Item management database or the Item storage database.

Displaying Items stored in the Item storage database

Items stored in the Item storage database appear in blue text in the list of Items in the main window (Item list) and the List of item search results window. These Items also have a distinct editing status icon. The following figure shows an example of a main window (Item list) that includes stored Items:

Figure 3–27: Main window (Item list) showing Items stored in Item storage database
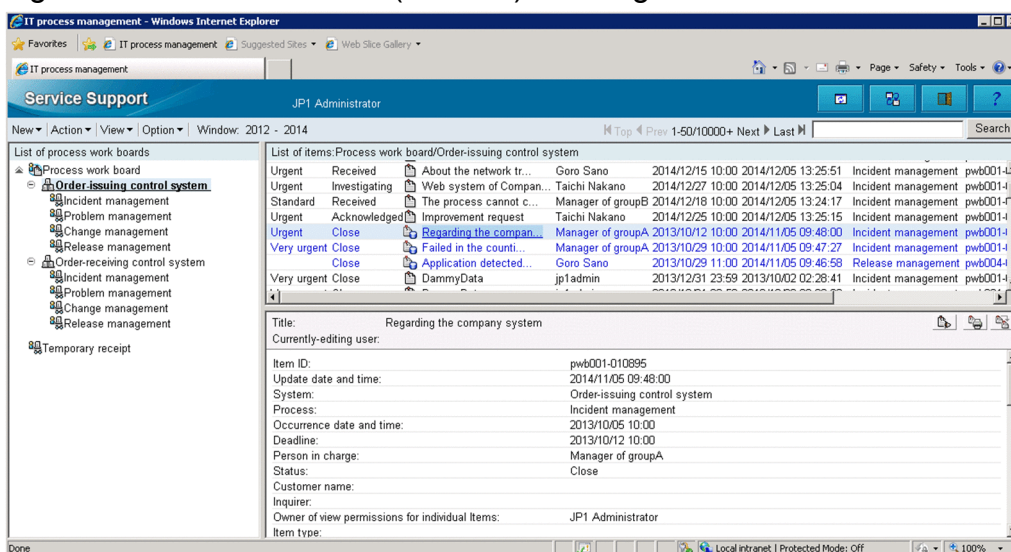
For stored Items, commands that involve any operation other than viewing the Item, such as editing and deletion, are unavailable in the **Action** menu.

By using the Item Management window function, you can search for Items more efficiently by limiting the scope to Items that are more closely relevant to the task at hand. For details on the Item Management window function, see *3.2.3 Item Management window function*.

Information stored in the Item storage database

The following information is stored in the Item storage database:

- Item information including escalation information and related information
- Files attached to the Item

Unit of storage in the Item storage database

The Item storage database manages Items on a storage area basis. In a given storage area, you can store Items created over a chosen number of years. You can store Items in a storage area as many times as you wish as long as the storage area has enough free space. Note that you cannot delete Items individually from the Item storage database. Items can only be deleted at the storage area level.

Using the Item storage database

When you store Items in the Item storage database, those Items are deleted from the Item management database. You cannot move a stored Item back to the Item management database. Before using the Item storage database, you need to consider aspects of its operation such as how many years of Items to store and the storage area in which to store them. For details on the matters you need to consider before using the Item storage database, see *5.13 Considering the Item storage database*.

Functions usable with stored Items

The following table lists the functions you can use on Items stored in the Item storage database, and how they compare to the same function performed on Items in the Item management database.

Table 3–36: Functions usable with Items in Item storage database and Item management database

Function	Item storage database	Item management database	Description
Item display	Y	Y	The function works the same way for Items in the Item storage database and the Item management database.
Item search	Y	Y	The function works the same way for Items in the Item storage database and the Item management database.
Item creation	N	Y	You can create and escalate Items in the Item management database.
Item editing	N	Y	You can edit Items in the Item management database.
Batch operations on Items	N	Y	You can change the status of Items in the Item management database in a batch.
Item deletion	Y	Y	You can delete individual Items from the Item management database. From the Item storage database, you can delete Items at the storage area level.
Item printing	Y	Y	The function works the same way for Items in the Item storage database and the Item management database.
Email notification	N	Y	Because you cannot create or modify Items in the Item storage database, you cannot use the email notification function with stored Items.
Exporting Item information to a CSV file	Y	Y	The function works the same way for Items in the Item storage database and the Item management database.
Status management	Y	Y	The function works the same way for Items in the Item storage database and the Item management database.
Command-driven database operations	Y	Y	There are differences in terms of the commands you can execute and the options you can specify for Items in the Item storage database and Item management database.

Legend:

Y: Can be used.

N: Cannot be used.

3.10 Item printing

You can use the print window to print Items registered in JP1/IM - Service Support. This involves using the print function of your browser to print the entire contents of the print window for a particular Item. When using JP1/IM - Service Support Advanced Edition, you can also print Items stored in the Item storage database.

The print window displays the same elements as the Item preview of the main window (Item list). You can display the print window for an Item even if the Item is being edited by another user. In this case, the user name of the user who is editing the Item appears in the **Currently-editing user** field.

The elements in the print window always display the latest Item information. If you display the View Item window for a past Item from the History display window, and then display the print window from this View Item window, the print window displays the latest Item information for that Item.

Because the print window is intended for Item printing, it differs from the preview area of the main window (Item list) in that you cannot click the anchor text. This means that you cannot view the following information directly from the print window:

- **Currently-editing user**
- **Related item(s)**
- **Related information**
- **Hardware information**
- **Attached file(s)**
- User-added properties that are displayed as links

The following figure shows the print window:

Figure 3–28: Print window

You can display the print window from the windows listed below. For details on how to display the print window, see the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*.

- Main window (Item list)

- View Item window

If the option to set view permissions for individual Items is enabled for the process work board, you can only print Items for which you are an Item view permissions owner. For details on setting view permissions for individual Items, see *3.11 Item access control*.

3.11 Item access control

JP1/IM - Service Support has functionality that controls access to Items. This functionality grants specific users specific access permission on a process work board basis. Because this functionality ensures that only appropriate users can manipulate Items, Items can be managed more safely. You can set access permissions from the Edit permissions window or by using the `jssaclimport` (import access permission information) command.

The following figure shows an overview of access permission settings.

Figure 3–29: Managing access permission settings
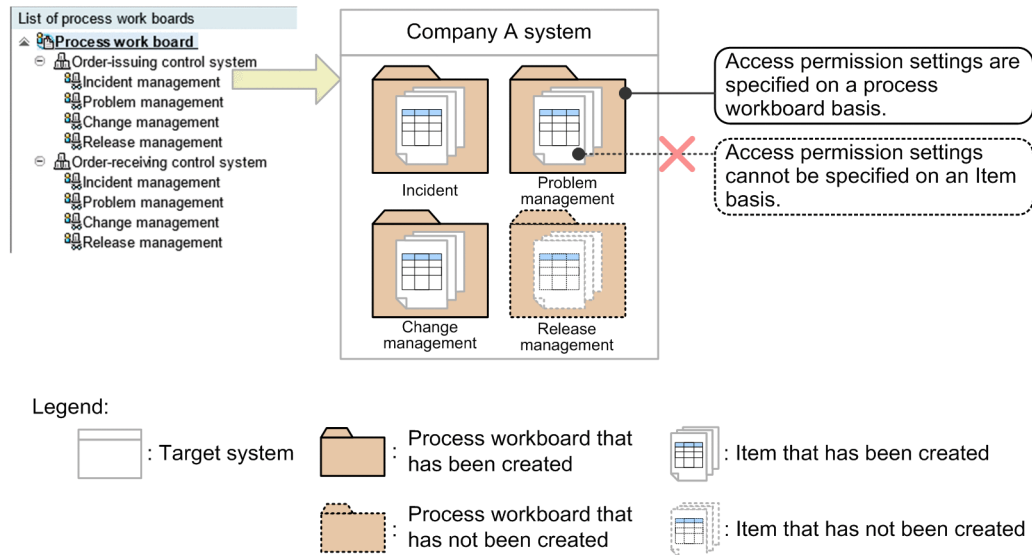
Access permission can be set on an operation basis, such as Item creation and Item editing. For Item editing, more fine-grain access permission can be set based on the status (for example, *Received* or *Close*). Access permission can be set for individual process work boards, but cannot be set for individual Items. However, by enabling the option to set view permissions for individual Items in a process work board, you can designate users as view permission owners for specific Items in that process work board.

When using the Item storage database in JP1/IM - Service Support Advanced Edition, stored Items can only be viewed even if an access permission other than view permission is set for the target process work board.

Setting view permission for individual Items

The option to set view permission for individual Items applies at the process work board level. You can assign view permission for individual Items for Items registered in a process work board with this option enabled. For an operation example of a system in which view permissions are set for individual Items, see *1.3.4 Controlling view permissions for individual Items*.

> **Tip**
>
> View permissions for individual Items are assigned based on roles. That is, you plan the roles that are to have view permissions for individual Items, and set the roles as view permission owners for individual Items as needed. For details on how to plan access permissions when setting view permissions for individual Items, see *5.2.3(5) Operation example (setting view permissions for individual Items)*.

When view permissions are set for individual Items in a process work board, you might wish for a particular user to be able to view every Item registered in the process work board. You can achieve this by assigning the work management

role (system management role) to the user. The following users can view the Items in a process work board even if they are not Item view permissions owners:

- Process work board managers
- Users who belong to the process work board management role (system role)

When using the Item storage database in JP1/IM - Service Support Advanced Edition, suppose that you enable view permission for individual Items in a process work board after storing its Items in the Item storage database. In this case, only the above users can view those Items in the Item storage database. If you want the stored Items to be accessible to other users, you need to register the Items again as new Items. When registering the Items again, set the relevant users as view permission owners for the new Items. For details, see *8.12 Setting an environment in which view permissions are set for individual Items*. You can streamline the process by creating new Items based on the existing ones. For details, see *3.5.2 Creating Items based on existing Items*.

3.11.1 Types of access permission

The following figure shows the types of access permission that can be set for a process work board.

Figure 3–30: Types of access permission that can be set for a process work board
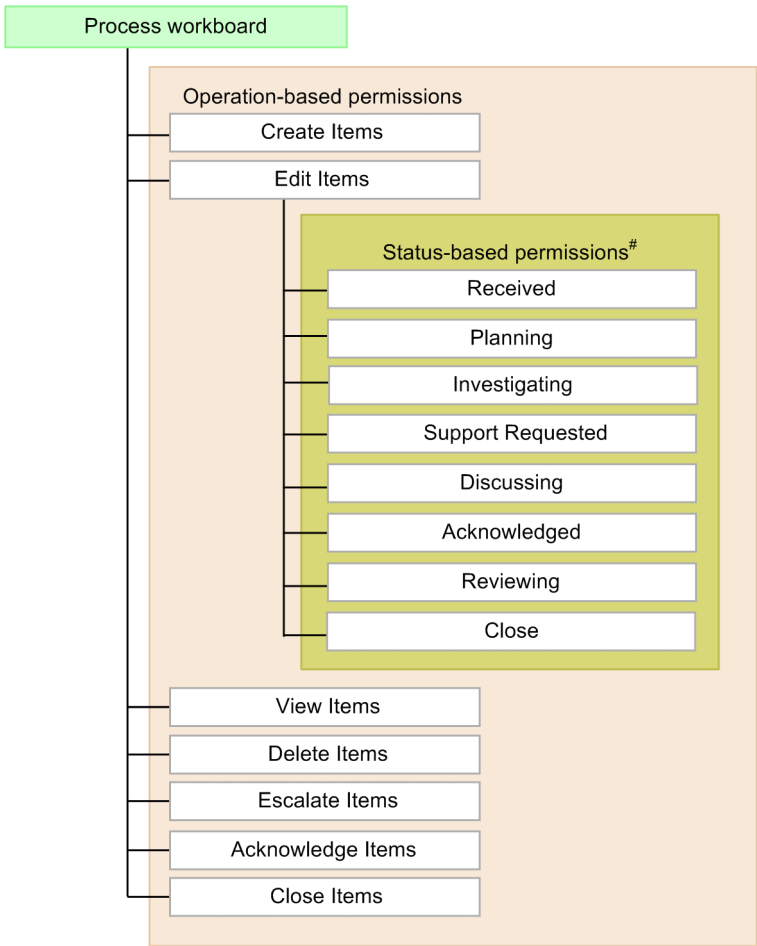
#: Status-based access permissions that can be set differ depending on the process.

Process work board managers and users who belong to the process work board management role can manipulate any Items regardless of the access permission set for the process work board. The following table describes the access permissions that can be set for process work boards.

Table 3–37: List of access permissions that can be set for process work boards

Operation-based permission	Description
Create Items	Permission that allows users to create Items and register them in the process work board.
Edit Items[1], [2]	Permission that allows users to edit all Items that are registered on the process work board. Users having this permission can change the status of Items to a status other than *Acknowledged* or *Close*. This permission also provides the following status-based permissions: • *Received*: Permission to edit Items that are in *Received* status • *Planning*: Permission to edit Items that are in *Planning* status • *Investigating*: Permission to edit Items that are in *Investigating* status • *Support Requested*: Permission to edit Items that are in *Support Requested* status • *Discussing*: Permission to edit Items that are in *Discussing* status • *Acknowledged*: Permission to edit Items that are in *Acknowledged* status • *Reviewing*: Permission to edit Items that are in *Reviewing* status • *Close*: Permission to edit Items that are in *Close* status The statuses that can be selected differ depending on the process type. Item editing permissions can also be set for user-created statuses.
View Items	Permission that allows users to view all Items that are registered on the process work board. The process work boards for which the logged-in user has this permission are displayed in the list of process work boards in the main window (Item list). The user can view Items registered in any process work boards displayed in the list. If view permissions are set for individual Items, you must be a view permission owner for the Items in question. The following users can view Items even if they are not view permission owners: • Process work board administrators • Users who belong to the process work board administrator role • Users who belong to the work management role
Delete Items[2]	Permission to delete any Items that are registered on the process work board
Escalate Items[2]	Permission to escalate Items to the process work board from another process work board
Acknowledge Items[2]	Permission to acknowledge any Items that are registered on the process work board
Close Items[2]	Permission to close any Items that are registered on the process work board

#1

The status names indicated here are default status names. These status names can be changed by customization. For details about status customization, see *3.15 Status management*.

#2

If the option to set view permissions for individual Items is enabled for the process work board, a user with these view permissions must also be set as a Item view permissions owner in the process work board.

3.11.2 Editing Item settings: Relationship between the status and person in charge

In JP1/IM - Service Support, Items are edited in either of the following ways, depending on operational requirements:

• A fixed user always edits an Item regardless of the status of the Item.

• The user who edits an Item changes according to the status of the Item.

If a fixed user should edit an Item regardless of the status, grant the Edit Items permission to that user.

If the user who edits an Item should change according to the status, assign a specialist to each status. If status-specific specialists are assigned, an Item's editor changes sequentially through the processing of the item.

Note that users who are assigned specialists must have the View Items permission and either of the following access permissions:

- Edit Items permission
- Relevant status-based access permission

For examples of processing an Item under access control, see *5.2.3(4) Operation example (processing an Item)*.

For details about operations to specify access permission settings, see *8.6 Assigning access permissions*.

3.12 Email notification

JP1/IM - Service Support has a function that sends an email to notify users of specific events, such as changing an Item, user, or role. This function is called *email notification*. With this function, when an Item is created or when a user or role is deleted, an email can be sent to a person in charge of the Item or to the process work board manager.

Before email notification can be used, the email definition file, the New process work board window, or the Edit the process work board window must be used to specify necessary settings. The necessary settings include which SMTP server will be used for email transmission and when an email is to be sent.

3.12.1 When an email is to be sent

The following table describes when JP1/IM - Service Support can send a notification email.

Table 3–38: When a notification email can be sent

Information to be sent	Description	Recipient
Item Created	An email is sent when: • An Item is created from the Edit item window. • An Item is created by using the `jssitementry` command. • An Item is created by using the `jssitementrybymail` command.	Person in charge of the Item
Item Escalated	An email is sent when an Item is escalated to the process work board.	Person in charge of the Item
Person in Charge Changed	An email is sent when: • The person in charge of an Item is changed from the Edit item window. • The person in charge of an Item is changed by using the `jssitemedit` command.	New person in charge of the Item
Near Deadline (Pre-deadline email notification)	An email is sent if the deadline of an Item is near (within the predefined number of days) when the `jssinformperiod` command is executed.[1] For details, see *3.12.3 Pre-deadline email notification*.	Person in charge of the Item and process work board manager
Unprocessed Item	An email is sent if there are Items that are assumed to have been left unprocessed for a long time when the `jssinformleave` command is executed.[1]	Person in charge of the Item and process work board manager
Item Closed	An email is sent when an Item that belongs to a process work board is closed.[2]	Person who created the Item
User/Role Deleted	An email is sent when a user or role is deleted.	Process work board manager

#1

If you want this notification email to be sent on a regular basis, you can use the JP1/Service Support - Task Service to schedule execution of the command.

An email sent to a person in charge or process work board manager can contain event reports on multiple Items on a process work board basis. The maximum number of Items for which events can be reported by one email is specified by using the Email definition file. For details, see *Email definition file (jp1imss_mail_setting.conf)* in *Chapter 12. Definition Files*.

#2

This notification email is also sent when Items are closed in a batch operation. The email is not consolidated even if the system is configured to consolidate JP1 events.

When an email is sent is defined in advance by using the Email definition file or the New process work board window (or the Edit the process work board window).

3.12.2 Item information that can be reported by email

The subject and body of a notification email include a variety of Item information. You can specify which information is included in the message by using the Email definition file.

The following figure shows an example of an email that is sent by JP1/IM - Service Support.

Figure 3–31: Example of email (sent when an Item was created)

```
[Item created: PWB-00001] Application error          ◄───────  Subject

  This email was automatically sent by JP1/Integrated Management- Service Support.      Header
  --------
  An Item was created in the process Incident Management in the system Web
  System.

  Item ID: PWB-00001
  Title: Application error
  Priority: Urgent
  Person in charge: Jeff Brown                                                          Text
  Deadline: 2007/12/13 17:15

  Do not reply to this email.
  To contact us, please send an email to the following address:
  jp1-ss@hitachi.com
  --------
  This email delivers information about an Item in JP1/Integrated Management -
  Service Support.
  For details, access the following URL.
  --------
  <URL>
  http://Server1:24401/jp1ss/portal/screen/TitlePortlet/portlet/hptljp1imssitemmgr/pane/     Footer
  -XXXXXXXXXXXXXXXXXXXX/layout_id/
  default?hptl_jp1_imss_pwb_intid_preview=1&hptl_jp1_imss_item_serno_preview=3
  &hptl_jp1_imss_item_escno_preview=1
```

Users can set subjects and text contents. Headers and footers are automatically generated by JP1/IM - Service Support.

To send an email shown above, you set the Email definition file as follows:

Example of setting the Email definition file:

```
hptl_jp1_imss_mail_item_create_title =[Item Created: %ITEMID%] %TITLE%
hptl_jp1_imss_mail_item_create_text = --------\nAn Item was created in the process %PROCESS%
in the system %SYSTEM%.\nItem ID: %ITEMID%\nTitle: %TITLE%\nPriority: %PRIORITY%\nStatus:
%STATUS%\nPerson in charge: %CHARGE%\nDeadline: %PERIOD%\n\nYou cannot reply to this email.
\nTo contact us, please send an email to the following address: \njp1-ss@hitachi.com
```

For details about how to set the Email definition file, see *8.13 Setting an environment by using definition files*.

The Item information you can include in the email depends on the information the email is reporting. For details on the information sent in a notification email, see *3.12.1 When an email is to be sent*.

For details on the Item information that can be included in the title and text of a notification email and how to specify what information the email contains, see *Email definition file (jp1imss_mail_setting.conf)* in *Chapter 12. Definition Files*.

3.12.3 Pre-deadline email notification

JP1/IM - Service Support can execute the `jssinformperiod` command to send an email the preset number of days before the deadline of an Item processing stage. To use pre-deadline email notification, the relevant settings must have been specified in the New process work board window or Edit the process work board window before the command is executed. These settings and the `jssinformperiod` command execution times determine the target Items for pre-deadline email notification. When executed, the command checks for Items whose deadline arrives before 23:59:59 on the day after the number of days specified in the New process work board window or Edit the process work board window. If there are such Items, the command sends notification emails.

The following describes an example of executing the `jssinformperiod` command when the settings for pre-deadline email notification are specified as shown below in the Edit the process work board window.

Case 1:

- **Notify by email before the deadline**: Selected
- **Number of days before the deadline**: 3
- **Notify once by email the number of days before the deadline**: Selected

Case 2:

- **Notify by email before the deadline**: Selected
- **Number of days before the deadline**: 3
- **Notify everyday by email from the specified number of days before the deadline until the deadline**: Selected

Pre-deadline email notification will send emails in the above two cases for Items scheduled as shown in the following figure. Explanations are below the figure.

Figure 3–32: Example of the Item processing schedule
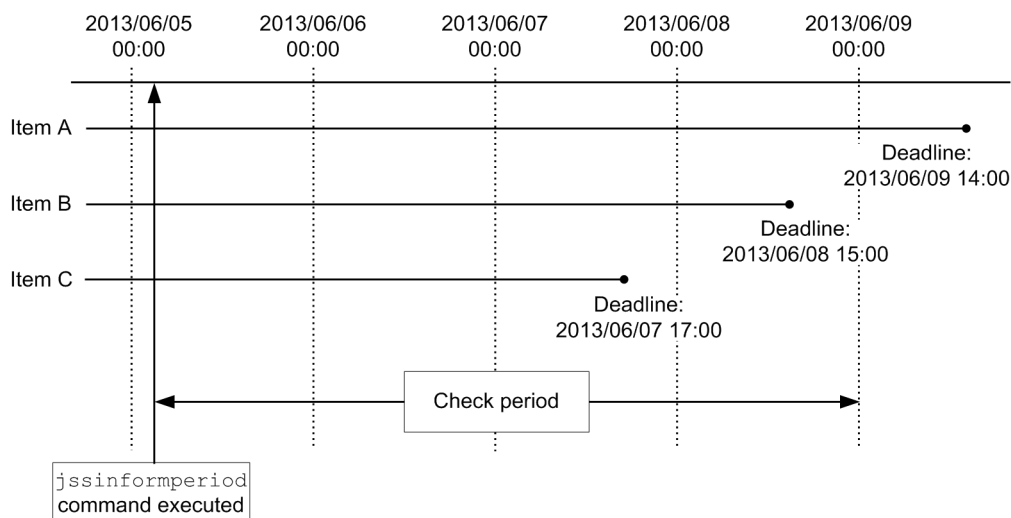
In the above example, the `jssinformperiod` command is executed at 03:00 on 2013/06/05. Therefore, the command sends notification emails for Items whose deadline is within the period from 03:00 on 2013/06/05 to 23:59:59 on 2013/06/08.

Case 1 (an email is sent only once on the day before the preset period):

Item A: The deadline is four days later. As this is outside the check period, a notification email is not sent.

Item B: The deadline is three days later, and is within the check period. A notification email is sent when the `jssinformperiod` command is executed.

Item C: The deadline is two days later, and is within the check period. Although the deadline is within the check period, a notification email is not sent because the day on which the email should have been sent has already passed.

Case 2 (an email is sent every day until the deadline):

Item A: The deadline is four days later. As this is outside the check period, a notification email is not sent.

Item B: The deadline is three days later, and is within the check period. A notification email is sent when the `jssinformperiod` command is executed.

Item C: The deadline is two days later, and is within the check period. Although the day before the predefined number of days from the deadline has already passed, because the option that sends an email every day is selected, an email is sent when the `jssinformperiod` command is executed.

Note that the `jssinformperiod` command can be executed periodically (at the same time every day) by using the JP1/Service Support - Task Service. In this case, an email is sent every day (when the `jssinformperiod` command is executed) on the last three days before the deadline.

For details about setting pre-deadline email notification in the New process work board window and Edit the process work board window, see *8.5 Creating process work boards*. For details about the `jssinformperiod` command, see *jssinformperiod (notifies of closing deadlines)* in *Chapter 11. Commands*. For details about the JP1/Service Support - Task Service, see *3.19 JP1/IM - Service Support services*.

Note that an email sent to a person in charge or process work board manager can contain event reports on multiple Items on a process work board basis. The maximum number of Items for which events can be reported by one email is specified by using the Email definition file. For details, see *Email definition file (jp1imss_mail_setting.conf)* in *Chapter 12. Definition Files*.

3.13 Exporting Item information to a CSV file

JP1/IM - Service Support provides a *CSV output function*, which exports Item data to a CSV file. Data of many Items can be saved in a single CSV file. With a listing of Item information in an exported file, you can analyze the occurrence trends of queries or failures. You can also output a CSV file as a backup of Items before maintenance of Item information or when terminating operation of a system or process work board that you are managing.

The CSV output function can output the following types of CSV files:

- Item details file (output of Item information)
  Item details such as the system name, person in charge, and status can be output.
  This type of CSV files can be output by using the List of item search results window or the `jssitemlist` command.

- Item history file (Item history output)
  Item historical information can be output to a CSV file.
  This type of CSV files can be output by using the `jssitemhistory` command.

- Item information CSV file or related information CSV file (export of extended Item information)
  This type of CSV file can be output by using the `jssitemexportEx` command.
  Note that if Item information includes attached files, the attached files are also output.

When you are using the Item storage database in JP1/IM - Service Support Advanced Edition, you can also output information about stored Items to CSV files.

For details about how to output Item information to a CSV file by using the List of item search results window, see the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*.

For details about the procedure for outputting a CSV file by using a command (and the file output format), see *jssitemlist (outputs a list of Items)*, *jssitemhistory (outputs Item history)*, or *jssitemexportEx (exports extended Item information)* in *Chapter 11. Commands*.

3.14 Item form management

JP1/IM - Service Support provides an Item form for each process, as well as the Item form that is used only for Item searches. You can customize these Item forms according to purpose. By customization, you can also use a different Item form for each target system. The following describes how to customize an Item form and how to use a different Item form for each target system.

3.14.1 Customizing an Item form

You can customize an Item form in the following ways:

- Adding Item form elements

- Changing Item form elements

  You can change the display name, display location, whether to show or hide, and selectable values (called *selection codes*) for an Item form element.

- Setting value-required Item form elements

  When you register or close an Item, you can set whether the Item requires entry of information for each Item form element.

An Item form can be customized by using the command for editing the Item form definition file or by using a text editor. An overview of each method is shown below.

Figure 3–33: Overview of customizing an Item form (by using the command for editing the Item form definition file)
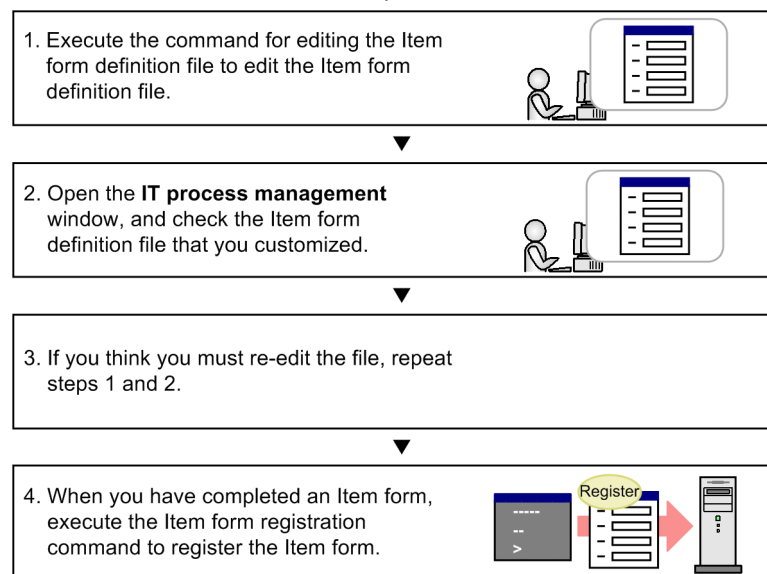
For details about how to customize the Item form definition file and how to view the detailed information of the file, see *8.9 Customizing an Item form definition file*.

For details about how to customize the process standard Item form, see *8.8 Customizing Item forms*.

Figure 3–34: Overview of customizing an Item form (by using a text editor)
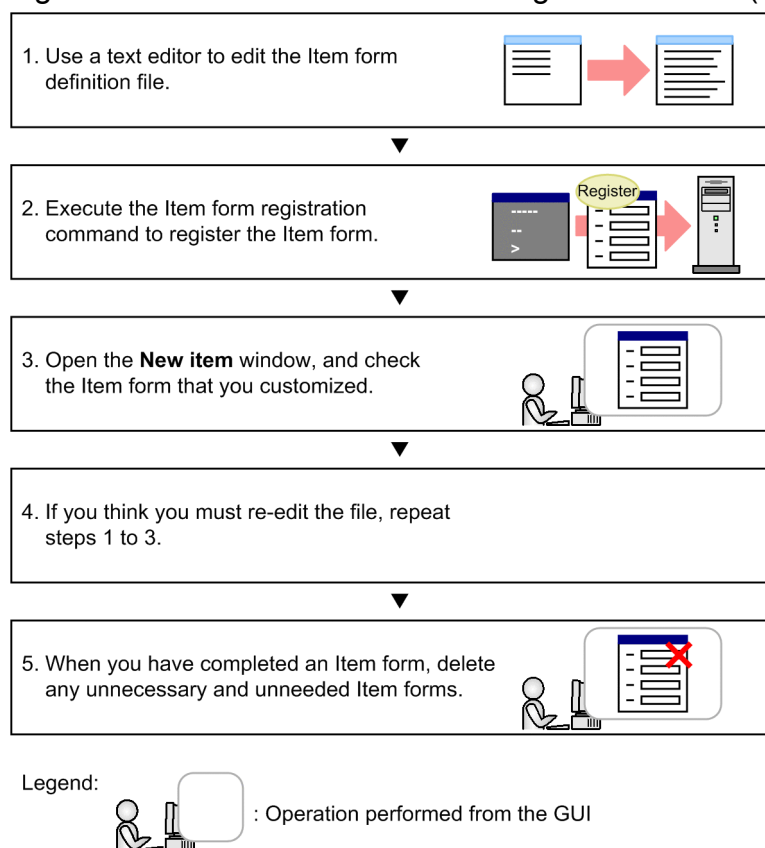
After you customize an Item form, you can use the Item form details window to check the Item form ID, Item form version, and other information. For example, you can also check whether the Item form is used for process work boards or Items, and which target systems the Item form is used for. When you perform Item form maintenance, check whether there are Item forms that are not being used, and delete those Item forms.

For details about how to customize Item forms, view detailed information about an Item form, delete Item forms, and specify the settings for the process standard Item form, see *8.8 Customizing Item forms*.

After customization, open the New item window, and confirm that the customization results are applied to the window. For how to open the New item window, see the chapter on creating Items in the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*.

Notes:

- The following display elements cannot be hidden because they are used in the headers of list boxes displayed in windows, such as the main window (Item list) and the **History display** window:

  Title, **Process**, **System**, **Item ID**, **Inter-process ID**, **Priority**, **Status**, **Registrant**, **Person in charge**, **Deadline**, **Update date and time**, and **Registration date and time**

- There are some display elements that cannot be changed or that cannot be set as value-required elements. For display elements that can be changed and that can be set as value-required elements, see *Item form definition file (Optional)* in *Chapter 12. Definition Files*.

> **▌ Reference note**
>
> To enter values quickly, you can provide input candidate values for display elements of an Item. While a user is creating or editing an Item, he or she can enter a candidate value simply by selecting it. For mutually dependent display elements, it is also possible to change the candidate values displayed for a

display element according to the candidate value selected for another display element. For details, see *4.6 Linkage with information managed in a system other than JP1/IM - Service Support*.

3.14.2 Using a different set of customized Item forms for each target system

You can use a different set of customized Item forms for each target system. You can also prepare a standard Item form for each process. A standard Item form prepared for an individual process is called a *process standard Item form*.

The Item form to be used is set on each process work board. For details about how to select the Item form to be used, see *8.5 Creating process work boards*. For details about how to set the process standard Item form, see *8.8.4 Setting process standard Item forms*.

3.15 Status management

The Item statuses used in JP1/IM - Service Support can be customized in accordance with the users' operational requirements. You can perform the following five types of status customization:

- Selecting the statuses to be used
- Changing the status display order
- Changing the names of statuses
- Limiting available statuses
- Prohibiting escalation

The above types of status customization are described below.

3.15.1 Selecting the statuses to be used

You can select the statuses to be used for each process or process work board. You can also freely assign names to use extended statuses as new statuses.

Note that some statuses cannot be made unavailable because they are used by the Item information import command or used for checking the Item status in the main window (Item status). These statuses are as follows:

- `Received` (Status ID: `JIMSD_STAT_INQUIRY`)
- `Close` (Status ID: `JIMSD_STAT_CLOSE`)

3.15.2 Changing the status display order

You can change the order of statuses displayed in the list of the status selection combo box for each process or process work board.

3.15.3 Changing the names of statuses

You can change the names of statuses for each process.

Because the names of statuses can be changed, each status is identified with a unique status ID. Although the name of a status can be changed, the status ID of a status cannot be changed. The following table lists the default names and status IDs of statuses.

Table 3–39: Default names and status IDs of statuses

Status name	Status ID
Received	JIMSD_STAT_INQUIRY
Investigating	JIMSD_STAT_RESEARCH
Planning	JIMSD_STAT_PLANNING
Discussing	JIMSD_STAT_DISCUSSING

Status name	Status ID
Acknowledged	JIMSD_STAT_APPROVED
Support Requested	JIMSD_STAT_WAITING
Reviewing	JIMSD_STAT_REVIEW
Close	JIMSD_STAT_CLOSE
Extended status 01	JIMSD_STAT_USER01
Extended status 02	JIMSD_STAT_USER02
Extended status 03	JIMSD_STAT_USER03
Extended status 04	JIMSD_STAT_USER04
Extended status 05	JIMSD_STAT_USER05
Extended status 06	JIMSD_STAT_USER06
Extended status 07	JIMSD_STAT_USER07
Extended status 08	JIMSD_STAT_USER08
Extended status 09	JIMSD_STAT_USER09
Extended status 10	JIMSD_STAT_USER10

The statuses whose status IDs begin with JIMSD_STAT_USER are extended statuses that users can use for their own purposes. By default, 10 extended statuses are provided. You can add extended statuses or hide unnecessary extended statuses. The number of extended statuses can be changed by using the system property file. For details, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

If you change the names of statuses other than extended statuses, do not change the names to names whose meanings are completely different from the default names. Doing so has an impact when checking the Item status in the main window (Item status). The following explains a possible impact on the number of Items in *Discussing* status when the Item status is being checked from the process perspective. The number of Items in *Discussing* status is, to be exact, the total number of Items in the status whose status ID is JIMSD_STAT_DISCUSSING. Here, assume that you rename the status with the status ID of JIMSD_STAT_DISCUSSING from *Discussing* to *Under suspension*. In this case, in the main window (Item status), the number of Items that should be displayed as *Under suspension* Items is displayed as the number of *Discussing* Items.

Changes to status names affect the Item information import command. Therefore, if you change status names, you must also edit the code mapping file. For details, see *Code mapping file (jp1imss_itemimport_codemap.conf)* in *Chapter 12. Definition Files*.

3.15.4 Limiting available statuses

You can limit the statuses that can be used for each process work board.

By limiting available statuses, Items can be processed smoothly as defined in advance.

(1) Limiting the available statuses of registered Items to only "Received"

You can limit the available statuses for registered Items to only *Received* for each process work board.

(2) Limiting the next status of Items

You can limit the status in which Items will be place in the next stage for each process work board.

3.15.5 Prohibiting escalation

You can set statuses in which Items cannot be escalated for each process work board.

3.16 Item status management

In JP1/IM - Service Support, you can use the following three methods to manage the work statuses of Items:

1. Accumulating Items from the system perspective

2. Accumulating Items from the process perspective

3. Outputting accumulated Item data to a file

For methods 1 and 2, use the main window (Item status) to check the accumulation results. For method 3, output a CSV file from the Accumulation data output to file window. You can open this window from the menu in the main window (Item status).

Note that in JP1/IM - Service Support Advanced Edition, you can only collect and output accumulation data that relates to Items in the Item management database.

The following figure shows the main window (Item status).

Figure 3–35: Main window (Item status)
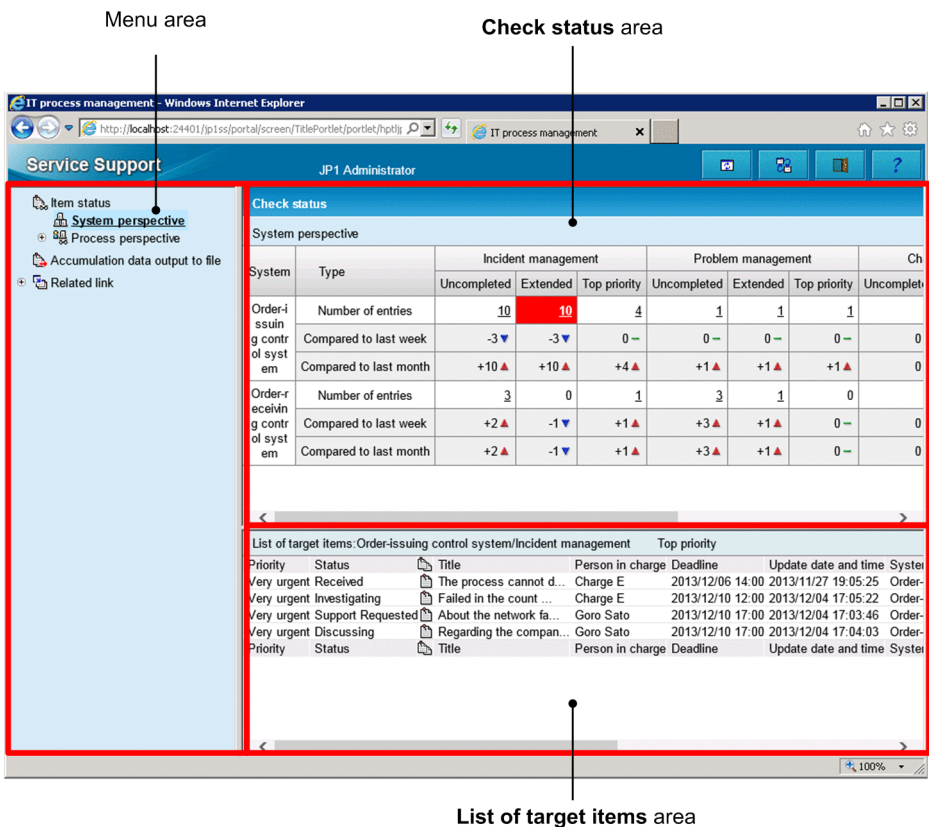
Menu area:

The **Item status**, **Accumulation data output to file**, and **Related link** nodes are displayed. Under the **Item status** node, perspectives that can be used for accumulating Items are displayed. Under a perspective node, the systems for which Item statuses can be checked are displayed. The statuses of Items in the selected system are displayed from the selected perspective in the **Check status** area. You can define the number of links, display names, and URLs displayed for the **Related link** node by using the related-links property file. For details on the related-links property file, see *Related-links property file (hptl_jp1_imss_link_setting.properties)* in *Chapter 12. Definition Files*.

When you select the **Accumulation data output to file** node, the Accumulation data output to file window opens. From this window, you can output accumulated Item data to a CSV file.

Under the **Related link** node, links to the login windows for linked products that are registered, links to websites related to the linked products, and other links are displayed. When you click a link under this node, the link target is displayed in a new window.

Check status area:

Displays the Item status accumulation results from a system or process perspective for a system as selected under the **Item status** node in the menu area. When the main window (Item status) is opened, results from the system perspective are displayed by default.

The **Number of entries** row in this area displays the current status. The **Compared to last week** and **Compared to last month** row display the status as of the previous day based on the data that was accumulated by using the `jsscollectdata` command.

If you log in as a user who belongs to the work management role, you can check the statuses of Items of all process work boards managed in JP1/IM - Service Support.

If you log in otherwise, you can only check the statuses of Items of the process work boards that you are permitted to view.

If view permissions for individual Items are enabled, Items for which you are not an Item view permissions owner contribute to the totals in this area.

List of target items area:

When you select a value in a **Number of entries** row in the **Check status** area, the relevant Items are displayed in the **List of target items** area. A maximum of 100 Items can be displayed. When the main window (Item status) is opened, in the **List of target items** area, Items of the first non-zero **Top priority** cell (from the left of the first **Number of entries** row) are displayed by default.

If view permissions for individual Items are enabled, Items for which you are not an Item view permissions owner do not appear in this area. This means that the number of Items in the **Check status** area might differ from the number of Items in the **List of target items** area. In this case, the message `Some Items could not be displayed, because you do not have the necessary reference permissions` appears in the header of the **List of target items** area.

The following describes the information that can be checked from the system perspective, the information that can be checked from the process perspective, and the information that can be output to a CSV file.

3.16.1 Accumulating Items from the system perspective

If you select **System perspective** in the menu area, you can check the statuses of Items in all systems managed by JP1/ IM - Service Support.

The following figure shows the main window (Item status) when **System perspective** is selected.

Figure 3–36: Main window (Item status) (system perspective)

Check status area

List of target items area
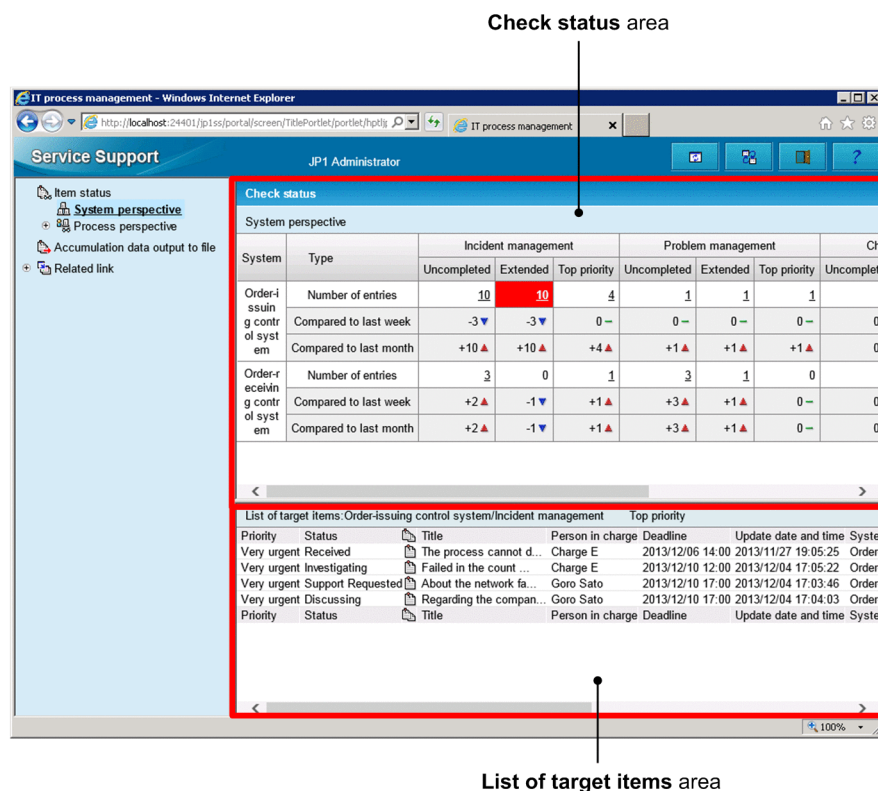
The following describes the **Check status** and **List of target items** areas when **System perspective** is selected.

(1) "Check status" area

The **Check status** area displays the number of Items in each status for each process on a system basis. The following table describes the information displayed in this area.

Table 3–40: Information displayed in the "Check status" area (system perspective)

Element	Description
System	Displays the systems that the logged-in user is permitted to view.
Type	Displays the following three rows for each system: • **Number of entries**: Number of current Items • **Compared to last week**: Difference from the number of Items seven days ago • **Compared to last month**: Difference from the number of Items 30 days ago
Uncompleted	Displays the number of Items whose status is not *Close* (status ID: `JIMSD_STAT_CLOSE`).[#1]
Extended	Displays the number of Items that satisfy all of the following conditions: • The status is not *Close* (status ID: `JIMSD_STAT_CLOSE`).[#1] • The end date and time is not set. • The time elapsed from the day that the Item was registered has already reached either of the following times: the time set on the **Threshold setting** tab in the New process work board (or Edit the process work board) window or the time set in the Item accumulation property file (`hptl_jp1_imss_main_setting_kpi.properties`) For details about the **Threshold setting** tab, see *3.2.1(2) Process work board settings*. For details about the Item accumulation property file, see *Item accumulation property file (hptl_jp1_imss_main_setting_kpi.properties)* in *Chapter 12. Definition Files*.
Top priority	Displays the number of Items that satisfy both of the following conditions:

Element	Description
Top priority	• The status is not *Close* (status ID: `JIMSD_STAT_CLOSE`).[#1] • The priority is *Very urgent*.
Difference icons[#2]	One of the following three icons is displayed to indicate the difference from the last week or month: • 🔺 (Increased) Indicates that the number of Items in the category has increased from the last week or month. • 🔻 (Decreased) Indicates that the number of Items in the category has decreased from the last week or month. • ➖ (Not changed) Indicates that the number of Items in the category has not changed from the last week or month.

#1

    Close is the default name, and therefore might be changed by customization. For details about status customization, see *3.15 Status management*.

#2

    An icon is displayed only when the value with which the relevant value is to be compared exists.

Non-0 values in the **Number of entries** rows are clickable items. If you click such a value in a **Number of entries** row, the relevant Items are displayed in the **List of target items** area. If a value displayed in a **Number of entries** row exceeds a certain threshold, the cell containing the value is displayed in red as a sign of warning.

Dashes are displayed for process work boards that do not exist in a system or that the logged-in user is not permitted to view.

(2) "List of target items" area

The **List of target items** area displays a maximum of 100 Items in the category selected in the **Check status** area. The displayed Items are sorted by deadline in ascending order.

By right-clicking the title of an Item, you can display the View Item window, the History display window, or the Work status display window. By right-clicking a person in charge, you can display the List of members window, the User details window, the List of roles window, or the Role details window.

For details about the columns of the **List of target items**, see *3.2.2(1) List of Items*. Note that unlike the Item list of the main window (Item list), the **List of target items** area of the main window (Item status) does not display the **I**, **P**, **C**, and **R** columns.

3.16.2 Accumulating Items from the process perspective

If you use the process perspective, you can select a specific system to access Item status information on a process basis. Such process based information is more detailed than that available from the system perspective.

The following figure shows the main window (Item status) when **Process perspective** is selected.

Figure 3–37: Main window (Item status) (process perspective)

Check status area

List of target items area
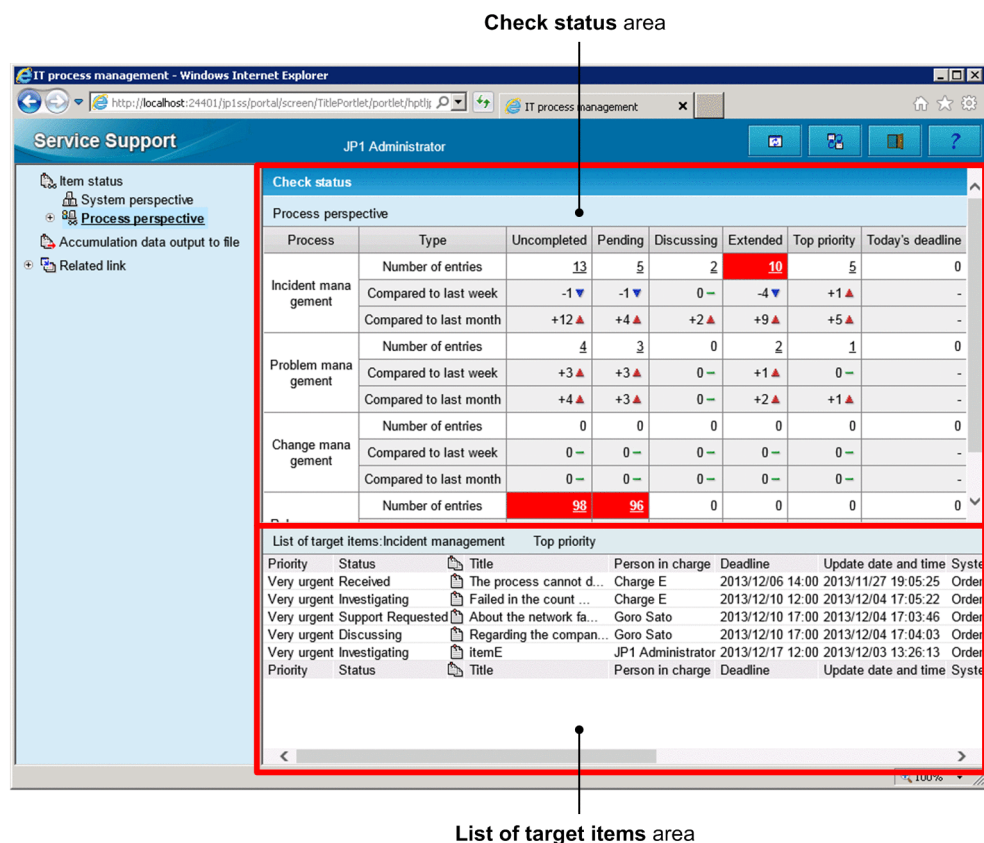
The following describes the **Check status** and **List of target items** areas when **Process perspective** is selected.

(1) "Check status" area

The **Check status** area displays the number of Items in each status on a process basis. Note that the Items registered in the temporary receipt process work board are assumed as those for incident management. If you select the **Process perspective** node in the menu area, Item status information about all systems under the node is displayed. If you select a specific system under the **Process perspective** node, Item status information about the system is displayed.

The following table describes the information displayed in the **Check status** area.

Table 3–41: Information displayed in the "Check status" area (process perspective)

Element	Description
Process	Displays processes. If you click the name of a process when both of the following conditions exist, the View the process work board window for the process opens: • A specific target system is selected in the menu area. • The logged-in user is permitted to view the process work board for the process.
Type	Displays the following three rows for each process: • **Number of entries**: Number of current Items • **Compared to last week**[1]: Difference from the number of Items seven days ago • **Compared to last month**[1]: Difference from the number of Items 30 days ago
Uncompleted	Displays the number of Items whose status is not *Close* (status ID: `JIMSD_STAT_CLOSE`).[2]
Pending	Displays the number of Items whose status is *Received* (status ID: `JIMSD_STAT_INQUIRY`).[2]

Element	Description
Discussing	Displays the number of Items whose status is *Discussing* (status ID: `JIMSD_STAT_DISCUSSING`).[#2]
Extended	Displays the number of Items that satisfy all of the following conditions: • The status is not *Close* (status ID: `JIMSD_STAT_CLOSE`).[#2] • The end date and time is not set. • The time elapsed from the day that the Item was registered has already reached either of the following times: the time set on the **Threshold setting** tab in the New process work board (or Edit the process work board) window or the time set in the Item accumulation property file (`hptl_jp1_imss_main_setting_kpi.properties`) For details about the **Threshold setting** tab, see *3.2.1(2) Process work board settings*. For details about the Item accumulation property file, see *Item accumulation property file (hptl_jp1_imss_main_setting_kpi.properties)* in *Chapter 12. Definition Files*.
Top priority	Displays the number of Items that satisfy both of the following conditions: • The status is not *Close* (status ID: `JIMSD_STAT_CLOSE`).[#2] • The priority is *Very urgent*.
Today's deadline	Displays the number of Items whose deadline is today except those whose status is *Close* (status ID: `JIMSD_STAT_CLOSE`)[#2]. On the **Compared to last month** and **Compared to last week** rows, dashes are displayed.
Difference icons[#1]	One of the following three icons is displayed to indicate the difference from the last week or month: • 🔺 (Increased) Indicates that the number of Items in the category has increased from the last week or month. • 🔻 (Decreased) Indicates that the number of Items in the category has decreased from the last week or month. • ➖ (Not changed) Indicates that the number of Items in the category has not changed from the last week or month.

#1

An icon is displayed only when the value with which the relevant value is to be compared exists.

#2

Status names such as *Close* are the default names, and therefore might be changed by customization. For details about status customization, see *3.15 Status management*.

Non-0 values in the **Number of entries** rows are clickable items. If you click such a value in a **Number of entries** row, the relevant Items are displayed in the **List of target items** area. If a value displayed in a **Number of entries** row exceeds a certain threshold, the cell containing the value is displayed in red as a sign of warning. Note that if you select the **Process perspective** node in the menu area, information about all systems is displayed in the **Check status** area. In this case, the threshold is not applied to the displayed value, because it is the total of all systems. The value becomes red for any individual system that exceeds the threshold.

Dashes are displayed for process work boards that do not exist in a system or that the logged-in user is not permitted to view.

(2) "List of target items" area

The **List of target items** area displays a maximum of 100 Items in the category selected in the **Check status** area. The displayed Items are sorted by deadline in ascending order.

By right-clicking the title of an Item, you can display the View Item window, the History display window, or the Work status display window. By right-clicking a person in charge, you can display the List of members window, the User details window, the List of roles window, or the Role details window.

For details about the columns of the **List of target items**, see *3.2.2(1) List of Items*. Note that unlike the Item list of the main window (Item list), the **List of target items** area of the main window (Item status) does not display the **I**, **P**, **C**, and **R** columns.

3.16.3 Outputting accumulated Item data to a file

You can download a CSV file that contains accumulated Item status data from the Accumulation data output to file window shown in the following figure. If view permissions for individual Items are enabled, Items for which you are not an Item view permissions owner contribute to the totals in the CSV file.

Figure 3–38: "Accumulation data output to file" window

Set the conditions for filtering the accumulation data to be output to a file, and then click the **Download data** button.

The following describes the conditions for filtering the accumulation data to be output to a file.

- **System**

    Select the check boxes of target systems for which you want to output data. You can select target systems that you are permitted to view. If you select the **All systems** check box, all systems are selected implicitly, and the check boxes for the individual systems are disabled.

    Note that an attempt to output Item accumulation data by selecting many target system check boxes might fail with the message *This page can't be displayed*. If this message appears, take action as follows:

    1. Select the **All systems** check box, and output accumulation data.

    2. Open the file that the accumulation data was output to, and manually delete unnecessary data from the file.

- **Process**

    Select the check boxes for the processes for which you want to output data. You can select only processes that you are permitted to view.

- **Accumulation unit**

    You can select **Day unit**, **Monthly unit**, or **Yearly unit** as the basis of accumulation.

- **Accumulation range**

    In accordance with the **Accumulation unit** specification, specify the accumulation range. Note that you can specify a range that ends with the previous day or an earlier day because data that can be output to a CSV file is data collected by the jsscollectdata command beforehand.

    If you specify no range, the data for the following periods is accumulated:

    - **Day unit**: 30 days before the previous day

    - **Monthly unit**: Last 12 months

    - **Yearly unit**: Last five years

- **Data type**

    Select either **Item data CSV** or **Code data CSV** as the type of CSV file.

(1) Information output to a CSV file

You can output the Item data CSV file (`OutputItemData.csv`) or the code data CSV file (`OutputItemCodeData.csv`) from the Accumulation data output to file window.

The following table describes the information output to the Item data CSV file.

Table 3–42: Information output to the Item data CSV file

Element	Description
Product name	JP1/IM - Service Support
Version information	Version of the output file
Encoding	Character encoding of output files
Accumulation date	Date that the accumulation command was executed
Accumulation unit	Basis of accumulation
System ID	ID of a system for which accumulation data was output
System name	Name of a system for which accumulation data was output
Process name	Name of a process for which accumulation data was output
Output type#	Integer from 1 to 8 indicating the type of data: • 1: Number of registered Items The number of Items registered during the target period is output. This data is used to create, for example, a report on process-based analysis. • 2: Number of Items whose status is not *Close* The number of Items that had a status other than *Close* when the target period ended is output. This data is used with the number of registered Items (output type 1) to create a report on analysis of the Item processing rate. • 3: Number of closed Items The number of Items closed during the target period is output. This data is used to create, for example, a report on analysis of process-based trends of closed Items. • 4: Average time required to process closed Items The average time that was required to process Items closed during the target period is output. This data is used to create, for example, a report on analysis of the average processing time for Items. • 5: Number of closed Items for which a deadline was set The number of Items that were closed during the target period and for which a deadline was set is output. This data is used to create, for example, a report on analysis of the average processing time for Items. • 6: Number of Items closed before the deadline The number of Items that were closed before their deadlines during the target period is output. This data is used, for example, to create a report on analysis of the processing rate for Items closed before the deadline. • 7: Number of closed Items for which cost (actual) is set The number of Items that were closed during the target period and for which cost (actual) was set is output. This data is used with the total cost (actual) of closed Items (output type 8) to create, for example, a report on analysis of the average cost per Item. • 8: Total cost (actual) of closed Items The total of the cost (actual) that was required to process the Items closed during the target period is output. This data is used with the number of closed Items for which cost (actual) is set (output type 7) to create, for example, a report on analysis of the average cost per Item.
Accumulation period	The number of Items for which data was accumulated during the accumulation period, the average time required to process an Item, or the cost (actual)

\#

The status name *Close* here means the status whose ID is `JIMSD_STAT_CLOSE`. This status name might be changed by customization. For details about status customization see *3.15 Status management*.

The following table describes the information output to the code data CSV file.

Table 3–43: Information output to the code data CSV file

Element	Description
System ID	ID of a system for which accumulation data was output
System name	Name of a system for which accumulation data was output
Process name	Name of a process for which accumulation data was output
Form ID	Item form ID
Form VR	Form version
Code type	For details about the code type, actual code, and code display name, see *Code mapping file (jp1imss_itemimport_codemap.conf)* in *Chapter 12. Definition Files*. In the code type (`JIMSD_CODE_XXXX`) the *XXXX* part corresponds to the section, the actual code corresponds to the value, and the code display name corresponds to the key.
Actual code	
Code display name	
Accumulation period	The number of Items for which data was accumulated during the accumulation period

Note that only Items that were closed during the target period are subject to accumulation.

If codes are added by customizing the Item form, the added codes are also output.

(2) Downloading a macro file

JP1/IM - Service Support provides a sample macro file that allows you to create reports from a CSV file output by JP1/IM - Service Support. You can download the macro file in the following ways:

- Use the **Download macro** menu
- Copy the `jss_report.xls` file located in *IM-SS-path*`\home\public\report\`

You can modify the sample macro file or replace it with a macro file that you created.

Notes:

- Only one macro file can be downloaded from JP1/IM - Service Support. If you want to replace the existing macro file with a macro file that you created, delete the `jss_report.xls` file in the *IM-SS-path*`\home\public\report\` directory, and then store the new macro file with the same name as the file you deleted. The macro file name is fixed to `jss_report.xls`. Other macro files cannot be downloaded from a JP1/IM - Service Support window even if you store them in the above directory.

- JP1/IM - Service Support also provides a model file for the sample macro file (`jss_report.xls.model` in the *IM-SS-path*`\home\public\report\` directory). Use the model file when you want to initialize the macro file after customization. To initialize the macro file, delete the existing `jss_report.xls` file, copy the model file to the same directory, and then rename the model file to `jss_report.xls`.

The following figure shows an example of a report created by using the sample macro file.

Figure 3–39: Example of a report created with accumulation data by using the sample macro file
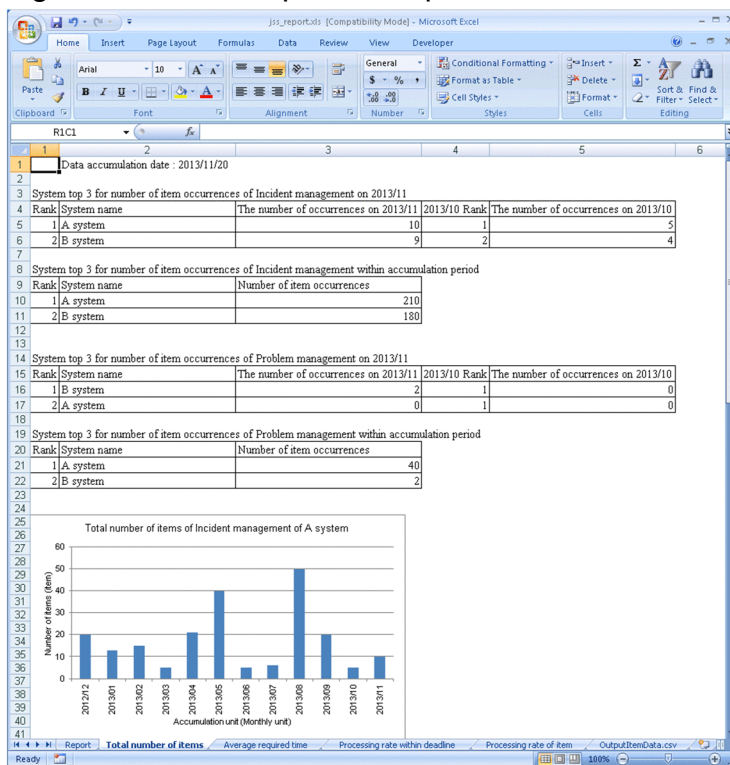
The sample macro file allows you to create 10 types of reports. The following table describes the types of reports that can be created.

Table 3–44: Types of reports that can be created by using the sample macro file

No.	Type	Description	Target process
1	Total number of Items	The total number of Items in all statuses is calculated, except the Items for which the registration date and time is not set. This report can be used to analyze the trends of Item occurrence for each process.	All processes for which data has been output to a CSV file
2	Average required time for item processing (hour)	The total time required to process Items in a certain period divided by the number of Items is calculated. Here, the difference between the update time and registration time of a closed Item is assumed to be the time required to process the Item. Note that the Items for which the registration date and time is not set are excluded from calculation. This report can be used to estimate how long a reply will take from the average time required to handle an Item in the process.	All processes for which data has been output to a CSV file
3	Processing rate within deadline (%)	The percentage of Items that were closed before their deadlines is calculated. This report can be used to set an index for determining the deadline for replies.	All processes for which data has been output to a CSV file
4	Solution rate of primary support (%)[1]	The percentage of closed Items whose solution category is set to *Knowledge* or *Document* is calculated. This report can be used to check the quality of support for Items being processed.	Incident management
5	Breakdown of problem domain (item and %)[1]	For closed Items for which the problem domain is set, the percentage of Items for each problem domain is calculated. This report can be used to analyze the trends of each system.	Incident management and problem management

No.	Type	Description	Target process
6	Breakdown of result (item and %)[#1]	For closed Items for which a result is set, the percentage of Items for each result is calculated. This report can be used to analyze the trends of each system.	All processes for which data has been output to a CSV file
7	Breakdown of cause (item and %)[#1]	For closed Items for which a cause is set, the percentage of Items for each cause is calculated. This report can be used to analyze the trends of each system.	All processes for which data has been output to a CSV file
8	Average cost for use per item (undefined)[#2]	For closed Items for which cost (actual) is set, the average cost per Item is calculated. This report can be used to check the cost per Item or for all Items.	Change management and release management
9	Processing rate of item (%)	The number of Items closed in a certain period divided by the number of all registered Items is calculated. This report is used to check the efficiency of work.	All processes for which data has been output to a CSV file
10	Similar item rate (%)[#1]	The number of closed Items whose cause is set to *Known software error* or *Known hardware error* is calculated. This report can be used to check the trends of occurrences of similar Items.	Incident management and problem management

#1

If values that can be selected for Item settings are changed by customizing the Item form, the macro file might not operate correctly. When you customize an Item form, consider whether you must also customize the macro file.

#2

The unit of cost is not set because it depends on the users' operational requirements.

3.17 User and role management

JP1/IM - Service Support provides the *user management function*, which manages information about JP1/IM - Service Support users. The users registered by that function can be categorized into groups by using the *role management function*, which is also provided by JP1/IM - Service Support.

The following figure shows the relationship between the user management function and role management function.

Figure 3–40: Relationship between the user management function and role management function
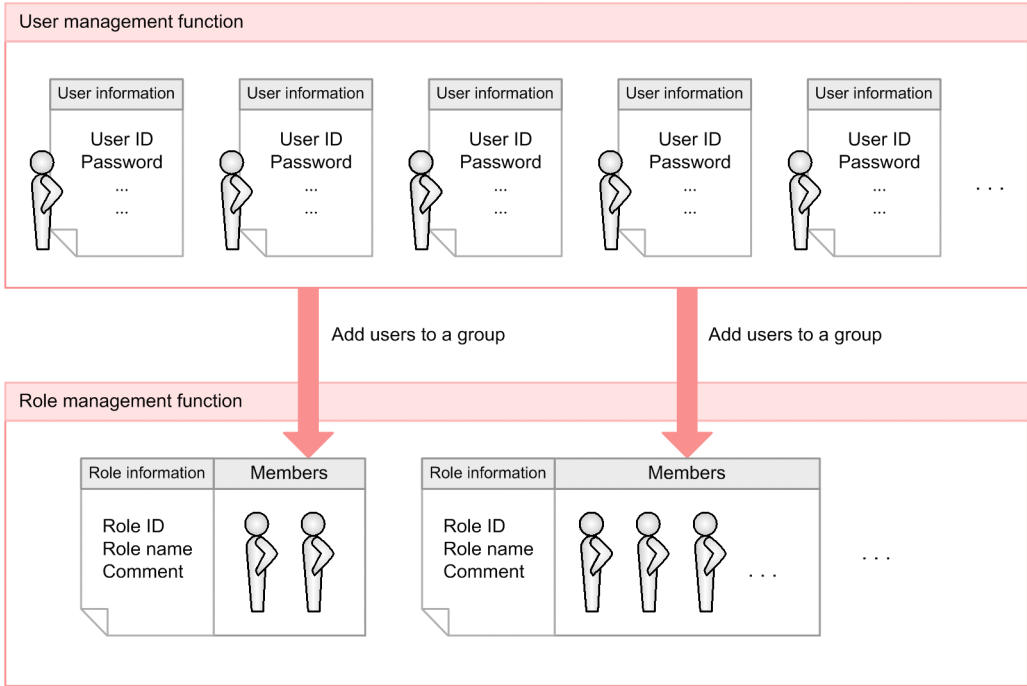
The user management function manages the information about individual users, and the role management function manages the individual roles and the users who belong to the roles.

Based on the user information and role information managed by these functions, JP1/IM - Service Support controls access to each process work board, according to user purposes. For details about access control, see *3.11 Item access control*.

The following subsections provide more detailed information about user management and role management.

3.17.1 User management

The user management function of JP1/IM - Service Support manages information about JP1/IM - Service Support users. The information managed by this function includes user IDs and passwords, as well as business information such as titles and phone numbers.

(1) User properties managed by JP1/IM - Service Support

The following table lists the user properties managed by JP1/IM - Service Support.

Table 3–45: User properties that can be managed by JP1/IM - Service Support

Property	Description
User ID	ID that is used to log in to JP1/IM - Service Support
Password	Password that is used to log in to JP1/IM - Service Support
Name	Name of a registered user
English name	Registered user's name (English)
Phone number	Registered user's primary phone number
Phone number 2	Registered user's secondary phone number
Title	Registered user's title in the organization
Title level	Information that defines a level for a title (usable for sorting[#])
Organization	Organization that the registered user belongs to
Email address	Registered user's email address
Comment	Supplementary information about the registered user

#

By default, registered users are sorted by *Title* rather than *Title level*. If you want the registered users to be sorted by *Title level*, you must change the settings in the User management property file. For details, see *User management property file (hptl_jp1_imss_usermgr.properties)* in *Chapter 12. Definition Files*.

(2) Adding, editing, and deleting user information

You can add, edit, and delete user information by using JP1/IM - Service Support windows. To do so, however, you must belong to the user management role.

The following table shows the windows that can be used to add, edit, and delete user information.

Table 3–46: Windows that can be used to add, edit, and delete user information

Operation	Window
Add	Create user window (This window can be opened from the User management window.)
Edit	Edit user window (This window can be opened from the User management window.)
Delete	User management window

If you want to add information about multiple users, use the jssuserimport command.

For details about manipulating user information by using windows, see *8.2 Creating users*. For details about manipulating user information by using a command, see *jssuserimport (imports user information)* in *Chapter 11. Commands*.

(3) JP1/IM - Service Support system administrator (jp1admin user)

In JP1/IM - Service Support, the default system administrator has been registered. When you add user information to JP1/IM - Service Support, first, you must log in as the default system administrator. You cannot change the default system administrator's user ID or delete the default system administrator.

Table 3–47: Default system administrator of JP1/IM - Service Support

Property	Default value
User ID	`jp1admin`
Password	`jp1admin`#
Name	`JP1 Administrator`
English name	`JP1 Administrator`
Phone number	Blank
Phone number 2	Blank
Title	Blank
Title level	Blank
Organization	Blank
Email address	Blank
Comment	`This is the dedicated user for JP1 administrator.`

\#

Always change the password when you set up the JP1/IM - Service Support environment.

(4) Changing the logged-in user's own user information

Any user who is logged in to JP1/IM - Service Support can change his or her following properties without having the user management role:

- Password
- Phone number
- Phone number 2

These properties can be changed by using the Edit user window. To open this window, in the main window (Item list), from the **Option** menu, select **Edit my details**.

For details about how to change the logged-in user's information (password and phone numbers), see the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*.

(5) Viewing user information

You can use the following windows to view the information about users registered in JP1/IM - Service Support:

- User details window: Displays the information about a user.
- List of roles window: Lists the roles that a user belongs to.

The above windows can be opened by clicking a user name displayed in the Item list of the main window (Item list) or in the View Item window.

3.17.2 Role management

The role management function of JP1/IM - Service Support manages the roles that can be used during JP1/IM - Service Support operation and the users who belong to the roles.

Roles can be categorized into *system roles* and *user-created roles*.

(1) System roles

System roles are provided for system administrators. You cannot change the role IDs of system roles. Unlike user-created roles that can be deleted, you cannot delete any system roles.

The following table lists and describes system roles.

Table 3–48: List of system roles

System role name (role ID)	Description
User management role (_jp1user)	Users belonging to this role can: • Add, edit, and delete user information. • Create, edit, and delete user-created roles. • Add users to roles and remove users from roles.
Process work board management role (_jp1ITsystem)	Users belonging to this role can: • Create, edit, and delete target systems. • Add, edit, and delete process work boards of target systems. • Specify user access control settings on process work boards. • Perform all operations on Items managed with process work boards. • Customize the statuses of Items registered in process work boards.
Work management role (_jp1workmgr)	Users belonging to this role can: • View the results of Item accumulation for all process work boards.

Note that the user jp1admin belongs to all system roles and cannot be removed from these roles.

(2) User-created roles

According to the requirements for work assignment in process work board management, users can create and define roles. These roles are called *user-created roles*.

(a) Definition information for user-created roles

The following table lists the types of information that can be used to define a user-created role.

Table 3–49: Types of information that can be used to define a user-created role

Type	Description
Role ID	ID that identifies a role
Role name	Display name for a role
Comment	Supplementary information about a role

(b) Adding, editing, and deleting user-created roles

You can add, edit, and delete user-created roles by using JP1/IM - Service Support windows. To do so, however, you must belong to the user management role.

The following table shows the windows that can be used to add, edit, and delete user-created roles.

Table 3–50: Windows that can be used to add, edit, and delete user-created roles

Operation	Window
Add	New role window (This window can be opened from the Role management window)
Edit	Edit role window (This window can be opened from the Role management window)
Delete	Role management window

For details, see *8.3 Creating roles*.

(3) Mapping between roles and users

System roles and user-created roles are displayed in the Role management window. You can use this window to map between roles and users by assigning users to roles. A user can belong to multiple roles.

The following figure shows a mapping between roles and users.

Figure 3–41: Mapping between roles and users
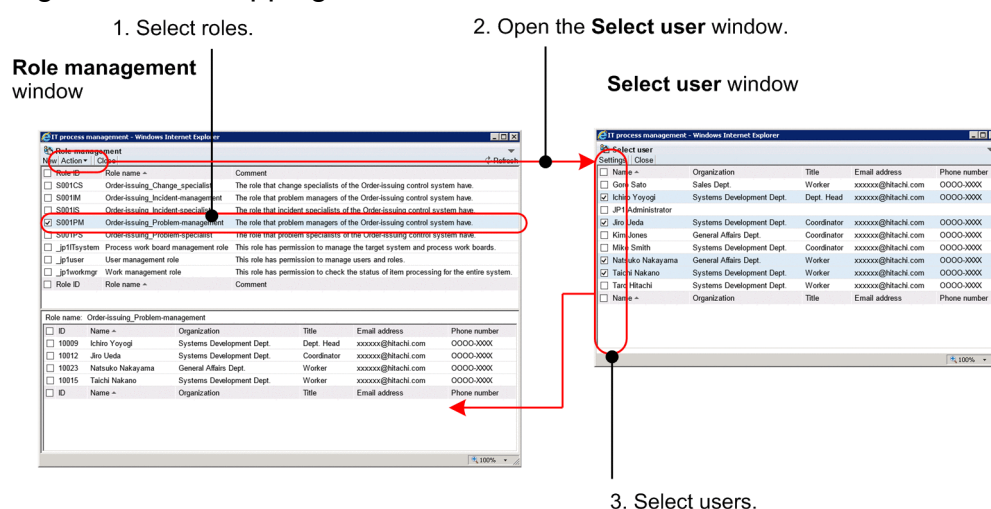
The steps in the above figure are described below.

1. In the upper frame of the Role management window, select a role to which you want to map users. When a role is selected, the lower frame displays a list of users who belong to the selected role.

2. From the **Action** menu, select **Add Member** to open the Select user window.

3. In the Select user window, select the users whom you want to add to the selected role and click **Settings**. The selected users are added to the list in the lower frame of the Role management window.

(4) Viewing role information

You can use the following windows to view the information about roles registered in JP1/IM - Service Support:

- List of roles window: Lists roles that are registered.
- Role details window: Displays the details of a role.
- List of members window: Lists users who belong to a role.

The above windows can be opened by clicking a role name displayed in the Item list of the main window (Item list) or in the View Item window.

3.18 Firewall environment support

JP1/IM - Service Support can operate in a firewall environment if the necessary firewall settings are specified. JP1/IM - Service Support supports operation in a packet filtering or NAT (static mode) firewall environment.

JP1/IM - Service Support on the Item management server communicates with Item management consoles (web browsers) over the port `24401/tcp`. For JP1/IM - Service Support to operate in a firewall environment, add this port to the exceptions list.

If you want to change the port, you must edit the `jsssetupinfo.bat` file. For details, see *6.3.2 Setup procedure for new installation*.

> **Reference note**
>
> JP1/IM - Service Support also uses the following ports for communications on the local host (for JP1/IM - Service Support internal processing):
>
> - `24400/tcp`
> - `24401/tcp`
> - `24402/tcp`
> - `24403/tcp`
> - `24404/tcp`
>
> You can also change these ports in the same way as for the port for communication between the Item management server and Item management consoles (web browsers). For details, see *6.3.2 Setup procedure for new installation*.

> **Reference note**
>
> There are software products that JP1/IM - Service Support can work with. How it communicates with these products is described below. For the ports that are used for communication with these products, see the manuals of the products.
>
> JP1/IM - Manager
> > The Item management server communicates with the integrated manager when Items are automatically registered by automated action of JP1/IM - Manager. The port used by JP1/IM Manager and JP1/Base is used for this communication.
>
> JP1/AIM
> > Item management consoles communicate with the asset management server over the HTTP port used by JP1/AIM.
>
> JP1/AO
> > Item management consoles communicate with the JP1/AO server over the HTTP port used by JP1/AO.
>
> JP1/Base
> > The Item management server communicates with the JP1/Base server over the port used by JP1/Base.

3.19 JP1/IM - Service Support services

JP1/IM - Service Support consists of four services. The following figure shows the relationship among these services.

Figure 3–42: JP1/IM - Service Support services
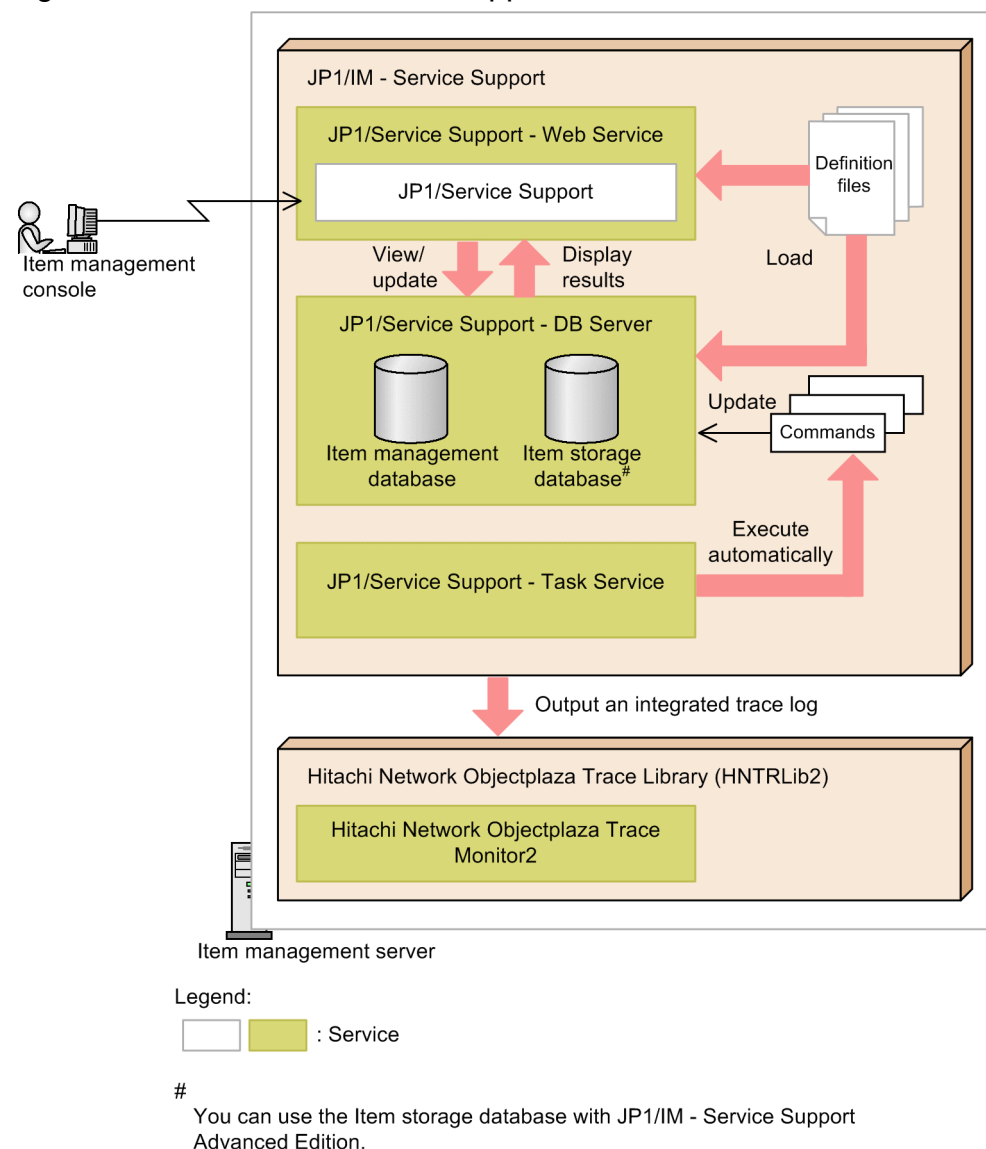
When JP1/IM - Service Support is installed, these services are registered in the Services dialog box of Windows Server 2012, Windows Server 2008, or Windows Server 2003. The following table lists and describes the services.

Table 3–51: JP1/IM - Service Support services

Display name	Service name	Startup type	Description
JP1/Service Support	`JP1_Service Support`	Manual	A WWW container server. The JP1/IM - Service Support internal component that controls window display.
			This service and JP1/Service Support - Web Service are mutually dependent.
			This service is required to operate JP1/IM - Service Support from an Item management console.

Display name	Service name	Startup type	Description
JP1/Service Support - Web Service	`JP1_Service Support-WebService`	Manual	A Web server. The JP1/IM - Service Support internal component that interfaces with Item management consoles (web browsers). This service is required to operate JP1/IM - Service Support from an Item management console.
JP1/Service Support - DB Server	`HiRDBEmbeddedEditio n_JSO`	Automatic	The Item management database server. The JP1/IM - Service Support internal component that manages the Item management database. This service updates the contents of the Item management and Item storage databases in response to operations from Item management consoles or processing requests from commands.
JP1/Service Support - Task Service	`JP1_ServiceSupport-TaskService`	Manual	A service for executing the following commands at specified times or intervals: • `jsscollectdata` (counts Item information) • `jssinformperiod` (notifies of closing deadlines) • `jssinformleave` (sends reminders about held Items) • `jssitementrybymail` (registers emails as Items) This service is required to accumulate Item information, enable pre-deadline notification, report unprocessed Items, or register Items via email.[#]

\#

The JP1/Service Support - Task Service is automatically registered when JP1/IM - Service Support is installed. However, whether to execute the commands automatically must be set in the Definition file for the task practice service. For details about this file, see *Definition file for the task practice service (jp1imss_service_setting.conf)* in *Chapter 12. Definition Files*.

Note that to operate JP1/IM - Service Support, you must activate the following service, which is a common service used by JP1 products:

• Hitachi Network Objectplaza Trace Monitor 2

When JP1/IM - Service Support is installed, Hitachi Network Objectplaza Trace Monitor 2 is also registered with the startup type of *Automatic* in the Services dialog box of Windows Server 2012, Windows Server 2008, or Windows Server 2003.

> **Important note**
>
> In addition to the above services, the JP1/Service Support - DB Cluster Service is also registered in the Services dialog box of Windows Server 2012, Windows Server 2008, or Windows Server 2003 when JP1/IM - Service Support is installed. This service is used only when JP1/IM - Service Support is used in a cluster system.

3.20 Command-driven database operations

The Item management database manages all information that users created or defined for JP1/IM - Service Support operation. This includes the information about target systems and processes set up by using JP1/IM - Service Support and the information about Items registered or updated by using JP1/IM - Service Support. In JP1/IM - Service Support Advanced Edition, you can also store past Items in the Item storage database.

Normally, the Item management database is updated from web browsers. However, commands can also be used to update the Item management database.

Commands are also used to maintain the Item management database and the Item storage database. For example, you can use commands to adjust the size of the databases, back up the databases, or recover the databases from a backup.

3.20.1 Using commands to work with the Item management database

The following figure shows an overview of command-driven updating of the Item management database.

Figure 3–43: Overview of command-driven updating of the Item management database
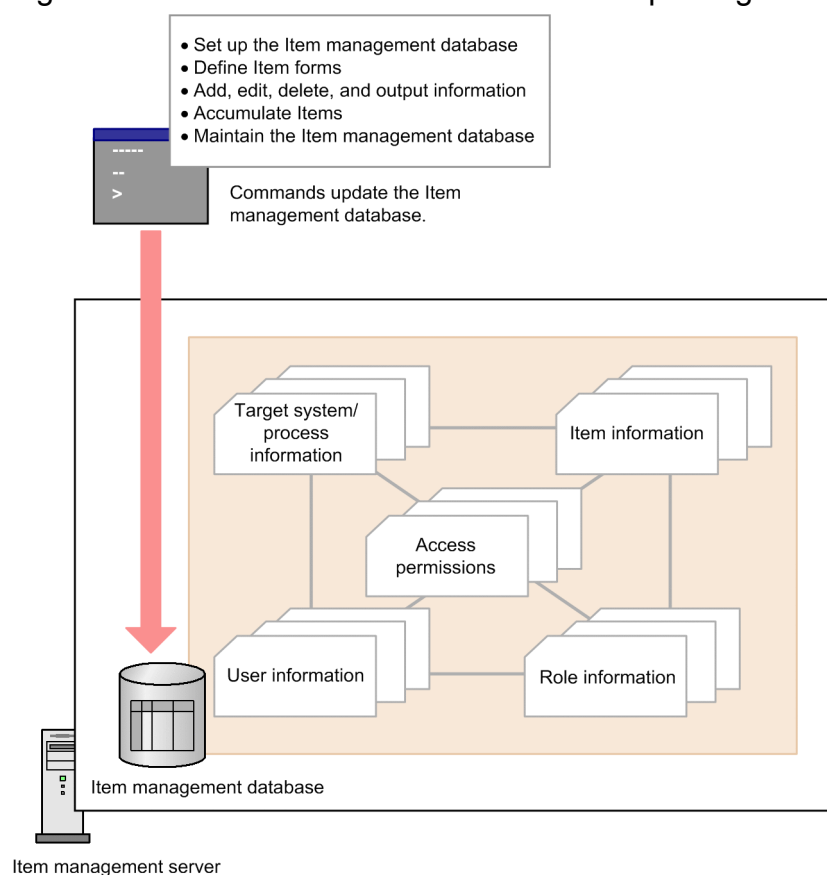
The following table lists and describes the commands you can use to work with the Item management database in JP1/IM - Service Support.

Table 3–52: Commands for operating the Item management database

Type	Command	Description
Setup	jsssetup.bat[#1]	Sets up the Item management database.

Type	Command	Description
Setup	jssunsetup.bat[#1]	Undoes Item management database setup.
	jsshasetup.bat[#1]	Sets up the Item management database for a cluster environment.
	jsshaunsetup.bat[#1]	Undoes Item management database setup for a cluster environment.
	jsschauthorityserver	Switches the authentication server used for JP1/IM - Service Support.
	jssrefaclsetup	Allows you to set view permission for individual Items.
Defining Item forms	jssformdef	Registers the Item form settings customized according to users' operational requirements.
	jssformcustomizer	Starts the GUI tool that can be used to edit Item forms.
Adding, editing, deleting, and outputting Item information	jssitemlist	Outputs a list of Items registered in JP1/IM - Service Support.
	jssitemhistory	Outputs the editing history of Items registered in JP1/IM - Service Support.
	jssitemedit	Edits an Item registered in Item management database.
	jssitementry	Registers an Item in the Item management database.
	jssitementrybymail	Registers an Item in the Item management database via email.
	jssitemexportEx	Outputs Item information for Items registered in JP1/IM - Service Support.
	jssitemimport	Registers multiple Items in the Item management database.
	jssitemimportEx	Registers multiple Items, including the related information and attached files, in the Item management database.
	jssitemdeletion	Places multiple Items in the Item management database in *Waiting to be deleted* status.[#2]
	jssrev	Releases multiple Items in the Item management database from *Waiting to be deleted* status.
	jssdelrec	Completely deletes the following from the Item management database: Items that are placed in *Waiting to be deleted* status by using a window or the jssitemdeletion command, and the target systems or process work boards that are placed in *Waiting to be deleted* status by using a window.[#2]
Sending alerts by email	jssinformperiod	Checks the deadline of an Item, and notifies the person in charge if the deadline is near.
	jssinformleave	Checks the processing status of an Item, and notifies the person in charge if the Item is assumed to be left unprocessed for a long time.
Accumulating Items	jsscollectdata	Registers or updates Item accumulation data in the Item management database.
Adding, editing, deleting, and outputting information about users or role members	jssuserlist	Outputs a listing of user information.
	jssuseredit	Allows the user to edit user information.
	jssuserimport	Registers information about multiple users.
	jssrolelist	Outputs a listing of role information.
	jssmemberlist	Outputs a list of members who belong to a role.

Type	Command	Description
Adding, editing, deleting, and outputting information about users or role members	`jssmemberdelete`	Removes members from a role.
	`jssmemberimport`	Adds multiple members to a role.
	`jssroleimport`	Adds roles.
Maintaining the Item management database	`jssdbinit.bat`[#1]	Initializes the Item management database and the Item storage database.
	`jssdbrorg.bat`[#1]	Reorganizes the Item management database.
	`jssdbreclaim.bat`[#1]	Reclaims the free space in the Item management database.
	`jssdbbackup.bat`[#1]	Backs up the Item management database and the Item storage database.
	`jssdbrecovery.bat`[#1]	Recovers the Item management database and Item storage database from a backup.
	`jsshadbinit.bat`[#1]	Initializes the Item management database and Item storage database on a shared disk in a cluster environment.
	`jsscreatesysandpwb`	Creates a master system and temporary receipt process work board.
	`jssitemstore`	Transfers Items registered in the Item management database to the Item storage database. Having stored the Items in the Item storage database, the command deletes those Items from the Item management database.
	`jssitemcount`	Displays the number of Items registered in the Item management database and the Item storage database.
	`jssdbstatchk.bat`	Displays the status of the Item management database and the Item storage database.

#1

This command must be executed from JP1_IM-SS Command Prompt, which is provided by JP1/IM - Service Support.

#2

Deletion of entries in a window means that the information about the entries is hidden or operations on the entries are restricted in the window. The Items *deleted* by the `jssitemdeletion` command are only placed in *Waiting to be deleted* status, and remain in the Item management database. To delete these Items from the database completely, execute the `jssdelrec` command.

For details about the above commands, see *Chapter 11. Commands*. Note that the above commands include commands that require some JP1/IM - Service Support services to be stopped before execution. For these commands, see *Status of services when commands are executed* in *Chapter 11. Commands*.

3.20.2 Using commands to work with the Item storage database

The following figure shows an overview of using commands to work with the Item storage database. You can use the Item storage database with JP1/IM - Service Support Advanced Edition.

Figure 3–44: Overview of command-driven operation of Item storage database
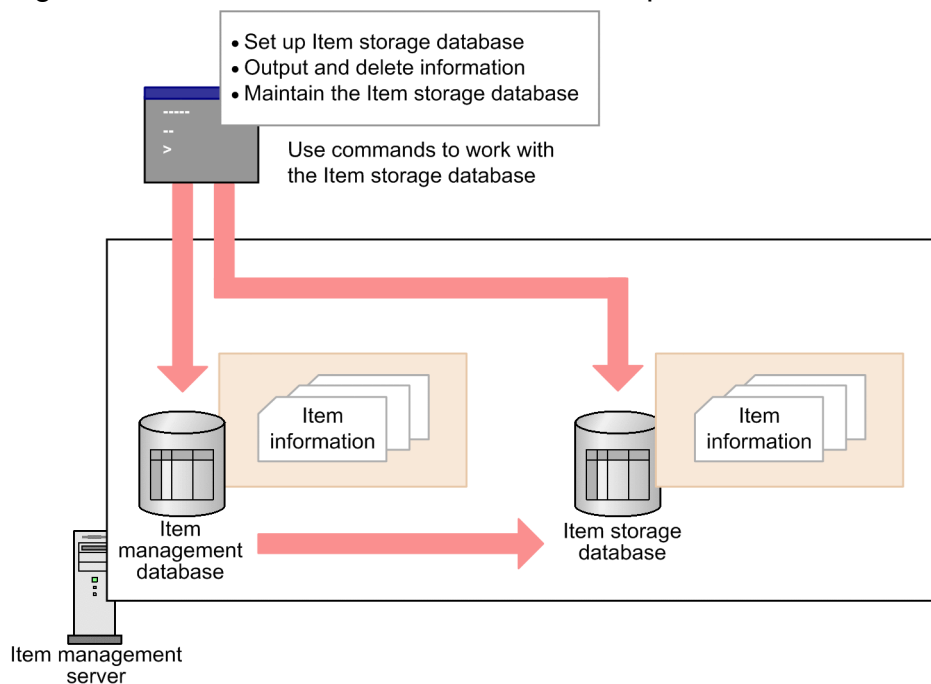
The following table lists and describes the commands you can use to work with the Item storage database in JP1/IM - Service Support.

Table 3–53: Commands for operating the Item storage database

Type	Command	Description
Setup	jssitemstoredbsetup.bat	Sets up the Item storage database for a cluster environment.
Outputting and deleting Item information	jssitemlist	Outputs a list of Items registered in JP1/IM - Service Support.
	jssitemhistory	Outputs the editing history of Items registered in JP1/IM - Service Support.
	jssitemexportEx	Outputs Item information for Items registered in JP1/IM - Service Support.
	jssstoreitemdel.bat	Deletes Items stored in the Item storage database at the storage area level.
Maintaining the Item storage database	jssdbinit.bat[#]	Initializes the Item management database and the Item storage database.
	jssdbbackup.bat[#]	Backs up the Item management database and the Item storage database.
	jssdbrecovery.bat[#]	Recovers the Item management database and Item storage database from a backup.
	jsshadbinit.bat[#]	Initializes the Item management database and Item storage database on a shared disk in a cluster environment.
	jssitemstore	Transfers Items registered in the Item management database to the Item storage database. Having stored the Items in the Item storage database, the command deletes those Items from the Item management database.
	jssitemstoredbrotate	Rotates the active storage area of the Item storage database.

Type	Command	Description
Maintaining the Item storage database	jssitemstoredbexpand.bat	Increases the size of the Item storage database.
	jssitemcount	Displays the number of Items registered in the Item management database and the Item storage database.
	jssdbstatchk.bat	Displays the status of the Item management database and the Item storage database.

\#

This command must be executed from JP1_IM-SS Command Prompt, which is provided by JP1/IM - Service Support.

For details about the above commands, see *Chapter 11. Commands*. Note that the above commands include commands that require some JP1/IM - Service Support services to be stopped before execution. For details, see *Status of services when commands are executed* in *Chapter 11. Commands*.

3.21 Cluster system support

JP1/IM - Service Support supports operation in a cluster system. If a failure occurs on the active server while JP1/IM - Service Support is operating in a cluster system, the standby server can continue operation without an interrupt.

The following figure shows a typical configuration for using JP1/IM - Service Support in a cluster system.

Figure 3–45: Example of using JP1/IM - Service Support in a cluster system
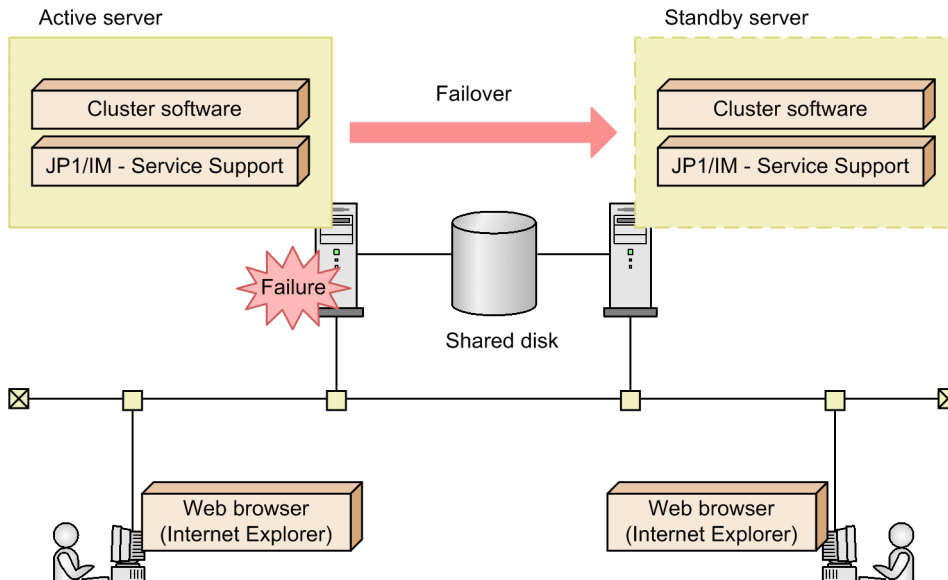
For details about operation in a cluster system and how to set up a cluster environment, see *Chapter 9. Using JP1/IM - Service Support in a Cluster System and Configuring an Environment*. This section describes only how JP1/IM - Service Support behaves when a failover occurs and the commands that can be executed on the active and standby servers.

3.21.1 How JP1/IM - Service Support behaves when a failover occurs

When processing on the active server fails over to the standby server due to a failure, the cluster software stops all JP1/IM - Service Support services on the active server, and starts the same services on the standby server. At this time, the web browser (Internet Explorer) is disconnected from JP1/IM - Service Support, and becomes unable to display any JP1/IM - Service Support pages.

To display JP1/IM - Service Support pages after failover, you must log in to JP1/IM - Service Support again.

3.21.2 Commands that can be executed on the active and standby servers

Although any commands provided by JP1/IM - Service Support can be executed on the active server, only the `jss_log.bat` command can be executed on the standby server (on which JP1/IM - Service Support is not running). Do not execute any commands other than `jss_log.bat`, except in the case described in *Command execution from JP1/IM - Manager* below.

Command execution from JP1/IM - Manager:

    Regardless of whether JP1/IM - Service Support is operating in a cluster system, you can execute only the `jssitementry` command from JP1/IM - Manager.

In a cluster system, even on the standby server on which JP1/IM - Service Support is not operating, you can execute the `jssitementry` command to register Items in JP1/IM - Service Support if JP1/Base is running. For the configuration of JP1/IM - Service Support and JP1/Base on the Item management server in a cluster system, see *5.11.1(3) Linkage with JP1/IM - Manager in a cluster environment*.

4

Linkage with Other Products

This chapter describes what functions are made feasible when JP1/IM - Service Support links with other products.

Note that linkage might require setup both of the other products and of JP1/IM - Service Support. You might need to refer to the manuals of the products that you want to link with JP1/IM - Service Support.

4.1 Linkage with JP1/IM - Manager

If JP1/IM - Service Support is linked with JP1/IM - Manager, JP1 events managed by JP1/IM - Manager can be automatically registered as JP1/IM - Service Support incidents (Items). Also, when an automatically registered Item is closed, JP1/IM - Service Support can issue a JP1 event to change the response status to *Processed* via automated action. In addition, when the status of an automatically registered Item changes, JP1/IM - Service Support can issue a JP1 event that contains Item information to execute an automated action defined in JP1/IM - Manager.

The following figure shows an overview of linkage with JP1/IM - Manager.

Figure 4–1: Overview of linkage with JP1/IM - Manager
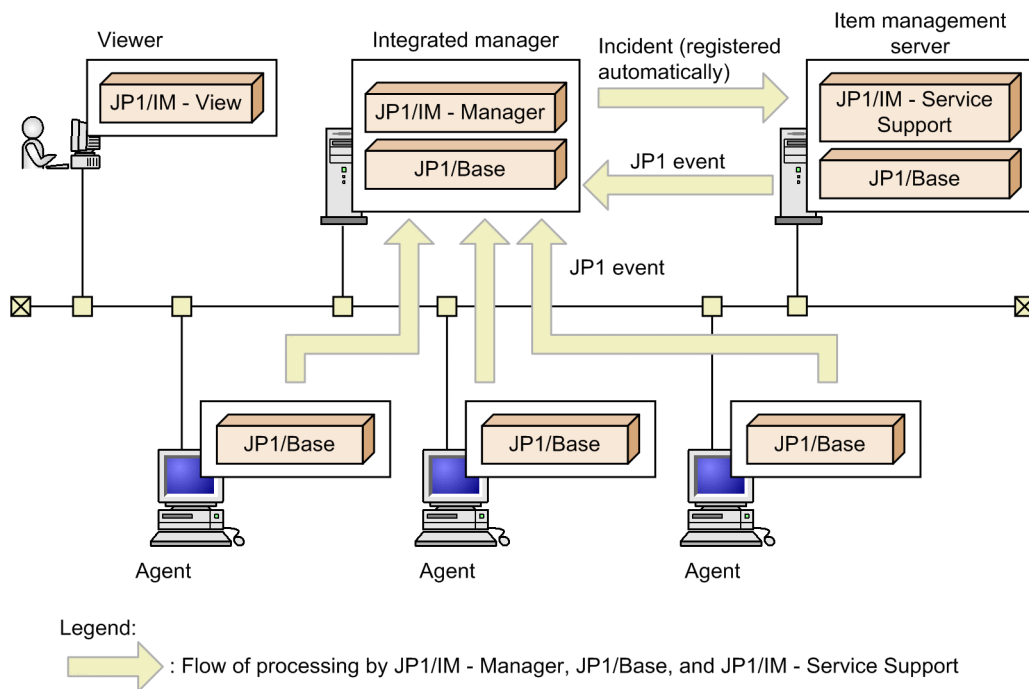
JP1/IM - Manager on the integrated manager centrally manages JP1 events generated on agents. When JP1 events that must be managed as incidents are generated, JP1/IM - Manager automatically registers those events as incidents in JP1/IM - Service Support.

JP1/IM - Manager uses an automated action to initiate automatic registration of JP1 events as incidents.

JP1/IM - Service Support issues a JP1 event when the status of an automatically registered incident (Item) changes to *Close*. JP1/IM - Service Support also issues a JP1 event if the status of an Item changes after the Item is registered or when the Item is edited.

4.1.1 Registering Items via automated action

JP1/IM - Manager receives JP1 events from JP1/Base on the same host. If a received JP1 event satisfies conditions for executing an automated action, JP1/IM - Manager automatically executes commands as defined for the automated action. The execution conditions and processing to be executed are defined in JP1/IM - Manager.

Using the JP1/IM - Manager automated action functionality, JP1/IM - Service Support executes the `jssitementry` command to register incidents in the Item management database.

For details about the `jssitementry` command, see *jssitementry (registers an Item)* in *Chapter 11. Commands*.

The following figure shows how JP1/IM - Service Support registers incidents in the Item management database by using the JP1/IM - Manager automated action functionality.

Figure 4–2: Incident registration by automated action
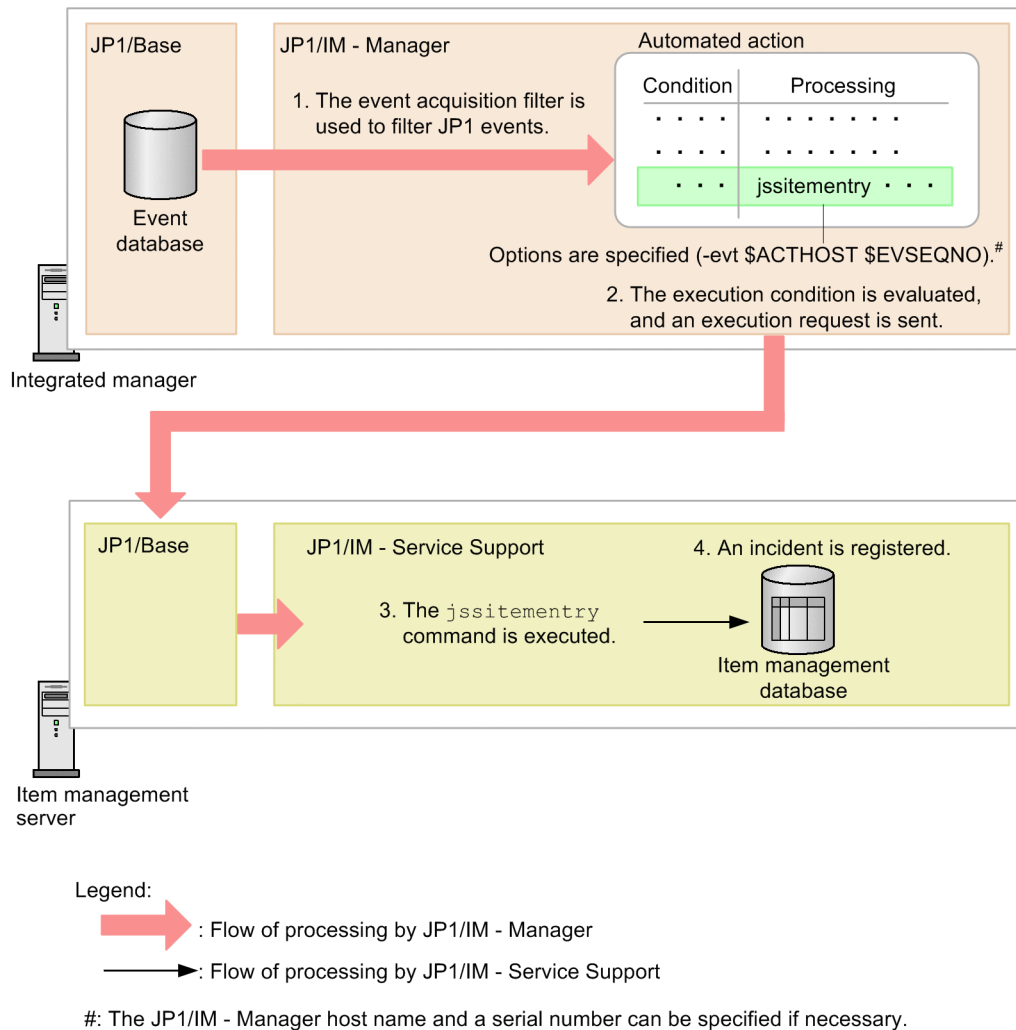
The steps in the above figure are described below.

1. JP1/IM - Manager receives JP1 events that have passed through the event acquisition filter from the JP1/Base event database on the integrated manager.

2. The JP1/IM - Manager automated action functionality determines whether the received JP1 events satisfy conditions for executing an automated action. If there are JP1 events that satisfy those conditions, JP1/IM - Manager sends command (action) execution requests to the appropriate hosts (where the commands are executed) according to the action definitions.

   In this example, a request to execute the jssitementry command is sent to the Item management server.

   After an incident (Item) is automatically registered in JP1/IM - Service Support, JP1/IM - Manager can receive a JP1 event from JP1/IM - Service Support when the status of that Item changes to *Close*. For JP1/IM - Manager to receive such a JP1 event, the JP1/IM - Manager host name and serial number must be specified for the -evt option of the jssitementry command.

3. In response to an execution request from the integrated manager, JP1/IM - Service Support executes the jssitementry command on the Item management server.

4. An incident (Item) is registered in the Item management database.

> **Reference note**
>
> The JP1/IM - Manager automated action functionality can execute commands only on hosts managed by JP1/IM - Manager. In this example, the Item management server must be added to JP1/IM - Manager's management beforehand.

The following briefly explains the execution conditions and definitions of automated actions. For detailed information, see the *Job Management Partner 1/Integrated Management - Manager Overview and System Design Guide* and the *Job Management Partner 1/Integrated Management - Manager Command and Definition File Reference*.

(1) Conditions for executing automated actions

In JP1/IM - Manager, you can use IDs, messages, and attribute values of JP1 events as conditions for executing automated actions. JP1/IM - Manager determines whether to execute automated actions based on these conditions.

To enable JP1/IM - Service Support to execute automated actions, specify JP1 events that report matters that hinder normal operations as execution conditions.

(2) Definitions of automated actions

An automated action in JP1/IM - Manager is defined with information such as the execution host (host on which the action will be executed), the command to be executed, and the user who will execute the action. JP1/IM - Manager executes the automated action based on this information.

To use linkage with JP1/IM - Manager so that incidents are automatically registered in JP1/IM - Service Support, specify the name of the Item management server as the execution host, and the `jssitementry` command as the command to be executed.

> **Reference note**
>
> JP1/IM - Manager can embed JP1 event attributes in arguments of the `jssitementry` command. For example, if you specify `$EVSEV` as the value of the `-s` option, which specifies the severity level, the value of the severity level for the Item to be registered changes according to the JP1 event's severity level.

4.1.2 Event-driven linkage with JP1 products using automated actions

All JP1 products issue JP1 events, for example, when the JP1 products themselves start or stop, and when a failure occurs. JP1/IM - Service Support can link with other JP1 products by receiving these JP1 events via JP1/IM - Manager.

In JP1/IM - Service Support, the Item forms for incident management and problem management provide settings that can be used for linkage with JP1 products. The following table lists these settings.

Table 4–1: Item settings that can be used for linkage with JP1 products

Setting[#]	Description
Product name (`-jp1`)	A common setting for linkage with JP1 products. This setting specifies the name of the product that issues the JP1 event. This information is used to determine the product from which the JP1 event is issued.
Jobnet name	A setting for linkage with JP1/AJS.

Setting[#]	Description
(-jobnet)	This setting specifies a JP1/AJS jobnet name. This information is used to determine the jobnet in which a failure occurred.
Job name (-job)	A setting for linkage with JP1/AJS. This setting specifies a JP1/AJS job name. This information is used to determine the job in which a failure occurred.
SNMP source (-snmp)	A setting for linkage with HP NNM. This setting specifies the name of the SNMP source in which an SNMP trap was generated for the JP1 event issued by the JP1/Base SNMP trap converter. This information is used to determine the SNMP source in which a failure occurred.
Monitored node name (-node)	A setting for linkage with the integrated scope function of JP1/IM - Manager. This setting specifies the name of the monitored node defined by that function. This information is used to determine the monitored node on which a failure occurred.
Alarm name (-alarm)	A setting for linkage with JP1/PFM - Web Console. This setting specifies the name of the alarm for a JP1 event issued by JP1/PFM - Web Console. This information is used to determine the resource for which a threshold was exceeded.
JP1/IM - Manager host name and serial number (-evt)	A setting for issuing JP1 events from JP1/IM - Service Support. This setting specifies the JP1/IM - Manager host name and serial number for the JP1 event associated with the automatically registered Item.

#

The strings in parentheses are options for the jssitementry command. When you specify the jssitementry command in the definition of an automated action, you can specify these options as arguments.

JP1/IM - Service Support receives JP1 events from JP1 products via an automated action defined in JP1/IM - Manager. For details about how to define this automated action, see *5.11.1(1) Examples of automated action definitions when linking with JP1 products*. Also, JP1/IM - Service Support sends JP1 events to link with JP1/IM - Manager via an automated action defined in JP1/IM - Manager. For details about how to define this automated action, see *5.11.1(2) Example automated action definitions when JP1/IM - Service Support issues JP1 events*.

4.1.3 Changing the response status by a JP1 event according to the Item status change

JP1/IM - Service Support issues a JP1 event to JP1/IM - Manager in the following circumstances:

- The Edit item window is used to change the status to *Close* for an incident (Item) automatically registered by a JP1/IM - Manager automated action or registered by linkage with JP1/IM - View.

- A batch operation is used to change the status to *Close* for an incident (Item) automatically registered by a JP1/IM - Manager automated action or registered by linkage with JP1/IM - View.

Note that this JP1 event is not issued when the status is changed to *Close* by the jssitemedit command. In response to this JP1 event, JP1/IM - Manager executes an automated action to change the response status to *Processed*.

Before JP1/IM - Manager can receive JP1 events or change the response status to *Processed*, the necessary settings must have been specified in JP1/IM - Manager.

The following figure shows an overview of processing in which a JP1/IM - Manager automated action changes the JP1 event's response status to *Processed* when the Item status changed to *Close*.

Figure 4–3: Changing the response status by an automated action
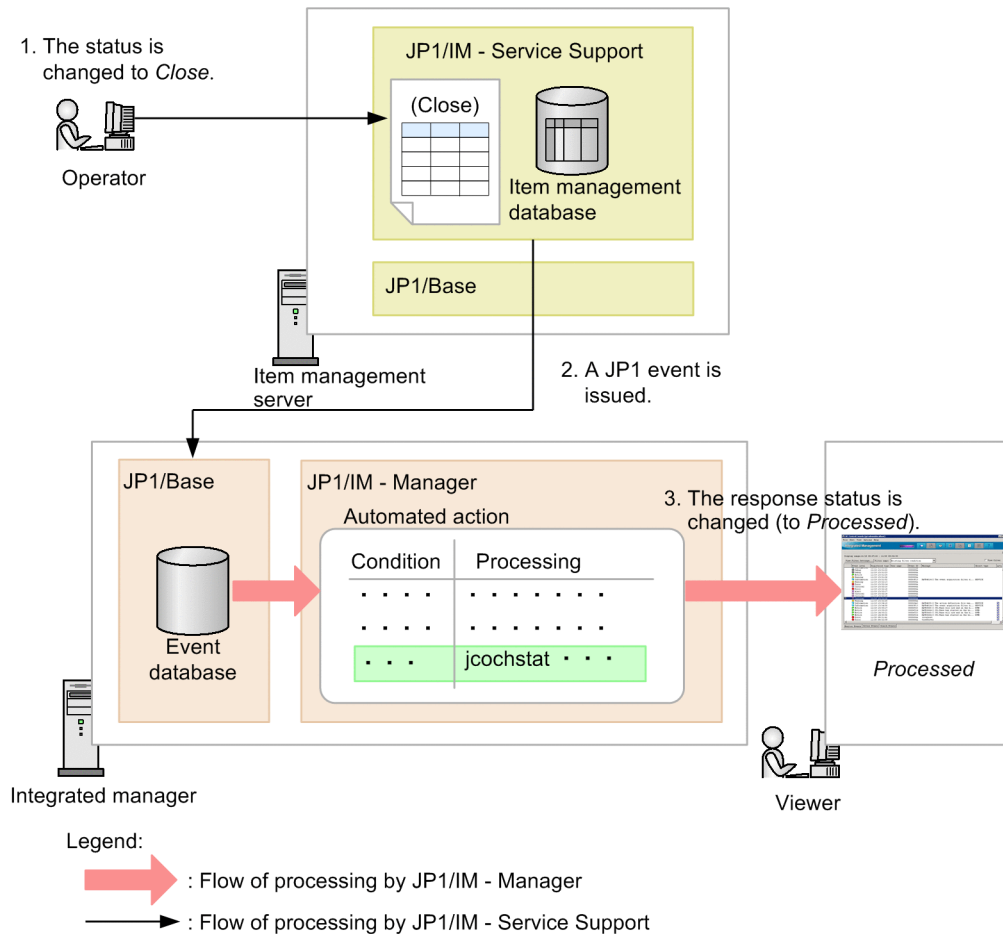
The steps in the above figure are described below.

1. The JP1/IM - Service Support operator changes the status of an automatically registered Item to *Close* in response to a request from the integrated manager.

   To distinguish Items registered from JP1/IM - Manager and Items registered from a JP1/IM - Service Support window, you must customize the Item form so that the serial number and JP1/IM - Manager's host name can be referenced. For details about customizing Item forms, see *Item form definition file (Optional)* in *Chapter 12. Definition Files*.

2. If the settings for JP1/IM - Service Support to issue JP1 events have been specified, a JP1 event (reporting the JP1/IM - Manager's host name and serial number) is issued to the JP1/Base event database of the integrated manager.

3. The JP1/IM - Manager automated action changes the response status for the received JP1 event to *Processed*.

Note:

   This JP1 event is issued only when the status is changed to *Close* for original (not escalated) Items that were registered from JP1/IM - Manager automatically or registered via linked JP1/IM - View. This JP1 event is not issued when the status is changed for an Item that has been escalated from another process work board. If an Item has not been escalated, the right side of the hyphen (−) in the Inter-process ID for the Item is 01.

4.1.4 Notification of status change and execution of automated actions by using JP1 events

When the status of an Item is changed, JP1/IM - Service Support can issue a JP1 event to notify JP1/IM - Manager of the status change. Triggers include creating an Item in the New item window, editing an Item in the Edit item window, or changing the status of Items in a batch. A JP1 event is issued in these circumstances if the status of the created Item or the new status of the edited Item is set as a trigger for issuing a JP1 event. A JP1 event is not issued when an Item is registered or edited by using a command. JP1/IM - Manager can execute a variety of automated actions by receiving information reported by JP1 events.

What kind of automated action will be executed and the conditions for executing the automated action (current Item status and the status after the change) must have been defined by a user. The Item's status (for example, *Investigating*, *Acknowledged*, or *Close*) that triggers issuance of a JP1 event and the Item information (such as the process work board name and priority) to be stored in the JP1 event are specified in JP1/IM - Service Support. What processing the automated action will execute is defined for each status in JP1/IM - Manager.

The following figure shows an overview of processing in which a JP1/IM - Manager automated action makes a phone call to the person in charge of an Item when the status of the Item is changed to *Acknowledged*.

Figure 4–4: Automated action executed when a status change is reported
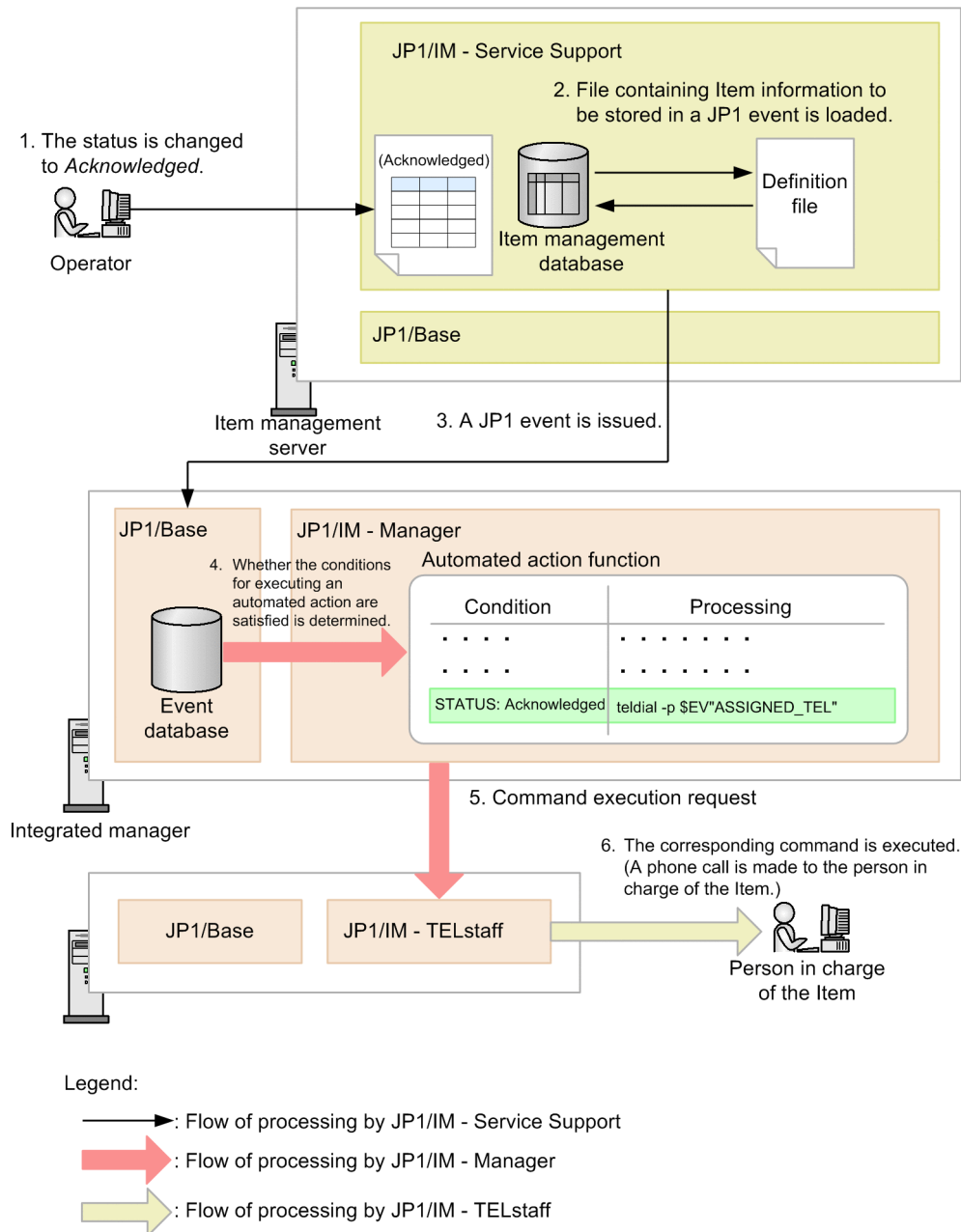
The steps in the above figure are described below.

1. When a JP1/IM - Service Support Item is acknowledged, the JP1/IM - Service Support operator changes the status of the Item to *Acknowledged*.

2. JP1/IM - Service Support reads the definition file for status-change JP1 events, and receives the Item information to be stored in a JP1 event from the Item management database.

3. A JP1 event containing Item information is issued to the JP1/Base event database of the integrated manager.

4. The JP1/IM - Manager automated action function determines whether the received JP1 event satisfies the conditions for executing an automated action.

5. If the conditions are satisfied, a command (action) execution request is sent to the execution host based on the action definition.

6. The `teldial` command of TELstaff is executed to notify the person in charge of the Item that the Item was acknowledged.

4.2 Linkage with JP1/IM - View

When JP1/IM - Service Support is linked with JP1/IM - View, you can open a JP1/IM - Service Support window from a JP1/IM - View window to register Items.

Figure 4–5: Overview of linkage with JP1/IM - View
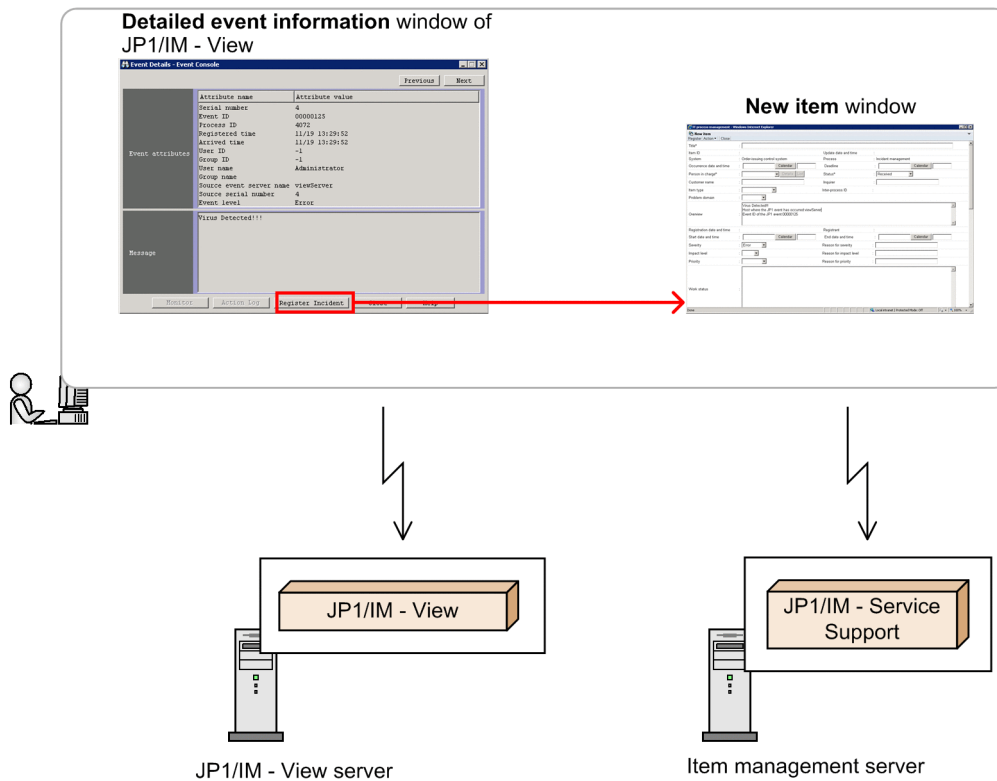
You can open the New item window of JP1/IM - Service Support based on the information in the definition file for manual incident registration (`incident.conf`) of JP1/IM - View.

4.2.1 Registering Items from JP1/IM - View

You can open the New item window of JP1/IM - Service Support from JP1/IM - View by setting the URL of JP1/IM - Service Support in the definition file for manual incident registration (`incident.conf`) of JP1/IM - View. This means that you can register Items in JP1/IM - Service Support from JP1/IM - View.

To open the New item window of JP1/IM - Service Support from JP1/IM - View:

1. In the Detailed event information window of JP1/IM - View, click the **Register Incident** button.

   The Specify the registration target window of JP1/IM - Service Support opens.

   In the following circumstances, the JP1/IM - Service Support login window appears when you click the **Register Incident** button in the Detailed event information window of JP1/IM - View:

   • The JP1/IM - View user is not registered as a user in JP1/IM - Service Support.

   • The user account of the JP1/IM - View user has different passwords for JP1/IM - Service Support and JP1/IM - View.

   If the JP1/IM - Service Support login window appears, you can display the Specify the registration target window by entering a user ID and password registered in JP1/IM - Service Support.

To bypass the login window and display the Specify the registration target window directly, register the JP1/IM - View user as a user in JP1/IM- Service Support. When registering the user, use the same user ID and password as JP1/IM - View.

2. Select the process work board on which you want to register an Item, and then click the **OK** button.

The New item window of JP1/IM - Service Support opens.

The following table describes the information that will be passed from the Detailed event information window of JP1/IM - View.

Table 4–2: Information that will be passed from the Detailed event information window of JP1/IM - View

Source setting	Destination setting
Serial number (B.SEQNO)	JP1 event database serial number (JIMSD_FORM_IMEVENTNO)
Name of the JP1/IM - Manager host to which JP1/IM - View has logged in	JP1/IM - Manager host name (JIMSD_FORM_IMHOSTNAME)
Message (B.MESSAGE)	Overview (JIMSD_FORM_SUMMARY)
Source event server name (B.SOURCESERVER)	
Event ID (B.IDBASE)	
Severity (E.SEVERITY)	Severity (JIMSD_FORM_SEVERITYCODE)
Product name (E.PRODUCT_NAME)	Product name (JIMSD_FORM_JP1PRODUCTNAME)

For an Item registered from JP1/IM - View, the Item settings are passed correctly even if the display names for the destination settings are changed. However, do not change the display names to names whose meanings are completely different from the meanings of the current names. Note that for the severity, the source setting is E.SEVERITY and the destination setting is JIMSD_FORM_SEVERITYCODE. The following table shows the correspondence between the selection codes for E.SEVERITY and JIMSD_FORM_SEVERITYCODE.

Table 4–3: Correspondence between the source and destination selection codes for severity

Selection code for the source severity	Selection code for the destination severity
Emergency	1
Alert	2
Critical	3
Error	4
Warning	5
Notice	6
Information	7
Debug	8

If you change the display name of a selection code for JIMSD_FORM_SEVERITYCODE (severity) by customizing the Item form, the severity specified by E.SEVERITY will not be passed as intended to JIMSD_FORM_SEVERITYCODE.

For example, assume that you assign Information as the display name of selection code 1. In that case, information with severity level Emergency will be passed from E.SEVERITY to JIMSD_FORM_SEVERITYCODE as Information.

The JP1 event database serial number and the JP1/IM - Manager's host name are passed as Item information even if the corresponding fields are not displayed in the New item window. However, the values for the other settings are passed only when those settings are displayed in the New item window.

4.3 Linkage with JP1/AIM

By using linkage with JP1/AIM, you can open a JP1/AIM window from a JP1/IM - Service Support window to view hardware information managed in JP1/AIM.

The following figure shows an overview of linkage with JP1/AIM.

Figure 4–6: Overview of linkage with JP1/AIM
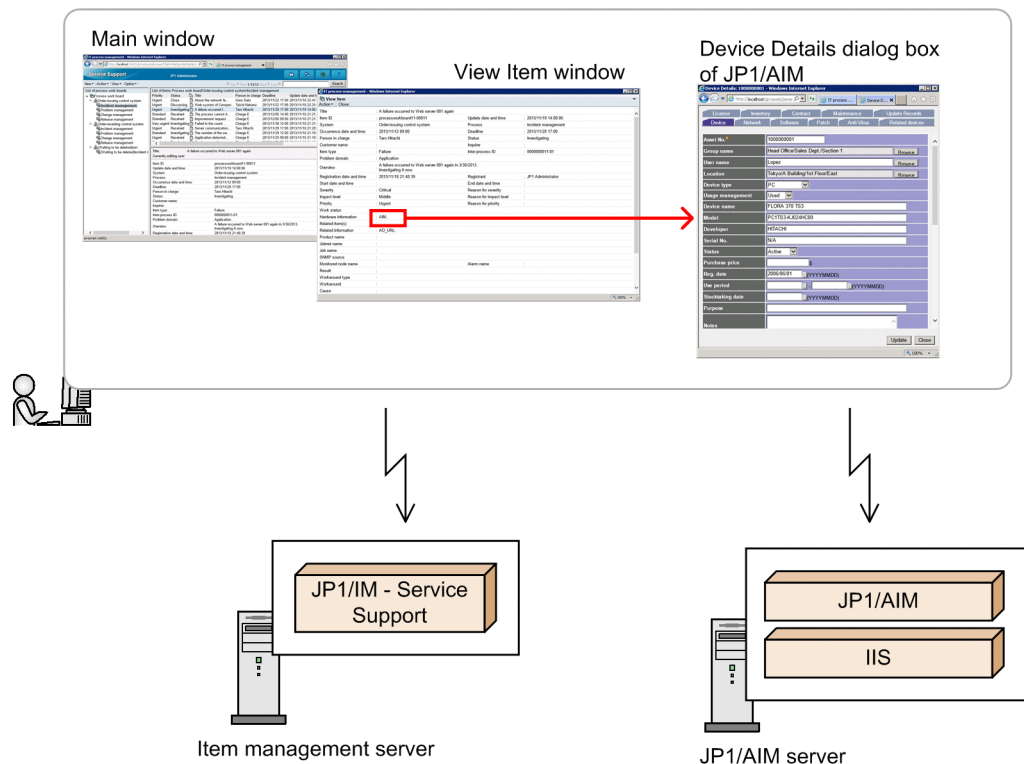
In the View Item window of JP1/IM - Service Support, if you click a link displayed in the **Hardware information** field, JP1/AIM opens the Device Details dialog box for the link target.

4.3.1 Displaying hardware information managed in JP1/AIM

You can view hardware information managed in JP1/AIM by specifying settings described in the following table for the Item setting **Hardware information**.

Table 4–4: Settings for viewing hardware information managed in JP1/AIM

Setting	Description
Hardware information	Specify hardware managed in JP1/AIM.
Destination server	Specify the name of the server on which JP1/AIM is installed. Before you can specify this, you must set up an environment for linkage with JP1/AIM. For details, see *8.15.3 Setting an environment for linking with JP1/AIM*.
Type	Specify the type of the value specified as hardware information. You can specify one of the following types: • Host name • IP address

Setting	Description
Type	• Asset number

You can specify the above settings by using the Link Setting window for **Hardware information** settings. After these settings are specified, the values in the **Hardware information** field are displayed as links. When you click a link, JP1/AIM opens the Device Details dialog box, which displays details of the hardware information.

4.3.2 Connection to JP1/AIM

To link JP1/IM - Service Support with JP1/AIM, you must set the name of the JP1/AIM server in JP1/IM - Service Support.

For details about the settings in JP1/IM - Service Support, see *8.13 Setting an environment by using definition files*.

In JP1/AIM, the settings for JP1/IM - Service Support to connect to JP1/AIM have already been specified. With these default settings, when JP1/AIM is called from JP1/IM - Service Support, the JP1/AIM Login window opens. When this login window opens, enter a user ID and password that are registered in JP1/AIM. After entering login information, you can directly open the Device Details dialog box. This permission continues until you close (log out from) JP1/IM - Service Support.

You can also directly open the Device Details dialog box without displaying the Login window. To do this, you must set the password for `Service support manager`, which is a JP1/IM - Service Support user account provided by JP1/AIM.

4.4 Linkage with JP1/AO

In release management, tasks such as expansion of hard disks on servers and addition of memory frequently occur. If you use linkage with JP1/AO, you can open the Submit Service dialog box of JP1/AO directly from the Item preview area in the main window (Item list), or the View Item window. Because you can execute services registered in JP1/AO without logging in again, you can carry out your tasks efficiently.

Note that linkage with JP1/AO requires the JP1/Base authentication functionality. Make sure that you use the same authentication server for JP1/IM - Service Support and JP1/AO. If you do not use the same authentication server, JP1/IM - Service Support cannot link with JP1/AO. For details about using the JP1/Base user authentication functionality, see *4.7.2 Linkage with JP1/Base (for authentication)*.

The following figure shows an overview of linkage with JP1/AO.

Figure 4–7: Overview of linkage with JP1/AO
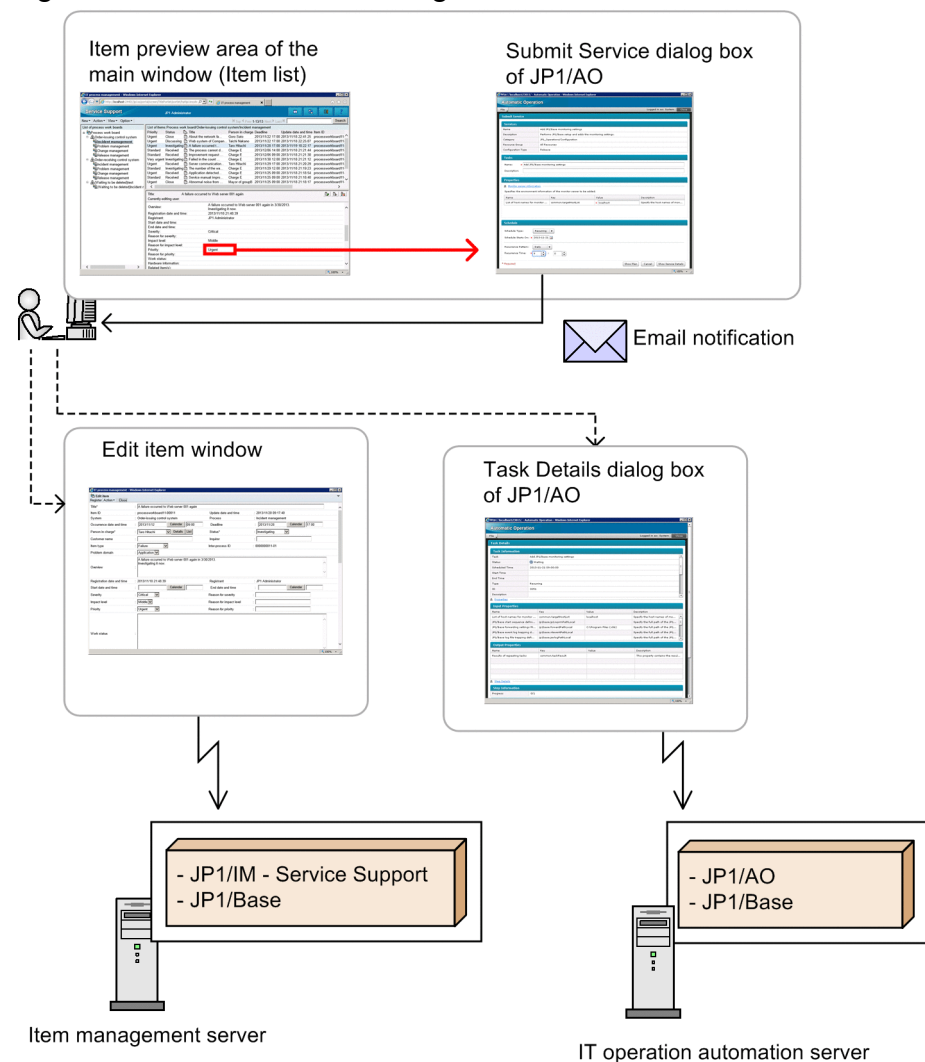
You can launch a JP1/AO window from **Related information** or **Related link** of the Item preview area in the View Item window or the main window (Item list) of JP1/IM - Service Support.

For details about how to register services in JP1/AO, see the descriptions of service template management and service management in the *Job Management Partner 1/Automatic Operation Administration Guide*.

4.4.1 Item information passed to JP1/AO

When the Submit Service dialog box of JP1/AO is opened from JP1/IM - Service Support, the dialog box can display Item information passed from JP1/IM - Service Support to JP1/AO.

The passed Item information can be displayed in the following fields of the Submit Service dialog box:

- **Resource Group** under **Services**
- **Name** under **Services**
- **Name** under **Tasks**

JP1/AO can receive information that was set by using the New item window or the Edit item window. Note, however, that no Item form provides the elements that exactly correspond to the above fields. Therefore, you must determine which form elements you want to use, and must associate their IDs with the fields. When you associate element IDs with fields, if you associate **Item ID** (JIMSD_FORM_ITEMID) with the **Name** field under **Tasks**, the Item for which the service was executed can be identified on the JP1/AO side. Use the hptl_jp1_imss_ao_item_info_$n system property file to associate element IDs with fields. If you want to use element names that resemble the field names (for example, *Service's resource name*, *Service name*, and *Task name*), you must customize the relevant Item form. When you customize the Item form, we recommend that you use the input-assistant function to correlate the input-candidate values displayed in the drop-down lists for *Service's resource name* and *Service name*.

For details about the System property file (hptl_jp1_imss_main_setting.properties), see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*. For details about customizing Item forms, see *8.8 Customizing Item forms*. For details about the input-assistant function, see *8.16 Setting an environment for linking with information managed by a system other than JP1/IM - Service Support*.

4.4.2 Connecting to JP1/AO

To link JP1/IM - Service Support with JP1/AO, you must specify the necessary JP1/IM - Service Support environment settings. For details about these environment settings, see *8.15.4 Setting an environment for linking with JP1/AO*.

Note that to enable the JP1/AO, Submit Service dialog box you must set the URL for launching the dialog box in the **Related information** column in the Link setting window for related information. For details, see the description of the Item creation procedure in the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*. Set the launch URL of the Submit Service dialog box in the **Related information** and **Related link** fields. For details about the launch URL to be set, see the description of direct access URLs in the *Job Management Partner 1/ Automatic Operation Administration Guide*.

On the JP1/AO side, you do not need to specify any settings for linkage with JP1/IM - Service Support. When you attempt to launch JP1/AO from JP1/IM - Service Support, the Submit Service dialog box opens.

4.5 Linkage with a non-JP1 operation management product

JP1/IM - Service Support can link with a non-JP1 operation management product. This linkage makes it possible to:

- Register information managed in the linked product in JP1/IM - Service Support as Items.
- View information managed in the linked product from JP1/IM - Service Support.
- Edit Items managed in JP1/IM - Service Support from Web applications.

The following figure shows an overview of linkage with a non-JP1 operation management product.

Figure 4–8: Overview of linkage with a non-JP1 operation management product
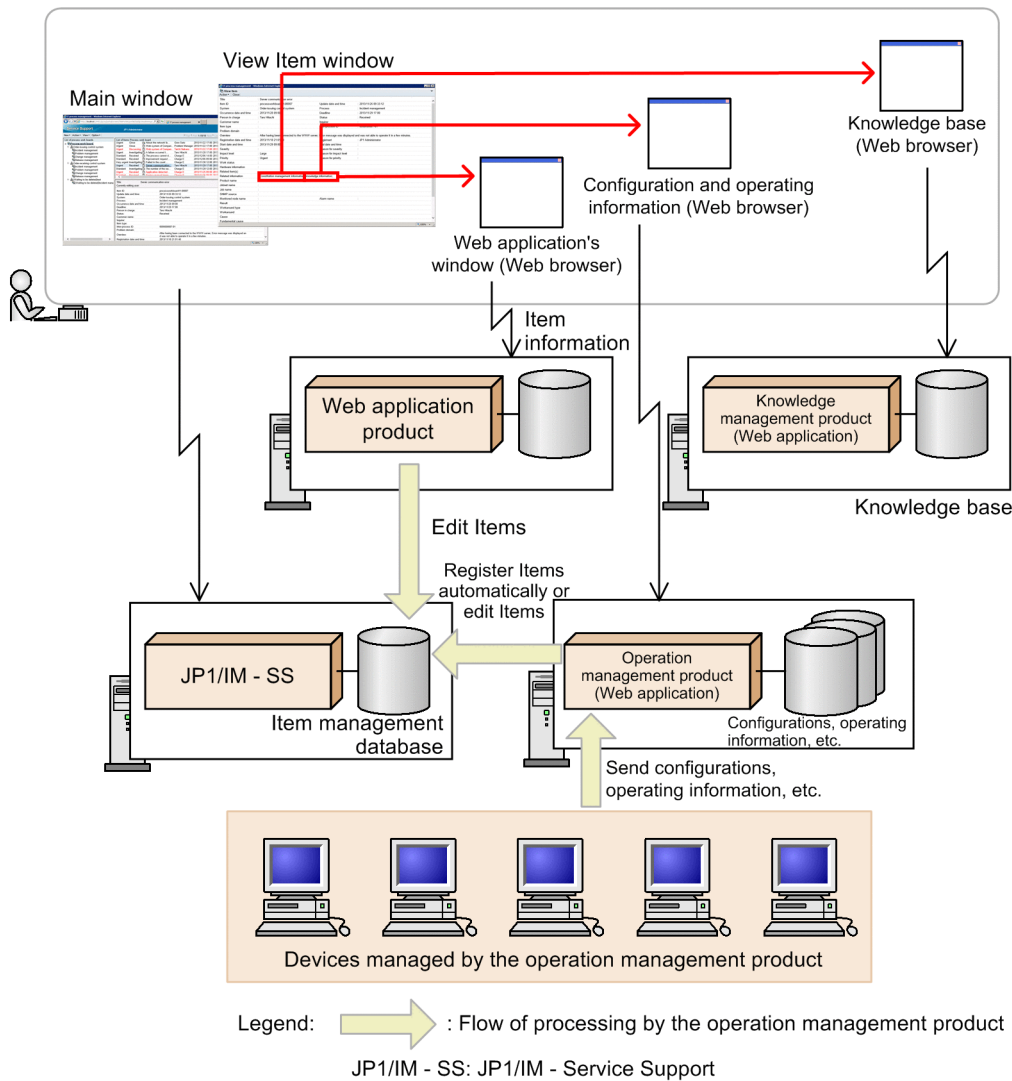
In the above example, information managed in an operation management product is automatically registered as Items in JP1/IM - Service Support. Also, an operation management product and a knowledge management product are launched from JP1/IM - Service Support to view information managed in those products.

4.5.1 Registering Items from a linked product

Items can be registered in JP1/IM - Service Support by using the JP1/IM - Service Support GUI or the `jssitementry` command. However, only the `jssitementry` command can be used to register Items from a linked product. For details about this command, see *jssitementry (registers an Item)* in *Chapter 11. Commands*.

Note that a function that executes the `jssitementry` command from a linked product must be implemented in the product. If you want a linked product to automatically register information about a specific event as Item information when the event occurs, a function that performs this processing must also be implemented in the linked product. (A JP1 product that has these functions is JP1/IM - Manager.)

If you want a linked product to register Items automatically, make sure that the product can perform the necessary processing.

4.5.2 Viewing information managed in a linked product

In the **Related information** field of an Item, JP1/IM - Service Support can display links to windows that contains information related to the Item. This function allows users to view the information managed in a linked product by clicking its link.

Note that JP1/IM - Service Support is a Web application that uses a Web browser. Therefore, to display information managed in a linked product from JP1/IM - Service Support, the linked product must has a function that displays managed information with a Web browser.

Make sure that the linked product has that function if you want to display information managed in a linked product from JP1/IM - Service Support.

4.5.3 Linkage with Web applications

In the **Related information** field of an Item, JP1/IM - Service Support can display links to windows that contain information related to the Item. This function allows users to view the information that is managed in a linked product by clicking its link.

JP1/IM - Service Support can pass the information listed below to a Web application. Therefore, it is possible to edit Item information from a Web application by executing the Item editing command.

- Process work board ID
- Process work board serial number

The process work board ID and process work board serial number can be received via `HttpRequest` by using the keys listed in the following table.

Table 4–5: Keys to receive information via HttpRequest

Information to be passed to a Web application	Key to receive the information
Process work board ID	`hptl_jp1_imss_pwbid`
Process work board serial number	`hptl_jp1_imss_itemno`

For details about the Item editing command, see *jssitemedit (edits an Item)* in *Chapter 11. Commands*.

The Item information to be passed to Web applications is set by using the System property file (`hptl_jp1_imss_main_setting.properties`). For details, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

4.6 Linkage with information managed in a system other than JP1/IM - Service Support

Customer and device information managed in a system other than JP1/IM - Service Support can be used as *input-candidate values* that can be selected for Item settings. If input-candidate values have been defined, a user who creates or edits an Item can easily specify a value by simply selecting it from a drop-down list, without directly entering it.

A definition of input-candidate values can be created for each process work board. Therefore, the input-candidate values to be displayed can be changed depending on the target system.

For example, if input-candidate values have already been registered for customer names by using the customer information managed by spreadsheet software, efforts to open the spreadsheet software and entry mistakes can be both eliminated.

The following figure shows how input-candidate values are displayed.

Figure 4–9: How input-candidate values are displayed
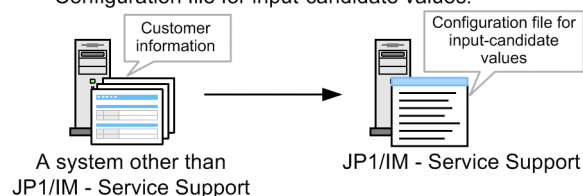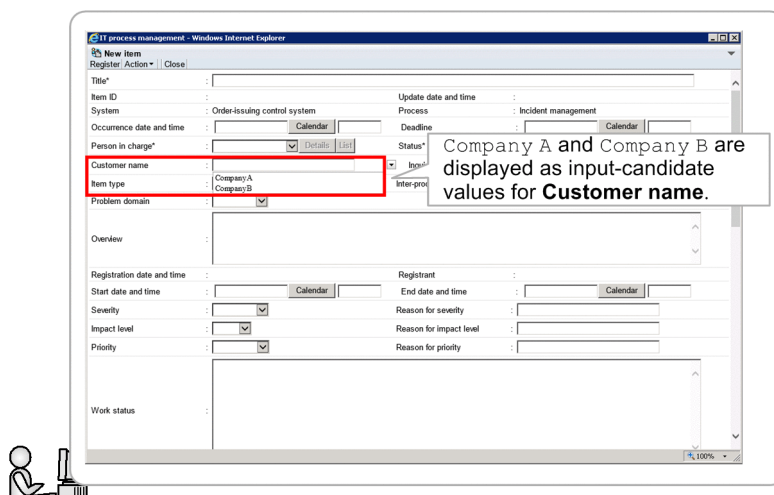
Input-candidate values for multiple Item settings can also be associated with each other. That is, an input-candidate value selected for one setting will limit the input-candidate values that can be displayed for other settings. This function allows the user to specify values with ease.

The following figure shows an example of how this function works. In this example, when an input-candidate value is selected for **Customer name**, the input-candidate values displayed for **Inquirer** are limited.

Figure 4–10: How displayed input-candidate values change according to the selection for the other setting

Legend:

———————► : When **Company A** is selected for **Customer name**.

------► : When **Company B** is selected for **Customer name**.
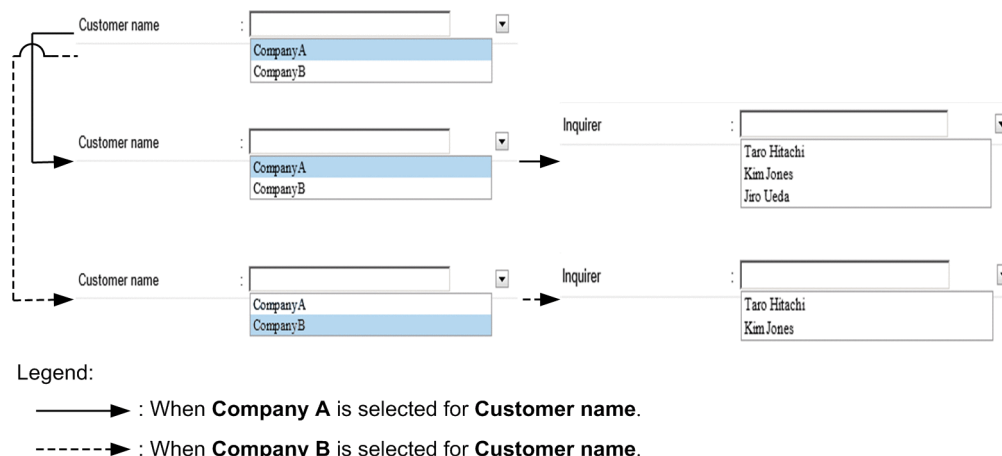
In the above example, when **Company A** is selected for **Customer name**, the input-candidate values displayed for **Inquirer** are limited to **Scott White**, **Virgil Brown**, and **Alan Green**. When **Company B** is selected for **Customer name**, the input-candidate values displayed for **Inquirer** are limited to **Gordon Black** and **John Scarlet**.

The function that correlates input-candidate values for different settings is called *cross-setting value correlation*. The function that sets input-candidate values and the cross-setting value correlation function are generically called the *input-assistant function*.

The input-candidate values to be displayed and the settings to be correlated are set by using the configuration file for input-candidate values. For details about how to specify the settings in this file, see *8.16 Setting an environment for linking with information managed by a system other than JP1/IM - Service Support*. For details about the Configuration file for input-candidate values, see *Configuration file for input-candidate values (Optional)* in *Chapter 12. Definition Files*.

The process work boards on which input-candidate values are to be displayed, the maximum length of input-candidate values, and other settings are specified by using the system property file. For details, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

4.7 Linkage with an external authentication server

JP1/IM - Service Support supports authentication methods that use the LDAP server and the JP1/Base authentication server, as well as the method that uses the Item management database.

4.7.1 Linkage with an LDAP server

JP1/IM - Service Support can use an LDAP server for user authentication. The LDAP server supported by JP1/IM - Service Support is an Active Directory server.

Although Active Directory is used for user authentication, the information in the Item management database is used to display user information and to manage access permissions. Therefore, the user information registered in Active Directory must also be registered in the Item management database.

The settings for using an LDAP server for user authentication are specified by using the JAAS user management definition file (`hptl_jp1_imss_ua_conf.properties`). For details, see *JAAS user management definition file (hptl_jp1_imss_ua_conf.properties)* in *Chapter 12. Definition Files*.

4.7.2 Linkage with JP1/Base (for authentication)

JP1/IM - Service Support can use the JP1/Base authentication server for user authentication.

In this case, although the JP1/Base authentication server is used for user authentication, the information registered in the Item management database is used to display user information and to manage access permissions. Therefore, the user information for the user IDs registered on the JP1/Base authentication server must be registered in the Item management database.

For details about using the JP1/Base authentication functionality, see *5.15 Considering the authentication method*.

5

Designing JP1/IM - Service Support

JP1/IM - Service Support manages inquiries and failure events that occur in daily system operations, and the resulting problems and issues needed to be considered. Before running this product, you must decide the design policy for the target system and the setting elements to be managed, and the operation policy.

This chapter describes the concepts behind design policy, which enables JP1/IM - Service Support to operate according to service support requirements.

5.1 Operation cycle of JP1/IM - Service Support

To smoothly perform JP1/IM - Service Support operations based on actual service support needs, design and decide the following before starting operations:

- Target system and the processes to be used

- Rules regarding tasks, such as the procedures related to tasks in each process and the assignment of persons in charge to tasks

- Setting elements to be managed for each process (necessary information for tasks, such as severity and priority)

After deciding the above design requirements, you must configure and administer the environment. Continue operations for a while, and then use the accumulated information to analyze the trends of Item occurrence and the bottlenecks of individual processes. Then use this knowledge to improve operation status.

Such a flow of consecutive improvement of JP1/IM - Service Support operations is called the *operation cycle of JP1/IM - Service Support*.

The following figure shows the operation cycle of JP1/IM - Service Support.

Figure 5–1: Operation cycle of JP1/IM - Service Support
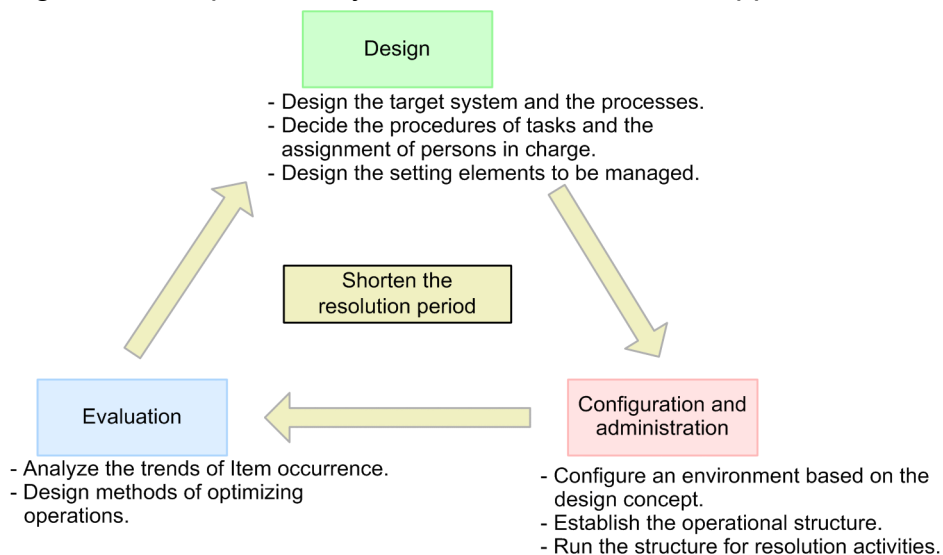
5.2 Deciding the target system and processes and establishing the structure

Before starting operations using JP1/IM - Service Support, you must decide the target systems and the processes to be used. Next, you must decide task assignments and task flow. These will define who will do what in individual processes.

You can also create a processing route of Items suitable for your operations by customizing their statuses. When you consider customizing the statuses, see *5.3 Considering Item statuses*.

The statuses described in this section are the default statuses. Replace them with the customized statuses if you customize statuses.

The following descriptions assume that JP1/IM - Service Support is used to perform operations on a model system. You can reference those descriptions when you actually configure an environment using JP1/IM - Service Support.

First, as shown in the following figure, consider the processes for resolving an Item for a system managed by JP1/IM - Service Support.

Figure 5–2: Consideration of the processes of the target system

#: A request for change can also be attached to the Item as an attachment at escalation.

Legend:

━━━▶ : Tasks using JP1/IM - Service Support

------▶ : Tasks not using JP1/IM - Service Support
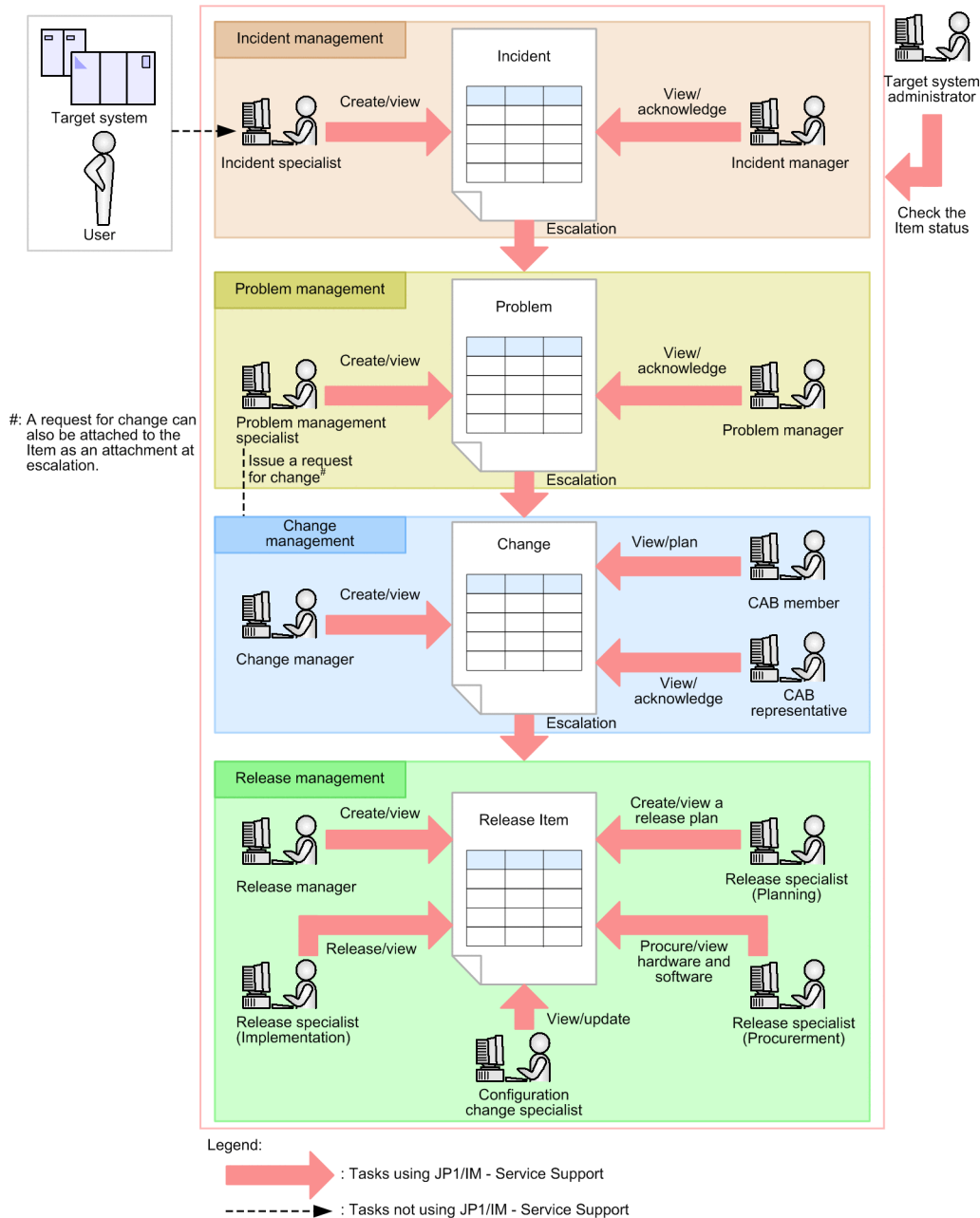
Next, consider the persons in charge of checking the status of Items. Consider the details of their tasks as described in the following table.

Table 5–1: Consideration of the persons in charge of checking the status of Items and the contents of their tasks

Person in charge	Task	Detailed contents of the task
Information system administrator	Checking the status of Items across systems and taking appropriate measures	- Manages the status of Items across systems. - Tries to resolve problems in systems for which an Item is held. - Considers methods of optimizing operations by summarizing and evaluating the status of the entire system.
Work status manager	Managing the status of Items	- Checks the processing status of Items in the system in his charge, mainly for managing time schedules. - Takes care of problematic processes.

Person in charge	Task	Detailed contents of the task
Target system administrator	Checking the status of Items in the system and taking appropriate measures	- Manages the processes in the system in his charge. - Tries to resolve the problems in the processes for which an Item is held.

Also, consider the flow of processing an Item in each process in detail, including the persons in charge and the contents of their tasks.

Table 5–2: Consideration of the flow of tasks in individual processes, the persons in charge, and the contents of tasks

Process	Person in charge	Task	Detailed contents of the task (Keywords are enclosed by " ".)	Item status
Incident management	Incident specialist	Creating incidents	- Creates incidents in order to manage inquiries from users and to manage system failures. - Creates incident Items in the New item window as part of the incident management process.	Received
		Searching and investigating past cases	- Searches past cases for similar cases, and sets similar cases as "Related item(s)". - Edits Items according to the investigation status.	Investigating
		Escalation	- Escalates Items to the problem management process when long-term measures must be taken. - Sets the person in charge as the problem management specialist.	Support Requested
		Entering the results of investigating incidents	- Enters the results of investigations in "Workaround" and "Solution".	Investigating
		Requesting acknowledgement	- Requests the incident manager to acknowledge the contents of incidents. - Enters the contents of such requests in the "Free memo column". - Sets the incident manager as the person in charge, and changes the status to `Discussing`.	Discussing
	Incident manager	Acknowledging incidents	- Checks the contents of incidents. - Changes the status to `Acknowledged`, and changes the person in charge to the incident specialist.	Acknowledged
	Incident specialist	Closing incidents	- Checks the history of an Item and reports the results to the inquirer as needed. - Officially answers the inquirer when the status becomes `Acknowledged`. - Fills in the "Result", and closes the Item.	Close
Problem management	Problem management specialist	Creating problems	- Analyzes trends based on system failures and inquiries, and creates problems.	Received

Process	Person in charge	Task	Detailed contents of the task (Keywords are enclosed by " ".)	Item status
Problem management	Problem management specialist	Creating problems	- Creates problems in the New item window in the problem management process.	Received
		Investigation	- Investigates created problems and problems escalated by the incident management process. • Searches past problems as needed. • Views the system configuration. This includes elements such as "Hardware information". • Register logs and other information as attachments when investigating failures. - Fills in "Fundamental cause" and "Solution" based on the investigation results.	Investigating
		Requesting acknowledgement	- Requests the problem manager to acknowledge the contents of the investigation or the solution. - Enters the contents of a request in the "Free memo column". - Sets the problem manager as the person in charge, and changes the status to `Discussing`.	Discussing
	Problem manager	Acknowledgement	- Checks problem details. - Sets the problem management specialist as the person in charge, and changes the status to `Acknowledged`.	Acknowledged
	Problem management specialist	Escalation	- Escalates an Item to the change management process if any system change is required in relation to a problem. - Sets the change manager as the person in charge.	Support Requested
		Closing	- Enters the final results for a problem Item, and changes the status of the problem to `Close`. (- Requests acknowledgement again, as needed, before closing an Item.)	Close
Change management	Change manager	Creating changes	- Creates system change jobs. - Creates a change in the New item window in the change management process.	Received
		Requesting planning	- Checks the contents of created or escalated changes. - Writes in "Free memo column" that creation of a plan is requested, and changes the person in charge to the CAB member.	Received
	CAB member	Creating plans	- Creates an impact assessment and a change plan.	Planning

Process	Person in charge	Task	Detailed contents of the task (Keywords are enclosed by " ".)	Item status
Change management	CAB member	Requesting acknowledgement	Sets the CAB representative as the person in charge, and changes the status to `Discussing`.	Discussing
	CAB representative	Acknowledgement	- Checks the contents of a change plan, and arranges a CAB conference as necessary. - Changes the status to `Acknowledged` when the change plan is acknowledged.	Acknowledged
		Escalation	- Escalates an Item to the release management process as necessary. - Sets the release manager as the person in charge.	Support Requested
	Change manager	Reviewing	Performs a review with related persons after a certain period passes from the time the release finishes.	Reviewing
		Closing	Enters the results and closes the change.	Close
Release management	Release manager	Creating release Items	- Creates an Item for release work. - Creates a change in the New item window of the release management process. - Writes in "Free memo column" the contents of the request for designing a release plan. - Changes the person in charge to the release specialist (planning).	Received
	Release specialist (Planning)	Creating plans	Creates release plans.	Planning
		Requesting acknowledgements	Changes the person in charge to the release manager to get an acknowledgement for the release plan, and changes the status to `Discussing`.	Discussing
	Release manager	Acknowledgement	- Checks the contents of a plan. - Changes the person in charge to the release specialist (procurement), and changes the status to `Acknowledged`.	Acknowledged
	Release specialist (Procurement)	Procuring hardware and software	- Checks the contents of a release Item, and procures the required software and hardware. - Changes the person in charge to the release specialists (implementation).	Acknowledged
	Release specialist (Implementation)	Performing release operations, and requesting updates of configuration information	- Performs release work. - Fills in the "Job report", changes the person in charge to the configuration change specialist, and asks him or her to take appropriate measures.	Support Requested
	Configuration change specialist	Updating configuration information	- Updates configuration information based on the "Job report". - Changes the person in charge to the release manager.	Acknowledged
	Release manager	Closing	Checks the contents of the release Item work, and closes the release Item.	Close

After the above considerations, pick out information elements which are handled as individual tasks in individual processes and that need to be managed (such as the keywords in Table 5-2).

Then, compare those information elements with the setting elements of JP1/IM - Service Support, and determine which setting elements must be renamed or added.

5.2.1 Designing users and roles

All members who need to access JP1/IM - Service Support must be registered as users. The IDs and passwords, which are required for logging in to JP1/IM - Service Support, and the departments, phone numbers, and email addresses for individual users must be also registered.

When you initially introduce JP1/IM - Service Support, consider the use of the jssuserimport command. This command will enable you to batch register users. For details, see *jssuserimport (imports user information)* in *Chapter 11. Commands*.

In the window of JP1/IM - Service Support, you can register users one by one, and also edit and delete the registered user information.

In addition, in JP1/IM - Service Support, you can define roles that correspond to users' work assignments, and assign users to appropriate roles.

Taking *5.2 Deciding the target system and processes and establishing the structure* as an example, you can define role names using the contents of the *person in charge* column of Table 5-2.

Examples of role names:

Incident specialist, Incident manager, Problem management specialist, Problem manager, Change manager, CAB member, CAB representative, Release manager, Release specialist (Planning), Release specialist (Procurement), Release specialist (Implementation), and Configuration change specialist

Consideration of the use of roles

Note the following and consider whether to use roles:

- In a small-scale system that has fewer users, you can register users by just using User management without using roles.

- In a large-scale system that has many users and departments, we recommend that you utilize roles. By using roles, you can grant the same access permissions to multiple users all at once.

- Only the users and roles belonging to the user management role can register and update users. Only the users and roles belonging to a process work board management role can create process work boards. Only the jp1admin user belongs to these administrator roles from the beginning.

  By strictly managing the users and roles belonging to administrator roles, you can improve information security even when a process work board that deals with important information is created.

- You can create roles from the viewpoint of department, work assignment, or project, and grant these roles access permissions to the relevant process work boards. By doing so, you can grant access permissions to uses related to the relevant process work boards without regard to the users.

- If you do not want to perform complicated management, you can use the same name for an access permission and a role (such as View role or Acknowledged role). By doing so, you can manage the setting of access permissions (which is likely to become complicated) easily and simply.

- If you enable view permissions for individual Items and wish to allow only certain users to view an Item, you can use roles to assign view permissions for the Item to a group of users.

Notes:

- To register user information and role information in JP1/IM - Service Support from the window of JP1/IM - Service Support, you need to have the user management role permission.

- You can register no more than 1,000 users.

- You can register no more than 1,000 roles. You can register no more than 1,000 users per role.

- When you delete a use or role, you must check whether the user or role is in charge of some Items. If the user or role is in charge of an Item, change the person in charge of the Item to another user or role.

  JP1/IM - Service Support has the function of sending emails to all users who have the process work board manager permission when a user or role is deleted. The use of this function must also be considered.

  For details, see *5.5 Considering email notifications*.

- You cannot use names beginning with _jp1 for role IDs because they are reserved by the system.

- When you use emails (for example, using an email to notify that the deadline of an Item is approaching or sending an email to create an Item), make sure that you register the users' email addresses.

5.2.2 Designing the target system and the process work boards

Use the window of JP1/IM - Service Support to define a system to be managed and set appropriate processes under that system.

Taking *5.2 Deciding the target system and processes and establishing the structure* as an example, the setting results in the tree structure displayed in the **List of process work boards** in the main window (Item list) are as follows.

```
[Process work board]
  |-system-name#
       |- Incident management
       |- Problem management
       |- Change management
       |- Release management

#: system-name can be any name the user wants.
```

Notes:

- To create a target system and the process work boards, the process work board management role permission is required.

- Use ID and names for target systems that are easy for users to manage.

  System ID: No more than 64 half-width alphanumeric characters

  System name: No more than 128 half-width alphanumeric characters or no more than 40 full-width characters except control characters (0x00 to 0x1F, and 0x7F)

- The process work board ID forms part of the Item ID. Therefore, you must use names that are easy for the user to manage.

  Process work board ID: No more than 64 half-width alphanumeric characters

- You can create a maximum of 100 target systems in JP1/IM - Service Support (Standard), including those in *Waiting to be deleted* status. In JP1/IM - Service Support Advanced Edition, the limit is 200 target systems. You can create no more than 4 process work boards under a target system. Design them so as not to exceed the upper limit.

- You cannot place processes with duplicate names under a target system.

For example, if you wanted to divide the incident management process into primary support and secondary support for management purposes, you could define two corresponding target systems in JP1/IM - Service Support as shown below.

```
[Process work board]
  |- Selling system
  |  |- Incident management
  |  |- Problem management
  |  |- Change management
  |  |- Release management
  |- Selling system (for the secondary support)
     |- Incident management
```

- You can also register multiple customized Item forms, and use them for individual process work boards. Consider whether to customize Item forms and use them for individual process work boards. For details about customizing Item forms, see *8.8 Customizing Item forms*.

5.2.3 Designing assignment of access permissions

In JP1/IM - Service Support, you can assign access permissions for each user or role per process work board. Access permissions consists of the permissions for operating on Items (such as New item, Edit item, and Close item) and the detailed edit permissions for each Item status.

The following is an example of assignment of access permissions for those in charge of individual tasks, taking Table 5-1 in *5.2 Deciding the target system and processes and establishing the structure* as an example:

- For information system administrator:
  Assign the role "Work management role" (no access permissions need to be assigned).

- For work status manager and target system administrator:
  Assign the View item access permission for the process work board in the system they are in charge of.

The following table provides an example of assigning access permissions for individual processes. It uses Table 5-2 in *5.2 Deciding the target system and processes and establishing the structure* as an example.

Table 5–3: Example assignment of access permissions

Process	Person in charge	Target Item	Access permissions
Incident management	Incident specialist	Incident	New item View item Item status (Received, Investigating, Support Requested, Acknowledged, Close) Close item
		Problem	View item Escalation
	Incident manager	Incident	View item Item status (Discussing) Acknowledge item
		Problem	View item
Problem management	Problem management specialist	Incident	View item
		Problem	New item

Process	Person in charge	Target Item	Access permissions
Problem management	Problem management specialist	Problem	View item Item status (Received, Investigating, Support Requested, Acknowledged, Close) Close item
		Change	View item Escalation
	Problem manager	Incident	View item
		Problem	View item Item status (Discussing) Acknowledge item
		Change	View item
Change management	Change manager	Problem	View item
		Change	View item New item Item status (Received, Acknowledged, Reviewing, Close) Close item
		Release Item	View item
	CAB member (Change advisory board member)	Change	View item Item status (Received, Planning)
	CAB representative (Change advisory board representative)	Change	View item Acknowledge item Item status (Discussing, Support Requested)
		Release Item	View item Escalation
Release management	Release manager	Change	View item
		Release Item	View item New item Acknowledge item Item status (Received, Discussing, Acknowledged, Close) Close item
	Release specialist (Planning)	Release Item	View item Item status (Received, Planning)
	Release specialist (Procurement)	Release Item	View item Item status (Acknowledged) Acknowledge item
	Release specialist (Implementation)	Release Item	View item Item status (Acknowledged)
	Configuration change specialist	Release Item	View item Item status (Support Requested) Acknowledge item

Access permissions are set for each process work board separately. Therefore, the contents in Table 5-3 must be rearranged for each process work board. The following table is a rearrangement of Table 5-3, which describes only the setting of access permissions for the incident management process.

Table 5–4: Setting of access permissions for the incident management process

Access permission		Assigned user or role
Process work board manager[1]		JP1 administrator[2]
Item permissions[3]	New item	Incident specialist
	Edit item	--
	View item[4]	Incident specialist, incident manager, problem management specialist, problem manager
	Delete item	--
	Escalation	--
	Acknowledge item	Incident manager
	Close item	Incident specialist
	Item status (Received)	Incident specialist
	Item status (Investigating)	Incident specialist
	Item status (Discussing)	Incident manager
	Item status (Acknowledged)	Incident specialist
	Item status (Support Requested)	Incident specialist
	Item status (Close)	Incident specialist

Legend:

--: No user or role assigned.

#1

For the process work board manager, all access permissions that can be set in the Edit permission window are granted. You can set the process work board manager in the New process work board window or in the Edit the process work board window.

#2

A user who supports the JP1/IM - Service Support system administrator is registered by default.

#3

Set the permissions in the Edit permission window.

#4

When view permissions are enabled for individual Items in the process work board, you can set the users and roles that have permissions to view the Item when you create the Item in the New item window. You can also set this information when you edit an Item in the Edit item window. To set view permissions for individual Items, you need to set up the environment in advance. For details, see *8.12 Setting an environment in which view permissions are set for individual Items*.

(1) Considerations about operation

Decide the rules for assigning access permissions, referring to the following examples:

- If you want to show the inquirer the status of the inquiry, grant him the View item permission for the relevant process work board.

  You can also separately create and manage process work boards for external disclosure of information and for internal investigation.

Access permissions for the process work board for external disclosure of information:

> For inquirer: Grant the View item permission.
>
> For the person in charge of inquiries: Grant the View item, New item, Edit item, and Close item permissions.
>
> For the approver for the person in charge of inquiries: Grant the View item and Acknowledge item permissions.

Access permissions for the process work board for internal investigation:

> Grant appropriate access permissions to workers for individual processes according to their work assignments.
>
> Also, grant the Escalation permission for the relevant process work board to the person in charge of inquiries so that Items can be escalated to the process work board for investigation.

- Grant the View item permission for the relevant process work board to the persons in charge of other processes so that they can view Items for reference.

- Grant the New item and Escalation permissions to only specified users or roles to prevent unspecified users or roles from registering Items.

- Grant the Acknowledge item permission for the relevant process work board to special persons so that only persons in special positions can acknowledge Items.

- Grant the Close item permission only to the process work board manager or to special users or roles to strictly control the closing of Items. This makes sure that Items are closed only after confirmation that they can really be closed.

- If you want to manage all the registered Items even if some of them were registered by mistake, grant the Delete item permission only to the process work board manager or those in special positions.

- If you want to temporarily grant access permissions for a specified process work board, add users corresponding to those access permissions. If you want to grant access permissions based on work assignments or departments, add roles corresponding to those access permissions.

- When you create a base system to process Items that are relevant to several systems, users are able to see Items with which they have no direct involvement. By assigning view permissions for individual Items, you can prevent users from seeing these Items. For details on how to set access permissions when view permissions are set for individual Items, see *(5) Operation example (setting view permissions for individual Items)*.

(2) Operation example (managing operation status of service support)

You need to assign appropriate permissions to the key personnel (and their managers) who are in charge of incident management, problem management, change management, and release management of an in-house system in the information management department. This will enable them to manage the operation status of service support.

The following example illustrates a case in which the *target system administrator* (the person in charge of an in-house system in the information management department) and the *information system administrator* (a higher level administrator) check the operation status separately.

Figure 5–3: Operation example of an in-house system in the information management department and its higher level organization
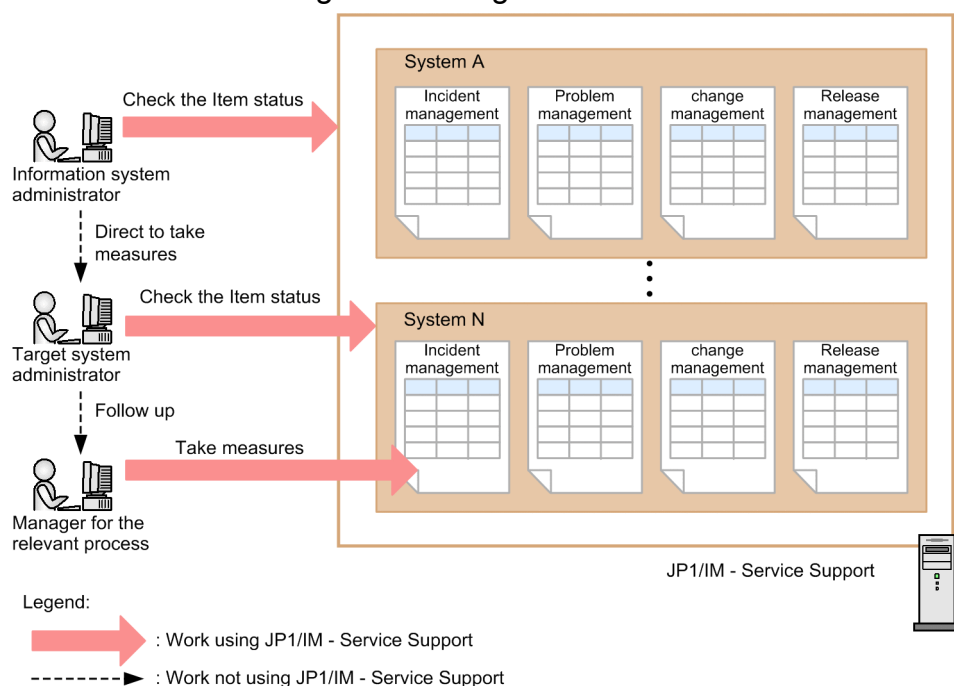
The information system administrator views the Item status of the entire in-house system, and checks whether there are any problematic systems. If there seems to be a problem (for example, there are too many Items held for a long time in a certain system), he or she directs the system administrator of the relevant system to take actions.

The target system administrator views the Item status of the system in his charge, and checks whether there are any problematic processes. The target system administrator checks the processes that have too many Items in the Discussing status or that have an Item for which the deadline for taking measures is approaching, and follows up with the manager of the process.

The following table describes the permissions required for individual administrators when the above operation is performed.

Table 5–5: Permissions required for managing the work status

Administrator name	Required permissions	Description
Information system administrator	Permission for viewing all systems	Belonging to the work management role enables the administrator to check the work status of the target system and processes managed by JP1/IM - Service Support.
Target system administrator	Permission for viewing all processes in system N	The View item access permission is required for all process work boards in system N.
Manager for the relevant process	Permission for viewing the processes in his or her charge	The View item access permission is required for the relevant process work board in system N.

(3) Operation example (deciding an escalation route (escalation path))

You must consider an escalation route for each process (escalation path) separately from the consideration of the processing of each process. You can decide an escalation route by granting the Escalation permission to the persons in charge of the individual processes. Decide escalation routes and configure corresponding permission settings before starting operations.

The following description assumes the escalation route shown in the following figure.

Figure 5–4: Example of an escalation route
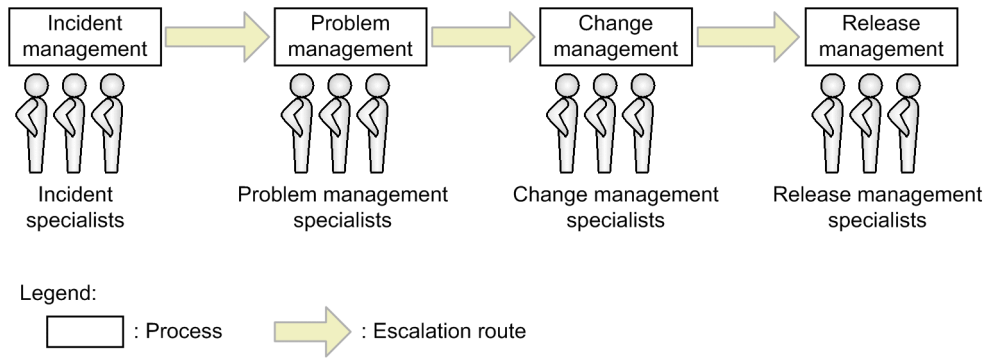
In this example, an escalation route is set in the order of incident management, problem management, change management, and release management. Escalation is allowed for those in charge of the individual processes. In this case, set permissions in the following procedure.

1. Create a role for each process, and configure the setting so that those in charge of each process have the role for the corresponding process.
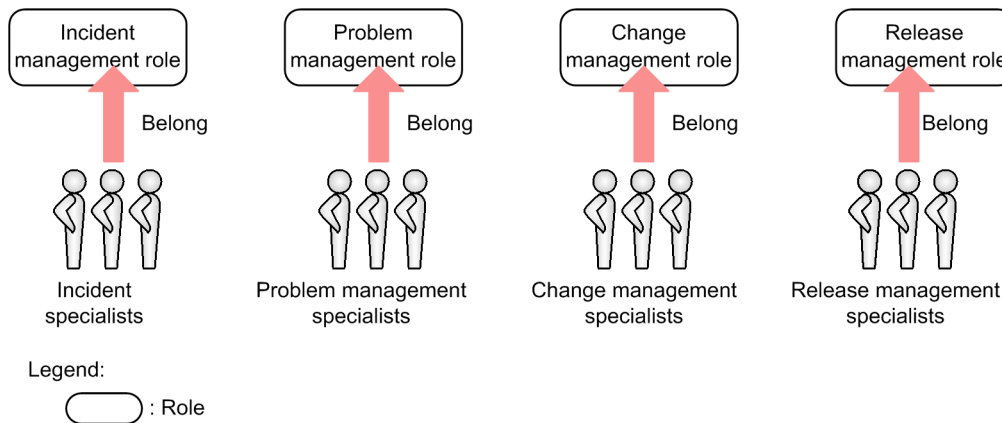
If the persons in charge of the same process can have the same permissions, we recommend that you create a role and assign them to that role.

2. For each process, set whose escalation will be allowed.
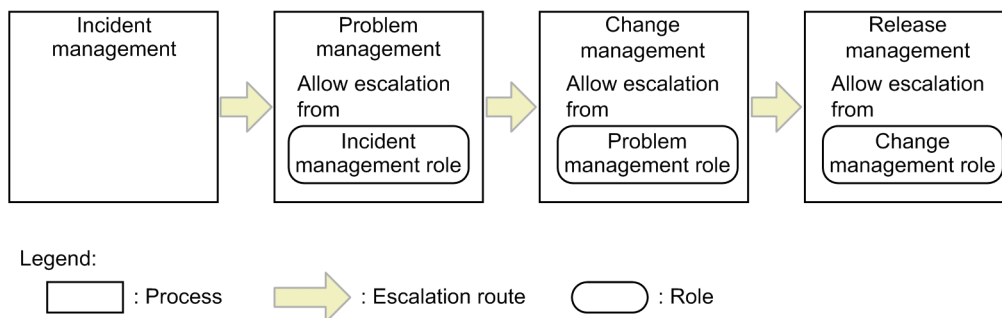
The escalation route will be fixed after the access permissions (which define who can escalate at which processes) are set.

If the escalation route is changed, as shown in the following figure, you must review the settings of who can initiate escalations and of the escalation-destination processes.

Figure 5–5: Change of the escalation route
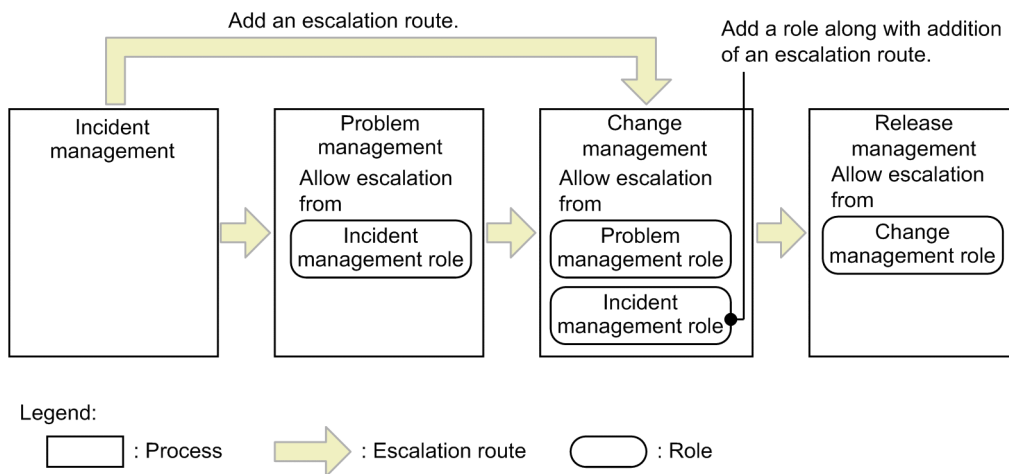
(4) Operation example (processing an Item)

If you put different people in charge of different processes based on an Item's processing flow, you must assign permissions appropriately so that the Item can be smoothly transferred between processes on JP1/IM - Service Support. The following describes four operation examples that can be assumed according to the operational structure that processes an Item. Refer these examples for your design.

> **Tip**
>
> If the processing for an Item is transferred from a person in charge of a process to another person in charge of another process, assign to the person in charge of the transfer-destination process the access permissions for the Item before its status changes.
>
> For example, assign the Close item permission and the Edit item permission or the Acknowledged[#] status permission to the person who changes the Item status from `Acknowledged` to `Close`. After the person in charge of the transfer-source process finishes editing the Item and changes the status to `Acknowledged`, they must be able to specify the person in charge at the transfer-destination process.
>
> You can also use email notification for smooth transfer of an Item.
>
> \#
>> Users who are granted the Edit item permission can edit Items in any status. Users who are granted a status permission can edit Items only in the corresponding status. If you want to strictly manage users who can handle Items according to the status of the Items, set status permissions.

(a) If the person in charge of investigation covers from reception to close of an Item

If only the person in charge of investigation processes an Item, assign access permissions as shown in the figure below. This example assumes an operational structure in which individuals self-manage the contents of tasks.

Figure 5–6: Operation example where only the person in charge of investigation performs all the processing operations for an Item

Permissions granted to the person in charge of the item

Person in charge of investigation

- New item
- View item
- Edit item
- Close item

Legend:

→ : Flow of processing
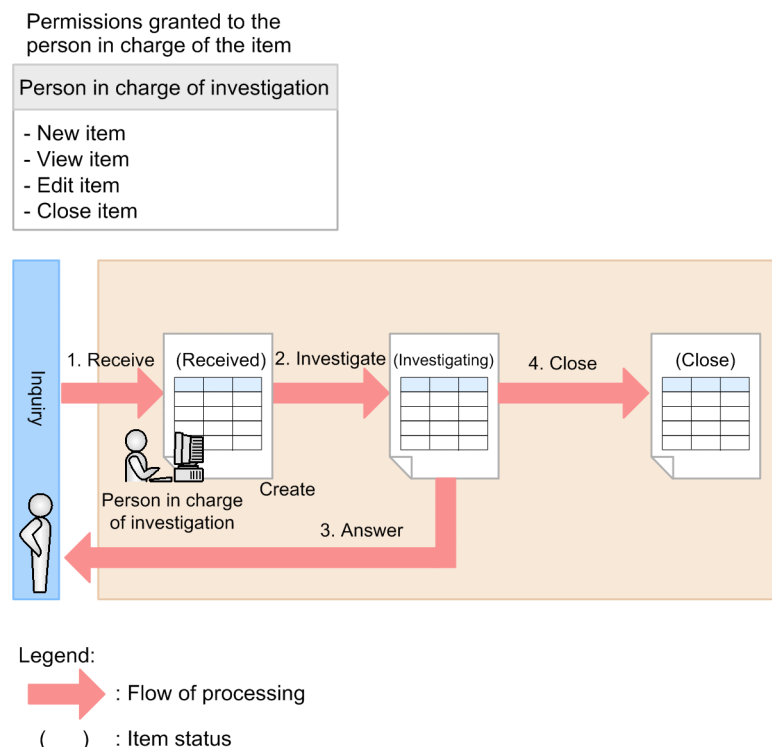
( ) : Item status

The following table describes the correspondence between the status of an Item after the Item is processed and the person in charge of for individual processes shown in Figure 5-6.

Processing order	Contents	Item status	Person in charge of the Item
1	The person in charge of investigation receives an inquiry, and creates an Item.	Received	Person in charge of investigation
2	The person in charge of investigation updates the Item according to the investigation status of the Item.	Investigating	Person in charge of investigation
3	The person in charge of investigation answers to the inquirer.	Investigating	Person in charge of investigation
4	The person in charge of investigation closes the Item after answering to the inquirer.	Close	Person in charge of investigation

(b) If the person in charge of investigation processes an Item and the manager acknowledges the Item

If the person in charge of investigation processes an Item and the manager acknowledges the Item, assign access permissions as shown in the figure below. This example assumes that an Item is processed in an operational structure in which the contents of tasks for individual persons are acknowledged by other persons.

Figure 5–7: Operation example where the person in charge of investigation processes an Item and the manager acknowledges the Item

Permissions granted to the person in charge of the item

Person in charge of investigation	Item manager
- New item - View item - Edit item - Close item	- View item - Acknowledge item - Status "Discussing"
Permissions for other processes - Escalation	
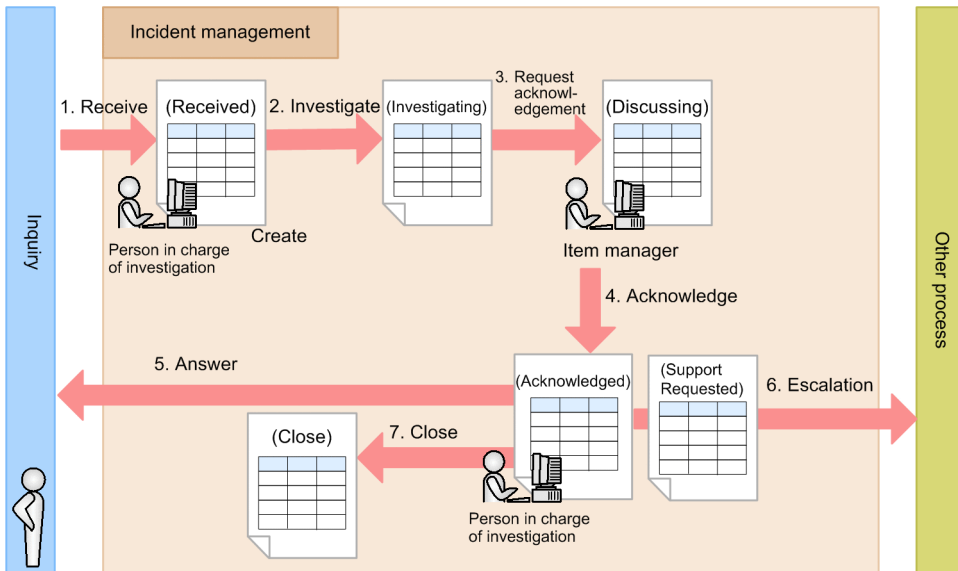
Legend:

➡ : Flow of processing

( ) : Item status

The following table describes the correspondence between the Item status after the Item is processed and the persons in charge of the individual processes shown in Figure 5-7.

Processing order	Contents	Item status	Person in charge of the Item
1	The person in charge of investigation receives an inquiry, and creates an Item.	Received	Person in charge of investigation
2	The person in charge of investigation updates the Item according to the investigation status of the Item.	Investigating	Person in charge of investigation
3	The person in charge of investigation requests the manager for acknowledgement.	Discussing	Manager
4	The manager acknowledges the Item. If rejecting the Item, the manager changes the status of the Item to `Investigating`.	Acknowledged or Investigating	Person in charge of investigation
5	The person in charge of investigation answers to the inquirer.	Acknowledged	Person in charge of investigation
6	If escalation is required, the person in charge of investigation escalates the Item.	Support Requested	Person in charge of investigation
7	The person in charge of investigation closes the Item after answering to the inquirer.	Close	Person in charge of investigation

(c) If reception, investigation, and acknowledgement of an Item are all processed by different persons

If reception, investigation, and acknowledgement of an Item are all processed by different persons, assign access permissions as shown in the figure below. This example assumes that an Item is processed in an operational structure in which persons in charge of individual tasks are separately assigned.

Figure 5–8: Operation example where reception, investigation, and acknowledgement of an Item are all processed by different persons
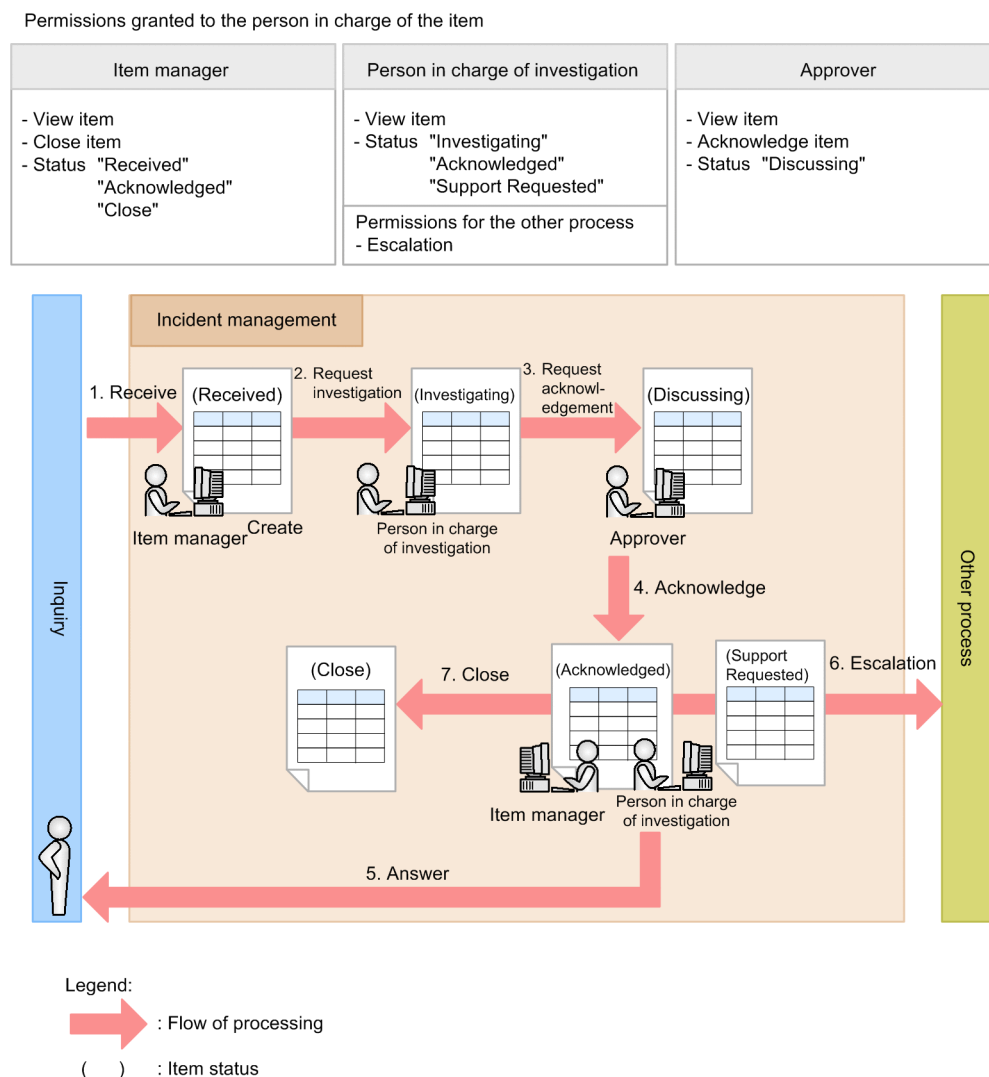
The following table describes the correspondence between the Item status after the Item is processed and the persons in charge of the individual processes shown in Figure 5-8.

Processing order	Contents	Item status	Person in charge of the Item
1	The Item manager receives an inquiry, and creates an Item.	Received	Item manager
2	The Item manager requests the person in charge of investigation for an investigation. Upon receiving a request, the person in charge of investigation updates the Item according to the investigation status of the Item.	Investigating	Person in charge of investigation
3	The person in charge of investigation requests the approver for acknowledgement.	Discussing	Approver

Processing order	Contents	Item status	Person in charge of the Item
4	The approver acknowledges the Item. If rejecting the Item, the approver changes the status of the Item to `Investigating`.	Acknowledged or Investigating	Person in charge of investigation
5	The person in charge of investigation answers to the inquirer.	Acknowledged	Item manager
6	If escalation is required, the person in charge of investigation escalates the Item.	Support Requested	Person in charge of investigation
7	The person in charge of investigation closes the Item after answering the inquirer.	Close	Item manager

(d) If reception, investigation, acknowledgement, and closing of an Item are all processed by different persons

If reception, investigation, acknowledgement, and closing of an Item are all processed by different persons, assign access permissions as shown in the figure below. This example assumes that an Item is processed in an operational structure in which tasks are further broken down than the structure in *(c) If reception, investigation, and acknowledgement of an Item are all processed by different persons*.

Figure 5–9: Operation example where reception, investigation, acknowledgement, and closing of an Item are all processed by different persons

Permissions granted to the person in charge of the item

Person in charge of reception	Person in charge of investigation	Person in charge of the other process
- New item - View item - Status "Received"	- View item - Status "Investigating" "Acknowledged"	- View item - Status "Support Requested" Permissions for the other process - Escalation
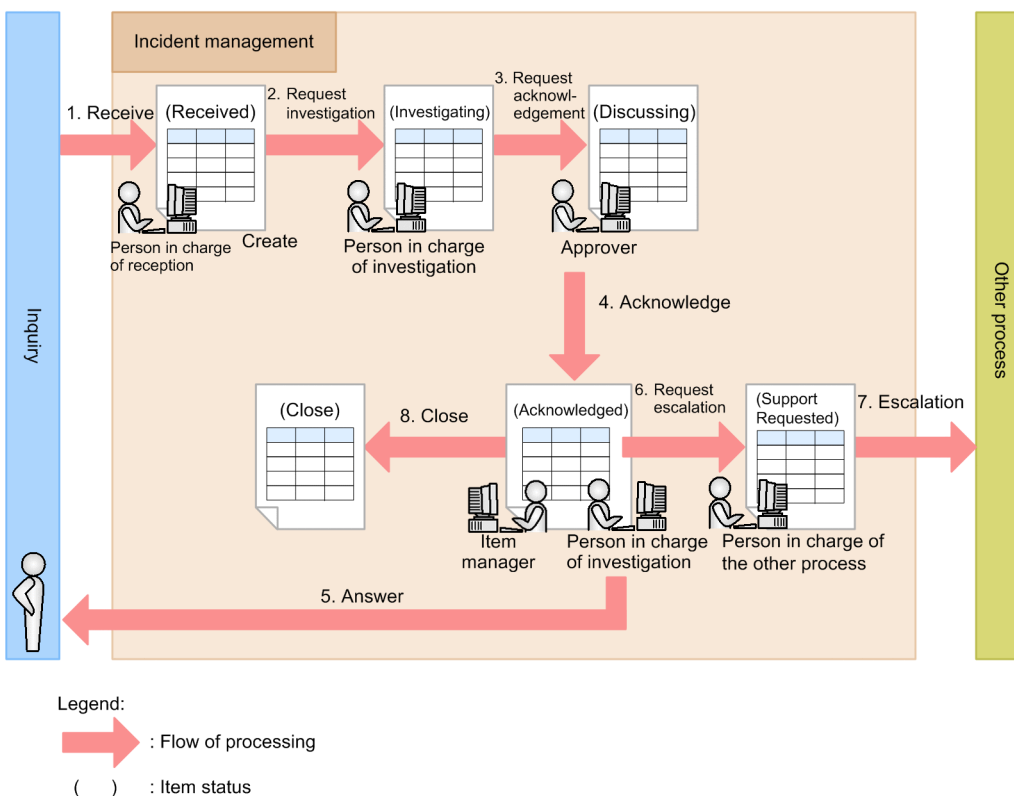
Approver	Item manager
- View item - Acknowledge item - Status "Discussing"	- View item - Close item - Status "Acknowledged" "Close"

Legend:

➡ : Flow of processing

( ) : Item status

The following table describes the correspondence between the Item status after the Item is processed and the persons in charge of the individual processes shown in Figure 5-9.

Processing order	Contents	Item status	Person in charge of the Item
1	The person in charge of reception receives an inquiry, and creates an Item.	Received	Person in charge of reception
2	The person in charge of reception requests the person in charge of investigation for an investigation. Upon receiving a request, the person in charge of investigation updates the Item according to the investigation status of the Item.	Investigating	Person in charge of investigation
3	The person in charge of investigation requests the approver for acknowledgement.	Discussing	Approver
4	The approver acknowledges the Item. If rejecting the Item, the approver changes the Item status to Investigating.	Acknowledged or Investigating	Person in charge of investigation

Processing order	Contents	Item status	Person in charge of the Item
5	The person in charge of investigation answers to the inquirer.	Acknowledged	Item manager
6	If escalation is required, the person in charge of investigation requests the person in charge of contacting other processes for escalation.	Acknowledged	Person in charge of contacting another process
7	The person in charge of contacting other processes escalates the Item.	Support Requested	Person in charge of contacting other processes
8	The person in charge of investigation closes the Item after answering to the inquirer.	Close	Item manager

(5) Operation example (setting view permissions for individual Items)

Some environments incorporate a base system to process Items that are relevant to several systems. In such an environment, you can hide irrelevant Items from a subset of users by enabling view permissions for individual Items in the process work board of the base system. To achieve this, you need to plan access permissions for the process work boards in each system, and decide which users and roles should be assigned view permissions for individual Items.

The following describes how to plan access permissions for process work boards when view permissions are set for individual Items. This example involves designing the roles and access permissions required to process Items in the *Incident management* process work boards in systems A, B, and C, and base system D.

1. Plan the access permissions required to process Items in the Incident management process work boards in systems A, B, and C.

   The following table shows an example of access permissions required to process Items in the Incident management process work boards of systems A, B, and C:

System name: Process work board name	Role	Users who belong to the role	Access permission for process work board
System A: Incident management	Role A1 (standard role)	User A1, User A2	• View item • Edit item • Escalation
	Role A2 (manager role)	User A3, User A4	• View item • Edit item • Escalation • Acknowledge item
System B: Incident management	Role B1 (standard role)	User B1, User B2	• View item • Edit item • Escalation
	Role B2 (manager role)	User B3, User B4	• View item • Edit item • Escalation • Acknowledge item
System C: Incident management	Role C1 (standard role)	User C1, User C2	• View item • Edit item • Escalation
	Role C2 (manager role)	User C3, User C4	• View item • Edit item • Escalation

System name: Process work board name	Role	Users who belong to the role	Access permission for process work board
System C: Incident management	Role C2 (manager role)	User C3, User C4	• Acknowledge item

2. Design the access permissions required to process Items in the Incident management process work board of base system D.

At this point, you do not need to consider the processing of Items escalated from each of the other systems.

The following table shows an example of access permissions required to process Items in the Incident management process work board of base system D:

System name: Process work board name	Role	Users who belong to the role	Access permission for process work board
Base system D: Incident management	Role D1 (standard role)	User D1, User D2	• View item • Edit item • Escalation
	Role D2 (manager role)	User D3, User D4	• View item • Edit item • Escalation • Acknowledge item

3. Design the roles and members required for incident management in base system D.

You now need to design the roles that will be used to process the Items escalated from the other systems. In designing the roles required for incident management in base system D, you need to consider the members of the roles assigned to the process work boards of systems A, B, and C and base system D as an integrated whole.

The following table shows an example of designing the roles and members required to process Items in the Incident management process work board of base system D.

Role	Users who belong to the role	Description
Role AD (integrated role)	User A1, User A2, User A3, User A4, User D1, User D2, User D3, User D4	A role that combines the users of system A and base system D.
Role BD (integrated role)	User B1, User B2, User B3, User B4, User D1, User D2, User D3, User D4	A role that combines the users of system B and base system D.
Role CD (integrated role)	User C1, User C2, User C3, User C4, User D1, User D2, User D3, User D4	A role that combines the users of system C and base system D.

4. Assign view permissions to the roles required for incident management in base system D that you designed in step 3.

Redesign the roles, members, and access permissions required for incident management in base system D based on the roles, members, and access permissions you planned for each system in steps 1 to 3. The following table shows an example of the redesigned roles, members, and access permissions required for the Incident management process work board in base system D:

System name: Process work board name	Role	Users who belong to the role	Access permission for process work board
Base system D: Incident management	Role D1	User D1, User D2	• View item • Edit item • Escalation
	Role D2	User D3, User D4	• View item • Edit item • Escalation • Acknowledge item
	Role AD (integrated role)	User A1, User A2, User A3, User A4, User D1, User D2, User D3, User D4	• View item
	Role BD (integrated role)	User B1, User B2, User B3, User B4, User D1, User D2, User D3, User D4	• View item
	Role CD (integrated role)	User C1, User C2, User C3, User C4, User D1, User D2, User D3, User D4	• View item

The figure below shows an operation example of a system that uses the access permissions designed using the above steps. In this example, when escalating Item A1 of the Incident management process work board of system A to base system D, the operator sets Role AD as the Item view permission owner for Item A1. Although User B1 to User B4 and User C1 to User C4 have view permissions for Items registered in the Incident management process work board in base system D, they do not have view permissions for Item A1. Consequently, these users cannot view Item A1 registered in the Incident management process work board of base system D.

Figure 5–10: Operation example in which view permissions are set for individual Items
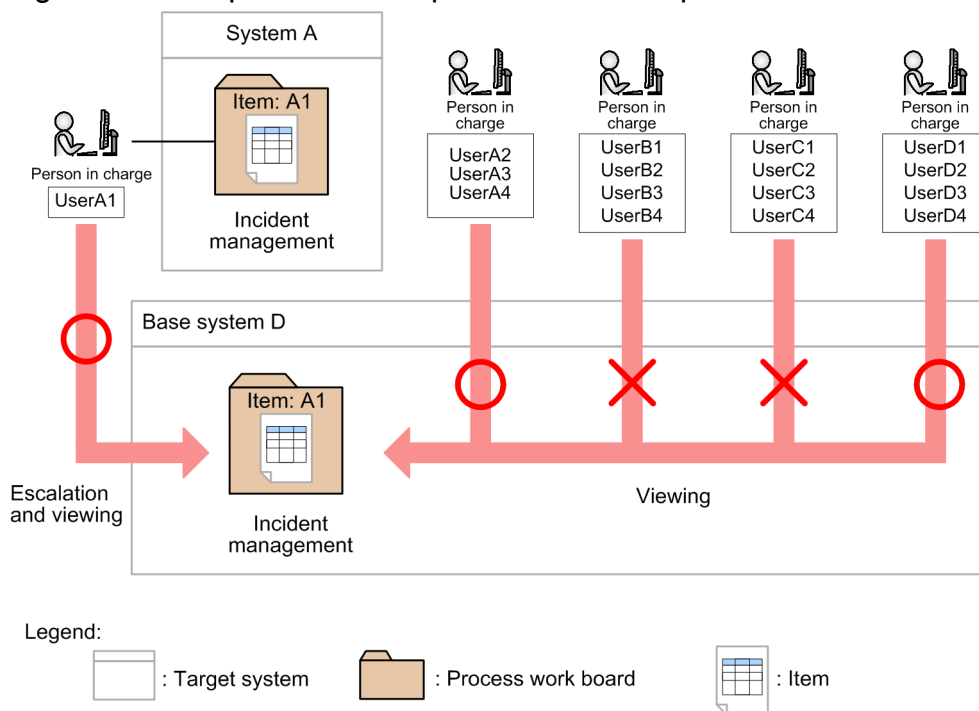
5.3 Considering Item statuses

This section considers the statuses of Items being processed based on the results of considering the operation described in Table 5-2 in *5.2 Deciding the target system and processes and establishing the structure*. JP1/IM - Service Support provides eight types of regularly-used statuses and the user extended statuses. You can also customize statuses as follows to match the users' operations:

- Select the statuses to be used.
- Change the display order of statuses.
- Change the status names.
- Consider the transition-destination status.
- Prohibit escalation.

Consider customization to match your operation. To customize statuses, do it in the Status management window for each process or process work board. For the procedure for customizing statuses, see *8.10 Customizing statuses*.

5.3.1 When customizing generally used statuses, *5.3.2 When customizing user extended statuses*, and *5.3.3 When customizing status settings* describe what needs to be considered when you customize statuses.

Notes:

- A status name must be unique, and an error occurs if you set a duplicated status name.
- For smooth checking of the Item status in the main window (Item status), do not rename the generally used statuses (such as `Received` (status ID: JIMSD_STAT_INQUIRY) or `Close` (status ID: JIMSD_STAT_CLOSE)) to a completely different name.
- The Item summarized for checking of the Item status in the main window (Item status) is identified with the status ID. Therefore, for example, even if a new status `Discussing` is created as a user extended status, Items in that status will not be summarized as Items in the `Discussing` status.
- Changing a status name will affect the command for importing Item information. Therefore, you will also need to change the code mapping file. For details, see *Code mapping file (jp1imss_itemimport_codemap.conf)* in *Chapter 12. Definition Files*.
- If you customize statuses, you also need to consider the processing route (which shows how an Item is processed) and access permissions for Items. While you are establishing the operational structure for processing Items, consider whether to customize statuses. For details about how to consider establishing the operational structure, see *5.2 Deciding the target system and processes and establishing the structure*.

5.3.1 When customizing generally used statuses

The following describes what needs to be considered when you customize generally used statuses (such as `Received` or `Close`):

- Consider the statuses to be used.
  Consider which statuses are to be used based on the results of considering the operations described in Table 5-2 in *5.2 Deciding the target system and processes and establishing the structure*. You can select the statuses to be used for each process and process work board.

- Consider the change of status names.
  Based on the results of considering the operation, consider whether to change status names. Status names are used throughout JP1/IM - Service Support, and cannot be set for each process and process work board.

- Consider the display order of statuses.

  Based on the results of considering operations, consider the display order of statuses in the combo box in the New item window or in the Edit item window. You can set the display order of statuses in the combo box for each process and process work board. Change the display order to match your operation (for example, match the display order to the order in which Items are processed).

5.3.2 When customizing user extended statuses

JP1/IM - Service Support provides 10 types of user extended statuses by default. You can use them to create new statuses. You can also use user extended statuses if you want to customize status names for each process work board. (For example, in order to use status names suitable for your operation.) The following shows what needs to be considered when you customize the statuses by using user extended statuses:

- Consider the statuses to be created.

  Based on the results of considering the operation, consider whether to create new statuses. You can also use the statuses that are generally used (such as `Received` (status ID: JIMSD_STAT_INQUIRY) or `Close` (status ID : JIMSD_STAT_CLOSE)) and user extended statuses at the same time. You can create new statuses for each process and process work board.

- Consider the status names.

  Based on the results of considering the operation, consider the names of statuses to be newly created. Status names are used throughout JP1/IM - Service Support, and cannot be set for each process and process work board.

- Consider the display order of statuses.

  Based on the results of considering the operation, consider the display order of statuses in the combo box in the New item window or in the Edit item window. You can set the display order of statuses in the combo box for each process and process work board. Change the display order to match your operation (for example, match the display order to the order in which Items are processed).

5.3.3 When customizing status settings

Customizing status settings enables you to manage statuses as needed for your operation. For example, you will be able to set a status to transition to a specified status, or to prohibit Items in a specified status from being escalated. The following shows what needs to be considered when you add restrictions to statuses:

- Consider the statuses of the registered Items.

  Consider whether the status of the Items registered in the New item window should be restricted to `Received` only. You can set whether to restrict the statuses of the registered Items only to `Received` for each process work board.

- Consider the transition-destination statuses.

  Consider whether to restrict the statuses that can be set as a transition-destination status in the Edit item window.

  You can restrict the transition-destination status for each process work board. Set it according to the flow of Item processing.

  When restricting the transition-destination status, restrict the status of the Items registered from the New item window to `Received`. If you do not restrict the status to `Received`, it might transition to an unintended status.

  For details about how to restrict the status of the registered Items to `Received`, see *8.10.4 Limiting Item statuses*.

- Consider whether to enable escalation.

Consider whether to set statuses that cannot be escalated. You can set the statuses that cannot be escalated for each process work board.

5.4 Considering the elements to be managed and how to enter the settings

Based on operation considerations as shown in Table 5-2 in *5.2 Deciding the target system and processes and establishing the structure*, consider the settings of Items to be managed. If you decide that you want to add new settings for an Item or if you want an element to be mandatory, you can do so by customizing an Item form.

Also consider whether to use a method of entering information when creating or editing an Item (such as automatic input of Item settings or display of input-candidate values).

The following describes what needs to be considered for the settings of an Item to be managed and how to enter the settings.

5.4.1 Customizing the Item forms

JP1/IM - Service Support provides the following four types of Item forms, each of which corresponds to a process defined in JP1/IM - Service Support:

- Item form for incident management
- Item form for problem management
- Item form for change management
- Item form for release management

You can customize the settings of an Item for individual processes set in these Item forms as follows:

- Adding Item form elements
- Changing Item form elements
- Specifying mandatory elements

Consider customization for your operation. For details, see *8.8 Customizing Item forms*.

Customizing the Item form for Item search

JP1/IM - Service Support provides an Item form for Item search, in addition to Item forms for individual processes. This Item form is used to decide the settings displayed in the Specify Item search conditions window when topmost **Process work board** is selected or a target system is selected from the **List of process work boards**. Consider customization in the following cases:

- When the Item forms for individual processes are customized
  Customize the Item form for Item search to match your needs.

- When you want to decrease the number of settings that can be specified for search conditions
  Customize the Item form for Item search to delete unimportant and unused settings.

For details about the Item form for Item search, see *Definition file for the Item search item form (Optional)* in *Chapter 12. Definition Files*.

Notes:

- Use the same selection codes throughout processes. If different codes are used, the selection codes might be converted to unintended selection codes during escalation, or might not be transferred.

  For example, if `<option value="4">Information</option>` is additionally defined for **Item type** in the incident management process and `<option value="4">Reference information</option>` is additionally defined for **Item type** in the problem management process, `Information` is

converted to `Reference information` when the code is transferred from the incident management process to the problem management process. If **Item type** is not additionally defined for other processes, `Information` is not transferred to those processes.

- Manually delete Item forms that were created by mistake or that become unnecessary. For details about the procedure for deleting Item forms, see *8.8 Customizing Item forms*.

5.4.2 Separately using the customized Item forms

You can separately use customized Item forms for individual process work boards. Consider separately using Item forms as needed for your operation. To separately use Item forms, register multiple customized Item forms, and in the New process work board window or in the Edit the process work board window, select the Item forms to be used. For details, see *8.5 Creating process work boards*.

Note:

When you register multiple Item forms, one of them must be the process standard Item form. For details about the procedure for registering the process standard Item form, see *8.8 Customizing Item forms*.

5.4.3 Using automatic input of Item settings

In the New process work board window and in the Edit the process work board window, you can configure the settings so that the following settings of Item forms are automatically entered when an Item is created. Consider whether to use the automatic input setting for your operation.

- Occurrence date and time of item

- Start date and time of item

- Priority of item

- Deadline of item

For details, see *8.5 Creating process work boards*. You can configure automatic input of Item settings in the property file for automatic Item input. For details about the Property file for automatic Item-defaults input, see *Property file for automatic Item-defaults input (hptl_jp1_imss_pwb_default_setting.properties)* in *Chapter 12. Definition Files*.

5.4.4 Using input-candidate values and cross-setting value correlation

You can set the input-candidate values and cross-setting value correlation. This can be based, for example, on information managed by a system other than JP1/IM - Service Support. Consider whether to use input-candidate values and cross-setting value correlation. For details, see *8.16 Setting an environment for linking with information managed by a system other than JP1/IM - Service Support*.

5.4.5 Using link setting

You can configure link setting for some default settings of Items as described in the table below. Consider whether to use link setting for your operation.

Table 5–6: Settings for which link setting is available

Display name	Description
Hardware information	Link setting is available if JP1/IM - Service Support links with JP1/AIM. Link setting enables you to view hardware information managed by JP1/AIM. To configure the setting for linking with JP1/AIM, see *8.13 Setting an environment by using definition files*.
Related item(s)	Link setting is available for other Items managed by JP1/IM - Service Support. Link setting enables you to open other Items managed by JP1/IM - Service Support by using this setting.
Related information	Link setting is available for the reference web page. Link setting enables you to open the reference web page from this setting.

Some user customizable link settings are also available. For these settings, you can set three types of links described in Table 5-6. Consider the use of these settings.

5.4.6 Using file attachment

Among the settings of Items displayed by default, there is the supporting data setting which allows files to be attached. By using this setting, you can register materials for failures or free format documents created according to usage as materials related to the Item. Use attached files as needed for your operation. Note the following restrictions:

Restrictions on file attachment

- You can attach no more than five files per Item.
- The maximum size of an attached file is 5 megabytes.

5.5 Considering email notifications

If you configure email notification, the following email notifications are available:

- Email notification to the person in charge when an Item is created
- Email notification to the person in charge of an Item in the escalation-destination process when an Item is escalated
- Email notification to the person in charge when the person in charge is changed
- Email notification to the person in charge and the process work board manager before a deadline.
- Email notification to the person in charge and the process work board manager when the processing of an Item is held
- Email notification to the registered person when an Item is closed
- Email notification to the process work board manager to which a user or role belongs when the user or role is deleted

Email notification is disabled by default. Change the setting as required for your operation. You can also change the title and contents of emails. Consider this together with whether to enable email notifications.

Configure the detailed settings for email notifications in the following definition files and windows.

Table 5–7: Definition files and windows in which detailed email notification settings are configured

Timing of email notification	Definition files and windows
Notify the person in charge when an Item is created	• Email definition file
Notify the person in charge of an Item in the escalation-destination process when the Item is escalated	
Notify the person in charge when the person in charge is changed	
Notify the person in charge and the process work board manager before the deadline[#]	• Settings in the New process work board window or the Edit the process work board window • Email definition file • Definition file for the task practice service
Notify the person in charge and the process work board manager when the processing of an Item is regarded to be held[#]	• Email definition file • Held Item definition file • Definition file for the task practice service
Notify the person who registered an Item when the Item is closed	• Email definition file
Notify the process work board manager to which a user or role belongs when the user or role is deleted	

\#

    Automatic execution is available if you schedule the time or interval of command execution and start the JP1/Service Support - Task Service service. For details, see *8.7 Setting schedules for automatic execution of commands*.

For details about the New process work board window and the Edit the process work board window, see *8.5 Creating process work boards*. For details about the definition files, see *Chapter 12. Definition Files*.

If you want to log in to JP1/IM - Service Support from the **Start** menu on the server on which JP1/IM - Service Support is installed and then operate JP1/IM - Service Support, you need to edit the URL definition file. For details, see *URL definition file (jsslogin.url)* in *Chapter 12. Definition Files*.

Notes:

- Email notification settings are applied to the entire JP1/IM - Service Support system.

If you want to apply email notification to specific persons, delete the email addresses from the user information of the users for whom email notification is not necessary.

• If the person in charge of an Item executes the `jssitemimport` and `jssitemimportEx` commands to register the Item, no email is sent to the person in charge even if the email notification settings are configured.

For an Item registered by the `jssitemimport` and `jssitemimportEx` commands, the person who has been set as the person in charge of the Item in the existing system must continue taking care of the Item.

If the process work board to which an Item is registered is specified by email, the user set for **Person in charge of the registered item from email** must process the Item.

5.6 Considering registration of Items by email

Items are generally registered in JP1/IM - Service Support from the New item window, but you can also register an Item by sending an email containing the Item to be registered to a specified email address.

Registration of Items by email can be used when you want to allow registration of Items by users who cannot directly operate JP1/IM - Service Support.

For information about environment settings required for registering Items by email, see *8.14 Setting an environment for registering Items by email*.

Notes:

- You can check the execution results of the `jssitementrybymail` command by viewing the log file (`jssitementrybymail_info`*number*`.log`: *number* is the number of log files). For details, see *User log definition file (jp1itementrybymail.conf)* in *Chapter 12. Definition Files*.

- For an Item registered by email, a user or role that has already been set for the process work board is assigned as the person in charge. Consider the person in charge. Also consider how an Item registered by email will be processed and managed.

- After you use the JP1/Service Support - Task Service service to register an Item by email, the person in charge is notified by email that an Item has been registered. If you do not want an email notification to be sent, instead of the JP1/Service Support - Task Service service, use the Windows task scheduler and execute the `jssitementrybymail` command without specifying the `-mail` option.

5.7 Considering automatic Item registration

Items are generally registered in JP1/IM - Service Support from the New item window, but you can also register an Item by executing the `jssitementry` command.

This command, which mainly links with other products, is used to automatically register an Item in JP1/IM - Service Support in response to an event occurrence such as a system failure.

For details, see *jssitementry (registers an Item)* in *Chapter 11. Commands*.

Notes:

- JP1/IM - Service Support cannot detect a system failure or automatically execute the `jssitementry` command in response to a failure.
  Such functions must be handled by a product which JP1/IM - Service Support links with.

- You can check the execution results of the `jssitementry` command automatically executed by a linked product by viewing the log file (`jssitementry_info`*number*`.log`: *number* is the number of log files). For details, see *User log definition file (jp1itementry.conf)* in *Chapter 12. Definition Files*.

- Carefully consider the conditions of the command and the contents to be registered. If the conditions are not focused enough, unnecessary information might be automatically registered as an Item. Also, design the contents to be registered so that the person in charge can understand the contents of the event from the automatically registered contents.

- If you want to clearly classify the Items registered by the command and the Items registered by window operations, consider the administration of your system. For example, you could add `[Command]` at the beginning of the title of an Item to be registered by the command, or you could register these two types of Items in different process work boards.

5.8 Considering output of Item information

In JP1/IM - Service Support, you can use the functions below to output Item information in the Item management database to a CSV file. The scope of Item information to be output differs depending on the function; so, use the function that is appropriate for your purpose.

Table 5–8: List of functions for outputting Item information

Output method	Information to be output
Output from the List of item search results window	Detailed information about the Items that are displayed in the List of item search results window and for which output is selected. No more than 100 Items can be output.
Output by the `jssitemlist` command	Detailed information about the Items registered in the Item management database. No more than 65,530 Items can be output.
Output by the `jssitemhistory` command	Work history information about the Items registered in the Item management database. No more than 65,530 Items can be output.
Output by the `jssitemexportEx` command	Information about the Items registered in the Item management database. Related information and information about attached files can also be output.

For details about the List of item search results window, see the chapter about checking the results of Item searches in the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*.

For details about the commands, see *jssitemlist (outputs a list of Items)*, *jssitemhistory (outputs Item history)* and *jssitemexportEx (exports extended Item information)* in *Chapter 11. Commands*

Note:

Executing the `jssitemlist` command, `jssitemhistory` command, or `jssitemexportEx` command will increase the load on the Item management server and JP1/IM - Service Support. Execute these commands when the loads on the Item management server and JP1/IM - Service Support are light, such as in the middle of the night.

5.9 Considering summary of Items and file output of the summary results

In JP1/IM - Service Support, you can summarize the Item status in the main window (Item status) depending on your permissions or purposes. The summary results displayed in the main window (Item status) are extracted, according to your purpose, from the data summarized by the `jsscollectdata` command based on the data until the previous day. Therefore, to summarize the Item status, start the JP1/Service Support - Task Service service registered in Windows at installation, and regularly execute the `jsscollectdata` command.

For the procedure for starting the JP1/Service Support - Task Service service, see *8.7 Setting schedules for automatic execution of commands*.

You can also use the Accumulation data output to file window to output the data summarized by the `jsscollectdata` command to a CSV file. In the Accumulation data output to file window, you can also download a macro file for creating a report from a CSV file.

JP1/IM - Service Support provides sample a macro file, which can be changed or replaced by a macro file created by a user. For details about downloading a macro file and the reports that can be created by a macro file, see *3.16.3(2) Downloading a macro file*.

5.10 Considering the Item Management window function

When you use the user interface to work with Items registered in JP1/IM - Service Support, you need to consider whether to use the Item Management window function. This function allows the operator to focus on Items that were registered in the database within a specific period of time.

If you choose to use the Item Management window function, you need to consider the span of the Item Management window itself. Operations performed in the user interface of JP1/IM - Service Support will apply to Items that were registered within the time span you specify. Therefore, the span of the Item Management window must include the Items you need to work with on a day-to-day basis. You can set the span of the Item Management window in increments of one year. For details on the Item Management window function, see *3.2.3 Item Management window function*.

You can define the parameters of the Item Management window in the system property file. For details, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

5.11 Considering linkage with other products

Consider the environment settings when linking with the following JP1 products:

- JP1/IM - Manager
- JP1/IM - View
- JP1/AIM
- JP1/AO

5.11.1 Considering linkage with JP1/IM - Manager

If you link JP1/IM - Service Support with JP1/IM - Manager, the following settings are required on the JP1/IM - Manager side:

Define the Item management server in the system configuration definition of JP1/IM - Manager.

To execute an automated action from JP1/IM - Manager, in the system configuration definition of JP1/IM - Manager, you must include the Item management server in the management targets of JP1/IM - Manager.

Define an automated action.

Define JP1 events that trigger automatic registration of Items as conditions of automated actions, and specify the `jssitementry` command as the execution command.

For details, see the *Job Management Partner 1/Integrated Management - Manager Overview and System Design Guide.*

Also, you must install JP1/Base on the Item management server.

(1) Examples of automated action definitions when linking with JP1 products

If you use JP1/IM - Manager to register JP1 events issued by individual JP1 products in JP1/IM - Service Support as Items, define automated actions referring to the example definitions described in Table 5-9 to Table 5-14. When the Item status automatically registered by JP1/IM - Manager becomes `Close`, you may want to use an automated action to issue a JP1 event from JP1/IM - Service Support to change the response status to `Processed`. To do this, you need to use the `-evt` option to specify the host name of the destination JP1/IM - Manager and the serial number of the event in the event database. Note that a JP1 event specified as the condition in these definition examples is a JP1 event issued by the relevant JP1 product when something that might disturb normal operations occurs.

Table 5–9: Example automated action definitions (JP1/AJS linkage)

Condition	Action definition

[Event ID]
`00004104`
	[Target host] *name-of-the-Item-management-server*
	[Action] `jssitementry -b` *process-work-board-ID* `-t` *event-of-jobnet-abnormally-ended* `-r`
	login-ID-for-the-registrar `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s`
	`$EVSEV -itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -`
	`jobnet $EV"ROOT_OBJECT_NAME" -job $EV"OBJECT_ID" -aim` *JP1/AIM-server-name*
	`-cit HOST -ci $EV"B3" -evt $ACTHOST $EVSEQNO`

[Event ID] `00004108`	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *event-of-jobnet-completed-with-warning* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s $EVSEV -itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -`

5. Designing JP1/IM - Service Support

Job Management Partner 1/Integrated Management - Service Support Configuration and Administration Guide · · · · · · · · · · · · · · · · · 232

Condition	Action definition
[Event ID] 00004108	`jobnet $EV"ROOT_OBJECT_NAME" -job $EV"OBJECT_ID" -aim` *JP1/AIM-server-name* `-cit HOST -ci $EV"B3" -evt $ACTHOST $EVSEQNO`
[Event ID] 00004107	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *event-of-jobnet-abnormally-ended* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s $EVSEV -itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -` `jobnet $EV"ROOT_OBJECT_NAME" -job $EV"OBJECT_ID" -aim` *JP1/AIM-server-name* `-cit HOST -ci $EV"B3" -evt $ACTHOST $EVSEQNO`
[Event ID] 00004109	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *event-of-jobnet-completed-with-warning* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s $EVSEV -itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -` `jobnet $EV"ROOT_OBJECT_NAME" -job $EV"OBJECT_ID" -aim` *JP1/AIM-server-name* `-cit HOST -ci $EV"B3" -evt $ACTHOST $EVSEQNO`

Table 5–10: Example automated action definitions (JP1/Cm2/NNMi linkage in version 9 or later)

Condition	Action definition
[Event ID] 00006100 [Extended event attributes] The severity is `Emergency`, `Alert`, `Critical`, or `Error`.	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *event-of-an-NNMi-error* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s $EVSEV -itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -snmp $EV"NNMI_SRC_NODE_NAME" -url` *information-about-the-device-where-an-error-occurred* `$EV"NNMI_PROTOCOL"://$EV"NNMI_SERVER":$EV"NNMI_PORT"/nnm/launch? cmd=showForm&objtype=Incident&menus=true&objuuid=$EV"NNMI_UUID"`

Table 5–11: Example automated action definitions (HP NNM linkage in version 7.5 or earlier)

Condition	Action definition
[Event ID] 00003A80 [Extended event attributes] The severity is `Emergency`, `Alert`, `Critical`, or `Error`.	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *event-of-an-SNMP-error* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s $EVSEV -itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -snmp $EV"SNMP_SOURCE" -url` *information-about-the-device-where-an-error-occurred* `$EV"SNMP_URL"&ObjectName=$EV"SNMP_SOURCE" -evt $ACTHOST $EVSEQNO`

Table 5–12: Example automated action definitions (JP1/IM - Manager (integrated scope) linkage)

Condition	Action definition
[Event ID] 00003FB0 [Extended event attributes] • `MON_NODE_ID:`*monitor-ID-for-the-work* • `MON_NODE_STATUS:800`	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *event-of-an-error-in-the-monitored-node* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s Emergency -ipt` *impact-level* `-itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -node $EV"MON_NODE_NAME" -aim` *JP1/AIM-server-name* `-cit HOST -ci $EV"JCS_B_EVHOST" -evt $ACTHOST $EVSEQNO`
[Event ID] 00003FB0 [Extended event attributes] • `MON_NODE_ID:`*monitor-ID-for-the-work* • `MON_NODE_STATUS:700`	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *event-of-an-error-in-the-monitored-node* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s Alert -ipt` *impact-level* `-itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -node $EV"MON_NODE_NAME" -`

Condition	Action definition
[Event ID] 00003FB0 [Extended event attributes] • MON_NODE_ID:*monitor-ID-for-the-work* • MON_NODE_STATUS:700	`aim` *JP1/AIM-server-name* `-cit HOST -ci $EV"JCS_B_EVHOST" -evt $ACTHOST $EVSEQNO`
[Event ID] 00003FB0 [Extended event attributes] • MON_NODE_ID:*monitor-ID-for-the-work* • MON_NODE_STATUS:600	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *event-of-an-error-in-the-monitored-node* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s Critical -ipt` *impact-level* `-itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -node $EV"MON_NODE_NAME" -aim` *JP1/AIM-server-name* `-cit HOST -ci $EV"JCS_B_EVHOST" -evt $ACTHOST $EVSEQNO`
[Event ID] 00003FB0 [Extended event attributes] • MON_NODE_ID:*monitor-ID-for-the-work* • MON_NODE_STATUS:500	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *event-of-an-error-in-the-monitored-node* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s Error -ipt` *impact-level* `-itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -node $EV"MON_NODE_NAME" -aim` *JP1/AIM-server-name* `-cit HOST -ci $EV"JCS_B_EVHOST"`
[Event ID] 00003FB0 [Extended event attributes] • MON_NODE_ID:*monitor-ID-for-the-work* • MON_NODE_STATUS:400	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *event-of-an-error-in-the-monitored-node* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s Warning -ipt` *impact-level* `-itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -node $EV"MON_NODE_NAME" -aim` *JP1/AIM-server-name* `-cit HOST -ci $EV"JCS_B_EVHOST" -evt $ACTHOST $EVSEQNO`

Table 5–13: Example automated action definitions (JP1/PFM - Web Console linkage)

Condition	Action definition
[Event ID] All [Extended event attributes] • The severity is `Emergency`, `Alert`, `Critical`, `Error`, or `Warning`. • `PRODUCT_NAME:/PFM/ ALARM_EVENT` • `OBJECT_TYPE:ALARM`	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *PFM-alert* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s $EVSEV -itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -alarm $EV"OBJECT_NAME" -aim` *JP1/AIM-server-name* `-cit HOST -ci $EV"JPC_AGENT" -evt $ACTHOST $EVSEQNO`

Table 5–14: Example automated action definitions (JP1/Software Distribution linkage)

Condition	Action definition
[Event ID] 00010403	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *event-of-the-instruction-abnormally-ended* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s $EVSEV -itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -job $EV"S1" -aim` *JP1/AIM-server-name* `-cit HOST -ci $EVHOST -evt $ACTHOST $EVSEQNO`

Condition	Action definition
[Event ID] `00010407`	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *event-of-the-job-abnormally-ended* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s` `$EVSEV -itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -job $EV"S1" -aim` *JP1/AIM-server-name* `-cit HOST -ci $EVHOST -evt $ACTHOST $EVSEQNO`
[Event ID] `00010401`	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *report-when-the-server-is-down* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s $EVSEV -itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -job $EV"S1" -aim` *JP1/AIM-server-name* `-cit HOST -ci $EVHOST -evt $ACTHOST $EVSEQNO`
[Event ID] `00010101`	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *event-of-the-relay-down* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s $EVSEV -itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -job $EV"S1" -aim` *JP1/AIM-server-name* `-cit HOST -ci $EVHOST -evt $ACTHOST $EVSEQNO`
[Event ID] `00010410` or `00010110`	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *client-alert* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s $EVSEV -itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -job $EV"S1" -aim` *JP1/AIM-server-name* `-cit HOST -ci $EVHOST -evt $ACTHOST $EVSEQNO`
[Event ID] `00010411` or `00010111`	[Target host] *name-of-the-Item-management-server* [Action] `jssitementry -b` *process-work-board-ID* `-t` *client-alert* `-r` *login-ID-for-the-registrar* `-cht` *type-of-the-person-in-charge* `-ch` *ID-of-the-person-in-charge* `-s $EVSEV -itmc FAL -isuc MID -det "$EVMSG" -jp1 $EV"PRODUCT_NAME" -job $EV"S1" -aim` *JP1/AIM-server-name* `-cit HOST -ci $EVHOST -evt $ACTHOST $EVSEQNO`

Only the settings that need to be specified are described in the above tables. Any other settings that can be defined for condition and action definition in the above tables can be defined by users.

Note:

- If an argument for an option includes a half-width space character, enclose the argument in double quotation marks (`"`).

- The number of commands that can be executed at the same time on the Item management server can be changed by the JP1/Base setting (by using the `jcocmddef` command) (1 by default). For details about the `jcocmddef` command, see the *Job Management Partner 1/Base User's Guide*.

  The maximum number of commands that can be executed at the same time on the Item management server is six.

- If a large number of JP1 events defined as the condition of automated actions occur, a large number of Items are registered accordingly. Therefore, narrow down the conditions, and set up operations so that you can recognize the Items registered by automated action.

- Also read *Notes* in *5.7 Considering automatic Item registration*.

(2) Example automated action definitions when JP1/IM - Service Support issues JP1 events

Whether to issue JP1 events from JP1/IM - Service Support must be defined on the JP1/IM - Service Support side. For details, see *Configuration file for issuing JP1 events (hptl_jp1_imss_jp1event_setting.properties)* in *Chapter 12. Definition Files*.

To use the JP1 events issued by JP1/IM - Service Support and link with JP1/IM - Manager, define automated actions on the JP1/IM - Manager side. JP1/IM - Service Support issues the following types of JP1 events:

- Event ID: `00005F00` (JP1 event for completed-action linkage)

  This event is issued when an Item that was automatically registered is closed. It changes the response status on the JP1/IM - Manager side to `Processed`.

- Event ID: `00005F01` (status-change JP1 event)

  This event is issued to notify that the Item status has been changed and execute an automated action.

- Event ID: `00005F02` (consolidated JP1 event for completed-action linkage)

  This event is issued to change the response status on the JP1/IM - Manager side to `Processed` when automatically registered Items are closed in a batch. This event is only issued if event consolidation is enabled. Note that a JP1 event for completed-action linkage will not be issued if a consolidated JP1 event for completed-action linkage is issued. A consolidated JP1 event for completed-action linkage is not issued if the batch operation only closes one Item. In this case, a JP1 event for completed-action linkage is issued instead. For details on the JP1 events issued when performing batch operations on Items, see *3.7 Batch operations on Items*.

For details about JP1 events for individual IDs, see *Appendix E. List of JP1 Events*.

The following table describes example automated action definitions for individual JP1 events.

Table 5–15: Example automated action definitions (Event IDs: 00005F00, 00005F01, and 00005F02)

Condition	Action definition

[Event ID]
`00005F00`
[Extended event attributes]
`PRODUCT_NAME:/`
`HITACHI/JP1/IM/SS`
	[Target host] `$EV"ITEMENTRY_ACTHOST"`
	[Action]`jcochstat -h $EV"ITEMENTRY_ACTHOST" -n $EV"ITEMENTRY_SEQNO"`
	`-k PROCESSED`[#1]

[Event ID]
`00005F01`
[Extended event attributes]
    `PRODUCT_NAME:/`
`HITACHI/JP1/IM/SS`   `STATUS:Close`
	[Action]`teldial -p $EV"RESPONDENT_TEL"`[#2]

[Event ID]
`00005F02`
[Extended event attributes]
`PRODUCT_NAME:/`
`HITACHI/JP1/IM/SS`
	[Target host] `$EV"ITEMENTRY_ACTHOST"`
	[Action]`jcochstat -h $EV"ITEMENTRY_ACTHOST" -n $EV"ITEMENTRY_SEQNO" -k`
	`PROCESSED`[#3]

#1

　This example shows that when an automatically registered Item is closed, JP1/IM - Service Support issues a JP1 event and changes the response status on the JP1/IM - Manager to `Processed`.

#2

This example shows that when the status of an Item is change to `Close`, JP1/IM - Service Support issues a JP1 event, the `teldial` command of TELstaff defined by an automated action is executed, and then contact is made by telephone to the person in charge of answering inquiries about the Item.

#3

This example shows that when you close automatically registered Items in a batch operation, JP1/IM - Service Support issues a JP1 event and changes the response status on the JP1/IM - Manager to `Processed`. This applies to an environment in which consolidation of JP1 events is enabled.

Notes:

- For details about the statuses to be specified, see the *Job Management Partner 1/Integrated Management - Manager Overview and System Design Guide*.

- Any other setting items that can be defined for **Condition** and **Action definition** in the above table can be defined by users. The conditions can be defined in the definition file for status-change JP1 events. For details, see *Definition file for status-change JP1 events (hptl_jp1_imss_jp1event_status.properties)* in *Chapter 12. Definition Files*.

- Whether JP1 events are consolidated depends on settings in the configuration file for issuing JP1 events. For details, see *Configuration file for issuing JP1 events (hptl_jp1_imss_jp1event_setting.properties)* in *Chapter 12. Definition Files*.

- A JP1 event is issued to the event server on the local host, and then forwarded to another host according to the definitions in the forwarding setting file. For details, see the *Job Management Partner 1/Base User's Guide*.

(3) Linkage with JP1/IM - Manager in a cluster environment

If you run JP1/IM - Service Support on a cluster system and link JP1/IM - Service Support with JP1/IM - Manager to automatically register Items, the JP1/Base instance on the Item management server must also run on the cluster system. The following shows the configurations when JP1/IM - Service Support is running on a cluster system:

- On the Item management server, configure the JP1/Base environment on the logical host on which JP1/IM - Service Support is running (recommended configuration).

  In this configuration, a failure in either JP1/IM - Service Support or JP1/Base will cause the nodes for both JP1/IM - Service Support and JP1/Base to switch.

- On the Item management server, configure the JP1/Base environment on a logical host other than the logical host on which JP1/IM - Service Support is running.

  Use this configuration only when JP1/Base has already started linking with other JP1 products.

  In this configuration, if a failure occurs in either JP1/IM - Service Support or JP1/Base, only the node of the program with a failure is switch to another node. The node for the program without a failure continues running.

  In this case (when JP1/IM - Service Support is running on the secondary node and JP1/Base is running on the primary node on a server), Items can be automatically registered without any problems.

For details about the operation and configuration of JP1/Base on a cluster system, see the *Job Management Partner 1/ Base User's Guide*.

If an automated action (automatic Item registration) is executed during failover, the execution might fail. If you want to detect this problem, enable the function of delay monitoring for automated actions in JP1/IM - Manager. If this function is enabled, a JP1 event is issued when a delay occurs. Therefore, you can start investigation on the JP1/IM - Manager side in response to the delay. For details, see the *Job Management Partner 1/Integrated Management - Manager Overview and System Design Guide*.

5.11.2 Considering link with JP1/IM - View

If you link JP1/IM - Service Support with JP1/IM - View, settings are required on the JP1/IM - View side.

Settings on the JP1/IM - Service Support side:

No settings are required in JP1/IM - Service Support to link with JP1/IM - View.

Settings on the JP1/IM - View side:

Editing the definition file for manual incident registration (`incident.conf`)

For details about the definition file for manual incident registration (`incident.conf`), see the manual *Job Management Partner 1/Integrated Management - Manager Command and Definition File Reference*.

5.11.3 Considering linkage with JP1/AIM

If you link JP1/IM - Service Support with JP1/AIM, settings are required on the JP1/IM - Service Support side. When you launch the window of JP1/AIM from JP1/IM - Service Support, if you want to skip the Login window of JP1/AIM and directly open the Device Details dialog box, you also need to change the settings on the JP1/AIM side.

Settings on the JP1/IM - Service Support side:

Editing the System property file (`hptl_jp1_imss_main_setting.properties`)

For details about the system property file, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

Settings on the JP1/AIM side:

Set the password for the user "Service support manager", who is provided for linkage, in the job menu **Group and User** of JP1/AIM. (This setting is not necessary if the Login window is not skipped at linkage.)

5.11.4 Considering linkage with JP1/AO

If you link JP1/IM - Service Support with JP1/AO, settings are required on the JP1/IM - Service Support side.

Settings on the JP1/IM - Service Support side:

- Editing the System property file (`hptl_jp1_imss_main_setting.properties`)
- Settings for Single Sign-On between JP1/IM - Service Support and JP1/AO

For details about the System property file (`hptl_jp1_imss_main_setting.properties`), see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

Consider the authentication method for performing Single Sign-On between JP1/IM - Service Support and JP1/AO. When you consider the authentication method, see *5.15 Considering the authentication method*. For details about the settings for Single Sign-On, see *8.15.5 Setting an environment for Single Sign-On*.

Settings on the JP1/AO side:

- Settings for performing Single Sign-On between JP1/IM - Service Support and JP1/AO
- Registering the JP1/AO service called from JP1/IM - Service Support

For the settings for performing Single Sign-On, see the description of linkage with the JP1/Base authentication function in the *Job Management Partner 1/Automatic Operation Configuration Guide*. For details about the procedure for registering services in JP1/AO, see the descriptions of managing service templates and services in the *Job Management Partner 1/Automatic Operation Administration Guide*.

5.12 Considering the Item management database

JP1/IM - Service Support manages various kinds of information, such as Item information, user information, and role information, in the Item management database. Therefore, fully consider the operation of the Item management database when you introduce JP1/IM - Service Support.

5.12.1 Considering setup of the Item management database

After JP1/IM - Service Support is installed, you can execute the `jsssetup.bat` command to set up the Item management database, as well as setting up the other environment settings of JP1/IM - Service Support (environment settings related to the Web server).

When you set up the Item management database, enough disk space is required to secure the areas for storing various kinds of information, such as user information, role information, and Item information. As these kinds of information are registered and updated, data accumulates in the Item management database. The maximum total amount of data that can be stored in the Item management database is equal to the database size defined at setup. You can select this database size from S (5 gigabytes), M (30 gigabytes), L (71 gigabytes), LL (152 gigabytes), and XL[#] (162 gigabytes). Set a database size that leaves plenty of room for system expansion.

\#
 The XL size is only available in JP1/IM - Service Support Advanced Edition.

For details, see *jsssetup.bat (sets up JP1/IM - Service Support)* in *Chapter 11. Commands*.

Notes:
 After setting up the Item management database, you cannot change the size of the database if you want to keep the stored data. To change the size of the Item management database, you must reinitialize the database.
 For details, see *5.12.2 Considering initialization of the Item management database*.

5.12.2 Considering initialization of the Item management database

If you change the size of the Item management database, consider initializing the database using the `jssdbinit.bat` command. Also, if the Item management database malfunctions for any reason, consider initializing the Item management database by using the `jssdbinit.bat` command.

Supplement: Difference between the `jsssetup.bat` command and the `jssdbinit.bat` command
 When the `jsssetup.bat` command is executed, environment settings related to the Web server are specified, and the Item management database is initialized. When the `jssdbinit.bat` command is executed, only the Item management database is initialized.

For details, see *jsssetup.bat (sets up JP1/IM - Service Support)* and *jssdbinit.bat (initializes databases)* in *Chapter 11. Commands*.

Notes:

- If you use the `jssdbinit.bat` command to extend the size of the Item management database, back up and recover the operation data in the Item management database using the following procedure:
1. Execute the `jssdbbackup.bat` command to back up the database.
2. Execute the `jssdbinit.bat` command to extend the size of the Item management database.

5. Designing JP1/IM - Service Support

Job Management Partner 1/Integrated Management - Service Support Configuration and Administration Guide   **239**

3. Execute the `jssdbrecovery.bat` command to recover the backup data.

If you decrease the size of the database or if you recover the Item management database to a folder that is different from the one used for backup, you will not be able to recover the backup data. In such cases, consider using the `jssitemlist` command, the `jssitemhistory` command or the `jssitemexportEx` command to back up the Item data.

For details about these commands, see *Chapter 11. Commands*.

- If the Item management database malfunctions, recover the operation data, according to the following procedure:

1. Prepare the backup data regularly saved.

2. Execute the `jssdbinit.bat` command to initialize the Item management database.

3. Execute the `jssdbrecovery.bat` command to recover the backup data.

   If you recover the Item management database to a folder that is different from the one used for backup, you will not be able to recover the backup data, so be careful.

For details about these commands, see *Chapter 11. Commands*.

5.12.3 Considering deletion of data from the Item management database

If user information and role information are deleted on the window, they are also deleted from the Item management database. However, if target systems, process work boards, and Item data (including attached files) are deleted on the window, they are not deleted from the Item management database. You need to separately execute the `jssdelrec` command to delete those kinds of information from the Item management database.

If you do not need to retain those kinds of information in the Item management database, we recommend that you execute the `jssdelrec` command to delete those kinds of information from the Item management database. This could be done, for example, at regular system reviews.

For details, see *jssdelrec (deletes data from the Item management database)* in *Chapter 11. Commands*.

Notes:

- If you execute the `jssdelrec` command to delete data, do it when JP1/Service Support - DB Server is running but all other JP1/IM - Service Support services are stopped.

  Note that if you do not specify the −b option, you must execute the `jssdelrec` command in the state in which JP1/Service Support - Web Service and JP1/Service Support are stopped. If you specify the −b option, you can execute the `jssdelrec` command even in the state in which JP1/Service Support - Web Service or JP1/Service Support is running.

- If you execute the `jssdelrec` command to delete data, the corresponding data elements are all deleted, but their storage areas only become *vacant space* and cannot be reused until they are released. Increase of vacant space might cause a decrease in storage efficiency (increase of invalid areas) or in performance.

  Therefore, after deleting data, make sure to execute the `jssdbreclaim.bat` command to release the remaining vacant space in the Item management database.

  For details, see *jssdbreclaim.bat (releases the free space in the Item management database)* in *Chapter 11. Commands*.

- If you delete unnecessary Items, also consider deletion of the related Items. If related Items are not deleted, when you check the associations between Items in the Status of related item window or by other ways, the associations will become uncertain.

  For example, if Items are escalated with the escalation flow in the order of Item A, Item B, and then Item C, and then you execute the `jssdelrec` command to delete Item B only, the escalation destination Item ID for Item

A and the escalation source Item ID for Item C will not be displayed (– is displayed) in the Status of related item window.

- You can use the `jssitemdeletion` command to delete a large number of Items in a batch. By executing the `jssitemdeletion` command, you can place multiple Items into the status of waiting for deletion at the same time. For details on using the `jssitemdeletion` command to delete Items in a batch, see *10.2.2 Deleting Items from the Item management database*.

5.12.4 Considering reorganization of the Item management database

Repetition of addition, update, and deletion of data in the Item management database in daily operations disarranges the data and indexes in the Item management database, which causes a decrease in storage efficiency (increase of invalid areas) or in performance.

In such case, maintain the database according to the following methods:

- Execute the `jssdbreclaim.bat` command.

  Regularly use this command to resolve decrease in storage efficiency (increase of invalid areas).

  The `jssdbreclaim.bat` command can be executed while the database is running.

- Execute the `jssdbrorg.bat` command.

  Use this command to resolve decreases in storage efficiency (increase of invalid areas) and in performance during maintenance operations. Note that the `jssdbrorg.bat` command can be used only while the database operation is stopped because this command places a heavy load on the Item management database.

For details, see *jssdbreclaim.bat (releases the free space in the Item management database)* and *jssdbrorg.bat (reorganizes the Item management database)* in *Chapter 11. Commands*.

Note:

If you execute the `jssdbrorg.bat` command, do it when JP1/Service Support - DB Server is running but all other JP1/IM - Service Support services are stopped. In this case, JP1/Service Support - Web Service, JP1/Service Support, and JP1/Service Support - Task Service must be stopped.

5.13 Considering the Item storage database

In JP1/IM - Service Support Advanced Edition, you can store Items in the Item storage database after those Items have served their purpose. Management of the Item storage database takes place on a storage area basis. Because you specify a storage period when storing an Item, you need to estimate how large the database needs to store the Items for the desired length of time. You also need to plan maintenance of the Item storage database. Consider the operation of the Item storage database carefully with these factors in mind.

5.13.1 Operation example of an Item storage database

This operation example of an Item storage database makes the following assumptions regarding the use of the Item storage database:

- Periodical use

  Items are stored in the Item storage database on a regular basis while the Item management database is not yet full.

- Temporary use

  Items are stored in the Item storage database when the Item management database becomes full.

Before you can store Items in the Item storage database, you need to set up the database and prepare the disk. For this reason, we recommend that you use the periodical use pattern with proper planning. The following figure shows an example of periodical use of the Item storage database:

Figure 5–11: Periodical use example of Item storage database
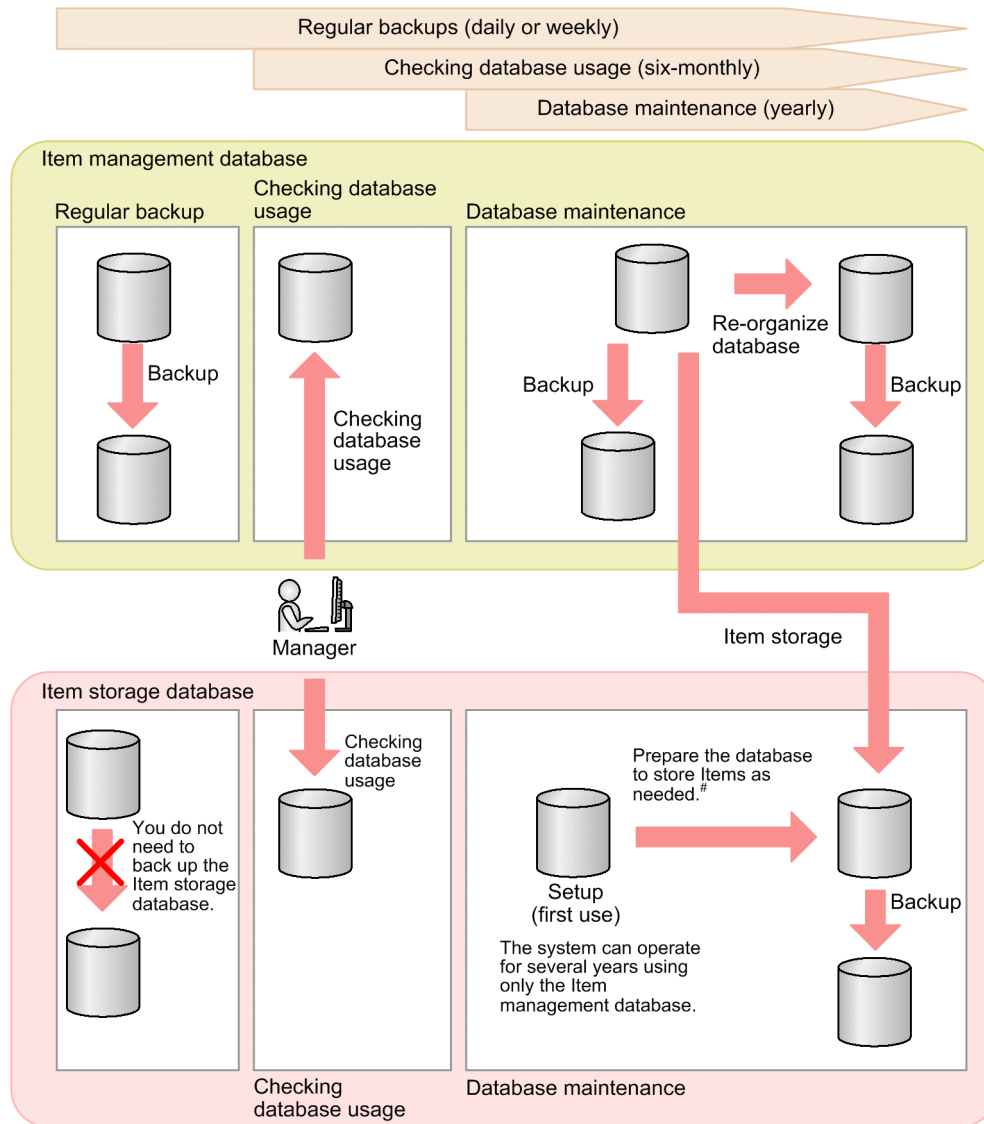
#:
- Rotate storage areas of the Item storage database
- Expand the Item storage database
- Set up storage areas of the Item storage database
- Delete stored Items in a batch

5.13.2 Overview of Item storage database operation

The following figure shows an overview of periodical use of the Item storage database:

Figure 5–12: Overview of Item storage database operation (periodical use)

Before beginning operation

Plan the capacity of the Item storage database

After beginning operation

Check database usage (six-monthly)	Yearly maintenance (once per year)
Check the usage of the Item management database and Item storage database	Preliminary checks for Item storage[#1]
Compare the estimates for the Item storage database against real-world numbers	Back up Item management database
Review the capacity of the Item storage database	Create Item storage database[#2]
	Rotate the storage areas of the Item storage database
	Expand the Item storage database
	Store Items in the Item storage database
	Back up the Item management database and Item storage database
	Delete stored Items in a batch

Legend:

[   ] : Required task   [   ] : Optional task

#1
    Perform before yearly maintenance of the Item storage database.

#2
    Perform if the Item storage database is not yet created.

Detailed information on how to select the size of the Item storage database and plan yearly maintenance are described in the subsections below. For details on how to check the status of the database, see *jssdbstatchk.bat (checks the database status)* in *Chapter 11. Commands*.

5.13.3 Selecting the Item storage database size

Before you start using the Item storage database, you need to estimate how much disk space will be required. When estimating disk space requirements, also consider when you intend to increase the database size and rotate the storage areas.

The process of selecting the size of the Item storage database involves the following steps:

1. Selecting how long you want Items to remain in the system.

2. Estimating how many years of Items you want to store in the Item storage database.

3. Estimating the size of the Item storage database.

4. Planning future expansion of the Item storage database and rotation of the storage areas.

The procedure for planning the size of the Item storage database is described below. Note that this procedure can only provide a general estimate. The result of this process might not accurately reflect the database size in real-world use. You can track the actual capacity of the Item storage database by periodically executing the `jssdbstatchk.bat` (checks the database status) command.

(1) Setting the target lifetime for Items

As part of the Item lifecycle, you need to set the number of years (target lifetime) for which you want to store Items. In doing do, consider how many years of past Items you need to store. Because stored Items are deleted from the Item storage database at the storage area level, you need to estimate a storage area size which, together with the Item management database, is sufficient to store Items for the target lifetime.

(2) Estimating how many years of Items to store in the Item management database

The estimation method depends on whether JP1/IM - Service Support is already in use or a new installation.

If JP1/IM - Service Support is already in use:

By checking the status of an Item management database that is already in use, you can estimate how many years of Items can be stored in the database. Estimate the Item storage area and attached file storage area separately.

An example is shown below.

Status of Item management database

Time in operation: 1 year

Item storage area utilization: 33%

Attached file storage area utilization: 10%

Results of estimation

Item storage area: Approximately three years of Items can be stored in the Item management database.

Attached file storage area: Approximately 10 years of attached files can be stored in the Item management database.

If JP1/IM - Service Support is a new installation:

Check the status of the Item management database after conducting a test run in which Items are registered for a sufficient period of time. This allows you to estimate the number of years of events that can be stored in the Item management database. Estimate the Item storage area and attached file storage area separately.

An example is shown below.

Status of Item management database

Length of test period: 1 month

Item storage area utilization: 2%

Attached file storage area utilization: 5%

Result of estimation

Approximately 20 months of Items can be stored in the Item management database.

You can use the `jssdbstatchk.bat` command to check the status of the Item management database. For details on the `jssdbstatchk.bat` command, see *jssdbstatchk.bat (checks the database status)* in *Chapter 11. Commands.*

(3) Estimating the size of the Item storage database

Based on the target lifetime for Items and the results of estimating the size of the Item management database in the above manner, you can now estimate the size of the Item storage database as follows:

1. Estimate how many times the size of the Item storage database must be relative to the size of the Item management database.

   You can calculate this information from the target lifetime for Items and the number of years of Items you wish to store in the Item management database. An example is shown below.

   Conditions

   > Target Item lifetime: 8 years

   > Number of years of Items storable in Item management database: 3 years[#]

   > Number of years of attached files storable in Item management database: 10 years[#]

   > #: See the examples in *(2) Estimating how many years of Items to store in the Item management database* above.

   Results of estimation

   > Items: The Item storage database must be able to store 5 years of Items. This is 1.7 times the size of the Item management database.

   > Attached files: The Item management database is large enough on its own to accommodate attached files for the target number of years.

2. Estimate how many times you will need to expand the Item storage database.

   From the results of step 1, estimate how many times you will need to expand the Item storage database. The following describes the capacity of the Item management database, and by how much the Item storage database can be expanded in one operation:

   - Item storage area capacity in Item management database: Approximately 64 GB
   - Attached file storage area capacity in Item management database: Approximately 28 GB
   - Capacity by which Item storage area can expand in one operation: Approximately 48 GB
   - Capacity by which attached file storage area can expand in one operation: Approximately 60 GB

   Note that expanding the Item storage database requires 64 GB of disk space.

   An example of estimating these figures is shown below.

   Item storage area

   > Step 1 showed that the Item storage database must be 1.7 times the size of the Item management database.

   > Because the Item storage area of the Item management database is 64 GB, the size of the Item storage area must be approximately 110 GB.

   > Because the database can be expanded by 48 GB in a single operation, it will need to be expanded three times.

   Attached file storage area

   > Per the results of step 1, the attached file storage area does not require expansion.

   You can view detailed information about the capacity of the Item management database and Item storage database by using the `jssdbstatchk.bat` command. For details on the `jssdbstatchk.bat` command, see *jssdbstatchk.bat (checks the database status)* in *Chapter 11. Commands*.

3. Estimate the size of the Item storage database.

   Use the following formula to estimate the size of the Item storage database:

   Item-storage-database-size = (64 GB **x** *number-of-Item-storage-area-expansions*[#] + 64 GB **x** *number-of-attached-file-storage-area-expansions*[#]) **x** *number-of-storage-areas*

   #: Include the initial setup of the Item management database in the number of expansions.

An example is shown below.

Results from step 2 above:

Number of Item storage area expansions: 3 (initial setup then twice more)

Number of attached file storage area expansions: 1 (although expansion of the attached file storage area itself is not required, the initial setup of the Item storage database counts as a single expansion).

Result of estimation:

Results of estimating size of Item storage database = (64 GB **x** 3 expansions + 64 GB **x** 1 expansion) **x** 2 storage areas = 512 GB

(4) Plan the expansion and storage areas of the Item storage database

You need to plan the time frame for database expansion and rotation of the storage areas. Make these plans based on how many years of Items you want to store in the Item storage database and how many times the Item storage database needs to be expanded to accommodate these Items. An example of estimating time frames for storage area rotation is shown below.

Time frame for expansion

Item storage area: The Item management database (64 GB) can store approximately three years of Items. Each expansion of the Item storage database adds enough capacity to store approximately two years and three months of Items. Therefore, expanding the Item storage area every two years will suffice.

Attached file storage area: No expansion required.

Time frame for rotation

After expanding the database the scheduled number of times (in this case three), the storage area is rotated every five years. This is to allow further Items to be stored after a storage area has stored the number of years of Items the operator wishes to retain.

5.13.4 Yearly maintenance of the Item storage database

An Item storage database that is periodically used requires yearly maintenance.

The following maintenance tasks must be performed yearly on the Item storage database:

- Pre-checks for Item storage[1]
- Backing up the Item management database
- Building the Item storage database[2]
- Rotating the Item storage database storage areas[2]
- Expanding the Item storage database[2]
- Storing Items in the Item storage database
- Backing up the Item management database and the Item storage database
- Deleting stored Items in a batch[2]

#1

Performed before yearly maintenance of the Item storage database.

#2

To be performed as needed.

You can decide which tasks you need to perform based on the result of six-monthly checks of the database status.

Note:

When you recover the Item storage database from backup data created as part of yearly maintenance, you need to ensure that the status of the Item storage database matches that of the backup. Specifically, the number of expansions and the setup and expansion directories must match those of Item storage database at the time the backup was created.

If you also recover the Item management database when you recover the Item storage database, inconsistencies might be introduced to the data in the form of duplicate or missing Items. Therefore, be mindful of the recovery of the Item management database when recovering the Item storage database.

For details on the tasks involved in yearly maintenance of the item storage database, see *10.2.9 Confirmation before storing Items*, *10.2.10 Setting up the Item storage database*, *10.2.11 Rotating the storage locations in the Item storage database*, *10.2.12 Expanding the Item storage database*, *10.2.13 Storing Items in the Item storage database*, *10.2.14 Backup procedure when the Item storage database is used*, and *jssstoreitemdel.bat (deletes stored Items)* in *Chapter 11. Commands*.

5.14 Considering data migration

JP1/IM - Service Support provides commands that can be used to migrate Item data and user information from a system other than the JP1/IM - Service Support system, and data from an existing JP1/IM - Service Support system.

5.14.1 Migration of Item data from a system other than the JP1/IM - Service Support system

If you have configured an environment with operations according to service support in a system other than the JP1/IM - Service Support system and want to migrate the data in that environment to JP1/IM - Service Support, you need to change the data format to the one suitable for JP1/IM - Service Support. After the data format is changed, you need to execute the jssitemimport command or the jssitemimportEx command to migrate the data to JP1/IM - Service Support.

For details about the migration procedure, see *8.17 Migrating Item data from a system other than JP1/IM - Service Support*.

5.14.2 Migration of user information from a system other than the JP1/IM - Service Support system

If you have managed user information in a system other than the JP1/IM - Service Support system and want to migrate the data in that environment to JP1/IM - Service Support, you need to change the data format to the one suitable for JP1/IM - Service Support. After the data format is changed, you need to execute the jssuserimport command to migrate the data to JP1/IM - Service Support.

For details about the migration procedure, see *8.18 Migrating user information from a system other than JP1/IM - Service Support*.

5.14.3 Migration of data from an existing JP1/IM - Service Support program

If you migrate the data in an existing JP1/IM - Service Support program to another JP1/IM - Service Support program on a different server, you can execute the jssdbbackup.bat command and the jssdbrecovery.bat command to migrate the data in the Item management database.

For details about the migration procedure, see *8.19 Migrating data from an existing JP1/IM - Service Support system*.

5.15 Considering the authentication method

You need to consider the authentication method used with JP1/IM - Service Support, including authentication of the linkage products. Consider the authentication method based on your operation.

The following login authentication methods can be used with JP1/IM - Service Support:

- Login authentication using the Item management database
- Login authentication using an LDAP server (Active Directory)
- Login authentication using the JP1/Base authentication server

In this section, the following product is called *the specific JP1 product*:

- JP1/AO

5.15.1 Login authentication using the Item management database

(1) When not linking with the specific JP1 product

Login authentication uses the user information managed by the Item management database in JP1/IM - Service Support.

(2) When linking with the specific JP1 product

Login authentication uses the user information managed by the Item management database in JP1/IM - Service Support. In addition to authentication of the Item management database, the JP1/Base authentication server is used for the authentication of users who link with the specific JP1 product. By using the JP1/Base authentication server, users can launch the window of the specific JP1 product from JP1/IM - Service Support, or launch the window of JP1/IM - Service Support from the specific JP1 product, without the need of login authentication (Single Sign-On). Note that the user IDs and passwords of users who use linkage are also managed on the JP1/Base authentication server. Therefore, their user IDs and passwords must be registered and maintained on that server.

The following figure shows an example of login authentication using the Item management database when linking with the specific JP1 product.

Figure 5–13: Example of login authentication using the Item management database (when linking with the specific JP1 product)
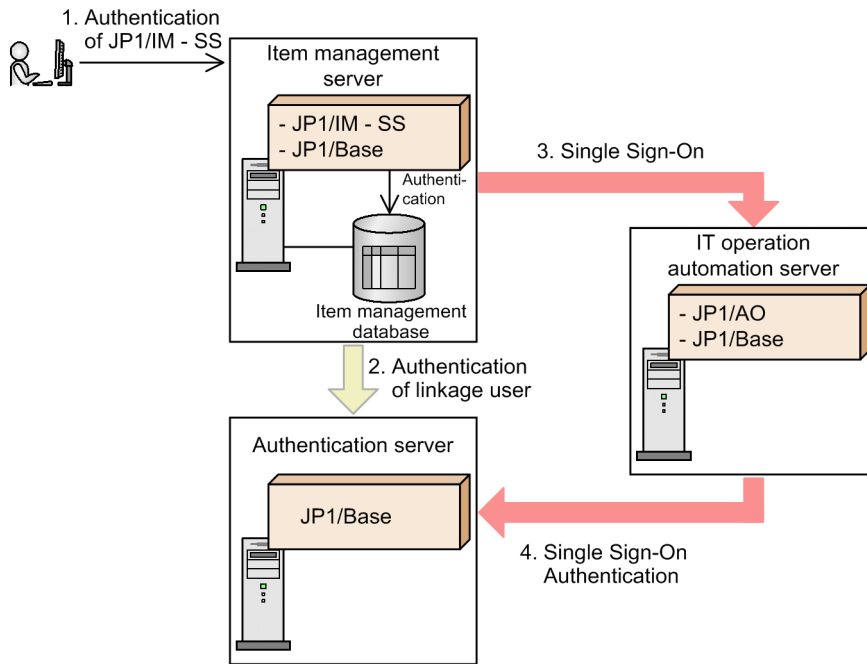
5.15.2 Login authentication using an LDAP server

(1) When not linking with the specific JP1 product

Login authentication uses the user IDs and passwords managed by an LDAP server (Active Directory). In this case, JP1/IM - Service Support uses the user ID and password managed by an LDAP server. Therefore, JP1/IM - Service Support does not need to manage its own user IDs and passwords. However, because the user information and access permissions displayed in the window are managed by using information registered in the Item management database, user IDs registered in the LDAP server must be registered in the Item management database.

(2) When linking with the specific JP1 product

Login authentication uses the user IDs and passwords managed by an LDAP server (Active Directory). In addition to the LDAP server authentication, the JP1/Base authentication sever is used for authentication of users who links with the specific JP1 product. By using the JP1/Base authentication server, users can launch the window of the specific JP1 product from JP1/IM - Service Support, or launch the window of JP1/IM - Service Support from the specific JP1 product, without the need of login authentication (Single Sign-On). Note that the IDs and passwords of linkage users must be registered or changed in the JP1/Base authentication server because they are also managed in the JP1/Base authentication server. However, if an LDAP server is used for JP1/Base authentication, the user IDs and passwords on the JP1/Base authentication server do not need to be changed.

For login authentication of JP1/IM - Service Support, JP1/IM - Service Support does not need to manage passwords because the user IDs and passwords managed by an LDAP server are used. However, because the user information and access permissions displayed in the window are managed by using information registered in the Item management database, users whose user IDs are registered in the LDAP server must be registered in the Item management database.

The following figure shows an example of login authentication using an LDAP server when linking with the specific JP1 product.

Figure 5–14: Example of login authentication using an LDAP server (when linking with the specific JP1 product)
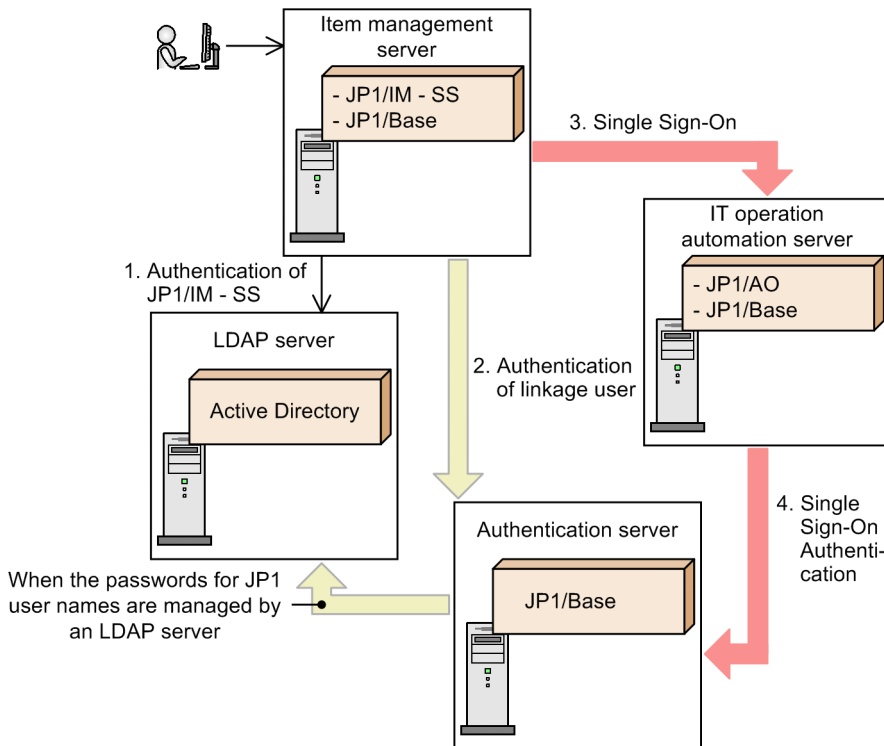
For details about the login authentication using an LDAP server, see *4.7.1 Linkage with an LDAP server*.

5.15.3 Login authentication using the JP1/Base authentication server

(1) When not linking with the specific JP1 product

Login authentication uses the user information managed by the JP1/Base authentication server. In this case, JP1/Base is used for user authentication. However, because the user information and access permissions displayed in the window are managed by using information registered in the Item management database, the user information registered in the JP1/Base authentication server must be registered in the Item management database.

(2) When linking with the specific JP1 product

The user information managed by the JP1/Base authentication server is used for login authentication of JP1/IM - Service Support and authentication of linkage users. By using the JP1/Base authentication server, users can launch the window of the specific JP1 product from JP1/IM - Service Support, or launch the window of JP1/IM - Service Support from the specific JP1 product, without the need of login authentication (Single Sign-On).

Because the user information and access permissions displayed in the window are managed by using information registered in the Item management database, the user information registered in the JP1/Base authentication server must be registered in the Item management database.

The following figure shows an example of login authentication using the JP1/Base authentication server when linking with the specific JP1 product.

Figure 5–15: Example of login authentication using the JP1/Base authentication server (when linking with the specific JP1 product)
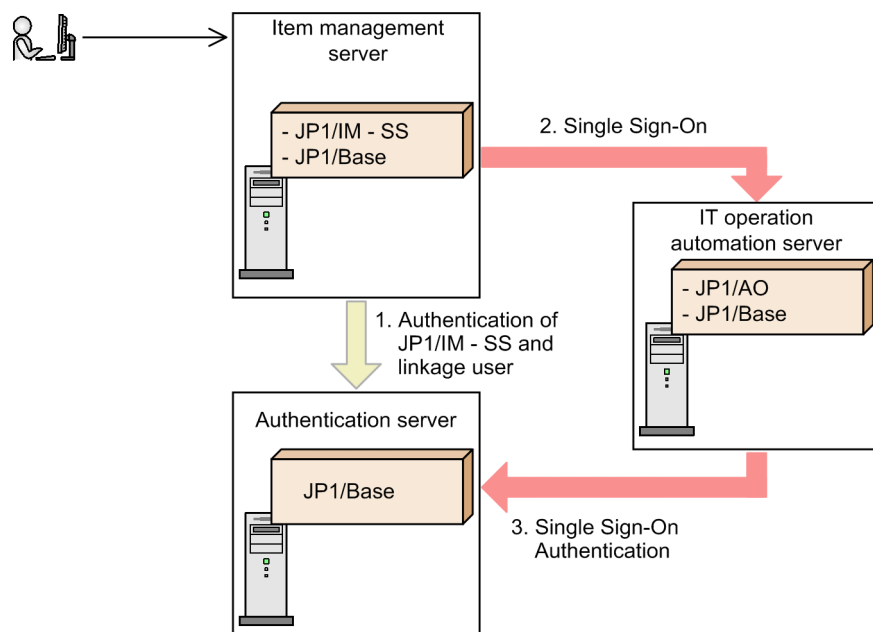
5.16 Notes on use of antivirus software

Some anti-virus software might place an exclusive lock on a file or folder used by JP1/IM - Service Support. This can cause JP1/IM - Service Support to stop working correctly.

If your system scans for viruses while JP1/IM - Service Support is running, exclude the files and folders below from the scope of the antivirus software. If you stop JP1/IM - Service Support while this virus scan is in progress, make sure that the virus check has concluded for the files and folders below before you start JP1/IM - Service Support again.

Files and folders associated with JP1/IM - Service Support:

- All files and folders under *IM-SS-path*\
- All files and folders under the storage folders for the Item management database

In a logical host environment, exclude the following shared folders from the scope of the antivirus software:

- All files and folders under *shared-folder*\db\
- All files and folders under *shared-folder*\dbms\
- All files and folders under *shared-folder*\log\
- All files and folders under *shared-folder*\tools\

6

Installing and Setting Up JP1/IM - Service Support

This chapter describes the procedures for installation and setup of JP1/IM - Service Support and for unsetup and uninstallation of JP1/IM - Service Support. This chapter also describes the procedure for incorporating a manual into JP1/IM - Service Support.

6.1 Flow of installation and setup

There are two types of installation: new installation and overwrite installation. New installation installs JP1/IM - Service Support on a machine on which JP1/IM - Service Support has not yet been installed. Overwrite installation installs JP1/IM - Service Support on a machine on which JP1/IM - Service Support has already been installed.

The following describes the flow of installation and setup of JP1/IM - Service Support for each type of installation.

New installation

This installs JP1/IM - Service Support on a machine on which JP1/IM - Service Support has not yet been installed. The following figure shows the flow of new installation and setup.

Figure 6–1: Flow of new installation and setup
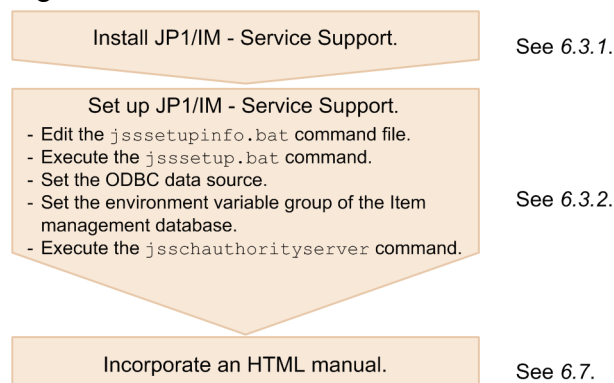
Install JP1/IM - Service Support. See *6.3.1*.

Set up JP1/IM - Service Support.
- Edit the `jsssetupinfo.bat` command file.
- Execute the `jsssetup.bat` command.
- Set the ODBC data source.
- Set the environment variable group of the Item management database.
- Execute the `jsschauthorityserver` command.
See *6.3.2*.

Incorporate an HTML manual. See *6.7*.

Overwrite installation

This installs JP1/IM - Service Support on a machine on which JP1/IM - Service Support has already been installed. There are two types of overwrite installation:

- Version upgrade installation

  This installs JP1/IM - Service Support 10-50 on a machine on which an earlier version of JP1/IM - Service Support is installed.

- Repair installation

  This installs either a corrected version or the same version of JP1/IM - Service Support 10-50 program on a machine on which JP1/IM - Service Support 10-50 has already been installed.

upgrade

- product upgrade meaning
- version upgrade meaning

The following figures show the flow of version upgrade installation and setup and the flow of repair installation and setup.

Figure 6–2: Flow of version upgrade installation and setup

Back up the environment	See *6.2.3.*
Install JP1/IM -Service Support	See *6.4.1.*
Set up JP1/IM -Service Support - Execute `jsssetup.bat` command (command arguments depend on the pre-upgrade version and whether the contents of the Item management database are to be inherited) - Execute `jsscollectdata` command (with `-a` option specified) - Execute `jsschauthorityserver` command - Execute `jssdbbackup.bat` command	See *6.4.2.*
Overwrite incorporated HTML manual	See *6.7.*

Figure 6–3: Flow of repair installation and setup

Back up the environment	See *6.2.3.*
Install JP1/IM - Service Support.	See *6.4.1.*
Set up JP1/IM - Service Support. - Execute the `jsssetup.bat` command (with the `-r` option specified). - Execute the `jsscollectdata` command (with the `-a` option specified). - Execute the `jsschauthorityserver` command. - Execute the `jssdbbackup.bat` command.	See *6.4.3.*
Overwrite the incorporated HTML manual.	See *6.7.*
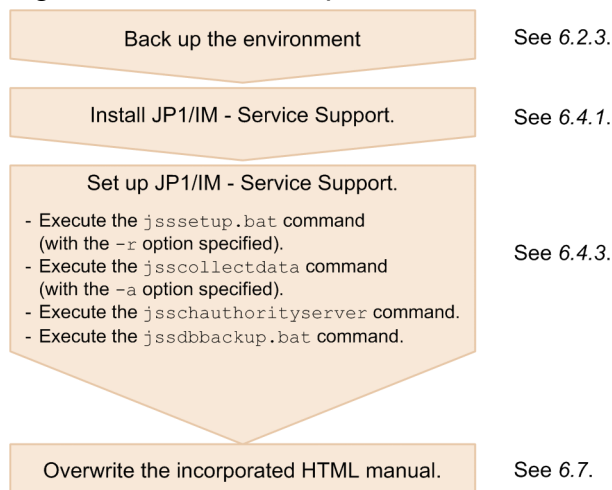
Performing a product upgrade of JP1/IM - Service Support

You can perform a product upgrade of JP1/IM - Service Support (Standard) to JP1/IM - Service Support Advanced Edition. The machine on which you install JP1/IM - Service Support Advanced Edition must be running one of the following operating systems:

- Windows Server 2003 (x64)

- Windows Server 2008 R2

- Windows Server 2008 (x64)

- Windows Server 2012

For details on product upgrades of JP1/IM - Service Support, see *6.6 Performing a product upgrade of JP1/IM - Service Support*.

For details about new installation and setup in a cluster environment, see *9.2 Setting an environment for cluster use (environment configuration after new installation)*. For details about version upgrade installation and setup in a cluster environment, see *9.8 Version upgrade in a cluster environment*.

Note:

JP1/IM - Service Support (Standard) means the following JP1/IM - Service Support product:

- JP1/IM - Service Support 10-10

6.2 Tasks required before installation

This section describes the tasks required before installing JP1/IM - Service Support.

6.2.1 Design for configuring an environment

Before starting installation, consider and decide the setup settings of JP1/IM - Service Support.

For details about design of the setup settings, see *Chapter 5. Designing JP1/IM - Service Support*.

6.2.2 Configuring an OS environment

Before installing JP1/IM - Service Support, configure an OS environment that satisfies the following conditions:

- JP1/IM - Service Support supports the OS version.
- Service packs and patches required for JP1/IM - Service Support are applied.

6.2.3 Backing up the environment

Before you perform a version upgrade installation, you need to create a backup of the Item management database in the pre-upgrade environment by using the `jssdbbackup.bat` command. This backup can be used to recover the database if something goes wrong. Specify the `-maint` argument when executing the `jssdbbackup.bat` command. For details on the backup procedure, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*. You must also back up the definition information for JP1/IM - Service Support. Specifically, you need to back up every file listed in Table 10-1 in *10.1.1 Backing up definition information*, except the environment setup commands, cluster environment setup command, and environment settings files.

If the installation process fails, use the following procedure to restore the pre-installation environment:

1. Uninstall the version of JP1/IM - Service Support that is currently installed.
   For details on how to uninstall JP1/IM - Service Support, see *6.5 Unsetup and uninstallation of JP1/IM - Service Support*.

2. Delete all the installation folders.

3. Perform a new installation of the same version of JP1/IM - Service Support that was originally installed.
   For details on how to install JP1/IM - Service Support, see *6.3.1 New installation procedure*.

4. Recover the definition information from the backup.
   For details on how to restore definition information, see *10.1.2 Recovering definition information*.

5. Set up a new environment.
   For details on how to set up the environment for JP1/IM - Service Support, see *6.3.2 Setup procedure for new installation*.

6. Restore the pre-upgrade environment by recovering the data you backed up.
   For details on how to recover data, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

6.3 New installation and setup of JP1/IM - Service Support

This section describes the procedure for new installation and setup of JP1/IM - Service Support.

6.3.1 New installation procedure

The following describes the procedure for new installation of JP1/IM - Service Support. There are two types of new installation:

- New installation using the distribution media
- Remote installation using JP1/Software Distribution

These procedures are respectively described below. Administrator permissions are required to perform these procedures. These procedures are the same for all JP1/IM - Service Support products.

(1) New installation using the distribution media

To perform new installation of JP1/IM - Service Support by using the distribution media:

1. Insert the distribution media into the drive, and install JP1/IM - Service Support.

   Perform installation according to the directions of the installer which starts automatically.

   Specify the following settings:

   - Use information
   - Installation-destination folder

     The `JP1SS` folder is created in the specified installation-destination folder, and this product is installed in the `JP1SS` folder. Specify the absolute path to the installation-destination folder in no more than 38 bytes.

     You can use half-width alphanumeric characters and symbols except the following symbols: comma (`,`), semicolon (`;`), asterisk (`*`), question mark (`?`), double quotation mark (`"`), left angle bracket (`<`), right angle bracket (`>`), vertical bar (`|`), dollar sign (`$`), percent sign (`%`), ampersand (`&`), single quotation mark (`'`), grave accent mark (`` ` ``), forward slash (`/`), caret (`^`), exclamation mark (`!`), hash mark (`#`), left curly bracket (`{`), right curly bracket (`}`), left square bracket (`[`), right square bracket (`]`), plus sign (`+`), minus sign (`-`), equal sign (`=`), at mark (`@`), swung dash (`~`), colon (`:`), and yen sign (`\\`).

     The default path is *system-drive*:`\Program files\Hitachi\JP1SS`.

   - Program folder name displayed in the **Start** menu

     The default name is `JP1_Integrated Management - Service Support`.

2. If requested, restart the operating system.

> **▍ Reference note**
>
> Installing JP1/IM - Service Support registers the following in the **Start** menu:
>
> - **JP1_IM-SS Command Prompt**
> - **JP1_IM-SS Login**

---

(2) Remote installation using JP1/Software Distribution

JP1/IM - Service Support supports remote installation (software distribution) using JP1/Software Distribution. For details about how to actually perform remote installation using JP1/Software Distribution, see the *Job Management Partner 1/Software Distribution Administrator's Guide Volume 1(For Windows Systems)*.

6.3.2 Setup procedure for new installation

Use this procedure to set up JP1/IM - Service Support that was newly installed. This procedure is the same for all JP1/IM - Service Support products.

1. Edit the `jsssetupinfo.bat` command file.

   If you change the storage destination of the Item management database or the port number used in JP1/IM - Service Support, edit the `jsssetupinfo.bat` command file. The `jsssetupinfo.bat` command file is stored in the following location:

   IM-SS-path`\conf\setup\jsssetupinfo.bat`

   The following shows the format of the `jsssetupinfo.bat` command file.

```
@rem IM-SS DATABASE SERVICE - Data Storage Directory
@set IMSSDBDIR=IM-SS-path\db

@rem IM-SS DATABASE SERVICE - Port Number
@set IMSSDBPORT=24400

@rem IM-SS WEB SERVICE - Port Number
@set IMSSHTTPPORT=24401

@rem IM-SS WEB CONTAINER SERVICE - Port Number
@set IMSSWEBCONPORT=24402

@rem IM-SS WEB CONTAINER SERVICE - Shutdown Port Number
@set IMSSWEBSHUPORT=24403

@rem IM-SS WEB SERVICE - System Setting Port Number
@set IMSSWEBHTTPPORT=24404
```

   In the `jsssetupinfo.bat` command file, you can edit the default values in the table below. If you change any settings other than the ones in the *Setting* column, an error occurs.

Table 6–1: Settings that can be edited in the jsssetupinfo.bat command file

Setting	Description	Default value
IMSSDBDIR	Name of the storage-destination folder for the Item management database[#1]	*IM-SS-path*`\db`
IMSSDBPORT	Number of the port used for communication with the Item management database server[#2]	24400
IMSSHTTPPORT	Number of the port used for communication with the Web server and web browser[#2]	24401
IMSSWEBCONPORT	Number of the port used for linkage between the WWW container server and Web server[#2]	24402
IMSSWEBSHUPORT	Number of the port used for shutting down the communication with the WWW container server[#2]	24403

Setting	Description	Default value
IMSSWEBHTTPPORT	Number of the port used for communication with the Web server for system configuration[#2]	24404

#1

    When you specify the name of the storage-destination folder for the Item management database, note the following:

    - Specify the absolute path in no more than 133 bytes.

    - Specify the characters that can be used in the OS.

    - Half-width alphanumeric characters, underscores (_), yen signs (\), parentheses (( )), periods (.), and half-width space characters can be used.

    - Do not use the yen sign (\) for the end of the folder name.

    - Do not use a half-width space or tab for the beginning or the end of the folder name.

    - You cannot specify a network drive.

    - If you specify the name of a folder that does not exist, the folder is created when the jsssetup.bat command is executed.

    - Do not specify the root folder of a hard drive, such as D:\.

#2

    For IMSSDBPORT, you can specify half-width numerals in the range from 5001 to 65535. For IMSSHTTPPORT, IMSSWEBCONPORT, IMSSWEBSHUPORT, and IMSSWEBHTTPPORT, you can specify half-width numerals in the range from 1 to 65535. However, note the following:

    - Each port number must be unique.

    - Do not use port numbers that are used by other products.

    - Do not use half-width space characters or tabs before and after port numbers.

> **▌ Reference note**
>
> A model file (*IM-SS-path*\conf\setup\jsssetupinfo.bat.model) is provided for the jsssetupinfo.bat command file. Use the model file to reset the contents of the jsssetupinfo.bat command file. You can delete the jsssetupinfo.bat command file, and then copy the model file and rename it to jsssetupinfo.bat.

2. Execute the jsssetup.bat command.

From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**, and execute the jsssetup.bat command with the -s option specified as an argument to set up JP1/IM - Service Support.

Specify other arguments as described below according to your operation requirements. For details about the jsssetup.bat command, see *jsssetup.bat (sets up JP1/IM - Service Support)* in *Chapter 11. Commands*.

- If you want to register an Item by sending an email, specify the -t option, which makes a master system and a temporary receipt process work board. Note that you can create a master system and a temporary receipt process work board at any time by using the dedicated command (not only during setup). For details, see *jsscreatesysandpwb (creates the master system and the temporary receipt process work board)* in *Chapter 11. Commands*.

For the criteria for determining the size of the Item management database, see the *Release Notes*.

Notes when Windows Server 2012 or Windows Server 2008 is used:

    If the Windows UAC feature is enabled and your user account has Administrator permissions other than Administrator, you must change the setting so that you can execute the command as administrator, and then execute the command. For details about how to change the setting so that the user can execute a program as the administrator, see *List of commands* in *Chapter 11. Commands*.

3. Configure the ODBC data source.

Configure the ODBC data source that JP1/IM - Service Support uses to connect to the databases.

Select **Control Panel**, **Administrative Tools**, and then **Data Source (ODBC)** to start the ODBC Data Source Administrator.

In a 64-bit OS (Windows Server 2012, Windows Server 2008, or Windows Server 2003(x64)), execute the following file to start the ODBC Data Source Administrator:

system-drive:`\WINDOWS\SysWOW64\odbcad32.exe`

Open the **System DSN** tab, and add the system data source `HiRDB ODBC3.0 Driver`, and set the following information.

Setting item	Setting value
DSN	jp1imss
PDHOST (HOST name)	--
PDNAMEPORT (HiRDB port number)	--
HiRDB Client environment definition file name (absolute path name)	*IM-SS-path*`\dbms\db\CONF\emb\HiRDB.ini`

Legend:

    --: Specify no value.

Click the **OK** button to register the data source.

4. Set the environment variable group of the databases.

Use the tool for registering HiRDB client environment variables to set a client environment variable group for the databases. This group is used in the user interface of JP1/IM - Service Support and by commands.

The file that starts the tool for registering HiRDB client environment variables differs depending on the language environment of the Item management server as follows:

- In a Japanese environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm.exe`

- In a English environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm_e.exe`

- In a Chinese environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm_e.exe`

If the Windows UAC feature is enabled in Windows Server 2012 or Windows Server 2008 and your user account has Administrator permissions other than Administrator, right click `pdcltadm.exe` or `pdcltadm_e.exe`, select **Run as administrator** from the displayed properties window. Then execute `pdcltadm.exe` or `pdcltadm_e.exe`.

Select the **System Group** radio button, and then click the **ADD** button. The PDCLTADM dialog box is displayed. In this dialog box, set the information below. Note that the values for **PDCLTCNVMODE**, **PDBLKF**, **PDLOCKSKIP**, and **PDIPC** in the following settings must be selected from the **Other environment variable** combo box or directly entered.

Setting	Setting value
Group Name	`IMSS_ENV_GROUP`
PDCLTPATH	*IM-SS-path*`\log`
PDHOST	`127.0.0.1`
User ID	--
Password	--
PDNAMEPORT	Port number of the Item management database (The default number is 24400.)
PDSQLTRACE	--

Setting	Setting value
PDSWAITTIME	--
PDCWAITTIME	180
PDSWATCHTIME	0
PDCLTCNVMODE	NOUSE
PDBLKF	80
PDLOCKSKIP	YES
PDIPC	MEMORY

Legend:

--: Specify no value.

Click the **OK** button to display the environment variable group name `IMSS_ENV_GROUP` in the PDCLTADM dialog box.

Notes:

- Do not click the **Test** button in the PDCLTADM dialog box. If you click this button, an error is displayed.

- If you select the **User Group** radio button and configure the settings, the settings are not applied. Select the **System Group** radio button and then configure the settings.

5. Execute the `jsschauthorityserver` command.

If you use an LDAP server as the authentication server, or if you use the authentication function of JP1/Base, execute the `jsschauthorityserver` command to switch the authentication server. This procedure is not necessary if you do not use an LDAP server as the authentication server, or if you do not use the authentication function of JP1/Base.

For details about the `jsschauthorityserver` command, see *jsschauthorityserver (switches the authentication method)* in *Chapter 11. Commands*.

If you want to display an HTML manual by clicking the **Help** button in the main window, you need to incorporate the manual into JP1/IM - Service Support. For details about the procedure for incorporating a manual, see *6.7 Procedure for incorporating a manual*.

If you are using JP1/IM - Service Support Advanced Edition, you can create the Item storage database as part of the setup process. For details on how to create the Item storage database, see *10.2.10 Setting up the Item storage database*.

6.4 Overwrite installation and setup of JP1/IM - Service Support

There are two types of overwrite installation: version upgrade installation and repair installation. Although the installation procedure is the same for both, the setup procedures differ.

To perform a version upgrade installation, perform an overwrite installation and then set up JP1/IM - Service Support by following the procedure in *6.4.2 Setup procedure for version upgrade installation (JP1/IM - Service Support (Standard))*.

When you perform repair installation, after overwrite installation, set up JP1/IM - Service Support, referring to *6.4.3 Setup procedure for repair installation*. This procedure is the same for all JP1/IM - Service Support products.

6.4.1 Overwrite installation procedure

The following describes the procedure for overwrite installation of JP1/IM - Service Support. There are two types of overwrite installation:

- Overwrite installation using the distribution media
- Remote installation using JP1/Software Distribution

The following describes the procedure for overwrite installation of JP1/IM - Service Support using the distribution media. Administrator permissions are required to perform this procedure. For details about the procedure for remote installation using JP1/Software Distribution, see *6.3.1(2) Remote installation using JP1/Software Distribution*. If you perform overwrite installation by using remote installation, specify as the installation-destination folder the same folder set in the previous installation.

1. Insert the distribution media into the drive, and install JP1/IM - Service Support.

   Follow the instructions of the installer which starts automatically.

   The same installation-destination folder will be used as set for the previous installation.

   For user information and the program names listed in the **Start** menu, the settings specified in the previous installation are inherited.

2. If requested, restart the operating system.

6.4.2 Setup procedure for version upgrade installation (JP1/IM - Service Support (Standard))

This section describes how to set up JP1/IM - Service Support (Standard) after a version upgrade installation. Follow the procedure that matches the version of JP1/IM - Service Support from which you upgraded. When performing a product upgrade to a different JP1/IM - Service Support product, see *6.6 Performing a product upgrade of JP1/IM - Service Support*.

Notes:

- Before performing a version upgrade installation, back up the Item management database so that you can recover it if something goes wrong. For details, see *6.2.3 Backing up the environment*.

- The system creates temporary files when setting up JP1/IM - Service Support after a version upgrade installation. Make sure that approximately 400 MB of additional free space is available in the installation folder of JP1/IM - Service Support (Standard).

- When you set up JP1/IM - Service Support after a version upgrade installation, you cannot change the size of the Item management database after it has been populated with data from the previous version. If you want to change the size of the Item management database, you can do so by following the procedure in *10.2.4 Expanding the size of the Item management database*. For details on how to determine the appropriate size for the Item management database, see the *Release Notes*.

- If you have configured the system to display an HTML manual when you click the **Help** button, you need to overwrite the existing manual with the new version. For details on how to do so, see *6.7 Procedure for incorporating a manual*.

- For details on the keys you need to add to definition files when performing a version upgrade installation, see the *Release Notes*.

(1) Version upgrade from JP1/IM - Service Support (Standard) 10-10 to JP1/IM - Service Support (Standard) 10-50

To set up JP1/IM - Service Support after upgrading from JP1/IM - Service Support (Standard) 10-10 to JP1/IM - Service Support (Standard) 10-50:

1. Execute the `jsssetup.bat` command.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**, and execute the `jsssetup.bat` command to set up JP1/IM - Service Support.

   To ensure that the contents of the Item management database can be carried over to the new version of JP1/IM - Service Support, execute the command with only the `-vup` option specified.

   The following table lists the free space requirements on the drive where the Item management database is stored, for each database size:

Size of Item management database	Required free space
S	0.2 gigabytes
M	0.9 gigabytes
L	1.4 gigabytes
LL	2.9 gigabytes

   For details on the memory requirements during version upgrade installation, see the *Release Notes*.

   Specify other arguments as described below according to your operation requirements. For details on the `jsssetup.bat` command, see *jsssetup.bat (sets up JP1/IM - Service Support)* in *Chapter 11. Commands*.

   Allowing Items to be registered by email

   If you want to be able to register Items by email, specify the `-t` option to create the master system and temporary receipt process work board. Note that you can create a master system and a temporary receipt process work board at any time (not only during setup) by using the `jsscreatesysandpwb` command. For details on the `jsscreatesysandpwb` command, see *jsscreatesysandpwb (creates the master system and the temporary receipt process work board)* in *Chapter 11. Commands*.

2. Execute the `jsschauthorityserver` command.

   If you use an LDAP server as the authentication server, or you use the authentication function of JP1/Base, execute the `jsschauthorityserver` command to switch the authentication server. You can skip this step if you do not use an LDAP server or the authentication function of JP1/Base.

   For details on the `jsschauthorityserver` command, see *jsschauthorityserver (switches the authentication method)* in *Chapter 11. Commands*.

3. Execute the `jssdbbackup.bat` command.

Back up the new environment by executing the jssdbbackup.bat command with the -maint option specified.

For details on the jssdbbackup.bat command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

6.4.3 Setup procedure for repair installation

Use this procedure to set up JP1/IM - Service Support after a repair installation. This procedure is the same for all JP1/IM - Service Support products.

1. Execute the jsssetup.bat command.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**, and execute the jsssetup.bat command with the -r option specified as an argument to set up JP1/IM - Service Support.

   For details about the jsssetup.bat command, see *jsssetup.bat (sets up JP1/IM - Service Support)* in *Chapter 11. Commands*.

2. Execute the jsschauthorityserver command.

   If you used an LDAP server as the authentication server, or if you used the authentication function of JP1/Base, the Item management database server becomes the authentication server. Execute the jsschauthorityserver command to switch the authentication server. This procedure is not necessary if you did not use an LDAP server as the authentication server, or if you did not use the authentication function of JP1/Base.

   For details about the jsschauthorityserver command, see *jsschauthorityserver (switches the authentication method)* in *Chapter 11. Commands*.

3. Execute the jssdbbackup.bat command.

   Execute the jssdbbackup.bat command with the -maint option specified as an argument to back up the new environment.

   For details on the jssdbbackup.bat command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

6.5 Unsetup and uninstallation of JP1/IM - Service Support

Before you uninstall JP1/IM - Service Support, you must perform unsetup of JP1/IM - Service Support.

This section describes the procedures for unsetup and uninstallation of JP1/IM - Service Support. These procedures are the same for all JP1/IM - Service Support products.

6.5.1 Unsetup procedure

To perform unsetup of JP1/IM - Service Support:

1. Stop the JP1/IM - Service Support services.

   If any of the JP1/IM - Service Support services are running, stop all the services.

2. Execute the `jssunsetup.bat` command.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and **JP1_IM-SS Command Prompt**, and execute the `jssunsetup.bat` command to delete the Item management database. For details about the `jssunsetup.bat` command, see *jssunsetup.bat (performs unsetup of JP1/IM - Service Support)* in *Chapter 11. Commands*.

   If you uninstall JP1/IM - Service Support without executing the `jssunsetup.bat` command, the Item management database remains without being deleted. In this case, manually delete the storage-destination folder (which was specified during setup) for the Item management database. If you are using the Item storage database in JP1/IM - Service Support Advanced Edition, this step also deletes the Item storage database.

   The default storage-destination folder for the Item management database is *IM-SS-path*`\db`.

3. Delete the ODBC data source.

   In Windows Server 2008 or Windows Server 2003, from the **Start** menu, select **Administrative Tools** and then **Data Source (ODBC)** to start the ODBC Data Source Administrator.

   In Windows Server 2012, Windows Server 2008, or Windows Server 2003 (x64), which is a 64-bit version of Windows, execute the following program to start the ODBC Data Source Administrator:

   system-drive`:\WINDOWS\SysWOW64\odbcad32.exe`

   Open the **System DSN** tab, and delete the data source `HiRDB ODBC3.0 Driver` that was added during setup.

4. Delete the environment variable group of the databases.

   Use the tool for registering HiRDB client environment variables to delete the environment variable group associated with the databases.

   The file that starts the tool for registering HiRDB client environment variables differs depending on the language environment of the Item management server as follows:

   - In a Japanese environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm.exe`

   - In a English environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm_e.exe`

   - In a Chinese environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm_e.exe`

   If the Windows UAC feature is enabled in Windows Server 2012 or Windows Server 2008 and your user account has Administrator permissions other than Administrator, right click `pdcltadm.exe` or `pdcltadm_e.exe`, select **Run as administrator** from the displayed properties window. Then execute `pdcltadm.exe` or `pdcltadm_e.exe`.

   Select the environment variable group name `IMSS_ENV_GROUP` which was registered during setup, and click the **Delete** button to delete the environment variable group name.

6.5.2 Uninstallation procedure

To uninstall JP1/IM - Service Support:

1. In Windows Server 2008 or Windows Server 2003, from the **Start** menu, select **Control Panel** and then **Add or Remove Programs**. In Windows Server 2012, from the **Start** menu, select **Control Panel**, **Programs**, and then **Programs and Features**.
   The Add or Remove Programs dialog box is displayed.

2. Select **JP1/IM - Service Support** from the list, and then click the **Change or Remove Programs** button.
   Uninstall according to the directions. The program will be uninstalled.

6.6 Performing a product upgrade of JP1/IM - Service Support

You can upgrade from JP1/IM - Service Support (Standard) to JP1/IM - Service Support Advanced Edition. This section describes how to perform a product upgrade when JP1/IM - Service Support (Standard) is installed in a 64-bit Windows environment and a 32-bit Windows environment.

6.6.1 Product upgrade from JP1/IM - Service Support (Standard) to JP1/IM - Service Support Advanced Edition

This section describes how to perform a product upgrade from JP1/IM - Service Support (Standard) to JP1/IM - Service Support Advanced Edition when JP1/IM - Service Support (Standard) is installed in a 64-bit Windows environment. You can use this procedure even if the two products are different versions. Before beginning the upgrade process, create a backup of the Item management database that you can use to recover the database if something goes wrong. For details, see *6.2.3 Backing up the environment*.

1. Insert the distribution media into the drive, and install JP1/IM - Service Support.

   Install the product by following the prompts of the installer, which starts automatically.

   The same installation folder as the previous installation will be used.

   The user information and the program name displayed in the **Start** menu are also inherited from the previous installation.

2. If requested, restart the operating system.

3. Execute the `jsssetup.bat` command.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the `jsssetup.bat` command to set up JP1/IM - Service Support.

   To ensure that the contents of the Item management database are carried over to the new product, specify the option below. The option you specify depends on the whether versions of JP1/IM - Service Support (Standard) and JP1/IM - Service Support Advanced Edition are the same or different.

   - If the versions are different (the process involves a version upgrade)
     Specify the `-vup` option only.

   - If the products are the same version
     Specify the `-r` option only.

   The following describes the free space requirements for the drive that stores the Item management database.

   - Free space requirements when the previous version is 10-10

Size of Item management database	Required free space
S	0.2 gigabytes
M	0.9 gigabytes
L	1.4 gigabytes
LL	2.9 gigabytes

   When you set up JP1/IM - Service Support after a version upgrade installation, the system creates temporary files. Make sure that approximately 400 MB of additional free space is available on the disk where the installation folder

of JP1/IM - Service Support (Standard) is located. Because different products have different memory requirements, see the *Release Notes* for details on the memory requirements for your situation.

Specify other arguments as described below according to your operation requirements. For details on the `jsssetup.bat` command, see *jsssetup.bat (sets up JP1/IM - Service Support)* in *Chapter 11. Commands*.

Allowing Items to be registered by email

If you want to register Items by email, specify the `-t` option to create the master system and temporary receipt process work board. Note that you can create a master system and a temporary receipt process work board at any time (not only during setup) by using the `jsscreatesysandpwb` command. For details on the `jsscreatesysandpwb` command, see *jsscreatesysandpwb (creates the master system and the temporary receipt process work board)* in *Chapter 11. Commands*.

4. Execute the `jsschauthorityserver` command.

If you use an LDAP server as the authentication server, or you use the authentication function of JP1/Base, execute the `jsschauthorityserver` command to switch the authentication server. You can skip this step if you do not use an LDAP server or the authentication function of JP1/Base.

For details about the `jsschauthorityserver` command, see *jsschauthorityserver (switches the authentication method)* in *Chapter 11. Commands*.

5. Execute the `jssdbbackup.bat` command.

Back up the new environment by executing the `jssdbbackup.bat` command with the `-maint` option specified.

For details on the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

To change the size of the Item management database to XL:

1. Execute the `jssdbbackup.bat` command.

Back up the database by executing the `jssdbbackup.bat` command with the options below specified. If you specify any other options, you will not be able to recover the data in the new environment.

- `-o` option
- `-mdb` option
- `-expand` option

For details about the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

2. Change the size of the Item management database by executing the `jssdbinit.bat` command.

Specify `-s XL` as the command argument.

For details on the `jssdbinit.bat` command, see *jssdbinit.bat (initializes databases)* in *Chapter 11. Commands*.

3. Execute the `jssdbrecovery.bat` command to recover the data from the backup you created in step 1.

Execute the command with the following options specified:

- `-i` option
- `-mdb` option
- `-expand` option

For details on the `jssdbrecovery.bat` command, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

4. Execute the `jssdbbackup.bat` command.

Back up the new environment by executing the `jssdbbackup.bat` command with the `-maint` and `-o` options specified.

For details on the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

If you have configured the system to display an HTML manual when you click the **Help** button, you need to overwrite the existing manual with the new version. For details on how to do so, see *6.7 Procedure for incorporating a manual*.

6.6.2 Product upgrade from JP1/IM - Service Support (Standard) in 32-bit Windows to JP1/IM - Service Support Advanced Edition

This section describes how to perform a product upgrade of JP1/IM - Service Support (Standard) to JP1/IM - Service Support Advanced Edition when JP1/IM - Service Support (Standard) is installed in a 32-bit Windows environment. In the description below, *old environment* means a 32-bit Windows environment with JP1/IM - Service Support (Standard) installed. The *new environment* is a 64-bit Windows environment with JP1/IM - Service Support Advanced Edition installed.

Before beginning the upgrade installation, create a backup of the Item management database so you can recover the database if something goes wrong. For details, see *6.2.3 Backing up the environment*.

> **Important note**
>
> If the version of JP1/IM - Service Support (Standard) in the old environment does not support 64-bit Windows, perform a version upgrade of JP1/IM - Service Support (Standard) in the old environment, and then perform a program upgrade.

1. Execute the `jssdbbackup.bat` command.

   Backup the old environment by executing the `jssdbbackup.bat` command with the `-f` and `-expand` options specified.

   For details on the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

2. Back up the definition information of the old environment.

   You need to back up every file listed in Table 10-1 in *10.1.1 Backing up definition information* except the environment setup commands, cluster environment setup command, and environment settings files. Because the active node and the standby node have the same definition information, you can acquire the files from either node. However we recommend that you use the active node.

3. In the new environment, install the same version of JP1/IM - Service Support (Standard) as the old environment.

   For details on how to install JP1/IM - Service Support, see *6.3.1 New installation procedure*.

4. Set up JP1/IM - Service Support (Standard) in the new environment.

   When setting up JP1/IM - Service Support, specify the same database size for the Item management database as in the old environment.

   For details on how to set up the environment for JP1/IM - Service Support, see *6.3.2 Setup procedure for new installation*.

5. Execute the `jssdbrecovery.bat` command to recover the data from the backup you created in step 1.

   Execute the command with the `-f` and `-expand` options specified.

For details on the `jssdbrecovery.bat` command, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

6. Restore the definition information in the new environment.

Restore the definition information you backed up in step 2 to the new environment. When this process is complete, make sure that the system operates in the same way as it did in the old environment.

7. Unset up JP1/IM - Service Support (Standard) in the old environment.

For details on how to perform unsetup of JP1/IM - Service Support, see *6.5.1 Unsetup procedure*.

8. Uninstall JP1/IM - Service Support (Standard) from the old environment.

For details on how to uninstall JP1/IM - Service Support, see *6.5.2 Uninstallation procedure*.

9. Execute the `jssdbbackup.bat` command.

Back up the new environment by executing the `jssdbbackup.bat` command. You can use this backup to recover the environment if the upgrade process fails in a subsequent step. Specify the `-f` and `-maint` options as command arguments.

For details on the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

10. Upgrade to JP1/IM - Service Support Advanced Edition.

For details on the upgrade procedure, see *6.6.1 Product upgrade from JP1/IM - Service Support (Standard) to JP1/IM - Service Support Advanced Edition*.

If you have configured the system to display an HTML manual when you click the **Help** button, you need to overwrite the existing manual with the new version. For details on how to do so, see *6.7 Procedure for incorporating a manual*.

6.7 Procedure for incorporating a manual

If you copy an HTML manual to the specified folder, users can view the manual by clicking the **Help** button in the main window.

To incorporate a manual into JP1/IM - Service Support:

1. Obtain the manual distribution media provided with the program product.

2. From the manual distribution media, copy the HTML manual to the following folder:
   - In a Japanese environment: *IM-SS-path*\home\public\manual\ja\
   - In an English environment: *IM-SS-path*\home\public\manual\en\
   - In a Chinese environment: *IM-SS-path*\home\public\manual\zh\

   Copy the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide* to this folder. Include the following files and folders when copying manual:
   - HTM files
   - CSS files
   - GRAPHICS folder

   Overwrite the INDEX.HTM file stored in this folder. If you performed a version upgrade installation, manually delete the HTM files, CSS files, and GRAPHICS folder before copying the manual from the distribution media.

7

Starting and Stopping JP1/IM - Service Support

This chapter describes how to start and stop JP1/IM - Service Support.

7.1 Starting JP1/IM - Service Support

To start JP1/IM - Service Support, you need to start the JP1/IM - Service Support services.

You can start the services from the Service Control Manager of Windows Server 2012, Windows Server 2008, or Windows Server 2003. Start the services in the following order:

1. JP1/Service Support - DB Server service

2. JP1/Service Support service

3. JP1/Service Support - Web Service service

4. JP1/Service Support - Task Service service[#]

   #

   If you want to automatically execute the commands for summarizing Item information, pre-deadline notification, held Item notification, or registering Items by email, start the JP1/Service Support - Task Service service.

   To automatically execute these commands, you need to set them in the Definition file for the task practice service. If you start the JP1/Service Support - Task Service service when the Definition file for the task practice service is in the default status, the service will fail because no commands to be executed are registered. For details, see *Definition file for the task practice service (jp1imss_service_setting.conf)* in *Chapter 12. Definition Files*.

To start each of the above services:

1. In Windows Server 2008 or Windows Server 2003, from the **Start** menu, select **Administrative Tools** and then **Services**. In Windows Server 2012, from the Start window, select **Administrative Tools** and then **Services**, or select **All apps** and then **Services**.
   The Services dialog box is displayed.

2. Right click the service to be started, and from the pop-up menu, select **Start**.

7.2 Stopping JP1/IM - Service Support

To stop JP1/IM - Service Support, you need to stop the JP1/IM - Service Support services.

You can stop the services from the Service Control Manager of Windows Server 2012, Windows Server 2008, or Windows Server 2003. Stop the services in the following order:

1. JP1/Service Support - Task Service service

2. JP1/Service Support - Web Service service

3. JP1/Service Support service

4. JP1/Service Support - DB Server service

To stop each of the above services:

1. In Windows Server 2008 or Windows Server 2003, from the **Start** menu, select **Administrative Tools** and then **Services**. In Windows Server 2012, from the Start window, select **Administrative Tools** and then **Services**, or select **All apps** and then **Services**.
   The Services dialog box is displayed.

2. From the list of services, right click the service to be stopped, and from the pop-up menu, select **Stop**.
   A confirmation message is displayed.

3. Click the **OK** button.
   The corresponding service stops.

7.3 Starting and stopping JP1/IM - Service Support in a cluster environment

If you run JP1/IM - Service Support on a logical host in a cluster system, the cluster software controls the start and stop of JP1/IM - Service Support.

In a cluster system, applications are executed on the active server. In order to ensure failover to the standby server when a failure such as system down occurs, applications are registered in the cluster software, and the cluster software controls the start and stop of applications. If you run JP1/IM - Service Support in a cluster environment, register JP1/IM - Service Support in the cluster software so that the cluster software can control JP1/IM - Service Support.

When you start or stop JP1/IM - Service Support that already runs in a cluster environment, do it through the cluster software operations. You can manually start or stop JP1/IM - Service Support, for example, by using the Services dialog box of Windows Server 2012, Windows Server 2008, or Windows Server 2003. In this case, the actual operating status of JP1/IM - Service Support might become different from the operating status of JP1/IM - Service Support managed by the cluster software. This situation might be determined to be a failure.

Start the services in the following order:

1. JP1/Service Support - DB Cluster service

2. JP1/Service Support - DB Server service

3. JP1/Service Support service

4. JP1/Service Support - Web Service service

5. JP1/Service Support - Task Service service[#]

   #

   If you want to automatically execute the commands for summarizing Item information, pre-deadline notification, held Item notification, or registering Items by email, start the JP1/Service Support - Task Service service. To automatically execute these commands, you need to set them in the Definition file for task practice service.

   If you start the JP1/Service Support - Task Service service when the Definition file for the task practice service is in the default status, the service will fail. For details, see *Definition file for the task practice service (jp1imss_service_setting.conf)* in *Chapter 12. Definition Files*.

Stop the services in the following order:

1. JP1/Service Support - Task Service service

2. JP1/Service Support - Web Service service

3. JP1/Service Support service

4. JP1/Service Support - DB Server service

5. JP1/Service Support - DB Cluster service

For details about cluster operations, see *Chapter 9. Using JP1/IM - Service Support in a Cluster System and Configuring an Environment*.

8

Building a JP1/IM - Service Support Environment

This chapter describes the settings required to build a JP1/IM - Service Support environment.

JP1/IM - Service Support must be installed and set up before you build a JP1/IM - Service Support environment. For details about installation and setup for JP1/IM - Service Support, see *Chapter 6. Installing and Setting Up JP1/IM - Service Support*.

8.1 Flow of building an environment

This section describes the flow of operations involved in building a JP1/IM - Service Support environment. You can build an environment by using the windows provided by JP1/IM - Service Support or by using commands or definition files such as property files. Before you use the windows of JP1/IM - Service Support to build an environment, you need to login to JP1/IM - Service Support with the appropriate permissions for building the environment. For details about login, see *2.1 Logging in to JP1/IM - Service Support* in the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*.

The following figure shows the flow of individual settings.

Figure 8–1: Flow of building an environment

Legend:
	: Environment settings by using windows
	: Environment settings by using commands
	: Environment settings by using windows and definition files
	: Environment settings by using commands, windows, and definition files
	: Environment settings by using definition files
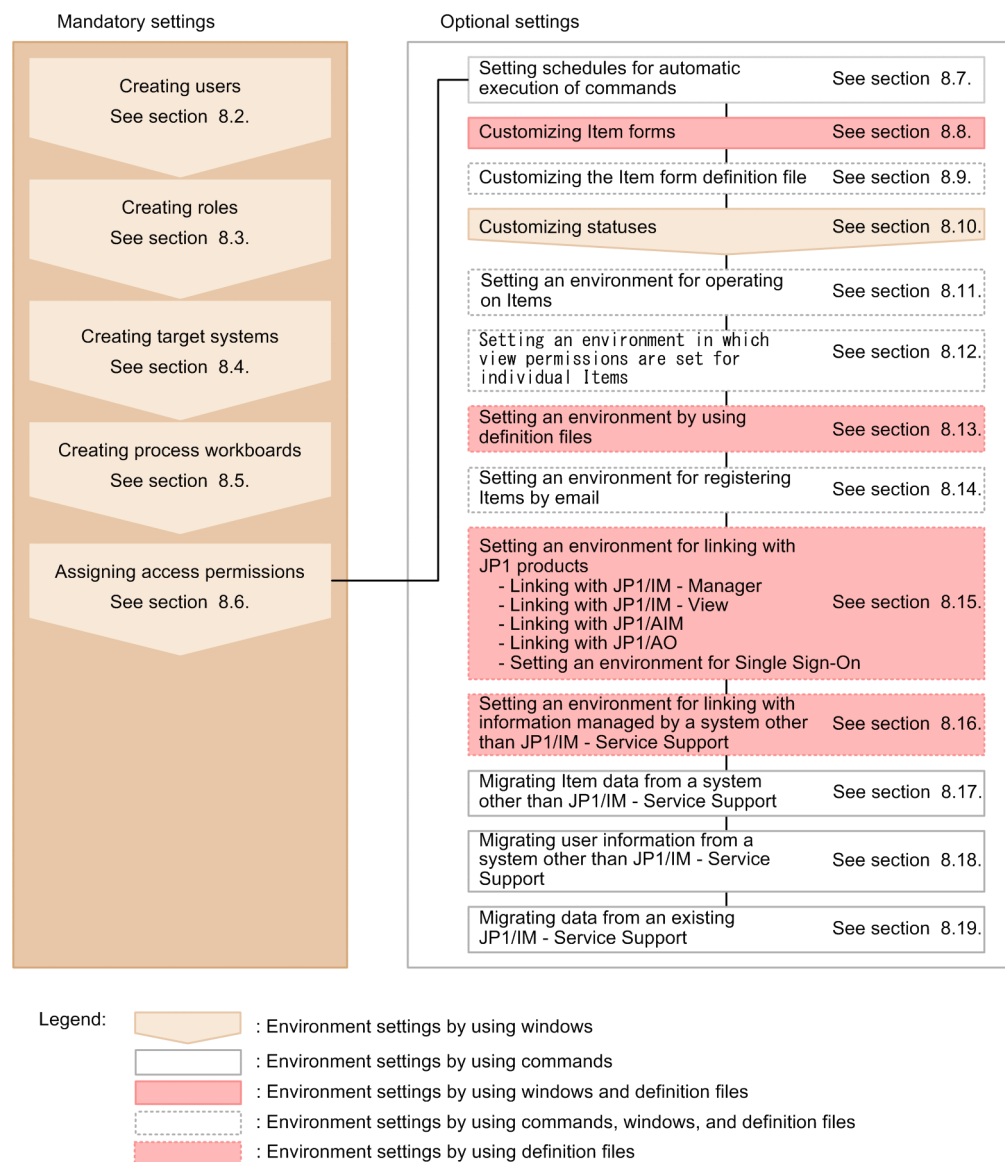
8.2 Creating users

This section describes how to add and delete users from the User management window. Only users who belong to the user management role can perform these operations.

8.2.1 Adding users

To add a user:

1. From the menu in the main window (Item list), select **Option** and then **User management**.

   The User management window appears. This window is shown below.

   Figure 8–2: User management window

   You can change the order of user information in the User management window by clicking a column header to sort the list by that column. By default, the list is sorted by the **Name** column. An icon appears in the column header indicating whether the column is sorted in ascending order (▲) or descending order (▼).

2. From the menu, select **New**.

   The Create user window appears. This window is shown below.

Figure 8–3: Create user window

3. Enter the user information.

You must enter information in the **ID**, **Name**, **Password**, and **Re-enter password** fields. If you are not allowed to set passwords, the **Password** and **Re-enter password** fields are unavailable. In this case, the password will be the same as the ID. Whether you can set passwords depends on a setting in the User management property file. For details, see *User management property file (hptl_jp1_imss_usermgr.properties)* in *Chapter 12. Definition Files*.

Enter from 1 to 64 half-width alphanumeric characters in the **ID** field. In the **Name** field, you can enter from 1 to 255 half-width alphanumeric characters or from 1 to 85 full-width characters. When using the authentication function of JP1/Base, you can enter from 1 to 31 lower-case half-width alphanumeric characters.

In the **Password** and **Re-enter password** fields, specify from 1 to 64 half-width alphanumeric characters, spaces, and symbols. When using the authentication function of JP1/Base, you can enter from 6 to 32 half-width alphanumeric characters and half-width symbols, but not \, **"**, **:**, spaces, and tab characters.

In the **English name**, **Title**, **Title level**, **Email address**, **Phone number**, and **Phone number 2** fields, you can specify a maximum of 255 half-width alphanumeric characters or approximately 85 full-width characters. In the **Organization** and **Comment** fields, you can enter a maximum of 512 half-width alphanumeric characters or approximately 170 full-width characters.

In the **Email address** field, you can specify any characters in the ASCII character set. However, the following conditions apply:

- The address cannot contain control characters (0x00 to 0x1F and 0x7F).

- The address must contain only one at sign (@).

- There must be characters before and after the at sign (@).

- The address cannot begin or end with a period (.).

- The address cannot include parentheses (( )), angle brackets (< >), square brackets ([ ]), colons (:), semicolons (;), backslashes (\), commas (,), or half-width spaces (0x20).

4. From the menu, select **Register**.

The user is added and you are returned to the User management window.

> **▌ Reference note**
>
> You can also use the `jssuserimport` command to add users. Administrator permissions are required to use the `jssuserimport` command. For details about the `jssuserimport` command, see *jssuserimport (imports user information)* in *Chapter 11. Commands*.

8.2.2 Editing user information

To edit the user information for an added user:

1. From the menu in the main window (Item list), select **Option** and then **User management**.
   The User management window appears.

2. Select the check box for the user you want to edit, and from the menu, select **Action** and then **Edit**.
   The Edit user window appears. This window is shown below.

   Figure 8–4: Edit user window

3. Edit the user information.

   Change the **ID** and **Password** as needed. To change the password, select the **Change password** check box. This check box is unavailable if you are not allowed to set passwords. Whether you can set passwords depends on a setting in the User management property file. For details, see *User management property file (hptl_jp1_imss_usermgr.properties)* in *Chapter 12. Definition Files*.

   Specify from 1 to 64 half-width characters in the **ID** field. When using the authentication function of JP1/Base, you can enter from 1 to 31 lower-case half-width alphanumeric characters.

   In the **Name** field, you can enter from 1 to 255 half-width alphanumeric characters or from 1 to 85 full-width characters.

In the **Password** and **Re-enter password** fields, specify from 1 to 64 half-width alphanumeric characters, spaces, and symbols. When using the authentication function of JP1/Base, you can enter from 6 to 32 half-width alphanumeric characters, and half-width symbols except for \, ", :, spaces, and tab characters.

In the **English name**, **Title**, **Title level**, **Email address**, **Phone number**, and **Phone number 2** fields, you can specify a maximum of 255 half-width alphanumeric characters or approximately 85 full-width characters. In the **Organization** and **Comment** fields, you can enter a maximum of 512 half-width alphanumeric characters or approximately 170 full-width characters.

In the **Email address** field, you can specify any characters in the ASCII character set. However, the following conditions apply:

- The address cannot contain control characters (0x00 to 0x1F and 0x7F).

- The address must contain only one at sign (@).

- There must be characters before and after the at sign (@).

- The address cannot begin or end with a period (.).

- The address cannot include parentheses (( )), angle brackets (< >), square brackets ([ ]), colons (:), semicolons (;), backslashes (\), commas (,), or half-width spaces (0x20).

4. From the menu, select **Register**.

The user information is registered and you are returned to the User management window. When you edit user information, the changes take effect when you next edit an Item.

Notes:

- If you are using an LDAP server for authentication, passwords are managed by the LDAP server and attempting to change the password in JP1/IM - Service Support will have no effect. You must prevent users from changing passwords in JP1/IM - Service Support if you are using an LDAP server for authentication. Whether users can change passwords depends on a setting in the User management property file. For details, see *User management property file (hptl_jp1_imss_usermgr.properties)* in *Chapter 12. Definition Files*.

- You cannot link to certain JP1 products without using the authentication features provided by JP1/Base. In this scenario, how user information and passwords are managed depends on the authentication method used with JP1/IM - Service Support. For details about how to change user information and passwords, see *5.15 Considering the authentication method*. If you disable password changes in the User management property file, you can still change the password for the user set as the information-search user ID in the property file for JP1 product cooperation. For details about the User management property file and the property file for JP1 product cooperation, see *User management property file (hptl_jp1_imss_usermgr.properties)* in *Chapter 12. Definition Files*.

> **Reference note**
>
> You can also use the jssuseredit command to edit user information. Administrator permissions are required to use the jssuseredit command. For details about the jssuseredit command, see *jssuseredit (edits user information)* in *Chapter 11. Commands*.

8.2.3 Deleting users

To delete a user:

1. From the menu in the main window (Item list), select **Option** and then **User management**.
   The User management window appears.

2. Select the check boxes for the user or users you want to delete.

You can delete multiple users in a single operation. The following figure shows the User management window with users selected.

Figure 8–5: User management window (Select user)

You can change the order of user information in the User management window by clicking a column header to sort the list by that column. By default, the list is sorted by the **Name** column. An icon appears in the column header indicating whether the column is sorted in ascending order (▲) or descending order (▼).

You can select all listed users by selecting the check box in the column header. If you clear the check box in the header, all the selected check boxes are cleared. Note that you cannot delete the `jp1admin` user.

3. From the menu, select **Action** and then **Delete**.

A confirmation message appears. Click **OK** to delete the user or users. When you delete user information, the deletion takes effect when you next edit an Item.

8.3 Creating roles

This section describes how to add and delete roles from the Role management window. Only users who belong to the user management role can perform these operations.

8.3.1 Adding roles

To add a role:

1. From the menu in the main window (Item list), select **Option** and then **Role management**.

   The Role management window appears. This window is shown below.

   Figure 8–6: Role management window
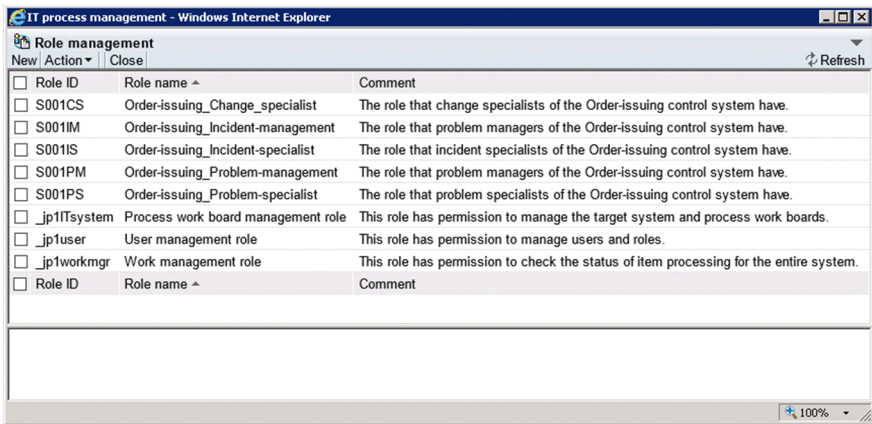
   You can change the order in which roles and their members are listed in the User management window by clicking a column header to sort the list by that column. By default, the role information is sorted by the **Role name** column, and members are sorted by the **Name** column. An icon appears in the column header indicating whether the column is sorted in ascending order (▲) or descending order (▼).

2. From the menu, select **New**.

   The New role window appears. This window is shown below.

   Figure 8–7: New role window
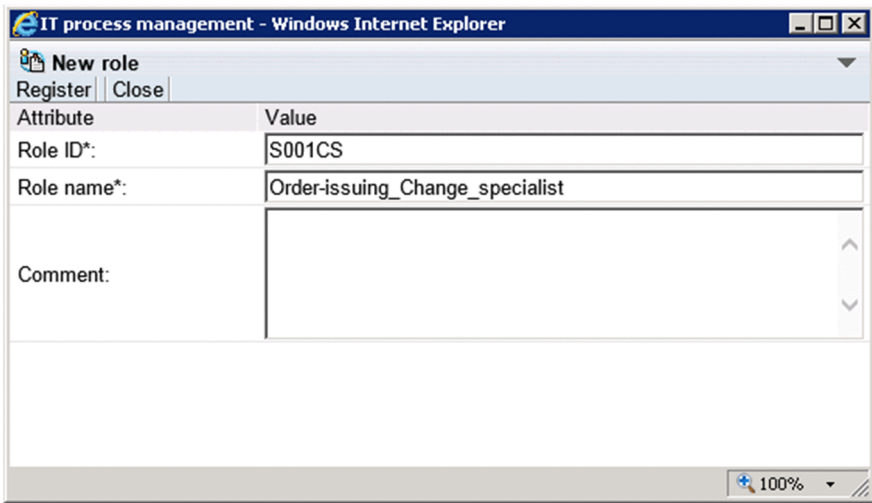
3. Enter the role information.

You must enter values in the **Role ID** and **Role name** fields.

Specify from 1 to 64 half-width alphanumeric characters in the **Role ID** field. You cannot register a role ID that begins with `_jp1`.

In the **Role name** field, specify from 1 to 255 half-width alphanumeric characters or a maximum of approximately 85 full-width characters. In the **Comment** field, specify a maximum of 512 half-width alphanumeric characters or approximately 170 full-width characters.

4. From the menu, select **Register**.

   The role is added and you are returned to the Role management window.

5. Select the check box for the role you added, and from the menu, select **Action** and then **Add Member**.

   The Select user window appears.

6. Select the check boxes for the users you want to add to the role.

   You can select multiple users. The Select user window is shown in the figure below.

   Figure 8–8: Select user window
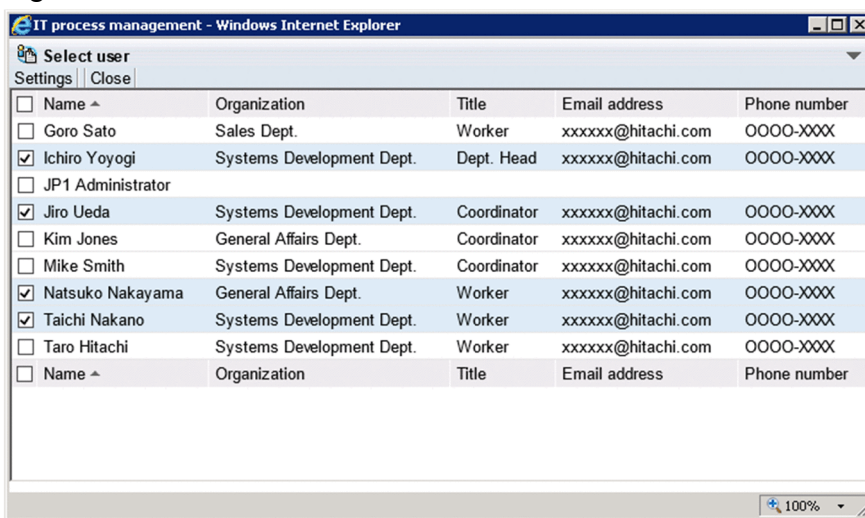
You can select all listed users by selecting the check box in the column header. If you clear the check box in the header, all check boxes are cleared.

7. From the menu, select **Settings**.

   The selected users are added to the role.

> **Reference note**
>
> You can also use the `jssroleimport` command to add roles. Administrator permissions are required to use the `jssroleimport` command. For details about the `jssroleimport` command, see *jssroleimport (imports role information)* in *Chapter 11. Commands*.

8.3.2 Editing roles

To edit role information:

1. From the menu in the main window (Item list), select **Option** and then **Role management**.

   The Role management window appears.

2. Select the check box for the role you want to edit, and from the menu, select **Action** and then **Edit role**.

The Edit role window appears. This window is shown below.

Figure 8–9: Edit role window

3. Edit the role information.

Change the **Role ID** and **Role name** as needed.

Specify from 1 to 64 half-width alphanumeric characters in the **Role ID** field. You cannot register a role ID that begins with _jp1.

In the **Role name** field, specify from 1 to 255 half-width alphanumeric characters or a maximum of approximately 85 full-width characters. In the **Comment** field, specify a maximum of 512 half-width alphanumeric characters or approximately 170 full-width characters.

4. From the menu, select **Register**.

The role information is edited and you are returned to the Role management window. When you edit role information, the new information applies when you next edit an Item.

8.3.3 Adding members

To add members to a role:

1. From the menu in the main window (Item list), select **Option** and then **Role management**.
The Role management window appears.

2. Select the check box for the role to which you want to add members, and from the **Action** menu, select **Add Member**.
The Select user window appears.

3. Select the check boxes for the users you want to add to the role.
Select the check boxes for the users you want to add.
You can select all listed users by selecting the check box in the column header. If you clear the check box in the header, all check boxes are cleared.

4. From the menu, select **Settings**.
The selected users are added to the role.

> **Reference note**
>
> You can also use the `jssmemberimport` command to add members. Administrator permissions are required to use the `jssmemberimport` command. For details about the `jssmemberimport` command, see *jssmemberimport (imports member information)* in *Chapter 11. Commands*.

8.3.4 Deleting members

To remove members from a role:

1. From the menu in the main window (Item list), select **Option** and then **Role management**.
   The Role management window appears.

2. Select the check box for the role from which you want to remove members, and select the check boxes for the members you want to remove from the role.
   Select the check boxes for the members you want to remove. You can select all listed members by selecting the check box in the column header. If you clear the check box in the header, all check boxes are cleared

3. From the menu, select **Action** and then **Delete member**.
   A confirmation message appears. Click **OK** to remove the selected members.

> **Reference note**
>
> You can also use the `jssmemberdelete` command to delete members. Administrator permissions are required to use the `jssmemberdelete` command. For details about the `jssmemberdelete` command, see *jssmemberdelete (deletes member information)* in *Chapter 11. Commands*.

8.3.5 Deleting roles

To delete a role:

1. From the menu in the main window (Item list), select **Option** and then **Role management**.
   The Role management window appears.

2. Select the check box for the role you want to delete.
   You can delete several roles at once. The following figure shows an example of the Role management window with roles selected.

Figure 8–10: Role management window (Select role)
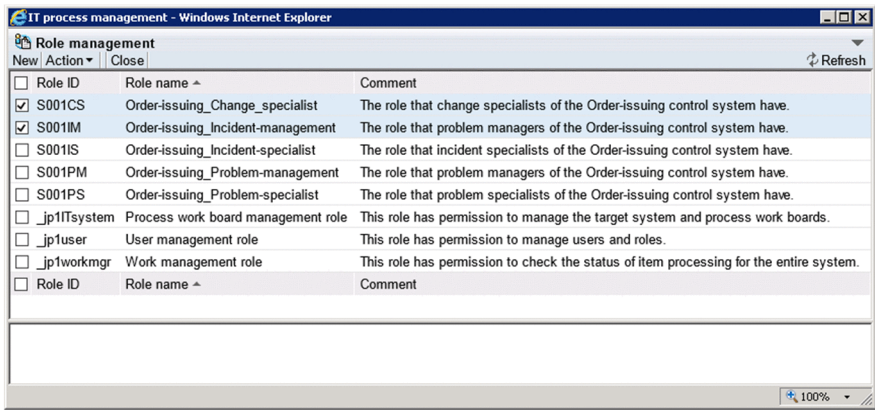
You can change the order in which roles and their members are listed in the Role management window by clicking a column header to sort the list by that column. By default, role information is sorted by the **Role name** column, and members are sorted by the **Name** column. An icon appears in the column header indicating whether the column is sorted in ascending order (▲) or descending order (▼).

You can select all listed roles by selecting the check box in the column header. If you clear the check box in the header, all the selected check boxes are cleared. Note that you cannot delete system roles (role IDs beginning with `_jp1`).

3. From the menu, select **Action** and then **Delete role**.

A confirmation message appears. Click **OK** to delete the role or roles. When you delete role information, the deletion takes effect when you next edit an Item.

8.4 Creating target systems

This section describes how to add and delete target systems, and how to edit information about target systems. Only users who belong to the process work board management role can perform these operations.

8.4.1 Adding target systems

To add a target system:

1. From the menu in the main window (Item list), select **Option** and then **Target system management**.

   The Target system management window appears. This window is shown below.

   Figure 8–11: Target system management window
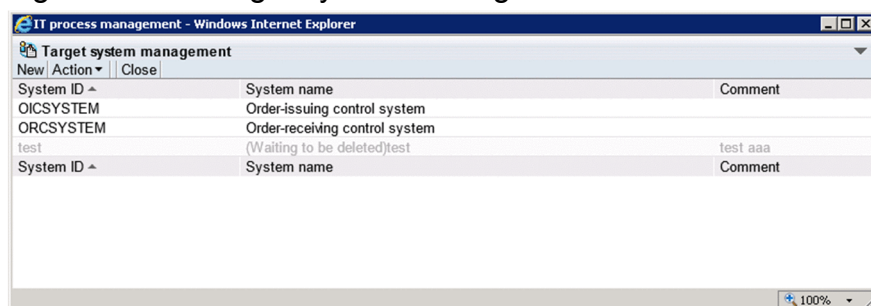
   You can change the order of target system information in the Target system management window by clicking the **System ID** or **System name** column header to sort the list by that column. By default, the list is sorted by the **System ID** column. An icon appears in the column header indicating whether the column is sorted in ascending order (▲) or descending order (▼).

2. From the menu, select **New**.

   The Create the target system window appears. This window is shown below.

   Figure 8–12: Create the target system window
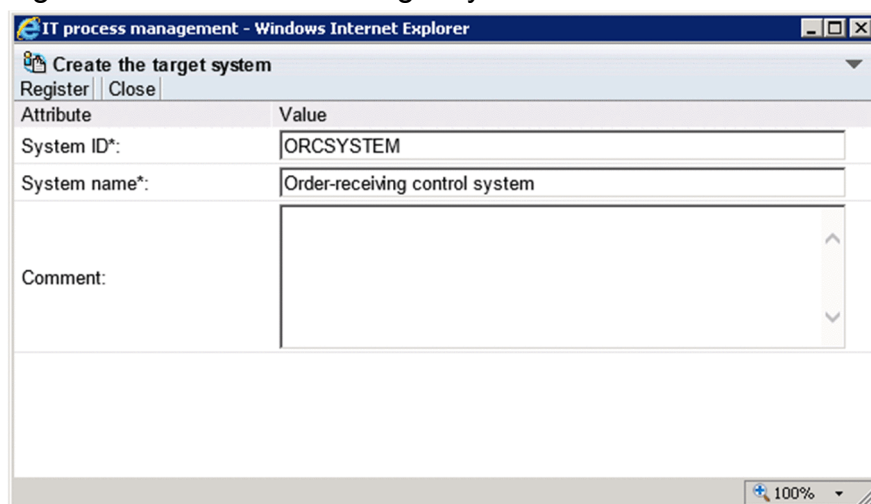
3. Enter information about the target system.

   You must enter information in the **System ID** and **System name** fields. Specify from 1 to 64 half-width alphanumeric characters in the **System ID** field. In the **System name** field, you can enter from 1 to 128 half-width alphanumeric

characters or a maximum of approximately 40 full-width characters. In the **Comment** field, you can enter a maximum of 1,024 half-width alphanumeric characters or approximately 340 full-width characters.

4. From the menu, select **Register**.
   The target system is added and you are returned to the Target system management window.

8.4.2 Editing target system information

To edit information about a target system:

1. From the menu in the main window (Item list), select **Option** and then **Target system management**.
   The Target system management window appears.

2. Select the target system you want to edit.
   You can select a target system by clicking the system ID or system name. Only one target system can be selected. The following figure shows the Target system management window with a target system selected.

   Figure 8–13: Target system management window (with target system selected)
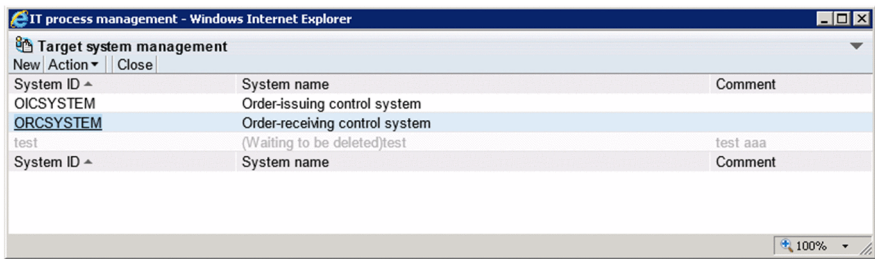
   You can change the order of target information in the Target system management window by clicking the column header of the **System ID** or **System name** column to sort the list by that column. By default, the list is sorted by the **System ID** column. An icon appears in the column header indicating whether the column is sorted in ascending order (▲) or descending order (▼).

3. From the menu, select **Action** and then **Edit the target system**.
   The Edit the target system window appears. This window is shown below.

   Figure 8–14: Edit the target system window
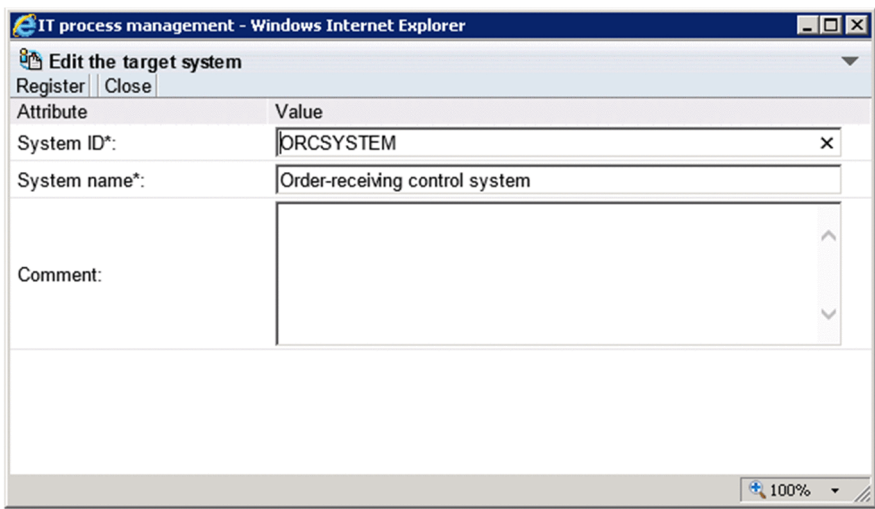
4. Edit the target system information.

Change the **System ID** and **System name** as needed. Specify from 1 to 64 half-width alphanumeric characters in the **System ID** field. In the **System name** field, specify from 1 to 128 single byte alphanumeric characters or approximately 40 full-width characters. In the **Comment** field, specify a maximum of 1,024 half-width alphanumeric characters or approximately 340 full-width characters.

5. From the menu, select **Register**.
   The target system information is edited and you are returned to the Target system management window.

8.4.3 Deleting target systems

To delete a target system:

1. From the menu in the main window (Item list), select **Option** and then **Target system management**.
   The Target system management window appears.

2. Select the system you want to delete.
   You can select a target system by clicking the system ID or system name. Only one target system can be selected.

3. From the **Action** menu, select **Delete target system**.
   A confirmation message appears. Click **OK** to delete the target system.

Note:

   To delete a target system, none of its subordinate work boards can be in *Operating* status.

> **Reference note**
>
> You can restore a target system that you have deleted from the Target system management window. To do so, select the target system in the Target system management window, and from the **Action** menu, select **deletion cancellation**.
>
> If you want to completely delete the target data from the Item management database, execute the `jssdelrec` command. For details about the `jssdelrec` command, see *jssdelrec (deletes data from the Item management database)* in *Chapter 11. Commands*.

8.5 Creating process work boards

This section describes how to add and delete process work boards, and how to edit the process work board information in the system.

8.5.1 Adding process work boards

This subsection describes how to add process work boards. Only users who belong to the process work board management role can perform these operations.

1. From the menu in the main window (Item list), select **New** and then **New process work board**.

   The New process work board window appears. The window has three tabs: The **Basic settings** tab, the **Settings - Automatic item input** tab, and the **Threshold setting** tab, with different settings on each tab. The following figure shows the New process work board window.

Figure 8–15: New process work board window

Basic settings tab

Settings - Automatic item input tab

Threshold setting tab

2. Enter the process work board information.

The following describes the parameters you can set on **Basic settings** tab, the **Settings - Automatic item input** tab, and the **Threshold setting** tab.

Basic settings tab

The following table lists the parameters you can set on the **Basic settings** tab.

Table 8–1: Elements in New process work board window (Basic settings tab)

Element	Description
Process work board ID[1]	Enter the process work board ID using 1 to 64 half-width alphanumeric characters.
System[1]	From the combo box, select the target system in which to register the process work board.
Process[1]	From the combo box, select the process with which to associate the process work board.
Item form[1]	Select the Item form to use with the process work board. To use the standard Item form assigned to the process, select the **The process standard item form is used** check box. If you want to use different Item forms for different process work boards, clear the **The process standard item form is used** check box and select an Item form in the combo box. The comment associated with the selected Item form appears below the combo box.
State[1]	Select the state of the process work board from the combo box.
Process work board administrator[1]	Select the administrator for the process work board from the Select user and role window displayed by clicking the **Selected** button. You can select a user or a role.
Settings for pre-deadline email notification	To notify the process specialist, the process work board administrator, or another party when the deadline for an Item is approaching, select the **Notify by email before the deadline** check box. In the **Number of days before the deadline** field, enter the number of days before the deadline to receive notifications, in a range from 1 to 365 half-width numerals. In the **Settings - Email notification frequency** area, select **Notify once by email the number of days before the deadline** or **Notify everyday by email from the specified number of days before the deadline until the deadline**.
JP1 event configuration	This element only appears if you have configured JP1/IM - Service Support to issue JP1 events. Select this check box to issue JP1 events from JP1/IM - Service Support.
Person in charge of the registered item from email[1]	This element only appears if you are using the email-driven Item registration command. Click the **Selected** button to display the Select user and role window, and select the user or role that is to be responsible for Items submitted by email.
View permission settings for individual Items[2]	This element only appears if you have executed the command to set up view permission settings for individual Items. To set up view permissions for individual Items in the process work board, select the **Set reference permissions for individual Items** check box.
Comment	Enter a comment describing the process work board, in a maximum of 1,024 half-width alphanumeric characters or approximately 340 full-width characters.

#1

This element is mandatory.

#2

The function that allows view permissions to be set for individual Items must be set up in advance. For details, see *8.12 Setting an environment in which view permissions are set for individual Items*.

The settings for **JP1 event configuration** and **Person in charge of the registered item from email** are displayed if you change the settings in definition files. They are not displayed by default.

JP1 event configuration is displayed if you specify the settings in the configuration file for issuing JP1 events to enable the issuance of JP1 events. For details about the configuration file for issuing JP1 events, see *Configuration file for issuing JP1 events (hptl_jp1_imss_jp1event_setting.properties)* in *Chapter 12. Definition Files*.

Person in charge of the registered item from email is displayed if you specify the settings in the Email definition file so that the command for registering Items by email will be used. For details about the Email definition file, see *Email definition file (jp1imss_mail_setting.conf)* in *Chapter 12. Definition Files*.

Settings - Automatic item input tab

You can also use the property file for automatic Item-defaults input to set automatic Item-defaults input. If you want to specify this setting for each process work board, use the New process work board window or the Edit the process work board window. You can also use the property file for automatic Item-defaults input to specify the settings on the **Settings - Automatic item input** tab. For details about the property file for automatic Item-defaults input, see *Property file for automatic Item-defaults input (hptl_jp1_imss_pwb_default_setting.properties)* in *Chapter 12. Definition Files*.

The following table lists the parameters you can set on the **Settings - Automatic item input** tab.

Table 8–2: Elements in New process work board window (Settings - Automatic item input tab)

Element	Description
The Property file for automatic Item-defaults input setting is being used	Select this check box to use the settings in the property file for automatic Item-defaults input. If you select this check box, all other elements become unavailable and cannot be changed.
Occurrence date and time of item	To automatically enter the date and time when Items occur, select **Set**. When this option is selected, the date and time are automatically filled in when you display the New item window.
Start date and time of item	To automatically enter the date and time when Items start, select **Set**. When this option is selected, the date and time are automatically filled in when you display the New item window.
Priority of item	To automatically enter the priority of an Item, select **Set**. When this option is selected, the priority is automatically filled in when you register an Item, determined by a combination of severity and impact level. You can also use the combo boxes to define the priority assigned for each combination of the severity and impact level to suit how the system is used. You can set a maximum of three impact levels and a maximum of eight severity levels, except for the **Unset** priority. Note that if you customize an Item form and increase the number of impact or severity levels beyond these limits, the combo boxes will display no more than three impact levels and eight severity levels.
Deadline of item	To automatically enter Item deadlines, select **Set**. When this option is selected, the deadline is automatically filled in based on the priority of the Item. When you display the New item window, the number of hours specified for the priority is added to the current time and the result is automatically entered as the deadline of the Item. You can set the number of hours to add for each priority by entering a number in a range from 0 to 8,760 in the text box using half-width numerals. You can also leave the text box blank, in which case the deadline is not automatically filled in. Note that the deadline will also be filled in automatically when you change the priority of an Item in the Edit item window. You can select to calculate the deadline in the following ways:

Element	Description
Deadline of item	• Adding the number of hours in the text box to the time when the Edit item window was displayed. • Adding the number of hours in the text box to the registration time of the Item. If you edit an Item without a registration date and time, the deadline will be the number of hours in the text box added to the time when the Edit item window was displayed. For details about how deadlines are calculated, see *Property file for automatic Item-defaults input (hptl_jp1_imss_pwb_default_setting.properties)* in *Chapter 12. Definition Files*. Deadlines will also be filled in automatically if you create an Item by using the Item registration command directly, or by email. Deadlines will also be updated automatically if you use the Item editing command to change the priority of an Item. You can create an Item by using the Item registration command directly or by email, and later use the Item editing command to change the priority of the Item. In such a case, the number of hours in the text box is added to the registration time of the Item.

If you create an Item by using the Item registration command directly or by email, the time of the command execution will be automatically entered for **Occurrence date and time of item** and **Start date and time of item**.

Threshold setting tab

The following table lists the parameters you can set on the **Threshold setting** tab.

Table 8–3: Elements in New process work board window (Threshold setting tab)

Element	Description
The Item accumulation property file setting is being used	Select this check box to use the settings in the Item accumulation property file. If you select this check box, all other elements become unavailable and cannot be changed.
Unsolved time treated as extended	An Item that does not have a completion date and time and is not in *Close* status is treated as extended when the number of hours specified here has elapsed since the Item was registered. Such Items are counted as *Extended* in the main window (Item status). Enter a number of hours as an integer from 0 to 876,000 using half-width numerals.
Threshold for Pending	When the number of pending Items in a process work board exceeds the number entered in this text box, the **Pending** area of the process work board is highlighted in the main window (Item status) to warn the operator. Enter the threshold value as an integer in a range from 0 to 2,147,483,647 using half-width numerals.
Threshold for Uncompleted	When the number of uncompleted Items in a process work board exceeds the number entered in this text box, the **Uncompleted** area of the process work board is highlighted in the main window (Item status) to warn the operator. Enter the threshold value as an integer in a range from 0 to 2,147,483,647 using half-width numerals.
Threshold for Discussing	When the number of Items under discussion in a process work board exceeds the number entered in this text box, the **Discussing** area of the process work board is highlighted in the main window (Item status) to warn the operator. Enter the threshold value as an integer in a range from 0 to 2,147,483,647 using half-width numerals.
Threshold for Extended	When the number of extended Items in a process work board exceeds the number entered in this text box, the **Extended** area of the process work board is highlighted in the main window (Item status) to warn the operator. Enter the threshold value as an integer in a range from 0 to 2,147,483,647 using half-width numerals.
Threshold for Top priority	When the number of top-priority Items in a process work board exceeds the number entered in this text box, the **Top priority** area of the process work board is highlighted in the main window (Item status) to warn the operator. Enter the threshold value as an integer in a range from 0 to 2,147,483,647 using half-width numerals.
Threshold for Today's deadline	When the number of Items due today in a process work board exceeds the number entered in this text box, the **Today's deadline** area of the process work board is highlighted in the main window (Item status) to warn the operator. Enter the threshold value as an integer in a range from 0 to 2,147,483,647 using half-width numerals.

For an element that is left unspecified, the value specified in the Item accumulation property file is set.

3. From the menu, select **Register**.

The process work board is added, and you are returned to the main window (Item list).

8.5.2 Editing process work board information

This subsection describes how to edit process work board information. Only users who belong to the process work board management role and the process work board manager can perform these operations.

1. From the list of process work boards in the main window (Item list), select the process work board you want to edit.

You can select a process work board by clicking its name.

2. From the menu, select **Action** and then **Edit the process work board**.

The Edit the process work board window appears. The window has three tabs: The **Basic settings** tab, the **Settings - Automatic item input** tab, and the **Threshold setting** tab, with different settings on each tab. The following figure shows the Edit the process work board window.

Figure 8–16: Edit the process work board window
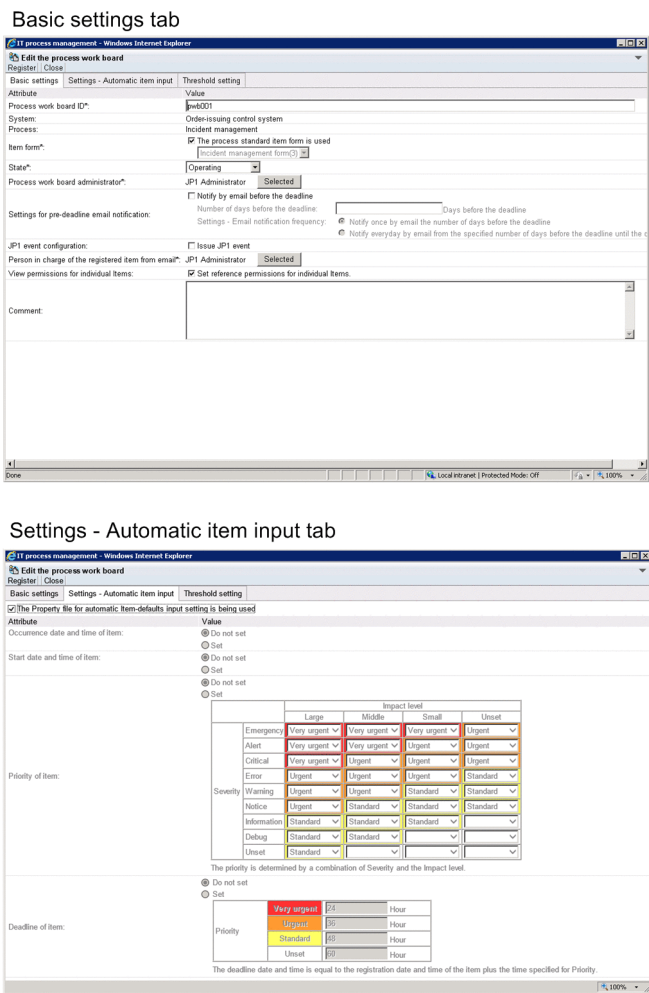
Threshold setting tab
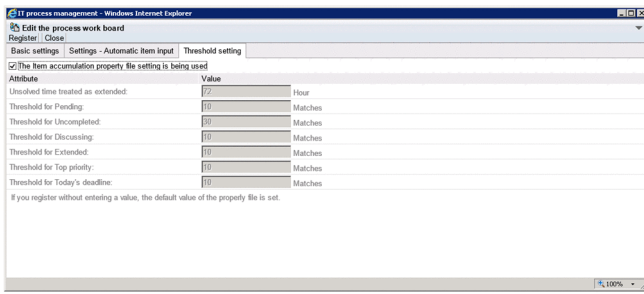
3. Edit the process work board information.

For details about the elements on these tabs, see *8.5.1 Adding process work boards*. Note that you cannot edit the **System** or **Process** field.

Changing the Item form on the **Basic settings** tab

Make sure that the status of the process work board is *Stopped* before changing the Item form. If you change the Item form while another user has the New item window, Specify item search conditions window, or another window that depends on the Item form open, the other user might experience difficulty using the window.

4. From the menu, select **Register**.

The process work board information is edited and you are returned to the main window (Item list).

8.5.3 Deleting process work boards

This subsection describes how to delete process work boards. Only users who belong to the process work board management role can perform these operations.

1. From the list of process work boards in the main window (Item list), select the process work board you want to delete.

You can select a process work board by clicking its name. You cannot delete a process work board that is in *Operating* status.

2. From the menu, select **Action** and then **Delete process work board**.

A confirmation message appears. Click **OK** to delete the process work board.

> **Reference note**
>
> You can restore a process work board that you have deleted in the main window (Item list). To do so, select the process work board, and from the **Action** menu, select **Cancel deletion of the process work board**.
>
> If you want to delete the process work boards thoroughly from the Item management database, execute the `jssdelrec` command. For details about the `jssdelrec` command, see *jssdelrec (deletes data from the Item management database)* in *Chapter 11. Commands*.

8.5.4 Viewing process work boards

This subsection describes how to view a process work board. This operation requires view permission for Items.

1. From the list of process work boards in the main window (Item list), select the process work board you want to view.

You can select a process work board by clicking its name.

2. From the menu, select **Action** and then **View the process work board**.

The View the process work board window appears. The window has three tabs: The **Basic settings** tab, the **Settings - Automatic item input** tab, and the **Threshold setting** tab, with different settings on each tab. The following figure shows the View the process work board window.

Figure 8–17: View the process work board window

Basic settings tab

Settings - Automatic item input tab

Threshold setting tab

8.6 Assigning access permissions

This section describes how to assign access permissions for a process work board. Only the process work board manager and users who belong to the process work board management role can perform these operations.

The following figure shows how to assign access permissions.

Figure 8–18: Procedure for assigning access permissions
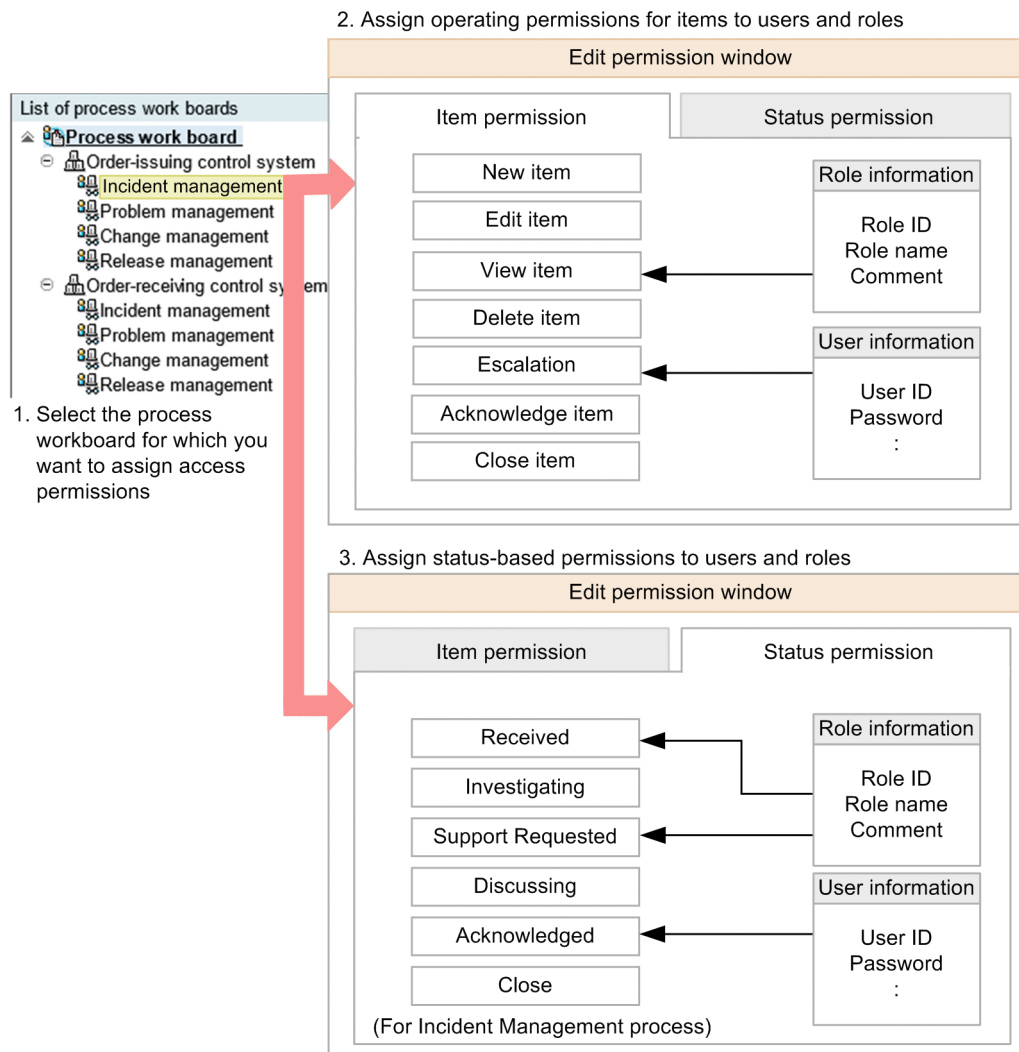
You can select a process work board and assign permissions to users from the Edit permission window. You can set edit permission for Items at the status level.

Item access permissions

- New item (permission to register Items)
- Edit item (permission to edit Items)
- View item (permission to view Items)
- Delete item (permission to delete Items)
- Escalation (permission to escalate Items)
- Acknowledge item (permission to approve Items)
- Close item (permission to close Items)

Status-level access permissions

You can assign access permissions that allow a user to only edit Items in certain statuses, such as `Received` or `Close`. You can also assign access permissions that relate to custom statuses created by users.

Note that the statuses you can select differ between processes. The statuses are listed in the table below by their default names. Custom statuses might have been given different names. The following table lists the statuses you can select.

Table 8–4: Types of status

Status	Description	Process			
		Incident management	Problem management	Change management	Release management
Received	Permission to edit Items in `Received` status.	Yes	Yes	Yes	Yes
Planning	Permission to edit Items in `Planning` status.	No	No	Yes	Yes
Investigating	Permission to edit Items in `Investigating` status.	Yes	Yes	No	No
Support Requested	Permission to edit Items in `Support Requested` status.	Yes	Yes	Yes	Yes
Discussing	Permission to edit Items in `Discussing` status.	Yes	Yes	Yes	Yes
Acknowledged	Permission to edit Items in `Acknowledged` status.	Yes	Yes	Yes	Yes
Reviewing	Permission to edit Items in `Reviewing` status.	No	No	Yes	No
Close	Permission to edit Items in `Close` status.	Yes	Yes	Yes	Yes

Legend:

Yes: Can be selected

No: Cannot be selected

If you do not assign status-level access permissions, users are able to edit Items in any status other than `Acknowledged` or `Close`.

You can assign rights to access process work boards by allocating these permissions to users and roles. When you add a user to a role, the user automatically gains any access permissions associated with that role. Deleted users or roles are automatically deleted from the list of users and roles with access permissions.

> **Reference note**
>
> You can also use the `jssaclimport` to add, modify, and delete access permissions. You must have Administrator permissions to use the `jssaclimport` command. For details on the `jssaclimport` command, see *jssaclimport (imports access-permission information)* in *Chapter 11. Commands*.

8.6.1 Adding access permissions

To add access permissions:

1. From the list of process work boards in the main window (Item list), select the process work board for which you want to add access permissions.

   You can select a process work board by clicking its name.

2. From the **Action** menu, select **Edit permissions**.

The Edit permission window appears. This window is shown below.

Figure 8–19: Edit permission window

Item permission tab

Status permission tab

3. Select the type of access permission you want to add.

Click the **Item permission** or **Status permission** tab, and select the access permission you want to assign.

4. From the menu, select **Action** and then **Add user and role**.

The Select user and role window appears.

5. Select the users and roles that you want to add.

You can select users on the **Select user** tab, and roles on the **Select role** tab.

6. From the menu, select **Settings**.

   The users and roles you selected in the Select user and role window appear in the Edit permission window.

7. As needed, select another access permission in the Edit permission window and repeat steps 5 and 6 in the Select user and role window.

   Add users and roles for each access permission.

8. From the menu in the Edit permission window, select **Register**.

   Access permissions are assigned in the manner you specified, and you are returned to the main window (Item list).

8.6.2 Removing access permissions

To remove access permissions:

1. From the list of process work boards in the main window (Item list), select the process work board for which you want to remove access permissions.

   You can select a process work board by clicking its name.

2. From the **Action** menu, select **Edit permissions**.

   The Edit permission window appears.

3. Select the permission from which you want to remove users and roles.

   Click the **Item permission** or **Status permission** tab, and select the access permission from which you want to remove a user or role. The window displays a list of users and roles that have the selected permission.

4. Select the check boxes for the users or roles you want to remove.

5. From the menu, select **Action** and then **Delete user and role**.

   The selected users and roles are removed.

6. From the menu, select **Register**.

   The selected users and roles are removed, and you are returned to the main window (Item list).

8.7 Setting schedules for automatic execution of commands

You can set schedules for automatically executing specific commands at specified times or time intervals, and then start the JP1/Service Support - Task Service service. By doing so, you can automatically execute the following tasks:

- Summarizing Item information (`jsscollectdata`)
- Pre-deadline notification (`jssinformperiod`)
- Held Item notification(`jssinformleave`)
- Registering Items by email (`jssitementrybymail`)

The following describes the procedures for setting automatic execution of individual commands.

8.7.1 Summarizing Item information (jsscollectdata)

You must regularly execute the `jsscollectdata` command to check the status of Items in the main window (Item status) or to output reports summarizing Items to files. Use the JP1/Service Support - Task Service service to regularly execute this command.

To use the JP1/Service Support - Task Service service to regularly execute the `jsscollectdata` command:

1. Edit the Definition file for the task practice service (`jp1imss_service_setting.conf`) so that the `jsscollectdata` command will be executed and specify the command execution time (*hh*:*mm*).

   The `jsscollectdata` command summarizes the data accumulated until the previous day. Therefore, we recommend that you execute tasks every day during a time period with a low access rate. For example, after 0:00 a.m. The execution time is set to 2:00 a.m. by default.

   For details about the Definition file for the task practice service, see *Definition file for the task practice service (jp1imss_service_setting.conf)* in *Chapter 12. Definition Files*.

2. In Windows Server 2008 or Windows Server 2003, from the **Start** menu, select **Administrative Tools** and then **Services**. In Windows Server 2012, from the Start screen, select **Administrative Tools** and then **Services**, or select **All apps** and then **Services**.

   The Services dialog box appears.

3. Right click **JP1/Service Support - Task Service service**, and from the pop-up menu, select **Start**.

   The service starts, and the `jsscollectdata` command will be executed at the specified time.

8.7.2 Pre-deadline notification (jssinformperiod)

Before the deadline of an Item expires, you can use email to notify the people in charge of the Item and the manager of the process work board to which the Item belongs that the deadline is approaching. To do so, you need to regularly execute the `jssinformperiod` command by using the JP1/Service Support - Task Service service.

To regularly execute the `jssinformperiod` command by using the JP1/Service Support - Task Service service:

1. Edit the Definition file for the task practice service (`jp1imss_service_setting.conf`) so that the `jssinformperiod` command will be executed, and specify the command execution time (*hh*:*mm*).

The `jssinformperiod` command checks the deadlines of Items and then sends the necessary emails. Therefore, we recommend that you execute the command every day during a time period with a low access rate. For example, after 0:00 a.m. The execution time is set to 3:00 a.m. by default.

For details about the Definition file for the task practice service, see *Definition file for the task practice service (jp1imss_service_setting.conf)* in *Chapter 12. Definition Files*.

2. In Windows Server 2008 or Windows Server 2003, from the **Start** menu, select **Administrative Tools** and then **Services**. In Windows Server 2012, from the Start screen, select **Administrative Tools** and then **Services**, or select **All apps** and then **Services**.

The Services dialog box appears.

3. Right click **JP1/Service Support - Task Service service**, and from the pop-up menu, select **Start**.

The service starts, and the `jssinformperiod` command will be executed at the specified time.

To specify information, such as how many days before the deadline of an Item an email will be sent, or how many times an email will be sent, use the **Basic settings** tab of the following windows: New process work board window or the Edit the process work board window. For details, see *8.5 Creating process work boards*. To specify information, such as the destination and format of emails for pre-deadline notification, use the email definition file (`jp1imss_mail_setting.conf`). For details, see *Email definition file (jp1imss_mail_setting.conf)* in *Chapter 12. Definition Files*.

Pre-deadline notification emails are sent for the Items that satisfy the following conditions:

- Deadline has been set.
- The status is other than `Close`.
- The process work board in which the Item is registered is used.

Assume that, in the New process work board window or the Edit the process work board window, you have set **Number of days before the deadline** in the **Settings for pre-deadline email notification** area to three days before. In this case, the target Items for pre-deadline notification will be the Items whose deadlines fall in the range from the time `jssinformperiod` is executed until 23:59:59.999 on the day three days later.

8.7.3 Held Item notification (jssinformleave)

If an Item has not been processed for a certain amount of time, the Item is determined as a held Item. You can use email to notify the people in charge of the Item and the manager of the process work board to which the Item belongs, that the Item is being held. To do so, you need to regularly execute the `jssinformleave` command by using the JP1/Service Support - Task Service service.

To regularly execute the `jssinformleave` command by using the JP1/Service Support - Task Service service:

1. Edit the Definition file for the task practice service (`jp1imss_service_setting.conf`) so that the `jssinformleave` command will be executed, and specify the interval of command execution (in minutes), monitoring start time, and monitoring end time (*hh:mm*).

While the `jssinformleave` command is executing, a load is placed on the system. Therefore, be careful about the execution interval. The execution interval is 60 minutes by default.

For details about the Definition file for the task practice service, see *Definition file for the task practice service (jp1imss_service_setting.conf)* in *Chapter 12. Definition Files*.

2. In Windows Server 2008 or Windows Server 2003, from the **Start** menu, select **Administrative Tools** and then **Services**. In Windows Server 2012, from the Start screen, select **Administrative Tools** and then **Services**, or select **All apps** and then **Services**.

    The Services dialog box appears.

3. Right click **JP1/Service Support - Task Service service**, and from the pop-up menu, select **Start**.

    The service starts, and the `jssinformleave` command will be executed at the specified intervals.

If you want to execute the command for notifying held Items, you need to specify the conditions for determining Items to be held Items in the Held Item definition file (`jp1informleave_setting.conf`). For details, see *Held Item definition file (jp1informleave_setting.conf)* in *Chapter 12. Definition Files*.

To specify information, such as the destination and format of emails for held Item notification, use the Email definition file (`jp1imss_mail_setting.conf`). For details, see *Email definition file (jp1imss_mail_setting.conf)* in *Chapter 12. Definition Files*.

8.7.4 Registering Items by email (jssitementrybymail)

To register Items by email, you need to regularly execute the `jssitementrybymail` command by using the JP1/Service Support - Task Service service.

To regularly execute the `jssitementrybymail` command by using the JP1/Service Support - Task Service service:

1. Edit the Definition file for the task practice service (`jp1imss_service_setting.conf`) so that the `jssitementrybymail` command will be executed, and specify the interval of command execution (in minutes).

    The `jssitementrybymail` command checks the contents of emails received by specified destinations, and registers the contents as Items in the corresponding process work boards. The execution interval is 60 minutes by default.

    For details about the Definition file for the task practice service, see *Definition file for the task practice service (jp1imss_service_setting.conf)* in *Chapter 12. Definition Files*.

2. In Windows Server 2008 or Windows Server 2003, from the **Start** menu, select **Administrative Tools** and then **Services**. In Windows Server 2012, from the Start screen, select **Administrative Tools** and then **Services**, or select **All apps** and then **Services**.

    The Services dialog box appears.

3. Right click **JP1/Service Support - Task Service service**, and from the pop-up menu, select **Start**.

    The service starts, and the `jssitementrybymail` command will be executed at the specified intervals.

You also need to specify other settings required for registering Items by email. For details, see *8.14 Setting an environment for registering Items by email*.

8.8 Customizing Item forms

You can customize Item forms as follows depending on users' requirements:

- Adding Item form elements
- Changing Item form elements
- Specifying mandatory elements

To customize Item forms, use the Item form definition file and the `jssformdef` command. Administrator permissions are required to use the `jssformdef` command.

You can customize the Item form definition file in the GUI window. For details, see *8.9 Customizing an Item form definition file*.

You can view information about Item forms, such as Item form IDs, versions, and status of use, in the GUI window. You can delete unnecessary Item forms. You can also set the standard Item form for each process by selecting from the registered multiple Item forms. The Item forms that were set will be enabled when an Item is created next time. Only the users who belong to the process work board management role can perform this operation.

The following describes procedures for individual operations.

8.8.1 Procedure for customizing Item forms

To customize Item forms:

1. Create an Item form definition file.

   Create an Item form definition file and specify the elements and element names that are to be displayed in Item forms. For details about the Item form definition file, see *Item form definition file (Optional)* and *Definition file for the Item search item form (Optional)* in *Chapter 12. Definition Files*.

2. Stop all JP1/IM - Service Support services except the JP1/Service Support - DB Server service.

   This step is not necessary if you execute the `jssformdef` command with the `-n` option specified.

   Stop the services in the following order:

   1. JP1/Service Support - Web Service service

   2. JP1/Service Support service

   Keep the JP1/Service Support - DB Server service running.

3. Execute the `jssformdef` command.

   Execute the `jssformdef` command to customize Item forms. While the command is executing, do not execute commands for maintaining the Item management database nor start the JP1/IM - Service Support services. For details about the `jssformdef` command, see *jssformdef (registers an Item form definition file)* in *Chapter 11. Commands*.

4. Start the JP1/IM - Service Support services.

   This step is not necessary if you execute the `jssformdef` command with the `-n` option specified.

   Start the services in the following order:

   1. JP1/Service Support service

   2. JP1/Service Support - Web Service service
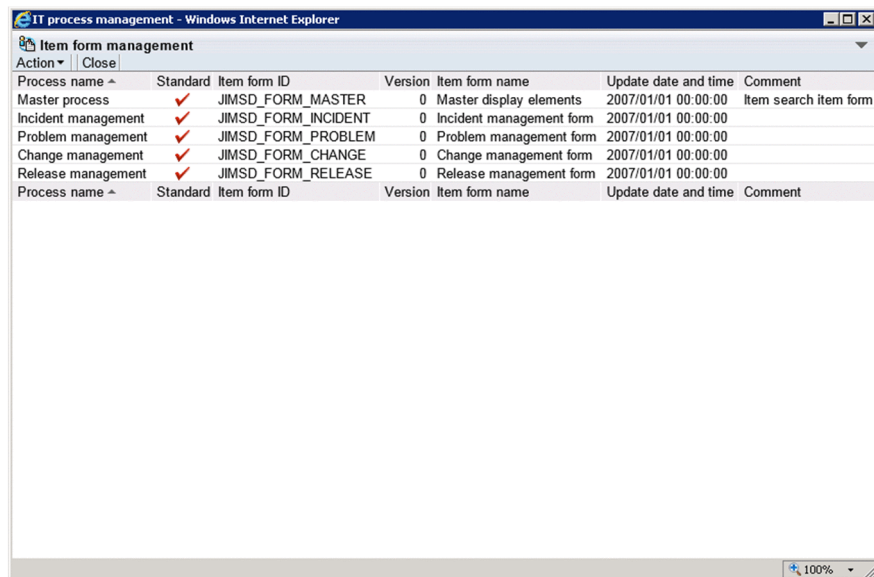
8.8.2 Viewing Item form information

To view Item form information:

1. From the menu in the main window (Item list), select **Option** and then **Item form management**.

   The Item form management window appears, as shown in the figure below.

   Figure 8–20: Item form management window
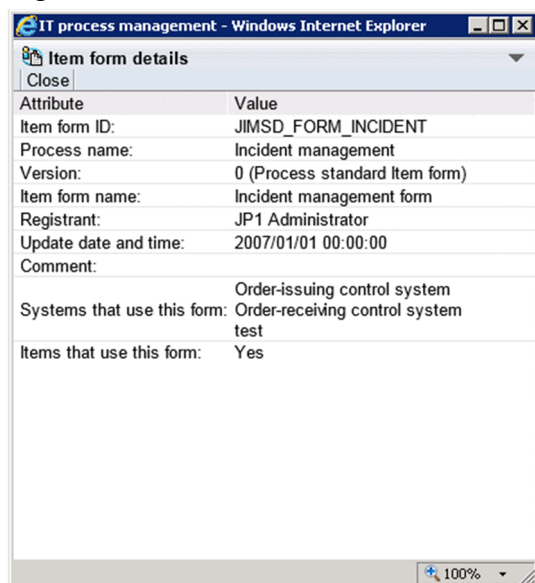
2. Select the Item form you want to view, and from the menu in the Item form management window, select **Action** and then **Item form details**.

   You can select an Item form by clicking its name or ID.

   The Item form details window appears, as shown in the figure below.

   Figure 8–21: Item form details window

> **Reference note**
>
> You can also view Item form information from a context menu by right-clicking the ID or name of the Item form you want to view, and then selecting **Item form details**.

8.8.3 Deleting Item forms

To delete an Item form:

1. From the menu in the main window (Item list), select **Option** and then **Item form management**.
   The Item form management window appears.

2. Select the Item form you want to delete.
   Note that you cannot delete Item forms that are:
   - In use by a process work board
   - In use by an Item
   - In use as a process standard Item form

   You can use the Item form details window to find out whether an Item form is being used by a process work board or Item. You can use the Item form management window or Item form details window to find out whether an Item is designated as a standard process Item form.

   Note that you cannot delete an Item form used by process work boards or Items that are waiting to be deleted. Execute the `jssdelrec` command to delete process work boards and Items that are waiting to be deleted from the Item management database. For details about the `jssdelrec` command, see *jssdelrec (deletes data from the Item management database)* in *Chapter 11. Commands*.

3. From the menu in the Item form management window, select **Action** and then **Delete item form**.
   A confirmation message appears. Click **OK** to delete the Item form.

> **Reference note**
>
> You can also delete an Item form from a context menu, by right-clicking the ID or name of the Item form you want to delete and then selecting **Delete item form**.

8.8.4 Setting process standard Item forms

Before setting a process standard Item form, you must ensure that the status of any process work boards that use the Item form is *Stopped*. If you change the Item form while another user has the New item window, Specify item search conditions window, or another window that depends on the Item form open, the other user might experience difficulty using the window. For details about how to change the status of a process work board, see *8.5.2 Editing process work board information*.

To assign a process standard Item form:

1. From the menu in the main window (Item list), select **Option** and then **Item form management**.
   The Item form management window appears.

2. Select the Item form that you want to set as the process standard Item form.

You cannot select an Item form that has already been designated as a process standard Item form.

3. From the menu in the Item form management window, select **Action** and then **Set in the process standard item form**.

A confirmation dialog box appears. Click **OK** to set the Item form as the process standard Item form.

█ Reference note

You can also set a process standard Item form from a context menu by right-clicking the ID or name of the Item form, and then selecting **Set in the process standard item form**.

8.9 Customizing an Item form definition file

You can customize an Item form definition file as follows in the Item form definition editing utility window depending on users' requirements:

- Adding Item form elements
- Changing the position of elements
- Deleting Item form elements
- Specifying element values

However, there are some notes related to customizing an Item form definition file. Before you start customizing an Item form definition file, read the notes in *Item form definition file (Optional)* and *Definition file for the Item search item form (Optional)* in *Chapter 12. Definition Files*.

To open the Item form definition editing utility window, execute the `jssformcustomizer` command. For details about the `jssformcustomizer` command, see *jssformcustomizer (edits Item form definition files)* in *Chapter 11. Commands*.

You can use the following shortcut keys when customizing an Item form definition file:

- **Ctrl** + **O** keys

  Opens the Item form definition file.

- **Ctrl** + **A** keys

  Saves the Item form definition file.

- **Ctrl** + **R** keys

  Opens the Item form definition (Item form definition) window.

- **Ctrl** + **D** keys

  Deletes the selected elements from the Item form definition file.

- **Ctrl** + **P** keys

  Displays the Item form definition information.

8.9.1 Procedure for customizing an Item form definition file

To customize an Item form definition file:

1. Execute the `jssformcustomizer` command.

   Executing the `jssformcustomizer` command displays the following Item form definition editing utility (select an Item form definition) window.

Figure 8–22: Item form definition editing utility (select an Item form definition) window
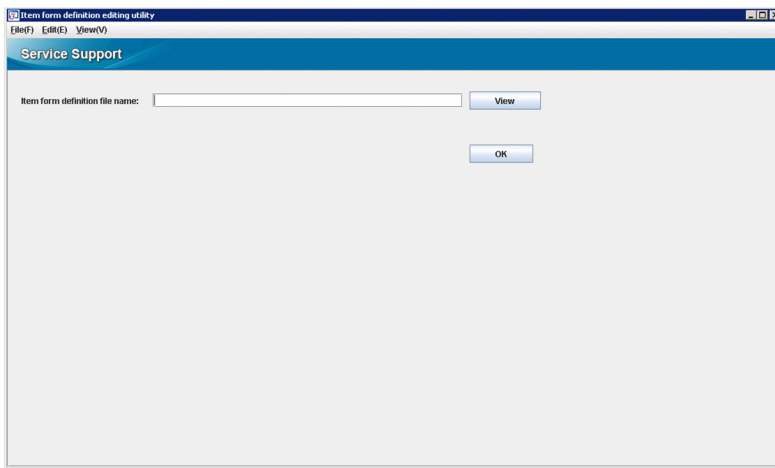
2. In the Item form definition editing utility (selecting an Item form definition) window, select the Item form definition file you want to edit.

Specify the full path to the Item form definition file you want to edit. Click the **View** button to display the dialog box for selecting a file. Click the **OK** button to display the following Item form definition editing utility (customize an Item form) window.

Figure 8–23: Item form definition editing utility (customize an Item form) window
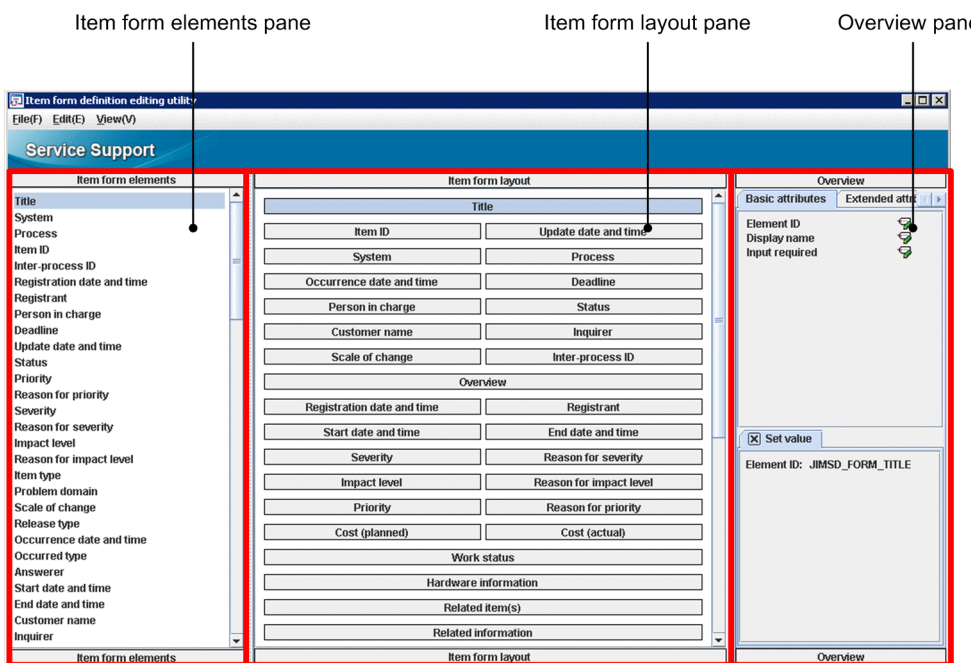
- **Item form elements** pane

  Elements that can be displayed in an Item form are listed.

- **Item form layout** pane

  The layout of information set in the Item form definition file is displayed. In this pane, you can edit the Item form definition file.

- **Overview** pane

  This pane is composed of the following tabs:

Basic attributes tab

The following attributes of the element selected in the **Item form elements** pane or in the **Item form layout** pane are displayed:

- **Element ID**

- **Display name**

- **Selection code**

- **Input required**

Clicking an icon displays information on the **Set value** tab.

Extended attributes tab

The **Display on search screen** attributes of the element selected in the **Item form elements** pane or in the **Item form layout** pane are displayed. Clicking an icon displays information on the **Set value** tab.

Set value tab

The attribute names of the element selected in the **Item form elements** pane or in the **Item form layout** pane and their set values are displayed. You can also edit the set values.

If you selected a wrong Item form definition file, you can change it while in the Item form definition editing utility (customize an Item form) window by selecting the **Files** menu and then **Select item form definition file**.

3. In the Item form definition editing utility (customize an Item form) window, edit the Item form definition file.

You can edit the Item form definition file as follows:

When adding an element:

Drag and drop the target display element from the **Item form elements** pane to the **Item form layout** pane.

When changing the display position of an element:

Drag and drop the target display element in the **Item form layout** pane to any position you like.

When deleting an element:
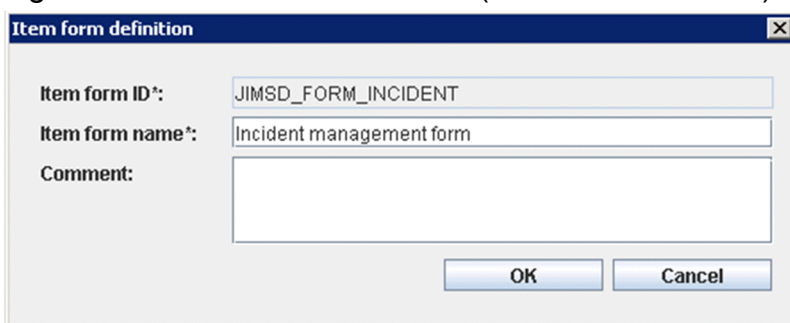
In the **Item form elements** pane or in the **Item form layout** pane, select an element you want to delete, and in the Item form definition editing utility (customize an Item form) window, select the **Edit** menu and then **Delete from layout**.

When setting the value for an element:

In the **Item form elements** pane or in the **Item form layout** pane, select an element for which you want to set a value, and on the **Set value** tab of the **Overview** pane, set the value.

4. In the Item form definition editing utility (customize an Item form) window, select the **Files** menu and then **Item form definition**. Then set the Item form name and comments.

The following Item form definition (Item form definition) window appears. Set the Item form name and comments as necessary.

Figure 8–24: Item form definition (Item form definition) window

Item form name

Specify the Item form name with a character string of no more than 255 bytes. Note that you cannot use control characters.

Comment

Specify the comments with a character string of no more than 1,024 bytes. Note that you cannot use control characters.

5. In the Item form definition editing utility (customize an Item form) window, select the **Files** menu and then **Save** to save the Item form definition file.

The Save item form definition file window (a dialog box for saving an Item form definition file) is displayed. To apply the saved Item form definition file to JP1/IM - Service Support, execute the `jssformdef` command. For details about the `jssformdef` command, see *jssformdef (registers an Item form definition file)* in *Chapter 11. Commands*.

Note:

Any full-width characters entered in the Item form definition editing utility window are counted as 3 bytes or 4 bytes.

8.9.2 Viewing Item form definition information

To view information in the Item form definition file:

1. In the Item form definition editing utility (customize an Item form) window, select the **View** menu and then **Preview**.

For details about the procedure for displaying the Item form definition editing utility window, see *8.9.1 Procedure for customizing an Item form definition file*.

The following IT process management window appears.

Figure 8–25: IT process management window (preview of Item form definition information)

Only one IT process management window can be displayed at a time. If you display a new IT process management window, information in the already displayed IT process management window is deleted. If you want to compare information in multiple windows, before displaying a new IT process management window, save the information in the already displayed window to an HTML file. By displaying the saved file in a browser, you can compare the information.

Terminating the `jssformcustomizer` command closes the IT process management window.

You can check the following contents:

- Position of elements
- Element names
- Candidate values
- Mandatory or mandatory when closed

Note:

Displaying the IT process management window might display a warning message for security. In that case, allow access to the contents according to the directions of the message.

8.10 Customizing statuses

You can customize Item statuses to suit how you use the system. There are five ways in which statuses can be customized:

- Selecting which statuses are available

  You can select which statuses are available for Items in certain processes or process work boards. You can also use extended statuses created by users.

- Changing the order in which statuses are displayed

  For each process or process work board, you can change the order in which statuses appear in the combo boxes.

- Changing status names

  You can change the names of the statuses used throughout the JP1/IM - Service Support system.

- Restricting statuses

  You can limit the statuses that can be applied to certain processes or process work boards.

- Prohibiting escalation

  You can prohibit users from escalating Items in certain statuses.

You can customize statuses from the following windows:

- Status management window

  A window used to enter settings common to all processes. Only users who belong to the process work board management role can display this window.

- Status management window (process work board-specific)

  A window used to enter settings that apply to a specific process work board. Only users who belong to the process work board management role and process work board managers can display this window.

The following describes how to customize these aspects of Item statuses.

8.10.1 Selecting which statuses are available

There are two approaches to selecting Item statuses:

- Selecting statuses to use across all processes
- Selecting statuses to use with a certain process work board

Each approach is described below.

(1) Selecting statuses to use across all processes

The following describes how to select the statuses that can be used across all processes. Only users who belong to the process work board management role can perform these operations.

1. In the main window (Item list), select **Process work board** at the top of the tree, and from the **Action** menu, select **Status management**.
   The Status management window appears. This window is shown below.

Figure 8–26: Status management window
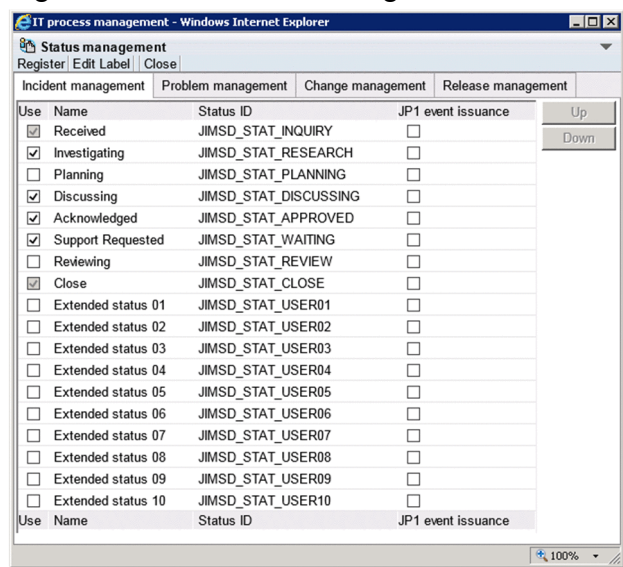
2. In the **Use** column, select the check boxes for the statuses you want to use.

The statuses whose check boxes you select will be available for use in the process.

3. From the menu, select **Register**.

Changes to the available statuses take effect, and you are returned to the main window (Item list).

Notes:

- The system revokes access permissions for statuses you make unusable.

- Because the `Received` (status ID: `JIMSD_STAT_INQUIRY`) and `Close` (status ID: `JIMSD_STAT_CLOSE`) statuses are used to check Item statuses in the main window (Item status), these statuses cannot be made unusable.

> ### Reference note
>
> - You can also display the Status management window by right-clicking **Process work board** at the top of the tree in the main window (Item list), and clicking **Status management**.
>
> - The number of user extended statuses provided by default is 10, but you can change the number depending on users' requirements. You can change the number of user extended statuses by editing the system property file. For details, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.
>
> - If you have configured JP1/IM - Service Support to issue JP1 events, **JP1 event issuance** check boxes are displayed. You can use these check boxes to specify whether to issue JP1 events when Items change status.
>
>   For details, see *8.15.1(1) Settings in JP1/IM - Service Support*.

(2) Selecting statuses for process work boards

The following describes how to select the statuses available to a particular process work board. Only users who belong to the process work board management role and process work board managers can perform these operations.

1. Select the process work board in the main window (Item list), and from the **Action** menu, select **Status management**.

The Status management (process work board-specific) window appears. This window is shown below.

Figure 8–27: Status management (process work board-specific) window
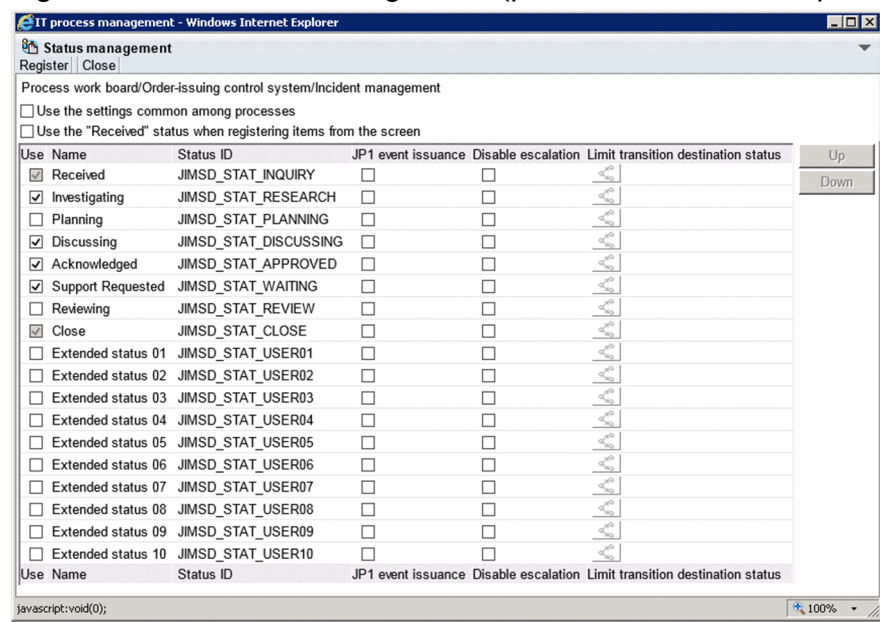
2. In the **Use** column, select the check boxes for the statuses you want to use.

The statuses whose check boxes you select will be available for use in the process work board.

If you select the **Use the settings common among processes** check box, the common settings specified in the Status management window are used.

3. From the menu, select **Register**.

Changes to the available statuses take effect, and you are returned to the main window (Item list).

Notes:

- You cannot display the Status management (process work board-specific) window if the status of the process work board is *Waiting to be deleted.*

- The system revokes access permissions for statuses that are made unusable.

- If you select the **Use the settings common among processes** check box and click **Register**, the information entered in the Status management (process work board-specific) window is deleted. If you then clear the **Use the settings common among processes** check box, the common settings set in the Status management window take effect.

> **Reference note**
>
> - You can also display the Status management window by right-clicking the selected process work board in the main window (Item list) and clicking **Status management**.
>
> - If you have configured JP1/IM - Service Support to issue JP1 events, **JP1 event issuance** check boxes are displayed. You can use these check boxes to specify whether to issue JP1 events when Items change status.
>
>   For details, see *8.15.1(1) Settings in JP1/IM - Service Support*.

8.10.2 Changing the status display order

There are two approaches to changing the order in which statuses are displayed:

- Changing the order in which statuses are displayed across all processes
- Changing the order in which statuses are displayed in a certain process work board

Each approach is described below.

(1) Changing the order in which statuses are displayed across all processes

The following describes how to change the order in which statuses are displayed across all processes. Only users who belong to the process work board management role can perform these operations.

1. In the main window (Item list), select **Process work board** at the top of the tree, and from the **Action** menu, select **Status management**.

   The Status management window appears.

2. Select the status whose display order you want to change, and click **Up** or **Down**

   You can select a status by clicking its name or ID.

   Clicking **Up** moves the selected status up one position in the list. Clicking **Down** moves the selected status down one position. Use these buttons to move each status to the desired position.

3. After moving each status to the desired position, from the menu, select **Register**.

   The status display order changes, and you are returned to the main window (Item list).

(2) Changing the status display order for process work boards

The following describes how to change the order in which statuses are displayed for a particular process work board. Only users who belong to the process work board management role and process work board managers can perform these operations.

1. Select the process work board in the main window (Item list), and from the **Action** menu, select **Status management**.

   The Status management (process work board-specific) window appears.

2. Select the status whose display order you want to change, and click **Up** or **Down**.

   You can select a status by clicking its name or ID. Clicking **Up** moves the selected status up one position in the list. Clicking **Down** moves it down one position. Use these buttons to move each status to the desired position.

3. After moving each status to the desired position, from the menu, select **Register**.

   Changes to the status display order take effect, and you are returned to the main window (Item list).

Notes:

- You cannot display the Status management (process work board-specific) window if the status of the process work board is *Waiting to be deleted*.

- If you select the **Use the settings common among processes** check box and click **Register**, the information entered in the Status management (process work board-specific) window is deleted. If you then clear the **Use the settings common among processes** check box, the common settings set in the Status management window take effect.

8.10.3 Editing status names

The following describes how to edit status names. Only users who belong to the process work board management role can perform these operations.

1. In the main window (Item list), select **Process work board** at the top of the tree, and from the **Action** menu, select **Status management**.
   The Status management window appears.

2. From the menu, select **Edit Label**.
   The Edit status label window appears.

   Figure 8–28: Edit status label window

3. Edit the status names.
   Enter character strings containing 1 to 255 half-width characters, or 1 to approximately 85 full-width characters. The character strings must not contain control characters (0x00 to 0x1F and 0x7F).

4. After editing the status names, click **Settings**.
   The new status names are registered, and you are returned to the Status management window.

Notes:

- Do not give a default status such as *Received* and *Close* a name with a substantially different meaning. This can make it difficult for the operator to check Item statuses in the main window (Item status).

- In the main window (Item status), Item statuses are tallied based on status ID. This means that if you create a new status that you call *Discussing,* Items with that status are not counted in the same category as the default *Discussing* status.

- You cannot register more than one status with the same name.

- Items with the status ID `JIMSD_STAT_DISCUSSING` contribute to the tally of the accumulation unit *Discussing* in the main window (Item status). If you change the name of the *Discussing* status, use a name that makes it clear that Items in that status will be counted as *Discussing* in the main window (Item status).

- Changing a status name will affect the execution of the command for importing Item information. Therefore, you will also need to change the code mapping file. For details, see *Code mapping file (jp1imss_itemimport_codemap.conf)* in *Chapter 12. Definition Files*.

8.10.4 Limiting Item statuses

JP1/IM - Service Support allows you to limit the available statuses in the following ways:

- Limiting registered Items to `Received` status
- Limiting transition destination statuses

Each approach is described below.

(1) Limiting registered Items to Received status

The following describes how to limit the status of Items registered from the New item window to `Received`. Only users who belong to the process work board management role and process work board managers can perform these operations.

1. Select the desired process work board in the main window (Item list), and from the **Action** menu, select **Status management**.
   The Status management window appears.

2. Select the **Use the "Received" status when registering items from the screen** check box, and from the menu, select **Register**.
   The setting takes effect, and you are returned to the main window (Item list).

Note:
> When escalating Items to a process work board for which the **Use the "Received" status when registering items from the screen** check box is selected, you can only select Items in `Received` status.

(2) Limiting transition destination statuses

The following describes how to limit the transition destination statuses of Items. Only users who belong to the process work board management role and process work board managers can perform these operations.

1. Select the desired process work board in the main window (Item list), and from the **Action** menu, select **Status management**.
   The Status management window appears.

2. Clear the **Use the settings common among processes** check box.
   When you clear this check box, the elements become available for statuses with the **Use** check box selected.

3. Click the **Limit transition destination status** icon for the desired status. The appearance of the icon differs depending on whether the Item is restricted as a transition destination.

   - : Restricted as transition destination

   Indicates that transition destination statuses are restricted.

- : Not restricted as transition destination

  Indicates that transition destination statuses are unrestricted.

The Set transition destination status window appears.

Figure 8–29: Set transition destination status window
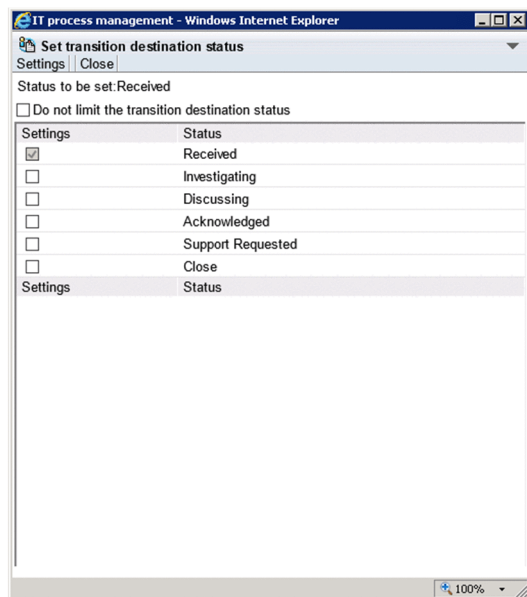
4. Clear the **Do not limit the transition destination status.** check box.

   When you clear this check box, the elements become available for statuses with the **Settings** check box selected.

5. Select the **Settings** check box for each status that you want to be available as a transition destination, and from the menu, select **Settings**.

   The settings take effect, and you are returned to the main window (Item list).

Notes:

- If you have not made a status specified as a transition destination available for use, it does not appear as a selectable status in the Edit item window.

- If none of the statuses specified as transition destinations are registered as available, the statuses you can select in the Edit item window are those you have registered as available.

8.10.5 Prohibiting escalation

The following describes how to prohibit users from escalating Items. Only users who belong to the process work board management role and process work board managers can perform these operations.

1. Select the desired process work board in the main window (Item list), and from the **Action** menu, select **Status management**.

   The Status management window appears.

2. Clear the **Use the settings common among processes** check box.

   When you clear this check box, settings become available for statuses with the **Use** check box selected.

3. Select the **Disable escalation** check box for the desired status, and from the menu, select **Register**.

   The settings take effect, and you are returned to the main window (Item list).

8.11 Setting an environment for operating on Items

The following describes the environment settings for operating on Items. Table 8-5 describes the mandatory setting and Table 8-6 describes the optional settings.

Table 8–5: Environment setting necessary for operating on Items

Operation	Detailed operation and reference
Display a manual when the **Help** button is clicked	You need to incorporate a manual into JP1/IM - Service Support. This manual will be displayed when the **Help** button is clicked. For details about the procedure for incorporating a manual, see *6.7 Procedure for incorporating a manual*.

Table 8–6: Environment settings for operating on Items (Optional)

Operation		Detailed operation and reference
Login	Switching the type of main window displayed after login	The main window, which is displayed after login, varies depending on the role to which the login user belongs. By default, the main window (Item status) is displayed for users who belong to the work management role, and the main window (Item list) is displayed for other users. You can set which type of main window is displayed after login for each role in the system property file. For details about the system property file, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.
Search for Item	Simple search for Items in the main window	You can change the following two settings: • Number of search target elements In the system property file, you can change the number of search target elements that can be specified at the same time by doing a simple search of Items in the main window. For details about the system property file, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*. • Search target elements In the system property file, you can change the default search target elements (**Title**, **Overview**, and **Work status**). For details about the system property file, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.
Register item	Setting users who can register Items by email	To prevent Items from being illegally registered, you need to specify the users who can register Items by email in the Email definition file beforehand. For details about the Email definition file, see *Email definition file (jp1imss_mail_setting.conf)* in *Chapter 12. Definition Files*.
	Registering Items by linking with JP1/IM - Manager	You can automatically register Items by linking with JP1/IM - Manager. For details about automatic Item registration, see *8.15.1 Setting an environment for linking with JP1/IM - Manager*.
	Customizing Item forms	You can customize Item forms by using the Item form definition file and the `jssformdef` command. For details, see the following: • *jssformdef (registers an Item form definition file)* in *Chapter 11. Commands* • *Item form definition file (Optional)* in *Chapter 12. Definition Files*
Editing Item information	Selecting the **Select role member** check box	If you select the **Select role member** check box in the New item window or the Edit item window, and if too many members are displayed in the combo box, the display performance is lowered and it affects operations. The total number of roles that can be selected for people in charge, members belonging to those roles, and users must be no more than approximately 100. For details about how to change the role members, see *8.3 Creating roles*. Also, to change the people in charge who can be selected, you need to change the access permissions for the corresponding process work board. For details about how to change access permissions, see *8.6 Assigning access permissions*.

Operation		Detailed operation and reference
Editing Item information	Selecting the **Select role member** check box	Note that the **Select role member** check box is not displayed by default. It is displayed when a setting is changed in the system property file. For details about the system property file, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.
Delete Item	Batch deletion of Items	You can use a command to delete multiple Items at once. For details about how to delete multiple Items by using a command, see *10.2.2 Deleting Items from the Item management database*.
Output of detailed information about Items	Outputting detailed information about Items to a CSV file (Item details file)	You can output the Item details file in the List of item search results window or by using the jssitemlist command. For details about the jssitemlist command, see *jssitemlist (outputs a list of Items)* in *Chapter 11. Commands*.
Output of Item history	Outputting Item history to a CSV file (Item history file)	You can output the Item history file by using the jssitemhistory command. For details about the jssitemhistory command, see *jssitemhistory (outputs Item history)* in *Chapter 11. Commands*.
Settings of related links	• Settings for the optional **Related link** menu in the main window • Setting for the **Related link** menu in the main window (Item status)	You can set the number of links, display names, and URLs displayed for **Related link** in the related-links property file. For details about the related-links property file, see *Related-links property file (hptl_jp1_imss_link_setting.properties)* in *Chapter 12. Definition Files*.
Settings of threshold values for Items	Setting the threshold of duration at which an Item is determined to be extended and the threshold of the number of Items for which a warning is displayed	In the New process work board window or the Edit the process work board window, you can change the threshold values. These threshold values include the threshold value of duration at which an Item is determined to be extended or the threshold value of the number of Items for which a warning is displayed (such as extended Items). For details, see *8.5 Creating process work boards*. You can change these threshold values also in the Item accumulation property file. For details, see *Item accumulation property file (hptl_jp1_imss_main_setting_kpi.properties)* in *Chapter 12. Definition Files*.
Outputting summary data of Item status		You can output the following two CSV files from the Accumulation data output to file window: • CSV file for Item data (OutputItemData.csv) • CSV file for code data (OutputItemCodeData.csv) For details about the elements in the output CSV files, see *3.16.3(1) Information output to a CSV file*.
Releasing the editing status of an Item		In the system property file, you can set whether to release the editing status of an Item when the Edit item window is closed by clicking the ✕ button of the Web browser. For details about the system property file, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.
Configuring the Item Management window function		In the system property file, you can set whether to use the Item Management window function and the length of time covered by the window. The Item Management window function limits the contents of the user interface to Items that were registered in JP1/IM - Service Support within a specific time period. For details on the system property file, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

8.12 Setting an environment in which view permissions are set for individual Items

The function that allows view permissions to be set for individual Items must be set up in advance. To set up an environment in which view permissions can be set for individual Items:

1. Create the process work board for which you want to set view permissions for individual Items.

   For details on how to create a process work board, see *8.5 Creating process work boards*.

2. Assign a process work board manager.

   For details on how to assign a process work board manager, see *8.5 Creating process work boards*.

3. Select the extended user information that you want to use as an item that sets the view permissions for an Item.

   Select the element from extended user information elements 01 to 05.

4. Customize the Item form.

   Customize the Item form to be used with the process work board you created in step 1.

   Add the extended user information element you selected in step 3 to the Item form. Set the data type of the element to `userrole` and make it a mandatory element. You can use any display name for the element. In this manual **Owner of view permissions for individual Items** is used as the display name.

   For details on Item form customization, see *8.9 Customizing an Item form definition file*.

   The following figure shows an example of a New Item window in which the Item form has been customized in this way:

Figure 8–30: New Item window (with view permissions for individual Items enabled)

5. Assign access permissions to the process work board.

   Assign access permissions to the process work board you created in step 1. For details on how to assign access permissions, see *8.6 Assigning access permissions*.

   Access permissions must be planned in advance. For details on how to plan access permissions, see *5.2.3 Designing assignment of access permissions*.

6. Back up the Item management database.

   Back up the Item management database by executing the `jssdbbackup.bat` command with the `-maint` option specified. For details on the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

7. Set up the function that sets view permissions for individual Items.

   Execute the `jssrefaclsetup` command. In the `-id` option, specify the Item form element ID of the user extended information element you selected in step 3. For details on the `jssrefaclsetup` command, see *jssrefaclsetup (sets up view permission settings for individual Items)* in *Chapter 11. Commands*.

8. Enable the function that sets view permissions for individual Items.

   Select the **Set reference permissions for individual Items** check box in the Edit the process work board window. For details on how to edit process work boards, see *8.5.2 Editing process work board information*.

9. Back up the Item management database.

   You can skip steps 7 and onward by backing up the Item management database after you set up the environment in which view permissions can be assigned for individual Items, and recovering the database from this backup file.

   To back up the Item management database, execute the `jssdbbackup.bat` command with the `-maint` option specified. For details on the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

Note:

   Set up the environment that allows view permissions to be set for individual Items before you start using the process work board. Do not change the extended element you are using to set permissions to view Items after you have started using the process work board.

8.13 Setting an environment by using definition files

The following table describes the property files and definition files used for environment settings of JP1/IM - Service Support.

Table 8–7: Property files and definition files used for environment settings

File name	Description
CSV column name mapping file (`jp1imss_itemcsv_columnmap.conf`)	The CSV file to be exported by the `jssitemexportEx` command and the header of that file can be set.
Configuration file for CSV (`hptl_jp1_imss_csv_setting.properties`)	Used to set whether how to handle linefeed characters in Item information CSV files and related information CSV files that are processed by the `jssitemexportEx` and `jssitemimportEx` commands.
Configuration file for issuing JP1 events (`hptl_jp1_imss_jp1event_setting.properties`)	Used to set whether JP1/IM - Service Support can issue JP1 events, and to set the name of the JP1/Base event server that issues the JP1 events.
Property file for JP1 product association setting (`hptl_jp1_imss_jp1product_cooperation_setting.properties`)	Used to set whether to enable linkage with specific JP1 products, and to set the users who are allowed to access those JP1 products.
URL definition file (`jsslogin.url`)	Used to define the URL used to display the window of JP1/IM - Service Support.
Property file for automatic Item-defaults input (`hptl_jp1_imss_pwb_default_setting.properties`)	Used to set whether automatic input is enabled for some settings of Items being created, and to set the values automatically input.
Item accumulation property file (`hptl_jp1_imss_main_setting_kpi.properties`)	Used to set the threshold values used to determine the Item status or to display warnings in the main window (Item status).
Related-links property file (`hptl_jp1_imss_link_setting.properties`)	Used to set related links displayed in the main window (Item status).
System property file (`hptl_jp1_imss_main_setting.properties`)	Used to set the display of the main window or the Item form management window, or to set the name of the server linking with JP1/AIM.
Definition file for status-change JP1 events (`hptl_jp1_imss_jp1event_status.properties`)	Used to specify the settings of extended attributes stored in the status-change JP1 events.
Operation log configuration file (`hptl_jp1_imss_access_log.properties`)	Used to specify the settings of operation logs.
Held Item definition file (`jp1informleave_setting.conf`)	Used to define the conditions for determining the accumulated Items to be processed when the `jssinformleave` command is executed.
Definition file for the task practice service (`jp1imss_service_setting.conf`)	Used to set whether JP1/Service Support - Task Service can execute commands, and to set the execution time of those commands.
Configuration file for input-candidate values (Optional)	Used to set input-candidate values that can be displayed when the input-assistant function is used.
Input-assistant property file (`hptl_jp1_imss_input_assist_plugin.properties`)	Used to specify the settings for the log file to which the results of analyzing the Configuration file for input-candidate values are output.
Email definition file (`jp1imss_mail_setting.conf`)	Used to set the timing of sending an email, the sender of the email, and the subject and body of the email.

File name	Description
Configuration file for character string substitution (jp1imss_replace_string_setting.conf)	When registering an Item by using the jssitementry command, you can select whether to replace a specific character string with a line break in textarea-type elements of the Item.
User management property file (hptl_jp1_imss_usermgr.properties)	Used to set the initial sort keys of the elements in windows involving users and roles, such as the User management window and the Role management window.
User log definition file (jp1aclexport.conf)	Used to specify the settings for the log files to which the execution results of the jssaclexport command are output.
User log definition file (jp1aclimport.conf)	Used to specify the settings for the log files to which the execution results of the jssaclimport command are output.
User log definition file (jp1informleave.conf)	Used to specify the settings for the log files to which the execution results of the jssinformleave command are output.
User log definition file (jp1informperiod.conf)	Used to specify the settings for log files to which the execution results of the jssinformperiod command are output.
User log definition file (jp1itemcount.conf)	Used to specify the settings for the log files to which the execution results of the jssitemcount command are output.
User log definition file (jp1itemedit.conf)	Used to specify the settings for the log files to which the execution results of the jssitemedit command are output.
User log definition file (jp1itementry.conf)	Used to specify the settings for the log files to which the execution results of jssitementry command are output.
User log definition file (jp1itementrybymail.conf)	Used to specify the settings for the log files to which the execution results of the jssitementrybymail command are output.
User log definition file (jp1itemexportEx.conf)	Used to specify the settings for the log files to which the execution results of the jssitemexportEx command are output.
User log definition file (jp1itemimportEx.conf)	Used to specify the settings for the log files to which the execution results of the jssitemimportEx command are output.
User log definition file (jp1itemstore.conf)	Used to specify the settings for the log files to which the execution results of the jssitemstore command are output.
User log definition file (jp1itemstoredbrotate.conf)	Used to specify the settings for the log files to which the execution results of the jssitemstoredbrotate command are output.
User log definition file (jp1mailnotification.conf)	Used to specify the settings for the log files to which the execution results of email notification are output.
User log definition file (jp1refaclsetup.conf)	Used to specify the settings for the log files to which the execution results of the jssrefaclsetup command are output.

For details about the procedure for setting property files and definition files, see *Chapter 12. Definition Files*.

8.14 Setting an environment for registering Items by email

The following environment setting actions are required in order to register Items by email:

- Set up the email management server
- Create the attached file management folder
- Set the email clients that can send emails
- Create a temporary receipt process work board and a master system by using commands
- Specify settings in the email definition file
- Set up the Definition file for the task practice service[#]
- Specify settings in the User log definition file[#]
- Specify settings in the New process work board window or the Edit the process work board window

    [#]

    The setting is optional.

The following subsections provide details about individual settings.

8.14.1 Setting up the email management server

If you want to register Items by email, you need to set up the email management server to which emails are to be sent. Prepare an email server that can receive emails by using the POP3 protocol.

8.14.2 Creating the attached file management folder

Attached files of emails are not saved in JP1/IM - Service Support for security reasons. Therefore, do not attach files to emails that will be sent for registering Items. However, in case files should be attached to such emails, create a folder for storing attached files on the Item management server. Allow people in charge view permission for this folder.

8.14.3 Setting email clients that can send emails

On email clients that send emails, use a software program that enables sending emails using the SMTP protocol.

8.14.4 Creating a temporary receipt process work board and a master system by using commands

When you register an Item by email, if you do not specify the ID of the registration-destination process work board in the subject of the email, the Item will be registered in the temporary receipt process work board.

If you want to register Items by email, you need to create a temporary receipt process work board and a master system. You can use commands to create them. Use the setup command to create them during setup. At times other than during setup, use the command for creating a master system and the command for creating a temporary receipt process work

board. For details, see. *jsssetup.bat (sets up JP1/IM - Service Support)* and *jsscreatesysandpwb (creates the master system and the temporary receipt process work board)* in *Chapter 11. Commands*.

8.14.5 Settings in the email definition file

You must specify the settings in the table below in the Email definition file. For details about the Email definition file, see *Email definition file (jp1imss_mail_setting.conf)* in *Chapter 12. Definition Files*.

Table 8–8: Settings, in the Email definition file, that are required for Item registration by email

Setting	Description
Whether to register Items by email	Sets whether Items can be registered by email.
Setting of the email management server that receives emails	Sets the address and port number of the email management server.
Setting of users who register Items by email	Sets the users who can register Items by email. The following two methods can be used: • Setting email addresses of users who can register Items by email • Setting the domains of the users who can register Items by email
Destination address of emails	Sets the destination email address for emails when registering Items by email.
User name and password used to obtain emails	Sets the user name and password required for obtaining emails sent from the email management server.
Number of emails that can be obtained from the email management server at a time	Sets the number of emails that can be obtained from the email management server at a time.
Length of message ID of emails	Sets the length of message ID, which is used for preventing duplicated registration of emails.
The maximum size of temporary email save files and the maximum number of the output files	If Item registration by email fails, the header information and body of an email is output as a temporary email save file. Set the maximum size of an output temporary email save file and the maximum number of the output temporary email save files.
Output-destination folder of attached files	Sets the folder in which attached files of the received emails are stored.
The maximum number of folders to which attached files are output, and the maximum size of an attached file	Sets the maximum number of output-destination folders for attached files, and the maximum size of an attached file. Note that the total size of emails by which Items can be registered is no more than 5 megabytes. The total size includes the size of the title, email body, email header, and attached files.

8.14.6 Setting up the Definition file for the task practice service

In the Definition file for the task practice service, you can set whether JP1/Service Support - Task Service regularly executes the Item registration command based on emails, and the execution interval of the command. The default interval is 60 minutes.

For details about the Definition file for the task practice service, see *Definition file for the task practice service (jp1imss_service_setting.conf)* in *Chapter 12. Definition Files*.

8.14.7 Settings in the User log definition file

The User log definition file defines whether to log information. The information includes start and stop of the Item registration command by email, and whether temporary email save files are output successfully. For details about the User log definition file, see *User log definition file (jp1itementrybymail.conf)* in *Chapter 12. Definition Files*.

8.14.8 Settings in the New process work board window or the Edit the process work board window

You must specify the settings in the table below in the New process work board window or the Edit the process work board window. For details about the setting procedure, see *8.5 Creating process work boards*.

Table 8–9: Settings that must be specified in the New process work board window or the Edit the process work board window that are required for registering Items by email

Setting	Description
Item form	Items that are registered by email must have attached files. For the temporary receipt process work board and the destination process work board for Item registration by email, you need to set Item forms that allow the attached files as the Item forms to be used.
Person in charge of the registered item from email	This setting is displayed only when the Item registration command is used by email.
	For Items registered by email, the users or roles that have been defined by this setting are set as the people in charge of the Items. In a temporary receipt process work board or a process work board to which Items are registered by email, you need to set the people in charge of the Items registered by email.

8.15 Setting an environment for linking with JP1 products

This section describes the environment settings required for JP1/IM - Service Support to link with JP1 products.

8.15.1 Setting an environment for linking with JP1/IM - Manager

You can register the JP1 events detected by JP1/IM - Manager as incidents (Items) of JP1/IM - Service Support. Also, JP1/IM - Service Support can issue JP1 events, depending on the status of registered Items. The following environment settings are required to link with JP1/IM - Manager.

(1) Settings in JP1/IM - Service Support

No environment settings are required in JP1/IM - Service Support to link with JP1/IM - Manager and to register JP1 events as incidents. However, if you want JP1/IM - Service Support to issue JP1 events depending on the Item's status in order to link with JP1/IM - Manager, you need to set the environment in definition files.

The following are the settings in JP1/IM - Service Support when you want JP1/IM - Service Support to issue JP1 events.

(a) Settings of issuance of JP1 events for completed-action linkage

The procedure below specifies the settings for each process work board so that JP1/IM - Service Support will issue a JP1 event when an automatically-registered Item is closed. Before performing this procedure, you need to set up JP1/IM - Manager. For details, see *(3) Settings in JP1/IM - Manager*.

To specify these settings:

1. Specify the necessary settings in the configuration file for issuing JP1 events.
   Specify the settings in this file, including the setting of the event server to be connected for issuing JP1 events. For details about the configuration file for issuing JP1 events, see *Configuration file for issuing JP1 events (hptl_jp1_imss_jp1event_setting.properties)* in *Chapter 12. Definition Files*.

2. On the **Basic settings** tab of the New process work board window or the Edit the process work board window, select the **Issue JP1 event** check box.

3. Execute the `jssitementry` command with the `-evt` option specified.
   Items are then registered. For details about the `jssitementry` command, see *jssitementry (registers an Item)* in *Chapter 11. Commands*.
   A JP1 event is issued when the status of a registered Item is changed to `Close`.

(b) Settings for issuing status change JP1 events

To configure JP1/IM - Service Support to issue a JP1 event when the status of an Item for a process or process work board changes, and to specify the Item information to be stored in the JP1 event:

1. Specify the necessary settings in the configuration file for issuing JP1 events.
   Specify the settings in this file, including the setting of the event server to be connected for issuing JP1 events. For details about the configuration file for issuing JP1 events, see *Configuration file for issuing JP1 events (hptl_jp1_imss_jp1event_setting.properties)* in *Chapter 12. Definition Files*.

2. In the definition file for status-change JP1 events, specify the Item information you want to store in the JP1 event to be issued.

Users can set 0 to 90 units of unique information with a total size that is less than 10,000 bytes. For details about the definition file for status-change JP1 events, see *Definition file for status-change JP1 events (hptl_jp1_imss_jp1event_status.properties)* in *Chapter 12. Definition Files*.

3. On the **Basic settings** tab in the New process work board window or the Edit the process work board window, select the **Issue JP1 event** check box.

4. In the Status management window for each process or process work board, specify the status for issuing JP1 events.

   Select the **JP1 event issuance** check box corresponding to the Item status being used. In the Status management window for each process work board, if you select the **Use the settings common among processes** check box, the Item status set in the process that the relevant process work board belongs to will be set.

Note:

   If a large number of JP1 events are issued, transfer delays might occur, or registration delays might occur at the transfer destination. In such cases, check and, if necessary, revise the Item information to be stored in JP1 events and the transfer setting to the higher-level hosts.

(2) Settings in JP1/Base

JP1 events are issued from JP1/IM - Service Support to JP1/IM - Manager via JP1/Base. The following JP1/Base settings are required to issue JP1 events from JP1/IM - Service Support:

- Start sequence of services
- Forwarding of JP1 events

(a) Settings of start sequence of services

To issue JP1 events from JP1/IM - Service Support, first you need to start JP1/Base services on the JP1/IM - Service Support host. This is because, if issuance of JP1 events is requested before the JP1/Base services start up, the JP1 events cannot be registered in JP1/Base.

If the JP1/IM - Service Support services have been configured to automatically start up, set the start sequence of services in the start sequence definition file (JP1SVRPR.DAT) so that JP1/Base services start before the JP1/IM - Service Support services.

For details about the start sequence definition file, see the *Job Management Partner 1/Base User's Guide*.

The following shows an example setting of the start sequence definition file: (JP1SVRPR.DAT) of JP1/Base:

```
[Jp1ServiceSupportDB]
NAME=JP1/Service Support - DB Server
ServiceName=HiRDBEmbeddedEdition_JS0

[Jp1ServiceSupport]
NAME=JP1/Service Support
ServiceName=JP1_ServiceSupport

[Jp1ServiceSupportWeb]
NAME=JP1/Service Support - Web Service
ServiceName=JP1_ServiceSupport-WebService

[Jp1ServiceSupportTask]
NAME=JP1/ServiceSupport - Task Service
ServiceName=JP1_ServiceSupport-TaskService
```

Notes:

- Make sure to specify the above settings after the definition of JP1/Base (`[Jp1Base]` section). The order of the sections must be the same as in the above example.

- Do not set the start sequence of JP1/Base services when you use JP1/IM - Service Support in a cluster environment. If you want to set the start sequence of services in a cluster environment, set it by using Windows' WSFC or MSCS. For details about issuance of JP1 events in a cluster environment, see *9.7 Issuing JP1 events in a cluster environment*.

(b) Settings for forwarding of JP1 events

By default, JP1/Base forwards only important JP1 events to the higher-level host according to the hierarchy defined in the configuration definition of the JP1/IM - Manager. For this reason, JP1 events issued by JP1/IM - Service Support when the severity is `Information`, are not forwarded to the higher-level host.

Therefore, if JP1/IM - Service Support and JP1/IM - Manager are running on different hosts, you need to specify the forwarding condition in the forwarding setting file to forward JP1 events.

For details about the forwarding setting file, see the *Job Management Partner 1/Base User's Guide*.

The following shows an example setting of forwarding a status-change JP1 event (event ID: 00005F01) to the higher-level host:

```
to-upper
B.ID IN 5F01
E.PRODUCT_NAME IN /HITACHI/JP1/IM/SS
end-to
```

Note:

The above example assumes that JP1/IM - Manager is running on the higher-level host and JP1/IM - Service Support is running on the lower-level host.

(3) Settings in JP1/IM - Manager

When you register JP1 events in JP1/IM - Manager, execute the Item registration command using the automated action definition of JP1/IM - Manager.

You can also specify various settings. For example, JP1/IM - Manager can receive a JP1 event from JP1/IM - Service Support and execute an automated action to change the action status to `Processed` on JP1/IM - Manager when a registered Item is closed. JP1/IM - Manager is also able to execute an automated action corresponding to the change of Item status.

Note that, in order to display the extended attributes added by JP1/IM - Service Support users in JP1/IM - Manager (JP1/IM - View), the names of those extended attributes must be set in the definition file for the extended event attributes of JP1/IM - Manager.

For details about the automated action definition, the system configuration definition, and the definition of the extended event attributes of JP1/IM - Manager, see the following individual manuals.

- *Job Management Partner 1/Integrated Management - Manager Overview and System Design Guide*

- *Job Management Partner 1/Integrated Management - Manager Configuration Guide*

- *Job Management Partner 1/Integrated Management - Manager Command and Definition File Reference*

(a) Defining automated actions

To define automated actions of JP1/IM - Manager:

1. Set the system configuration definition.

   Specify the settings so that the Item management server is included in the hosts managed by JP1/IM - Manager. If JP1/IM - Service Support and JP1/IM - Manager run on different hosts, define JP1/IM - Service Support host as the lower-level host.

2. Define automated actions used to register Items.

   Set the JP1 events to be registered as incidents in the automated action definition. To execute an automated action to change the action status to `Processed` when an Item automatically registered is closed, execute the Item registration command with the `-evt` option specified.

   Example definition:

   ```
   jssitementry -b honsyasystem -r jp1admin -ch jp1admin -cht USER -t IM-
   Mentry -evt $ACTHOST $EVSEQNO
   ```

3. Define the automated action to be used to change the action status of a JP1 event that triggered automatic registration of an Item, to `Processed`.

   Define this if you want to change the action status to `Processed` when the Item is closed.

4. Define automated actions that correspond to a change of Item status.

   Define this if you want to execute some action that is triggered by a change of Item status.

(b) Defining extended event attributes

JP1/IM - Service Support provides a model file of the definition file for the extended event attributes. This model file can be used to display the extended attributes added by users in JP1/IM - View. If necessary, edit the definition file for the extended event attributes and copy this file to a specified folder of JP1/IM - Manager. For example, if you customize an Item form and change the element names, also change the element names in the definition file for the extended event attributes.

Copy-source file:

- *IM-SS-path*`\conf\event\hitachi_jp1_im_ss_attr_ja.conf` (for Japanese environment)
- *IM-SS-path*`\conf\event\hitachi_jp1_im_ss_attr_en.conf` (for English environment)
- *IM-SS-path*`\conf\event\hitachi_jp1_im_ss_attr_zh.conf` (for Chinese environment)

Copy-destination folder:

   IM-SS-path`\JP1cons\conf\console\attribute`

Note:

- After you copy the definition file for the extended event attributes of JP1/IM - Service Support to JP1/IM - Manager, you need to restart the JP1/IM-Manager services to enable the settings of the definition file.

- When you perform a version upgrade from a version of JP1/IM - Service Support earlier than 10-50, you need to add parameters to the definition file for the extended event attributes. This is so that the system can display the program-specific information in the consolidated JP1 event for completed-action linkage. Add the underlined parts of the text below to the definition file for the extended event attributes. The text below is an extract of the relevant parts of the file.

  ```
  :
  ```
  ```
  @define-block type="event-attr-def";
  ```

```
@file type="extended-attributes-definition", version="0300";
@product name="/HITACHI/JP1/IM/SS";
@define-block type="event-attr-def";
block lang="Japanese", platform="base", extended="false";
attr name="E.REGISTRANT", title="Registrant";
attr name="E.ITEMENTRY_ACTHOST", title="JP1/IM-M host name";
attr name="E.ITEMENTRY_SEQNO", title="Linked event
database serial number";
attr name="E.ITEMENTRY_ITEMID", title="Item ID list";
  :
@define-block type="event-attr-group-def";
block platform="base", extended="false";
group name="ITEM_IMM", attrs="E.REGISTRANT|E.ITEMENTRY_ACTHOST|
E.ITEMENTRY_SEQNO";
group name="ITEM_BATCHOPE", attrs="E.ITEMENTRY_ACTHOST|E.ITEMENTRY_SEQNO|
E.ITEMENTRY_ITEMID";
  :
@define-block type="event-attr-order-def";
block platform="base", extended="false";
order id="00005F00", attrs="ITEM_IMM";
order id="00005F01", attrs="ITEM_STATUS01|ITEM_STATUS02|ITEM_STATUS03|...
order id="00005F02", attrs="ITEM_BATCHOPE";
@define-block-end;
```

8.15.2 Setting an environment for linking with JP1/IM - View

Linking with JP1/IM - View enables you to use the window of JP1/IM - View to register Items in JP1/IM - Service Support. The following environment settings are required for linking with JP1/IM - View.

(1) Settings in JP1/IM - Service Support

No environment settings are required in JP1/IM - Service Support to link with JP1/IM - View.

(2) Settings in JP1/IM - View

Specify the URL of JP1/IM - Service Support in the definition file for manual incident registration (`incident.conf`).

For details about the definition file for manual incident registration (`incident.conf`), see the manual *Job Management Partner 1/Integrated Management - Manager Command and Definition File Reference*.

8.15.3 Setting an environment for linking with JP1/AIM

Linking with JP1/AIM will let you view information after associating the Items managed by JP1/IM - Service Support with the device information managed by JP1/AIM. The following environment settings are required to link JP1/IM - Service Support with JP1/AIM.

(1) Settings in JP1/IM - Service Support

Set the host name of the JP1/AIM server in the system property file.

For details about the procedure for setting the host name of the JP1/AIM server, see *8.13 Setting an environment by using definition files*.

(2) Settings in JP1/AIM

No environment settings are required for JP1/AIM to link with JP1/IM - Service Support.

However, if you want to directly open the Device Details dialog box of JP1/AIM from the first connection, you need to set the password for the user account *Service support manager* registered in JP1/AIM. This account must be an account dedicated to JP1/IM - Service Support.

8.15.4 Setting an environment for linking with JP1/AO

Linking with JP1/AO lets you use JP1/IM - Service Support to log in to the relevant JP/AO by using Single Sign-On. After that, you can open the Submit Service dialog box, and execute services registered in JP1/AO.

Use the JP1/Base authentication function to link with JP1/AO, and use the same authentication sever for JP1/IM - Service Support and JP1/AO. You cannot link with JP1/AO if different authentication servers are used.

(1) Settings in JP1/IM - Service Support

JP1/IM - Service Support requires the following environment settings to link with JP1/AO:

- System property file (`hptl_jp1_imss_main_setting.properties`)
  - For specification key `hptl_jp1_imss_ao_item_info_$n`, specify the following values:
    - ID of an element to which the resource group name of a service is entered
    - ID of an element to which a service name is entered
    - ID of an element to which a task is entered
  - For specification key `hptl_jp1_imss_add_item_info_url_num`, specify the number of URLs that you want to add Item information to.
  - For specification key `hptl_jp1_imss_add_item_info_url_$n`, specify the beginning part of the URL that you want to add Item information to.

  For details about the System property file (`hptl_jp1_imss_main_setting.properties`), see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.
- Specify the settings of Single Sign-On between JP1/IM - Service Support and JP1/AO.
  For details about environment settings for Single Sign-On between JP1/IM - Service Support and JP1/AO, see *8.15.5 Setting an environment for Single Sign-On*.

(2) Settings in JP1/AO

The following environment settings are required for JP1/AO to link with JP1/IM - Service Support:

- Set up an environment for Single Sign-On between JP1/IM - Service Support and JP1/AO.

For details about environment settings for Single Sign-On between JP1/IM - Service Support and JP1/AO, see the descriptions about the linkage with the JP1/Base authentication function in the *Job Management Partner 1/Automatic Operation Automatic Operation Administration Guide*.

- Register the JP1/AO services to be called from JP1/IM - Service Support.

  For details about the procedure for registering services in JP1/AO, see the descriptions about the management of the service template and the management of services in the *Job Management Partner 1/Automatic Operation Administration Guide*.

8.15.5 Setting an environment for Single Sign-On

When JP1/IM - Service Support links with specific JP1 products, Single Sign-On to the JP1 products is required. Single Sign-On to specific JP1 products requires the JP1/Base authentication function.

(1) Settings in JP1/IM - Service Support

The following describes the settings for Single Sign-On when JP1/IM - Service Support links with specific JP1 products.

(a) Changing the authentication method

Execute the `jsschauthorityserver` command (for changing the authentication server), and change the authentication method to the one you decided on after studying *5.15 Considering the authentication method*. You do not have to execute this command if you have already changed the authentication method after through consideration.

For details about the `jsschauthorityserver` command, see *jsschauthorityserver (switches the authentication method)* in *Chapter 11. Commands*.

(b) Setting up an environment

The following environment settings are required:

- Property file for JP1 product association setting (`hptl_jp1_imss_jp1product_cooperation_setting.properties`)

  For specification key `hptl_jp1_imss_jp1product_cooperation_flag`, set `true`.

  For specification key `hptl_jp1_imss_jp1product_cooperation_userlist`, set the ID of the users used for Single Sign-On to the specific JP1 products.

  For specification key `hptl_jp1_imss_information_search_userid`, set the user ID for information search that was registered beforehand.

  Note that the settings differ depending on the method of user authentication used in JP1/IM - Service Support.

  For details about the property file for JP1 product association setting (`hptl_jp1_imss_jp1product_cooperation_setting.properties`), see *Property file for JP1 product association setting (hptl_jp1_imss_jp1product_cooperation_setting.properties)* in *Chapter 12. Definition Files*.

- System property file (`hptl_jp1_imss_main_setting.properties`)

  For specification key `hptl_jp1_imss_jp1base_virtual_hostname`, set the logical host name. Set this specification key if JP1/Base running on the server on which JP1/IM - Service Support is running is in a logical host environment. If the JP1/Base is in a physical host environment, specify the default value.

  For details about the System property file (`hptl_jp1_imss_main_setting.properties`), see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

(2) Authentication setting in JP1/Base

In the JP1/Base authentication server, register the IDs of the users who can log in to specific JP1 products by using Single Sign-On.

For details about the settings in JP1/Base, see the *Job Management Partner 1/Base User's Guide*.

8.16 Setting an environment for linking with information managed by a system other than JP1/IM - Service Support

This section describes the procedure for setting input-candidate values and cross-setting value correlation, based on the information managed by a system other than JP1/IM - Service Support. For these settings, a Configuration file for input-candidate values, a system property file, and an input-assistant property file are used.

To set input-candidate values and cross-setting value correlation:

1. Create a Configuration file for input-candidate values.

   Based on the information managed by a system other than JP1/IM - Service Support, create a Configuration file for input-candidate values, and set the input-candidate values to be displayed and the elements to be linked with. For details about the Configuration file for input-candidate values, see *Configuration file for input-candidate values (Optional)* in *Chapter 12. Definition Files*.

2. Edit the system property file.

   Edit the system property file, and set the process work board for which the input-assistant function is to be used and the maximum number of characters that can be used for an input-candidate value. For details about the system property file, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

3. Edit the Input-assistant property file.

   Edit the Input-assistant property file, and set whether to output the public logs for the input-assistant function and the number and size of the log files. We recommend that you set it to output the public logs if you use the input-assistant function. For details about the Input-assistant property file, see *Input-assistant property file (hptl_jp1_imss_input_assist_plugin.properties)* in *Chapter 12. Definition Files*.

   If you edited the system property file or input-assistant property file, perform steps 4 and 5.

   If you created or edited only a Configuration file for input-candidate values, you do not have to restart services. To apply the settings in the configuration file for input-candidate values to the New item window or the Edit item window, close the window, and then re-display the window.

4. Stop all JP1/IM - Service Support services except the JP1/Service Support - DB Server service.

   Stop the services in the following order:

   1. JP1/Service Support - Task Service service
   2. JP1/Service Support - Web Service service
   3. JP1/Service Support service

   Keep the JP1/Service Support - DB Server service running.

5. Start the JP1/IM - Service Support services.

   Start the services in the following order:

   1. JP1/Service Support service
   2. JP1/Service Support - Web Service service
   3. JP1/Service Support - Task Service service

If the settings specified in the Configuration file for input-candidate values have not been applied to the New item window or the Edit item window:

   The Configuration file for input-candidate values might have an incorrect setting. Check the public log for the input-assistant function, and then correct the settings.

8.17 Migrating Item data from a system other than JP1/IM - Service Support

You can migrate Item data that was used in a system other than JP1/IM - Service Support by using the `jssitemimport` or `jssitemimportEx` command. Before you migrate Item data, you need to output the Item data to a CSV file, and change the format of the CSV file to the format of the file for Item information entries or the file for extended Item information entries.

To migrate Item data from a system other than JP1/IM - Service Support:

1. Output Item data to a CSV file.

   In preparation, output the Item data to be migrated to a CSV file.

   Create a CSV file with one of the following character encodings:

   - In a Japanese environment: MS932

   - In an English environment: ISO-8859-1

   - In a Chinese environment: GB18030

2. Change the format of the CSV file for Item data to the format of the file for Item information entries or the file for extended Item information entries.

   Change the format of the CSV file for Item data so that it can be used as the Item data in the Item management database of the migration-destination. For details, see *File for Item information entries (Optional)* or *File for extended Item information entries (Optional)* in *Chapter 12. Definition Files*.

3. Prepare the code mapping file.

   When you execute the `jssitemimport` command, use the code mapping file, as necessary, to convert the values of the following elements to the corresponding codes:

   Severity, Impact level, Priority, Item type, Problem domain, Occurred type, Cause, Result, Solution category, Workaround type, Scale of change

   If you have not customized an Item form, you can use the code mapping file provided with JP1/IM - Service Support. If you have customized an Item form, prepare a code mapping file dedicated to the Item form. For details about code mapping files, see *Code mapping file (jp1imss_itemimport_codemap.conf)* in *Chapter 12. Definition Files*.

4. Stop all JP1/IM - Service Support services except the JP1/Service Support - DB Server service.

   Stop the services in the following order when you execute the `jssitemimport` command:

   1. JP1/Service Support - Task Service service

   2. JP1/Service Support - Web Service service

   3. JP1/Service Support service

   Keep the JP1/Service Support - DB Server service running.

   If you execute the `jssitemimportEx` command, you do not have to stop the services.

5. Execute the `jssitemimport` or `jssitemimportEx` command.

   To migrate Item data, execute the `jssitemimport` command if you created a CSV file with the format of the file for Item information entries. To migrate data after you created a CSV file with the format of the file of extended Item information entries, execute the `jssitemimportEx` command. While the command is executing, do not execute or terminate commands for maintaining the Item management database. Also, do not start or stop JP1/IM - Service Support services. For details about the `jssitemimport` command, see *jssitemimport (imports Item information)* in *Chapter 11. Commands*. For details about the `jssitemimportEx` command, see *jssitemimportEx (imports extended Item information)* in *Chapter 11. Commands*.

6. Start the JP1/IM - Service Support services.

If you stopped the services in step 4, start the services in the following order:

1. JP1/Service Support service

2. JP1/Service Support - Web Service service

3. JP1/Service Support - Task Service service

8.18 Migrating user information from a system other than JP1/IM - Service Support

You can migrate user information that was used in a system other than JP1/IM - Service Support by using the `jssuserimport` command. Before you migrate user information, you need to output the user information to a CSV file, and change the format of the CSV file to the format of the File for user information entries.

To migrate user information from a system other than JP1/IM - Service Support:

1. Output user information to a CSV file.

   In preparation, output the user information to be migrated to a CSV file.

   Create a CSV file with one of the following character encodings:

   - In a Japanese environment: MS932

   - In an English environment: ISO-8859-1

   - In a Chinese environment: GB18030

2. Change the format of the CSV file for user information to the format of the File for user information entries.

   Change the format of the CSV file for user information so that it can be registered in JP1/IM - Service Support. For details about the File for user information entries, see *File for user information entries (Optional)* in *Chapter 12. Definition Files*.

3. Stop all JP1/IM - Service Support services except the JP1/Service Support - DB Server service.

   Stop the services in the following order:

   1. JP1/Service Support - Task Service service

   2. JP1/Service Support - Web Service service

   3. JP1/Service Support service

   Keep the JP1/Service Support - DB Server service running.

4. Execute the `jssuserimport` command.

   Execute the `jssuserimport` command to migrate user information. While the command is executing, do not execute commands for maintaining the Item management database, or do not start JP1/IM - Service Support services. For details about the `jssuserimport` command, see *jssuserimport (imports user information)* in *Chapter 11. Commands*.

5. Start the JP1/IM - Service Support services.

   Start the services in the following order:

   1. JP1/Service Support service

   2. JP1/Service Support - Web Service service

   3. JP1/Service Support - Task Service service

8.19 Migrating data from an existing JP1/IM - Service Support system

You can migrate the data managed by an existing JP1/IM - Service Support system to JP1/IM - Service Support on another server by using the `jssdbbackup.bat` and `jssdbrecovery.bat` commands. Make sure that the language settings on the migration-destination server are the same as those on the migration-source server.

To migrate data from an existing JP1/IM - Service Support system:

1. Make sure that the version of JP1/IM - Service Support at the migration source is the same as the migration destination.

   You cannot use the `jssdbbackup.bat` command and the `jssdbrecovery.bat` command to migrate data from one version of JP1/IM - Service Support to another. If the migration source and destination systems are running different versions of JP1/IM - Service Support, perform a version upgrade of the migration-source JP1/IM - Service Support to the same version as the migration destination. For details on how to perform a version upgrade, see *6.4 Overwrite installation and setup of JP1/IM - Service Support*.

2. Stop all JP1/IM - Service Support services except the JP1/Service Support - DB Server service.

   Stop the services of both migration-source and migration-destination JP1/IM - Service Support in the following order:

   1. JP1/Service Support - Task Service service

   2. JP1/Service Support - Web Service service

   3. JP1/Service Support service

   Keep the JP1/Service Support - DB Server service running.

3. From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**.

   Perform this on both the migration-source and migration-destination JP1/IM - Service Support servers.

4. Execute the `jssdbbackup.bat` command.

   On the migration-source JP1/IM - Service Support server, execute the `jssdbbackup.bat` command with the `-expand` option specified to back up the Item management database. While the command is executing, do not execute commands for maintaining the Item management database. Also, do not start JP1/IM - Service Support services. For details on the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

5. Execute the `jssdbrecovery.bat` command.

   On the migration-destination JP1/IM - Service Support system, execute the `jssdbrecovery.bat` command with the `-expand` option specified. This will recover the data obtained in step 4. While the command is executing, do not execute commands for maintaining the Item management database. Also, do not start JP1/IM - Service Support services. For details on the `jssdbrecovery.bat` command, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

6. Execute the `jssrefaclsetup` command.

   Set up the function that sets view permissions for individual Items. You can skip this step if you do not intend to use this function. For details on the `jssrefaclsetup` command, see *jssrefaclsetup (sets up view permission settings for individual Items)* in *Chapter 11. Commands*.

7. Start the JP1/IM - Service Support services.

   Start the services on both migration-source and migration-destination JP1/IM - Service Support in the following order:

   1. JP1/Service Support service

2. JP1/Service Support - Web Service service

3. JP1/Service Support - Task Service service

9

Using JP1/IM - Service Support in a Cluster System and Configuring an Environment

You can use JP1/IM - Service Support in a cluster system. If a failure (such as a server failure) occurs while using JP1/IM - Service Support in a cluster system, the standby node can take over processing. Thus, the use of JP1/IM - Service Support can continue uninterrupted.

This chapter describes how to operate and set up JP1/IM - Service Support in a cluster system.

Before you use JP1/IM - Service Support in a cluster system, make sure that JP1/IM - Service Support supports the cluster software you use.

9.1 Overview of cluster use

This section describes the use of JP1/IM - Service Support in a cluster system. It first provides an overview of a cluster system and then describes the individual functions of JP1/IM - Service Support.

9.1.1 Overview of a cluster system

A cluster system aims at achieving high availability, and is composed of an active server and a standby server. The active server is used for processing, and the standby server is available to take over processing should the active server fail. Thus, a cluster system can prevent interruptions of business operations and improve availability. This behavior of taking over processing when a failure occurs is called *failover*.

The software that controls the entire cluster system is called *cluster software*. The cluster software monitors whether the system is running normally, and when it detects an abnormality, it performs failover to prevent interruptions of business operations.

Remark: Some cluster systems might aim at load balancing, but that functionality is not described in this manual.

Figure 9–1: Accesses during normal operations and after failover
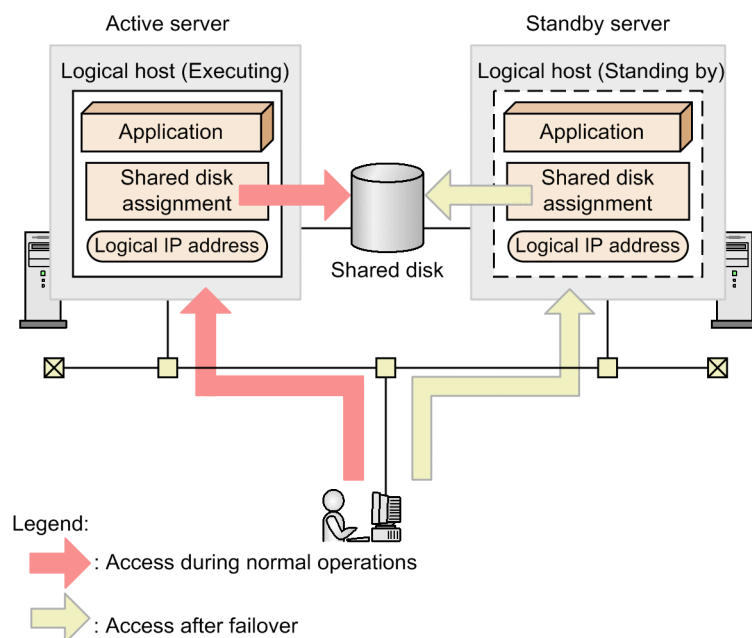
Applications, such as JP1/IM - Service Support, run on a *logical host*. A logical host is a logical server controlled by the cluster software. The logical host is the unit of failover. A logical host uses a *logical host name*, a *shared disk*, and a *logical IP address*, all of which can be taken over by the standby server. Applications executed on a logical host store data on the shared disk, and communicate by using the logical IP address. Thus, failover is available independently from physical servers.

Using JP1/IM - Service Support on a logical host environment of a cluster system is called *cluster use*.

> **Reference note**
>
> *Term "logical host"*

In this manual, the term *logical host* is used as the term indicating the unit of failover, but some cluster software and applications use the terms *group* or *package* instead. Check the corresponding terms as necessary, referring to the manual for the cluster software or other materials.

Note that a physical server is called a *physical host*, while a logical server (which is a unit of failover) is called a logical host. The host name of the physical host (which is displayed when the `hostname` command is executed) is called the *physical host name*, and the IP address corresponding to the physical host name is called the *physical IP address*. Also, a physical host uses the *local disk*, which is the disk dedicated to the corresponding server and cannot be used by other servers.

> **Reference note**
>
> *Term "node"*
>
> In this manual, the server that processes business operations is called the *active node*, and the server that is prepared to take over in event of a failure is called the *standby node*. The active node and the standby node are switched each time a failover occurs.
>
> In addition, in order to distinguish the two nodes when the system is configured or during environment setup, the node that first runs as the active node is called the *primary node*. The node that first runs as the standby node is called the *secondary node*. After operations start, the active node and the standby node can switch repeatedly due to occurrence of failures, but the relationship between the primary node and the secondary node does not change.

9.1.2 Prerequisites for cluster use

JP1/IM - Service Support runs in the logical host environment of a cluster system, and supports failover. As the prerequisites for JP1/IM - Service Support that runs in a logical host environment, the cluster software must normally control assignment and deletion of the shared disk and logical IP address and monitoring of behavior.

Note:

Even if JP1/IM - Service Support supports a cluster software program, that program might not satisfy the prerequisites described here. This depends on the system configuration and environment settings. Therefore, consider the system configuration and environment settings to make sure that the cluster software can satisfy the prerequisites.

(1) Prerequisites for a logical host environment

If you run JP1/IM - Service Support in a logical host environment, the following prerequisites regarding the logical IP address and shared disk must be satisfied.

Table 9–1: Prerequisites for a logical host environment

Component of a logical host	Prerequisites
Shared disk	• The available shared disk can be taken over from the active node by the standby node. • The shared disk must be assigned before installation of JP1/IM - Service Support. • Only the cluster software is allowed to release the assignment of the shared disk while JP1/IM - Service Support is running. • The shared disk's assignment will be released after JP1/IM - Service Support is uninstalled.

Component of a logical host	Prerequisites
Shared disk	• The shared disk is controlled so that it cannot be used by multiple nodes. • Data written in the files must be certainly taken over when a failover occurs. • Even if some processes are using the shared disk when a failover occurs, the failover can be forcibly conducted. • If a failure in the shared disk is detected, JP1/IM - Service Support does not have to care for recovery processing. The cluster software or some other method must be used to control recovery processing. If JP1/IM - Service Support must be stopped or started due to a delay in recovery processing, the cluster software must request JP1/IM - Service Support to stop or start.
Logical IP address	• The logical IP address used for communication must be taken over. • The logical IP address corresponding to the logical host name must be uniquely determined. • The logical IP address must be assigned before installation of JP1/IM - Service Support. • The logical IP address must not be deleted while JP1/IM - Service Support is running. • The correspondence between the logical host name and the logical IP address must not be changed while JP1/IM - Service Support is running. • The logical IP address can be deleted after JP1/IM - Service Support is uninstalled. • If a network failure is detected, JP1/IM - Service Support does not have to care for recovery processing. The cluster software or some other method must be used to control recovery processing. If JP1/IM - Service Support must be stopped or started due to a delay in recovery processing, the cluster software must request JP1/IM - Service Support to stop or start.

If the conditions in Table 9-1 are not satisfied, a problem might occur in JP1/IM - Service Support operations. For example, the following problems might occur:

• If the data written by the active node becomes corrupted when a failover occurs:

JP1/IM - Service Support will incur problems, such as errors, data missing, or failure of startup, and will not operate normally.

• If recovery processing is not done in response to a failure of a LAN board:

Communication errors will occur and JP1/IM - Service Support will not operate normally until the LAN board is switched by the cluster software or other control methods, or a failover occurs to switch the server to another server.

(2) Prerequisites for a physical host environment

In a cluster system in which JP1/IM - Service Support is used on a logical host, the physical host environment for each server must satisfy the following prerequisites.

Table 9–2: Prerequisites for a physical host environment

Component of a physical host	Prerequisites
Servers	• A cluster configuration is established using two or more servers.
Network	• Communication is available with the IP address corresponding to the physical host name (the results of the `hostname` command). (The cluster software or other processes must not make communication unavailable.)[#] • The correspondence between the host name and the IP address must not change while JP1/IM - Service Support is running. (The cluster software and name server must not change that correspondence.) • The LAN board corresponding to the host name takes the highest priority for the network binding settings (default setting). (Another LAN board, such as the one for heartbeat, must not take priority.)
OS and cluster software	• The cluster software and its version are supported by JP1/IM - Service Support. • The environment for each server is appropriately configured so that processing can continue after a failover.

\#

Communication using the IP address that corresponds to the physical host name (the host name displayed by the `hostname` command) might not be possible for some combinations of cluster software.

(3) The scope supported by JP1/IM - Service Support

If you use JP1/IM - Service Support on a logical host of a cluster system, the scope controlled by JP1/IM - Service Support is only the behavior of JP1/IM - Service Support itself. The control of the logical host environment (the shared disk and logical IP address) and the trigger to start and stop JP1/IM - Service Support depend on the control of the cluster software.

If the above prerequisites for the logical and physical host environments are not satisfied, or if the control of the logical host environment has a problem, problems in the behavior of JP1/IM - Service Support are not supported. In this case, resolve the problem by using the cluster software that controls the logical host environment or by using the OS.

9.1.3 Restrictions on the cluster use of JP1/IM - Service Support

JP1/IM - Service Support can be set up to run in a physical host environment or in a logical host environment. JP1/IM - Service Support cannot be run on both physical and logical host environments at the same time. Use the `jsssetup.bat` command to set up JP1/IM - Service Support to run in a physical host environment. Use the `jsshasetup.bat` command to set up JP1/IM - Service Support to run in a logical host environment.

Also, JP1/IM - Service Support does not support multiplex startup of logical hosts. Note the above when using JP1/IM - Service Support in a cluster system.

9.1.4 Configuring JP1/IM - Service Support in a cluster system

To use JP1/IM - Service Support in a cluster system, run JP1/IM - Service Support on a logical host under the control of the cluster software so that JP1/IM - Service Support supports failover. In this case, configuration of JP1/IM - Service Support is as follows.

(1) Overview of the configuration of JP1/IM - Service Support in a cluster system

The following figure shows an example configuration of JP1/IM - Service Support (Standard) in a cluster system.

Figure 9–2: Example configuration of JP1/IM - Service Support (Standard) in cluster use
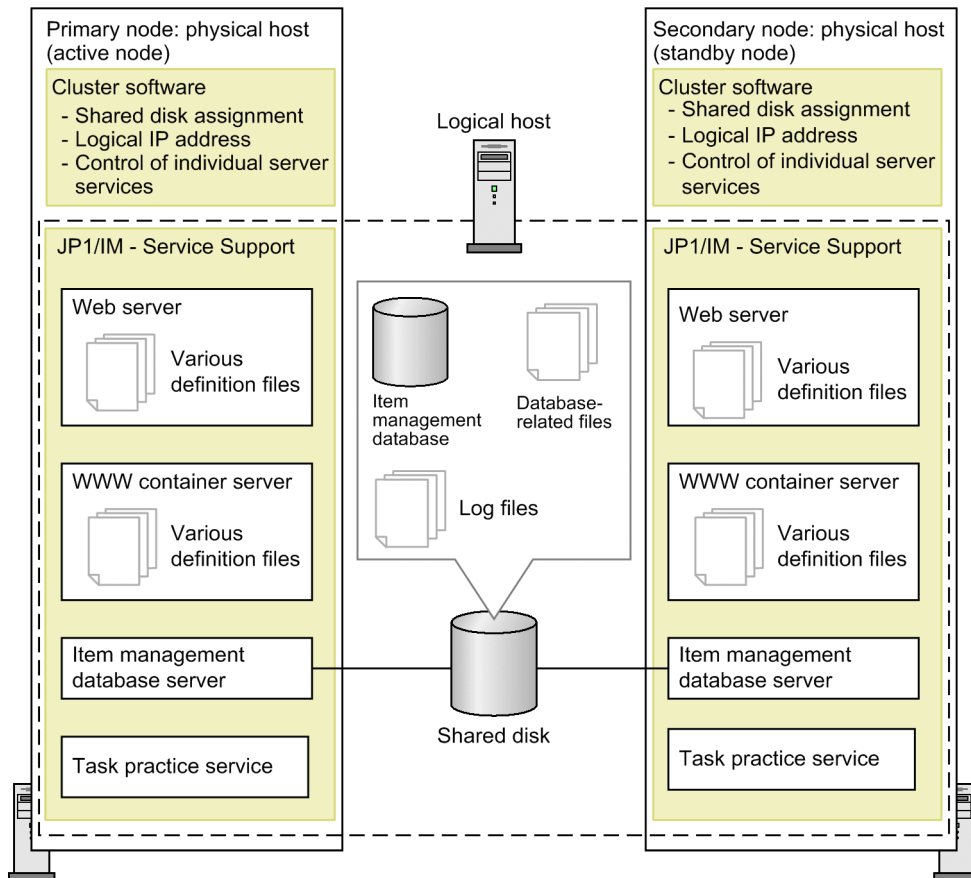
- JP1/IM - Service Support supports the active-standby configuration. It does not support the active-active configuration (multiplex startup of logical hosts on each server).

- This configuration is composed of multiple physical hosts, the entire of which makes up one logical host and has one logical IP address. When you register the configuration in the cluster software, the shared disk and logical IP address are required as prerequisite resources.

- The cluster software controls failover.

- The scope of cluster use is the internal components of JP1/IM - Service Support shown below. The cluster software monitors the status of these components.

  - Web server

  - WWW container server

  - Item management database server

  - Task practice service

- The Item management database, database-related files, and log files are stored on the shared disk. These types of data are inherited when a failover occurs.

  Note that each physical host manages various definition files independent of others. When JP1/IM - Service Support uses definition files, it reads the definition files on the active server (physical host). The active server and the standby server switch each time a failover occurs. Therefore, you need to keep the contents of the definition files the same both on the primary node and the secondary node after a user edits a definition file.

- In JP1/IM - Service Support Advanced Edition, you need to set up the Item storage database on the shared disk.

(2) Files on the shared disk

After you set up JP1/IM - Service Support for cluster environment, the files below are created on the shared disk. These files are necessary for executing JP1/IM - Service Support on a logical host.

Table 9–3: Files on the shared disk

Type of shared file	Folder name
Item management database	*shared-folder*\db\
Database-related files	*shared-folder*\dbms\Setup_Input_HA\
Log files	*shared-folder*\log\
Cluster environment files	*shared-folder*\tools\setup\

In JP1/IM - Service Support Advanced Edition, the Item storage database is not created as part of the setup process. You need to create the database in a separate operation.

Note that because the shared disk is used by both the primary node and the secondary node, if the disk becomes unavailable, the cluster environment for JP1/IM - Service Support will be unavailable. Therefore, you need to take necessary measures, such as using a different power supply for the shared disk from the ones for the hosts.

(3) JP1/IM - Service Support services and processes

Contrary to other JP1 products, such as JP1/IM - Manager, JP1/AJS, and JP1/Base, in JP1/IM - Service Support, cluster environment settings will not create services dedicated to the logical host. JP1/IM - Service Support uses the services created during installation without change. You can use these services as the services for a cluster environment if you set up JP1/IM - Service Support for cluster environment.

The table below lists the JP1/IM - Service Support services used for cluster operation. Register these services in the cluster software, and then execute the services.

Table 9–4: JP1/IM - Service Support services

Display name	Service name	Internal component name
JP1/Service Support - Web Service	JP1_Service Support-WebService	Web server
JP1/Service Support	JP1_Service Support	WWW container server
JP1/Service Support - DB Server	HiRDBEmbeddedEdition_JS0	Item management database server
JP1/Service Support - DB Cluster Service	HiRDBClusterService_JS0	Item management database server (Service for cluster)
JP1/Service Support - Task Service	JP1_ServiceSupport-TaskService	Task practice service

The *Display name* column lists the names displayed when you select **Control Panel**, **Administrative Tools**, and then **Services**. If you control the services by using a net command (net start or net stop) from the cluster software, specify a name listed in the *Display name* column for the net command.

The *Service name* column lists the service names used to register in WSFC or MSCS. Specify a name listed in the *Service name* column for the service name of WSFC or MSCS.

Notes:

- After you install JP1/IM - Service Support, only `JP1/Service Support - DB Server` among the JP1/IM - Service Support services is registered with the startup type **Automatic**. If you run JP1/IM - Service Support in a cluster system with this setting unchanged, a failover fails. Therefore, after you set up JP1/IM - Service Support on both the primary node and the secondary node, you need to change this setting from **Automatic** to **Manual**.

- For cluster use, if the value of the `use` key is `false` in all the sections for commands in the Definition file for the task practice service (`jp1imss_service_setting.conf`), the JP1/Service Support - Task Service service fails to start. This causes a failover. Therefore, in a cluster environment, you must set the value of the `use` key to `true` in at least one section. Also, if you do not want to use JP1/Service Support - Task Service service in a cluster environment, do not register this service in the cluster software.

> **Reference note**
>
> *Relationship between JP1/IM - Service Support services and processes*
>
> Abnormal termination of a JP1/IM - Service Support service triggers a failover. A JP1/IM - Service Support service terminates abnormally when a closely related process terminates abnormally. The following table lists the processes that affect the services.

Table 9–5: Processes that affect services

Service (display name)	Processes that affect the service
JP1/Service Support - Web Service	httpsd.exe
JP1/Service Support	jss_service.exe and cjstartweb.exe
JP1/Service Support - DB Server	pdprcd.exe
JP1/Service Support - DB Cluster Service	pdsha.exe
JP1/Service Support - Task Service	jss_taskservice.exe

9.2 Setting an environment for cluster use (environment configuration after new installation)

This section describes the environment settings when configuring an environment for cluster use after a new installation of JP1/IM - Service Support. The procedure is the same for all JP1/IM - Service Support products. If you intend to use the Item storage database, you need to create the database in a separate operation.

This section also describes the procedure for incorporating a manual in JP1/IM - Service Support in a cluster environment. If you want users to be able to view a manual by clicking the **Help** button in the main window, incorporate the manual, referring to *9.2.11 Procedure for incorporating a manual in a cluster environment*.

For details on how to perform a version upgrade of JP1/IM - Service Support in a cluster environment, see *9.8 Version upgrade in a cluster environment*.

9.2.1 Tasks required before setting an environment

You must complete the following tasks before setting an environment for cluster use.

(1) Preparing the shared disk

A shared disk is required for sharing information when the system switches from the active node to the standby node. Before configuring the environment, you need to set up so that the shared disk can be accessed by both the active and standby nodes.

(2) Registering the host name and the IP address

If you do not use a DNS server, you must register the host names and IP addresses of the physical hosts and the logical host in the `hosts` file on both the primary node and the secondary node.

9.2.2 Flow of setting an environment

The figure below shows the flow of setting an environment when a new JP1/IM - Service Support environment is configured in a cluster system. Note that the Administrator permissions are required to set an environment.

Figure 9–3: Flow of setting an environment (configuring a new environment for cluster use)

Environment settings on the primary node	Environment settings on the secondary node
Install JP1/IM-SS on the physical host.	Install JP1/IM-SS on the physical host.
Edit `jsshasetupinfo.bat`.	Edit `jsshasetupinfo.bat`.
Register resources in the cluster software.	
Setup for the logical host (primary node)	

Switch the nodes.

Setup for the logical host (secondary node)

Register services in the cluster software, and switch the nodes.

Set the authentication server.

Switch the nodes.

Set the authentication server.

Switch the nodes.

| Set the client environment variable and ODBC. | Set the client environment variable and ODBC. |
| Incorporate an HTML manual. | Incorporate an HTML manual. |

Legend:

: Settings for the physical host   : Settings for the logical host

JP1/IM-SS : JP1/IM - Service Support

9.2.3 Installation

Install the same version of JP1/IM - Service Support on the local disks of the primary node and the secondary node. Do not install JP1/IM - Service Support on the shared disk.

Also, install JP1/IM - Service Support in the same folder on the same drive on both the primary node and the secondary node. For example, if you install JP1/IM - Service Support in `D:\Program Files\Hitachi\` on the primary node, you must install JP1/IM - Service Support in `D:\Program Files\Hitachi\` also on the secondary node.

9.2.4 Editing jsshasetupinfo.bat

Edit the `jsshasetupinfo.bat` command file to configure a cluster environment. The contents of this file must be the same on both the active node and the standby node that make up a cluster system.

The `jsshasetupinfo.bat` command file is stored in the following location:

IM-SS-path`\conf\setup\jsshasetupinfo.bat`

The following shows the file format of the `jsshasetupinfo.bat` command file.

```
@rem IM-SS DATABASE SERVICE - Data Storage Directory (Local Data Area)
@set IMSSDBDIR=IM-SS-path\db

@rem IM-SS DATABASE SERVICE - Data Storage Directory (Shared Data Area)
@set IMSSSHAREDIR=xxxxx

@rem IM-SS DATABASE SERVICE - Port Number
@set IMSSDBPORT=24400

@rem IM-SS WEB SERVICE - Port Number
@set IMSSHTTPPORT=24401

@rem IM-SS WEB CONTAINER SERVICE - Port Number
@set IMSSWEBCONPORT=24402

@rem IM-SS WEB CONTAINER SERVICE - Shutdown Port Number
@set IMSSWEBSHUPORT=24403

@rem IM-SS WEB SERVICE - System Setting Port Number
@set IMSSWEBHTTPPORT=24404

@rem IM-SS DATABASE SERVICE - Logical Host Name
@set IMSSLOGICALHOST=xxxxx

@rem IM-SS DATABASE SERVICE - Online Physical Host Name
@set IMSSPHYSICALHOST=xxxxx
```

In the `jsshasetupinfo.bat` command file, you can edit the settings described in the table below. If you change any settings other than the ones listed in the *Setting* column, an error occurs.

Table 9–6: Settings that can be edited in the jsshasetupinfo.bat command file

Setting	Description	Default value
IMSSDBDIR	Name of the folder for storing the Item management database on the local disk[1]	*IM-SS-path*`\db`
IMSSSHAREDIR	Name of the folder for storing the shared files on the shared disk[1]	--
IMSSDBPORT	Port number used for communication with the Item management database server[2]	24400
IMSSHTTPPORT	Port number used for communication with the Web server and web browser[2]	24401
IMSSWEBCONPORT	Port number used for linkage between the WWW container server and Web server[2]	24402
IMSSWEBSHUPORT	Port number used for shutting down the communication with the WWW container server[2]	24403
IMSSWEBHTTPPORT	Port number used for communication with the Web server for system configuration[2]	24404
IMSSLOGICALHOST	Logical host name used for cluster use	--
IMSSPHYSICALHOST	Physical host name of the primary node	--

Legend:

    --: No default value

#1

When you specify the name of the folder for storing the Item management database, note the following:

- Specify the absolute path in no more than 133 bytes.

- Specify the characters that can be used in the OS.

- Half-width alphanumeric characters, underscores (_), yen signs (\), parentheses (( )), periods (.), and half-width space characters can be used.

- Do not use a yen sign (\) for the end of the folder name.

- Do not use a half-width space and tab before or after the folder name.

- You cannot specify a network drive.

- If you specify a folder name that does not actually exist, the folder is created when the `jsshasetup.bat` command is executed.

- Do not specify the root folder of the hard drive, such as `D:\`.

#2

For `IMSSDBPORT`, you can specify half-width numerals in the range from 5001 to 65535. For `IMSSHTTPPORT`, `IMSSWEBCONPORT`, `IMSSWEBSHUPORT`, and `IMSSWEBHTTPPORT`, you can specify half-width numerals in the range from 1 to 65535. However, note the following:

- Port numbers must not be duplicated.

- Port numbers must not be the same as any port numbers used by other products.

- Do not use a half-width space character or tab before or after a port number.

> ### Reference note
>
> A model file (*IM-SS-path*\conf\setup\jsshasetupinfo.bat.model) is provided for the jsshasetupinfo.bat command file. Use the model file to reset the contents of the jsshasetupinfo.bat command file. You can delete the jsshasetupinfo.bat command file, and rename the copied model file to jsshasetupinfo.bat.

9.2.5 Registering resources in the cluster software

Register the contents listed in the table below in the cluster software. Note that if you reuse the registered contents, you do not have to newly register the contents.

Table 9–7: Registering resources in the cluster software

No.	Display name	Contents to be registered	Resource type	Properties
1	Any	Group name	--	Preferred owner
2	Any	Shared disk	Physical disk	Owner, dependency, and disk parameters
3	Any	Logical IP address	IP address	Owner, dependency, IP address, subnet mask, and network type
4	Any	Logical host name	Network name	Owner, dependency, and host name

Legend:

--: Not applicable because the content is related to group.

For No. 2 to No. 4 in the above table, select the contents in the *Resource type* column. Set the dependency property so that the logical host name depends on the logical IP address.

9.2.6 Setting up a logical host (primary node)

To set up a logical host on the primary node:

1. Stop the services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support
   - JP1/Service Support - DB Server
   - JP1/Service Support - DB Cluster Service

2. Execute the `jsshasetup.bat` command.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. Execute the `jsshasetup.bat` command with the `-c online` option and the `-s` option specified as arguments to set up JP1/IM - Service Support. For details about the `jsshasetup.bat` command, see *jsshasetup.bat (sets up JP1/IM - Service Support in a cluster environment)* in *Chapter 11. Commands*.

3. Stop JP1/Service Support - DB Server, and change the startup type from **Automatic** to **Manual**.

4. Switch the active node from the primary node to the secondary node.
   Use the cluster software to switch nodes.

9.2.7 Setting up a logical host (secondary node)

To set up a logical host on the secondary node:

1. Stop the services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support
   - JP1/Service Support - DB Server
   - JP1/Service Support - DB Cluster Service

2. Execute the `jsshasetup.bat` command.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. Execute the `jsshasetup.bat` command with the `-c standby` option specified as an argument to set up JP1/IM - Service Support. For details about the `jsshasetup.bat` command, see *jsshasetup.bat (sets up JP1/IM - Service Support in a cluster environment)* in *Chapter 11. Commands*.

3. Stop JP1/Service Support - DB Server, and change the startup type from **Automatic** to **Manual**.

9.2.8 Registering services in the cluster software

Register the JP1/IM - Service Support services in the cluster software as shown in the following table.

Table 9–8: Registering services in the cluster software

No.	Display name	Service name	Dependency
1	`JP1/Service Support - DB Cluster Service`	`HiRDBClusterService_JS0`	When JP1/IM - Manager and JP1/AO are not linked and the JP1/Base authentication is not used: • IP address resource • Physical disk resource • Network name resource When JP1/IM - Manager and JP1/AO are linked and the JP1/Base authentication is used: • Resource in No. 7
2	`JP1/Service Support - DB Server`	`HiRDBEmbeddedEdition_JS0`	Resource in No. 1
3	`JP1/Service Support`	`JP1_ServiceSupport`	Resource in No. 2
4	`JP1/Service Support - Web Service`	`JP1_ServiceSupport-WebService`	Resource in No. 3
5	`JP1/Service Support - Task Service`	`JP1_ServiceSupport-TaskService`	Resource in No. 2
6	`JP1/Base Event` *logical-host-name*[#]	`JP1_Base_Event` *logical-host-name*[#]	For details about dependency, see the descriptions of registration in the cluster software in the *Job Management Partner 1/ Base User's Guide*.
7	`JP1/Base_`*logical-host-name*[#]	`JP1_Base_`*logical-host-name*[#]	

#

> *logical-host-name is* a logical host name set in JP1/Base. If you want to link with JP1/IM - Manager and JP1/AO, and you want to use JP1/Base authentication, specify the logical host name set for No. 4 in Table 9-7 in *9.2.5 Registering resources in the cluster software*.

Select **Generic Service** for **Resource Type**. For No. 1 and No. 2, specify the settings so that if a service stops, a failover occurs without retry. As for No. 3 to No. 5, you can remain the default settings of the cluster software.

After registering services, use the cluster software to switch the active node from the secondary node to the primary node.

When Windows Server 2008 and WSFC are used:

Also, specify the following settings:

1. A user with Administrator permissions must start a command prompt and then execute the following command:

    `cluster Δ res Δ "JP1/Service Δ Support Δ - Δ Web Δ Service" Δ /priv Δ StartupParameters=""`

    Note: Δ indicates a half-width space character.

2. Display the Properties dialog box of JP1/Service Support - Web Service, and then check if the value of **Startup parameters** in the **General** tab is blank.

When Windows Server 2012 and WSFC are used:

Also, specify the following settings:

1. Display the Properties dialog box of JP1/Service Support - Web Service, set the value of **Startup parameters** in the **General** tab to blank, and click the **OK** button.

9.2.9 Setting an authentication server

If you use an LDAP server or a JP1/Base authentication server as the authentication server, execute the jsschauthorityserver command following the procedure below. This procedure is not necessary if you do not use an LDAP server or a JP1/Base authentication server.

1. Execute the jsschauthorityserver command on the primary node.

   For details about the jsschauthorityserver command, see *jsschauthorityserver (switches the authentication method)* in *Chapter 11. Commands*.

2. Switch the active node from the primary node to the secondary node.

3. Execute the jsschauthorityserver command on the secondary node.

   For details about the jsschauthorityserver command, see *jsschauthorityserver (switches the authentication method)* in *Chapter 11. Commands*.

4. Switch the active node from the secondary node to the primary node.

9.2.10 Setting client environment variables and ODBC

You need to set client environment variables and ODBC on both the primary node and the secondary node. The settings are the same as the ones on the physical host.

For details about other settings, see step 3 and step 4 of *6.3.2 Setup procedure for new installation*.

9.2.11 Procedure for incorporating a manual in a cluster environment

If you copy an HTML manual to the specified folder, users can view the manual by clicking the **Help** button in the main window.

For details about how to incorporate a manual, see *6.7 Procedure for incorporating a manual*. When you incorporate a manual in a cluster environment, incorporate the same manual on both the primary node and the secondary node.

9.3 Setting an environment for cluster use (migration from a physical host)

If you migrate from an existing physical host environment to a cluster environment, follow the procedure below. This procedure assumes that the primary node was in a physical host environment.

> **❙ Important note**
>
> JP1/Service Support can migrate from a physical host environment to a cluster environment only if the product version and language settings do not change. If the versions of JP1/Service Support are different at the migration source and destination, execute the `jsssetup -vup` command to upgrade the physical host environment of the migration source to the same version as the migration destination.

1. On the primary node, stop the services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support

   Keep JP1/Service Support - DB Server running.

2. On the primary node, execute the `jssdbbackup.bat` command to back up the Item management database.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. Execute the `jssdbbackup.bat` command with the `-expand` option specified as an argument to back up the Item management database. For details on the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

3. On the primary node, perform unsetup of JP1/IM - Service Support.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. Execute the `jssunsetup.bat` command to recover the status before setup. For details about the `jssunsetup.bat` command, see *jssunsetup.bat (performs unsetup of JP1/IM - Service Support)* in *Chapter 11. Commands*.

4. Set up a cluster environment.

   This step is the same as when you configure a new environment. See *9.2 Setting an environment for cluster use (environment configuration after new installation)*.

5. On the primary node, use the cluster software to stop the services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support

   Keep JP1/Service Support - DB Server running.

6. On the primary node, execute the `jssdbrecovery.bat` command to recover the Item management database.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. Execute the `jssdbrecovery.bat` command with the `-expand` option specified as an argument to recover the Item management database obtained in step 2. For details on the `jssdbrecovery.bat` command, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

7. On the primary node, execute the jssrefaclsetup command.

   Set up the function that sets view permissions for individual Items. You can skip this step if you do not intend to use this function. For details on the jssrefaclsetup command, see *jssrefaclsetup (sets up view permission settings for individual Items)* in *Chapter 11. Commands*.

9.4 Extending the size of the Item management database in a cluster system

To extend the size of the Item management database in a cluster environment:

1. Switch the active server from the secondary node to the primary node.

   Switch the nodes by using the cluster software. This operation is not necessary if the primary node is already running as the active server.

2. On the primary node, stop the services in the following order:

   - JP1/Service Support - Task Service

   - JP1/Service Support - Web Service

   - JP1/Service Support

   Keep JP1/Service Support - DB Server running.

3. On the primary node, execute the `jssdbbackup.bat` command to back up the Item management database for recovery purposes.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. Execute the `jssdbbackup.bat` command with the `-maint` option specified as an argument to back up the Item management database. For details on the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

4. On the primary node, execute the `jssdbbackup.bat` command to back up the Item management database for recovery purposes.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. Execute the `jssdbbackup.bat` command with the `-expand` option specified as an argument to back up the Item management database. For the `-f` option, specify a backup file name that is different from the one specified in step 3. For details on the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

5. On the primary node, use the cluster software to stop the services in the following order:

   - JP1/Service Support - DB Server

   - JP1/Service Support - DB Cluster Service

6. On the primary node, execute the `jsshadbinit.bat` command to extend the size of the Item management database.

   For details on the `jsshadbinit.bat` command, see *jsshadbinit.bat (initializes the database in a cluster environment)* in *Chapter 11. Commands*.

7. From Service Control Manager on the primary node, stop the JP1/Service Support - DB Server service on the Item management database server.

8. On all secondary nodes, execute the `jsshasetup.bat` command for setup.

   Switch each of the secondary nodes to the active node, and then execute the `jsshasetup.bat` command with the `-c standby` option specified as an argument. For details about the `jsshasetup.bat` command, see *jsshasetup.bat (sets up JP1/IM - Service Support in a cluster environment)* in *Chapter 11. Commands*.

9. From Service Control Manager on the secondary node, stop the JP1/Service Support - DB Server service on the Item management database server.

10. On the primary node, use the cluster software to start services in the following order:

- JP1/Service Support - DB Cluster Service
- JP1/Service Support - DB Server

11. On the primary node, execute the `jssdbrecovery.bat` command to recover the backup file obtained in step 4.

    Execute this command with the `-expand` option specified as an argument. For details on the `jssdbrecovery.bat` command, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

12. On the primary node, execute the `jssrefaclsetup` command.

    Set up the function that sets view permissions for individual Items. You can skip this step if you do not intend to use this function. For details on the `jssrefaclsetup` command, see *jssrefaclsetup (sets up view permission settings for individual Items)* in *Chapter 11. Commands*.

9.5 Creating an Item storage database in a cluster environment

When creating an Item storage database in a cluster environment, you need to set up the Item storage database and expand the database storage areas by following the procedures described in this section. Note that you can only create an Item storage database if you are using JP1/IM - Service Support Advanced Edition.

9.5.1 Setting up the Item storage database in a cluster environment

To set up the Item storage database in a cluster environment:

1. Switch the active node to the primary node.
   Use the cluster software to switch the nodes. You can skip this step if the primary node is already the active node.

2. On the primary node, stop the services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support

   Leave the JP1/Service Support - DB Server service and JP1/Service Support - DB Cluster Service running.

3. On the primary node, execute the `jssdbbackup.bat` command to back up the Item management database and Item storage database for recovery purposes.
   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the `jssdbbackup.bat` command with the `-maint` option specified to back up the Item management database and Item storage database. For details on the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.
   You can skip this step if a backup is already available.

4. Enter the required setup information in the configuration file for setting up an Item storage database.
   For details on the configuration file for setting up an Item storage database, see *Configuration file for setting up an Item storage database (jssitemstoredbinfo.bat)* in *Chapter 12. Definition Files*.

5. Make sure that the shared disk has at least 128 GB of free space.

6. On the primary node, execute the `jssitemstoredbsetup.bat` command to set up the Item storage database.
   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the `jssitemstoredbsetup.bat` command with the `-c online` option specified to set up the Item storage database on the primary node. For details on the `jssitemstoredbsetup.bat` command, see *jssitemstoredbsetup.bat (sets up an Item storage database)* in *Chapter 11. Commands*.

7. Switch the active server from the primary node to the standby node.
   Use the cluster software to switch the nodes.

8. On the standby node, execute the `jssitemstoredbsetup.bat` command to set up the Item storage database.
   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the `jssitemstoredbsetup.bat` command with the `-c standby` option specified to set up the Item storage database on the standby node. For details on the

jssitemstoredbsetup.bat command, see *jssitemstoredbsetup.bat (sets up an Item storage database)* in *Chapter 11. Commands*.

9. Switch the active server back to the primary node.
   Use the cluster software to switch the nodes.

9.5.2 Expanding the Item storage database in a cluster environment

To expand the capacity of the Item storage database in a cluster environment:

1. Switch the active node to the primary node.
   Use the cluster software to switch the nodes. You can skip this step if the primary node is already the active node.

2. On the primary node, stop the services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support

   Leave the JP1/Service Support - DB Server service and JP1/Service Support - DB Cluster Service running.

3. On the primary node, execute the jssdbbackup.bat command to back up the Item management database and Item storage database for recovery purposes.
   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the jssdbbackup.bat command with the -maint option specified to back up the Item management database and Item storage database. For details on the jssdbbackup.bat command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.
   You can skip this step if a backup is already available.

4. On the primary node, execute the jssdbstatchk.bat command to find out how many times the Item storage database has been expanded, and the location of its storage directories.
   For details on the jssdbstatchk.bat command, see *jssdbstatchk.bat (checks the database status)* in *Chapter 11. Commands*.

5. Enter the required settings in the configuration file for expanding an Item storage database.
   For details on the configuration file for expanding an Item storage database, see *Configuration file for expanding an Item storage database (jssitemstoredbexpandinfo.bat)* in *Chapter 12. Definition Files*.

6. Make sure that the shared disk has at least 64 GB of free space.

7. On the primary node, execute the jssitemstoredbexpand.bat command to expand the capacity of the Item storage database.
   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the jssitemstoredbexpand.bat command with the -c online option specified to expand the database capacity on the primary node. You can expand the database to the desired size by executing the command multiple times. For details on the jssitemstoredbexpand.bat command, see *jssitemstoredbexpand.bat (expands an Item storage database)* in *Chapter 11. Commands*.

8. Switch the active server from the primary node to the standby node.
   Use the cluster software to switch the nodes.

9. On the secondary node, execute the `jssitemstoredbexpand.bat` command to expand the capacity of the Item storage database.

From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the `jssitemstoredbexpand.bat` command with the `-c standby` option specified to expand the database capacity on the secondary node. For details on the `jssitemstoredbexpand.bat` command, see *jssitemstoredbexpand.bat (expands an Item storage database)* in *Chapter 11. Commands*. Even if you expanded the database multiple times in step 7, you only need to execute the command once in this step.

10. Switch the active server back to the primary node.

Use the cluster software to switch the nodes.

9.6 Deleting a logical host from a cluster environment

To remove a logical host for JP1/IM - Service Support from a cluster environment:

1. Switch the active node from the primary node to secondary node.

   Use the cluster software to switch the nodes.

2. On the secondary node, use the cluster software to delete registered services.

3. On the secondary node, perform unsetup of the logical host.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. Execute the `jsshaunsetup.bat` command. For details about the `jsshaunsetup.bat` command, see *jsshaunsetup.bat (performs unsetup of JP1/IM - Service Support in a cluster environment)* in *Chapter 11. Commands*.

4. Switch the active node from the secondary node to primary node.

   Use the cluster software to switch the nodes.

5. On the primary node, perform unsetup of the logical host.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. Execute the `jsshaunsetup.bat` command. For details about the `jsshaunsetup.bat` command, see *jsshaunsetup.bat (performs unsetup of JP1/IM - Service Support in a cluster environment)* in *Chapter 11. Commands*.

6. Use the cluster software to delete registered resources.

   This step is not necessary when you reuse resources.

9.7 Issuing JP1 events in a cluster environment

JP1 events are always issued from JP1/IM - Service Support via JP1/Base. Therefore, when you run JP1/IM - Service Support on a logical host of a cluster system, JP1/Base must also be running on the same logical host. If you run JP1/IM - Service Support and JP1/Base on different hosts, when a failover occurs only on the logical host on which JP1/Base is running, JP1/IM - Service Support will not be able to issue JP1 events.

The following figure shows the flow of issuing JP1 events on the primary node of a cluster.

Figure 9–4: Issuing JP1 events for cluster use (flow on the primary node)
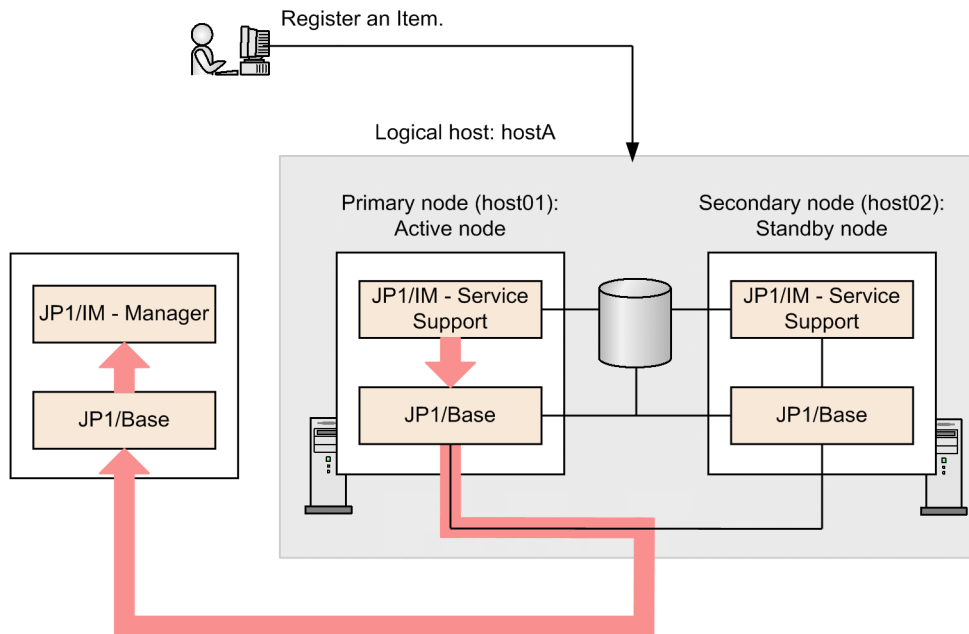
The above figure assumes that the primary node on a physical host (host01) is active. In this case, if an Item is registered in the logical host (hostA), JP1 events are issued via the JP1/Base running on the primary node.

The following figure shows the flow of issuing JP1 events on the secondary node of a cluster.

Figure 9–5: Issuing JP1 events for cluster use (flow on the secondary node)
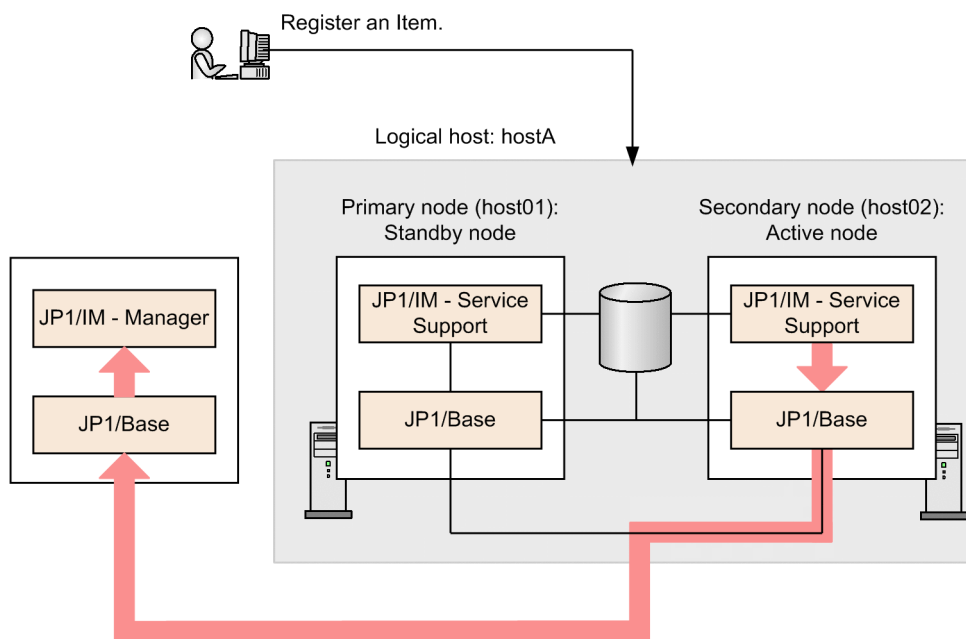
The above figure assumes that the secondary node on a physical host (host02) is active. In this case, if an Item is registered in the logical host (hostA), JP1 events are issued via the JP1/Base running on the secondary node.

9.8 Version upgrade in a cluster environment

To upgrade JP1/IM - Service Support in a cluster environment to the latest version, you need to stop JP1/IM - Service Support first. You also need to ensure that the shared disk will have sufficient free space after the version upgrade process.

9.8.1 Version upgrade installation in a cluster environment (JP1/IM - Service Support (Standard))

The following figure shows an overview of the environment setup process when performing a version upgrade of JP1/IM - Service Support (Standard) in a cluster environment.

Figure 9–6: Version upgrade installation in cluster environment
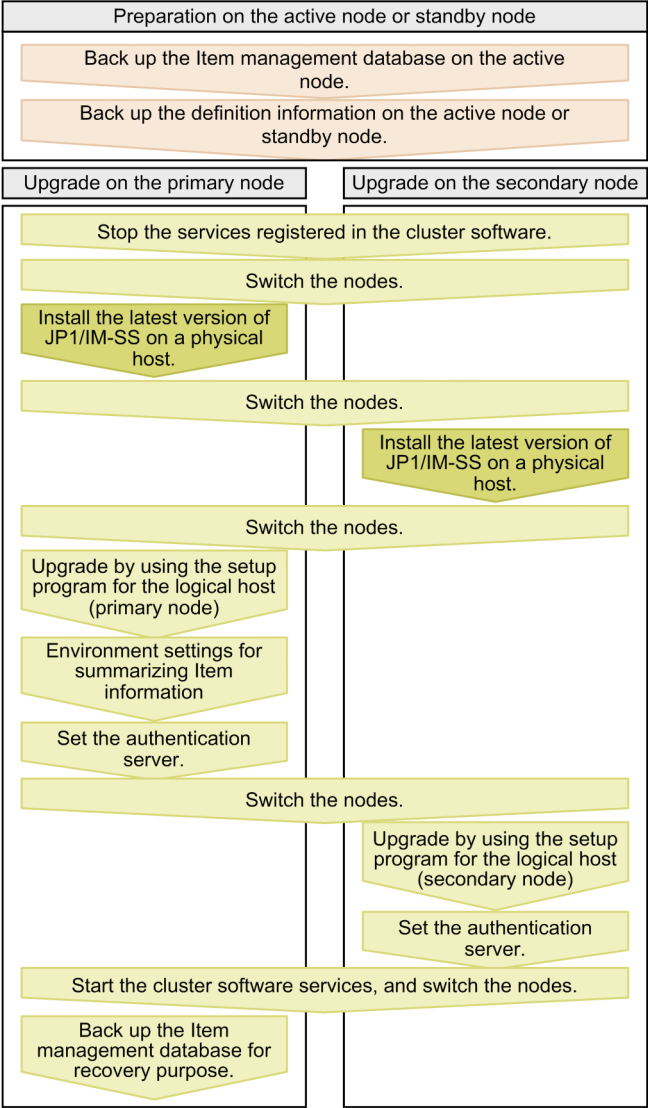
To perform a version upgrade of JP1/IM - Service Support (Standard) running in a cluster environment to the latest version of JP1/IM - Service Support (Standard):

1. In the pre-upgrade environment on the active node, execute the `jssdbbackup.bat` command to back up the Item management database for recovery purposes.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the `jssdbbackup.bat` command with the `-maint` option specified to back up the Item management database. For details on the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

2. In the pre-upgrade environment on the active or standby node, back up the definition information for recovery purposes.

   Back up every file listed in Table 10-1 in *10.1.1 Backing up definition information*, except the environment setup commands, cluster environment setup command, and environment settings files. Because the active and standby nodes have the same definition information, you can acquire the files from either node. However, we recommend that you use the active node.

3. Stop the services registered in the cluster software in the following order.

   Do not stop the IP address resource or physical disk resource.

   - JP1/Service Support - Web Service
   - JP1/Service Support
   - JP1/Service Support - DB Server
   - JP1/Service Support - DB Cluster Service

4. Switch the active server from the secondary node to the primary node.

   If the secondary node is the active server, switch to the primary node.

5. On the primary node, perform an overwrite installation of the latest version of JP1/IM - Service Support (Standard).

6. Switch the active server from the primary node to the secondary node.

7. On the secondary node, perform an overwrite installation of the latest version of JP1/IM - Service Support (Standard).

8. Switch the active server from the secondary node to the primary node.

9. In Service Control Manager on the primary node, start the JP1/Service Support - DB Server service of the Item management database server.

10. On the primary node, set up a logical host and perform a version upgrade of the environment.

    From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the `jsshasetup.bat` command with the `-vup` option specified. The amount of free space required on the drive where the Item management database is stored depends on the pre-upgrade version and the size of the Item management database.

    - Required free space when the pre-upgrade version is 10-10

Size of Item management database	Required free space
S	0.2 GB
M	0.9 GB
L	1.4 GB
LL	2.9 GB

For details on the memory requirements of the version upgrade process itself, see the *Release Notes*.

Specify other arguments as described below according to your operation requirements. For details about the `jsshasetup.bat` command, see *jsshasetup.bat (sets up JP1/IM - Service Support in a cluster environment)* in *Chapter 11. Commands*.

Allowing Items to be registered by email

If you want to register Items by email, specify the `-t` option to create the master system and temporary receipt process work board. Note that you can create a master system and a temporary receipt process work board at any time (not only during setup) by using the `jsscreatesysandpwb` command. For details on the `jsscreatesysandpwb` command, see *jsscreatesysandpwb (creates the master system and the temporary receipt process work board)* in *Chapter 11. Commands*.

11. Configure the authentication server.

If you use an LDAP server as the authentication server, or you use the authentication function of JP1/Base, execute the `jsschauthorityserver` command to switch the authentication server. You can skip this step if you do not use an LDAP server or the authentication function of JP1/Base.

For details on the `jsschauthorityserver` command, see *jsschauthorityserver (switches the authentication method)* in *Chapter 11. Commands*.

12. Switch the active server from the primary node to the secondary node.

Switch the active server to the secondary node.

13. In Service Control Manager on the secondary node, start the JP1/Service Support - DB Server service of the Item management database server.

14. On the standby node, set up a logical host and perform a version upgrade of the environment.

From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the `jsshasetup.bat` command with the `-vup` option specified.

For details on the `jsshasetup.bat` command, see *jsshasetup.bat (sets up JP1/IM - Service Support in a cluster environment)* in *Chapter 11. Commands*.

15. Configure the authentication server.

If you use an LDAP server as the authentication server, or you use the authentication function of JP1/Base, execute the `jsschauthorityserver` command to switch the authentication server. You can skip this step if you do not use an LDAP server or the authentication function of JP1/Base.

For details on the `jsschauthorityserver` command, see *jsschauthorityserver (switches the authentication method)* in *Chapter 11. Commands*.

16. In Service Control Manager on the primary and secondary nodes, stop the JP1/Service Support - DB Server service of the Item management database server.

17. Start the services in the cluster software.

First, make sure that the services are running on the secondary node. Then, switch from the secondary node to the primary node and make sure that the services are running on the primary node.

18. On the primary node, execute the `jssdbbackup.bat` command to back up the Item management database for recovery purposes.

From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the `jssdbbackup.bat` command with the `-maint` option specified to back up the Item management database. For details on the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

If the upgrade process fails

If the version upgrade installation fails, use the following procedure to restore the pre-upgrade environment:

1. Uninstall JP1/IM - Service Support.

   For details on how to uninstall JP1/IM - Service Support, see *6.5 Unsetup and uninstallation of JP1/IM - Service Support*.

2. Delete the installation folder and all files and folders under the shared folder on the shared disk.

3. Perform a new installation of the same version of JP1/IM - Service Support as the pre-upgrade environment.

   For details on how to install JP1/IM - Service Support, see *6.3.1 New installation procedure*.

4. Recover the definition information you backed up.

   For details on how to recover definition information, see *10.1.2 Recovering definition information*.

5. Set up a new cluster environment.

6. Restore the pre-upgrade environment by recovering it from the backup data.

   Use the backup data you created in step 1 to restore the pre-upgrade environment. For details on recovery, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

If the system is configured to display an HTML manual when **Help** is clicked

You need to overwrite the existing manual with the new version. For details on how to do so, see *9.2.11 Procedure for incorporating a manual in a cluster environment*.

9.9 Product upgrade in a cluster environment

To upgrade JP1/IM - Service Support (Standard) operating in a cluster environment to JP1/IM - Service Support Advanced Edition, you need to stop JP1/IM - Service Support first. You also need to ensure that the shared disk will have sufficient free space after the product upgrade process.

The procedure for upgrading to JP1/IM - Service Support Advanced Edition from JP1/IM - Service Support (Standard) in a cluster environment in 64-bit windows is described below. Also described is the upgrade procedure to JP1/IM - Service Support Advanced Edition from JP1/IM - Service Support (Standard) in a cluster environment in 32-bit Windows.

9.9.1 Product upgrade in a cluster environment from JP1/IM - Service Support (Standard) in 64-bit Windows to JP1/IM - Service Support Advanced Edition

To perform a product upgrade from JP1/IM - Service Support (Standard) to JP1/IM - Service Support Advanced Edition when JP1/IM - Service Support (Standard) is installed in 64-bit Windows environment in a cluster system:

1. In the pre-upgrade environment on the active node, execute the jssdbbackup.bat command to back up the Item management database for recovery purposes.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the jssdbbackup.bat command with the -maint option specified to back up the Item management database. For details on the jssdbbackup.bat command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

2. In the pre-upgrade environment on the primary or secondary node, back up the definition information for recovery purposes.

   Back up every file listed in Table 10-1 in *10.1.1 Backing up definition information*, except the environment setup commands, cluster environment setup command, and environment settings files. Because the primary and secondary nodes have the same definition information, you can acquire the files from either node. However, we recommend that you use the active node.

3. Stop the services registered in the cluster software in the following order.

   Do not stop the IP address resource or physical disk resource.

   - JP1/Service Support - Web Service
   - JP1/Service Support
   - JP1/Service Support - DB Server
   - JP1/Service Support - DB Cluster Service

4. Switch the active server to the primary node.

   If the active server is the secondary node, switch it to the primary node.

5. On the primary node, Insert the distribution media into the drive, and install JP1/IM - Service Support Advanced Edition.

   Install the product by following the prompts of the installer, which starts automatically.

   The same installation folder as the existing JP1/IM - Service Support (Standard) installation will be used.

   The user information and the program name displayed in the **Start** menu are also inherited from the previous installation.

6. If requested, restart the operating system.

7. Switch the active server from the primary node to the secondary node.

8. On the secondary node, Insert the distribution media into the drive, and install JP1/IM - Service Support Advanced Edition.

   The procedure is the same as on the primary node (step 5).

9. Switch the active server from the secondary node to the primary node.

10. In Service Control Manager on the primary node, start the JP1/Service Support - DB Server service of the Item management database server.

11. On the primary node, set up the logical host.

    From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the `jsshasetup.bat` command with the `-vup` option specified. The amount of free space required on the drive where the Item management database is stored depends on the pre-upgrade version and the size of the Item management database.

    - Required free space when the pre-upgrade version is 10-10

Size of Item management database	Required free space
S	0.2 GB
M	0.9 GB
L	1.4 GB
LL	2.9 GB

    For details on the memory requirements of the version upgrade process itself, see the *Release Notes*.

    Specify other arguments as described below according to your operation requirements. For details about the `jsshasetup.bat` command, see *jsshasetup.bat (sets up JP1/IM - Service Support in a cluster environment)* in *Chapter 11. Commands*.

    Allowing Items to be registered by email

    If you want to register Items by email, specify the `-t` option to create the master system and temporary receipt process work board. Note that you can create a master system and a temporary receipt process work board at any time (not only during setup) by using the `jsscreatesysandpwb` command. For details on the `jsscreatesysandpwb` command, see *jsscreatesysandpwb (creates the master system and the temporary receipt process work board)* in *Chapter 11. Commands*.

12. Configure the authentication server.

    If you use an LDAP server as the authentication server, or you use the authentication function of JP1/Base, execute the `jsschauthorityserver` command to switch the authentication server. You can skip this step if you do not use an LDAP server or the authentication function of JP1/Base.

    For details on the `jsschauthorityserver` command, see *jsschauthorityserver (switches the authentication method)* in *Chapter 11. Commands*.

13. Switch the active server from the primary node to the secondary node.

    Switch the active server to the secondary node.

14. In Service Control Manager on the secondary node, start the JP1/Service Support - DB Server service of the Item management database server.

15. On the secondary node, set up a logical host and upgrade the environment.

From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the `jsshasetup.bat` command with the `-vup` option specified.

For details on the `jsshasetup.bat` command, see *jsshasetup.bat (sets up JP1/IM - Service Support in a cluster environment)* in *Chapter 11. Commands*.

16. Configure the authentication server.

If you use an LDAP server as the authentication server, or you use the authentication function of JP1/Base, execute the `jsschauthorityserver` command to switch the authentication server. You can skip this step if you do not use an LDAP server or the authentication function of JP1/Base.

For details on the `jsschauthorityserver` command, see *jsschauthorityserver (switches the authentication method)* in *Chapter 11. Commands*.

17. In Service Control Manager on the primary and secondary nodes, stop the JP1/Service Support - DB Server service of the Item management database server.

18. Start the services in the cluster software.

First, make sure that the services are running on the secondary node. Then, switch the active node from the secondary node to the primary node and make sure that the services are running on the primary node.

19. On the primary node, execute the `jssdbbackup.bat` command to back up the Item management database for recovery purposes.

From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the `jssdbbackup.bat` command with the `-maint` option specified to back up the Item management database. For details on the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

20. Expand the size of the Item management database to XL.

If you do not want to expand the Item management database, you can skip this step.

For details on how to change the size of the Item management database, see *9.4 Extending the size of the Item management database in a cluster system*.

Note that some of the command options you need to specify in this step are different from those in *9.4 Extending the size of the Item management database in a cluster system*. Specify the command arguments as follows:

- When using the `jssdbbackup.bat` command to back up the Item management database for recovery purposes (corresponding to step 4 in *9.4 Extending the size of the Item management database in a cluster system*):

  `-o` option

  `-mdb` option

  `-expand` option

- When using the `jsshadbinit.bat` command to resize the Item management database (corresponding to step 6 in *9.4 Extending the size of the Item management database in a cluster system*):

  `-s XL`

- When using the `jssdbrecovery.bat` command to recover the Item management database (corresponding to step 11 in *9.4 Extending the size of the Item management database in a cluster system*):

  `-i` option

  `-mdb` option

  `-expand` option

If the upgrade process fails

If the product upgrade fails, use the following procedure to restore the pre-upgrade environment:

1. Uninstall JP1/IM - Service Support.

   For details on how to uninstall JP1/IM - Service Support, see *6.5 Unsetup and uninstallation of JP1/IM - Service Support*.

2. Delete the installation folder and all files and folders under the shared folder on the shared disk.

3. Perform a new installation of the same version of JP1/IM - Service Support as the pre-upgrade environment.

   For details on how to install JP1/IM - Service Support, see *6.3.1 New installation procedure*.

4. Recover the definition information you backed up.

   For details on how to recover definition information, see *10.1.2 Recovering definition information*.

5. Set up a new cluster environment.

6. Restore the pre-upgrade environment from the backup data.

   Use the backup data you created in step 1 to recover the pre-upgrade environment. For details on recovery, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

If the system is configured to display an HTML manual when **Help** is clicked

You need to overwrite the existing manual with the new version. For details on how to do so, see *9.2.11 Procedure for incorporating a manual in a cluster environment*.

9.9.2 Product upgrade in a cluster environment from JP1/IM - Service Support (Standard) in 32-bit Windows to JP1/IM - Service Support Advanced Edition

This section describes how to perform a product upgrade from JP1/IM - Service Support (Standard) to JP1/IM - Service Support Advanced Edition when JP1/IM - Service Support (Standard) is installed in a 32-bit Windows environment in a cluster system. In the description below, *old environment* means a 32-bit Windows environment with JP1/IM - Service Support (Standard) installed. The *new environment* is a 64-bit Windows environment with JP1/IM - Service Support Advanced Edition installed.

1. In the old environment on the active node, execute the jssdbbackup.bat command to back up the Item management database for recovery purposes.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the jssdbbackup.bat command with the -f and -expand options specified. For details on the jssdbbackup.bat command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

2. Back up the definition information on the primary or secondary node in the old environment.

   You need to back up every file listed in Table 10-1 in *10.1.1 Backing up definition information*, except the environment setup commands, cluster environment setup command, and environment settings files. Because the primary node and the secondary node have the same definition information, you can acquire the files from either node. However, we recommend that you use the active node.

3. In the new environment, install the same version of JP1/IM - Service Support (Standard) as the old environment, and set up the environment.

   For details on how to install and set up JP1/IM - Service Support in a cluster system, see *9.2 Setting an environment for cluster use (environment configuration after new installation)*.

4. In the new environment on the active node, execute the jssdbrecovery.bat command to recover the data.

   Recover the data from the backup you created in step 1. Execute the command with the -f and -expand options specified.

For details on the `jssdbrecovery.bat` command, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

5. Recover the definition information in the new environment on the primary and secondary nodes.

   Recover the definition information you backed up in step 2 to the new environment. When this process is complete, make sure that the system operates in the same way as in the old environment.

6. Switch the active node from the primary node to the secondary node.

7. On the secondary node, perform unsetup of JP1/IM - Service Support (Standard) in the old environment.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the `jsshaunsetup.bat` command to unset up JP1/IM - Service Support (Standard) in the old environment. For details on the `jsshaunsetup.bat` command, see *jsshaunsetup.bat (performs unsetup of JP1/IM - Service Support in a cluster environment)* in *Chapter 11. Commands*.

8. Switch the active node from the secondary node to the primary node.

9. On the primary node, perform unsetup of JP1/IM - Service Support (Standard) in the old environment.

   From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. From the command prompt, execute the `jsshaunsetup.bat` command to unset up JP1/IM - Service Support (Standard) in the old environment. For details on the `jsshaunsetup.bat` command, see *jsshaunsetup.bat (performs unsetup of JP1/IM - Service Support in a cluster environment)* in *Chapter 11. Commands*.

10. In the new environment, perform a program upgrade of JP1/IM - Service Support (Standard) to JP1/IM - Service Support Advanced Edition.

    For details on how to perform a program upgrade of JP1/IM - Service Support (Standard) to JP1/IM - Service Support Advanced Edition, see *9.9.1 Product upgrade in a cluster environment from JP1/IM - Service Support (Standard) in 64-bit Windows to JP1/IM - Service Support Advanced Edition*.

9.10 Notes on cluster use

- After unsetup of a cluster environment is performed, the Item management database file might remain on the shared disk. If that file is not necessary, manually delete it.

- If you do not perform unsetup of a cluster environment, the cluster environment settings of JP1/IM - Service Support remain in the cluster software. Also, the Item management database remains on the shared disk and local disk. If those settings and information are not necessary, manually delete them.

- After changing the size of the Item management database, set up other hosts in the same cluster environment as standby nodes.

- In a cluster environment, you can change a host that was set up as the primary node to a secondary node, and change a host that was set up as the secondary node to a primary node. In such cases, you must perform unsetup of the hosts, and then set them up again.

- If you edit or store the following files, make sure that the contents of the files with the same name are the same on both the primary node and secondary node:

  - HTML manual for JP1/IM - Service Support

  - CSV column name mapping file (`jp1imss_itemcsv_columnmap.conf`)

  - Configuration file for CSV (`hptl_jp1_imss_csv_setting.properties`)

  - Configuration file for issuing JP1 events (`hptl_jp1_imss_jp1event_setting.properties`)

  - Property file for JP1 product association setting (`hptl_jp1_imss_jp1product_cooperation_setting.properties`)

  - URL definition file (`jsslogin.url`)

  - Definition file for the Item search item form (Optional)

  - Property file for automatic Item-defaults input (`hptl_jp1_imss_pwb_default_setting.properties`)

  - Property file for automatic Item-defaults input (`jp1imss_itementry_default.conf`)

  - Item accumulation property file (`hptl_jp1_imss_main_setting_kpi.properties`)

  - Item form definition file (Optional)

  - Configuration file for expanding an Item storage database (`jssitemstoredbexpandinfo.bat`)

  - Configuration file for setting up an Item storage database (`jssitemstoredbinfo.bat`)

  - Related-links property file (`hptl_jp1_imss_link_setting.properties`)

  - System property file (`hptl_jp1_imss_main_setting.properties`)

  - Definition file for status-change JP1 events (`hptl_jp1_imss_jp1event_status.properties`)

  - Operation log configuration file (`hptl_jp1_imss_access_log.properties`)

  - Definition file for the task practice service (`jp1imss_service_setting.conf`)

  - Configuration file for input-candidate values (Optional)

  - Input-assistant property file (`hptl_jp1_imss_input_assist_plugin.properties`)

  - Email definition file (`jp1imss_mail_setting.conf`)

  - Configuration file for character string substitution (`jp1imss_replace_string_setting.conf`)

  - User management property file (`hptl_jp1_imss_usermgr.properties`)

  - User log definition file (`jp1aclexport.conf`)

- User log definition file (`jp1aclimport.conf`)
- User log definition file (`jp1informleave.conf`)
- User log definition file (`jp1informperiod.conf`)
- User log definition file (`jp1itemcount.conf`)
- User log definition file (`jp1itemedit.conf`)
- User log definition file (`jp1itementry.conf`)
- User log definition file (`jp1itementrybymail.conf`)
- User log definition file (`jp1itemexportEx.conf`)
- User log definition file (`jp1itemimportEx.conf`)
- User log definition file (`jp1itemstore.conf`)
- User log definition file (`jp1itemstoredbrotate.conf`)
- User log definition file (`jp1mailnotification.conf`)
- User log definition file (`jp1refaclsetup.conf`)
- When you use JP1/IM - Service Support in a cluster environment, do not set the start sequence of JP1/Base services. If you want to set the start and stop sequences of JP1/IM - Service Support and JP1/Base services in a cluster environment, use Windows' WSFC or MSCS to set the start sequence of services.

10

JP1/IM - Service Support Maintenance

This chapter describes JP1/IM - Service Support maintenance.

For stable operation of JP1/IM - Service Support, make a periodic maintenance plan for definition files and databases.

10.1 Backup and recovery of definition information

This section describes backup and recovery of the JP1/IM - Service Support definition information. After reading through this section, consider the procedure for backup and recovery of the JP1/IM - Service Support definition information as a part of a system-wide backup plan.

Note:

If JP1/IM - Service Support is operating in a cluster environment, perform backup and recovery on both the primary and secondary cluster nodes. The files to be backed up and recovered on each cluster node are the same as the files to be backed up and recovered in a non-cluster environment.

10.1.1 Backing up definition information

This subsection describes backing up the JP1/IM - Service Support definition information.

Each time you change JP1/IM - Service Support settings, back up the JP1/IM - Service Support definition information.

You can determine how to back up the definition information at your discretion. Typically, you can back up the definition information by copying the files that contain it. Before you perform a backup, stop all JP1/IM - Service Support services if possible.

The following table lists the JP1/IM - Service Support files to be backed up.

Table 10–1: List of the JP1/IM - Service Support files to be backed up

File name[1]	Explanation
IM-SS-path\conf\command\jp1aclexport.conf	User log definition files
IM-SS-path\conf\command\jp1aclimport.conf	
IM-SS-path\conf\command\jp1informleave.conf	
IM-SS-path\conf\command\jp1informperiod.conf	
IM-SS-path\conf\command\jp1itemcount.conf	
IM-SS-path\conf\command\jp1itemedit.conf	
IM-SS-path\conf\command\jp1itementry.conf	
IM-SS-path\conf\command\jp1itementrybymail.conf	
IM-SS-path\conf\command\jp1itemexportEx.conf	
IM-SS-path\conf\command\jp1itemimportEx.conf	
IM-SS-path\conf\command\jp1itemstore.conf	
IM-SS-path\conf\command\jp1itemstoredbrotate.conf	
IM-SS-path\conf\command\jp1mailnotification.conf	
IM-SS-path\conf\command\jp1refaclsetup.conf	
IM-SS-path\conf\command\jp1informleave_setting.conf	Held Item definition file
IM-SS-path\conf\command\jp1imss_itemcsv_columnmap.conf	CSV column name mapping file
IM-SS-path\\conf\command\jp1imss_replace_string_setting.conf	Configuration file for character string substitution

File name[1]	Explanation
IM-SS-path\conf\login\jsslogin.url[2]	URL definition file
IM-SS-path\conf\hptl_jp1_imss_ci_link_setting.properties	Property file for device-information external references
IM-SS-path\conf\hptl_jp1_imss_csv_setting.properties	Configuration file for CSV
IM-SS-path\conf\hptl_jp1_imss_link_setting.properties	Related-links property file
IM-SS-path\conf\hptl_jp1_imss_main_setting.properties	System property file
IM-SS-path\conf\hptl_jp1_imss_main_setting_kpi.properties	Item accumulation property file
IM-SS-path\conf\hptl_jp1_imss_usermgr.properties	User management property file
IM-SS-path\conf\hptl_jp1_imss_pwb_default_setting.properties	Property file for automatic Item-defaults input
IM-SS-path\conf\hptl_jp1_imss_input_assist_plugin.properties	Input-assistant property file
IM-SS-path\conf\hptl_jp1_imss_ua_conf.properties	JAAS user management definition file
IM-SS-path\conf\hptl_jp1_imss_jp1product_cooperation_setting.properties	Property file for JP1 product association setting
IM-SS-path\conf\hptl_jp1_imss_access_log.properties	Operation log configuration file
IM-SS-path\conf\jp1imss_mail_setting.conf[2]	Email definition file
IM-SS-path\conf\jp1imss_service_setting.conf	Definition file for the task practice service
IM-SS-path\conf\setup\jssexpanddbinfo.bat	Configuration file for expanding an Item storage database
IM-SS-path\conf\setup\jssitemstoredbinfo.bat	Configuration file for setting up an Item storage database
IM-SS-path\conf\setup\jsssetupinfo.bat	Environment setup command
IM-SS-path\tools\setup\jsscmdinfo.bat	
IM-SS-path\conf\setup\jsshasetupinfo.bat	Cluster environment setup command
IM-SS-path\conf\hptl_jp1_imss_jp1event_setting.properties	Configuration file for issuing JP1 events
IM-SS-path\conf\event\hptl_jp1_imss_jp1event_status.properties	Definition file for status-change JP1 events
IM-SS-path\dbms\db\CONF\pdsys	Environment settings files
IM-SS-path\dbms\db\CONF\emb\HiRDB.ini	
IM-SS-path\uCPSB\httpsd\conf\httpsd.conf	
IM-SS-path\uCPSB\CC\web\containers\jp1ss\usrconf\usrconf.properties	
IM-SS-path\uCPSB\CC\web\redirector\workers.properties	
user-specified-file-name	Access privileges input file
user-specified-file-name	Code mapping file for importing Item information
user-specified-file-name	File for Item information entries
Item_PWB_*process-work-board-ID*.csv ItemRefInfo_PWB_*process-work-board-ID*.csv	File for extended Item information entries

File name[1]	Explanation
user-specified-file-name	Code mapping file for the Item registration command
user-specified-file-name	Code mapping file for the Item editing command
user-specified-file-name	Item form definition file
user-specified-file-name	Definition file for the Item search item form
user-specified-file-name	File for user information entries
user-specified-file-name	User information editing file
user-specified-file-name	File for member information entries
user-specified-file-name	File for role information entries
user-specified-file-name	Configuration file for input-candidate values

#1
    Back up this file only if it has been edited or created by a user.

#2
    To migrate data to a different environment or upgrade JP1/IM - Service Support, you need to modify the server name and the path to the output-destination folder of attached files.

10.1.2 Recovering definition information

This subsection describes recovering the JP1/IM - Service Support definition information.

(1) Recovering definition files that have been edited by users

To recover the information in definition files that have been edited by users, make sure that the following prerequisites exist, and then copy the backup files to their original locations.

Prerequisites:

- JP1/IM - Service Support has been installed.
- All JP1/IM - Service Support services have stopped.

(2) Recovering user-created definition files

To recover information in user-created definition files, make sure that JP1/IM - Service Support has been installed, and then perform recovery. For details, see *Chapter 12. Definition Files*.

10.2 Database maintenance

This section describes the JP1/IM - Service Support databases. After reading through this section, consider the procedure for maintenance of the JP1/IM - Service Support databases as a part of a system-wide maintenance plan.

Note:

If JP1/IM - Service Support is operating in a cluster environment, perform the operations to stop and restart JP1/IM - Service Support services on the active server. Also, execute all commands on the server that is primary and active.

10.2.1 Backing up and recovering the Item management database

If the system cannot continue operation due to a fatal error such as a disk failure, you might no longer be able to recover the Item management database of JP1/IM - Service Support. As a precaution against such an unexpected problem, you must back up the Item management database periodically.

Before you back up or recover the Item management database, make sure that you stop operation of JP1/IM - Service Support.

If JP1/IM - Service Support Advanced Edition uses the Item storage database, you need to back up this database whenever it is updated (such as by storing Items in the Item storage database for yearly maintenance). For details about how to back up the databases when the Item storage database is used, see *10.2.14 Backup procedure when the Item storage database is used*. For details about how to recover the databases when the Item storage database is used, see *10.2.15 Recovery procedure when the Item storage database is used*.

The following shows procedures for backing up and recovering the Item management database.

To back up the Item management database:

1. Stop services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support

   Do not stop the JP1/Service Support - DB Server service.

2. From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**.

3. Execute the `jssdbbackup.bat` command.

   Make sure that you specify the `-maint` option as an argument. For details, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

To recover the Item management database:

1. Stop services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support

   Do not stop the JP1/Service Support - DB Server service.

2. From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**.

3. Execute the `jssdbrecovery.bat` command.

   Make sure that you specify the `-maint` option as an argument. For details, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

10.2.2 Deleting Items from the Item management database

This subsection describes how to delete multiple Items at once from the Item management database.

The procedure differs depending on the operating status of JP1/Service Support.

If you can stop JP1/Service Support operation:

   See *(1) Deleting Items after stopping JP1/IM - Service Support operation*. In this case, you can back up the Item management database.

If you cannot stop JP1/Service Support operation:

   See (2) *Deleting Items without stopping JP1/IM - Service Support operation*. In this case, you can use a CSV file to store information about the Items to be deleted.

(1) Deleting Items after stopping JP1/IM - Service Support operation

The following describes how to stop JP1/Service Support operation and then delete multiple Items at once from the Item management database.

If the Item management database already contains Items that are waiting to be deleted, you might not be able to distinguish the waiting Items from the Items you want to delete in a batch. Therefore, the following describes how to delete Items that are waiting to be deleted, and then delete unnecessary Items in a batch.

1. Stop services in the following order:

   - JP1/Service Support - Task Service

   - JP1/Service Support - Web Service

   - JP1/Service Support

   Do not stop the JP1/Service Support - DB Server service.

2. From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**.

3. Execute the `jssdbbackup.bat` command to back up the Item management database.

   Before you delete Items that are waiting to be deleted, back up the Item management database. Make sure that you specify the `-maint` option as an argument. For details, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

4. Execute the `jssdelrec` command to delete the Items that are waiting to be deleted.

   For details, see *jssdelrec (deletes data from the Item management database)* in *Chapter 11. Commands*.

5. Execute the `jssitemdeletion` command to place the target Items in the *Waiting to be deleted* state.

   For details, see *jssitemdeletion (centrally places Items into the Waiting to be deleted status)* in *Chapter 11. Commands*.

6. Execute the `jssitemlist` command.

   Execute the `jssitemlist` command with the `-d` option to confirm that the target Items are in the *Waiting to be deleted* state. For details, see *jssitemlist (outputs a list of Items)* in *Chapter 11. Commands*.

   If you execute the `jssitemdeletion` command with the wrong option, Items that you do not want to delete might be placed in the *Waiting to be deleted* state. In such a case, you can release the Items from the *Waiting to be deleted* state by executing the `jssrev` command. For details, see *jssrev (cancels batch deletion of Items)* in *Chapter 11. Commands*.

7. Execute the `jssdelrec` command to delete the Items that are in the *Waiting to be deleted* state.

   For details, see *jssdelrec (deletes data from the Item management database)* in *Chapter 11. Commands*.

8. Execute the `jsscollectdata` command.

   Execute the command with the `-a` option specified as an argument to recollect all statistics. For details, see *jsscollectdata (counts Item information)* in *Chapter 11. Commands*.

9. From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**.

10. Execute the `jssdbreclaim.bat` command.

   For details, see *jssdbreclaim.bat (releases the free space in the Item management database)* in *Chapter 11. Commands*.

11. Restart services in the following order:

   - JP1/Service Support
   - JP1/Service Support - Web Service
   - JP1/Service Support - Task Service

(2) Deleting Items without stopping JP1/IM - Service Support operation

You can delete old, closed Items from the Item management database all at once. In this subsection, you delete Items that were registered with the system ID `sys01` in the period from 2012-01-01 to 2013-01-01. To do this:

1. Execute the `jssitemexportEx` command to back up the Items to be deleted (as a CSV file).

   When you execute the `jssitemexportEx` command, specify conditions for narrowing down the target Items. The following is an example of the command line:

   ```
   jssitemexportEx -o "c:\exportData" -s -id sys01 -ct 2012/01/01-2013/01/01
   ```

   For details, see *jssitemexportEx (exports extended Item information)* in *Chapter 11. Commands*.

2. Execute the `jssdelrec` command to delete the Items that are waiting to be deleted.

   The following is an example of the command line:

   ```
   jssdelrec -a -b
   ```

   For details, see *jssdelrec (deletes data from the Item management database)* in *Chapter 11. Commands*.

3. Execute the `jssitemdeletion` command by specifying the same conditions that you specified in step 1 to place the target Items in the *Waiting to be deleted* state.

   The following is an example of the command line:

   ```
   jssitemdeletion -s -id sys01 -ct 2012/01/01-2013/01/01
   ```

For details, see *jssitemdeletion (centrally places Items into the Waiting to be deleted status)* in *Chapter 11. Commands*.

4. Execute the `jssitemlist` command.

   Execute the `jssitemlist` command with the `-d` option to confirm that the target Items are in the *Waiting to be deleted* state. For details, see *jssitemlist (outputs a list of Items)* in *Chapter 11. Commands*.

   If you execute the `jssitemdeletion` command with the wrong option, Items that you do not want to delete might be placed in the *Waiting to be deleted* state. In such a case, you can release the Items from the *Waiting to be deleted* state by executing the `jssrev` command. For details, see *jssrev (cancels batch deletion of Items)* in *Chapter 11. Commands*.

5. Execute the `jssdelrec` command to delete the Items that you placed in the *Waiting to be deleted* state in step 3.

   The following is an example of the command line:

   ```
   jssdelrec -a -b
   ```

   For details, see *jssdelrec (deletes data from the Item management database)* in *Chapter 11. Commands*.

6. Execute the `jsscollectdata` command to collect Item information.

   Execute the command with the `-a` option specified as an argument to re-collect all statistics. For details, see *jsscollectdata (counts Item information)* in *Chapter 11. Commands*.

7. Execute the `jssdbreclaim.bat` command.

   For details, see *jssdbreclaim.bat (releases the free space in the Item management database)* in *Chapter 11. Commands*.

10.2.3 Deleting data from the Item management database

This subsection describes how to delete target systems, process work boards, and other data that are in the *Waiting to be deleted* state and no longer necessary from the Item management database.

To delete data from the Item management database:

1. Execute the `jssdelrec` command.

   If you specify the `-b` option, you can execute the command while JP1/IM - Service Support services are operating. If you do not specify the `-b` option, stop services in the following order before executing the command:

   1. JP1/Service Support - Task Service

   2. JP1/Service Support - Web Service

   3. JP1/Service Support

   Do not stop the JP1/Service Support - DB Server service.

   For details, see *jssdelrec (deletes data from the Item management database)* in *Chapter 11. Commands*.

2. Execute the `jsscollectdata` command.

   Execute the command with the `-a` option specified as an argument to re-collect all statistics. For details, see *jsscollectdata (counts Item information)* in *Chapter 11. Commands*.

3. From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**.

4. Execute the `jssdbreclaim.bat` command.

For details, see *jssdbreclaim.bat (releases the free space in the Item management database)* in *Chapter 11. Commands*.

10.2.4 Expanding the size of the Item management database

To expand the size of the Item management database:

1. Execute the jssdbbackup.bat command.

   Specify the -maint option as an argument to back up the Item management database. The backup file name is maintA.

   For details about the jssdbbackup.bat command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

2. Execute the jssdbbackup.bat command.

   Specify the -expand option as an argument to back up the Item management database.[1],[2] The backup file name is expandA.

   For details about the jssdbbackup.bat command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

3. Execute the jssdbinit.bat command.

   Extend the size of the Item management database.

   For details about the jssdbinit.bat command, see *jssdbinit.bat (initializes databases)* in *Chapter 11. Commands*.

4. Execute the jssdbrecovery.bat command.

   Specify the -expand option as an argument to restore the backup file (expandA) created in step 2.[3],[4]

   For details about the jssdbrecovery.bat command, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

#1

   If the error message KNAB26102-E appears, correct the cause of the error, and then re-execute the command. If the same error message appears again, execute the jssdbrecovery.bat command with the -maint option specified to restore the backup file (maintA) created in step 1. Then, re-execute the command.

#2

   To expand the size of the Item management database from S, M, L, or LL to XL, specify the -o option as an argument. If you specify the -f option, the backup file cannot be restored in step 4.

#3

   If the error message KNAB26103-E appears, correct the cause of the error, and then re-execute the command. If the same error message appears again, perform steps 3 and 4 again. If the problem cannot be solved, contact the system administrator.

#4

   If you execute the jssdbrecovery.bat command with the -maint option specified to restore the backup file (maintA), the database size will not be expanded.

10.2.5 Reorganizing the Item management database

If error message KNAB12001-E is output with detailed code -756, the amount of free space available to the Item management database is insufficient. Delete unnecessary data, and then reorganize the Item management database.

Before you start reorganization, make sure that you stop JP1/IM - Service Support services as follows.

To reorganize the Item management database:

1. Stop services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support

   Do not stop the JP1/Service Support - DB Server service.

2. From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**.

3. Execute the jssdbbackup.bat command.
   Make sure that you specify the -maint option as an argument. For details, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

4. Execute the jssdbrorg.bat command.
   For details, see *jssdbrorg.bat (reorganizes the Item management database)* in *Chapter 11. Commands*.

Note that when you reorganize the Item management database, you do not need to reclaim free space in the database.

10.2.6 Reclaiming free space in the Item management database

Repeated data delete operations on the Item management database produce space that is vacant but unavailable. To make this space available, you must reclaim it. You can reclaim free space in the Item management database without stopping operation of JP1/IM - Service Support. After data is deleted many times, reclaim free space in the database.

To reclaim free space in the Item management database:

1. From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**.

2. Execute the jssdbreclaim.bat command.
   For details, see *jssdbreclaim.bat (releases the free space in the Item management database)* in *Chapter 11. Commands*.

10.2.7 Initializing the Item management database

Initialize the Item management database if you want to restore it to the state immediately after it was set up during a new installation. Before you initialize the Item management database, make sure that you stop JP1/IM - Service Support services as shown below.

For JP1/IM - Service Support Advanced Edition, initializing the Item management database deletes the Item storage database. Execute the `jssdbinit.bat` command to initialize the database. For details about the `jssdbinit.bat` command, see *jssdbinit.bat (initializes databases)* in *Chapter 11. Commands*.

To initialize the Item management database:

1. Stop services in the following order:

    • JP1/Service Support - Task Service

    • JP1/Service Support - Web Service

    • JP1/Service Support

    Do not stop the JP1/Service Support - DB Server service.

2. From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**.

3. Execute the `jssdbinit.bat` or `jsshadbinit.bat` command.

    For details, see *jssdbinit.bat (initializes databases)* or *jsshadbinit.bat (initializes the database in a cluster environment)* in *Chapter 11. Commands*.

10.2.8 Reregistering Item information

If you have a file that has been created by using the `jssitemexportEx` command, you can reregister the Item information in the file back into the Item management database. You can reregister all Item settings including attached files and related information.

(1) Reregistering Item information

To reregister Item information:

1. Execute the `jssitemexportEx` command.

    Export Item information. For an Item that has been escalated or that has related Items, export also all the relevant Items so that the reregistered Item can inherit them.

    For details, see *jssitemexportEx (exports extended Item information)* in *Chapter 11. Commands*.

2. Back up the CSV file that was created in step 1.

    If you do not need to edit the CSV file, you can skip this and the next steps.

3. Edit the CSV file that was created in step 1.

    Edit the CSV file according to your need. For example, you can delete unnecessary Item information and change Item titles. Note that if you edit the CSV file by using Excel or other software, you must reformat the CSV file. For details about reformatting a CSV file, see *(2) Reformatting a CSV file*.

4. Compare the Item management database and the CSV file that was created in step 1 or edited in step 3.

    Check whether the entries in the file are already registered in the Item management database.

    The following show the entries that must be checked and the action to be taken if they are not registered in the Item management database:

    • Systems, processes, and process work boards

        If these entries are not registered in the Item management database, register them or modify the Item information to be registered.

- Item form

  You must reregister the Item form that was used when the `jssitemexportEx` command was executed in step 1. However, you can also register a different Item form as long as it covers all elements to be registered.

  If you register a new Item form, confirm that it is a valid Item form, and then register it (here, a *valid Item form* means that an Item form applicable to the Item information edited in step 3). After that, change the value of *Version number of Item form* in the CSV file to the version number of the Item form that you registered.

- Users and roles

  You can register new users and roles in the Item management database. However, no user information or role information will be set. If you want to set user information or role information for the new users and roles that you register, register that information in the Item management database beforehand. You can register user information or role information by using windows or the following commands:

  - `jssrolelist` (outputs a list of roles)
  - `jssroleimport` (imports role information)
  - `jssuserlist` (outputs a list of users)
  - `jssuserimport` (imports user information)
  - `jssmemberlist` (outputs a list of members)
  - `jssmemberimport` (imports member information)

- Escalation information

  If the data imported by a single execution of the `jssitemimportEx` command includes Items that were escalated from or to other process work boards, escalation information will also be imported. When the `jssitemimportEx` command is executed, the inter-process IDs indicating escalation information are changed. The new inter-process IDs will be registered for escalation-source and escalation-destination Items.

- Related Items

  For related Items, you must specify Item IDs. If the data imported by a single execution of the `jssitemimportEx` command includes Items that are related to other Items, information about the related Items will also be imported. When the `jssitemimportEx` command is executed, the Item IDs are changed. The information about related Items will be registered with IDs of the relation-destination Items. Related Items will be registered as is if they have a format error or they do not have relation-destination process work boards.

5. Confirm that the status of the registration-target process work board is *Operating*.

6. Review the access permission settings of the Items.

   The `jssitemimportEx` command does not check the access permission settings of Items. Therefore, a user or role that is not permitted to create or edit Items can be registered as the person in charge of an Item being registered. To make it possible to manipulate a registered Item, you must grant the user or role permission to view or edit Items.

7. Execute the `jssitemimportEx` command.

   Register the Item information that you prepared in step 1 or 3 in the Item management database.

   For details, see *jssitemimportEx (imports extended Item information)* in *Chapter 11. Commands*.

8. Execute the `jsscollectdata` command.

   The Item information in the database is updated.

   For details, see *jsscollectdata (counts Item information)* in *Chapter 11. Commands*.

(2) Reformatting a CSV file

In CSV files generated by the `jssitemexportEx` command, each comma-separated value is enclosed in double quotation marks (`"`). If a CSV file generated by this command is opened with Excel or other software, double quotation

marks (`"`) enclosing each value might be lost. The `jssitemimportEx` command cannot register the data if double quotation marks (`"`) are lost. JP1/IM - Service Support provides a sample macro file that can be used to reformat a CSV file generated by the `jssitemexportEx` command.

The following shows the location, file name, and usage of the sample macro file:

Location:

IM-SS-path`\home\public\macro`

File name:

`jss_csv_edit.xlsm` (sample macro file for reformatting a CSV file)

`jss_csv_edit.xlsm.model` (model file for the above file)

After you have modified the macros in the `jss_csv_edit.xlsm` file, you can initialize the macros by using the model file. To do this, copy the model file, and rename it to `jss_csv_edit.xlsm`.

Usage of the sample macro file for reformatting a CSV file:

When you open the `jss_csv_edit.xlsm` file, the macros in the file are ready for use as shown in the following figure.

Figure 10–1: Sample macro file for reformatting a CSV file
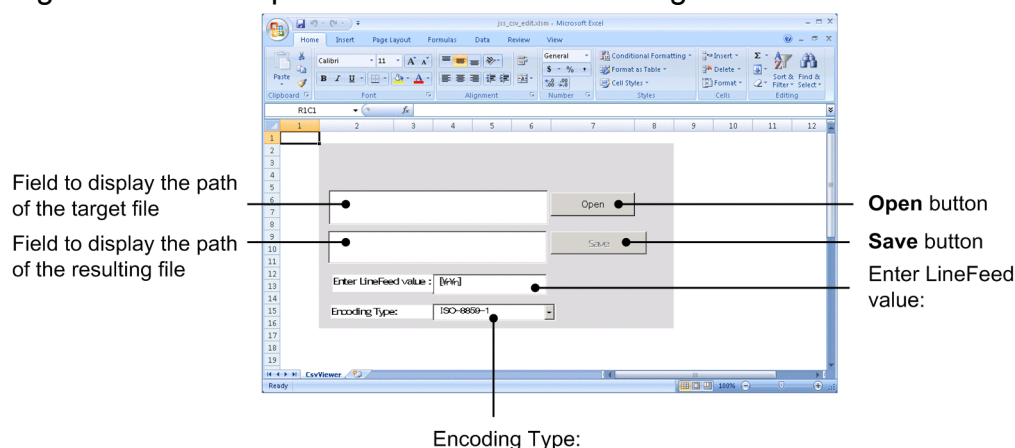
The following describes the elements of the window in the above figure.

Field to display the path of the target file:

When you click the **Open** button, you can select the CSV file to be reformatted. This field displays the path of the selected file.

Do not directly enter a path in this field. You can do so, but an entered path will not be recognized.

Open button

When you click the **Open** button, a dialog box for selecting the target CSV file opens.

When the target CSV file is selected, the contents of the file are displayed on the **temp** worksheet.

When the file is loaded, it is reformatted. At this time, the string specified in the **Enter Line Feed value:** field is used as the line break code used in cells.

Each time you select a target CSV file in the dialog box, the contents of the **temp** worksheet are refreshed.

Field to display the path of the resulting file:

When you click the **Save** button, you can select the directory to save the reformatted CSV file. This field displays the path of that directory.

Do not directly enter a path in this field. You can do so, but an entered path will not be recognized.

Save button

When you click the **Save** button, a directory selection dialog box opens. The reformatted CSV file (displayed on the **temp** worksheet) is saved in the selected directory.

This button is enabled after the target CSV file is loaded by clicking the **Open** button.

Enter Line Feed value:

Specify the string to be used as the line break code in cells.

Encoding Type:

Select the character encoding.

10.2.9 Confirmation before storing Items

Before you attempt to store Items in the Item storage database for JP1/IM - Service Support Advanced Edition, you need to confirm that the Items can be stored in that database. The following conditions must be satisfied to store Items in the Item storage database:

- None of the process work boards are waiting to be deleted.[#]
- All Items registered in the specified period have been closed.
- None of the Items registered in the specified period are waiting to be deleted.

[#]
This condition applies to all process work boards registered in JP1/IM - Service Support.

To confirm that the Items can be registered in the Item storage database, you need to check the status of the Item management database. To do this:

1. Execute the `jssitemstore` command.

   Check the status of the Item management database to confirm that the Items can be stored in that database.

   Specify the `-ct` and `-ch` options as arguments. For details about the `jssitemstore` command, see *jssitemstore (stores Items)* in *Chapter 11. Commands*.

2. Check the execution result of the `jssitemstore` command.

   If an error message was output, correct the cause of the error, and then perform step 1 again.

10.2.10 Setting up the Item storage database

JP1/IM - Service Support Advanced Edition allows you to store Items in the Item storage database. You need to set up the Item storage database before you attempt to use it. Note that you can set up the Item storage database anytime. You can set up the Item storage database during a new installation of JP1/IM - Service Support Advanced Edition. At this time, however, you need a disk to allocate the storage location for the Item storage database even if no Items are stored. If you set up the Item storage database before storing Items for the first yearly maintenance, you can use the disk efficiently.

To set up the Item storage database:

1. Stop services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support

2. From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**.

3. Execute the `jssitemstoredbsetup.bat` command.

   For details about the `jssitemstoredbsetup.bat` command, see *jssitemstoredbsetup.bat (sets up an Item storage database)* in *Chapter 11. Commands*.

To rotate the storage locations to another storage area in the Item storage database, you need to set up that storage area. For details about how to switch the storage location in the Item storage database, see *10.2.11 Rotating the storage locations in the Item storage database*.

10.2.11 Rotating the storage locations in the Item storage database

If Items for specified years have been stored in the active storage area and you want to store more Items, you need to rotate the locations where Items are stored (storage areas). Any Items stored in the switching destination must be deleted. Before deleting Items, you can output information about the Items to a CSV file.

To rotate the storage locations in the Item storage database:

1. Stop services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support

2. Execute the `jssdbstatchk.bat` command.

   Check the status of Items stored in the active storage area. If more Items can be stored in the active storage area, the following steps are not necessary. For details about the `jssdbstatchk.bat` command, see *jssdbstatchk.bat (checks the database status)* in *Chapter 11. Commands*.

3. Execute the `jssitemstoredbsetup.bat` command.

   If the storage area for the switching destination has not been set up, execute the `jssitemstoredbsetup.bat` command to set up the storage area. This step is not necessary if the storage area for the switching destination has been set up. For details about the `jssitemstoredbsetup.bat` command, see *jssitemstoredbsetup.bat (sets up an Item storage database)* in *Chapter 11. Commands*.

4. Execute the `jssitemstoredbrotate` command.

   Execute the `jssitemstoredbrotate` command to rotate the storage areas. This step is not necessary if the check result in step 2 indicates that Items for the specified years have not been stored in the active storage area. For details about the `jssitemstoredbrotate` command, see *jssitemstoredbrotate (rotates Item storage databases)* in *Chapter 11. Commands*.

5. Execute the `jssitemexportEx` command.

If Items for the specified years have been stored in the storage area for the switching destination, execute the `jssitemexportEx` command to output Item information to a CSV file. You can specify the start date and end date in the `jssitemexportEx` command to specify Items in the storage area for the switching destination. This step is necessary only if you want to delete stored Items from the storage area for the switching destination. For details about the `jssitemexportEx` command, see *jssitemexportEx (exports extended Item information)* in *Chapter 11. Commands*.

6. Execute the `jssstoreitemdel.bat` command.

Execute the `jssstoreitemdel.bat` command to delete stored Items from the storage area for the switching destination, only as needed. For details about the `jssstoreitemdel.bat` command, see *jssstoreitemdel.bat (deletes stored Items)* in *Chapter 11. Commands*.

10.2.12 Expanding the Item storage database

If the capacity of the Item storage area or attached file storage area in the Item storage database is insufficient to store Items, you need to expand the capacity of the Item storage database. To do this, you need to estimate the data size of Items to be stored.

Note:

If Item storage databases are stored on different drives and a hardware error occurs in one of those drives, you can no longer operate JP1/IM - Service Support.

To expand the capacity of the Item storage database:

1. Execute the `jssitemcount` command.

Specify the `-ALL` option as an argument to check the number of Items registered in JP1/IM - Service Support. For details about the `jssitemcount` command, see *jssitemcount (counts Items)* in *Chapter 11. Commands*.

2. Execute the `jssitemcount` command.

Specify the `-ct` option as an argument to check the number of Items that are to be stored in the Item storage database. At this time, specify the start date and end date of the period during which the Items to be stored were registered. For details about the `jssitemcount` command, see *jssitemcount (counts Items)* in *Chapter 11. Commands*.

3. Execute the `jssdbstatchk.bat` command.

Execute the `jssdbstatchk.bat` command to check the database capacity and usage for each Item storage area and attached file storage area in the Item management database and Item storage database. For details about the `jssdbstatchk.bat` command, see *jssdbstatchk.bat (checks the database status)* in *Chapter 11. Commands*.

4. Estimate the data size of Items to be stored.

Estimate the data size of Items to be stored based on the values you checked in steps 1 to 3.

The following shows an estimate example:

Status of the Item management database

Number of Items registered in JP1/IM - Service Support: 200,000

Number of Items to be stored: 100,000

Database capacity and usage of the Item storage area in the Item management database: 40 GB, 80%

Database capacity and usage of the attached file storage area in the Item management database: 30 GB, 50%

Estimate results

Data size of Items to be stored: 40 * 0.8 * 10 / 20 = 16 GB

Data size of attached files to be stored: 30 * 0.5 * 10 / 20 = 7.5 GB

5. Calculate the amount of free space in the Item storage database.

   Calculate the amount of free space in the Item storage area and attached file storage area in the Item storage database, based on the values you checked in step 3.

   Status of the Item storage database

   Database capacity and usage of the Item storage area in the Item storage database: 128 GB, 90%

   Database capacity and usage of the attached file storage area in the Item storage database: 64 GB, 70%

   Calculation results

   Amount of free space in the Item storage area in the Item storage database: 12.8 GB

   Amount of free space in the attached file storage area in the Item storage database: 19.2 GB

6. Check whether the data size is small enough to be stored in the Item storage database.

   Based on the values obtained in steps 4 and 5, check whether the target Items can be stored in the Item storage database.

   Estimate and calculation results

   Data size of the Items to be stored: 16 GB

   Data size of the attached files to be stored: 7.5 GB

   Amount of free space in the Item storage area in the Item storage database: 12.8 GB

   Amount of free space in the attached file storage area in the Item storage database: 19.2 GB

   Check result

   Because the data size of the Items to be stored is larger than the amount of free space in Item storage area in the Item storage database, the capacity of the Item storage area is insufficient. Note that this example only shows a rough estimate of data sizes. The capacity obtained by calculation might be different from the actual capacity in individual operation cases.

7. Stop services in the following order:

   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support

   Note that this step is necessary only if you want to execute the `jssitemstoredbexpand.bat` command to expand the Item storage database.

8. Execute the `jssitemstoredbexpand.bat` command.

   Execute the `jssitemstoredbexpand.bat` command to expand the Item storage database. This step is not necessary if the check result in step 6 indicates that target Items can be stored without expanding the Item storage database. For details about the `jssitemstoredbexpand.bat` command, see *jssitemstoredbexpand.bat (expands an Item storage database)* in *Chapter 11. Commands*.

10.2.13 Storing Items in the Item storage database

Closed Items registered in the Item management database in the specified period can be stored in the Item storage database. At this time, Items to be stored in the Item storage database are moved from the Item management database to the Item storage database. You must be careful because moved Items cannot return to the Item management database.

To store Items from the Item management database to the Item storage database:

1. Stop services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support

   Do not stop JP1/Service Support - DB Server.

2. From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**.

3. Execute the `jssdbbackup.bat` command.

   Execute the `jssdbbackup.bat` command to back up the Item management database and Item storage database. Specify the `-maint` option as an argument. For details about the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

4. Execute the `jssitemstore` command.

   Execute the `jssitemstore` command to save the closed Items (in the Item management database) in the Item storage database. Specify the command so that Items registered in one year are stored. For details about the `jssitemstore` command, see *jssitemstore (stores Items)* in *Chapter 11. Commands*.

5. Execute the `jssdbrorg.bat` command.

   When you execute the `jssitemstore` command, the Items stored in the Item storage database are deleted from the Item management database. Therefore, execute the `jssdbrorg.bat` command to reorganize the Item management database. For details about the `jssdbrorg.bat` command, see *jssdbrorg.bat (reorganizes the Item management database)* in *Chapter 11. Commands*.

10.2.14 Backup procedure when the Item storage database is used

When you perform yearly maintenance for the Item storage database, you need to back up both the Item management database and the Item storage database after maintenance.

To back up the Item management database and the Item storage database:

1. Stop services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support

   Do not stop JP1/Service Support - DB Server.

2. From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**.

3. Execute the `jssdbbackup.bat` command.

   Execute the `jssdbbackup.bat` command to back up the Item management database and the Item storage database. Specify the `-o` and `-maint` options as arguments. For details about the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

   Note that if you specify the `-o` option, the command outputs information about the storage directories of the Item management database and Item storage database when they were backed up. This information is stored in the

dbpath.txt file in the backup output directory. You need dbpath.txt to recover the Item storage database. Information output to dbpath.txt includes option information specified when the databases were backed up, the size of the Item management database that was backed up, and the folder where the Item storage database was expanded. This information is the same as the information that is output when the jssdbstatchk.bat command is executed with the -dbpath option specified.

> **▌ Reference note**
>
> To back up only the Item storage database, you can execute the jssdbbackup.bat command while the services are running. If the backup requires a long time, you can first back up the Item management database, start the services, and then back up the Item storage database while JP1/IM - Service Support is running. For details about the jssdbbackup.bat command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

10.2.15 Recovery procedure when the Item storage database is used

You need to recover the Item storage database to the environment in which the database was backed up. If you recover the Item storage database and Item management database separately, data inconsistency such as duplication or loss of registered Items might occur. The following describes the recovery procedures to resolve such problems.

(1) How to recover the environment when using the Item storage database

The extension conditions of the Item storage database to be recovered must match the extension conditions (number of extensions, setup information, and the directory where the database is expanded) specified when the database was backed up.

To recover the extension conditions of the Item storage database when the database was backed up:

1. Stop the JP1/IM - Service Support services.
   Stop all the JP1/IM - Service Support services.

2. From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**.

3. Execute the jssdbstatchk.bat command.
   Execute the jssdbstatchk.bat command to check the statuses of the Item management database and the Item storage database. For details about the jssdbstatchk.bat command, see *jssdbstatchk.bat (checks the database status)* in *Chapter 11. Commands*.

4. Check the extension conditions of the Item management database and Item storage database.
   Based on the statuses of the databases you checked in step 3 and the dbpath.txt file created during backup, make sure that the current environment matches the environment where the database was backed up. The dbpath.txt file is stored in the backup file output directory for the Item storage database.

5. Extend the domain of the Item storage database.
   If the number of extensions for the Item storage database is different in the environments compared in step 4, expand the Item storage database to match the expansion conditions when the database was backed up. The expansion conditions include the number of expansion s and the path to the directory where the database is expanded. For details about how to expand the Item storage database, see *10.2.12 Expanding the Item storage database*.

If the path to the directory in which the Item storage database is created or the path to the directory where the database is expanded does not match, delete the Item storage database. Then re-create the Item storage database in the same environment where the database was backed up. For details about how to delete the Item storage database, see *jssunsetup.bat (performs unsetup of JP1/IM - Service Support)* in *Chapter 11. Commands*. For details about how to re-create the Item storage database, see *10.2.10 Setting up the Item storage database*.

(2) How to recover databases when the Item storage database is used

You can separately recover the Item management database and Item storage database. However, if you use different backup files (created before or after Items were stored) to recover each database, data inconsistency such as duplication or loss of registered Items might occur. To recover the Item storage database, specify the backup file for the Item management database. At this time, make sure that the backup file is created after a backup file was created for the Item storage database to be recovered and before Items are stored the next time. The following figure shows the combinations of backup files that do not cause data inconsistency during recovery of the Item storage database.

Figure 10–2: Combinations of backup files that do not cause data inconsistency during recovery of the Item storage database

To recover the Item storage database by using Item management database backup file 4 and Item storage database backup file 1 in the above figure:

1. Stop services in the following order:

   • JP1/Service Support - Task Service

   • JP1/Service Support - Web Service

   • JP1/Service Support

Do not stop JP1/Service Support - DB Server.

2. From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**.

3. Execute the `jssdbrecovery.bat` command.

   Recover the Item management database and the Item storage database in a batch based on Item management database backup file 2 and Item storage database backup file 1. Specify the `-i` and `-ALL` options as arguments. For details about the `jssdbrecovery.bat` command, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

4. Execute the `jssdbrecovery.bat` command.

   Recover the Item management database based on Item management database backup file 4. Specify the `-i` and `-mdb` options as arguments. For details about the `jssdbrecovery.bat` command, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

10.3 Reviewing the JP1/IM - Service Support environment settings

Be careful when you change the settings listed below in an environment in which JP1/IM - Service Support is operating. If you do so, you must restart JP1/IM - Service Support services or must change the settings of JP1/IM - Service Support.

- IP address
- Port numbers used by JP1/IM - Service Support
- Host name
- System time
- JP1/IM - Service Support installation folder

10.3.1 Changing the IP address

You cannot change the IP address or logical IP address (for a cluster system) while JP1/IM - Service Support is running. To change the IP address:

To change the IP address:

1. Stop services in the following order:
    - JP1/Service Support - Task Service
    - JP1/Service Support - Web Service
    - JP1/Service Support
    - JP1/Service Support - DB Server

2. Change the IP address.

3. Restart services in the following order:
    - JP1/Service Support - DB Server
    - JP1/Service Support
    - JP1/Service Support - Web Service
    - JP1/Service Support - Task Service

To change the logical IP address (for a cluster system):

1. Switch the active server from the secondary node to the primary node.
    Switch the nodes by using the cluster software. This step is not necessary if the primary node is already running as the active server.

2. On the primary node, use the cluster software to stop services in the following order:
    - JP1/Service Support - Task Service
    - JP1/Service Support - Web Service
    - JP1/Service Support
    - JP1/Service Support - DB Server
    - JP1/Service Support - DB Cluster Service

3. On the primary node, change the logical IP address.

4. Switch the active node from the primary node to the secondary node.
   Switch the nodes by using the cluster software.

5. On the secondary node, change the logical IP address.

6. Switch the active node from the secondary node to the primary node.
   Switch the nodes by using the cluster software.

7. On the primary node, use the cluster software to start the services in the following order:
   - JP1/Service Support - DB Cluster Service
   - JP1/Service Support - DB Server
   - JP1/Service Support
   - JP1/Service Support - Web Service
   - JP1/Service Support - Task Service

10.3.2 Changing port numbers

You cannot change port numbers while JP1/IM - Service Support is running. To change port numbers:

1. Stop services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support
   - JP1/Service Support - DB Server

2. Change the port numbers.
   How to change a port number differs depending on the port as described in the following table.

   Table 10–2: How to change port numbers

Default port number	Purpose	How to change
`24400`	This port number is used for updating data in the Item management database server.	1. Stop JP1/IM - Service Support, and then change the port number in the following files: (The relevant entries are indicated in parentheses.) ● *IM-SS-path*`\conf\setup\jsssetupinfo.bat` (`@set IMSSDBPORT=24400`) ● *IM-SS-path*`\tools\setup\jsscmdinfo.bat` (`@set IMSSDBPORT=24400`) ● *IM-SS-path*`\dbms\db\CONF\pdsys` (`set pd_name_port=24400`) ● *IM-SS-path*`\dbms\db\CONF\emb\HiRDB.ini` (`PDNAMEPORT=24400`) 2. Execute the following command: The file (command) that starts the tool for registering HiRDB client environment variables differs depending on the language environment of the Item management server as follows:

Default port number	Purpose	How to change
24400	This port number is used for updating data in the Item management database server.	● In a Japanese environment: *IM-SS-path*\dbms\db\CLIENT\UTL\pdcltadm.exe ● In a English environment: *IM-SS-path*\dbms\db\CLIENT\UTL\pdcltadm_e.exe ● In a Chinese environment: *IM-SS-path*\dbms\db\CLIENT\UTL\pdcltadm_e.exe The tool for registering HiRDB client environment variables starts. 3. Change the `PDNAMEPORT` value for `IMSS_ENV_GROUP` that is registered as a system group. 4. Restart JP1/IM - Service Support.
24401	This port number is used for connection from a Web browser to JP1/IM - Service Support (Web server). This port number is also used for the Web server's internal processing.	1. Stop JP1/IM - Service Support, and then change the port number in the following files: (The relevant entries are indicated in parentheses.) ● *IM-SS-path*\conf\setup\jsssetupinfo.bat (@set IMSSHTTPPORT=24401) ● *IM-SS-path*\tools\setup\jsscmdinfo.bat (@set IMSSHTTPPORT=24401) ● *IM-SS-path*\uCPSB\httpsd\conf\httpsd.conf (Port 24401) ● *IM-SS-path*\conf\login\jsslogin.url (BASEURL=http://localhost:24401/jp1ss/index.jsp) (URL=http://localhost:24401/jp1ss/index.jsp) 2. Restart JP1/IM - Service Support.
24402	This port number is used for communication between the Web server and the WWW container server.	1. Stop JP1/IM - Service Support, and then change the port number in the following files: (The relevant entries are indicated in parentheses.) ● *IM-SS-path*\conf\setup\jsssetupinfo.bat (@set IMSSWEBCONPORT=24402) ● *IM-SS-path*\tools\setup\jsscmdinfo.bat (@set IMSSWEBCONPORT=24402) ● *IM-SS-path*\uCPSB\CC\web\containers\jp1ss\usrconf\usrconf.properties (webserver.connector.ajp13.port=24402) ● *IM-SS-path*\uCPSB\CC\web\redirector\workers.properties (worker.worker1.port=24402) 2. Restart JP1/IM - Service Support.
24403	This port number is used for shutting down the WWW container server.	1. Stop JP1/IM - Service Support, and then change the port number in the following files: (The relevant entries are indicated in parentheses.) ● *IM-SS-path*\conf\setup\jsssetupinfo.bat (@set IMSSWEBSHUPORT=24403) ● *IM-SS-path*\tools\setup\jsscmdinfo.bat (@set IMSSWEBSHUPORT=24403) ● *IM-SS-path*\uCPSB\CC\web\containers\jp1ss\usrconf\usrconf.properties (webserver.shutdown.port=24403) 2. Restart JP1/IM - Service Support.

Default port number	Purpose	How to change
`24404`	This port number is used for system setup of the WWW container server.	1. Stop JP1/IM - Service Support, and then change the port number in the following files: (The relevant entries are indicated in parentheses.) ● *IM-SS-path*\conf\setup\jsssetupinfo.bat (`@set IMSSWEBHTTPPORT=24404`) ● *IM-SS-path*\tools\setup\jsscmdinfo.bat (`@set IMSSWEBHTTPPORT=24404`) ● *IM-SS-path*\uCPSB\CC\web\containers\jp1ss\usrconf\usrconf.properties (`webserver.connector.http.port=24404`) 2. Restart JP1/IM - Service Support.

3. Restart services in the following order:

- JP1/Service Support - DB Server

- JP1/Service Support

- JP1/Service Support - Web Service

- JP1/Service Support - Task Service

10.3.3 Changing the host name

You cannot change the host name or logical host name (for a cluster system) while JP1/IM - Service Support is running. When you change the host name, you must also change the JP1/IM - Service Support settings.

To change the host name:

1. Stop services in the following order:

- JP1/Service Support - Task Service

- JP1/Service Support - Web Service

- JP1/Service Support

2. Execute the jssdbbackup.bat command to back up the data in the Item management database.

When you execute this command, specify the -maint option as an argument. For details about the command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

3. Check the startup type of the following services, and then, if it is **Automatic**, change it to **Manual**:

- JP1/Service Support

- JP1/Service Support - DB Server

- JP1/Service Support - Web Service

- JP1/Service Support - Task Service

Note:

After changing the host name, you will need to restore the startup types of the services to the state they were in before changing the host name. Therefore, record the original startup types.

4. Change the host name.

5. Restart the OS.

6. Execute the `jssdbinit.bat` command to initialize the Item management database.

   For details about the command, see *jssdbinit.bat (initializes databases)* in *Chapter 11. Commands*.

   Note:

   For the `-s` option (size of the Item management database), make sure that you specify the size of the Item management database that you obtained in step 2.

7. Execute the `jssdbrecovery.bat` command to recover the Item management database.

   When you execute this command, specify the `-maint` option as an argument. For details about the command, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

   Note:

   For the `-f` option (backup file name), make sure that you specify the name of the backup file that you obtained in step 2.

8. If email notification is being used, change the server name in the URL definition file (`jsslogin.url`).

9. Restart services in the following order:

   - JP1/Service Support
   - JP1/Service Support - Web Service
   - JP1/Service Support - Task Service

10. Return the startup type of the services you changed to **Manual** in step 3 to **Automatic**.

To change the logical host name (for a cluster system):

1. Switch the active server from the secondary node to the primary node
   Switch the nodes by using the cluster software. This step is not necessary if the primary node is already running as the active server.

2. On the primary node, use the cluster software to stop services in the following order:

   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support

3. On the primary node, execute the `jssdbbackup.bat` command to back up the data in the Item management database.
   Specify the `-maint` option as an argument. For details about the command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

4. Delete the logical host from a cluster environment.
   For details about the procedure, see *9.6 Deleting a logical host from a cluster environment*.

5. On the active and standby servers, edit the logical host name in `jsshasetupinfo.bat`.
   Change the value of `IMSSLOGICALHOST` to the new logical host name. At this time, do not change other values.
   For details about how to edit `jsshasetupinfo.bat`, see *9.2.4 Editing jsshasetupinfo.bat*.

6. Change the resource (logical host name) of the cluster software.

Change the logical host name to the new one. For details about resources of the cluster software, see *9.2.5 Registering resources in the cluster software*.

7. Set up a logical host on the primary node.
   For details about the procedure, see *9.2.6 Setting up a logical host (primary node)*.

8. Set up a logical host on the secondary node.
   For details about the procedure, see *9.2.7 Setting up a logical host (secondary node)*.

9. Register the services in the cluster software.
   For details about the procedure, see *9.2.8 Registering services in the cluster software*.

10. On the primary node, use the cluster software to start services in the following order:
    - JP1/Service Support - DB Cluster Service
    - JP1/Service Support - DB Server

11. On the primary node, execute the `jssdbrecovery.bat` command to recover the Item management database.
    Use the Item management database backup file to recover the Item management database.
    Specify the `-maint` option as an argument. For the `-f` option, specify the backup file that was created for the Item management database in step 3.
    For details about the `jssdbrecovery.bat` command, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

12. If email notification is set up, change the server name in the URL definition file (`jsslogin.url`).
    For details about the URL definition file (`jsslogin.url`), see *URL definition file (jsslogin.url)* in *Chapter 12. Definition Files*.

The following describes influences on linked products.

(1) If linkage with JP1/IM - Manager is used

If JP1/IM - Service Support is linked with JP1/IM - Manager, you must perform the following operations on the JP1/IM - Manager side:

- Modifying and updating the configuration definition file
  In the configuration definition file, change the host name to the new one, and then apply the change to JP1/IM - Manager.

- Modifying and updating automated action definitions
  Change the value of **Target host** to the new host name.

(2) If linkage with JP1/AIM is used

If JP1/IM - Service Support is linked with JP1/AIM, you do not need to change any settings on the JP1/AIM side.

(3) If linkage with JP1/AO is used

If JP1/IM - Service Support is linked with JP1/AO, you do not need to change any settings on the JP1/AO side.

(4) If linkage with JP1/Base (authentication functionality) is used

If JP1/IM - Service Support is using the JP1/Base authentication functionality, you must specify settings on the JP1/Base side. For details about these settings, see the *Job Management Partner 1/Base User's Guide*.

10.3.4 Changing the system time

When you change the system time on a server on which JP1/IM - Service Support is operating, note that the procedure for changing the time forward and the procedure for changing the time backward are different.

To change the time forward:

1. Stop services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support
   - JP1/Service Support - DB Server

2. Change the time as you want.

3. Restart services in the following order:
   - JP1/Service Support - DB Server
   - JP1/Service Support
   - JP1/Service Support - Web Service
   - JP1/Service Support - Task Service

To change the time backward:

1. Stop services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support
   - JP1/Service Support - DB Server

2. Change the time as you want.

3. Wait until the new system time reaches the time when you changed it backward in step 2.

4. Restart services in the following order:
   - JP1/Service Support - DB Server
   - JP1/Service Support
   - JP1/Service Support - Web Service
   - JP1/Service Support - Task Service

10.3.5 Changing the JP1/IM - Service Support installation folder

You cannot change the JP1/IM - Service Support installation folder until operation of JP1/IM - Service Support terminates. If you need to change the installation folder, uninstall JP1/IM - Service Support, and then reinstall JP1/IM - Service Support in a new folder.

Note:

If you uninstall JP1/IM - Service Support, the Item management database will no longer be available. If the current data in the Item management database is necessary, use the `jssdbbackup.bat` command to back up the data and then use the `jssdbrecovery.bat` command to recover the data from the backup. When you execute these commands, specify the `-expand` option as an argument. If you use the function to set up view permissions for individual Items, after recovering data, execute the `jssrefaclsetup` command to set up this function. For details about the commands, see *jssdbbackup.bat (backs up databases)*, *jssdbrecovery.bat (recovers a database)*, and *jssrefaclsetup (sets up view permission settings for individual Items)* in *Chapter 11. Commands*.

11

Commands

This chapter explains the syntax of JP1/IM - Service Support commands.

Syntax of commands

The following table describes the symbols used to explain the commands.

Table 11–1: Symbols used to explain the commands

Symbol	Convention
`|`	In syntax explanations, a vertical bar separates multiple items, and has the meaning of OR. For example: `A|B|C` means A, or B, or C.
`{ }`	In syntax explanations, curly brackets indicate that only one of the enclosed items is to be selected. For example: `{A|B|C}` means only one of A, or B, or C.
`[ ]`	In syntax explanations, square brackets indicate that the enclosed item or items are optional. For example: `[A]` means that you can specify `A` or nothing. `[B|C]` means that you can specify `B`, or `C`, or nothing.
`...`	In coding, an ellipsis (...) indicates that one or more lines of coding have been omitted. In syntax explanations, an ellipsis indicates that the immediately preceding item can be repeated as many times as necessary. For example: `A, B, B, ...` means that, after you specify `A, B,` you can specify `B` as many times as necessary.
`perm`	In syntax explanations, underlined characters indicate the value that the system will use if none of the values enclosed in square brackets is specified. For example: `[A|B]` means that if neither `A` nor `B` is specified, the system assumes that `A` is specified.

The basic format of command explanations is as follows.

Description
　Describes the function of a command.

Format
　Describes the input format of the command.

Required execution permission
　Indicates the permission that is required to execute the command.

Storage folder
　Indicates the folder storing the command.

Arguments
　Describes the arguments of the command.

Return values
　Describes the return values of the command.

Prerequisites for executing the command
　Describes the prerequisites for executing the command.

Remarks
　Provides remarks about executing the command.

Example
　Provides an example of using the command.

List of commands

The tables below describe the commands you can use for JP1/IM - Service Support. You need to have Administrator permissions to execute the commands.

When using Windows Server 2012 or Windows Server 2008 to execute the commands

When the Windows UAC feature is enabled and your user account has Administrator permissions other than Administrator, perform either of the following procedures to execute the commands.

- Log in to Windows Server 2012 or Windows Server 2008 as an Administrator and execute the commands.

- When the OS is Windows Server 2012, in the Start window, right-click **JP1_IM-SS Command Prompt** and then click **Run as administrator**. Execute the commands. When the OS is Windows Server 2008, in the **Start** menu, click **Programs** and then **JP1_Integrated Management - Service Support**. Right-click **JP1_IM-SS Command Prompt** and then click **Run as administrator**. Execute the commands.

If you do not log in as an Administrator, perform the following procedure to set to always run as an Administrator:

1. Right-click **JP1_IM-SS Command Prompt** and then click **Properties**.

2. Click the **Advanced** button.

3. Select the **Run as administrator** check box.

When you perform overwrite installation, the settings for always running as an Administrator are canceled. After you perform overwrite installation, perform the above procedure again to always run as an administrator.

The following table lists and describes the commands that can be used for JP1/IM - Service Support.

Table 11–2: List of commands that can be used for JP1/IM - Service Support

When the command is used	Command name	Description
During operation	jss_log.bat[#1]	Collects data if a failure occurs in JP1/IM - Service Support.
	jssaclexport	Outputs access-permission information to a CSV file.
	jssaclimport	Imports access-permission information.
	jsschauthorityserver	Switches authentication servers used by JP1/IM - Service Support.
	jsscollectdata	Summarizes the data regarding the Items registered in the Item management database.
	jssdelrec	Deletes the process work boards and Items waiting to be deleted in the Item management database.
	jssformcustomizer	Starts the GUI tool for editing Item forms.
	jssformdef	Registers an Item form definition file.
	jssinformleave	Sends an email to notify that Items are held up.
	jssinformperiod	Sends an email to notify that the deadline for Items is near.
	jssitemcount	Checks the number of Items registered in JP1/IM - Service Support.
	jssitemdeletion	Centrally places unnecessary Items in the *Waiting to be deleted* status.
	jssitemedit	Edits an Item.

When the command is used	Command name	Description
During operation	jssitementry	Registers an Item.
	jssitementrybymail	Registers emails as Items.
	jssitemexportEx	Outputs the Item information that is registered in the JP1/IM - Service Support database to CSV files.
	jssitemhistory	Outputs the update history of Items that are registered in the JP1/IM - Service Support database to a CSV file.
	jssitemimport	Imports Item information.
	jssitemimportEx	Imports Item information including related information and attached files.
	jssitemlist	Outputs the Items that are registered in the JP1/IM - Service Support database to a CSV file.
	jssmemberdelete	Deletes the information about the members belonging to roles that are registered in the JP1/IM - Service Support database.
	jssmemberimport	Adds information about new members of roles that are registered in the JP1/IM - Service Support database.
	jssmemberlist	Outputs a list of users (members) belonging to roles that are registered in the JP1/IM - Service Support database to a CSV file.
	jssrev	Releases the Items waiting to be deleted from the waiting status.
	jssroleimport	Registers the information about new roles in the JP1/IM - Service Support database.
	jssrolelist	Outputs a list of roles that are registered in the JP1/IM - Service Support database to a CSV file.
	jssuseredit	Allows you to edit the user information that is registered in the JP1/IM - Service Support database.
	jssuserimport	Imports user information.
	jssuserlist	Outputs a list of users that are registered in the JP1/IM - Service Support database to a CSV file.
While the environment is set up	jsscreatesysandpwb	Creates the master system and the temporary receipt process work board.
	jssdbbackup.bat[1, 2]	Backs up the Item management database and Item storage database.
	jssdbinit.bat[1, 2]	Initializes the Item management database and Item storage database.
	jssdbreclaim.bat[1]	Releases the free space in the Item management database.
	jssdbrecovery.bat[1, 2]	Recovers the data in the Item management database and Item storage database.
	jssdbrorg.bat[1]	Re-organizes the Item management database.
	jssdbstatchk.bat[1, 2]	Checks the status of the Item management database and Item storage database.

When the command is used	Command name	Description
While the environment is set up	`jsshadbinit.bat`[#1, #2]	Initializes the Item management database and Item storage database for a cluster environment.
	`jsshasetup.bat`[#1, #2]	Sets up JP1/IM - Service Support for a cluster environment.
	`jsshaunsetup.bat`[#1, #2]	Performs unsetup of JP1/IM - Service Support in a cluster environment.
	`jssitemstore`[#3]	Stores the Items closed during the specified period in the Item management database as the stored Items in the Item storage database, and checks whether the Items during the specified period can be stored as the stored Items.
	`jssitemstoredbexpand.bat`[#1, #3]	Expands the size of the Item storage database.
	`jssitemstoredbrotate`[#3]	Rotates the active storage areas of the Item storage database.
	`jssitemstoredbsetup.bat`[#1, #3]	Sets up the Item storage database.
	`jssrefaclsetup`	Sets up view permission settings for individual Items.
	`jsssetup.bat`[#1]	Sets up JP1/IM - Service Support.
	`jssstoreitemdel.bat`[#1, #3]	Deletes stored Items in the active storage area of the Item storage database in a batch.
	`jssunsetup.bat`[#1, #2]	Performs unsetup of JP1/IM - Service Support.

#1

To execute these commands, in the **Start** menu, click **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. When the OS is Windows Server 2012, in the Start window, click **JP1_IM-SS Command Prompt**.

#2

When JP1/IM - Service Support Advanced Edition is used, not only the Item management database but also the Item storage database is processed.

#3

The command can be executed when JP1/IM - Service Support Advanced Edition is used.

Commands that cannot be executed at the same time

Some commands used for JP1/IM - Service Support cannot be executed when other commands are being executed. If you try to do so, an error occurs. The following table lists the commands that cannot be executed when other commands are being executed.

Table 11–3: Commands that cannot be executed at the same time

No.	Category	Running command	Commands that cannot be executed at the same time
1	Database maintenance	`ssdbbackup.bat`	`ssdbbackup.bat` `jssdbreclaim.bat` `jssdbrecovery.bat` `jssdbrorg.bat` `jssitemstoredbexpand.bat` `jssitemstoredbsetup.bat` `jssstoreitemdel.bat`
2		`jssdbreclaim.bat`	
3		`jssdbrecovery.bat`	
4		`jssdbrorg.bat`	
5		`jssitemstoredbexpand.bat`	
6		`jssitemstoredbsetup.bat`	
7		`jssstoreitemdel.bat`	

Status of services when commands are executed

When you execute commands, the services that need to be active or inactive differ for each command. The following table describes whether services need to be active or inactive when commands are executed.

Table 11–4: Status of services when commands are executed

Command name	Service				
	JP1/Service Support - Web Service	JP1/Service Support	JP1/Service Support - DB Server	JP1/Service Support - DB Cluster Service	JP1/Service Support - Task Service
jss_log.bat	--	--	--	--[#1]	--
jssaclexport	--	--	Y	Y[#1]	--
jssaclimport	--	--	Y	Y[#1]	--
jsschauthorityserver	--	--	--	--[#1]	--
jsscollectdata	--	--	Y	Y[#1]	--
jssdelrec	N[#2]	N[#2]	Y	Y[#1]	--
jssformcustomizer	--	--	--	--	--
jssformdef	N[#2]	N[#2]	Y	Y[#1]	--
jssinformleave	--	--	Y	Y[#1]	--
jssinformperiod	--	--	Y	Y[#1]	--
jssitemcount	--	--	Y	Y[#1]	--
jssitemdeletion	N[#2]	N[#2]	Y	Y[#1]	N[#2]
jssitemedit	--	--	Y	Y[#1]	--
jssitementry	--	--	Y	Y[#1]	--
jssitementrybymail	--	--	Y	Y[#1]	--
jssitemexportEx	--	--	Y	Y[#1]	--
jssitemhistory	△	△	Y	Y[#1]	--
jssitemimport	△	△	Y	Y[#1]	△
jssitemimportEx	--	--	Y	Y[#1]	--
jssitemlist	△	△	Y	Y[#1]	--
jssmemberdelete	△	△	Y	Y[#1]	△
jssmemberimport	△	△	Y	Y[#1]	△
jssmemberlist	△	△	Y	Y[#1]	△
jssrev	N[#3]	N[#3]	Y	Y[#1]	N[#3]
jssroleimport	△	△	Y	Y[#1]	△
jssrolelist	△	△	Y	Y[#1]	△

Command name	Service				
	JP1/Service Support - Web Service	JP1/Service Support	JP1/Service Support - DB Server	JP1/Service Support - DB Cluster Service	JP1/Service Support - Task Service
jssuseredit	Δ	Δ	Y	Y[#1]	Δ
jssuserimport	Δ	Δ	Y	Y[#1]	Δ
jssuserlist	Δ	Δ	Y	Y[#1]	Δ
jsscreatesysandpwb	Δ	Δ	Y	Y[#1]	--
jssdbbackup.bat (without the -sdb option specified)	N[#3]	N[#3]	Y	Y[#1]	N[#3]
jssdbbackup.bat (with the -sdb option specified)	--	--	Y	Y[#1]	N[#3]
jssdbinit.bat	N[#3]	N[#3]	--	N[#1]	N[#3]
jssdbreclaim.bat	--	--	Y	Y[#1]	--
jssdbrecovery.bat	N[#3]	N[#3]	Y	Y[#1]	N[#3]
jssdbrorg.bat	N[#3]	N[#3]	Y	Y[#1]	N[#3]
jssdbstatchk.bat	--	--	Y	Y[#1]	--
jsshadbinit.bat	N	N	--	N[#1]	N
jsshasetup.bat	N	N	Y[#4]	N[#1]	N
jsshaunsetup.bat	N	N	--	N[#1]	N
jssitemstore	--	--	Y	Y[#1]	--
jssitemstoredbexpand.bat	N	-- N	Y	Y[#1]	-- N
jssitemstoredbrotate	N	N	Y	Y[#1]	N
jssitemstoredbsetup.bat	-- N	-- N	Y	Y[#1]	-- N
jssrefaclsetup	N[#2]	N[#2]	Y	Y[#1]	N[#2]
jsssetup.bat	N[#3]	N[#3]	Y[#4]	N[#1]	N[#3]
jssstoreitemdel.bat	N	N	Y	Y[#1]	N
jssunsetup.bat	N[#3]	N[#3]	--	N[#1]	N[#3]

Legend:

Y: Must be active.

N: Must be inactive.

Δ : The command does not depend on whether the service is active or inactive. However, we recommend that you deactivate the service.

--: The command does not depend on whether the service is active or inactive.

#1

The indicated service status applies only in a cluster environment. In a physical host environment, the status of the service does not affect the execution of the command.

#2

You do not need to inactivate the service if you execute the command with the option that skips checking the startup status of the service.

If you want to execute the command without using the option that skips checking the startup status of the service, inactivate the service until the command completes execution.

#3

Inactivate the service until the execution of the command completes.

#4

For the initial setup, the command does not depend on whether JP1/Service Support-DB Server is active or inactive.

jss_log.bat (collects data)

Description

This command collects data if a failure occurs in JP1/IM - Service Support. The data to be collected includes the maintenance data of JP1/IM - Service Support and the system information of the OS.

When you execute this command, the target folders and files (from which data is collected) are divided into two categories, primary data and secondary data. Two folders, `jp1_default\imss_1st` folder and `jp1_default\imss_2nd` folder, are automatically created under the data storage folder you specify. Then the target folders and files are stored in these two folders.

Use a compression tool to compress the collected data if necessary.

For details about the data you can collect by using this command, see *14.3 Data that must be collected when a problem occurs*.

Table 11-4 and Table 11-5 describe the folders under the data storage folder, and the data to be stored.

Table 11–5: Folders for primary data

Folder name	Data to be stored
data-storage-folder`\jp1_default\imss_1st\conf\`	Environment settings file of JP1/IM - Service Support
data-storage-folder`\jp1_default\imss_1st\tools\`	Command environment settings file of JP1/IM - Service Support
data-storage-folder`\jp1_default\imss_1st\log\`	Log file of JP1/IM - Service Support
data-storage-folder`\jp1_default\imss_1st\dbms\`	Settings and log data of the Item management database and Item storage database[1]
data-storage-folder`\jp1_default\imss_1st\uCPSB\`	Settings and log data of the Web server and the WWW container server
data-storage-folder`\jp1_default\imss_1st\oslog\`	System information of the OS
data-storage-folder`\jp1_default\imss_1st\hntr\`	Integrated trace log data
data-storage-folder`\jp1_default\imss_1st\work\`	Setup information file of uCosminexus
data-storage-folder`\logical_host\imss_1st\`	Settings and log data of the cluster environment [2]

#1
  Settings and log data of the Item storage database are collected only when JP1/IM - Service Support Advanced Edition is used.

#2
  This data is collected only when a cluster environment is used.

Table 11–6: Folders for secondary data

Folder name	Data to be stored
data-storage-folder`\jp1_default\imss_2nd\dbms\`	Detailed log data of the Item management database and Item storage database[#]
data-storage-folder`\jp1_default\imss_2nd\oslog\`	Dr. Watson log data
data-storage-folder`\jp1_default\imss_2nd\uCPSB\`	Log data of uCosminexus

\#

　　Settings and log data of the Item storage database are collected only when JP1/IM - Service Support Advanced Edition is used.

Format

```
jss_log.bat -f data-storage-folder-name
            [-t]
            [-u]
            [-q]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\tools\

Arguments

-f *data-storage-folder-name*

Specifies the name of the folder that stores the collected data using the absolute path or a relative path from the location where this command is executed. If the path contains a blank, enclose it between double quotation marks (").

If you specify a non-existent folder, a new folder is created with the specified name.

If you specify an existing folder, the folder is deleted and then re-created. Do not specify the name of a folder that contains files you do not want to delete.

-t

Specify this argument if you do not want to collect the following:

- Host names assigned to the machines (*data-storage-folder*\jp1_default\imss_1st\oslog\hosts)
- Settings of the service ports (*data-storage-folder*\jp1_default\imss_1st\oslog\services)

-u

Specify this argument if you do not want to collect crash dumps.

-q

Specify this argument if you want to continue collecting data without displaying a confirmation message. If you do not specify the -q option, the system displays a message to ask whether to continue collecting data.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Remarks

- If you use **Ctrl+C to** cancel the `jss_log.bat` command while the command is being executed, some data might fail to be collected. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.

- If the OS is Windows Server 2012 or Windows Server 2008, Dr. Watson does not exist. For this reason, a KNAB22102-W message appears when you execute the `jss_log.bat` command. If this occurs, manually collect user dumps in place of the Dr. Watson log.

- If the OS is Windows Server 2012 or Windows Server 2008, while the `jss_log.bat` command is executed, a dialog box appears asking whether to update system information. Do not click the **Cancel** button. If you do, some information about the OS might fail to be collected. When a dialog box appears indicating that system information is being updated, do not worry. Actually, information about the OS is being collected, not updated.

- If you specify *drive-letter*: in the `-f` option, the following problems might occur. Do not specify *drive-letter*: in the `-f` option to avoid these problems.

  - Data is stored in an illegal location.

  - Some data fails to be collected.

Example

The following example shows how to output collected data to the `c:\log` folder except for the host names assigned to the machines and the settings of the service ports.

```
jss_log.bat -f c:\log -t
```

jssaclexport (exports access-permission information)

Description

This command outputs the access-permission information set for each process work board to a CSV file.

Format

```
jssaclexport -o access-permission-information-file-name
             {-ALL | -s -id system-ID | -p -id process-work-board-ID}
             [-f]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-o *access-permission-information-file-name*

For *access-permission-information-file-name*, use 255 bytes or less to specify the name of the file to which access permission information is to be output. Count half-width characters as 1-byte each and full-width characters as 2-bytes each. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it is 255 bytes or less after it is converted to an absolute path. Note that you cannot specify a character string that begins with a hyphen (-) for the file name.

-ALL

Outputs the access-permission information in all systems including the master system.

-s -id *system-ID*

Outputs the access-permission information in a selected system. For *system-ID*, use 1 to 64 half-width alphanumeric characters.

-p -id *process-work-board-ID*

Outputs the access-permission information in a selected process work board. For *process-work-board-ID*, use 1 to 64 half-width alphanumeric characters.

-f

Overwrites the files in the output destination folder.

If the access-permission information file specified with the -o option does not exist, a file with the specified name is created. If the -f option is omitted when the access-permission information file specified with the -o option exists, the processing finishes without outputting the access-permission information file.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Contents of an access-permission information file

An access-permission information file contains data in the following format.

```
Header section    #"JP1/IM-Service Support","105000","ISO-8859-I","ACLEXPORT"

Body section      #"System ID ","Process work board ID","ID type (user or role)",
                  "User or role ID","Access permissions"
                  "system0001","pwb001","USER","user001","CREATE","REFER","ST_INQUIRY"
                  "system0001","pwb001","ROLE","role001","REFER","CLOSE","APPROVE",
                  "ST_INQUIRY"
                         ⋮
                         ⋮
```

The first line in the body section in an access-permission information file lists the attribute names.

The following details the contents of an access-permission information file.

Header section

Output sequence	Header item	Value
1	Product name	JP1/IM-Service Support
2	Version number of the access-permission information file	The version number of the file is indicated by 6 digits.
3	Character encoding used in the access-permission information file	Character encoding of output files
4	Type of data that is output to the access-permission information	ACLEXPORT

Body section

Output sequence	Body item	Description
1	System ID of target system	ID of the system for which access permissions are set
2	Process work board ID	ID of the process work board that has the process for which access permissions are set
3	User/Role ID type	Type that indicates either the user ID or role ID • For user ID: USER • For role ID: ROLE
4	User/Role ID	User ID or role ID
5	Access permissions	All access permissions the user or role has[#]

#

The following table lists and describes access permissions that can be output.

Table 11–7: Access permissions that can be output

Output sequence	Output value	Description
1	CREATE	*New item* permission for the Item
2	EDIT	*Edit item* permission for the Item
3	REFER	*View item* permission for the Item
4	DELETE	*Delete item* permission for the Item
5	ESCALATE	*Escalation* permission for the Item
6	APPROVE	*Acknowledge item* permission for the Item
7	CLOSE	*Close item* permission for the Item
8	ST_INQUIRY	*Edit item* permission for the Item that is in *Received* status
9	ST_RESEARCH	*Edit item* permission for the Item that is in *Investigating* status
10	ST_PLANNING	*Edit item* permission for the Item that is in *Planning* status
11	ST_DISCUSSING	*Edit item* permission for the Item that is in *Discussing* status
12	ST_APPROVED	*Edit item* permission for the Item that is in *Acknowledged* status
13	ST_WAITING	*Edit item* permission for the Item that is in *Support Requested* status
14	ST_REVIEW	*Edit item* permission for the Item that is in *Reviewing* status
15	ST_CLOSE	*Edit item* permission for the Item that is in *Close* status
16	ST_USER01 to ST_USER40	*Edit item* permission for the Item for which the status of *Extended status 01* to *Extended status 40* is set

Sort order of access-permission information (body section)

Access-permission information is output in the following sort order:

1. System ID: Ascending order

2. Process work board ID[#1]: Ascending order

3. User/Role ID type[#2]: Descending order

4. User/Role ID: Ascending order

#1

If there are multiple process work boards in a system, they are sorted and output in the following order:

1. Incident management

2. Problem management

3. Change management

4. Release management

#2

The access-permission information for roles is output, and then the access-permission information for users is output. However, information about the master system (temporary receipt process work board) is output at the end.

If access permissions are set for the jp1admin user and system roles, the access-permission information is output. However, information about the access permissions for which system roles are set by default is not output. For details about the system roles, see the description about the system roles in *3.17.2 Role management*.

Differences in the result of the command depending on the statuses of the system and process work board

The `jssaclexport` command acts differently depending on the statuses of the system and process work board. The following table describes the differences in the result of the `jssaclexport` command depending on the statuses of the system and process work board.

Table 11–8: Differences in the result of the jssaclexport command depending on the statuses of the system and process work board

No.	Status of the system	Status of the process work board	Result
1	Waiting to be deleted	--	The command does not output the access-permission information in the system.
2	Operating	In process	The command outputs the access-permission information in the process work board.
3		Operating	
4		Under suspension	
5		Waiting to be deleted	The command does not output the access-permission information in the process work board.

Legend:

--: Not applicable.

Prerequisites for executing the command

- For details about the status of services when commands are executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

Remarks

- If you cancel the `jssaclexport` command by using **Ctrl+C** while the command is being executed, access permission information might not be output. For this reason, do not use **Ctrl+C** to cancel the command during execution. If you happen to do so, wait for a while, and then re-execute the command.

- If the `jssaclexport` command stops due to an error while it is being executed, the contents of the output file might be incomplete.

- If you change access permissions set for a process work board while the `jssaclexport` command is being executed for that process work board, the access-permission information might not be output. For this reason, we recommend that you execute the command after you place the target process work board in *Under suspension* status.

- The `jssaclexport` command can output a maximum of 1,000,000 lines (number of lines in the body section, excluding the first line for attribute names) of access-permission information at one time. If the maximum number of lines is exceeded, review and modify the conditions for outputting access-permission information, and then re-execute the command.

Example

The following example shows how to output the access-permission information for all systems to the access-permission information file (`c:\accesspermission\accesspermissioninfo.csv`):

```
jssaclexport -o c:\accesspermission\accesspermissioninfo.csv -ALL
```

jssaclimport (imports access-permission information)

Description

This command sets access-permission information in JP1/IM - Service Support. You can also use a CSV file output by the `jssaclexport` command to set access-permission information.

Executing the `jssaclimport` command checks whether the contents of the access privileges input file are all correct, and then the processing for setting access-permission information starts. If there is invalid data in the access privileges input file, access-permission information is not set.

Format

```
jssaclimport -i access-privileges-input-file-name
             [-q]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-i *access-privileges-input-file-name*

Use 255 bytes or less to specify the characters for *access-privileges-input-file-name* (name of the CSV file in which access-permission information is input). Count half-width characters as 1-byte each and full-width characters as 2-bytes each. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it is 255 bytes or less after it is converted to an absolute path. Note that you cannot specify a character string that begins with a hyphen (-) for the file name. For details about the access privileges input file, see *Access privileges input file (Optional)* in *Chapter 12. Definition Files*.

-q

Continues setting access-permission information without displaying a confirmation message.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Differences in the result of the command depending on the statuses of the system and process work board

The `jssaclimport` command acts differently depending on the statuses of the system and process work board. The following table describes the differences in the result of the `jssaclimport` command depending on the statuses of the system and process work board.

Table 11–9: Differences in the result of the jssaclimport command depending on the statuses of the system and process work board

No.	Status of the system	Status of the process work board	Result
1	Waiting to be deleted	--	The command cannot set access-permission information.
2	Operating	In process	The command sets access-permission information based on the access privileges input file specified with the -i option.
3		Operating	
4		Under suspension	
5		Waiting to be deleted	The command cannot set access-permission information.

Legend:
   --: Not applicable.

Prerequisites for executing the command

- For details about the status of services when commands are executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

Remarks

- If you cancel the jssaclimport command by using **Ctrl+C** while the command is being executed, access-permission information might not be output. For this reason, do not use **Ctrl+C** to cancel the command during execution. If you happen to do so, wait for a while, and then re-execute the command.

- Do not change or delete a process work board, role, or user while the jssaclimport command is being executed. If any of them is changed or deleted, execution of the jssaclimport command might fail. Even if execution of the jssaclimport command successfully finishes, the contents of the access privileges input file might not be correctly applied.

- Make sure that the input file you specify is created with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. The character encodings that can be used are as follows:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Example

The following example shows how to set the access-permission information file (c:\accesspermission\accesspermissioninfo.csv) without displaying a confirmation message:

```
jssaclimport -i c:\accesspermission\accesspermissioninfo.csv -q
```

jsschauthorityserver (switches the authentication method)

Description

This command switches the authentication method used by JP1/IM - Service Support. The available authentication methods are as follows:

- Authentication using the Item management database
- Authentication using an LDAP server
- Authentication using the JP1/Base authentication server

Format

```
jsschauthorityserver {-imss | -ldap LDAP-server-type | -base | -state}
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-imss

Authenticates using the Item management database.

-ldap *LDAP-server-type*

Authenticates using an LDAP server.

JP1/IM - Service Support supports only Active Directory as the LDAP server. You can only specify AD (short for Active Directory) for *LDAP-server-type*.

When you specify this option, you need to specify required information in the JAAS user management definition file. For details about the JAAS user management definition file, see *JAAS user management definition file (hptl_jp1_imss_ua_conf.properties)* in *Chapter 12. Definition Files*.

-base

Authenticates using the JP1/Base authentication server.

-state

Confirms the current authentication server.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when the command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

Remarks

- If you use **Ctrl+C** or **Ctrl+Break** to cancel the `jsschauthorityserver` command while the command is being executed, switching of the authentication method might fail.

- Only one `jsschauthorityserver` command can be executed at a time.

- After you execute the `jsschauthorityserver` command to switch the authentication method, restart the JP1/ Service Support service and the JP1/Service Support - Web Service service. If you do not restart these services, the windows might not be displayed correctly after login. If that occurs, restart the services and log in again.

- If you perform restore installation after you execute the `jsschauthorityserver` command, the Item management database is set to be used for authentication. If you want to use the LDAP server for authentication, re-execute the `jsschauthorityserver` command after the restore installation.

- When you are using the LDAP server or the JP1/Base authentication server for authentication, the LDAP server or the JP1/Base authentication server manages passwords. If you change a password from JP1/IM - Service Support, the password managed by the LDAP server or the JP1/Base authentication server will not change. In this case, suppress changing of passwords in JP1/IM - Service Support. To suppress changing of passwords, use the User management property file. For details, see *User management property file (hptl_jp1_imss_usermgr.properties)* in *Chapter 12. Definition Files*.

- When the Windows UAC feature is enabled and the user account of the user who executes the `jsschauthorityserver` command has Administrator permissions other than Administrator, the command is successfully executed. However, authentication servers are not switched.

  For details about how to execute the command when the Windows UAC feature is enabled and the user account has Administrator permissions, but is not the Administrator account itself, see *List of commands*.

jsscollectdata (counts Item information)

Description

This command summarizes Item information. Note that the command summarizes the Item information from all the process work boards managed by JP1/IM - Service Support regardless of the status of the process work boards. When JP1/IM - Service Support Advanced Edition is used, the stored Item information is not summarized.

The values displayed in the main window (Item status) are based on the statistics summarized by using the `jsscollectdata` command. The data that is output to a file in the Accumulation data output to file window is also based on the statistics summarized by using the `jsscollectdata` command.

The Item statistics are retained for a different length of time depending on use. The following table describes the retention periods for Item statistics depending on use.

Table 11–10: Retention period for Item statistics

Use for Item statistics	Retention period
Display in the main window (Item status)	30 days starting from one day before the day when the command is executed
Daily reports	62 days starting from one day before the day when the command is executed
Monthly reports	96 months starting from one day before the day when the command is executed

The command can also be automatically executed from the JP1/Service Support - Task Service service.

Format

```
jsscollectdata {-s | -a}
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path`\bin\`

Arguments

`-s`

Updates Item statistics daily. When you specify this argument, the command compares the new statistics with the existing statistics in the database and adds only the difference within the applicable retention period. In addition, the command deletes the statistics that have exceeded the retention periods.

`-a`

Specify this option, for example, immediately after version upgrade or data migration, or when you want to summarize all statistics again. After you execute the `jsscollectdata` command with this option, we recommend that you execute the `jssdbreclaim.bat` command to release the free space in the database (except for the first time you execute the `jsscollectdata` command). Do not specify this option for updating Item statistics daily.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- When you execute the `jsscollectdata` command with the `-a` option, we recommend that you activate only the JP1/Service Support - DB Server service.

Remarks

- Executing the `jsscollectdata` command daily repeats deletion and addition of Item statistics. For this reason, you need to occasionally re-organize the database. Execute the `jssdbrorg.bat` command (reorganizes the Item management database) once a year.

- Only one `jsscollectdata` command can be executed at a time.

- If you use **Ctrl+C** to cancel the `jsscollectdata` command while the command is being executed, Item statistics might fail to be summarized. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and re-execute the command.

- While the `jsscollectdata` command is being executed from the JP1/Service Support - Task Service service, if the JP1/Service Support - Task Service service stops, the command is also forcibly ended. If that occurs, Item statistics might fail to be summarized.

- If the size of code data to be summarized increases, the capacity of the Item management database might reach the upper limit and the `jsscollectdata` command might not be successfully executed. If that occurs, output the summarized Item statistics to a CSV file, delete unnecessary Items, and then execute the `jsscollectdata` command.

jssdelrec (deletes data from the Item management database)

Description

This command deletes data in the *Waiting to be deleted* status from the Item management database.

Format

```
jssdelrec -a [-b]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-a

Deletes all the systems, process work boards, and Items that are waiting to be deleted from the Item management database. If a process work board is waiting to be deleted, all the Items and attached files related to the process work board are also deleted.

The -a option is mandatory.

-b

If you specify the -b option, you can execute the jssdelrec command without stopping the JP1/Service Support service and the JP1/Service Support - Web Service service. If you do not specify the -b option, you need to inactivate those services in advance.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- While the jssdelrec command is being executed, do not execute other JP1/IM - Service Support commands.

- When you execute the jssdelrec command, all the data waiting to be deleted is deleted from the Item management database. If you want to store the update history or Item information of the Items to be deleted, before executing the jssdelrec command, execute the jssitemhistory or jssitemexportEx command.

Remarks

- If you use **Ctrl+C** to cancel the `jssdelrec` command while the command is being executed, the data waiting to be deleted might not be deleted. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.

- After you execute the `jssdelrec` command to delete a process work board, execute the `jsscollectdata` command with the `-a` option to delete the statistics regarding the Items registered in the deleted process work board.

- For details about how to execute the command, see *10.2.3 Deleting data from the Item management database*.

jssformcustomizer (edits Item form definition files)

Description

This command starts the GUI tool for editing Item form definition files.

For details about how to operate the GUI tool, see *8.9 Customizing an Item form definition file*.

Format

```
jssformcustomizer -sys
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-sys

Starts the GUI tool for editing Item form definition files. This argument is mandatory.

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

Remarks

- If you use **Ctrl+C** or **Ctrl+Break** to cancel the jssformcustomizer command while the command is being executed, the GUI tool might fail to be executed.

jssformdef (registers an Item form definition file)

Description

This command registers an Item form definition file that has been customized by a user.

Format

```
jssformdef -f Item-form-definition-file-name
           [-n]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-f *Item-form-definition-file-name*

Specifies the name of an Item form definition file. You can use an absolute path or a relative path to specify the file name. For details about Item form definition files, see *Item form definition file (Optional)* in *Chapter 12. Definition Files*.

-n

Specifies whether to apply the Item form definition file that is registered by using this command to an Item form for a process. If you specify the -n option, the registered Item form definition file is not applied to an Item form for a process. If you do not specify the -n option, the registered Item form definition file is applied to the Item form identified by the Item form ID specified in the Item form definition file.

Also note that if you specify the -n option, you can execute the jssformdef command without stopping the JP1/Service Support service and the JP1/Service Support - Web Service service. If you do not specify the -n option, you need to inactivate those services in advance.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- While the jssformdef command is being executed, do not execute other JP1/IM - Service Support commands.

Remarks

- If you use **Ctrl+C** to cancel the `jssformdef` command while the command is being executed, the Item form definition file might not be registered. For this reason, do not cancel the command during execution by using **Ctrl +C**. If you happen to do so, wait for a while and re-execute the command.

- Make sure that the input file you specify is created with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. The character encodings that can be used are as follows:

  - In a Japanese environment: UTF-8

  - In an English environment: UTF-8

  - In a Chinese environment: UTF-8

Example

The following example shows how to register a customized Item form definition file (`c:\customize \form01.xml`).

```
jssformdef -f c:\customize\form01.xml
```

jssinformleave (sends reminders about held Items)

Description

This command sends reminder emails to the people in charge of Items to notify them that the Items are held up.

The command can also be automatically executed from the JP1/Service Support - Task Service service.

Format

```
jssinformleave -sys
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-sys

Sends reminder emails to notify that Items are held up. This argument is mandatory.

Return values

Return value	Meaning
0	Normal end
1	No monitoring target exists.
2	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Before you can use the `jssinformleave` command, you need to specify necessary information in the Held Item definition file. For details about the Held Item definition file, see *Held Item definition file (jp1informleave_setting.conf)* in *Chapter 12. Definition Files*.

- Executing the `jssinformleave` command puts a great load on the machine. When you execute the command from the JP1/Service Support - Task Service service, keep a sufficient interval between the executions of the command.

Remarks

- If you use **Ctrl+C** or **Ctrl+Break** to cancel the `jssinformleave` command while the command is being executed, emails might not be sent.

- While the `jssinformleave` command is being executed from the JP1/Service Support - Task Service service, if the JP1/Service Support - Task Service service stops, the command is also forcibly ended. If that occurs, emails might not be sent to all the target recipients.

- To check whether the `jssinformleave` command has successfully sent emails, look into the log file that is open to users. For details, see *User log definition file (jp1informleave.conf)* in *Chapter 12. Definition Files*.

jssinformperiod (notifies of closing deadlines)

Description

This command checks the deadlines for Items and sends reminder emails to notify the people in charge of the Items that the deadline is near.

The command can also be automatically executed from the JP1/Service Support - Task Service service.

Format

```
jssinformperiod -sys
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Only one jssinformperiod command can be executed at a time.

- Executing the jssinformperiod command puts a great load on the machine. We recommend that you execute the command while only the JP1/Service Support - DB Server service is running or when the machine load is low, for example, at night.

Remarks

- If you use **Ctrl+C** to cancel the jssinformperiod command while the command is being executed, emails might not be sent. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and re-execute the command.

- While the jssinformperiod command is being executed from the JP1/Service Support - Task Service service, if the JP1/Service Support - Task Service service stops, the command is also forcibly ended. If that occurs, emails might not be sent to all the target recipients.

- You can output the result of executing the jssinformperiod command to a log file and check the result. For details, see *User log definition file (jp1informperiod.conf)* in *Chapter 12. Definition Files*.

jssitemcount (counts Items)

Description

This command displays the number of Items registered in JP1/IM - Service Support. If the number of Items that can be added to a process work board becomes smaller than the threshold value, or if the number of Items reaches the maximum limit (until which time Items can be registered in the process work board), a warning message is output. The threshold value can be set in the system property file (`hptl_jp1_imss_main_setting.properties`). For details, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

When JP1/IM - Service Support Advanced Edition is used, the stored Items are also counted.

Format

```
jssitemcount {-ALL | -s -id system-ID | -p -id process-work-board-ID}
             [-ct start-date-end-date]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path`\bin\`

Arguments

-ALL

Checks the number of Items registered in all process work boards.

-s -id *system-ID*

Checks the number of Items registered in a selected system. For *system-ID*, use 1 to 64 half-width alphanumeric characters.

-p -id *process-work-board-ID*

Checks the number of Items registered in a selected process work board. For *process-work-board-ID*, use 1 to 64 half-width alphanumeric characters.

-ct *start-date*–*end-date*

Specify the registration date range in order to check the number of Items registered in that specified period. Specify *start-date* and *end-date* with character strings in *YYYY/MM/DD* format, and connect them with a hyphen (-).

For *start-date* and *end-date*, you can specify values from 1970/01/01 to 2107/01/01. Specify the values so that *start-date* is earlier than *end-date*. The following explains *start-date* and *end-date*:

start-date

Counts the number of Items registered after the date specified for *start-date* (including *start-date*). If a specified date does not exist as a date in the specified range, an error occurs.

end-date

Counts the number of Items registered before the date specified for *end-date* (including *end-date*). If a specified date does not exist as a date in the specified range, an error occurs.

For example, if `2013/01/01-2013/12/31` is specified, Items whose registration date is in the range from 2013/01/01 00:00:00(.000) to 2013/12/31 23:59:59(.999) are counted.

Return values

Return value	Meaning
0	Normal end, no warning message output
1	Normal end, warning message output
2	Abnormal end

Statuses of the target system and target process work board

The `jssitemcount` command is targeted to systems in which one or more process work boards are registered. For such systems, Items can be counted without depending on the statuses of the systems, process work boards, and Items. The Items waiting to be deleted are also counted. Note that if the number of Items registered in a process work board is 0, `0` is displayed.

Prerequisites for executing the command

- For details about the status of services when the command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Two or more `jssitemcount` commands cannot be executed at the same time.

Remarks

- If you cancel the `jssitemcount` command by using **Ctrl+C** while the command is being executed, counting the number of Items might fail. For this reason, do not use **Ctrl+C** to cancel the command during execution. If you happen to do so, wait for a while, and then re-execute the command.

- While the `jssitemcount` command is being executed, if you delete an Item to be counted (by executing the `jssdelrec` command), register a new Item, or escalate an Item, the relevant Item might not be counted, depending on the timing of such an operation.

- You can output the result of executing the `jssitemcount` command to a log file and check the result. For details, see *User log definition file (jp1itemcount.conf)* in *Chapter 12. Definition Files*.

Example

The following example shows how to check the number of Items registered in the period from 2013/1/1 to 2013/12/31 for process work board `pwb001`.

```
jssitemcount -p -id pwb001 -ct 2013/01/01-2013/12/31
```

jssitemdeletion (centrally places Items into the Waiting to be deleted status)

Description

This command places unnecessary Items registered in the Item management database in the *Waiting to be deleted* status in a batch. Note that the command does not actually delete Items from the Item management database.

Format

```
jssitemdeletion {-s -id ID | -p -id ID [-pi process-work-board-serial-
number]}
                [-n update-date |
                 -ct start-date-end-date |
                 -et start-date-end-date]
                [-a]
                [-q]
                [-b]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-s

Specify this argument when you select a target system for the Items to be placed in the *Waiting to be deleted* status. Specify the system ID with the -id option.

-p

Specify this argument when you select a process work board for the Items to be placed in the *Waiting to be deleted* status. Specify the process work board ID with the -id option.

-id *ID*

Specifies the ID of a target system or a process work board. You can specify the *ID* using 1 to 64 half-width alphanumeric characters. When you specify the -s option, *ID* is replaced by a system ID. When you specify the -p option, *ID* is replaced by a process work board ID.

-pi *process-work-board-serial-number*

Specifies the process work board serial number of the Item to be placed in the *Waiting to be deleted* status in the process work board specified by the -p option.

-n *update-date*

When you specify the -n option, all the Items that were updated on and before the specified date enter the *Waiting to be deleted* status. For *update-date*, specify the update date, in *YYYY/MM/DD* format, of the Items you want to place in the *Waiting to be deleted* status. For example, if you specify 2008/04/01 for *update-date*, all the Items that were updated on and before 2008/04/01 23:59:59(.999) enter the *Waiting to be deleted* status.

For *update-date*, you can specify a date in the range from 1970/01/01 to 2107/01/01.

If you do not specify the `-n`, `-ct`, and `-et` options, all the Items enter the *Waiting to be deleted* status.

When using the `jssitemdeletion` command to place Items in the Waiting to be deleted status again after you release them from the Waiting to be deleted status by using the `jssrev` command

> When you release an Item from the *Waiting to be deleted* status by using the `jssrev` command, the update date is changed to the date when the `jssrev` command is executed. For this reason, make sure that the date you specify in the `-n` option is the correct date for the Item you want to place in the *Waiting to be deleted* status.

`-ct` *start-date-end-date*

If you want to place the Items that were registered during a specific period in the *Waiting to be deleted* status, use this argument to specify that period in *YYYY/MM/DD* format. Insert a hyphen (-) between the start date and the end date.

For *start-date* and *end-date*, you can specify dates in the range from 1970/01/02 to 2036/12/31. For *start-date*, specify a date earlier than *end-date*.

The descriptions of the start date and the end date are as follows.

start-date
> Places the Items that were registered on and after this date in the *Waiting to be deleted* status. If you specify a non-existent date within the specifiable range, the system moves the specified date forward to an existing date and places the Items that were registered on after that date in the *Waiting to be deleted* status.

end-date
> Places the Items that were registered on and before this date in the *Waiting to be deleted* status. If you specify a non-existent date within the specifiable range, the system moves the specified date back to an existing date and places the Items that were registered on and before that date in the *Waiting to be deleted* status.

For example, if you specify `2013/04/01-2013/04/07`, the Items that were registered between 2013/04/01 00:00:00(.000) and 2013/04/07 23:59:59(.999) enter the *Waiting to be deleted* status.

If you do not specify the `-n`, `-ct`, and `-et` options, all the Items enter the *Waiting to be deleted* status.

`-et` *start-date-end-date*

If you want to place the Items that were updated during a specific period in the *Waiting to be deleted* status, use this argument to specify that period in *YYYY/MM/DD* format. Insert a hyphen (-) between the start date and the end date.

For *start-date* and *end-date*, you can specify dates in the range from 1970/01/02 to 2036/12/31. For *start-date*, specify a date earlier than *end-date*.

The descriptions of the start date and the end date are as follows.

start-date
> Places the Items that were updated on and after this date in the *Waiting to be deleted* status. If you specify a non-existent date within the specifiable range, the system moves the specified date forward to an existing date and places the Items that were updated on after that date in the *Waiting to be deleted* status.

end-date
> Places the Items that were updated on and before this date in the *Waiting to be deleted* status. If you specify a non-existent date within the specifiable range, the system moves back the specified date back to an existing date and places the Items that were updated on and before that date in the *Waiting to be deleted* status.

For example, if you specify `2013/04/01-2013/04/07`, the Items that were updated between 2013/04/01 00:00:00(.000) and 2013/04/07 23:59:59(.999) enter the *Waiting to be deleted* status.

If you do not specify the `-n`, `-ct`, and `-et` options, all the Items enter the *Waiting to be deleted* status.

-a

If you specify the `-a` option, the Items of all statuses enter the *Waiting to be deleted* status. If you do not specify the `-a` option, the items in `Close` status enter the *Waiting to be deleted* status.

-q

If you specify the `-q` option, Items enter the *Waiting to be deleted* status without displaying a confirmation message. If you do not specify the `-q` option, a message appears asking whether to continue processing.

-b

If you specify the `-b` option, you can execute the `jssitemdeletion` command without stopping the JP1/Service Support service, the JP1/Service Support - Web Service service, and the JP1/Service Support - Task Service service. If you do not specify the `-b` option, you need to inactivate those services in advance.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- While the `jssitemdeletion` command is being executed, do not execute other JP1/IM - Service Support commands.

- Only one `jssitemdeletion` command can be executed at a time.

Remarks

- If you use **Ctrl+C** to cancel the `jssitemdeletion` command while the command is being executed, the Items up to that point enter the *Waiting to be deleted* status and the command ends.

- When you execute the `jssitemdeletion` command, the applicable Items enter the *Waiting to be deleted* status regardless of the status of the target system or process work board. This rule also applies to the Items that are being edited. Note that when this occurs, the editing status of the Items is not canceled.

- When you use the `jssitemdeletion` command to place Items in the *Waiting to be deleted* status, the update date for the Items changes to the date when the `jssitemdeletion` command is executed. If that is a problem, use a backup file that was obtained beforehand to recover the old update date. Note that if you use the `jssrev` command to release the Items from the *Waiting to be deleted* status, the update date does not change to the previous update date. Instead, the update date changes to the date when the `jssrev` command is executed.

- When JP1/IM - Service Support Advanced Edition is used, Items stored in the Item storage database are not deleted.

jssitemedit (edits an Item)

Description

This command searches for the target Item in the Item management database using the specified process work board serial number or JP1 event database serial number as the search key. Then the command edits the data of the found Item. If you do not specify a new value for any particular datum of the Item, the system assumes the old value for that datum. After you execute this command to edit the data of an Item, the history of the Item data is stored in the Item management database.

Format

```
jssitemedit -b process-work-board-ID
            -r registrant-ID
            -cht person-in-charge-type
            -ch person-in-charge-ID
            {-pi process-work-board-serial-number
             [-evt JP1/IM - Manager-host-name JP1-event-database-serial-
number] |
             -evt JP1/IM - Manager-host-name JP1-event-database-serial-
number}
            [-st status]
            [-ctdate end-date-and-time]
            [-causc cause-code]
            [-rsltc result-code]
            [-avodc workaround-type-code]
            [-soltc solution-category-code]
            [-chsc scale-of-change]
            [-rtyp release-type]
            [-phem occurred-type]
            [-fail problem-component-and-version]
            [-solt solution]
            [-avod workaround]
            [-rcaus fundamental-cause]
            [-s severity]
            [-ipt impact-level]
            [-pr priority]
            [-srsn reason-for-severity]
            [-iptrsn reason-for-impact-level]
            [-prrsn reason-for-priority]
            [-itmc Item-type]
            [-isuc problem-domain]
            [-t title]
            [-det overview]
            [-sit work-status]
            [-ins impact-service]
            [-cus customer-name]
            [-reqp inquirer]
            [-shdl schedule-and-main-steps]
            [-eval impact-assessment-for-change]
            [-dlrst discussions-result]
            [-mesu how-to-avoid-the-problem-in-the-future]
            [-free free-memo-column]
            [-ecost cost-(planed)]
            [-acost cost-(actual)]
            [-acdate occurrence-date-and-time]
```

```
              [-stdate start-date-and-time]
              [-deadline deadline]
              [-jp1 product-name]
              [-jobnet jobnet-name]
              [-job job-name]
              [-snmp SNMP-source]
              [-node monitored-node-name]
              [-alarm alarm-name]
              [-utextn n-pieces-of-extended-text-data]
              [-utimen n-pieces-of-extended-time-data]
              [-ucoden n-pieces-of-extended-code-data]
              [-uintn n-pieces-of-extended-numerical-data]
              [-uurinfon n-user-types-or-role-types n-user-IDs-or-role-IDs]
              [-m code-mapping-file-name]
              [-f]
              [-mail]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-b *process-work-board-ID*

Use no more than 64 half-width alphanumeric characters to specify the process work board ID of the new process work board where you want to register the target Item.

-r *registrant-ID*

Use no more than 64 half-width alphanumeric characters to specify the ID of the new registrant of the target Item.

An error occurs in the following cases:

- No user with the specified ID exists.
- The user with the specified ID does not have the permission to register Items in the specified process work board.

-cht *person-in-charge-type*

Specify USER or ROLE as the new type of the person who is in charge of the target Item. The type is not case sensitive.

-ch *person-in-charge-ID*

Use no more than 64 half-width alphanumeric characters and underscores (_) to specify the new user ID of the person in charge of the target Item or the new role ID of the role in charge of the target Item.

-pi *process-work-board-serial-number*

Specify the process work board serial number of the Item to be edited.

When executing the jssitemedit command, you must specify either the -pi option or the -evt option, or both.

If you specify both options, the command uses the process work board serial number specified by the -pi option as the search key for the target Item. Then the command uses the JP1/IM - Manager host name and the JP1 event database

serial number specified in the `-evt` option as the new JP1/IM - Manager host name and JP1 event database serial number for the target Item.

For details about how to check process work board serial numbers, see *3.2.2(1) List of Items*.

`-evt` *JP1/IM - Manager-host-name JP1-event-database-serial-number*

Specify the name of the JP1/IM - Manager host that registered the JP1 event as the Item to be edited. Also, use a decimal number in the range from 0 to 2,147,483,647 to specify the JP1 event database serial number of the JP1 event.

When executing the `jssitemedit` command, you need to specify either the `-pi` option or the `-evt` option, or both.

If you specify both options, the command uses the process work board serial number specified in the `-pi` option as the search key for the target Item. Then the command uses the JP1/IM - Manager host name and the JP1 event database serial number specified in the `-evt` option as the new JP1/IM - Manager host name and JP1 event database serial number for the target Item. If you specify the `-evt` option alone, the command uses the JP1/IM - Manager host name and the JP1 event database serial number specified in the `-evt` option as the search keys. Also note that if you specify only the `-evt` option, the specified JP1/IM - Manager host name and JP1 event database serial number might be insufficient to identify the target Item and an error might occur.

`-st` *status*

Specifies the new status to be set for the target Item. You can specify one of the following by default:

- `Received`
- `Investigating`
- `Planning`
- `Discussing`
- `Support requested`
- `Reviewing`
- `Acknowledged`
- `Close`
- `Extended status`[#]

#

You can specify any of the extended statuses. The default extended statuses are `extended status 01` to `extended status 40`.

If you have changed any status names, use the `-m` option to specify the relevant code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12 Definition Files*.

`-ctdate` *end-date-and-time*

Specifies the new date and time of completion to be set for the target Item in $YYYY/MM/DD\ hh:mm:ss$ format or $YYYY/MM/DD\ hh:mm$ format. You can specify a date and time in the range from 1970/01/02 00:00:00 to 2036/12/31 23:59:59.

`-causc` *cause-code*

Specifies the new cause to be set for the target Item. You can specify one of the following by default:

- Blank

- New software error

- Known software error

- New hardware error

- Known hardware error

- Documentation error

- Document missing

- User error

- Specifications

- Third-party error

- Process error

- Customer request

- Function extension

- Business requirement

- Incident and problem fix

- Process improvement

If you have customized any causes, use the -m option to specify the relevant code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12. Definition Files*.

-rsltc *result-code*

Specifies the new result to be set for the target Item. You can specify one of the following by default:

- Blank

- Completed

- Canceled

- Not confirmed

- Change completed

- Known problem

- Unknown cause

- Succeeded

- Failed (planning error)

- Failed (human error)

- Failed (others)

If you have customized any results, use the -m option to specify the relevant code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12. Definition Files*.

-avodc *workaround-type-code*

Specifies the new workaround type to be set for the target Item. You can specify one of the following by default:

- Blank

- None

- Not operated

- Operated in degraded mode

- Restarted

- File recovered

- Change rolled back

- Others

If you have customized any workaround types, use the −m option to specify the relevant code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12. Definition Files*.

−soltc *solution-category-code*

Specifies the new solution category to be set for the target Item. You can specify one of the following by default:

- Blank

- Knowledge

- Document

- User solution

- Secondary support

- Problem management

- Third-party investigation

If you have customized the solution categories, use the −m option to specify the relevant code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12. Definition Files*.

−chsc *scale-of-change*

Specifies the new scale of change to be set for the target Item. You can specify one of the following by default:

- Blank

- Small scale

- Middle scale

- Large scale

If you have customized any scales of change, use the −m option to specify the relevant code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12. Definition Files*.

−rtyp *release-type*

Specifies the new release type to be set for the target Item. You can specify one of the following by default:

- Blank

- Package release

- Full release

- Delta release

If you have customized any release types, use the −m option to specify the relevant code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12. Definition Files*.

`-phem` *occurred-type*

Specifies the new occurred type to be set for the target Item. No default value exists. If you want to specify an occurred type, create a code mapping file (`jp1imss_itemedit_codemap.conf`) for the applicable Item form. Use the −m option to specify the code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12. Definition Files*.

`-fail` *problem-component-and-version*

Use a character string consisting of 1,024 bytes or less to specify the new problem component and version to be set for the target Item. For *problem-component-and-version*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-solt` *solution*

Use a character string consisting of 4,096 bytes or less to specify the new solution to be set for the target Item. For *solution*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-avod` *workaround*

Use a character string consisting of 4,096 bytes or less to specify the new workaround to be set for the target Item. For *workaround*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-rcaus` *fundamental-cause*

Use a character string consisting of 4,096 bytes or less to specify the new fundamental cause to be set for the target Item. For *fundamental-cause*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-s` *severity*

Specifies the new severity level to be set for the target Item. You can specify one of the following by default:

- Blank
- Emergency
- Alert
- Critical
- Error
- Warning
- Notice
- Information
- Debug

If you have customized any severity levels, use the −m option to specify the relevant code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12. Definition Files*.

`-ipt` *impact-level*

Specifies the new impact level to be set for the target Item. You can specify one of the following by default:

- Blank
- `Small`
- `Middle`
- `Large`

If you have customized any impact levels, use the −m option to specify the relevant code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12. Definition Files*.

-pr *priority*

Specifies the new priority level to be set for the target Item. You can specify one of the following by default:

- Blank
- `Standard`
- `Emergency`
- `Very urgent`

If you have customized any priority levels, use the −m option to specify the relevant code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12. Definition Files*.

If you do not specify a value in the −pr option, the priority level is not updated even if the automatic input function for Items is enabled.

-srsn *reason-for-severity*

Use a character string consisting of 512 bytes or less to specify the new reason for the severity level to be set for the target Item. For *reason-for-severity*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

-iptrsn *reason-for-impact-level*

Use a character string consisting of 512 bytes or less to specify the new reason for the impact level to be set for the target Item. For *reason-for-impact-level*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

-prrsn *reason-for-priority*

Use a character string consisting of 512 bytes or less to specify the new reason for the priority level to be set for the target Item. For *reason-for-priority*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

-itmc *Item-type*

Specifies the new Item type to be set for the target Item. You can specify one of the following by default:

- Blank
- `Inquiry`
- `Failure`
- `Customer request`

If you have customized any Item types, use the −m option to specify the relevant code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12. Definition Files*.

`-isuc` *problem-domain*

Specifies the new problem domain to be set for the target Item. You can specify one of the following by default:

- Blank
- Application
- Middleware
- OS
- Hardware
- Network
- Process

If you have customized any problem domains, use the -m option to specify the relevant code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12. Definition Files*.

`-t` *title*

Use a character string consisting of 512 bytes or less to specify the new title of the target Item. For *title*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-det` *overview*

Use a character string consisting of 2,048 bytes or less to specify the new overview to be set for the target Item. For *overview*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-sit` *work-status*

Use a character string consisting of 4,096 bytes or less to specify the new work status to be set for the target Item. For *work-status*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-ins` *impact-service*

Use a character string consisting of 255 bytes or less to specify the new impact-service to be set for the target Item. For *impact-service*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-cus` *customer-name*

Use a character string consisting of 1,024 bytes or less to specify the new customer name to be set for the target Item. For *customer-name*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-reqp` *inquirer*

Use a character string consisting of 255 bytes or less to specify the new inquirer to be set for the target Item. For *inquirer*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-shdl` *schedule-and-main-steps*

Use a character string consisting of 4,096 bytes or less to specify the new schedule or main steps to be set for the target Item. For *schedule-and-main-steps*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-eval` *impact-assessment-for-change*

Use a character string consisting of 4,096 bytes or less to specify the new impact assessment for change to be set for the target Item. For *impact-assessment-for-change*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-dlrst` *discussions-result*

Use a character string consisting of 2,048 bytes or less to specify the new discussions result to be set for the target Item. For *discussions-result*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-mesu` *how-to-avoid-the-problem-in-the-future*

Use a character string consisting of 4,096 bytes or less to specify the new thought for preventing reoccurrence to be set for the target Item. For *thought-for-preventing-reoccurrence*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-free` *free-memo-column*

Use a character string consisting of 4,096 bytes or less to specify the new free memo to be set for the target Item. For *free-memo-column*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-ecost` *cost-(planned)*

Use a decimal integer in the range from 0 to 2,147,483,647 to specify the new cost (planned) to be set for the target Item.

`-acost` *cost-(actual)*

Use a decimal integer in the range from 0 to 2,147,483,647 to specify the new cost (actual) to be set for the target Item.

`-acdate` *occurrence-date-and-time*

Specifies the new date and time of occurrence to be set for the target Item in *YYYY/MM/DD hh:mm:ss* format or *YYYY/MM/DD hh:mm* format. For *occurrence-date-and-time*, you can specify a date and time in the range from 1970/01/02 00:00:00 to 2036/12/31 23:59:59.

`-stdate` *start-date-and-time*

Specifies the new date and time of start to be set for the target Item in *YYYY/MM/DD hh:mm:ss* format or *YYYY/MM/DD hh:mm* format. For *start-date-and-time*, you can specify a date and time in the range from 1970/01/02 00:00:00 to 2036/12/31 23:59:59.

`-deadline` *deadline*

Specifies the new deadline to be set for the target Item in *YYYY/MM/DD hh:mm:ss* format or *YYYY/MM/DD hh:mm* format. For *deadline*, you can specify a date and time in the range from 1970/01/02 00:00:00 to 2036/12/31 23:59:59. If you do not specify a value in the `-deadline` option, the deadline is not updated even if the automatic input function for Items is enabled.

-jp1 *product-name*

Use a character string consisting of 1,024 bytes or less to specify the new JP1 product name to be set for the target Item. For *product-name*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

-jobnet *jobnet-name*

Use a character string consisting of 1,024 bytes or less to specify the new jobnet name to be set for the target Item. For *jobnet-name*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

-job *job-name*

Use a character string consisting of 1,024 bytes or less to specify the new job name to be set for the target Item. For *job-name*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

-snmp *SNMP-source*

Use a character string consisting of 1,024 bytes or less to specify the new SNMP source name to be set for the target Item. For *SNMP-source*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

-node *monitored-node-name*

Use a character string consisting of 255 bytes or less to specify the new monitored node name to be set for the target Item. For *monitored-node-name*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

-alarm *alarm-name*

Use a character string consisting of 255 bytes or less to specify the new alarm name to be set for the target Item. For *alarm-name*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

-utext*n* *n-pieces-of-extended-text-data* (*n*: 1 to 20)

You can add a maximum of 20 user-customized elements of the character string type (extended text data) to an Item. Specify the new character string to be entered in the input field of each element of the target Item and enclose each character string between double quotation marks ("). The number of character strings you can specify here depends on the value of *n* as follows.

- When *n* is from 1 to 5: Each character string must consist of 4,096 bytes or less.
- When *n* is from 6 to 15: Each character string must consist of 2,048 bytes or less.
- When *n* is from 16 to 20: Each character string must consist of 512 bytes or less.

For extended text data, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

-utime*n* *n-pieces-of-extended-time-data* (*n*: 1 to 5)

You can add a maximum of 5 user-customized elements of the date type (extended time data) to an Item. Specify the new dates and time to be entered in the input field of each element of the target Item in *YYYY/MM/DD hh:mm:ss* format or *YYYY/MM/DD hh:mm* format. For extended time data, you can specify a date and time in the range from 1970/01/02 00:00:00 to 2036/12/31 23:59:59.

–ucode*n* *n-pieces-of-extended-code-data* (*n*: 1 to 5)

You can add a maximum of 5 user-customized elements of the code type (extended code data) to an Item. Specify the new contents to be entered in the input field of each element of the target Item. When you use extended code data, make sure that you create a code mapping file and define extended code data in it. Use the `-m` option to specify the code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12. Definition Files*.

–uint*n* *n-pieces-of-extended-numerical-data* (*n*: 1 to 5)

You can add a maximum of 5 user-customized elements of the numeric type (extended numeric data) to an Item, by using a decimal integer in the range from 0 to 2,147,483,647.

–uurinfo*n* *n-user-types-or-role-types* *n-user-IDs-or-role-IDs* (*n*: 1 to 5)

You can add a maximum of 5 user-customized elements of the user/role type to an Item. Specify the new contents to be entered in the input field of each element of the target Item. For a user type, specify `USER` or `ROLE`. User types are not case sensitive. For a user ID or a role ID, use no more than 64 half-width alphanumeric characters and underscores (_) to specify a user ID in the User management window or a role ID in the Role management window.

If view permissions are set for individual Items in the work board in which the relevant Item is registered, one of **Extended user information type 01** to **05** (`uurinfo1` to `uurinfo5`) is used to set view permissions for the Items. In this case, for *n-user-types-or-role-types* and *n-user-IDs-or-role-IDs* of the relevant **Extended user information type** *n* (`uurinfon`), specify the Item view permissions owner.

–m *code-mapping-file-name*

Use a character string consisting of 255 bytes or less to specify the name of the code mapping file when you use a user-defined code mapping file. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it will have 255 bytes or less after it is converted to an absolute path. For details about code mapping files, see *Code mapping file (jp1imss_itemedit_codemap.conf)* in *Chapter 12. Definition Files*.

–f

Edits the target Item even if it is being edited by another user.

This option is valid when the user who executes this command belongs to the process work board management role or is the process work board manager.

–mail

Enables the email notification function.

You can check whether email notification is performed in the log file (`jssmailnotification_info`*number*`.log`). *number* is the number of the log file. For details, see *User log definition file (jp1mailnotification.conf)* in *Chapter 12. Definition Files*.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

About the automatic input function for Items

The `jssitemedit` command automatically updates the priority level and the deadline even if the `-pr` option and the `-deadline` option are not specified when the automatic input function for Items is enabled.

The command automatically updates the priority level when one of the following conditions is satisfied:

- The `-s` option is specified when the `jssitemedit` command is executed.
- The `-ipt` option is specified when the `jssitemedit` command is executed.
- Both the `-s` option and the `-ipt` option are specified when the `jssitemedit` command is executed.

However, if the `-pr` option is specified but a value is not specified for it, the command does not automatically update the priority level even if one of the above conditions is satisfied.

The command automatically updates the deadline when either of the following conditions is satisfied:

- The `-pr` option and its value are specified and the `-deadline` option is not specified when the `jssitemedit` command is executed.
- One of the conditions that allow the automatic input function for Items to update the priority level is satisfied and the `-deadline` option is not specified when the `jssitemedit` command is executed.

However, if the `-deadline` option is specified but a value is not specified for it, the command does not automatically update the deadline even if the automatic input function for Items is enabled.

The deadline is determined by adding the work time specified for each priority level to the date and time when the target Item was registered.

Prerequisites for executing the command

- The JP1/Service Support - DB Server service must be active. In a cluster configuration, both the JP1/Service Support - DB Server service and the JP1/Service Support - DB Cluster Service service must be active. Other services are optional.
- Only one `jssitemedit` command can be executed at a time. If you execute multiple `jssitemedit` commands simultaneously, the commands might fail.
- While the `jssitemedit` command is being executed, do not execute other JP1/IM - Service Support commands. If you do, the `jssitemedit` command might fail.
- When you execute the `jssitemedit` command, if any of the entered character strings exceeds the length that can be recognized by Command Prompt, the target Item cannot be edited. The command cannot be executed even if the format or the type of characters used for the value specified for each argument is correct. Make sure that the character strings do not exceed the recognizable length.
- When you execute the `jssitemedit` command, if any of the entered character strings cannot be recognized by Command Prompt, the target Item cannot be edited. Enter only the character strings that Command Prompt can recognize. For example, if a character string contains spaces (Δ), enclose the character string between double quotation marks (").
- When you use extended code data, make sure that you create a mapping file.
- The special characters of Command Prompt must be preceded by an escape character at entry. For example, if you want to include a double quotation mark (") in an argument that is enclosed between double quotation marks, an escape character, \, must precede that double quotation mark (\").

Remarks

- For the options of the `jssitemedit` command, specify only the elements that appear in the windows. Although all the elements that you specify in the options are registered in the Item management database, you cannot check them unless they appear in the windows.

- If you cancel the `jssitemedit` command while it is being executed, Item data will not be edited.

- If you cancel the `jssitemedit` command by using **Ctrl+C** while the command is being executed, Item data might not be edited. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and re-execute the command.

- When you use the `jssitemedit` command to edit an Item, no JP1 event is issued to notify the change of the Item's status.

- You can output the results of executing the `jssitemedit` command to a log file and check the results. For details, see *User log definition file (jp1itemedit.conf)* in *Chapter 12. Definition Files*.

- The `jssitemedit` command edits the specified Item without checking the validity in the following cases. The person who executes the command must make sure that the correct values are specified for the command. If the target Item is edited incorrectly, correct the Item data in the relevant process work board after the Item is edited.

  - When you change the status of the Item to `Close`, the Item is updated even if values are not specified for the options that are required to change the status of the Item to `Close`.

  - When you specify new status for the Item, the Item is updated even if the specified status is not available in the specified process work board.

  - When you specify new status for the Item, the Item is updated even if the specified status is prohibited by the function that limits the types of new status that can be assigned to Items.

  - When you specify a code mapping file, the Item is updated even if the code that is converted by using the code mapping file does not match any codes defined in the Item form definition file.

  - When you specify a new person in charge of the target Item, the Item is updated even if the specified person in charge does not have the permission to process the Item after it is edited.

- If the character string specified with the `-m` option contains full-width characters, the full-width characters are converted to 2-byte characters. If other options can have full-width characters, the full-width characters are converted to 3-byte characters or 4-byte characters.

- When view permissions are set for individual Items in the work board in which the relevant Item is updated, if you update the Item without specifying the Item view permissions owner for the `-uurinfo`*n* option, users other than the process work board manager will not be able to view the Item. In such a case, the process work board manager must set view permissions for individual Items using either of the following ways:

  - Specify the Item view permissions owner for the `-uurinfo`*n* option, and then re-execute the `jssitemedit` command.

  - In the Edit item window, set the Item view permissions owner.

Example

The following example shows how to change the status of the Item with process work board serial number `00001` in the process work board with process work board ID `HQsystem` to `Close`.

```
jssitemedit -b HQsystem -pi 00001 -r user001 -cht USER -ch jp1admin -st
Close
```

jssitementry (registers an Item)

Description

This command registers the data of a new Item in the Item management database. For the status of the Item, `Received` is automatically assigned.

If you do not specify any of the following data of the Item, the omitted data is not registered in the Item management database. When you reference the registered Item later, blanks are shown for the data you do not specify.

Format

```
jssitementry -b process-work-board-ID
             -t title
             -r registrant-ID
             -cht person-in-charge-type
             -ch person-in-charge-ID
            [-s severity]
            [-ipt impact-level]
            [-pr priority]
            [-itmc Item-type]
            [-isuc problem-domain]
            [-cus customer-name]
            [-reqp inquirer]
            [-ins impact-service]
            [-det overview]
            [-jp1 product-name]
            [-jobnet jobnet-name]
            [-job job-name]
            [-snmp SNMP-source]
            [-node monitored-node-name]
            [-alarm alarm-name]
            [-url related-information-display-name URL]
            [-evt JP1/IM - Manager-host-name JP1-event-database-serial-
number]
            [-aim JP1/AIM-server-name
             -cit device-type
             -ci server-name-1 [server-name-2 ...]]
            [-linkitem Item-ID-1 [Item-ID-2 ...]]
            [-acdate occurrence-date-and-time]
            [-stdate start-date-and-time]
            [-deadline deadline]
            [-utextn n-pieces-of-extended-text-data]
            [-utimen n-pieces-of-extended-time-data]
            [-ucoden n-pieces-of-extended-code-data]
            [-uintn n-pieces-of-extended-numeric-data]
            [-uurinfon n-user-types-or-role-types n-user-IDs-or-role-IDs]
            [-ulinkn type link-details]
            [-m code-mapping-file-name]
            [-mail]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path`\bin\`

Arguments

`-b` *process-work-board-ID*

Use no more than 64 half-width alphanumeric characters to specify the process work board ID of the process work board where you want to register the Item.

`-t` *title*

Use a character string consisting of 512 bytes or less to specify the title of the Item. For *title*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-r` *registrant-ID*

Use no more than 64 half-width alphanumeric characters to specify the ID of the user who registers the Item.

An error occurs in the following cases:

- No user with the specified ID exists.
- The user with the specified ID does not have the permission to register Items in the specified process work board.

`-cht` *person-in-charge-type*

Specify `USER` or `ROLE` as the type of the person who is in charge of the Item. The type is not case sensitive.

`-ch` *person-in-charge-ID*

Use no more than 64 half-width alphanumeric characters and underscores (_) to specify the user ID of the person in charge of the Item or the role ID of the role in charge of the Item.

`-s` *severity*

Specifies the severity level of the Item. The following table describes the specifiable values. The severity levels are not case sensitive.

Specifiable value for severity	Description
Emergency	Emergency
Alert	Alert
Critical	Critical
Error	Error
Warning	Warning
Notice	Notice
Information	Information
Debug	Debug

-ipt *impact-level*

Specifies the impact level of the Item. The following table describes the specifiable values. The impact levels are not case sensitive.

Specifiable value for impact level	Description
S	Small
M	Middle
B	Large

-pr *priority*

Specifies the priority level of the Item. The following table describes the specifiable values. The priority levels are not case sensitive.

Specifiable value for priority	Description
N	Standard
M	Urgent
H	Very urgent

If the automatic input function for Items is enabled for the process work board and you omit the -pr option, the value specified in the property file for automatic Item-defaults input for the commands is set. For details about the property file for automatic Item-defaults input for the jssitemedit command and the jssitementry command, see *Property file for automatic Item-defaults input (jp1imss_itementry_default.conf)* in *Chapter 12. Definition Files*.

-itmc *Item-type*

Specifies the Item type of the Item. The following table describes the specifiable values. The Item types are not case sensitive.

Specifiable value for Item type	Description
QUE	Inquiry
FAL	Failure
CR	Customer request

-isuc *problem-domain*

Specifies the problem domain of the Item. The following table describes the specifiable values. The problem domains are not case sensitive.

Specifiable value for problem domain	Description
APP	Application
MID	Middleware
OS	OS
HRD	Hardware
NET	Network
PRO	Process

`-cus` *customer-name*

Use a character string consisting of 1,024 bytes or less to specify the customer name for the Item. For *customer-name*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-reqp` *inquirer*

Use a character string consisting of 255 bytes or less to specify the inquirer for the Item. For *inquirer*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-ins` *impact-service*

Use a character string consisting of 255 bytes or less to specify the impact-service for the Item. For *impact-service*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

You can use the Configuration file for character string substitution to replace a specific character string with a linefeed character before you register an Item. For details about the Configuration file for character string substitution, see *Configuration file for character string substitution (jp1imss_replace_string_setting.conf)* in *Chapter 12. Definition Files*.

`-det` *overview*

Use a character string consisting of 2,048 bytes or less to specify the overview of the Item. For *overview*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

You can use the Configuration file for character string substitution to replace a specific character string with a linefeed character before you register an Item. For details about the Configuration file for character string substitution, see *Configuration file for character string substitution (jp1imss_replace_string_setting.conf)* in *Chapter 12. Definition Files*.

`-jp1` *product-name*

Use a character string consisting of 1,024 bytes or less to specify the JP1 product name for the Item. For *product-name*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-jobnet` *jobnet-name*

Use a character string consisting of 1,024 bytes or less to specify the jobnet name for the Item. For *jobnet-name*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-job` *job-name*

Use a character string consisting of 1,024 bytes or less to specify the job name for the Item. For *job-name*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-snmp` *SNMP-source*

Use a character string consisting of 1,024 bytes or less to specify the SNMP source name for the Item. For *SNMP-source*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-node` *monitored-node-name*

Use a character string consisting of 255 bytes or less to specify the monitored node name for the Item. For *monitored-node-name*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-alarm` *alarm-name*

Use a character string consisting of 255 bytes or less to specify the alarm name for the Item. For *alarm-name*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-url` *related-information-display-name URL*

Specifies the display name of element Related information and the URL of the location that displays the related information for the Item. For *related-information-display-name*, use a character string consisting of 255 bytes or less. For *URL*, use a character string consisting of 2,048 bytes or less. For *related-information-display-name* and *URL*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-evt` *JP1/IM - Manager-host-name JP1-event-database-serial-number*

Specify the name of the JP1/IM - Manager host that registered the JP1 event that you want to register as an Item. Also, use a decimal number in the range from 0 to 2,147,483,647 to specify the JP1 event database serial number of the JP1 event.

`-aim` *JP1/AIM-server-name*

Use a character string consisting of 255 bytes or less to specify the JP1/AIM server name and the port number of JP1/AIM to reference the device information managed by JP1/AIM from the Item. For *JP1/AIM-server-name*, you can use half-width alphanumeric characters, periods (.), colons (:), and hyphens (-). However, you cannot specify a character string beginning with a hyphen (-).

`-cit` *device-type*

Specifies the device type for the Item's element Hardware information. This argument is mandatory when you specify the `-aim` option. The device types are not case sensitive.

Specifiable value for device type	Meaning
HOST	Host (JP1/AIM)
IP	IP address (JP1/AIM)
ASSETID	Asset ID (JP1/AIM)

`-ci` *server-name-1* [*server-name-2* ...]

Specifies the name of the server indicated by the Item's element Hardware information. You can specify a maximum of 10 server names. Use a character string consisting of 255 bytes or less to specify each server name. The `-ci` option must always come after the `-cit` option. The server name depends on the value specified for the `-cit` option that comes immediately before the `-ci` option (middleware, IP address, or asset ID). For *server-name*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-linkitem` *Item-ID-1* [*Item-ID-2* ...]

Specifies the IDs of the related Items to be linked to the Item. Use a character string consisting of 128 bytes or less to specify each Item ID. You can specify a maximum of 10 related Item IDs.

`-acdate` *occurrence-date-and-time*

Specifies the date and time when the Item occurred in *YYYY/MM/DD hh:mm:ss* format or *YYYY/MM/DD hh:mm* format. You can specify a date and time in the range from 1970/01/02 00:00:00 to 2036/12/31 23:59:59. If the automatic input function for Items is enabled for the process work board, omitting the `-acdate` option sets the time when the `jssitementry` command is executed. If the automatic input function for Items is disabled and you omit the `-acdate` option, the occurrence date and time are not set. If you do not want to specify the occurrence date and time at all, specify the `-acdate` option and omit its value.

`-stdate` *start-date-and-time*

Specifies the date and time when the Item started in *YYYY/MM/DD hh:mm:ss* format or *YYYY/MM/DD hh:mm* format. You can specify a date and time in the range from 1970/01/02 00:00:00 to 2036/12/31 23:59:59. If the automatic input function for Items is enabled for the process work board, omitting the `-stdate` option sets the time when the `jssitementry` command is executed. If the automatic input function for Items is disabled and you omit the `-stdate` option, the start date and time are not set. If you do not want to specify the start date and time at all, specify the `-stdate` option and omit its value.

`-deadline` *deadline*

Specifies the deadline for the Item in *YYYY/MM/DD hh:mm:ss* format or *YYYY/MM/DD hh:mm* format. You can specify a date and time in the range from 1970/01/02 00:00:00 to 2036/12/31 23:59:59. If the automatic input function for Items is enabled for the process work board, omitting the `-deadline` option sets the time when the `jssitementry` command is executed plus a certain length of time. The length of time to be added depends on the priority level. The length of time to be added also changes depending on whether you select the **Use the settings in the Property file for automatic Item-defaults input** check box in the Settings - Automatic item input tab in the New process work board window.

- When you select the **Use the settings in the Property file for automatic Item-defaults input** check box

  The length of time specified in the property file for automatic Item-defaults input (`jp1imss_itementry_default.conf`) is added.

- When you clear the **Use the settings in the Property file for automatic Item-defaults input** check box

  The length of time you specify in the New process work board window or the Edit the process work board window is added.

If you omit the `-deadline` option when the **Use the settings in the Property file for automatic Item-defaults input** check box is cleared, no deadline is set for the Item. If you do not want to specify a deadline at all, specify the `-deadline` option and omit its value.

`-utext`*n* *n-pieces-of-extended-text-data* (*n*: 1 to 20)

You can add a maximum of 20 user-customized elements of the character string type (extended text data) to an Item. Specify the character string to be entered in the input field of each element and enclose each character string between double quotation marks ("). The number of character strings you can specify here depends on the value of *n* as follows.

- When *n* is from 1 to 5: Each character string must consist of 4,096 bytes or less.
- When *n* is from 6 to 15: Each character string must consist of 2,048 bytes or less.
- When *n* is from 16 to 20: Each character string must consist of 512 bytes or less.

For extended text data, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

`-utimen` *n-pieces-of-extended-time-data* (*n*: 1 to 5)

You can add a maximum of 5 user-customized elements of the date type (extended time data) to an Item. Specify the dates and time to be entered in the input field of each element in *YYYY/MM/DD hh:mm:ss* format or *YYYY/MM/DD hh:mm* format. For extended time data, you can specify a date and time in the range from 1970/01/02 00:00:00 to 2036/12/31 23:59:59.

`-ucoden` *n-pieces-of-extended-code-data* (*n*: 1 to 5)

You can add a maximum of 5 user-customized elements of the code type (extended code data) to an Item. Specify the contents to be entered in the input field of each element. When you use extended code data, make sure that you create a code mapping file and define extended code data in it. Use the `-m` option to specify the code mapping file. For details about code mapping files, see *Code mapping file (jp1imss_itementry_codemap.conf)* in *Chapter 12. Definition Files*.

`-uintn` *n-pieces-of-extended-numeric-data* (*n*: 1 to 5)

You can add a maximum of 5 user-customized elements with a numeric value (extended numeric data) to an Item, by using a decimal integer in the range from 0 to 2,147,483,647.

`-uurinfon` *n-user-types-or-role-types n-user-IDs-or-role-IDs* (*n*: 1 to 5)

You can add a maximum of 5 user-customized elements of the user/role type to an Item. Specify the contents to be entered in the input field of each element. For a user type, specify `USER` or `ROLE`. User types are not case sensitive. For a user ID or a role ID, specify a user ID in the User management window or a role ID in the Role management window using no more than 64 half-width alphanumeric characters and underscores (_).

If view permissions are set for individual Items in the work board in which the relevant Item is registered, one of **Extended user information type 01** to **05** (`uurinfo1` to `uurinfo5`) is used to set view permissions for the Items. In this case, for *n-user-types-or-role-types* and *n-user-IDs-or-role-IDs* of the relevant **Extended user information type *n*** (`uurinfon`), specify the Item view permissions owner.

`-ulinkn` *type link-details* (*n*: 1 to 5)

You can specify a maximum of 5 groups of details about links that are related to the Item. The information you can specify for *link-details* differs depending on the value you specify for *type*. You can specify the following information for *link-details*:

- Connection destination server name: Use a character string consisting of 255 bytes or less to specify the name of the JP1/AIM server and the port number of JP1/AIM.

- Server name: You can specify a maximum of 10 servers. Use a character string consisting of 255 bytes or less to specify each server name.

- Item ID: You can specify a maximum of 10 Item IDs. Use a character string consisting of 255 bytes or less to specify each Item ID.

Specification example of *link-details* when *type* is `aim`

connection-destination-server-name `-lcitn` *CI-type* `-lcin` *server-name-1* [*server-name-2 ...*]

- For *connection-destination-server-name*, specify the name of the JP1/AIM server to configure a link to the CI information related to the Item.

- *n* in `-lcitn` and `-lcin` must match *n* in `-ulinkn`.

- For *CI-type*, specify the value defined in the relevant code mapping file. The CI type is not case sensitive.

- For *server-name*, you can specify a maximum of 10 names of servers that contain the CI information related to the Item. The value you can specify for *server-name* differs depending on the value specified in the `-cit` option that

is specified immediately before (host, IP address, or asset ID). For server-name, you can you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

Specification example of *link-details* when *type* is `linkitem`

Item-ID-1 [*Item-ID-2 ...*]

You can specify a maximum of 10 IDs of Items that are related to the Item. Use a character string consisting of 128 bytes or less to specify each Item ID.

Specification example of *link-details* when *type* is `url`

display-name   URL

Specify the display name of element Related information and the URL of the location that displays the related information. For *display-name*, use a character string consisting of 255 bytes or less. For *URL*, use a character string consisting of 2,048 bytes or less. For *display-name* and *URL*, you can use any characters except for control characters (0x00 to 0x1F, 0x7F). However, you cannot specify a character string beginning with a hyphen (-).

−m *code-mapping-file-name*

Use a character string consisting of 255 bytes or less to specify the name of the code mapping file when you use a user-defined code mapping file. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it will have 255 bytes or less after it is converted to an absolute path. For details about code mapping files, see *Code mapping file (jp1imss_itementry_codemap.conf)* in *Chapter 12. Definition Files*.

−mail

Enables the email notification function.

You can check whether email notification is performed in the log file (`jssmailnotification_info`*number*`.log`). *number* indicates the number of the log file. For details, see *User log definition file (jp1mailnotification.conf)* in *Chapter 12. Definition Files*.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- You can execute a maximum of 5 `jssitementry` commands at a time. If you execute 6 or more commands, the commands might fail.

- While the `jssitementry` command is being executed, do not execute other JP1/IM - Service Support commands. If you do, the `jssitementry` command might fail.

- When you execute the `jssitementry` command, if any of the entered character strings exceeds the length that can be recognized by Command Prompt, the Item cannot be registered. Make sure that the character strings do not exceed the recognizable length.

- For the options of the `jssitementry` command, specify only the elements that appear in the windows. Although all the elements that you specify in the options are registered in the Item management database, you cannot check them unless they appear in the windows.

- When you use extended code data, make sure that you create a mapping file.

- The special characters of Command Prompt must be preceded by an escape character at entry. For example, if you want to include a double quotation mark (") in an argument that is enclosed between double quotation marks, an escape character, \, must precede that double quotation mark (\ ").

  However, when you link JP1/IM Service Support with JP1/IM - Manager, the JP1/IM - Manager's function for converting event transfer information can automatically insert the escape character before any special characters in Command Prompt. For details about the JP1/IM - Manager's function for converting event transfer information, see *Job Management Partner 1 Version 10 Job Management Partner 1/Integrated Management - Manager Overview and System Design Guide*.

Remarks

- If you cancel the `jssitementry` command while it is being executed, Item data will not be registered.

- If you cancel the `jssitementry` command by using **Ctrl+C** while the command is being executed, Item data might not be registered. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.

- You can output the results of executing the `jssitementry` command to a log file and check the results. For details, see *User log definition file (jp1itementry.conf)* in *Chapter 12. Definition Files*.

- When you use the `jssitementry` command, you can register an Item without specifying the mandatory elements that you must enter when you register the Item or when the status of the Item is `Close`.

- If the character string specified with the `-m` option contains full-width characters, the full-width characters are converted to 2-byte characters. If other options can have full-width characters, the full-width characters are converted to 3-byte characters or 4-byte characters.

- Tab characters are control characters. For this reason, do not specify tab characters in arguments that cannot take control characters (0x00 to 0x1F, 0x7F). When you link JP1/IM Service Support with JP1/IM - Manager, JP1/IM - Manager's function for converting event transfer information when you register Items can convert tab characters to spaces. For details about JP1/IM - Manager's function for converting event transfer information, see *Job Management Partner 1 Version 10 Job Management Partner 1/Integrated Management - Manager Overview and System Design Guide*.

- If you use the Configuration file for character string substitutiononfiguration file for character string substitution to replace the character strings in textarea-type elements of Items with linefeed characters, do not insert linefeed characters into the values of element IDs JIMSD_FORM_USERTEXT01 to JIMSD_FORM_USERTEXT20 in Item forms. If you do so and then execute the `jssitementry` command, the operation is not guaranteed. For details about the Configuration file for character string substitution, see *Configuration file for character string substitution (jp1imss_replace_string_setting.conf)* in *Chapter 12. Definition Files*.

- When view permissions are set for individual Items in the work board in which a relevant Item is registered, if you register the Item without specifying the Item view permissions owner for the `-uurinfo`*n* option, users other than the process work board manager will not be able to view the Item. In such a case, the process work board manager must set view permissions for individual Items using either of the following ways:

  - Specify the Item view permissions owner for the `-uurinfo`*n* option, and then execute the `jssitemedit` command. For details about the `jssitemedit` command, see *jssitemedit (edits an Item)* in *Chapter 11. Commands*.

  - In the Edit item window, set the Item view permissions owner.

Example

The following example shows how to register the data of an Item titled `Excessive server access`.

```
jssitementry -b HQsystem -t Excessive server access -r user0001 -cht user -
ch user0002 -s Warning -ipt S -pr N -itmc FAL -isuc APP -cus ABC
Corporation -reqp Jane Smith -ins impact-service -jp1 /HITACHI/JP1/
CentralConsole -jobnet net1 -job Calculation-1 -snmp XXXX -node Monitored
node -alarm alarm01 -url Related information http://www.xxxx.html -aim
server01 -cit HOST -ci server10 server11 -m jp1imss_itementry_codemap.conf
```

jssitementrybymail (registers emails as Items)

Description

This command obtains emails that users send to a specific email address, registers them as Items using the subjects, the emails, and the message IDs.

The command can also be automatically executed from the JP1/Service Support - Task Service service.

To use this command, you need to specify required information in the email definition file beforehand. For details about the email definition file, see *Email definition file (jp1imss_mail_setting.conf)* in *Chapter 12. Definition Files*.

Format

```
jssitementrybymail -sys [-mail]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-sys

Registers emails as Items. This argument is mandatory.

-mail

Enables the email notification function.

You can check whether email notification is performed in the log file (jssmailnotification_info*number*.log). *number* is the number of the log file. For details, see *User log definition file (jp1mailnotification.conf)* in *Chapter 12. Definition Files*.

Return values

Return value	Meaning
0	All the obtained emails were successfully registered as Items.
1	All the obtained emails were successfully registered as Items. However, some of the attached files failed to be saved.
2	Some of the obtained emails failed to be registered as Items.
3	Some of the obtained emails failed to be registered as Items. In addition, some of the attached files failed to be saved.
4	All the obtained emails failed to be registered as Items.
5	All the obtained emails failed to be registered as Items. However, some of the attached files were successfully saved.
6	An error occurred before emails were obtained.
7	The command was executed but no emails were registered in the email server.

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Only one `jssitementrybymail` command can be executed at a time.

- If you execute the `jssitementrybymail` command while the email server has large quantities of emails, a great load is placed on the machine. To reduce the load, execute the `jssitementrybymail` command at short intervals.

Remarks

- The `jssitementrybymail` command will not obtain emails if one of the following is true:

  - The user does not have Administrator permissions.

  - The `-sys` option is not specified with the `jssitementrybymail` command.

  - The email definition file contains incorrect definitions.

  - The email server cannot be connected to.

  - The total size of an email exceeds 5 megabytes (the total size of an email includes the sizes of the title, message, headers, and attached files).

- If you cancel the `jssitementrybymail` command by using **Ctrl+C** while the command is being executed, emails might not be registered as Items. For this reason, do not cancel the command during execution by using **Ctrl +C**. If you happen to do so, wait for a while and then re-execute the command.

- While the `jssitementrybymail` command is being executed from the JP1/Service Support - Task Service service, if the JP1/Service Support - Task Service service stops, the command is also forcibly ended. In this case, do not stop the JP1/Service Support - Task Service service because registration of emails as Items might fail.

- You can output the result of executing the `jssitementrybymail` command to a log file and check the result. For details, see *User log definition file (jp1itementrybymail.conf)* in *Chapter 12. Definition Files*.

- If the command fails to output the file attached to an email, the command cancels outputting the file into the Item management database. If multiple files are attached to an email and the command fails to obtain any one of the files, the command does not output all the files attached to the email into the Item management database.

- If one of the following error messages appears, a KNAB26043-E message might appear even if the command successfully registered emails as Items.

  - KNAB24003-E

  - KNAB24104-E

  - KNAB26039-E

  When you eliminate the cause of the error that prompted the KNAB24003-E, KNAB24104-E, or KNAB26039-E message and execute the `jssitementrybymail` command again, a KNAB26036-E message might appear. This is because some of the emails were registered as Items the last time the `jssitementrybymail` command was executed. However, this is not a problem because the emails are registered as Items and then deleted from the email server.

jssitemexportEx (exports extended Item information)

Description

This command outputs the Item information and history information that is registered in JP1/IM - Service Support to CSV files. When files are attached to an Item, the command also outputs the attached files. If you cancel the command during execution, the command outputs the Item information up to that point to CSV files. This command includes the `jssitemlist` (outputs a list of Items) and `jssitemhistory` (outputs Item history) command functions.

Format

```
jssitemexportEx -o output-destination-folder-name
                {-ALL | -s -id system-ID | -p -id process-work-board-ID
                 [-pi process-work-board-serial-number]}
                {-ct start-date-end-date | -et start-date-end-date}
                [-a]
                [-f]
                [-m CSV-column-name-mapping-file-name]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path`\bin\`

Arguments

-o *output-destination-folder-name*

For *output-destination-folder-name*, use 80 bytes or less to specify the name of the folder to which Item information is to be output. Count half-width characters as 1-byte each and full-width characters as 2-bytes each. You can use an absolute path or a relative path to specify the folder name. When you use a relative path, make sure that it is 80 bytes or less after it is converted to an absolute path. If the specified folder name does not exist, the system creates a folder with the specified name.

Mainly, the following files are created or output to the specified output destination folder:

- `Item_PWB_`*process-work-board-ID*`.csv`

  A CSV file to which Item information is output (Item information CSV file).

  Each file contains Item information including update information for each process work board. A file is created even if no Items exist in the corresponding process work board. Note that a file is created for each process work board even if you specify a system ID in the `-s -id` option.

- `ItemRefInfo_PWB_`*process-work-board-ID*`.csv`

  A CSV file to which related information is output (related information CSV file).

  Each file contains related information for a process work board. A file is created even if no Items exist in the corresponding process work board. Note that a file is created for each process work board even if you specify a system ID in the `-s -id` option.

- Attached files

  Files attached to an Item.

  Attached files are output to a folder for each process work board serial number in a process work board.

An attached file ID is appended to the beginning of each attached file name. An Item information CSV file contains the IDs and names of the attached files that are output under the output destination folder. You can use attached file IDs to identify attached files. Attached files are output to a folder whose name is a process work board serial number. If the name of the folder containing attached files is too short (if the process work board serial number is less than 5 digits), the name is padded with zeros.

The following figure shows an example configuration for Item information CSV files, related information CSV files, and attached files.

```
Specified output destination folder
 |- system01                            system-ID
 | |- Item_PWB_pwb001.csv               Item information CSV file
 | |- ItemRefInfo_PWB_pwb001.csv        Related information CSV file
 | |- pwb001                            process-work-board-ID
 |    |- 00001                          process-work-board-serial-number
 |       |- 00001_AttachedFile01.txt    Attached file 1
 |       |- 00002_AttachedFile02.txt    Attached file 2
 |       |- 00003_AttachedFile03.txt    Attached file 3
 |- system02                            system-ID
 | |- Item_PWB_pwb002.csv
 | |- ItemRefInfo_PWB_pwb002.csv
    :
    :
```

–ALL

Outputs the Item information in all systems including the master system.

-s id *system-ID*

Outputs the Item information in a selected system. For *system-ID*, use 1 to 64 half-width alphanumeric characters.

-p -id *process-work-board-ID*

Outputs the Item information in a selected process work board. For *process-work-board-ID*, use 1 to 64 half-width alphanumeric characters.

-pi *process-work-board-serial-number*

Outputs the Item information of an Item in the selected process work board. For details about process work board serial numbers, see *3.2.2(1) List of Items*.

-ct *start-date–end-date*

Specifies a period in *YYYY/MM/DD* format to output the information about the Items created in that period. Insert a hyphen (-) between the start date and the end date.

For *start-date* and *end-date*, you can specify dates in the range from 1970/01/01 to 2107/01/01. For *start-date*, specify a date earlier than *end-date*.

The start date and the end date are defined as follows.

start-date

Outputs the information about the Items that were created on and after this date. If you specify a non-existent date within the specifiable range, an error occurs.

end-date

> Outputs the information about the Items that were created on and before this date. If you specify a non-existent date within the specifiable range, an error occurs.

For example, if you specify `2013/04/01-2013/04/07`, the information about the Items that were registered between 2013/04/01 00:00:00(.000) and 2013/04/07 23:59:59(.999) is output.

`-et` *start-date-end-date*

Specifies a period in *YYYY/MM/DD* format to output the information about the Items updated in that period. Insert a hyphen (-) between the start date and the end date.

For *start-date* and *end-date*, you can specify dates in the range from 1970/01/01 to 2107/01/01. For *start-date*, specify a date earlier than *end-date*.

The start date and the end date are defined as follows.

start-date

> Outputs the information about the Items that were updated on and after this date. If you specify a non-existent date within the specifiable range, an error occurs.

end-date

> Outputs the information about the Items that were updated on and before this date. If you specify a non-existent date within the specifiable range, an error occurs.

For example, if you specify `2013/04/01-2013/04/07`, the information about the Items that were updated between 2013/04/01 00:00:00(.000) and 2013/04/07 23:59:59(.999) is output.

`-a`

Outputs the information about the Items in all statuses. If you do not specify the `-a` option, the system outputs the information about the Items in the `Close` status.

`-f`

Overwrites the files in the output destination folder. If no files exist in the output destination folder, files are created.

`-m` *CSV-column-name-mapping-file-name*

When you use a user-defined CSV column name mapping file, use a character string consisting of 255 bytes or less to specify the name of the file. Count half-width characters as 1-byte each and full-width characters as 2-bytes each. You can use an absolute path or a relative path to specify the name of a CSV column name mapping file. When you use a relative path, make sure that it will have 255 bytes or less after it is converted to an absolute path. For details about CSV column name mapping files, see *CSV column name mapping file (jp1imss_itemcsv_columnmap.conf)* in *Chapter 12. Definition Files*.

Return values

Return value	Meaning
0	Normal end
1	An incomplete CSV file is output.
2	Abnormal end

Contents of an Item information CSV file

An Item information CSV file contains data in the following format.

Header
section

```
#"JP1/IM-Service Support","085100","ISO-8859-1","ITEMEXPORTEX_ITEM"
```

Body
section

```
#"System ID of target system","System name of target system",...
"1","1","1",...
"2","1","1",...
          :
          :
```

Footer
section

```
#"Closed Item Number : 45"
#"Unclosed Item Number : 5"
```

The first line in the body section in an Item information CSV file lists the names of the Items' attributes.

The details about the contents of an Item information CSV file are as follows.

Header section

Output sequence	Header item	Value
1	Product name	JP1/IM - Service Support
2	Version number of the Item information CSV file	The version number of the file is indicated by 6 digits.
3	Character encoding used in the Item information CSV file	Character encoding of output files.
4	Type of data that is output to the Item information CSV file	ITEMEXPORTEX_ITEM

Body section

Output sequence	Body item[#1]	Description	Corresponding Item form element ID
1	System ID of target system	ID of the system containing the Item	--
2	System name of target system	Name of the system containing the Item	JIMSD_FORM_SYSTEM
3	Process name	Name of the process for the process work board containing the Item	JIMSD_FORM_PROCESS
4	Process work board ID	ID of the process work board containing the Item	JIMSD_FORM_ITEMID[#2]
5	Process work board serial number	Process work board serial number of the Item	
6	Version number	Number that indicates the version of the Item	--
7	Related item serial number	Related Item serial number of the Item	JIMSD_FORM_PROCESSITEMID[#2]
8	Escalation number	Number of escalations for the Item	
9	Item form ID	ID of the Item form used for the Item	--
10	Version number of Item form	Number that indicates the version of the Item form used for the Item	--
11	Item status ID	ID of the status of the Item	--

Output sequence	Body item[#1]	Description	Corresponding Item form element ID
12	Item status name	Name of the status of the Item	JIMSD_FORM_ITEMSTATUSID
13	Edit status	Indicates whether the Item is being edited by another user when the jssitemexportEx command is executed.	--
14	Data type	Indicates the Item status.	--
15	Escalation source process work board ID	ID of the escalation source process work board if the Item was escalated	--
16	Escalation source related Item serial number	Related Item serial number of the escalation source Item if the Item was escalated	--
17	Escalation source escalation number	Escalation number of the immediately previous escalation source Item if the Item was escalated	--
18	Escalation destination related Item serial number	Related Item serial number of the escalation destination Item if the Item was escalated	--
19	Escalation destination escalation number	Escalation number of the escalation destination Item if the Item was escalated	--
20	Escalation destination process work board ID	ID of the process work board containing the escalation destination Item if the Item was escalated	--
21	Escalation destination system ID	ID of the system containing the escalation destination Item if the Item was escalated	--
22	Escalation system name	Name of the system containing the escalation destination Item if the Item was escalated	--
23	Escalation process name	Name of the process for the process work board containing the escalation destination Item if the Item was escalated	--
24	Link source event database serial number	JP1 event database serial number of the JP1 event that was automatically registered as the Item	JIMSD_FORM_IMEVENTNO
25	JP1/IM - Manager host name	Name of the host running JP1/IM - Manager that automatically registered a JP1 event as the Item	JIMSD_FORM_IMHOSTNAME
26	Severity	Severity level of the Item	JIMSD_FORM_SEVERITYCODE
27	Impact level	Impact level of the Item	JIMSD_FORM_IMPACTCODE
28	Priority	Priority level of the Item	JIMSD_FORM_PRIORITYCODE
29	Item type	Type of the Item	JIMSD_FORM_ITEMCATEGORYCODE
30	Problem domain	Domain of problem addressed by the Item	JIMSD_FORM_ISSUECATEGORYCODE
31	Occurred type	Phenomenon type of the Item	JIMSD_FORM_PHENOMENONCODE
32	Cause	Cause of the Item	JIMSD_FORM_CAUSECODE
33	Result	Result of the Item	JIMSD_FORM_RESULTCODE

Output sequence	Body item[#1]	Description	Corresponding Item form element ID
34	Solution category code	Category code of solution for the Item	JIMSD_FORM_SOLUTIONCODE
35	Workaround type	Type of workaround for the Item	JIMSD_FORM_AVOIDANCECODE
36	Scale of change	Scale of change required by the Item	JIMSD_FORM_CHANGESCALECODE
37	Release type	Type of release for the Item	JIMSD_FORM_RELEASETYPECODE
38	Occurrence date and time	Occurrence date and time of the Item	JIMSD_FORM_ACCRUALDATE
39	Deadline	Deadline of the Item	JIMSD_FORM_DEADLINE
40	Start date and time	Start date and time of the Item	JIMSD_FORM_STARTDATE
41	End date and time	End date and time of the Item	JIMSD_FORM_COMPDATE
42	Title	Title of the Item	JIMSD_FORM_TITLE
43	Overview	Overview of the Item	JIMSD_FORM_SUMMARY
44	Impact service	Work affected by the Item	JIMSD_FORM_EFFECTSERVICE
45	Reason for severity	Reason for setting the severity level for the Item	JIMSD_FORM_SEVERITYREASON
46	Reason for impact level	Reason for setting the impact level for the Item	JIMSD_FORM_IMPACTREASON
47	Reason for priority	Reason for setting the priority level for the Item	JIMSD_FORM_PRIORITYREASON
48	Workaround	Workaround for the Item	JIMSD_FORM_AVOIDANCE
49	Work status	Work status of the Item	JIMSD_FORM_SITUATION
50	Fundamental cause	Fundamental cause of the Item	JIMSD_FORM_ROOTCAUSE
51	Solution	Solution for the Item	JIMSD_FORM_SOLUTION
52	Problem location and version	Problem component and version for the Item	JIMSD_FORM_FAILURELOCATION
53	Schedule and main steps	Schedule and main steps for the Item	JIMSD_FORM_SCHEDULE
54	Impact assessment for change	Impact assessment for change	JIMSD_FORM_IMPACTEVAL
55	Discussions result	Result of discussions for the Item	JIMSD_FORM_DELIBERATIONRST
56	How to avoid the problem in the future	Thought for preventing reoccurrence of the problem	JIMSD_FORM_MEASURES
57	Free memo column	Free memo	JIMSD_FORM_FREEDESCRIPTION
58	Product name	Name of the product that issued a JP1 event	JIMSD_FORM_JP1PRODUCTNAME
59	Jobnet name	JP1/AJS jobnet name	JIMSD_FORM_JP1JOBNETNAME
60	Job name	JP1/AJS job name	JIMSD_FORM_JP1JOBNAME
61	SNMP source	Name of the source of SNMP traps that are converted to JP1 events by using the SNMP trap conversion function of JP1/Base	JIMSD_FORM_JP1SNMPSRC

Output sequence	Body item[#1]	Description	Corresponding Item form element ID
62	Monitored node name	Name of the monitored node that is defined by using the integrated scope function of JP1/IM - Manager	JIMSD_FORM_JP1NODENAME
63	Alarm name	Alarm name in the JP1 event issued by JP1/PFM Web Console	JIMSD_FORM_JP1ALARMNAME
64	Customer name	Customer name	JIMSD_FORM_CUSTOMERNAME
65	Cost (planned)	Cost (planned)	JIMSD_FORM_ESTIMATEDCOST
66	Cost (actual)	Cost (actual)	JIMSD_FORM_ACTUALCOST
67	Inquirer's name	Inquirer name	JIMSD_FORM_INQUIRYNAME
68	Registrant ID	ID of the user who registered the Item	--
69	Registrant's name	Name of the user who registered the Item	JIMSD_FORM_REGISTRANT
70	Registrant's name (English)	Name of the user who registered the Item (English)	--
71	Person in charge type	Type of the person in charge of the Item (user or role)	--
72	Person in charge ID	User ID of the person in charge of the Item	--
73	Name of person in charge	Name of the person in charge of the Item	JIMSD_FORM_ASSIGNED
74	Name of person in charge (English)	Name of the person in charge of the Item (English)	--
75	Answerer type	Type of the person in charge of responding to the Item (user or role)	--
76	Answerer ID	User ID of the person in charge of responding to the Item	--
77	Respondent's name	Name of the person in charge of responding to the Item	JIMSD_FORM_RESPONDENT
78	Respondent's name (English)	Name of the person in charge of responding to the Item (English)	--
79	Extended text 1	Additional text data (1 to 20) defined by a user in an Item form	JIMSD_FORM_USERTEXT01 to JIMSD_FORM_USERTEXT20
80	Extended text 2		
81	Extended text 3		
82	Extended text 4		
83	Extended text 5		
84	Extended text 6		
85	Extended text 7		
86	Extended text 8		
87	Extended text 9		
88	Extended text 10		
89	Extended text 11		
90	Extended text 12		

Output sequence	Body item[1]	Description	Corresponding Item form element ID
91	Extended text 13	Additional text data (1 to 20) defined by a user in an Item form	JIMSD_FORM_USERTEXT01 to JIMSD_FORM_USERTEXT20
92	Extended text 14		
93	Extended text 15		
94	Extended text 16		
95	Extended text 17		
96	Extended text 18		
97	Extended text 19		
98	Extended text 20		
99	Extended time 1	Additional time data (1 to 5) defined by a user in an Item form	JIMSD_FORM_USERTIME01 to JIMSD_FORM_USERTIME05
100	Extended time 2		
101	Extended time 3		
102	Extended time 4		
103	Extended time 5		
104	Extended code 1	Additional code data (1 to 5) defined by a user in an Item form	JIMSD_FORM_USERCODE01 to JIMSD_FORM_USERCODE05
105	Extended code 2		
106	Extended code 3		
107	Extended code 4		
108	Extended code 5		
109	Extended numerical data 1	Additional numeric data (1 to 5) defined by a user in an Item form	JIMSD_FORM_USERINT01 to JIMSD_FORM_USERINT05
110	Extended numerical data 2		
111	Extended numerical data 3		
112	Extended numerical data 4		
113	Extended numerical data 5		

114	Extended user information type 1	Additional user data (1 to 5) defined by a user in an Item form
		
		Extended user information (type):
		    User type (user or role)
		
		Extended user information (ID):
		    User ID
		
		Extended user name:
		    User name
			JIMSD_FORM_USEREXTTYPE01 to JIMSD_FORM_USEREXTTYPE05

115	Extended user information 1		
116	Extended user name 1		
117	Extended user information type 2		
118	Extended user information 2		
119	Extended user name 2		
120	Extended user information type 3		
121	Extended user information 3		
122	Extended user name 3		
123	Extended user information type 4		
124	Extended user information 4		
125	Extended user name 4		

Output sequence	Body item[#1]	Description	Corresponding Item form element ID
126	Extended user information type 5	Additional user data (1 to 5) defined by a user in an Item form	JIMSD_FORM_USEREXTTYPE01 to JIMSD_FORM_USEREXTTYPE05
127	Extended user information 5	Extended user information (type): User type (user or role)	
128	Extended user name 5	Extended user information (ID): User ID Extended user name: User name	
129	Editor ID	ID of the user who created or updated the Item	--
130	Editor's name	Name of the user who created or updated the Item	--
131	Editor's name (English)	Name of the user who created or updated the Item (English)	--
132	Registration date and time	Date and time when the Item was registered	JIMSD_FORM_REGISTDATE
133	Update date and time	Date and time when the Item was updated last	JIMSD_FORM_LASTUPDATE
134	Message ID	A message ID is assigned to an Item that is registered by using the `jssitementrybymail` command (to prevent registering the same Item more than once).	--
135	Related information ID	ID of the related information for the Item	--
136	Attached file ID	ID of an attached file	--
137	Attached file(s)	Name of an attached file	JIMSD_FORM_ATTACHED

Legend:

--: Not applicable.

#1

When Item data contains a linefeed character, the linefeed character is converted to the value specified for `hptl_jp1_imss_replace_linefeed_string` in the configuration file for CSV. For details about the configuration file for CSV, see *Configuration file for CSV (hptl_jp1_imss_csv_setting.properties)* in *Chapter 12. Definition Files*.

#2

Consists of 2 element IDs in an Item form. The following figure describes the details.
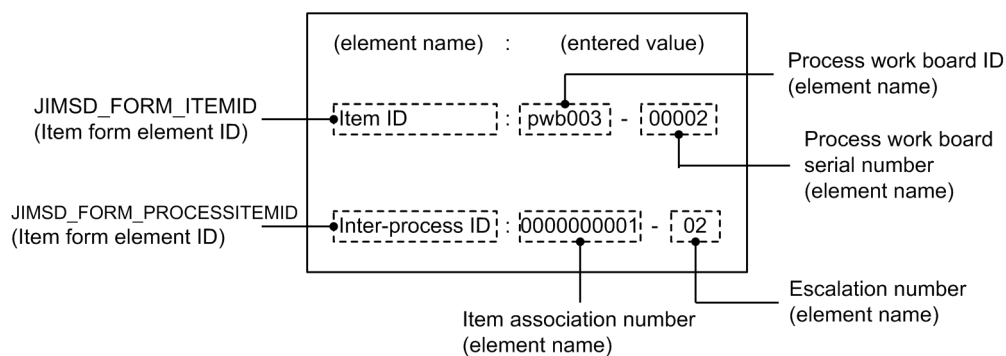
Footer section

Output sequence	Footer item	Value
1	Number of Items in `Close` status	`Closed Item Number :` *number-of-Items*[#]
2	Number of Items in statuses other than `Close`	`Unclosed Item Number :` *number-of-Items*[#]

> #
> Total number of Items for which the data type is `Most recent`

Contents of a related information CSV file

A related information CSV file contains data in the following format.

```
Header    #"JP1/IM-Service Support","085100","ISO-8859-1","ITEMEXPORTEX_ITEMREF"
section

Body      #"Process work board ID","Process work board serial number",...
section    "2","2","2",...
           "3","3","3",...
                  ⋮
                  ⋮
```

The first line in the body section in a related information CSV file lists the names of the attributes.

The details about the contents of a related information CSV file are as follows.

Header section

Output sequence	Header item	Value
1	Product name	`JP1/IM - Service Support`
2	Version number of the related information CSV file	The version number of the file is indicated by 6 digits.
3	Character encoding used in the related information CSV file	Character encoding of output files.
4	Type of data that is output to the related information CSV file	`ITEMEXPORTEX_ITEMREF`

Body section

Output sequence	Body item[#]	Description
1	Process work board ID	ID of the process work board containing the relation source
2	Process work board serial number	Process work board serial number of the relation source
3	Version number	Version number of the relation source
4	Related information ID	ID of the related information
5	Item form part ID	ID of an element in an Item form
6	Related information type	Type of the related information
7	Related information details	Details of the related information
8	Related information 1	Value registered as related information
9	Related information 2	Value registered as related information

#

    When Item data contains a linefeed character, the linefeed character is converted to the value specified for `hptl_jp1_imss_replace_linefeed_string` in the configuration file for CSV. For details about the configuration file for CSV, see *Configuration file for CSV (hptl_jp1_imss_csv_setting.properties)* in *Chapter 12. Definition Files*.

Contents of an attached file

The files attached to an Item are output without change.

If the path for an attached file exceeds 255 bytes, the file name is changed as follows.

1. The extension is removed.
2. The characters in the file name are deleted one by one from the end until the path for the file equals 255 bytes.

   Half-width characters are calculated as 1-byte characters and full-width characters are calculated as 2-byte characters.

Differences in the result of the command depending on the statuses of the system and process work board

The `jssitemexportEx` command operates differently depending on the status of the system and of the selected process work board. The following table describes the differences in the result of the `jssitemexportEx` command depending on the statuses of the system and of the selected process work board.

Table 11–11: Differences in the result of the jssitemexportEx command depending on the statuses of the system and process work board

No.	System status	Process work board status	Result
1	Waiting to be deleted	--	The command does not output the Items in the system.
2	Operating	In process	The command does not output the Items in the process work board.
3		Operating	The command outputs the Items in the process work board. However, the command does not output the Items in the *Waiting to be deleted* status.[1]
4		Ended	
5		Waiting to be deleted	The command does not output the Items in the process work board.

Legend:

    --: Not applicable.

#

    If a process work board is in the operating status, you can manipulate the Items in it while the `jssitemexportEx` command is being executed. For this reason, we recommend that you execute the `jssitemexportEx` command for the Items in the `Close` status (processing is completed).

Prerequisites for executing the command

For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

Remarks

- If you cancel the `jssitemexportEx` command by using **Ctrl+C** while the command is being executed, Item information might not be output. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.
- If the `jssitemexportEx` command stops due to an error while it is being executed, the contents of the output files might be incomplete.

- If you manipulate an Item in a process work board while the `jssitemexportEx` command is being executed for that process work board, the information about that Item might not be output to a CSV file. For this reason, we recommend that you execute the command after you place the target process work board in the ended status.

- Do not manipulate the folders and files under the input source folder while the `jssitemexportEx` command is being executed. If you do, the command will end abnormally. Also, do not execute the `jssitemimportEx` command with an input source folder specified while you execute the `jssitemexportEx` command.

Examples

Example 1

If you want to save Item information in files before you delete some Items in the database to reduce the size of the database, specify the command as follows.

The following example shows how to output the information about the Items in the `Close` status in the process work board with ID `pwb001` to CSV files. The command is applied to the Items that were updated between January 1, 2012 and January 1, 2013. The example also shows how to execute the `jssitemdeletion` command to place some Items in process work board `pwb001` into the *Waiting to be deleted* status.

```
jssitemexportEx -o C:\export -p -id pwb001 -et 2012/01/01-2013/01/01
jssitemdeletion -p -id pwb001 -n 2012/01/01-2013/01/01
```

Example 2

If you want to periodically save all Item information in files to create audit logs, specify the command as follows.

The following example shows how to output the information about the Items in all statuses in all systems to CSV files. The command is applied to the Items that were created between January 1, 2012 and January 1, 2013.

```
jssitemexportEx -o C:\export -ALL -et 2012/12/01-2013/01/01 -a
```

For this example, place the process work boards in the ended status before you execute the command.

Example 3

If you want to stop using a process work board, specify the command as follows.

The following example shows how to output the information about all the Items in the process work board with ID `pwb001`, which was created on January 1, 2012 and stopped being used on January 1, 2013 to CSV files.

```
jssitemexportEx -o C:\export -p -id pwb001 -ct 2012/01/01-2013/01/01 -a
```

For this example, place the process work board in the ended status before you execute the command.

jssitemhistory (outputs Item history)

Description

This command outputs the Item history to a CSV file. Note that the command also outputs the history of the Items that were deleted from the windows and the Items that are placed in the *Waiting to be deleted* status by using the jssitemdeletion command. If you cancel the jssitemhistory command while it is being executed, the command outputs the history up to that point.

Format

```
jssitemhistory -o Item-history-file-name
               -r start-date-end-date
               [-b process-work-board-ID | -i related-item-serial-number]
               [-e]
               [-f]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-o *Item-history-file-name*

Use 255 bytes or less to specify the name of the Item history file to which you want to output the Item history registered in JP1/IM - Service Support. Count two bytes for full-width characters in the file name. You can use an absolute path or a relative path to specify the file name. If you use a relative path, make sure that it will have 255 bytes or less after it is converted to an absolute path. You cannot specify a character string beginning with a hyphen (-) for the file name.

-r *start-date*–*end-date*

Specifies a period in *YYYY*/*MM*/*DD* format. The history of the Items that were updated during that period will be output. Insert a hyphen (-) between the start date and the end date.

For *start-date* and *end-date*, you can specify dates in the range from 1970/01/02 to 2036/12/31. For *start-date*, specify a date earlier than *end-date*.

The start date and the end date are defined as follows.

start-date

Outputs the history of the Items that were updated on and after this date. If you specify a non-existent date within the specifiable range, the system moves the specified date forward to the next closest existing date and outputs the history of the Items that were updated on and after that date. For example, if you specify 2006/04/31, the command outputs the history of the Items that were updated on May 1, 2006 and later.

end-date

Outputs the history of the Items that were updated on and before this date. If you specify a non-existent date within the specifiable range, the system moves the specified date back to the closest previous existing date and outputs the history of the Items that were updated on and before that date. For example, if you specify 2006/06/31, the command outputs the history of the Items that were updated on June 30, 2006 and before.

−b *process-work-board-ID*

Use 64 or less half-width alphanumeric characters to specify the ID of the target process work board that you want to output the history of. If you specify neither the −b option nor the −i option, the command outputs the history of all the Items in JP1/IM - Service Support.

−i *related-item-serial-number*

Use a decimal number consisting of 16 bytes to specify the related item serial number of the target Item if you want to output the history of a specific Item. If you do not specify both the −b option and the −i option, the command outputs the history of all the Items in the Item management database. For details about related item serial numbers, see *3.3.4 Displaying related Items*.

−e

Includes the past data of user-customized elements in the Item history file. If you do not specify this option, the past data of user-customized elements is not output to the Item history file.

−f

Overwrites the Item history file.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Contents of an Item history file

An Item history file contains data in the following format. If data is not registered for an element, two double quotation marks (") are shown for that element.

Header section	`#"JP1/IM-Service Support","085100","ISO-8859-1","ITEMHISTORY"`

Body section	`#"System ID","System name","Process work board ID",...`
	`"AWebsystem","Company A Web system","AWebProblem",...`
	`"BFilesystem","Company B file server system ","BFileIncident",...`

In the first line in the body section in an Item history file, fixed character strings are always shown regardless of how an Item form is customized.

The details about the contents of an Item history file are as follows.

Header section

Output sequence	Header item	Value
1	Product name	`JP1/IM - Service Support`
2	Version number of the Item history file	The version number of the file is indicated by 6 digits.
3	Character encoding used in the Item history file	Character encoding of output files.

Output sequence	Header item	Value

4	Type of data that is output to the Item history file	• When no extended element exists
		  ITEMHISTORY
		• When extended elements exist
		  ITEMHISTORY △ Extended △ Data
		  (Note: △ indicates a half-width space.)

Body section

Output sequence	Body item[#1]	Corresponding Item form element ID
1	System ID	--
2	System name	JIMSD_FORM_SYSTEM
3	Process work board ID	--
4	Process name	JIMSD_FORM_PROCESS
5	Related item serial number	--
6	Escalation number	--
7	Version number[#2]	--
8	Process work board serial number	--
9	Escalation system name	--
10	Escalation process name	--
11	Title	JIMSD_FORM_TITLE
12	Severity	JIMSD_FORM_SEVERITYCODE
13	Impact level	JIMSD_FORM_IMPACTCODE
14	Priority	JIMSD_FORM_PRIORITYCODE
15	Item type	JIMSD_FORM_ITEMCATEGORYCODE
16	Problem domain	JIMSD_FORM_ISSUECATEGORYCODE
17	Status	JIMSD_FORM_ITEMSTATUSID
18	Work status	JIMSD_FORM_SITUATION
19	Result	JIMSD_FORM_RESULTCODE
20	Update date and time	JIMSD_FORM_LASTUPDATE
21	Editor[#3]	--
22	Registrant	JIMSD_FORM_REGISTRANT
23	Registrant ID	--
24	Occurrence date and time	JIMSD_FORM_ACCRUALDATE
25	Registration date and time	JIMSD_FORM_REGISTDATE
26	Start date and time	JIMSD_FORM_STARTDATE
27	Person in charge type	--
28	Person in charge	JIMSD_FORM_ASSIGNED

Output sequence	Body item[#1]	Corresponding Item form element ID
29	Person in charge ID	--
30	Deadline	JIMSD_FORM_DEADLINE
31	Answerer type	--
32	Answerer	JIMSD_FORM_RESPONDENT
33	Answerer ID	--
34	End date and time	JIMSD_FORM_COMPDATE
35	Customer name	JIMSD_FORM_CUSTOMERNAME
36	Inquirer	JIMSD_FORM_INQUIRYNAME
37	Cost (planned)	JIMSD_FORM_ESTIMATEDCOST
38	Cost (actual)	JIMSD_FORM_ACTUALCOST
39	Impact service	JIMSD_FORM_EFFECTSERVICE
40	Overview	JIMSD_FORM_SUMMARY
41	Occurred type	JIMSD_FORM_PHENOMENONCODE
42	Cause	JIMSD_FORM_CAUSECODE
43	Fundamental cause	JIMSD_FORM_ROOTCAUSE
44	Workaround type	JIMSD_FORM_AVOIDANCECODE
45	Workaround	JIMSD_FORM_AVOIDANCE
46	Solution category	JIMSD_FORM_SOLUTIONCODE
47	Solution	JIMSD_FORM_SOLUTION
48	Problem component and version	JIMSD_FORM_FAILURELOCATION
49	How to avoid the problem in the future	JIMSD_FORM_MEASURES
50	Schedule and main steps	JIMSD_FORM_SCHEDULE
51	Impact assessment for change	JIMSD_FORM_IMPACTEVAL
52	Scale of change	JIMSD_FORM_CHANGESCALECODE
53	Release type	JIMSD_FORM_RELEASETYPECODE
54	Discussions result	JIMSD_FORM_DELIBERATIONRST
55	Free memo column	JIMSD_FORM_FREEDESCRIPTION
56	Reason for severity	JIMSD_FORM_SEVERITYREASON
57	Reason for impact level	JIMSD_FORM_IMPACTREASON
58	Reason for priority	JIMSD_FORM_PRIORITYREASON
59	Product name	JIMSD_FORM_JP1PRODUCTNAME
60	Jobnet name	JIMSD_FORM_JP1JOBNETNAME
61	Job name	JIMSD_FORM_JP1JOBNAME
62	SNMP source	JIMSD_FORM_JP1SNMPSRC
63	Monitored node name	JIMSD_FORM_JP1NODENAME

Output sequence	Body item[#1]	Corresponding Item form element ID
64	Alarm name	JIMSD_FORM_JP1ALARMNAME
65	Event database serial number	JIMSD_FORM_IMEVENTNO
66	JP1/IM-M host name	JIMSD_FORM_IMHOSTNAME
67	Hardware information	JIMSD_FORM_LINKAIM
68	Related item ID	--
69	Related information name	JIMSD_FORM_LINKURL
70	Extended text 1	JIMSD_FORM_USERTEXT01
71	Extended text 2	JIMSD_FORM_USERTEXT02
72	Extended text 3	JIMSD_FORM_USERTEXT03
73	Extended text 4	JIMSD_FORM_USERTEXT04
74	Extended text 5	JIMSD_FORM_USERTEXT05
75	Extended text 6	JIMSD_FORM_USERTEXT06
76	Extended text 7	JIMSD_FORM_USERTEXT07
77	Extended text 8	JIMSD_FORM_USERTEXT08
78	Extended text 9	JIMSD_FORM_USERTEXT09
79	Extended text 10	JIMSD_FORM_USERTEXT10
80	Extended text 11	JIMSD_FORM_USERTEXT11
81	Extended text 12	JIMSD_FORM_USERTEXT12
82	Extended text 13	JIMSD_FORM_USERTEXT13
83	Extended text 14	JIMSD_FORM_USERTEXT14
84	Extended text 15	JIMSD_FORM_USERTEXT15
85	Extended text 16	JIMSD_FORM_USERTEXT16
86	Extended text 17	JIMSD_FORM_USERTEXT17
87	Extended text 18	JIMSD_FORM_USERTEXT18
88	Extended text 19	JIMSD_FORM_USERTEXT19
89	Extended text 20	JIMSD_FORM_USERTEXT20
90	Extended time 1	JIMSD_FORM_USERTIME01
91	Extended time 2	JIMSD_FORM_USERTIME02
92	Extended time 3	JIMSD_FORM_USERTIME03
93	Extended time 4	JIMSD_FORM_USERTIME04
94	Extended time 5	JIMSD_FORM_USERTIME05
95	Extended code 1	JIMSD_FORM_USERCODE01
96	Extended code 2	JIMSD_FORM_USERCODE02
97	Extended code 3	JIMSD_FORM_USERCODE03
98	Extended code 4	JIMSD_FORM_USERCODE04

Output sequence	Body item[#1]	Corresponding Item form element ID
99	Extended code 5	JIMSD_FORM_USERCODE05
100	Extended numerical data 1	JIMSD_FORM_USERINT01
101	Extended numerical data 2	JIMSD_FORM_USERINT02
102	Extended numerical data 3	JIMSD_FORM_USERINT03
103	Extended numerical data 4	JIMSD_FORM_USERINT04
104	Extended numerical data 5	JIMSD_FORM_USERINT05
105	Extended user information type 1	--
106	Extended user information 1	JIMSD_FORM_USEREXTTYPE01
107	Extended user information ID 1	--
108	Extended user information type 2	--
109	Extended user information 2	JIMSD_FORM_USEREXTTYPE02
110	Extended user information ID 2	--
111	Extended user information type 3	--
112	Extended user information 3	JIMSD_FORM_USEREXTTYPE03
113	Extended user information ID 3	--
114	Extended user information type 4	--
115	Extended user information 4	JIMSD_FORM_USEREXTTYPE04
116	Extended user information ID 4	--
117	Extended user information type 5	--
118	Extended user information 5	JIMSD_FORM_USEREXTTYPE05
119	Extended user information ID 5	--
120	Extended user link 1[#4]	JIMSD_FORM_REFINFO01
121	Extended user link 2[#4]	JIMSD_FORM_REFINFO02
122	Extended user link 3[#4]	JIMSD_FORM_REFINFO03
123	Extended user link 4[#4]	JIMSD_FORM_REFINFO04
124	Extended user link 5[#4]	JIMSD_FORM_REFINFO05

Legend:

--: Not applicable.

#1

If the history data of an Item contains a linefeed character, the character is converted to a half-width space when the history data is output to the file. If the history data of an Item contains a double quotation mark ("), the double quotation mark is replaced by two double quotation marks (") when the history data is output to the file.

#2

The version number increases by one each time an Item is edited.

#3

When you execute the jssitemlist command with the -d option to output the data of Items, this body item becomes Deleter, not Editor.

#4

An extended user link is an Item ID when the type of the link is related Item. An extended user link is a server name, an IP address, or an property number when the type of the link is hardware information. An extended user link is a display name when the type of the link is related information.

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Do not execute the following commands at the same time as the `jssitemhistory` command. If you do, the `jssitemhistory` command might fail.

  - `jssformdef` command
  - `jssdelrec` command
  - `jssdbinit.bat` command
  - `jssdbrorg.bat` command
  - `jssdbreclaim.bat` command
  - `jssdbbackup.bat` command
  - `jssdbrecovery.bat` command
  - `jssitemstore` command
  - `jssitemstoredbexpand.bat` command
  - `jssitemstoredbsetup.bat` command
  - `jssrefaclsetup` command
  - `jssstoreitemdel.bat` command

- If you want to execute multiple `jssitemhistory` commands with the `-f` option, specify a different Item history file name in the `-o` option for each command. If you specify the same file name for multiple `jssitemhistory` commands, the contents of the Item history file might become incomplete.

Remarks

- If you cancel the `jssitemhistory` command by using **Ctrl+C** while the command is being executed, the Item history might not be output. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.

- If the Item history that is output to the file does not contain character strings corresponding to the values of selection codes, the values of selection codes are output to the file without change.

- In the Item history file, date and time data before 1970/01/01 23:59:59 and after 2037/01/01 00:00:00 might not be correct.

- One `jssitemhistory` command can output a maximum of 65,530 past records of Items. If you want to output history of 65,531 or more Items, specify the `-b` option or the `-r` option in the `jssitemhistory` command to narrow down the target range, and execute the `jssitemhistory` command multiple times.

- If you attempt to output large amount of Item history to an Item history file, the work area in the Item management database might run short or the log files of the Item management database might run short. If that occurs, a KNAB24002-E error message with detailed code -722 or -1703 will appear. Reduce the number of elements of Items in the Item information entries file, and then re-execute the `jssitemhistory` command. The guideline for the total number of elements of Items you can enter in an Item information entries file is as follows depending on the size of the Item management database.

- For the size-S database: Approximately 2,000 element

- For the size-M database: Approximately 5,000 elements

- For the size-L database: Approximately 5,000 elements

- For the size-LL database: Approximately 5,000 elements

- For the size-XL database: Approximately 5,000 elements

Example

The following example shows how to output the history of the Items in the process work board with process work board ID `HQsystem` to a CSV file (`c:\Item\Itemhistory.csv`). The Items are limited to those that were updated between April 1, 2007 and June 30, 2007.

```
jssitemhistory -o c:\Item\Itemhistory.csv -r 2007/04/01-2007/06/30 -b
HQsystem
```

jssitemimport (imports Item information)

Description

This command registers new Item information in the Item management database of JP1/IM - Service Support.

Format

```
jssitemimport -i Item-information-entries-file-name
              -r registrant-ID
             [-f]
             [-m code-mapping-file-name]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-i *Item-information-entries-file-name*

Use a character string consisting of 255 bytes or less to specify the name of an Item information entries file. Count two bytes for full-width characters in the file name. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it will be 255 bytes or less after it is converted to an absolute path. For the file name, you cannot specify a character string beginning with a hyphen (-). For details about Item information entries files, see *File for Item information entries (Optional)* in *Chapter 12. Definition Files*.

-r *registrant-ID*

Use 64 or less half-width alphanumeric characters to specify the user ID of the person who registers the Items.

An error occurs in the following cases:

- No user with the specified ID exists.

- The user with the specified ID does not have the permission to register Items in the target process work board.

-f

Continues processing even if some of the data in the Item information entries file is incorrect. If you specify the -f option, the command continues processing even if the information about an Item in the Item information entries file is improper and proceeds to register the information about the next Item.

If you do not specify the -f option and the command fails to register the information about a single Item in the Item information entries file, the processing is canceled and all Item information will not be registered.

-m *code-mapping-file-name*

Use a character string consisting of 255 bytes or less to specify the name of the code mapping file when you use a user-defined code mapping file. Count two bytes for full-width characters in the file name. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it will be 255 bytes or less after it

is converted to an absolute path.For details about code mapping files, see *Code mapping file (jp1imss_itemimport_codemap.conf)* in *Chapter 12. Definition Files*.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- While the `jssitemimport` command is being executed, do not execute other JP1/IM - Service Support commands.

- For the `jssitemimport` command options, specify only the elements that appear in the windows. Although all the elements you specify in the Item information entries file are registered in the Item management database, you cannot check them unless they appear in the windows.

Remarks

- If you cancel the `jssitemimport` command while it is being executed, none of the Item information you specify in the Item information entries file will be registered in the Item management database.

- If you cancel the `jssitemimport` command by using **Ctrl+C** while the command is being executed, the Item information specified in the Item information entries file might not be registered in the Item management database. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.

- If you specify an empty Item information entries file, the command will end normally without importing any Item information into the Item management database.

- If the user or the role specified for the ID of the person in charge of an Item or the ID of the person in charge of reply does not exist, a KNAB22002-W error message or a KNAB26013-E error message will appear. If so, check and, if necessary, revise the Item information entries file. For details about Item information entries files, see *File for Item information entries (Optional)* in *Chapter 12. Definition Files*.

- The update date and time specified in the Item information entries file are not registered in the JP1/IM - Service Support database. Instead, the date and time when the `jssitemimport` command is executed are registered in the JP1/IM - Service Support database.

- If you specify 103 or more elements in the Item information entries file, only the first 102 elements are registered in the Item management database. Elements 53 to 102 are optional. If you omit any of elements 53 to 102, empty elements are registered in the Item management database.

- If the number of elements specified in the Item information entries file is less than 52, a KNAB26103-E error message will appear.

- If the Item information entries file contains large quantities of Item information, the work area in the Item management database might run short or the log files of the Item management database might run short. If that occurs, a KNAB24002-E error message with detailed code -722 or -1703 will appear. Reduce the number of elements of Items in the Item information entries file, and then re-execute the `jssitemimport` command.

  The guideline for the total number of elements of Items you can enter in the Item information entries file is as follows depending on the size of the Item management database.

  - For the size-S database: Approximately 2,000 elements

- For the size-M database: Approximately 5,000 elements

- For the size-L database: Approximately 5,000 elements

- For the size-LL database: Approximately 5,000 elements

- For the size-XL database: Approximately 5,000 elements

- When you use the `jssitemimport` command, you can register an Item without specifying the mandatory elements that you must enter when you register an Item or when the status of an Item is `Close`.

- Make sure that the input file you specify is created with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. The character encodings that can be used are as follows:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Example

The following example shows how to register Item information in the Item management database by using an Item information entries file (`c:\Item\Itemimport.csv`).

```
jssitemimport -i c:\Item\Itemimport.csv -r user0001
```

jssitemimportEx (imports extended Item information)

Description

This command registers new Item information in the Item management database of JP1/IM - Service Support. The command can also register the Item information that you output to CSV files by using the `jssitemexportEx` command in the JP1/IM - Service Support database.

When you execute the `jssitemimportEx` command, the command checks whether the contents of all the extended Item information entries files in the specified input source folder are correct. If the contents of the files are correct, the command starts registering the Item information in the Item management database. If any of the extended Item information entries files contains improper data, the command does not register the Item information in the files.

Format

```
jssitemimportEX -i input-source-folder-name
                {-ALL | -s -id system-ID | -p -id process-work-board-ID}
                [-latest]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-i *input-source-folder-name*

Use a character string consisting of 80 bytes or less to specify the name of the folder containing extended Item information entries files. Count half-width characters as 1-byte each and full-width characters as 2-bytes each. You can use an absolute path or a relative path to specify the folder name. When you use a relative path, make sure that it will be 80 bytes or less after it is converted to an absolute path. Note that UNC paths cannot be specified.

The input source folder must have the same configuration as the output destination folder specified for the `jssitemexportEx` command. Also, make sure that the format of the file used as the input source of Item information (Item information CSV file, related information CSV file, or attached file[#]) is the same as described in the section of the `jssitemexportEx` command. You need to observe the file naming conventions for Item information CSV files and related information CSV files.

\#

   A file of extended Item information entries is a generic term for Item information CSV files, related information CSV files, and attached files.

For details about the format of the input source files and the configuration of the folder to which the `jssitemexportEx` command outputs the files, see *jssitemexportEx (exports extended Item information)* in *Chapter 11. Commands*. For further details about the format of Item information CSV files, related information CSV files and attached files, and naming conventions for the files, see *File for extended Item information entries (Optional)* in *Chapter 12. Definition Files*.

-ALL

Registers the Item information in all systems including the master system.

-s id *system-ID*

Registers the Item information in a selected system. For *system-ID*, use 1 to 64 half-width alphanumeric characters.

-p -id *process-work-board-ID*

Registers the Item information in a selected process work board. For *process-work-board-ID*, use 1 to 64 half-width alphanumeric characters.

-latest

Registers only the latest Item information (the data type is `Most recent`) specified by the `-i` option. The command does not register the information about escalation when the `-latest` option is specified.

Return values

Return value	Meaning
0	Normal end
1	The command failed while registering Item information.
2	The command failed before registering Item information.

Body items in an Item information CSV file

Some items in the body section of an Item information CSV file are mandatory. For details about the list and descriptions of items in an Item information CSV file, see *File for extended Item information entries (Optional)* in *Chapter 12. Definition Files*.

When you create an Item information CSV file (from which you can register Item information into the Item management database), you can omit the header section, the first line (attribute name) in the body section, and the footer section.

Body items in a related information CSV file

All the items in the body section of a related information CSV file are optional. The header section is also optional. For details about the list and description of items in a related information CSV file, see *File for extended Item information entries (Optional)* in *Chapter 12. Definition Files*.

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11.Commands*.

- The `jssitemimportEx` command ends abnormally depending on the status of the specified system or process work board. The following table describes the differences in the result of the command depending on the status of a system or a process work board.

No.	System status	Process work board status	Result of the command
1	Waiting to be deleted	Not applicable	The command ends abnormally (unallowed status).
2	Operating	In process	The command ends abnormally (unallowed status).
3		Operating	The command ends normally.

No.	System status	Process work board status	Result of the command
4	Operating	Ended	The command ends abnormally (unallowed status).
5		Waiting to be deleted	The command ends abnormally (unallowed status).

- Note that the `jssitemimportEx` command can only register the Item information in extended Item information entries files into the Item management database. You need to register the information about process work boards, Item forms, and information about users separately. For details, see step 4 in *10.2.8(1) Reregistering Item information*.

- When you use the `jssitemimportEx` command to register large quantities of Item information, the command might end abnormally due to insufficient free space in the Item management database. For this reason, before you execute the `jssitemimportEx` command, execute the `jssbackup` command or the `jssitemexportEx` command to save Item information just in case.

Remarks

- When you use the `jssitemimportEx` command to register large quantities of Item information at a time, the command runs over a long period of time, causing a great load on the Item management server and JP1/IM - Service Support. We recommend that you execute the `jssitemimportEx` command when the load on the Item management server and JP1/IM - Service Support is low, for example, at midnight.

- If you cancel the `jssitemimportEx` command while it is being executed, all the Item information in the files in the specified input source folder is not registered in the Item management database.

- If you cancel the `jssitemimportEx` command by using **Ctrl+C** while the command is being executed, the Item information in the files in the specified input source folder might not be registered in the Item management database. For this reason, do not cancel the command during execution by using **Ctrl+C**.

- If the specified input source folder contains unnecessary folders or files, unintended data might be registered in the Item management database or an error might occur.

- Do not manipulate the folders and files under the specified input source folder while executing the `jssitemimportEx` command. If you do, the command will end abnormally. Also, do not execute the `jssitemexportEx` command with an input source folder specified while you execute the `jssitemimportEx` command.

- The `jssitemimportEx` command registers the information about existing Items in the Item management database without change. If you want to summarize the information about existing Items, execute the `jsscollectdata` command with the `-a` option.

- If you use the `jssitemexportEx` command to output Item information to files (Item information CSV file, related information CSV file, and attached files) and then use the `jssitemimportEx` command to register it in the Item management database (regardless of whether the Item information has been edited), the size of data in the files and the size of data registered in the Item management database will differ. The size of data registered in the Item management database might be greater than the size of the data in the files. For this reason, delete unnecessary Items from the Item management database and then execute the `jssitemimportEx` command.

- When the name of an attached file (excluding the attached file ID) stored in a *process-work-board-serial-number* folder differs from the value specified for an Attached file in the Item information CSV file, the `jssitemimportEx` command registers the attached file into the Item management database using the Attached file name in the Item information CSV file.

- You can use the following commands to register and edit the elements of Items that do not exist in Item forms. However, if you use the `jssitemimportEx` command to register an Item that has elements not existing in an Item form, an error will occur.

- `jssitementry` command (registers an Item)

- `jssitemedit` command (edits an Item)

- `jssitemimport` command (imports Item information)

If an error occurs, perform either of the following procedures and re-execute the `jssitemimportEx` command.

- Add new elements to the target Item form, register the Item form in the Item management database, and change the version number of Item form specified in the Item information CSV file to the version number of the modified Item form in the Item management database.

- Delete the body items in the Item information CSV file that do not exist in the Item form.

- Make sure that the input file you specify is created with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. The character encodings that can be used are as follows:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Example

The following example shows how to register the Item information from all systems in `C:\tmp` in the Item management database. The Item information (from all systems) was previously output to `C:\tmp` by using the `jssitemexportEx` command.

```
jssitemimportEx -i c:\tmp -all
```

jssitemlist (outputs a list of Items)

Description

This command outputs a list of Items registered in JP1/IM - Service Support to a CSV file. If you cancel the `jssitemlist` command while it is being executed, the command outputs the data up to that point.

Format

```
jssitemlist -o Item-details-file-name
            [-b process-work-board-ID
                        [-pi process-work-board-serial-number]]
            [-ct start-date-end-date | -r start-date-end-date]
            [-e]
            [-a]
            [-f]
            [-d]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-o *Item-details-file-name*

Use 255 bytes or less to specify the name of the Item details file to which you want to output the list of Items registered in JP1/IM - Service Support. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it will be 255 bytes or less after it is converted to an absolute path. For the file name, you cannot specify a character string beginning with a hyphen (-). Count two bytes for full-width characters in the file name.

An Item details file contains the data of Items in statuses other than `Close`. If you want to include the data of the Items in the `Close` status, specify the `-a` option.

-b *process-work-board-ID*

Specifies the ID of a process work board if you want to output the data of only the Items in a specific process work board. Use 64 or less half-width alphanumeric characters to specify a process work board ID. If you do not specify this option, the command outputs the data of all Items in the Item management database.

-pi *process-work-board-serial-number*

Specifies the process work board serial number of an Item if you want to output the data of a specific Item in the process work board specified by the `-b` option.

When you specify this option, make sure that you also specify the `-b` option. If you do not specify the `-pi` option, the command outputs the data of all Items in the process work board specified in the `-b` option.

For details about process work board serial numbers, see *3.2.2(1) List of Items*.

`-ct` *start-date*–*end-date*

Specifies a period in *YYYY/MM/DD* format to output the data of the Items registered in that period. Insert a hyphen (-) between the start date and the end date.

For *start-date* and *end-date*, you can specify dates in the range from 1970/01/02 to 2036/12/31. For *start-date*, specify a date earlier than *end-date*.

The descriptions of the start date and the end date are as follows.

start-date

    Outputs the data of the Items that were registered on and after this date. If you specify a non-existent date within the specifiable range, the system moves the specified date forward to the next existing date and outputs the data of the Items that were registered on and after that date.

end-date

    Outputs the data of the Items that were registered on and before this date. If you specify a non-existent date within the specifiable range, the system moves the specified date back to the closest previous existing date and outputs the data of the Items that were registered on and before that date.

For example, if you specify `2013/04/01-2013/04/07`, the command outputs the data of the Items that were registered between 2013/04/01 00:00:00(.000) and 2013/04/07 23:59:59(.999).

If you do not specify the `-ct` option and the `-r` option, the command outputs the data of all Items.

`-r` *start-date*–*end-date*

Specifies a period in *YYYY/MM/DD* format to output the data of the Items updated in that period. Insert a hyphen (-) between the start date and the end date.

For *start-date* and *end-date*, you can specify dates in the range from 1970/01/02 to 2036/12/31. For *start-date*, specify a date earlier than *end-date*.

The descriptions of the start date and the end date are as follows.

start-date

    Outputs the data of the Items that were updated on and after this date. If you specify a non-existent date within the specifiable range, the system moves the specified date forward to the next existing date and outputs the data of the Items that were updated on and after that date.

end-date

    Outputs the data of the Items that were updated on and before this date. If you specify a non-existent date within the specifiable range, the system moves the specified date back to the closest previous existing date and outputs the data of the Items that were updated on and before that date.

For example, if you specify `2013/04/01-2013/04/07`, the command outputs the data of the Items that were updated between 2013/04/01 00:00:00(.000) and 2013/04/07 23:59:59(.999).

If you do not specify the `-ct` option and the `-r` option, the command outputs the data of all Items.

`-e`

If you specify this option, the command includes the user-customized elements in the Item details file. If you do not specify this option, the command does not include the user-customized elements in the Item details file.

-a

Outputs the data of the Items in all statuses including `Close`. If you do not specify this option, the command outputs the data of the Items in statuses other than `Close`.

-f

Overwrites the Item details file.

-d

Outputs the data of only the Items in the *Waiting to be deleted* status. When you specify this option, body item Editor in the Item details file is changed to Deleter. This lets you check the users who placed Items in the *Waiting to be deleted* status. In addition, body item Update date and time indicates the date and time when Items were placed in the *Waiting to be deleted* status. However, note that the command does not output the data of the Items in the target system or process work board in the *Waiting to be deleted* status to the Item details file. If you want to output the data of the Items in the `Close` status to the Item details file, specify the `-a` option as well.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Contents of an Item details file

An Item details file contains data in the following format.

```
Header        #"JP1/IM-Service Support","085100","ISO-8859-1","ITEMLIST"
section        #"Closed Item Number : 45"
               #"Unclosed Item Number : 5"

Body           #"System ID","System name", "Process work board ID",...
section         "AWebsystem","Company A Web system","AWebProblem",...
                "BFilesystem","Company B file server system ","BFileIncident",...
```

The details about the contents of an Item details file are as follows.

Header section

Output sequence	Header item	Value
1	Product name	`JP1/IM - Service Support`
2	Version number of the Item details file	The version number of the file is indicated by 6 digits.
3	Character encoding used in the Item details file	Character encoding of output files.

4	Type of data that is output to the Item details file	• When no extended element exists
		    `ITEMLIST`
		• When extended elements exist
		    `ITEMLIST` Δ `Extended` Δ `Data`
		    (Note: Δ indicates a half-width space.)

Output sequence	Header item	Value
5	Number of Items in the `Close` status among the Items that are output to the Item details file	`Closed Item Number : `*number-of-Items* Output example: `Closed Item Number : 45`
6	Number of Items in statuses other than `Close` among the Items that are output to the Item details file	`Unclosed Item Number : `*number-of-Items* Output example: `Unclosed Item Number : 5`

Body section

The body section contains the same types of data as output by the `jssitemhistory` command. For details about the data to be included in the body section, see *jssitemhistory (outputs Item history)*.

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Do not execute the following commands while the `jssitemlist` command is being executed. If you do, the `jssitemlist` command might fail.

  - `jssformdef` command
  - `jssdelrec` command
  - `jssdbinit.bat` command
  - `jssdbrorg.bat` command
  - `jssdbreclaim.bat` command
  - `jssdbbackup.bat` command
  - `jssdbrecovery.bat` command
  - `jssitemstore` command
  - `jssitemstoredbexpand.bat` command
  - `jssitemstoredbsetup.bat` command
  - `jssrefaclsetup` command
  - `jssstoreitemdel.bat` command

- If you want to execute multiple `jssitemlist` commands with the `-f` option, specify a different Item details file name for each command. If you specify the same file name for multiple `jssitemlist` commands, the contents of the Item details file might become incomplete.

Remarks

- If you cancel the `jssitemlist` command by using **Ctrl+C** while the command is being executed, some Item data might not be output. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.

- If the data that is output to the Item details file does not contain character strings corresponding to the values of selection codes, the values of selection codes are output to the file without change.

- In the Item details file, the date and time data before 1970/01/01 23:59:59 (inclusive) and after 2037/01/01 00:00:00 (inclusive) might not be correct.

- One `jssitemlist` command can output a maximum of 65,530 Item records. If you want to output 65,531 or more records, specify the `-b` option or the `-r` option in the `jssitemlist` command to narrow down the target range, and execute the `jssitemlist` command multiple times.

Example

The following example shows how to output the data of the Items that were registered between April 1, 2007 and July 31, 2007 to the Item details file (`c:\Item\Iteminfo.csv`) from the Items in the process work board with ID `HQsystem`. The Item details file is overwritten.

```
jssitemlist -o c:\Item\Iteminfo.csv -b HQsystem -r 2007/04/01-2007/07/31 -a
-f
```

jssmemberdelete (deletes member information)

Description

This command deletes members from the roles that are registered in the JP1/IM - Service Support database.

Format

```
jssmemberdelete -i file-for-member-information-entries
                [-f]
                [-q]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-i *file-for-member-information-entries*

Use 255 bytes or less to specify the name for a file for member information entries. Count two bytes for full-width characters in the file name. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it will be 255 bytes or less after it is converted to an absolute path. For the file name, you cannot specify a character string beginning with a hyphen (-). For details about role member entry files, see *File for member information entries (Optional)* in *Chapter 12. Definition Files*.

-f

Continues processing even if some of the data in the role member entry file is incorrect. When you specify the -f option, the command skips a role member in the role member entry file if the information about the member is incorrect and proceeds to delete the next member.

If you do not specify the -f option and the command fails to delete even a single role member in the role member entry file from a role, the command is canceled and the remaining members will not be deleted from roles.

-q

Deletes role members without displaying a confirmation message. If you do not specify the -q option, the system displays a message asking whether to permit deleting role members.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Only one `jssmemberdelete` command can be executed at a time. Also note that the `jssmemberdelete` command cannot be executed together with the `jssmemberimport` command.

Remarks

- If you cancel the `jssmemberdelete` command while it is being executed, the remaining role members will not be deleted.

- If you cancel the `jssmemberdelete` command by using **Ctrl+C** while the command is being executed, role members might not be deleted. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.

- If you specify an empty role member entry file, the command ends normally without deleting any role members.

- A maximum of 2,000 lines can be entered in a role member entry file. Comment lines are not included in the number of lines. If you want to delete more than 2,000 role members, create multiple role member entry files and execute the command for those files.

- If you enter the ID of a user that is not a member of a role in the role member entry file and execute the command, the command continues processing without displaying an error message or a warning message. The incorrect user in the role member entry file is not included in the number of deleted members.

- Make sure that the input file you specify is created with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. The character encodings that can be used are as follows:
  - In a Japanese environment: MS932
  - In an English environment: ISO-8859-1
  - In a Chinese environment: GB18030

Example

The following example shows how to use the role member entry file (`c:\member\member01.csv`) to delete role members without displaying a confirmation message.

```
jssmemberdelete -i c:\member\member01.csv -q
```

jssmemberimport (imports member information)

Description

This command adds members to the roles that are registered in the JP1/IM - Service Support database.

Format

```
jssmemberimport -i role-member-entry-file-name
                [-f]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-i *role-member-entry-file-name*

Use 255 bytes or less to specify the name of a role member entry file. Count two bytes for full-width characters in the file name. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it will be 255 bytes or less after it is converted to a absolute path. For the file name, you cannot specify a character string beginning with a hyphen (-). For details about role member entry files, see *File for member information entries (Optional)* in *Chapter 12. Definition Files*.

-f

Continues processing even if some of the data in the role member entry file is incorrect. When you specify the −f option, the command skips a role member in the role member entry file if the information about the member is incorrect and proceeds to add the next member to a role.

If you do not specify the −f option and the command fails to add even a single role member in the role member entry file to a role, the command is canceled and the remaining members will not be added to roles.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Only one jssmemberimport command can be executed at a time. Also note that the jssmemberimport command cannot be executed together with the jssmemberdelete command.

Remarks

- If you cancel the `jssmemberimport` command while it is being executed, the remaining role members will not be added to roles.

- If you cancel the `jssmemberimport` command by using **Ctrl+C** while the command is being executed, role members might not be added to roles. For this reason, do not cancel the command during execution by using **Ctrl +C**. If you happen to do so, wait for a while and then re-execute the command.

- If you specify an empty role member entry file, the command ends normally without adding any role members to roles.

- A maximum of 2,000 lines can be entered in a role member entry file. Comment lines are not included in the number of lines. If you want to add more than 2,000 role members, create multiple role member entry files and execute the command for those files.

- If you enter the ID of a user that is already a member of a role in the role member entry file and execute the command, the command continues processing without displaying an error message or a warning message. That user is not included in the number of added members.

- Make sure that the input file you specify is created with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. The character encodings that can be used are as follows:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Example

The following example shows how to use the role member entry file (`c:\member\member01.csv`) to add members to roles without stopping even if the file contains incorrect data.

```
jssmemberimport -i c:\member\member01.csv -f
```

jssmemberlist (outputs a list of members)

Description

This command outputs a list of users (members) belonging to the roles that are registered in the JP1/IM - Service Support database to a CSV file. If you cancel the command while it is being executed, the command outputs a list of members to the CSV file up to that point.

Format

```
jssmemberlist -o member-list-file-name
              [-roleid role-ID]
              [-f]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-o *member-list-file-name*

Use 255 bytes or less to specify the name of a member list file to which you want to output a list of members. Count two bytes for full-width characters in the file name. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it will be 255 bytes or less after it is converted to an absolute path. For the file name, you cannot specify a character string beginning with a hyphen (-).

-roleid *role-ID*

Specifies the role ID of a user-created role or a system role if you want to output only a list of members of a specific role to the role member list file. You can use 1 to 64 half-width alphanumeric characters to specify the role ID of a user-created role.

-f

Overwrites the role member list file.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Contents of a member list file

A member list file contains data in the following format.

```
Header      #"JP1/IM-Service Support","100000","ISO-8859-1","MEMBERLIST"
section      # "Total Count of Members : 2"

            #"Role ID","User ID","Name","English name","Organization","Title",
            "Title level","Email address","Phone number","Phone number 2","Comment"
Body        "Role1","10009","Ichiro Yoyogi","Ichiro Yoyogi","System Development
section     "Department Manager","1","XXXXXX@hitachi.com","xxx-yyy-zzzz","",""
            "Role2","10010","Tomozo Totsuka","Tomozo Totsuka","System Development
            Department","Section Manager","2","YYYYYY@hitachi.com","aaa-bbb-cccc",
            "",""
```

The first line in the body section in a role member list file lists the names of attributes of the role members.

The details about the contents of a role member list file are as follows.

Header section

Output sequence	Header item	Value
1	Product name	JP1/IM - Service Support
2	Version number of the member list file	The version number of the file is indicated by 6 digits.
3	Character encoding	Character encoding of output files.
4	Type of data that is output to the member list file	MEMBERLIST
5	Number of role members that are output to the member list file	Total Count of Members : *number-of-members* Output example: Total Count of Members : 2

Body section

Output sequence	Body item
1	Role ID
2	User ID
3	User name
4	English name
5	Organization
6	Title
7	Title level
8	Email address
9	Phone number
10	Phone number 2
11	Comment

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Only one `jssmemberlist` command can be executed at a time.

Remarks

- If you cancel the `jssmemberlist` command by using **Ctrl+C** while the command is being executed, a list of members might not be output. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.

- One `jssmemberlist` command can output a maximum of 65,530 members to a member list file. If you want to output 65,531 or more role members, use the `-roleid` option to specify a role and execute the `jssmemberlist` command for the number of roles.

Example

The following example shows how to output a list of users that belong to a role with role ID `Role1` to the member list file (`c:\member\member01.csv`).

```
jssmemberlist -o c:\member\member01.csv -roleid Role1
```

jssrev (cancels batch deletion of Items)

Description

This command releases Items from the *Waiting to be deleted* status.

Format

```
jssrev  [{-s -id system-ID | -p -id process-work-board-ID
        [-n process-work-board-serial-number]}]
      -item
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-s -id *system-ID*

Releases the Items in a specific target system from the *Waiting to be deleted* status. Use 1 to 64 half-width alphanumeric characters to specify a system ID.

-p -id *process-work-board-ID*

Releases the Items in a specific process work board from the *Waiting to be deleted* status. Use 1 to 64 half-width alphanumeric characters consisting to specify a process work board ID.

-n *process-work-board-serial-number*

Releases a specific Item in the selected process work board from the *Waiting to be deleted* status. For details about process work board serial numbers, see *3.2.2 Viewing Items that are registered in a process work board*.

-item

Cancels the *Waiting to be deleted* status. This argument is mandatory.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- While the jssrev command is being executed, do not execute other JP1/IM - Service Support commands.

- Only one jssrev command can be executed at a time.

Remarks

- If you cancel the `jssrev` command by using **Ctrl+C** while the command is being executed, the command releases Items from the *Waiting to be deleted* status up to that point and then ends.

- When you use the `jssrev` command to release Items from the *Waiting to be deleted* status, the update date and time for the Items change to the date and time when the `jssrev` command is executed. If that is a problem, create a backup file before you execute the `jssitemdeletion` command and use the backup file to recover the old update date and time.

jssroleimport (imports role information)

Description

This command registers new roles in the JP1/IM - Service Support database.

Format

```
jssroleimport -i role-information-entries-file-name
              [-f]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-i *role-information-entries-file-name*

Use 255 bytes or less to specify the name of a File for role information entries. Count two bytes for full-width characters in the file name. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it will be 255 bytes or less after it is converted to an absolute path. For the file name, you cannot specify a character string beginning with a hyphen (-). For details about File for role information entries, see *File for role information entries (Optional)* in *Chapter 12. Definition Files*.

-f

Continues processing even if some of the data in the File for role information entries is incorrect. When you specify the -f option, the command skips a role in the File for role information entries if the information about the role (role ID, role name, or comment) is incorrect and proceeds to register the next role.

If you do not specify the -f option and the command fails to register even a single role in the File for role information entries in the Item management database, the command is canceled and the remaining roles will not be registered in the Item management database.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.
- Only one jssroleimport command can be executed at a time.

Remarks

- If you cancel the `jssroleimport` command while it is being executed, the remaining roles will not be registered in the Item management database.

- If you cancel the `jssroleimport` command by using **Ctrl+C** while the command is being executed, roles might not be registered in the Item management database. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.

- If you specify an empty File for role information entries, the command ends normally without registering any roles in the Item management database.

- Make sure that the input file you specify is created with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. The character encodings that can be used are as follows:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Example

The following example shows how to use the File for role information entries (`c:\role\role01.csv`) to register roles in the Item management database without stopping even if the file contains incorrect data.

```
jssroleimport -i c:\role\role01.csv -f
```

jssrolelist (outputs a list of roles)

Description

This command outputs a list of roles that are registered in the JP1/IM - Service Support database to a CSV file. If you cancel the command while it is being executed, the command outputs a list of roles up to that point.

Format

```
jssrolelist -o role-list-file-name
            [-f]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-o *role-list-file-name*

Use 255 bytes or less to specify the name of a role list file in CSV format to which you want to output a list of roles. Count two bytes for full-width characters in the file name. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it will be 255 bytes or less after it is converted to an absolute path. For the file name, you cannot specify a character string beginning with a hyphen (-).

-f

Overwrites the role list file.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Contents of a role list file

A role list file contains data in the following format.

The first line in the body section in a role list file lists the names of the roles' attributes.

The details about the contents of a role list file are as follows.

Header section

Output sequence	Header item	Value
1	Product name	`JP1/IM - Service Support`
2	Version number of the role list file	The version number of the file is indicated by 6 digits.
3	Character encoding used in the role list file	Character encoding of output files.
4	Type of data that is output to the role list file	`ROLELIST`
5	Number of roles that are output to the role list file	`Total Count of Roles :` *number-of-roles* Output example: `Total Count of Roles : 3`

Body section

Output sequence	Body item
1	Role ID
2	Role name
3	Comment

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Only one `jssrolelist` command can be executed at a time.

Remarks

- If you cancel the `jssrolelist` command by using **Ctrl+C** while the command is being executed, a list of roles might not be output. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.

Example

The following example shows how to output a list of roles to the role list file (`c:\role\role01.csv`). The role list file is overwritten.

```
jssrolelist -o c:\role\role01.csv -f
```

jssuseredit (edits user information)

Description

This command edits the user information that is registered in the JP1/IM - Service Support database.

Format

```
jssuseredit -i user-information-editing-file-name
            [-f]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-i *user-information-editing-file-name*

Use 255 bytes or less to specify the name of a User information editing file. Count two bytes for full-width characters in the file name. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it will be 255 bytes or less after it is converted to an absolute path. For the file name, you cannot specify a character string beginning with a hyphen (-). For details about User information editing files, see *User information editing file (Optional)* in *Chapter 12. Definition Files*.

-f

Continues processing even if some of the data in the User information editing file is incorrect. When you specify the -f option, the command skips incorrect information about a user in the User information editing file and proceeds to edit the next user information item.

If you do not specify the -f option and the command fails to edit even a single user information item in the User information editing file, the command is canceled and the remaining user information will not be edited.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.
- Only one jssuseredit command can be executed at a time.

Remarks

- If you cancel the `jssuseredit` command while it is being executed, the remaining user information will not be edited.

- If you cancel the `jssuseredit` command by using **Ctrl+C** while the command is being executed, user information might not be edited. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.

- If you specify an empty User information editing file, the command ends normally without editing any user information.

- Make sure that the input file you specify is created with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. The character encodings that can be used are as follows:

    - In a Japanese environment: MS932

    - In an English environment: ISO-8859-1

    - In a Chinese environment: GB18030

Example

The following example shows how to use the User information editing file (`c:\user\user01.csv`) to edit user information.

```
jssuseredit -i c:\user\user01.csv
```

jssuserimport (imports user information)

Description

This command registers new user information in the JP1/IM - Service Support database.

Format

```
jssuserimport -i user-information-entries-file-name
              [-f]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-i *user-information-entries-file-name*

Use 255 bytes or less to specify the name of a File for user information entries. Count two bytes for full-width characters in the file name. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it will be 255 bytes or less after it is converted to an absolute path. For the file name, you cannot specify a character string beginning with a hyphen (-). For details about Files for user information entries, see *File for user information entries (Optional)* in *Chapter 12. Definition Files*.

-f

Continues processing even if some of the data in the File for user information entries is incorrect. When you specify the -f option, the command skips the piece of information about a user in the File for user information entries if the information item is improper and proceeds to register the next user information item.

If you do not specify the -f option and the command fails to register even a single user information item in the File for user information entries, the command is canceled and the remaining user information will not be registered.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- While the jssuserimport command is being executed, do not execute other JP1/IM - Service Support commands.

Remarks

- If you cancel the `jssuserimport` command while it is being executed, the remaining user information will not be registered.

- If you cancel the `jssuserimport` command by using **Ctrl+C** while the command is being executed, the user information specified in the File for user information entries might not be registered. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.

- If you specify an empty File for user information entries, the command ends normally without registering any user information.

- Make sure that the input file you specify is created with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. The character encodings that can be used are as follows:
  - In a Japanese environment: MS932
  - In an English environment: ISO-8859-1
  - In a Chinese environment: GB18030

Example

The following example shows how to use the File for user information entries (`c:\user\user01.csv`) to register user information in the Item management database without stopping even if the file contains incorrect user information.

```
jssuserimport -i c:\user\user01.csv -f
```

jssuserlist (outputs a list of users)

Description

This command outputs a list of users that are registered in the JP1/IM - Service Support database to a CSV file. If you cancel the command while it is being executed, the command outputs a list of users up to that point.

Format

```
jssuserlist -o user-list-file-name
            [-format {import | edit}]
            [-f]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-o *user-list-file-name*

Use 255 bytes or less to specify the name of a user list file in CSV format to which you want to output a list of users. Count two bytes for full-width characters in the file name. You can use an absolute path or a relative path to specify the file name. When you use a relative path, make sure that it will be 255 bytes or less after it is converted to an absolute path. For the file name, you cannot specify a character string beginning with a hyphen (-).

-format {import | edit}

Specifies the format of the user list file to which the command will output a list of users. User list files are CSV files.

When you specify import, the format of the user list file is the same as the File for user information entries that you use with the jssuserimport (imports user information) command. You can use the user list file as the base for a File for user information entries.

When you specify edit, the format of the user list file is the same as the User information editing file that you use with the jssuseredit (edits user information) command. You can use the user list file as the base for a User information editing file.

If you do not specify this option, the system assumes import is specified.

-f

Overwrites the user list file.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Contents of a user list file

Format of the user list file when you do not specify the -format option or specify import for the -format option

> If you do not specify the -format option or specify import for the -format option, the format of the user list file is the same as the File for user information entries that you use with the jssuserimport (imports user information) command. You can modify the contents of the user list file to create a File for user information entries for the jssuserimport command.
>
> A user list file contains data in the following format.

Header section
```
#"JP1/IM-Service Support","100000","ISO-8859-1","USERLIST"
# "Total Count of Users : 2"
```

Body section
```
#"User ID","Name","English name","Organization","Title","Title level",
"Email address","Phone number","Phone number 2","Comment"
"10009","Ichiro Yoyogi","Ichiro Yoyogi","System Development Department",
"Department Manager","1","XXXXXX@hitachi.com",xxx-yyy-zzzz","",""
"10010","Tomozo Totsuka","Tomozo Totsuka","System Development
Department","Section Manager","2","YYYYYY@hitachi.com","aaa-bbb-cccc",
"",""
```

> The first line in the body section in a user list file lists the names of the users' attributes.
>
> The details about the contents of a user list file are as follows.

Header section

Output sequence	Header item	Value
1	Product name	JP1/IM - Service Support
2	Version number of the user list file	The version number of the file is indicated by 6 digits.
3	Character encoding used in the user list file	Character encoding of output files.
4	Type of data that is output to the user list file	USERLIST
5	Number of users that are output to the user list file	Total Count of Users : *number-of-users* Output example: Total Count of Users : 2

Body section

Output sequence	Body item
1	User ID
2	User name
3	English name
4	Organization
5	Title
6	Title level
7	Email address
8	Phone number
9	Phone number 2

Output sequence	Body item
10	Comment

Format of the user list file when you specify `edit` for the `-format` option

If you specify `edit` for the `-format` option, the format of the user list file is the same as the User information editing file that you use with the `jssuseredit` (edits user information) command. You can modify the contents of the user list file to create a User information editing file for the `jssuseredit` command.

A user list file contains data in the following format.

Header section
```
#"JP1/IM-Service Support","100000","ISO-8859-1","USERLIST"
# "Total Count of Users : 2"
```

Body section
```
#"Target user ID","User ID","Name","English name","Organization","Title",
"Title level","Email address","Phone number","Phone number 2","Comment"
"10009","10009","Ichiro Yoyogi","Ichiro Yoyogi","System Development
Department","Department Manager","1","XXXXXX@hitachi.com","xxx-yyy-zzzz",
"",""
"10010","10010","Tomozo Totsuka","Tomozo Totsuka","System  Development
Department","Section Manager","2","YYYYYY@hitachi.com","aaa-bbb-cccc",
"",""
```

The first line in the body section in a user list file lists the names of the users' attributes.

The details about the contents of a user list file are as follows.

Header section

The header section is the same as the case when you do not specify the `-format` option or specify `import` for the `-format` option.

Body section

Output sequence	Body item
1	Editing target user ID
2	User ID
3	User name
4	English name
5	Organization
6	Title
7	Title level
8	Email address
9	Phone number
10	Phone number 2
11	Comment

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Only one `jssuserlist` can be executed at a time.

Remarks

- If you cancel the `jssuserlist` command by using **Ctrl+C** while the command is being executed, a list of users might not be output. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.

Example

The following example shows how to output a list of users to a CSV file (`c:\user\user01.csv`). This type of file has the same format as File for user information entriess used by the command that imports user information into the Item management database.

```
jssuserlist -o c:\user\user01.csv
```

jsscreatesysandpwb (creates the master system and the temporary receipt process work board)

Description

This command creates the master system and the temporary receipt process work board that are required to register emails as Items.

Format

```
jsscreatesysandpwb {-s | -p} - id ID
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-s

Creates the master system. Do not specify the -s option if the master system has already been created. If you do, an error will occur.

After you create the master system, the following values are set for the master system.

Setting item	Value
System ID	Character string specified for the value of the -id option of the jsscreatesysandpwb command
System name	**A master system**
Comment	**Master system for the item function using email**
Status	**Being used**

-p

Creates the temporary receipt process work board. You need to create the master system before you create the temporary receipt process work board. The Item form used for the temporary receipt process work board is the one set for the incident management process. Do not specify the -p option if the temporary receipt process work board has already been created. If you do, an error will occur.

The following values are set for the temporary receipt process work board when you create it.

Setting item	Value
Process work board ID	Character string specified for the value of the -id option of the jsscreatesysandpwb command
System	**Master system**
Process	**Incident management**

Setting item	Value
State	**Operating**
Process work board administrator	**JP1 administrator**
Person in charge of the registered item from email	**JP1 administrator**
Comment	**Temporary receipt of process work board for the item function using email**
Threshold setting tab	**Use the settings in the property file for item accumulation.**
Settings - Automatic item input tab	**Use the settings in the property file for automatic item input.**
Item form	**Use the process standard item form. Incident Management Form**
JP1 event configuration	**Do not issue JP1 event**
Settings for pre-deadline email notification	**Do not notify by email before the deadline.**

-id *ID*

Specifies the ID of the master system or the ID of the temporary receipt process work board. You can specify1 to 64 half-width alphanumeric characters for *ID*. When you specify the `-s` option, *ID* indicates the ID of the master system. When you specify the `-p` option, *ID* indicates the ID of the temporary receipt process work board.

Do not specify an existing system ID or process work board ID. If you do, an error will occur.

Return values

Return value	Meaning
0	The command is executed successfully.
1	The specified system ID is already used. An attempt to create the master system failed.
2	The specified process work board ID is already used. An attempt to create the temporary receipt process work board failed.
3	The master system already exists. An attempt to create the master system failed.
4	The temporary receipt process work board already exists. An attempt to create the temporary receipt process work board failed.
5	The specified system ID is incorrect. An attempt to create the master system failed.
6	The specified process work board ID is incorrect. An attempt to create the temporary receipt process work board failed.
7	The master system does not exist. An attempt to create the temporary receipt process work board failed.
8	The master system is in the *Waiting to be deleted* status. An attempt to create the temporary receipt process work board failed.
9	The command is already being executed. An attempt to execute the command failed.
10	An attempt to execute the command failed due to other reasons.
11	A system named *master system* already exists. An attempt to create the master system failed.

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Only one `jsscreatesysandpwb` command can be executed at a time.

Remarks

- If you cancel the `jsscreatesysandpwb` command by using **Ctrl+C** while the command is being executed, the master system or the temporary receipt process work board might not be created. For this reason, do not cancel the command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and then re-execute the command.

jssdbbackup.bat (backs up databases)

Description

This command backs up data in the database of JP1/IM - Service Support. When JP1/IM - Service Support Advanced Edition is used, not only the data in the Item management database but also the data in the Item storage database is backed up.

To run this command, go to the **Start** menu and click **Programs**, **JP1_Integrated Management - Service Support**, and **JP1_IM-SS Command Prompt**. Then execute the command. The arguments you can specify depend on the JP1/IM - Service Support product being used.

Format

For JP1/IM - Service Support (Standard):

```
jssdbbackup.bat -f backup-file-name {-maint | -expand}
```

For JP1/IM - Service Support Advanced Edition:

```
jssdbbackup.bat {-f backup-file-name | -o folder-to-output-the-backup-
file-to
                {-ALL | -mdb | -sdb} [-ow]}
                {-maint | -expand}
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\tools\

Arguments

-f *backup-file-name*

Use an absolute path to specify the name of the file to which you want to output a backup of data in the database of JP1/IM - Service Support. When JP1/IM - Service Support Advanced Edition is used, not only the data in the Item management database but also the data in the Item storage database is backed up. Create the folder to output the backup file to before you execute the jssdbbackup.bat command.

Note the following when you create a backup file:

- Always create the backup file on a local drive. You cannot create a backup file on a network drive.
- You cannot use a UNC path to specify the backup file.
- The path for the backup file must be an absolute path consisting of 259 bytes or less. The backup file name itself must be 255 bytes or less. Count two bytes for full-width characters in the file name.
- The backup file name must not contain multi-byte characters. In addition, you cannot use character strings that are not recognized by the OS.
- If the output destination folder contains another file with the same name as the specified backup file, the existing file will be overwritten. If you do not want to overwrite an existing file, specify a unique file name.

-o *folder-to-output-the-backup-file-to*

You can specify this option only when JP1/IM - Service Support Advanced Edition is used.

Use an absolute path to specify the name of the folder to which you want to output a backup of data in the database of JP1/IM - Service Support. Create this folder before you execute the `jssdbbackup.bat` command. When you execute the `jssdbbackup.bat` command, a file that records the status when the backup is made (`dbpath.txt`) is stored in the folder to which the backup file is output. In `dbpath.txt`, the option information specified at backup, the size of the Item management database at backup, and information about the folder to expand the Item storage database to is output. The information about the folder to expand the Item storage database to is the same as the information output when the `jssdbstatchk.bat` (checks the status of the database) command with the `-dbpath` option is executed. The specified folder to output the backup files to has the following structure:

```
Name-of-the-folder-to-output-the-backup-file-to
 |- dbpath.txt   File that records the status of the database when the
backup is made
 |- mdb_option#     Folder to output the backup file for the Item management
database to
 |- sdb_option#     Folder to output the backup file for the Item storage
database to
```

\#

    Either of `maint` or `expand`.

Note the following when you specify the name of the folder to output the backup file to:

- Make sure that you specify a local drive for the drive to output the backup file to. You cannot specify a network drive.

- You cannot specify a UNC path.

- Use an absolute path of 80 bytes or less to specify the path to the folder to output the backup file to. If the character string specified for the folder name contains full-width characters, the full-width characters are converted to 2-byte characters.

-ALL

Backs up data in both the Item management database and Item storage database.

-mdb

Backs up data in the Item management database only. In addition to the folder to output a backup of the Item management database to, a folder to output backup of the Item storage database to is also created. However, files are not created.

-sdb

Backs up data in the Item storage database only. In addition to the folder to output a backup of the Item storage database to, a folder to output backup of the Item management database to is also created. However, files are not created.

-maint

Creates a backup file to be used to restore data in the database of JP1/IM - Service Support.

-expand

Creates a backup file to be used to expand the database of JP1/IM - Service Support, or move the data in the database of JP1/IM - Service Support between servers.

-ow

Overwrites a backup file that already exists in the folder (specified with the -o option) to output a backup file to. When a backup file already exists in the folder to output a backup file to, if you execute the command without specifying this option, the command terminates with an error.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- While the jssdbbackup.bat command is being executed, do not execute other JP1/IM - Service Support commands.

- Note the following when you specify the -expand option:

  - Before you execute the jssdbbackup.bat command with the -expand option to make a backup, execute the command with the -maint option to make a backup.

  - If you attempt to use a backup file that you created by using the jssdbbackup.bat command with the -expand option to recover the data in the same database of the same size or to move the data to another database of the same size, the operation might fail. If you want to recover the data in the same database of the same size or move the data to another database of the same size, execute the jssdbbackup.bat command with the -maint option.

- You cannot recover the data in the Item management database using a backup file that was created on a different server running a different version of JP1/IM - Service Support. If you want to use a backup file to recover the data in a database, create the backup file on a server running the same version of JP1/IM - Service Support. Suppose you create a backup file on a server running one version of JP1/IM - Service Support, and then you execute jssdbrecovery.bat using that backup file on another server running a different version of JP1/IM - Service Support. If you continue using JP1/IM - Service Support on the other server, the data newly registered in the database and the database itself will become abnormal.

Remarks

- When you execute the jssdbbackup.bat command, multiple child processes start within the system. Even if you cancel the jssdbbackup.bat command by using **Ctrl+C**, the child processes continue running. For this reason, do not cancel the jssdbbackup.bat command during execution by using **Ctrl+C**. If you do, make sure that the pdcopy process is inactive when the -maint option is specified. When the -expand option is specified, make sure that the pdrorg process is inactive. Wait for a while and restart the JP1/Service Support - DB Server service.

- If a KNAB26102-E error message appears when you execute the jssdbbackup.bat command, check if any of the following causes applies. If one applies, take the appropriate countermeasures and then re-execute the command.

  - A relative path was used to specify the backup file.

  - The specified backup file is a folder.

  - A UNC path was used to specify the backup file.

  - The absolute path for the backup file exceeds 259 bytes.

- The backup file name itself exceeds 255 bytes.

- The backup file name is specified in multi-byte characters. Alternatively, a character string that is not recognized by the OS is used.

- The drive used as the output destination of the backup file has insufficient space.

- Note the following when you specify the `-maint` option for the `jssdbbackup.bat` command:

  - If the backup file name specified with the `-f` option contains uppercase characters, they are converted to lowercase characters.

- For details about how to expand the Item management database, see *10.2.4 Expanding the size of the Item management database*.

- The database is reorganized when you execute the `jssdbbackup.bat` command with the `-expand` option specified (to make a backup file). For this reason, when you execute the `jssdbrecovery.bat` command to recover the data in the database using the backup file, the database might require more space than before the backup was made. This might result in failure to recover the data in the database. To prevent this problem, perform the following procedure:

  1. Execute the `jssdbbackup.bat` command with the `-maint` option to create a backup file. Execute the `jssdbrecovery.bat` command with the `-maint` option to recover the data in the database using the backup file.

  2. Execute the `jssitemdeletion` command to place the unnecessary Items in "Waiting to be deleted" status.

  3. Execute the `jssdelrec` command to place unnecessary Items in the *Waiting to be deleted* status.

  4. Execute the `jssdbbackup.bat` command with the `-expand` option.

  5. Execute the `jssdbrecovery.bat` command with the `-expand` option to recover the backup file created in step 4.

- Each time before you execute the `jssdbbackup.bat` command with the `-o` option specified, prepare a different empty folder as the folder to output a backup file to. Also, do not rename the folders and files in the folder to output a backup file to. If you rename them, recovery might fail.

- If you execute the `jssdbbackup.bat` command with the `-sdb` option while the JP1/Service Support service and JP1/Service Support-Web Service service are running, note the following:

  - Do not start or stop the services while the `jssdbbackup.bat` command is executed.

  - Do not execute a command that updates the Item storage database (for example, the `jssitemstore` (stores Items) command or `jssstoreitemdel.bat` (deletes multiple stored Items) command). If you execute a command that updates the Item storage database, the command terminates with an error.

Example

The following example shows how to create a backup file (`c:\backup\backup`).

```
jssdbbackup.bat -f c:\backup\backup -maint
```

jssdbinit.bat (initializes databases)

Description

This command initializes the database of JP1/IM - Service Support. When JP1/IM - Service Support Advanced Edition is used, not only is the Item management database initialized, but also the Item storage database is deleted. Therefore, the Item storage database must be set up again if you want to reuse it.

To run this command, go to the **Start** menu and click **Programs**, **JP1_Integrated Management - Service Support**, and **JP1_IM-SS Command Prompt**. Then execute the command. The arguments you can specify depend on the JP1/IM - Service Support product being used.

Format

For JP1/IM - Service Support (Standard):

```
jssdbinit.bat -s {S | M | L | LL}
              [-t] [-q]
```

For JP1/IM - Service Support Advanced Edition:

```
jssdbinit.bat -s {S | M | L | LL | XL}
              [-t] [-q]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\tools\

Arguments

-s {S | M | L | LL | XL}

Specifies the size of the Item management database.

The following table describes the size for each value.

Specified value	Size
S	5 gigabytes
M	30 gigabytes
L	71 gigabytes
LL	152 gigabytes
XL[#]	162 gigabytes

\#

   This value can be specified only when JP1/IM - Service Support Advanced Edition is used.

For details about the criteria for determining the size of the Item management database, see the *Release Notes*.

-t

Registers emails as Items. When you specify the -t option, the master system and the temporary receipt process work board, which are required to register emails as Items, are created. If you do not specify the -t option, the master system and the temporary receipt process work board are not created.

If you want to create the master system and the temporary receipt process work board after you execute the jssdbinit.bat command, use the jsscreatesysandpwb command (creates the master system and the temporary receipt process work board). For details about the jsscreatesysandpwb command, see *jsscreatesysandpwb (creates the master system and the temporary receipt process work board)* in *Chapter 11. Commands*.

-q

Initializes the database without displaying a confirmation message.

If you do not specify the -q option, the system displays a message to ask whether to permit initialization of the database.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.
- While the jssdbinit.bat command is being executed, do not execute other JP1/IM - Service Support commands.

Remarks

- When you execute the jssdbinit.bat command, multiple child processes start within the system. Even if you cancel the jssdbinit.bat command by using **Ctrl+C**, the child processes continue running. For this reason, do not cancel the jssdbinit.bat command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and re-execute the command.
- When JP1/IM - Service Support Advanced Edition is not used, executing the jssdbinit.bat command with XL specified for the -s option causes an error.
- When the jssdbinit.bat command is executed, the required memory size depends on the size of the Item management database. For details about the required memory size, see the release notes.

Example

The following example shows how to initialize the Item management database as size M.

```
jssdbinit.bat -s M
```

jssdbreclaim.bat (releases the free space in the Item management database)

Description

This command releases the free space that is generated in the Item management database when data is deleted from the database. To run this command, go to the **Start** menu and click **Programs**, **JP1_Integrated Management - Service Support**, and **JP1_IM-SS Command Prompt**. Then execute the command.

Format

```
jssdbreclaim.bat -sys
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path`\tools\`

Arguments

-sys

Releases the free space in the Item management database. This argument is mandatory.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- While the `jssdbreclaim.bat` command is being executed, do not execute other JP1/IM - Service Support commands.

- We recommend that you execute the `jssdbreclaim.bat` command when the database access load is low.

Remarks

- When you execute the `jssdbreclaim.bat` command, multiple child processes start within the system. Even if you cancel the `jssdbreclaim.bat` command by using **Ctrl+C**, the child processes continue running. For this reason, do not cancel the `jssdbreclaim.bat` command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and re-execute the command.

jssdbrecovery.bat (recovers a database)

Description

This command recovers data in the database of JP1/IM - Service Support. To run this command, go to the **Start** menu and click **Programs**, **JP1_Integrated Management - Service Support**, and **JP1_IM-SS Command Prompt**. Then execute the command. The arguments you can specify depend on the JP1/IM - Service Support product being used.

Format

For JP1/IM - Service Support (Standard):

```
jssdbrecovery.bat -f backup-file-name {-maint | -expand}
```

JP1/IM - Service Support Advanced Edition:

```
jssdbrecovery.bat {-f backup-file-name |
                   -i name-of-the-folder-to-output-the-backup-file-to {-
ALL | -mdb | -sdb}}
                   {-maint | -expand}
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\tools\

Arguments

-f *backup-file-name*

Use an absolute path to specify the name of the backup file to be used to recover the data in the database of JP1/IM - Service Support. When JP1/IM - Service Support Advanced Edition is used, not only the data in the Item management database but also the data in the Item storage database is recovered.

Note the following when you specify a backup file:

- Make sure that the folder that was used for backup is specified for the storage folder for the JP1/IM - Service Support database.

- The backup file must exist on a local drive. You cannot use a backup file on a network drive.

- You cannot use a UNC path to specify the backup file.

- The path for the backup file must be an absolute path consisting of 259 bytes or less. The backup file name itself must be 255 bytes or less. Count full-width characters for 2-byte characters in the file name.

- The backup file name must not contain multi-byte characters. In addition, you cannot use character strings that are not recognized by the OS.

- When JP1/IM - Service Support Advanced Edition is used, the backup file created by the jssdbbackup.bat command with the -o option cannot be specified for the -f option in the jssdbrecovery.bat command.

-i *name-of-the-folder-to-output-the-backup-file-to*

This option can be specified only when JP1/IM - Service Support Advanced Edition is used.

Use an absolute path to specify the name of the folder to which to output a backup of the database of JP1/IM - Service Support. Specify this option when you recover the backup file created by the `jssdbbackup.bat` command with the `-o` option.

Note the following when you specify *name-of-the-folder-to-output-the-backup-file-to*:

- For *name-of-the-folder-to-output-the-backup-file-to*, specify the folder to which the backup file created by the `jssdbbackup` command with the `-o` option has been output. Do not rename the files and folders in this folder.
- Make sure that you specify a local drive for the drive to output the backup file to. You cannot specify a network drive.
- You cannot specify a UNC path.

-ALL

Recovers the backup files for the Item management database and Item storage database, which are stored in the folder (specified by the `-i` option) to output the backup files to.

-mdb

Recovers the backup file for the Item management database, which is stored in the folder (specified by the `-i` option) to output the backup files to.

-sdb

Recovers the backup file for the Item storage database, which is stored in the folder (specified by the `-i` option) to output the backup files to.

-maint

Recovers a backup file that was created by using the `jssdbbackup.bat` command with the `-maint` option.

-expand

Restores a backup file that was created by using the `jssdbbackup.bat` command with the `-expand` option.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.
- While the `jssdbrecovery.bat` command is being executed, do not execute other JP1/IM - Service Support commands.
- The name of the backup file specified with the `-f` option is not case sensitive.
- Depending on the backup option specified when the `jssdbbackup.bat` command is executed, the backup file to be created, and the option that can be specified for the `jssdbrecovery.bat` command, differ. The following table lists the recovery options that can be specified for the `jssdbrecovery.bat` command for each backup option specified for the `jssdbbackup.bat` command.

Table 11–12: Recovery options (jssdbrecovery.bat command) that can be specified for individual backup options (jssdbbackup.bat command)

No.	Backup option (jssdbbackup.bat command)			Recovery option (jssdbrecovery.bat command)							
				-f		-i					
				-maint	-expand	-ALL		-mdb		-sdb	
						-maint	-expand	-maint	-expand	-maint	-expand
1	-f	-maint		Y	N	N	N	N	N	N	N
2		-expand		N	Y#	N	N	N	N	N	N
3	-o	-ALL	-maint	N	N	Y	N	Y	N	Y	N
4			-expand	N	N	N	Y#	N	Y	N	Y#
5		-mdb	-maint	N	N	N	N	Y	N	N	N
6			-expand	N	N	N	N	N	Y	N	N
7		-sdb	-maint	N	N	N	N	N	N	Y	N
8			-expand	N	N	N	N	N	N	N	Y

Legend:

    Y: Can be specified.

    N: Cannot be specified.

#

    Backup data that is created by using one of the following database sizes cannot be recovered to the database in XL size:

    - S

    - M

    - L

    - LL

When you recover a database by executing the jssdbrecovery.bat command with the -maint option specified, the database size must be the same as when the backup was created. When you use JP1/IM - Service Support Advanced Edition to recover data in the Item storage database, the database structure (the number of expansions and the directory to expand the database to) must be the same as when the backup was created.

When you recover the database by executing the jssdbrecovery.bat command with the -expand option specified, do not recover the backup to a database smaller than when the backup was created.

- When you execute the jssdbrecovery.bat command, temporary files are created. For this reason, the installation folder of JP1/IM - Service Support requires the following available space depending on the size of the Item management database:

  - When the Item management database is size S: 250 megabytes

  - When the Item management database is size M: 450 megabytes

  - When the Item management database is size L: 900 megabytes

  - When the Item management database is size LL: 1.8 gigabytes

  - When the Item management database is size XL: 1.8 gigabytes

- You cannot recover a backup that was created in an environment with a different version. Backup and recover must be performed in environments with the same version. If you execute the jssdbrecovery command to recover a

backup file created in an environment with a different version and continue running JP1/IM - Service Support, the status of the database and the data registered in the database after recovery might be abnormal.

- When JP1/IM - Service Support Advanced Edition is used, the data in both the Item management database and Item storage database can be recovered separately. However, if you recover the data in one of those databases by using the backup file created before the `jssitemstore` (stores Items) command is executed, and recover the data in the other database by using the backup file created after the `jssitemstore` (stores Items) command is executed, data might be inconsistent. Therefore, when you recover data in both the Item management database and Item storage database, do not use the backup files that were created before and after the `jssitemstore` (stores Items) command is executed. For details about how to recover data in the Item storage database, see *10.2.15 Recovery procedure when the Item storage database is used*.

Remarks

- When you execute the `jssdbrecovery.bat` command, multiple child processes start within the system. Even if you cancel the `jssdbrecovery.bat` command by using **Ctrl+C**, the child processes continue running. For this reason, do not cancel the `jssdbrecovery.bat` command during execution by using **Ctrl+C**. If you do, make sure that the `pdrstr` process is inactive when the `-maint` option is specified. When the `-expand` option is specified, make sure that the `pdrorg` process is inactive. Wait for a while and restart the JP1/Service Support - DB Server service.

- If a KNAB26103-E error message appears when you execute the `jssdbrecovery.bat` command, check if any of the following causes applies. If one applies, take the appropriate countermeasures and then re-execute the command.

  - A relative path was used to specify the backup file.

  - The specified backup file is a folder.

  - A UNC path was used to specify the backup file.

  - The absolute path for the backup file exceeds 259 bytes.

  - The backup file name itself exceeds 255 bytes.

  - The backup file name contains multi-byte characters. Alternatively, characters that are not recognized by the OS were used.

- If a KNAB26103-E error message appears, the cause might be one of the following. Eliminate the cause and re-execute the `jssdbrecovery.bat` command.

  - You used a backup file that was created by using the `jssdbbackup.bat` command with the `-maint` option to expand the database or move data to a different database by using the `jssdbrecovery.bat` command with the `-expand` option.

  - You used a backup file that was created by using the `jssdbbackup.bat` command with the `-expand` option to recover the data in the database by using the `jssdbrecovery.bat` command with the `-maint` option.

  - The size of the database you recovered is smaller than the size of the database when the backup was created.

- For details about how to expand the Item management database, see *10.2.4 Expanding the size of the Item management database*.

- After you recover the data in the database, check whether the main window (Item status) appears when you start JP1/IM - Service Support.

- The database is reorganized when you execute the `jssdbbackup.bat` command with the `-expand` option. For this reason, when you execute the `jssdbrecovery.bat` command to recover data in the database using the backup file, the database might require more space than the Item management database that was used before the backup was made. This might result in failure to recover data in the database. To prevent this problem, perform the following procedure:

1. Execute the `jssdbbackup.bat` command with the `-maint` option to create a backup file. Execute the `jssdbrecovery.bat` command with the `-maint` option to recover the backup file.

2. Execute the `jssdelrec` command to place unnecessary Items in the *Waiting to be deleted* status.

3. Execute the `jssitemdeletion` command to delete the Items in the *Waiting to be deleted* status.

4. Execute the `jssdbbackup.bat` command with the `-expand` option to create a backup of the data in the database.

5. Execute the `jssdbrecovery.bat` command with the `-expand` option to recover the data in the database using the backup file created in step 4.

Example

The following example shows how to recover the data in the Item management database using a backup file (`c:\backup\backup`).

```
jssdbrecovery.bat -f c:\backup\backup -maint
```

jssdbrorg.bat (reorganizes the Item management database)

Description

This command reorganizes the Item management database by incorporating the free space that is defragmented when data is added to or deleted from the database. To run this command, go to the **Start** menu and click **Programs**, **JP1_Integrated Management - Service Support**, and **JP1_IM-SS Command Prompt**. Then execute the command.

Format

```
jssdbrorg.bat -sys
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path`\tools\`

Arguments

-sys

Reorganizes the Item management database. This argument is mandatory.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Before you execute the `jssdbrorg.bat` command, execute the `jssdbbackup.bat` command with the `-maint` option to make a backup of the data in the Item management database. For details about the `jssdbbackup.bat` command, see *jssdbbackup.bat (backs up databases)* in *Chapter 11. Commands*.

- While the `jssdbrorg.bat` command is being executed, do not execute other JP1/IM - Service Support commands.

- When you execute the `jssdbrorg.bat` command, temporary files are created. For this reason, the installation folder for JP1/IM - Service Support requires the following available space depending on the size of the Item management database:

  - When the Item management database is size S: 2.8 gigabytes
  - When the Item management database is size M: 16.5 gigabytes
  - When the Item management database is size L: 40.5 gigabytes
  - When the Item management database is size LL: 80.0 gigabytes
  - When the Item management database is size XL: 80.0 gigabytes

Remarks

- When you execute the `jssdbrorg.bat` command, multiple child processes start within the system. Even if you cancel the `jssdbrorg.bat` command by using **Ctrl+C**, the child processes continue running. For this reason, do not cancel the `jssdbrorg.bat` command during execution by using **Ctrl+C**. If you happen to do so, make sure that the `pdrorg` process is inactive. Wait for a while and re-execute the command.

- If you cannot secure sufficient space for reorganizing the database on the disk where JP1/IM - Service Support is installed, perform the following procedure to change the output destination folder for the temporary files that are created when the database is reorganized:

  1. Open *IM-SS-path*`\conf\setup\jssdbrorgpath.bat`.

  2. In the file, on the 6th line, after `@set CHANGEPATH=`, use an absolute path to specify the folder to which temporary files are to be output.

  3. Delete `@rem` at the beginning of the 7th line.

  4. Save the file.

  If you do not change the output destination folder for the temporary files, the path for the folder is either of the following by default:

  - For the basic configuration: *IM-SS-path*`\log\command`

  - For the cluster configuration: *folder-containing-shared-files-on-shared-disk*`\log\command`

- If a KNAB26105-E error message appears after you change the output destination folder for the temporary database reorganization files and execute the `jssdbrorg.bat` command, the cause might be one of the following:

  - The drive containing the output destination folder has insufficient space.

  - A file was specified as the output destination folder.

  - The output destination folder is immediately under a disk drive.

  - The drive containing the output destination folder is a network drive.

  - The output destination folder name contains multi-byte characters or characters that are not allowed by the OS.

  - The output destination folder name contains characters other than the following:
    - Half-width alphanumeric characters
    - Half-width space characters
    - Half-width symbols
    - \, @, #, ., ( )

  - The drive containing the output destination folder does not exist.

  - A UNC path was used to specify the output destination folder.

  - The output destination folder name consists of 180 bytes or more.

  If any of the above causes apply, recover the data in the Item management database using the backup file that you created before you executed the `jssdbrorg.bat` command. Eliminate the cause of the error and re-execute the `jssdbrorg.bat` command.

jssdbstatchk.bat (checks the database status)

Description

This command can be used to check the status of the Item management database and Item storage database. Information below is output to the standard output. Note that information about the Item storage database can be checked when the size of the Item management database is XL.

- Database size of the Item storage area and attached file storage area in the Item management database and Item storage database

- Usage rate of the Item storage area and attached file storage area in the Item management database and Item storage database

- Status of the storage area in the Item storage database (active or inactive)

- Number of expansions of the Item storage area and attached file storage area in the Item storage database

- Registration date range for the Items stored in the Item management database and Item storage database

- Path to the directory that stores the Item management database and Item storage database

To run this command, go to the **Start** menu and click **Programs**, **JP1_Integrated Management - Service Support**, and **JP1_IM-SS Command Prompt**. Then, execute the command.

Format

```
jssdbstatchk.bat {-state | -dbpath}
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\tools\

Arguments

-state

Checks the status of the Item management database and Item storage database.

-dbpath

Checks the directory for storing the Item management database and Item storage database.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end
2	Command executing

Status of the database to be output

The status of the database to be output depends on the specified option. The following table lists and describes the output information about the status of the database.

Table 11–13: Output information about the status of the database

No.	Output information[#1]	Description	Specified option
1	Database name (`DBtype`)	The target database name is output as the header. Either of the following database names is output: • `itemmanageDB`: Item management database • `itemstoreDB(A)` [#2]: Item storage database	--
2	Database capacity (`dbcapacity`)	The database capacity (GB) of the Item storage area and attached file storage area in the target database is output. If the Item storage database is not set up, `N/A` is output.	`-state`
3	Database usage rate (`dbusage`)	The usage rate (%) of the Item storage area and attached file storage area in the target database is output. If the Item storage database is not set up, `N/A` is output.	`-state`
4	Status of the storage area in the Item storage database (`active/inactive`)	When the target database is the Item storage database, the status of the storage area is displayed. One of the following statuses is output: • `active`: The storage area is being used. (The storage area is targeted for update operations.) • `inactive`: The storage area is not being used. • `N/A`: The storage area has not been set up.	`-state`
5	Number of expansions of the Item storage database (`expandtime`)	If the target database is the Item storage database, the number of expansions of the Item storage area and attached file storage area in the storage area is displayed. If the Item storage database is not set up, `N/A` is displayed. If the Item storage database is set up but not expanded, `0` is displayed.	`-state`
6	Registered Items (`itemrange`)	The registration date range for the Items registered in the target database is output. For the registration date range, the oldest and latest registered date are output in *yyyy*/*mm*/*dd*–*yyyy*/*mm*/*dd* format. Note that the following Items in the Item management database are not included: • Items waiting to be deleted • Items registered in the process work boards waiting to be deleted	`-state`
7	Directory that stores the database (`dbsetupdir`, `dbsetupdir[local]`, `dbsetupdir[share]`, `dbexpanddir`, or `dbexpanddir[share]`)	The directory that stores the target database is output. For the Item management database, the directory to which the Item management database is set up is output. For the Item storage database, information about the directory to which the Item storage database is set up and the directory to which the Item storage database is expanded is output. For an environment in a cluster configuration, information about the setup directories for the following Item management databases is output: • Directory that stores the Item management database on a local disk (header name: `dbsetupdir[local]`) • Directory that stores the Item management database on a shared disk (header name: `dbsetupdir[share]`) In a cluster environment, `[share]` is added to the header name of the information about the directories into which the Item storage database is set up and expanded.	`-dbpath`

No.	Output information[#1]	Description	Specified option
7	Directory that stores the database (dbsetupdir, dbsetupdir[local], dbsetupdir[share], dbexpanddir, or dbexpanddir[share])	If the database is not set up, N/A is output. In this case, information about the directory to expand the database to is not output.	-dbpath

Legend:

--: Not applicable.

#1

Header names of the database information are enclosed by parentheses. The unit is output after some headers. If database information is divided into the Item storage area and the attached file storage area, the following information is output after the header names:

- For the Item storage area: (item)

- For the attached file storage area: (apdfile)

#2

The storage area is enclosed by parentheses.

The following example shows an output result of executing the jssdbstatchk.bat command with the -state option specified:

```
[DBtype] itemmanageDB
dbcapacity(GB)(item)    : 67
dbusage(%)(item)        : 70.3
dbcapacity(GB)(apdfile): 32
dbusage(%)(apdfile)     : 73.3
itemrange               : 2015/01/01-2016/02/24

[DBtype] itemstoreDB(A)
active/inactive         : inactive
dbcapacity(GB)(item)    : 128
dbusage(%)(item)        : 90.2
expandtime(item)        : 2
dbcapacity(GB)(apdfile): 64
dbusage(%)(apdfile)     : 72.6
expandtime(apdfile)     : 1
itemrange               : 2001/04/01-2007/12/31

[DBtype] itemstoreDB(B)
active/inactive         : active
dbcapacity(GB)(item)    : 128
dbusage(%)(item)        : 25.3
expandtime(item)        : 2
dbcapacity(GB)(apdfile): 64
dbusage(%)(apdfile)     : 10.2
expandtime(apdfile)     : 1
itemrange               : 2008/01/01-2014/12/31
```

The following example shows an output result of executing the jssdbstatchk.bat command with the -dbpath option specified:

```
[DBtype] itemmanageDB
dbsetupdir              : C:\Program Files (x86)\Hitachi\JP1SS\db
```

```
[DBtype] itemstoreDB(A)
dbsetupdir            : D:\Program Files (x86)\Hitachi\JP1SS\itemstoredbA
dbexpanddir1(item)    : D:\Program Files (x86)\Hitachi\JP1SS\itemstoredbA
dbexpanddir2(item)    : D:\Program Files (x86)\Hitachi\JP1SS\itemstoredbA
dbexpanddir1(apdfile) : D:\Program Files (x86)\Hitachi\JP1SS\itemstoredbA

[DBtype] itemstoreDB(B)
dbsetupdir            : D:\Program Files (x86)\Hitachi\JP1SS\itemstoredbB
dbexpanddir1(item)    : D:\Program Files (x86)\Hitachi\JP1SS\itemstoredbB
dbexpanddir2(item)    : D:\Program Files (x86)\Hitachi\JP1SS\itemstoredbB
dbexpanddir1(apdfile) : D:\Program Files (x86)\Hitachi\JP1SS\itemstoredbB
```

Prerequisites for executing the command

- For details about the status of services when commands are executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.
- Two or more `jssdbstatchk.bat` commands cannot be executed at the same time.

Remarks

- The database capacity (`dbcapacity`) which is displayed when the `jssdbstatchk.bat` command is executed with the `-state` option is the size of the area that stores Item data or attached file data. The Item management database and Item storage database have areas that store Item data and attached file data, and areas used to manage those areas. Therefore, the value displayed for the database capacity (`dbcapacity`) is different from the file size used by the Item management database and Item storage database.

- The database usage rate (`dbusage`) which is displayed when the `jssdbstatchk.bat` command is executed with the `-state` option, indicates a value that includes invalid areas. Therefore, only deleting the Items or attached files does not change the usage rate. To decrease the usage rate, delete data, and then execute the `jssdbrorg.bat` command to reorganize the invalid areas. For details about the `jssdbrorg.bat` command, see *jssdbrorg.bat (reorganizes the Item management database)* in *Chapter 11. Commands*.

Example

The following example shows how to output the status of the database:

```
jssdbstatchk.bat -state
```

jsshadbinit.bat (initializes the database in a cluster environment)

Description

This command initializes the database in a cluster environment. When JP1/IM - Service Support Advanced Edition is used, not only the Item management database is initialized but also the Item storage database is deleted. Therefore, the Item storage database must be set up if you want to reuse it.

To run this command, go to the **Start** menu and click **Programs**, **JP1_Integrated Management - Service Support**, and **JP1_IM-SS Command Prompt**. Then execute the command.

Format

For JP1/IM - Service Support (Standard):

```
jsshadbinit.bat -s {S | M | L | LL} [-t]
                [-q]
```

For JP1/IM - Service Support Advanced Edition:

```
jsshadbinit.bat -s {S | M | L | LL | XL} [-t]
                [-q]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path`\tools\`

Arguments

-s {S | M | L | LL | XL}

Specifies the size of the Item management database in a cluster environment.

The following table describes the size for each value.

Specified value	Size of the database on the local disk	Size of the database on the shared disk
S	1.4 gigabytes	5.2 gigabytes
M	1.4 gigabytes	29.2 gigabytes
L	1.5 gigabytes	71.1 gigabytes
LL	1.7 gigabytes	150.9 gigabytes
XL[#]	1.7 gigabytes	161.5 gigabytes

\#

This value can be specified only when JP1/IM - Service Support Advanced Edition is used.

For details about the criteria for determining the size of the Item management database, see the *Release Notes*.

-q

Initializes the database without displaying a confirmation message.

If you do not specify the −q option, the system displays a message to ask whether to permit initialization of the database.

−t

Registers emails as Items. When you specify the −t option, the master system and the temporary receipt process work board, which are required to register emails as Items, are created. If you do not specify the −t option, the master system and the temporary receipt process work board are not created.

If you want to create the master system and the temporary receipt process work board after you execute the jsshadbinit.bat command, use the jsscreatesysandpwb command (creates the master system and the temporary receipt process work board). For details about the jsscreatesysandpwb command, see *jsscreatesysandpwb (creates the master system and the temporary receipt process work board)* in *Chapter 11. Commands*.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Before you execute the jsshadbinit.bat command, use cluster software to take the JP1/Service Support - Web Service service, the JP1/Service Support service, the JP1/Service Support - DB Server service, the JP1/Service Support - DB Cluster Service service, and the JP1/Service Support - Task Service service offline.

- While the jsshadbinit.bat command is being executed, do not execute other JP1/IM - Service Support commands.

- Execute the jsshadbinit.bat command on the active and primary server.

Remarks

- When you execute the jsshadbinit.bat command, multiple child processes start within the system. Even if you cancel the jsshadbinit.bat command by using **Ctrl+C**, the child processes continue running. For this reason, do not cancel the jsshadbinit.bat command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and re-execute the command.

- After you execute the jsshadbinit.bat command, inactivate the JP1/Service Support - DB Server service. You need to do this because the Service Control Manager on the host where you execute the command starts the JP1/Service Support - DB Server service of the Item management database server.

- When JP1/IM - Service Support Advanced Edition is not used, executing the jsshadbinit.bat command with XL specified for the −s option causes an error.

- When the jsshadbinit.bat command is executed, the required memory size depends on the size of the Item management database. For details about the required memory size, see the release notes.

Example

The following example shows how to initialize the Item management database in a cluster environment as size M.

```
jsshadbinit.bat -s M
```

jsshasetup.bat (sets up JP1/IM - Service Support in a cluster environment)

Description

This command sets up JP1/IM - Service Support so that it can be used in a cluster environment. To run this command, go to the **Start** menu and click **Programs**, **JP1_Integrated Management - Service Support**, and **JP1_IM-SS Command Prompt**. Then execute the command. The arguments you can specify depend on the JP1/IM - Service Support product being used.

Format

For JP1/IM - Service Support (Standard):

```
jsshasetup.bat {{-c {online -s {S | M | L | LL} [-t]} | standby}
                | -vup [-t]| -r}
                [-q]
```

For JP1/IM - Service Support Advanced Edition:

```
jsshasetup.bat {{-c {online -s {S | M | L | LL | XL} [-t]} | standby}
                | -vup [-t] | -r}
                [-q]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path`\tools\`

Arguments

`-c online -s {S | M | L | LL | XL}`

Sets up JP1/IM - Service Support on the primary server so that it can be used in a cluster environment. Specify the size of the Item management database with the `-s` option. Use half-width uppercase characters to specify `S`, `M`, `L`, `LL`, or `XL`.

The following table describes the size for each value.

Specified value	Size of the database on the local disk	Size of the database on the shared disk
S	1.4 gigabytes	5.2 gigabytes
M	1.4 gigabytes	29.2 gigabytes
L	1.5 gigabytes	71.1 gigabytes
LL	1.7 gigabytes	150.9 gigabytes
XL[#]	1.7 gigabytes	161.5 gigabytes

#
   This value can be specified only when JP1/IM - Service Support Advanced Edition is used.

When you specify the `-s` option, all the setup processing is executed and the existing Item management database is initialized. If you have changed the folder containing the Item management database or the port number of the Item management database, the setup is performed with the latest information.

For details about how to change the folder for storing the Item management database or the port number of the Item management database, see *9.2.4 Editing jsshasetupinfo.bat*.

For details about the criteria for determining the size of the Item management database, see the *Release Notes*.

-t

Registers emails as Items. When you specify the -t option, the master system and the temporary receipt process work board, which are required to register emails as Items, are created. If you do not specify the -t option, the master system and the temporary receipt process work board are not created.

Do not specify the -t option when the -c standby option is specified. In addition, specify the -t option only when you set up JP1/IM - Service Support on the primary server. Do not specify the -t option when you set up JP1/IM - Service Support on the secondary server. If you do, an error will occur.

If you want to create the master system and the temporary receipt process work board after you execute the jsshasetup.bat command, use the jsscreatesysandpwb command (creates the master system and the temporary receipt process work board). For details about the jsscreatesysandpwb command, see *jsscreatesysandpwb (creates the master system and the temporary receipt process work board)* in *Chapter 11. Commands*.

-c standby

Sets up JP1/IM - Service Support on the secondary server so that it can be used in a cluster environment.

-vup

Upgrades the version of JP1/IM - Service Support (Standard) from version 10-10 to 10-50. This option is specified during setup after overwrite installation is performed. This option can also be used if you upgrade the product from JP1/IM - Service Support (Standard) whose version is earlier than 10-10 to JP1/IM - Service Support Advanced Edition. Specify this option only if you upgrade the version of JP1/IM - Service Support from an earlier version, or upgrade the product from JP1/IM - Service Support (Standard) to JP1/IM - Service Support Advanced Edition.

When you specify the -vup option, the database is not initialized and the environment settings of the WWW container server are not updated. Only the features extended by version upgrade or product upgrade are updated. The folder containing the Item management database and the port number of the database remain as they were for the previous setup.

-r

Sets up JP1/IM - Service Support after overwrite installation of the same version of JP1/IM - Service Support. Do not specify the -r option when you set up JP1/IM - Service Support for the first time.

When you specify the -r option, the database is not initialized and the environment settings of the WWW container server are not updated. The folder containing the Item management database and the port number of the database remain as they were for the previous setup.

-q

Initializes the database without displaying a confirmation message.

If you do not specify the -q option, the system displays a message to ask whether to permit initialization of the database.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- Make sure that you execute the `jsshasetup.bat` command when you create a cluster environment for the first time or overwrite an existing cluster environment.

- Make sure that you execute the `jsshasetup.bat` command on the primary server.

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Before you perform version upgrade or product upgrade by executing the `jsshasetup.bat` command with the `-vup` option specified, the JP1/Service Support - DB Server service must be running.

- Before you execute the `jsshasetup.bat` command, use cluster software to take the JP1/Service Support - Web Service service, the JP1/Service Support service, the JP1/Service Support - DB Server service, and the JP1/Service Support - DB Cluster Service service offline.

- While the `jsshasetup.bat` command is being executed, do not execute other JP1/IM - Service Support commands.

- When you execute the `jsshasetup.bat` command with `online` set for the `-c` option on the primary server, make sure that you execute the `jsshasetup.bat` command with `standby` set for the `-c` option on the secondary server.

- If you execute the `jsshasetup.bat` command to upgrade the version of JP1/IM - Service Support (Standard) from 10-10 to 10-50, or to upgrade the product from JP1/IM - Service Support to JP1/IM - Service Support Advanced Editon10-50, the following available space is required on the drive on which the Item management database is stored, depending on the size of the Item management database:

  - For the S-size Item management database: 0.2 GB

  - For the M-size Item management database: 0.9 GB

  - For the L-size Item management database: 1.4 GB

  - For the LL-size Item management database: 2.9 GB

  - In JP1/IM - Service Support (Standard) 10-10, there is no XL-size setting for the Item management database.

- When the `jsshasetup.bat` command is executed, a temporary file is created. Therefore, about 400 MB of available space is required for the installation folder for JP1/IM - Service Support, excluding the available space required for version upgrade or product upgrade.

Remarks

- When you execute the `jsshasetup.bat` command, multiple child processes start within the system. Even if you cancel the `jsshasetup.bat` command by using **Ctrl+C**, the child processes continue running. For this reason, do not cancel the `jsshasetup.bat` command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and re-execute the command.

- After you perform version upgrade or product upgrade of JP1/IM - Service Support by executing the `jsshasetup.bat` command with the `-vup` option on the secondary server, do not re-execute a command with the `-vup` option on the same server.

- If the `jsshasetup.bat` command ends abnormally, the JP1/Service Support service might be active. Before you re-execute the `jsshasetup.bat` command, make sure that you inactive the JP1/Service Support service.

- After you execute the `jsshasetup.bat` command, inactivate the JP1/Service Support - DB Server service. You need to do this because the Service Control Manager on the host where you execute the command starts the JP1/ Service Support - DB Server service of the Item management database server.

- When you execute the `jsshasetup.bat` command, a KNAB22018-W warning message or a KNAB26148-W warning message might appear. If either of these messages appears, JP1/IM - Service Support is already set up. Take the action described in the explanation of the KNAB22018-W or KNAB26148-W message.

- When JP1/IM - Service Support Advanced Edition is not used, executing the `jsshasetup.bat` command with `XL` specified for the `-s` option causes an error.

Example

The following example shows how to set up JP1/IM - Service Support on the primary server to be used in a new cluster environment. The size of the Item management database is M.

```
jsshasetup.bat -c online -s M
```

jsshaunsetup.bat (performs unsetup of JP1/IM - Service Support in a cluster environment)

Description

This command performs unsetup of JP1/IM - Service Support operating in a cluster environment and deletes the database. When JP1/IM - Service Support Advanced Edition is used, not only the Item management database but also the item storage database is deleted.

To run this command, go to the **Start** menu and click **Programs**, **JP1_Integrated Management - Service Support**, and **JP1_IM-SS Command Prompt**. Then execute the command.

Format

```
jsshaunsetup.bat -sys [-q]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\tools\

Arguments

-sys

Performs unsetup of JP1/IM - Service Support. This argument is mandatory.

-q

Deletes the database without displaying a confirmation message.

If you do not specify the -q option, the system displays a message to ask whether to permit deletion of the database.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- Execute the jsshaunsetup.bat command only to delete JP1/IM - Service Support from a cluster environment. Execute the command before you uninstall JP1/IM - Service Support.

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Before you execute the jsshaunsetup.bat command, use cluster software to take the JP1/Service Support - Web Service service, the JP1/Service Support service, the JP1/Service Support - DB Server service, the JP1/Service Support - DB Cluster Service service, and the JP1/Service Support - Task Service service offline.

- While the `jsshaunsetup.bat` command is being executed, do not execute other JP1/IM - Service Support commands.

- Before you execute the `jsshaunsetup.bat` command, put the shared disk online.

- You can execute the `jsshaunsetup.bat` command only for JP1/IM - Service Support that was set up for a cluster environment by using the `jsshasetup.bat` command.

Remarks

- When you execute the `jsshaunsetup.bat` command, multiple child processes start within the system. Even if you cancel the `jsshaunsetup.bat` command by using **Ctrl+C**, the child processes continue running. For this reason, do not cancel the `jsshaunsetup.bat` command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and re-execute the command.

- If you uninstall JP1/IM - Service Support without executing the `jsshaunsetup.bat` command, the database of JP1/IM - Service Support will remain. If the database of JP1/IM - Service Support is not necessary, manually delete the database on the shared disk.

jssitemstore (stores Items)

Description

This command stores the Items (registered in the Item management database) whose status is `Close` during the specified period, as stored Items in an active storage area in the Item storage database. The Items stored in the Item storage database can be viewed in windows in the same way as the Items registered in the Item management database. However, they cannot be edited or deleted. Also, the Items stored as stored Items in the Item storage database cannot be changed back to the managed Items stored in the Item management database. This command can be executed when JP1/IM - Service Support Advanced Edition is used.

Format

```
jssitemstore -ct start-date-end-date [-ch] [-q]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path`\bin\`

Arguments

`-ct` *start-date–end-date*

Specify the range for the registration dates with a character string in *YYYY*/*MM*/*DD* format in order to store the Items whose status is *Close* among the Items registered in the Item management database during the specified period. Connect *start-date* and *end-date* with a hyphen (-).

For *start-date* and *end-date*, you can specify values from 1970/01/01 to 2107/01/01. Specify the values so that *start-date* is earlier than *end-date*.

The following explains *start-date* and *end-date*:

start-date

   Stores the Items whose status is *Close* in the Item storage database among the Items registered after the date specified with this value. If the specified date is in the specified range but does not exist as a date, an error occurs.

end-date

   Stores the Items whose status is *Close* in the item storage database among the Items registered before the date specified with this value. If the specified date is in the specified range but does not exist as a date, an error occurs.

For example, if `2013/01/01-2013/12/31` is specified, the Items whose registration date is in the range from 2013/01/01 00:00:00(.000) to 2013/12/31 23:59:59(.999) can be stored in the Item storage database.

`-ch`

Checks whether the Items registered during the specified period can be stored in the Item storage database.

`-q`

Continues storing Items without displaying a confirmation message. If you do not specify the `-q` option, the system displays a message to ask whether to continue storing Items.

Return values

Return value	Meaning
`0`	Normal end
`1`	Abnormal end

Conditions for storing Items

When you store Items in the Item storage database, the Items whose status is *Waiting to be deleted* or is not *Close* among the Items registered during the specified period cannot be stored in the Item storage database. Also, in some cases, Items cannot be stored in the Item storage database depending on the status of the system or process work board in which the Items are registered. The following table describes the status of the Items and whether they can be stored in the item storage database.

Table 11–14: Status of the Items and whether they can be stored in the Item storage database

No.	Status of the system in which the Item is registered	Status of the process work board in which the Item is registered	State of the Item	Status of the Item	Whether the Item can be stored in the Item storage database
1	Waiting to be deleted	Waiting to be deleted	--	--	N[#1]
2	Operating	Waiting to be deleted	--	--	N[#1]
3		In process	--	--	N[#2]
4		Under suspension	Waiting to be deleted	--	N[#1]
5			--	Other than Close	N[#1]
6			Other than Waiting to be deleted	Close	Y[#3]
7		Operating	Waiting to be deleted	--	N[#1]
8			--	Other than Close	N[#1]
9			Other than Waiting to be deleted	Close	Y[#3]

Legend:

    Y: Stored in the Item storage database.

    N: Not stored in the Item storage database.

    --: Does not depend on the status.

#1

    The `jssitemstore` command terminates with an error.

#2

    The Item cannot be stored because it has not been registered.

#3

    The Item is stored in the Item database regardless of the editing status of the Item. If the Item is stored in the Item storage database, the Item will not be edited.

Prerequisites for executing the command

- The `jssitemstore` command can be used when JP1/IM - Service Support Advanced Edition is used.

- For details about the status of services when commands are executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Before executing the `jssitemstore` command, set up the Item storage database. For details about how to set up the Item storage database, see *10.2.10 Setting up the Item storage database*.

Remarks

- Make a backup before the `jssitemstore` command is executed. For details about backup, see *10.2.13 Storing Items in the Item storage database*.

- The Items stored in the Item storage database cannot be moved back to the managed Items. Therefore, store the Items for which editing is completed. If you want to edit a stored Item, copy the relevant Item and create a new Item.

- If the `jssitemstore` command is executed, the relevant Items are deleted from the Item management database, and free space of the Item management database is fragmented. For this reason, we recommend that you reorganize the Item management database. For details about how to reorganize the Item management database, see *jssdbrorg.bat (reorganizes the Item management database)* in *Chapter 11. Commands*.

- When the `jssitemstore` command is executed, if error message KNAB24002-E (detailed code: -756) is output and the command terminates abnormally due to insufficient database capacity, expand the Item storage database, and then re-execute the command with the same arguments specified. If the Item storage database is expanded to the upper limit, rotate the storage areas of the Item storage database.

  For details about how to expand the Item storage database, see *10.2.12 Expanding the Item storage database*. For details about how to rotate the storage areas of the Item storage database, see *10.2.11 Rotating the storage locations in the Item storage database*.

- If the `jssitemstore` command fails, the history information and latest information of the failed Items are stored separately. Then, if the stored Items are deleted in a batch, only the history information might be deleted. If this happens, we recommend that you re-execute the `jssitemstore` command with the same arguments specified.

- Execute the `jssitemstore` command and `jssdbbackup.bat` command without overlapping each other. If their execution overlaps, the command executed later terminates with an error.

- If you use **Ctrl+C** to cancel the `jssitemstore` command while it is being executed, processing of the command might fail. For this reason, do not cancel the command during execution by using **Ctrl+C**.

- While the `jssitemstore` command is executed, do not change the status of the Items to be stored and the status of the system or process work board in which the Items to be stored are registered. If you change an Item so that it cannot be stored, the command terminates with an error.

- Do not operate the JP1/Service Support service while the `jssitemstore` command is being executed. If you happen to do so, command processing might fail.

- Two or more `jssitemstore` commands cannot be executed at the same time.

- You can output the result of executing the `jssitemstore` command to a log file and check the result. For details, see *User log definition file (jp1itemstore.conf)* in *Chapter 12. Definition Files*.

Examples

Example 1

When you store the Items whose registration dates fall on 2013/01/01 to 2013/12/31 into the Item storage database:

```
jssitemstore -ct 2013/01/01-2013/12/31
```

Example 2

When you check whether Items whose registration dates fall on 2013/01/01 to 2013/12/31 can be stored in the Item storage database:

```
jssitemstore -ct 2013/01/01-2013/12/31 -ch
```

jssitemstoredbexpand.bat (expands an Item storage database)

Description

This command expands the size of the Item storage database. Both the Item storage area and attached file storage area in the Item storage database can be expanded. To execute this command, in the **Start** menu, click **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. This command can be executed when JP1/IM - Service Support Advanced Edition is used.

Format

```
jssitemstoredbexpand.bat {-i name-of-the-configuration-file-for-expanding-
an-Item-storage-database [-c online] | -c standby}
                         [-q]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\tools\

Arguments

-i *name-of-the-configuration-file-for-expanding-an-Item-storage-database*

Use an absolute path with a character string consisting of 255 bytes or less to specify the name of the configuration file for expanding an Item storage database. Count half-width characters as 1-byte each and full-width characters as 2-bytes each. You cannot specify a UNC path. For details about the configuration file for expanding an Item storage database, see *Configuration file for expanding an Item storage database (jssitemstoredbexpandinfo.bat)* in *Chapter 12. Definition Files*.

-c online | -c standby

Specify the server on which the Item storage database is to be expanded (online for the primary server, and standby for the secondary server).

-q

Continues expanding the size of the Item storage database without displaying a confirmation message. If you do not specify the -q option, the system displays a message to ask whether to continue expanding the database size.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end (unsetup not required for retry)
2	Abnormal end (unsetup required for retry) [#]

\#

    If the return value is 2, correct the cause of the error, recover the environment according to the following procedure, and then re-execute the command:

1. Stop the services in the following order:
   - JP1/Service Support - Task Service
   - JP1/Service Support - Web Service
   - JP1/Service Support

2. Initialize the databases of JP1/IM - Service Support.

   Execute the `jssdbinit.bat` (initializes databases) command to initialize the Item management database and the Item storage database. For details about the `jssdbinit.bat` (initializes databases) command, see *jssdbinit.bat (initializes databases)* in *Chapter 11. Commands*.

3. Set up the Item storage database.

   Execute the `jssitemstoredbsetup.bat` (sets up an Item storage database) command to set up the Item storage database. For details about the `jssitemstoredbsetup.bat` (sets up an Item storage database) command, see *jssitemstoredbsetup.bat (sets up an Item storage database)* in *Chapter 11. Commands*.

4. Expand the database so that the database will be in the same environment as when the backup file was created.

   Execute the `jssitemstoredbexpand.bat` (expands the Item storage database area) command to expand the Item storage database area to set up the same environment before the backup was made. For details about the environment when the backup file was created, see `dbpath.txt` stored in the directory to output the backup files to.

5. Recover the databases of JP1/IM - Service Support.

   Execute the `jssdbrecovery.bat` (recovers a database) command to recover the Item management database and Item storage database from the backup file that was made before executing the `jssitemstoredbexpand.bat` command. For details about the `jssdbrecovery.bat` (recovers a database) command, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

Managing the expanded status of the Item storage database

The `jssitemstoredbexpand.bat` command collects the status of the Item storage database, and then expands the database size based on the status of the Item storage database. The expanded status of the Item storage database is managed by the Item management database, as follows:

- Number of expansions

  When the `jssitemstoredbexpand.bat` command is executed, the number of expansions of the Item storage database is checked. If the number has not reached the upper limit, the Item storage database is expanded, and the number of expansions of the Item storage database managed by the Item management database is updated. If the number has reached the upper limit, an error occurs, and the Item storage database is not expanded.

- File path for expansion

  When the `jssitemstoredbexpand.bat` command is executed, you can change the configuration file for expanding an Item storage database to specify the location that stores the expanded area of the Item storage database. The Item management database manages the location that stores the expanded area of the Item storage database. The path to this location becomes necessary if a failure occurs.

Prerequisites for executing the command

- The `jssitemstoredbexpand.bat` command can be executed when JP1/IM - Service Support Advanced Edition is used.

- For details about the status of services when commands are executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Each time an area in the Item storage database is expanded, required memory size becomes larger. For details about the required memory size, see the release notes.

- One expansion of the Item storage database by executing the `jssitemstoredbexpand.bat` command requires 64 GB of available space in the folder that stores the Item storage database to be expanded, which is specified in the configuration file for expanding an Item storage database. For details about the configuration file for expanding an Item storage database, see *Configuration file for expanding an Item storage database (jssitemstoredbexpandinfo.bat)* in *Chapter 12. Definition Files*.

- Before you execute the `jssitemstoredbexpand.bat` command, set up the Item storage database. For details about how to set up the Item storage database, see *10.2.10 Setting up the Item storage database*.

- For details about commands that cannot be executed at the same time with the `jssitemstoredbexpand.bat` command, see *Commands that cannot be executed at the same time*.

Remarks

- Before executing the `jssitemstoredbexpand.bat` command, back up the data in the Item management database and Item storage database for failure recovery for when execution of the `jssitemstoredbexpand.bat` command fails. For details about the backup, see *10.2.14 Backup procedure when the Item storage database is used*.

- Do not use **Ctrl+C** to cancel the `jssitemstoredbexpand.bat` command during execution. If you happen to do so, recover the environment in the same way as when the return value is 2.

- Do not specify a UNC path for the `-i` option. If you happen to do so, the command might terminate abnormally due to a communication error or some other reason.

- When the Item storage database is recovered, the recovered environment must be the same environment as when the backup file was created. Therefore, in an environment in which the Item management database or Item storage database is set up again, you need to expand the Item storage database again so that the same environment is set up. For details about recovery of the Item storage database, see *10.2.15 Recovery procedure when the Item storage database is used*.

- The execution result of the `jssitemstoredbexpand.bat` command is output to the log file open to users. For details, see the description about the JP1/IM - Service Support logs and folders that are open to users in *A.2 List of log files output by JP1/IM - Service Support*.

- Make sure that the input file you specify is created with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. The character encodings that can be used are as follows:
  - In a Japanese environment: UTF-8
  - In an English environment: UTF-8
  - In a Chinese environment: UTF-8

Examples

Example 1

When you use the configuration file for expanding an Item storage database (`c:\setup\jssitemstoredbexpandinfo.bat`) to expand the Item storage database area:

```
jssitemstoredbexpand.bat -i c:\setup\jssitemstoredbexpandinfo.bat
```

Example 2

When you use the configuration file for expanding an Item storage database (`c:\setup\jssitemstoredbexpandinfo.bat`) to expand the Item storage database on the primary server in a cluster environment:

```
jssitemstoredbexpand.bat -i c:\setup\jssitemstoredbexpandinfo.bat -c
online
```

Example 3

When you expand the Item storage database on the secondary server in a cluster environment:

```
jssitemstoredbexpand.bat -c standby
```

jssitemstoredbrotate (rotates Item storage databases)

Description

This command rotates active storage areas of the Item storage database. You can use the `jssdbstatchk.bat` (checks the database status) command to check the status of the storage areas. For details see *jssdbstatchk.bat (checks the database status)* in *Chapter 11. Commands.* This command can be executed when JP1/IM - Service Support Advanced Edition is used.

Format

```
jssitemstoredbrotate -rotate [-q]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path`\bin\`

Arguments

`-rotate`

Rotates active storage areas of the Item storage database. Storage areas of the Item storage database are rotated according to the following rules:

- The two storage areas are rotated from storage area A to storage area B.
- Storage area B is switched to storage area A.
- One storage area is not switched to the other storage area that has not been set up.

`-q`

Continues rotating the storage areas of the Item storage database without displaying a confirmation message. If you do not specify the `-q` option, the system displays a message to ask whether to continue rotating the storage areas.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- The `jssitemstoredbrotate` command can be executed when JP1/IM - Service Support Advanced Edition is used.
- For details about the status of services when commands are executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.
- Before you execute the `jssitemstoredbrotate` command, set up the Item storage database. For details about how to set up the Item storage database, see *10.2.10 Setting up the Item storage database*.

- Two or more `jssitemstoredbrotate` commands cannot be executed at the same time.

Remarks

- If you cancel the `jssitemstoredbrotate` command by using **Ctrl+C** while the command is being executed, processing of the command might fail. For this reason, do not use **Ctrl+C** to cancel the command during execution.

- You can output the result of executing the `jssitemstoredbrotate` command to a log file and check the result. For details, see *User log definition file (jp1itemstoredbrotate.conf)* in *Chapter 12. Definition Files*.

jssitemstoredbsetup.bat (sets up an Item storage database)

Description

This command sets up the Item storage database. To execute this command, in the **Start** menu, click **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. This command can be executed when JP1/IM - Service Support Advanced Edition is used.

Format

```
jssitemstoredbsetup.bat {-i name-of-the-configuration-file-for-expanding-an-
Item-storage-database
                        [-c online] | -c standby} [-q]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\tools\

Arguments

-i *name-of-the-configuration-file-for-expanding-an-Item-storage-database*

Use an absolute path with a character string consisting of 255 bytes or less to specify the name of the configuration file for setting up an Item storage database. Count half-width characters as 1-byte each and full-width characters as 2-bytes each. You cannot specify a UNC path. For details about the configuration file for setting up an Item storage database, see *Configuration file for setting up an Item storage database (jssitemstoredbinfo.bat)* in *Chapter 12. Definition Files*.

-c online | -c standby

Specify the server on which the Item storage database is to be set up (online for the primary server, and standby for the secondary server).

-q

Continues setting up the Item storage database without displaying a confirmation message. If you do not specify the -q option, the system displays a message to ask whether to continue setting up the Item storage database.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end (unsetup not required for retry)
2[#]	Abnormal end (unsetup required for retry)

\#

    If the return value is 2, correct the cause of the error, recover the environment according to the following procedure, and then re-execute the command:

      1. Initialize the databases of JP1/IM - Service Support.

Execute the `jssdbinit.bat` (initializes databases) command to initialize the Item management database and the Item storage database. For details about the `jssdbinit.bat` (initializes databases) command, see *jssdbinit.bat (initializes databases)* in *Chapter 11. Commands*.

2. Recover the databases of JP1/IM - Service Support.

Execute the `jssdbrecovery.bat` (recovers a database) command to recover the Item management database and Item storage database from the backup file that was made before executing the `jssitemstoredbsetup.bat` command. For details about the `jssdbrecovery.bat` (recovers a database) command, see *jssdbrecovery.bat (recovers a database)* in *Chapter 11. Commands*.

Prerequisites for executing the command

- The `jssitemstoredbsetup.bat` command can be executed when JP1/IM - Service Support Advanced Edition is used.

- For details about the status of services when commands are executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- Each time a storage area in the Item storage database is set up, required memory size becomes larger. For details about required memory space, see the release notes.

- Setting up a storage area in the Item storage database by executing the `jssitemstoredbsetup.bat` command requires 128 GB of available space for the folder that stores the Item storage database specified in the configuration file for setting up an Item storage database. For details about the configuration file for setting up an Item storage database, see *Configuration file for setting up an Item storage database (jssitemstoredbinfo.bat)* in *Chapter 12. Definition Files*.

- Execute the command for a storage area that has not been set up.

- Before storage area B is set up, setup for storage area A must be finished.

- The Item management database must be set up in XL size.

- For details about commands that cannot be executed at the same time as the `jssitemstoredbsetup.bat` command, see *Commands that cannot be executed at the same time*.

Remarks

- Use the `jssunsetup.bat` command to perform unsetup of the Item storage database. In case you should set up the Item storage database by mistake, back up the data in the Item management database before executing the `jssitemstoredbsetup.bat` command. For details about how to back up the data in the Item management database, see *10.2.1 Backing up and recovering the Item management database*.

- Do not cancel the `jssitemstoredbsetup.bat` command during execution by using **Ctrl+C**. If you happen to do so, recover the environment in the same way as when the return value is 2.

- The execution result of the `jssitemstoredbsetup.bat` command is output to the log file open to users. For details, see the description about the JP1/IM - Service Support logs and folders that are open to users in *A.2 List of log files output by JP1/IM - Service Support*.

- Make sure that the input file you specify is created with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. The character encodings that can be used are as follows:

  - In a Japanese environment: UTF-8

  - In an English environment: UTF-8

  - In a Chinese environment: UTF-8

Examples

Example 1

> When you use the configuration file for setting up an Item storage database (`c:\setup\jssitemstoredbinfo.bat`) to set up the Item storage database:

```
jssitemstoredbsetup.bat -i c:\setup\jssitemstoredbinfo.bat
```

Example 2

> When you use the configuration file for setting up an Item storage database (`c:\setup\jssitemstoredbinfo.bat`) to set up the Item storage database on the primary server in a cluster environment:

```
jssitemstoredbsetup.bat -i c:\setup\jssitemstoredbinfo.bat -c online
```

Example 3

> When you set up the Item storage database on the secondary server in a cluster environment:

```
jssitemstoredbsetup.bat -c standby
```

jssrefaclsetup (sets up view permission settings for individual Items)

Description

This command sets up view permission settings for individual Items.

Format

```
jssrefaclsetup {-id Item-form-part-ID | -state}
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\bin\

Arguments

-id *Item-form-part-ID*

Specify the Item form part ID for extended user information, which is used as an item for setting up view permission for individual Items. The following table lists the Item form part IDs that can be specified.

Table 11–15: Item form part IDs that can be specified as elements for setting up view permission for each Item

No.	Element name (Display name)	Item form part ID
1	Extended user information type 01	JIMSD_FORM_USEREXTTYPE01
2	Extended user information type 02	JIMSD_FORM_USEREXTTYPE02
3	Extended user information type 03	JIMSD_FORM_USEREXTTYPE03
4	Extended user information type 04	JIMSD_FORM_USEREXTTYPE04
5	Extended user information type 05	JIMSD_FORM_USEREXTTYPE05

Note that before you execute the command with this option specified, stop the JP1/Service Support service and JP1/Service Support - Web Service service.

-state

Displays the Item form part ID of the extended user information specified as an element for setting up view permission of an Item. Specifying the -state option displays a message that indicates the Item form part ID specified as an element for setting up view permission of the Item. Note that you do not have to stop the JP1/Service Support service, JP1/Service Support - Web Service service, and JP1/Service Support - Task Service service when you execute the command with this option specified.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about the status of services when commands are executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- When the `jssrefaclsetup` command is executed, a temporary file is created. Therefore, about 510 MB of available space is required in the folder where JP1/IM - Service Support is to be installed.

Remarks

- Do not use **Ctrl+C** to cancel the `jssrefaclsetup` command during execution. If you happen to do so, wait for a while, and then re-execute the command.

- Back up the data in the Item management database before you execute the `jssrefaclsetup` command. Also, back up the data in the Item management database after the `jssrefaclsetup` command is executed. For details about how to set up view permission settings for individual Items, see *8.12 Setting an environment in which view permissions are set for individual Items*.

- When the size of the Item management database is changed, a backup file created by the `jssdbbackup.bat` command with the `-expand` option specified is recovered, so the information required for setting up view permission for individual Items is not recovered. Therefore, resize the Item management database, and then execute the `jssrefaclsetup` command.

- You can output the result of executing the `jssrefaclsetup` command to a log file and check the result. For details, see *User log definition file (jp1refaclsetup.conf)* in *Chapter 12. Definition Files*.

Example

The following example shows how to specify the command when **Extended user information 01** is selected as the element for setting up view permission of the item:

```
jssrefaclsetup -id JIMSD_FORM_USEREXTTYPE01
```

jsssetup.bat (sets up JP1/IM - Service Support)

Description

This command sets up JP1/IM - Service Support. To run this command, go to the **Start** menu and click **Programs**, **JP1_Integrated Management - Service Support**, and **JP1_IM-SS Command Prompt**. Then execute the command. The arguments you can specify depend on the JP1/IM - Service Support product being used.

Format

For JP1/IM - Service Support (Standard):

```
jsssetup.bat {-s {S | M | L | LL} [-t] | [-s {S | M | L | LL}]
             -vup [-t] | -r}
             [-q]
```

For JP1/IM - Service Support Advanced Edition:

```
jsssetup.bat {-s {S | M | L | LL | XL} [-t] | [-s {S | M | L | LL | XL}]
             -vup [-t] | -r}
             [-q]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\tools\

Arguments

-s {S | M | L | LL | XL}

Specifies the size of the Item management database. Use half-width uppercase characters to specify S, M, L, LL, or XL.

The following table describes the size for each value.

Specified value	Size
S	5 gigabytes
M	30 gigabytes
L	71 gigabytes
LL	152 gigabytes
XL#	162 gigabytes

\#
    This value can be specified only when JP1/IM - Service Support Advanced Edition is used.

When you specify the -s option, all the setup processing is executed and the existing Item management database is initialized. If you have changed the folder containing the Item management database or the port number of the Item management database, the setup is performed with the latest information.

For details about how to change the folder for storing the Item management database or the port number of the Item management database, see *6.3.2 Setup procedure for new installation*.

For details about the criteria for determining the size of the Item management database, see the *Release Notes*.

-t

Registers emails as Items. When you specify the -t option, the master system and the temporary receipt process work board, which are required to register emails as Items, are created. If you do not specify the -t option, the master system and the temporary receipt process work board are not created.

If you want to create the master system and the temporary receipt process work board after you execute the jsssetup.bat command, use the jsscreatesysandpwb command (creates the master system and the temporary receipt process work board). For details about the jsscreatesysandpwb command, see *jsscreatesysandpwb (creates the master system and the temporary receipt process work board)* in *Chapter 11. Commands*.

-vup

Upgrades the version of JP1/IM - Service Support (Standard) from version 10-10 to 10-50. This option is specified during setup after overwrite installation is performed. This option can also be used when you upgrade the product from JP1/IM - Service Support (Standard) whose version is earlier than 10-10 to JP1/IM - Service Support Advanced Edition. Specify this option only when you upgrade the version of JP1/IM - Service Support from an earlier version, or when you upgrade the product from JP1/IM - Service Support (Standard) to JP1/IM - Service Support Advanced Edition.

When you specify the -vup option, the database is not initialized and the environment settings of the WWW container server are not updated. Only the features extended by version upgrade or product upgrade are updated. The folder containing the Item management database and the port number of the database remain as they were for the previous setup.

The setup processes the database differently depending on the version number of JP1/IM - Service Support before the upgrade and whether either the -s option or the -vup option is specified, or both are specified. The following table describes the details.

Table 11–16: Differences in setup depending on the specified option (when the old version is JP1/IM - Service Support (Standard) 10-10 or later)

Option specified in the command		Action performed by setup
-s option only		The database is initialized at the specified size.
-s option and -vup option	Specifies the database size that is the same as the size before version upgrade of JP1/IM - Service Support.	An error message (KNAB26151-W) is output, and the database is expanded to the same size as before version upgrade.
	Specifies the database size that differs from the size before version upgrade of JP1/IM - Service Support.	An error message (KNAB26151-W) is output, and the database is expanded to the same size as before version upgrade.
-vup option only		The database is expanded to the same size as before version upgrade.

-r

Sets up JP1/IM - Service Support after overwrite installation of the same version of JP1/IM - Service Support. Do not specify the -r option when you set up JP1/IM - Service Support after a new installation, version upgrade, or product upgrade.

When you specify the `-r` option, the database is not initialized and the environment settings of the WWW container server are not updated. The folder containing the Item management database and the port number of the database remain as they were for the previous setup.

-q

Initializes the database without displaying a confirmation message.

If you do not specify the `-q` option, the system displays a message to ask whether to permit initialization of the database.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- Make sure that you execute the `jsssetup.bat` command after a new installation or overwrite installation of JP1/IM - Service Support.

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- When you execute the `jsssetup.bat` command with the `-vup` option to perform version upgrade or product upgrade of JP1/IM - Service Support, the JP1/Service Support - DB Server service must be active.

- While the `jsssetup.bat` command is being executed, do not execute other JP1/IM - Service Support commands.

- When you set up JP1/IM - Service Support for the first time, do not specify the `-r` option.

- When you execute the `jsssetup.bat` command to upgrade the version of JP1/IM - Service Support (Standard) from 10-10 to 10-50, or to upgrade the product from JP1/IM - Service Support to JP1/IM - Service Support Advanced Editon10-50, the following available space is required on the drive on which the Item management database is stored, depending on the size of the Item management database:

  - For the S-size Item management database: 0.2 GB

  - For the M-size Item management database: 0.9 GB

  - For the L-size Item management database: 1.4 GB

  - For the LL-size Item management database: 2.9 GB

  - In JP1/IM - Service Support (Standard) 10-10, there is no XL-size setting for the Item management database.

- When the `jsssetup.bat` command is executed, a temporary file is created. Therefore, about 400 MB of available space is required for the installation folder for JP1/IM - Service Support, excluding the available space required for version upgrade or product upgrade.

Remarks

- When you execute the `jsssetup.bat` command, multiple child processes start within the system. Even if you cancel the `jsssetup.bat` command by using **Ctrl+C**, the child processes continue running. For this reason, do not cancel the `jsssetup.bat` command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and re-execute the command.

- If the `jsssetup.bat` command ends abnormally, the JP1/Service Support service might be active. Before you re-execute the `jsssetup.bat` command, make sure that you inactivate the JP1/Service Support service.

- When you execute the `jsssetup.bat` command, a KNAB22018-W warning message or a KNAB26148-W warning message might appear. If either of these messages appears, JP1/IM - Service Support is already set up. Take the action described in the explanation of the KNAB22018-W or KNAB26148-W message.

- When JP1/IM - Service Support Advanced Edition is not used, executing the `jsssetup.bat` command with `XL` specified for the `-s` option causes an error.

- When the `jsssetup.bat` command is executed, the required memory size depends on the size of the Item management database. For details about the required memory size, see the release notes.

Example

The following example shows how to set up JP1/IM - Service Support. The size of the Item management database is M. A confirmation message appears before initialization of the Item management database.

```
jsssetup.bat -s M
```

jssstoreitemdel.bat (deletes stored Items)

Description

This command deletes Items that are stored in the active storage area of the Item storage database in a batch. To execute this command, in the **Start** menu, click **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. This command can be executed when JP1/IM - Service Support Advanced Edition is used.

Format

```
jssstoreitemdel.bat -active [-q]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\tools\

Arguments

-active

Deletes the Items stored in the active storage area of the Item storage database in a batch.

-q

Continues expanding the Item storage database without displaying a confirmation message. If you do not specify the -q option, the system displays a message to ask whether to continue expanding the Item storage database.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- The jssstoreitemdel.bat command can be executed when JP1/IM - Service Support Advanced Edition is used.

- Before you execute the jssstoreitemdel.bat command, set up the Item storage database. For details about how to set up the Item storage database, see *10.2.10 Setting up the Item storage database*.

- For details about the commands that cannot be executed at the same time as the jssstoreitemdel.bat command, see *Commands that cannot be executed at the same time*.

Remarks

- Do not execute the jssstoreitemdel.bat command and the jssdbbackup.bat command at the same time. If you happen to do so, the command started later terminates with an error.

- If you cancel the `jssstoreitemdel.bat` command by using **Ctrl+C** while the command is being executed, command processing might fail. For this reason, do not cancel the command by using **Ctrl+C** during execution. If you happen to do so, wait for a while, and then re-execute the command.

- You can output the result of executing the `jssstoreitemdel.bat` command to a log file and check the result.

jssunsetup.bat (performs unsetup of JP1/IM - Service Support)

Description

This command performs unsetup of JP1/IM - Service Support and deletes the databases of JP1/IM - Service Support. When JP1/IM - Service Support Advanced Edition is used, not only the Item management database but also the Item storage database is deleted.

To run this command, go to the **Start** menu and click **Programs**, **JP1_Integrated Management - Service Support**, and **JP1_IM-SS Command Prompt**. Then execute the command.

Format

```
jssunsetup.bat -sys [-q]
```

Required execution permission

Administrator permissions

Storage folder

IM-SS-path\tools\

Arguments

-sys

Performs unsetup of JP1/IM - Service Support. This argument is mandatory.

-q

Deletes the database without displaying a confirmation message.

If you do not specify the -q option, the system displays a message to ask whether to permit deletion of the database.

Return values

Return value	Meaning
0	Normal end
1	Abnormal end

Prerequisites for executing the command

- For details about which services need to be active or inactive when this command is executed, see *Status of services when commands are executed* in *Chapter 11. Commands*.

- While the jssunsetup.bat command is being executed, do not execute other JP1/IM - Service Support commands.

Remarks

- When you execute the jssunsetup.bat command, multiple child processes start within the system. Even if you cancel the jssunsetup.bat command by using **Ctrl+C**, the child processes continue running. For this reason,

do not cancel the `jssunsetup.bat` command during execution by using **Ctrl+C**. If you happen to do so, wait for a while and re-execute the command.

- If you uninstall JP1/IM - Service Support without executing the `jssunsetup.bat` command, the databases of JP1/IM - Service Support remain.

  In this case, manually delete the folder containing the databases of JP1/IM - Service Support, which you specified at setup.

How to use Command Prompt to execute commands

This section describes how to use Command Prompt to execute some of JP1/IM - Service Support commands.

If you want to use Command Prompt to execute the JP1/IM - Service Support commands, you need to create a batch file beforehand.

Format

```
@set IMSSPATH=IM-SS-path
@set IMSSDRIVE=system-drive-in-IM-SS-path
@%IMSSDRIVE%
@CD %IMSSPATH%\tools
command-to-be-executed
```

Description

@set IMSSPATH=*IM-SS-path*

Specifies the IM-SS path.

@set IMSSDRIVE=*system-drive-in-IM-SS-path*

Specifies the system drive in the IM-SS path.

command-to-be-executed

Specifies the JP1/IM - Service Support command to be executed from a batch file. You can execute the following commands from a batch file:

- `jssdbrorg.bat` command (reorganizes the Item management database)

- `jssdbbackup.bat` command (makes a backup of data in the Item management database)

- `jssdbreclaim.bat` command (releases the free space in the Item management database)

Example

The following example shows how to write a batch file for executing the `jssdbbackup.bat` command when the IM-SS path is `D:\Hitachi\JP1SS` (drive D is the system drive).

```
@set IMSSPATH=D:\Hitachi\JP1SS
@set IMSSDRIVE=D:
@%IMSSDRIVE%
@CD %IMSSPATH%\tools
jssdbbackup -f D:\tmp\DB_Backup.bak -maint
```

Remarks

- You can execute only one JP1/IM - Service Support command from a batch file. If you want to batch-execute multiple commands, create a batch file for each command and then create a batch file to call all the created batch files.

- When the OS is Windows Server 2012 or Windows Server 2008, use either of the following methods to execute commands.

- When the Windows UAC feature is enabled and your user account has Administrator permissions, but is not the Administrator account itself, re-log in to Windows Server 2012 or Windows Server 2008 as an Administrator and execute the commands.
- Change the settings to run as an Administrator and then execute the commands.
  For details about how to change the settings to always run as an Administrator, see *List of commands*.

12

Definition Files

This chapter describes the formats and grammar of the JP1/IM - Service Support definition files.

Descriptions of definition files

This chapter describes definition files using the following items:

Description

Provides an overview of the applicable definition file.

Format

Describes the input format of the definition file.

File name

Designates the name of the definition file.

Storage folder

Designates the folder in which the definition file is stored.

When the definition is applied

Indicates the timing when the definition file is applied.

What is described

Explains contents of the definition file.

Notes

Provides notes on editing the definition file.

Definition example

Provides examples of the definition file.

> **Important note**
>
> Some of the above items might not be explained for some definition files. There might also be some additional information, other than the above items, specific to a definition file.

List of definition files

The following table lists the JP1/IM - Service Support definition files.

Table 12–1: List of definition files

Definition file name	Description
CSV column name mapping file (`jp1imss_itemcsv_columnmap.conf`)	Defines header information of each file when you use the `jssitemexportEx` command to output Item information CSV files and related information CSV files.
Configuration file for CSV (`hptl_jp1_imss_csv_setting.properties`)	Defines the format that is used to replace linefeed characters contained in information of the Item to be output when you use the `jssitemexportEx` command to output Item information CSV files and related information CSV files.
JAAS user management definition file (`hptl_jp1_imss_ua_conf.properties`)	Defines the settings that are required for LDAP authentication.
Configuration file for issuing JP1 events (`hptl_jp1_imss_jp1event_setting.properties`)	Defines whether to issue a JP1 event from JP1/IM - Service Support, and the name of an event server to connect to issue the JP1 event.
Property file for JP1 product association setting (`hptl_jp1_imss_jp1product_cooperation_setting.properties`)	Defines whether to link with the specific JP1 products, and users who are linked to the JP1 products.
URL definition file (`jsslogin.url`)	Defines the URL that is used when a user logs in to JP1/IM - Service Support from the Start menu on the server where JP1/IM - Service Support is installed.
Access privileges input file (Optional)	A CSV file that contains access-permission information. Use this file to set access-permission information in JP1/IM - Service Support by using the `jssaclimport` command.
Definition file for the Item search item form (Optional)	Defines the Item elements that are displayed in the Specify item search conditions window. Use this file to customize an Item form definition file for each process, or to decrease the number of Item elements that are used for searches.
Property file for automatic Item-defaults input (`hptl_jp1_imss_pwb_default_setting.properties`)	When registering Items in a window or via email, use this file to set if some elements can be input automatically, and values to be input automatically.
Property file for automatic Item-defaults input (`jp1imss_itementry_default.conf`)	When registering Items by using commands, use this file to set if some elements can be input automatically, and values to be input automatically.
Item accumulation property file (`hptl_jp1_imss_main_setting_kpi.properties`)	Defines the threshold values that are used to display the Item compilation result in the main window (Item status), and the contents that are displayed in the list of target Items.
File for Item information entries (Optional)	A CSV file that contains multiple Item information entries. Use this file to register multiple Items in a batch in JP1/IM - Service Support by executing the `jssitemimport` command.
File for extended Item information entries (Optional)	These are two CSV files that contain extended multiple Item information entries. One contains Item information and the other contains related information. Use these files to register multiple Items in a batch in JP1/IM - Service Support by executing the `jssitemimportEx` command.
Item form definition file (Optional)	Defines the Items handled by each process. Use this file to customize Items by using the `jssformdef` command.

Definition file name	Description
Configuration file for expanding an Item storage database (`jssitemstoredbexpandinfo.bat`)	Defines information necessary to expand the Item storage database. Use this file to expand the Item storage database by using the `jssitemstoredbexpand.bat` command.
Configuration file for setting up an Item storage database (`jssitemstoredbinfo.bat`)	Defines information necessary to set up the Item storage database. Use this file to set up the Item storage database by using the `jssitemstoredbsetup.bat` command.
Related-links property file (`hptl_jp1_imss_link_setting.properties`)	Defines link destinations to register in **Related link** of the main window (Item status).
Code mapping file (`jp1imss_itemedit_codemap.conf`)	A definition file used to associate the selection code and status specified by the `jssitemedit` command with information that is displayed as Item elements. Use this file to register Items by using the `jssitemedit` command.
Code mapping file (`jp1imss_itementry_codemap.conf`)	A definition file used to associate option information that is specified by the `jssitementry` command with information that is displayed as selectable Item elements. Use this file to register Items by using the `jssitementry` command.
Code mapping file (`jp1imss_itemimport_codemap.conf`)	A definition file used to associate the file for Item information entries that is specified by the `jssitemimport` command with the information that is displayed as selectable Item elements. Use this file to register Items in a batch by using the `jssitemimport` command.
System property file (`hptl_jp1_imss_main_setting.properties`)	Defines linkage with JP1/AIM, and rules for sorting information in the list of Items that is displayed in a window.
Definition file for status-change JP1 events (`hptl_jp1_imss_jp1event_status.properties`)	Defines information held by Items as extended attributes for status-change JP1 events. By editing this file, you can define Item information that is stored in JP1 events.
Operation log configuration file (`hptl_jp1_imss_access_log.properties`)	Defines whether to output operation logs, the size of the operation log file, and the number of log files.
Held Item definition file (`jp1informleave_setting.conf`)	Defines the conditions for monitoring Items. Use this file to check if an Item is held by using the `jssinformleave` command.
Definition file for the task practice service (`jp1imss_service_setting.conf`)	Use this file to set the time and interval to execute the `jsscollectdata`, `jssitementrybymail`, `jssinformperiod`, and `jssinformleave` commands automatically. Edit this file and start the JP1/Service Support - Task Service service to execute each command automatically.
Configuration file for input-candidate values (Optional)	Use this file to set input-candidate values in advance in order to display input-candidate values for each Item in a window, and to display input-candidate values linking with elements by the input-assistant function.
Input-assistant property file (`hptl_jp1_imss_input_assist_plugin.properties`)	Defines whether to output the result of analyzing the Configuration file for input-candidate values to a log file which is open to users, the log file size, and the number of log files.
Email definition file (`jp1imss_mail_setting.conf`)	Defines the timing to send email message, the sender, the subject, the message text, whether to send a message notifying that the expiration date is coming closer, whether to register an Item via an email, and whether to send a message notifying held Items.
File for member information entries (Optional)	A CSV file that contains member information by role.

Definition file name	Description
File for member information entries (Optional)	Use this file to register or delete member information of roles registered in JP1/IM - Service Support in a batch by using the `jssmemberimport` command or the `jssmemberdelete` command.
Configuration file for character string substitution (`jp1imss_replace_string_setting.conf`)	When you use the `jssitementry` command to register an Item, use this file to define the format used to replace a string contained in a textarea type element of the Item to register with a linefeed character .
User management property file (`hptl_jp1_imss_usermgr.properties`)	Defines the rules for sorting information of a list of users or list of roles to be displayed in a window.
File for user information entries (Optional)	A CSV file that contains multiple user information entries. Use this file to register multiple user information entries in JP1/IM - Service Support in a batch by using the `jssuserimport` command.
User information editing file (Optional)	A CSV file that contains user information. Use this file to edit the user information registered in JP1/IM - Service Support in a batch by using the `jssuseredit` command.
User log definition file (`jp1aclexport.conf`)	Defines whether to output the execution results of the `jssaclexport` command to a log file which is open to users, the file size, and the number of files.
User log definition file (`jp1aclimport.conf`)	Defines whether to output the execution results of the `jssaclimport` command to a log file which is open to users, the file size, and the number of files.
User log definition file (`jp1informleave.conf`)	Defines whether to output the execution results of the `jssinformleave` command to a log file which is open to users, the file size, and the number of files.
User log definition file (`jp1informperiod.conf`)	Defines whether to output the execution results of the `jssinformperiod` command to a log file which is open to users, the file size, and the number of files.
User log definition file (`jp1itemcount.conf`)	Defines whether to output the execution results of the `jssitemcount` command to a log file which is open to users, the file size, and the number of files.
User log definition file (`jp1itemedit.conf`)	Defines whether to output the execution result of the `jssitemedit` command to a log file which is open to users, the file size, and the number of files.
User log definition file (`jp1itementry.conf`)	Defines whether to output the execution results of the `jssitementry` command to a log file which is open to users, the file size, and the number of files.
User log definition file (`jp1itementrybymail.conf`)	Defines whether to output the execution results of the `jssitementrybymail` command to a log file which is open to users, the file size, and the number of files.
User log definition file (`jp1itemexportEx.conf`)	Defines whether to output the execution results of the `jssitemexportEx` command to a log file which is open to users, the file size, and the number of files.
User log definition file (`jp1itemimportEx.conf`)	When you output the execution results of the `jssitemimportEx` command to a log file, this file defines the log file size, and the number of files.
User log definition file (`jp1itemstore.conf`)	Defines whether to output the execution results of the `jssitemstore` command to a log file which is open to users, the file size, and the number of files.

Definition file name	Description
User log definition file (`jp1itemstoredbrotate.conf`)	Defines whether to output the execution results of the `jssitemstoredbrotate` command to a log file which is open to users, the file size, and the number of files.
User log definition file (`jp1mailnotification.conf`)	Defines whether to output the execution results of email notification to a log file which is open to users, the file size, and the number of files.
User log definition file (`jp1refaclsetup.conf`)	When you output the execution results of the `jssrefaclsetup` command to a log file which is open to users, this file defines the log file size, and the number of files.
File for role information entries (Optional)	A CSV file that contains role information. Use this file to register multiple role information entries in JP1/IM - Service Support in a batch by using the `jssroleimport` command.

When the definition is applied after a definition file is changed

After changing a JP1/IM - Service Support definition file, you can apply the definition by restarting services or executing a specific command. When the definition is applied depends on the definition file. The following table describes when definitions are applied after definition files are changed.

Table 12–2: When definitions are applied after definition files are changed

Definition file name	Service restart					Command execution
	JP1/ Service Support - Web Service	JP1/ Service Support	JP1/ Service Support - DB Server	JP1/ Service Support - DB Cluster Service	JP1/ Service Support - Task Service	
CSV column name mapping file (`jp1imss_itemcsv_columnmap.conf`)	--	--	--	--	--	Y
Configuration file for CSV (`hptl_jp1_imss_csv_setting.properties`)	--	--	--	--	--	Y
JAAS user management definition file (`hptl_jp1_imss_ua_conf.properties`)	--	--	--	--	--	Y
Configuration file for issuing JP1 events (`hptl_jp1_imss_jp1event_setting.properties`)	Y	Y	--	--	--	--
Property file for JP1 product association setting (`hptl_jp1_imss_jp1product_cooperation_setting.properties`)	--	Y	--	--	--	--
URL definition file (`jsslogin.url`)	--	--	--	--	--	Y
Access privileges input file (Optional)	--	--	--	--	--	Y
Definition file for the Item search item form (Optional)	--	--	--	--	--	Y
Property file for automatic Item-defaults input (`hptl_jp1_imss_pwb_default_setting.properties`)	Y	Y	--	--	--	--
Property file for automatic Item-defaults input (`jp1imss_itementry_default.conf`)	--	--	--	--	--	Y
Item accumulation property file (`hptl_jp1_imss_main_setting_kpi.properties`)	Y	Y	--	--	--	--
File for Item information entries (Optional)	--	--	--	--	--	Y
File for extended Item information entries (Optional)	--	--	--	--	--	Y
Item form definition file (Optional)	--	--	--	--	--	Y

Definition file name	Service restart					Command execution
	JP1/ Service Support - Web Service	JP1/ Service Support	JP1/ Service Support - DB Server	JP1/ Service Support - DB Cluster Service	JP1/ Service Support - Task Service	
Configuration file for expanding an Item storage database (`jssitemstoredbexpandinfo.bat`)	--	--	--	--	--	Y
Configuration file for setting up an Item storage database (`jssitemstoredbinfo.bat`)	--	--	--	--	--	Y
Related-links property file (`hptl_jp1_imss_link_setting.properties`)	Y	Y	--	--	--	--
Code mapping file (`jp1imss_itemedit_codemap.conf`)	--	--	--	--	--	Y
Code mapping file (`jp1imss_itementry_codemap.conf`)	--	--	--	--	--	Y
Code mapping file (`jp1imss_itemimport_codemap.conf`)	--	--	--	--	--	Y
System property file (`hptl_jp1_imss_main_setting.properties`)	Y	Y	--	--	--	--
Definition file for status-change JP1 events (`hptl_jp1_imss_jp1event_status.properties`)	Y	Y	--	--	--	--
Operation log configuration file (`hptl_jp1_imss_access_log.properties`)	Y	Y	--	--	--	--
Held Item definition file (`jp1informleave_setting.conf`)	--	--	--	--	--	--
Definition file for the task practice service (`jp1imss_service_setting.conf`)	--	--	--	--	Y	--
Configuration file for input-candidate values (Optional)	--	--	--	--	--	Y
Input-assistant property file (`hptl_jp1_imss_input_assist_plugin.properties`)	Y	Y	--	--	--	--
Email definition file (`jp1imss_mail_setting.conf`)	Y	Y	--	--	--	--
File for member information entries (Optional)	--	--	--	--	--	Y
Configuration file for character string substitution (`jp1imss_replace_string_setting.conf`)	--	--	--	--	--	Y

Definition file name	Service restart					Command execution
	JP1/ Service Support - Web Service	JP1/ Service Support	JP1/ Service Support - DB Server	JP1/ Service Support - DB Cluster Service	JP1/ Service Support - Task Service	
User management property file (hptl_jp1_imss_usermgr.properties)	Y	Y	--	--	--	--
File for user information entries (Optional)	--	--	--	--	--	Y
User information editing file (Optional)	--	--	--	--	--	Y
User log definition file (jp1aclexport.conf)	--	--	--	--	--	Y
User log definition file (jp1aclimport.conf)	--	--	--	--	--	Y
User log definition file (jp1informleave.conf)	--	--	--	--	--	Y
User log definition file (jp1informperiod.conf)	--	--	--	--	--	Y
User log definition file (jp1itemcount.conf)	--	--	--	--	--	Y
User log definition file (jp1itemedit.conf)	--	--	--	--	--	Y
User log definition file (jp1itementry.conf)	--	--	--	--	--	Y
User log definition file (jp1itementrybymail.conf)	--	--	--	--	--	Y
User log definition file (jp1itemexportEx.conf)	--	--	--	--	--	Y
User log definition file (jp1itemstore.conf)	--	--	--	--	--	Y
User log definition file (jp1itemstoredbrotate.conf)	--	--	--	--	--	Y
User log definition file (jp1itemimportEx.conf)	--	--	--	--	--	Y
User log definition file (jp1mailnotification.conf)	--	--	--	--	--	Y
User log definition file (jp1refaclsetup.conf)	--	--	--	--	--	Y
File for role information entries (Optional)	--	--	--	--	--	Y

Legend:

Y: The service must be restarted, or the command must be executed.

--: The service does not need to be restarted, or the command does not need to be executed.

CSV column name mapping file (jp1imss_itemcsv_columnmap.conf)

Description

This file defines the header information of Item information CSV files and related information CSV files which are output by executing the `jssitemexportEx` (exports extended Item information) command.

By using a CSV column name mapping file, you can change the name of the elements that are displayed in the header information (the first line of the body in each file). You cannot change the order that elements are displayed, hidden, and output. Note that if you omit the definition, the elements are output with preset names.

For details about Item information CSV files and related information CSV files to be output, see *jssitemexportEx (exports extended Item information)* in *Chapter 11. Commands*.

Format

```
#Item CSV hedder
I.SYSTEMID=ID of the target system
I.SYSTEMNAME=Name of the target system
I.PROCESS=Process name
I.PWBID=Process work board ID
    :
#ItemRef CSV hedder
R.PWBID=Process work board ID
R.PITEMNO=Process work board serial number
R.VERNO=Version number
R.REFINFOID=Related information ID
    :
```

Lines starting with a hash mark (#) are treated as comments.

File names

- `jp1imss_itemcsv_columnmap.conf` (CSV column name mapping file)

- `jp1imss_itemcsv_columnmap.conf.model` (Model CSV column name mapping file)[#]

  #

    You can use the model file to reset the contents of the CSV column name mapping file. To do so, delete the existing CSV column name mapping file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

When you execute the `jssitemexportEx` (exports extended Item information) command, the definition is applied to JP1/IM - Service Support.

What is described

When you change the name of a header element, change the value of the applicable property key. When you do so, do not change or delete the property key itself. If you change or delete it, the applicable property key is regarded as not defined, and a pre-defined value (the default value) is set.

When you specify a property key value, apply the following rules:

Specifiable characters and conditions
Specify characters other than control characters (0x00 to 0x1F, and 0x7F).

Specifiable number of bytes
1 to 255 bytes.
The number of bytes is the character length after conversion to UTF-8. Full-width characters are converted to three or four bytes.

The following table lists the property keys that can be set in the CSV column name mapping file for each file.

Table 12–3: List of property keys that can be set in the CSV column name mapping file (Item information CSV files)

No.	Property key	Element name (default value)
1	I.SYSTEMID	System ID of the target system
2	I.SYSTEMNAME	System name of the target system
3	I.PROCESS	Process name
4	I.PWBID	process work board ID
5	I.PITEMNO	Process work board serial number
6	I.VERNO	Version number
7	I.ITEMNO	Related item serial number
8	I.EITEMNO	Escalation number
9	I.FORMID	Item form ID
10	I.FORMNO	Version number of Item form
11	I.ITEMSTATUSID	Item status ID
12	I.ITEMSTATUSNAME	Item status name
13	I.EDITSTATUS	Edit status
14	I.DATATYPE	Data type
15	I.ORGPWBID	Escalation source process work board ID
16	I.ORGITEMNO	Escalation source related Item serial number
17	I.ORGEITEMNO	Escalation source escalation number
18	I.ESCITEMNO	Escalation destination related Item serial number
19	I.ESCEITEMNO	Escalation destination escalation number
20	I.ESCPWBID	Escalation destination process work board ID
21	I.ESCSYSTEMID	Escalation destination system ID
22	I.ESCSYSTEMNAME	Escalation destination system name
23	I.ESCPROCESS	Escalation destination process name
24	I.ITEMENTRY_SEQNO	Link source event database serial number
25	I.ITEMENTRY_ACTHOST	JP1/IM-M host name
26	I.ITEMSEVERITY	Severity

No.	Property key	Element name (default value)
27	I.IMPACT	Impact level
28	I.PRIORITY	Priority
29	I.ITEM_CATEGORY	Item type
30	I.ISSUE_CATEGORY	Problem domain
31	I.PHENOMENON	Occurred type
32	I.CAUSE	Cause
33	I.RESULT	Result
34	I.SOLUTIONCODE	Solution category code
35	I.AVOIDANCETYPE	Workaround type
36	I.CHANGE_SCALE	Scale of change
37	I.RELEASE_TYPE	Release type
38	I.ACCRUALDATE	Occurrence date and time
39	I.DEADLINE	Deadline
40	I.STARTDATE	Start date and time
41	I.COMPDATE	End date and time
42	I.TITLE	Title
43	I.SUMMARY	Overview
44	I.EFFECTSRV	Impact service
45	I.ITEMSEVERITY_REASON	Reason for severity
46	I.IMPACT_REASON	Reason for impact level
47	I.PRIORITY_REASON	Reason for priority
48	I.AVOIDANCE	Workaround
49	I.SITUATION	Work status
50	I.ROOTCAUSE	Fundamental cause
51	I.SOLUTION	Solution
52	I.FAILLOCATION	Problem component and version
53	I.SCHEDULE	Schedule and main steps
54	I.IMPACTEVAL	Impact assessment for change
55	I.DELIBERATIONRST	Discussions result
56	I.MEASURES	How to avoid the problem in the future
57	I.FREEDESC	Free memo column
58	I.PRODUCTNAME	Product name
59	I.JOBNETNAME	Jobnet name
60	I.JOBNAME	Job name
61	I.SNMPSRC	SNMP source

No.	Property key	Element name (default value)
62	I.NODENAME	Monitored node name
63	I.ALARMNAME	Alarm name
64	I.CUSTOMER	Customer name
65	I.ESTIMATEDCOST	Cost (planned)
66	I.ACTUALCOST	Cost (actual)
67	I.INQUIRY	Inquirer's name
68	I.REGISTRANTID	Registrant ID
69	I.REGISTRANTNAME	Registrant's name
70	I.REGISTRANTNAMEEN	Registrant's name (English)
71	I.ASSIGNEDTYPE	Person in charge type
72	I.ASSIGNEDID	Person in charge ID
73	I.ASSIGNED	Name of person in charge
74	I.ASSIGNEDNAMEEN	Name of person in charge (English)
75	I.RESPONDENTTYPE	Respondent type
76	I.RESPONDENTID	Respondent ID
77	I.RESPONDENT	Respondent's name
78	I.RESPONDENTNAMEEN	Respondent's name (English)
79	I.USERTEXT01	Extended text 1
80	I.USERTEXT02	Extended text 2
81	I.USERTEXT03	Extended text 3
82	I.USERTEXT04	Extended text 4
83	I.USERTEXT05	Extended text 5
84	I.USERTEXT06	Extended text 6
85	I.USERTEXT07	Extended text 7
86	I.USERTEXT08	Extended text 8
87	I.USERTEXT09	Extended text 9
88	I.USERTEXT10	Extended text 10
89	I.USERTEXT11	Extended text 11
90	I.USERTEXT12	Extended text 12
91	I.USERTEXT13	Extended text 13
92	I.USERTEXT14	Extended text 14
93	I.USERTEXT15	Extended text 15
94	I.USERTEXT16	Extended text 16
95	I.USERTEXT17	Extended text 17
96	I.USERTEXT18	Extended text 18

No.	Property key	Element name (default value)
97	I.USERTEXT19	Extended text 19
98	I.USERTEXT20	Extended text 20
99	I.USERTIME01	Extended time data 1
100	I.USERTIME02	Extended time data 2
101	I.USERTIME03	Extended time data 3
102	I.USERTIME04	Extended time data 4
103	I.USERTIME05	Extended time data 5
104	I.USERCODE01	Extended code data 1
105	I.USERCODE02	Extended code data 2
106	I.USERCODE03	Extended code data 3
107	I.USERCODE04	Extended code data 4
108	I.USERCODE05	Extended code data 5
109	I.USERINT01	Extended numeric value data 1
110	I.USERINT02	Extended numeric value data 2
111	I.USERINT03	Extended numeric value data 3
112	I.USERINT04	Extended numeric value data 4
113	I.USERINT05	Extended numeric value data 5
114	I.USEREXTTYPE01	Type of extended user information 1
115	I.USEREXTINFO01	Extended user information 1
116	I.USEREXTNAME01	Extended user name 1
117	I.USEREXTTYPE02	Type of extended user information 2
118	I.USEREXTINFO02	Extended user information 2
119	I.USEREXTNAME02	Extended user name 2
120	I.USEREXTTYPE03	Type of extended user information 3
121	I.USEREXTINFO03	Extended user information 3
122	I.USEREXTNAME03	Extended user name 3
123	I.USEREXTTYPE04	Type of extended user information 4
124	I.USEREXTINFO04	Extended user information 4
125	I.USEREXTNAME04	Extended user name 4
126	I.USEREXTTYPE05	Type of extended user information 5
127	I.USEREXTINFO05	Extended user information 5
128	I.USEREXTNAME05	Extended user name 5
129	I.CREATOR_ID	Editor ID
130	I.CREATORNAME	Editor's name
131	I.CREATORNAMEEN	Editor's name (English)

No.	Property key	Element name (default value)
132	I.CREATIONDATE	Registration date and time
133	I.LASTUPDATE	Update date and time
134	I.MESSAGEID	Message ID
135	I.REFINFOID	Related information ID
136	I.APDFILEID	Attached file ID
137	I.FILENAME	Attached file(s)

Table 12–4: List of property keys that can be set in the CSV column name mapping file (related information CSV file)

No.	Property key	Item name (default value)
1	R.PWBID	Process work board ID
2	R.PITEMNO	Process work board serial number
3	R.VERNO	Version number
4	R.REFINFOID	Related information ID
5	R.PARTID	Item form elements ID
6	R.INFOTYPE	Related information type
7	R.REFDETAIL	Related information details
8	R.REFINFO1	Related information 1
9	R.REFINFO2	Related information 2

Notes

- The CSV column name mapping file (jp1imss_itemcsv_columnmap.conf) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following is a definition example:

```
#Item CSV hedder
I.SYSTEMID=System ID 1 of the target system
I.SYSTEMNAME=System name 2 of the target system
I.PROCESS=Process name 1
I.PWBID=Process work board ID 2
    :
#ItemRef CSV hedder
R.PWBID=Process work board ID 2
R.PITEMNO=Process work board serial number 2
R.VERNO=Version number 3
```

```
R.REFINFOID=Related information ID 3
    :
```

Configuration file for CSV (hptl_jp1_imss_csv_setting.properties)

Description

This file defines how to handle linefeed characters in Item information CSV files and related information CSV files that are processed by the `jssitemexportEx` (exports extended Item information) and `jssitemimportEx` (imports extended Item information) commands.

For details about Item information CSV files and related information CSV files to be output, see *jssitemexportEx (exports extended Item information)* in *Chapter 11.Commands*.

Format

```
#Replace Linefeed code of CSV file
hptl_jp1_imss_replace_linefeed_flag=Convert a specific character into a
linefeed character, or do not convert
hptl_jp1_imss_replace_linefeed_string="replaced-linefeed-character"
```

Lines starting with a hash mark (#) are treated as comments.

File names

- `hptl_jp1_imss_csv_setting.properties` (Configuration file for CSV)

- `hptl_jp1_imss_csv_setting.properties.model` (Model configuration file for CSV)[#]

  #

    You can use the model file to reset the contents of the configuration file for CSV. To do so, delete the existing configuration file for CSV, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\`

When the definition is applied

When you execute the `jssitemexportEx` (exports extended Item information) command or the `jssitemimportEx` (imports extended Item information) command, the definition is applied to JP1/IM - Service Support.

What is described

Do not edit any keys other than those explained in the following table. Use an equal sign (=) to connect a key and its value.

Table 12–5: List of property keys that can be set in the configuration file for CSV

Property key	Description	Default value
`hptl_jp1_imss_replace_linefeed_flag`	When you use the `jssitemimportEx` command to register Item information, specify whether to register it after converting a specific string (a value specified for `hptl_jp1_imss_replace_linefeed_string`) in the input file into a linefeed character. For elements for which you cannot specify a linefeed character, no conversion is performed.	`true`

Property key	Description	Default value
`hptl_jp1_imss_replace_linefeed_flag`	• `true`: Convert the string to a linefeed character. • `false`: Do not convert the string to a linefeed character. When you use the `jssitemexportEx` command to output Item information, the linefeed character is converted to the value that is specified for `hptl_jp1_imss_replace_linefeed_string` regardless of the value of this property key.	`true`
`hptl_jp1_imss_replace_linefeed_string`	When you use the `jssitemimportEx` command to register Item information, if you want to replace a specific string with a linefeed character, specify the string you want to replace with a linefeed character. When you use the `jssitemexportEx` command to output Item information, if you want to replace linefeed characters contained in the Item information with a specific string, specify the string after replacement. Specifiable values are a string of 1 to 32 bytes. Specify them by using characters other than control characters (0x00 to 0x1F, and 0x7F), double-quotation marks ("), and commas (,). In addition, the string you specify does not correspond to regular expressions.	`[\r\n]`

Notes

- The Configuration file for CSV (`hptl_jp1_imss_csv_setting.properties`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following is a definition example:

```
#Replace Linefeed code of CSV file
hptl_jp1_imss_replace_linefeed_flag=true
hptl_jp1_imss_replace_linefeed_string="[\n]"
```

JAAS user management definition file (hptl_jp1_imss_ua_conf.properties)

Description

This file defines the contents to be set for LDAP authentication.

Format

```
java.naming.provider.url.0=URL of the LDAP server
com.jp1.imss.admin.auth.ldap.basedn.0=Base DN of the LDAP server
com.cosminexus.admin.auth.ldap.search.userrdn.0=Possibility of
authentication by using the organization units (OU) of the hierarchy
structure
com.cosminexus.admin.auth.ldap.search.scope.0=Possibility of authentication
by using the organization units (OU) of the hierarchy structure
java.naming.security.principal.0=Identifier of the person who authenticates
users when he or she accesses the LDAP directory server
java.naming.security.credentials.0=A password for
java.naming.security.principal.0
com.jp1.imss.admin.auth.ldap.attr.userid.0=Attribute name indicating the
login ID of the user
```

Lines starting with a hash mark (#) are treated as comments.

File names

- `hptl_jp1_imss_ua_conf.properties` (JAAS user management definition file)

- `hptl_jp1_imss_ua_conf.properties.model` (Model JAAS user management definition file)[#]

    #

    You can use the model file to reset the contents of the JAAS user management definition file. To do so, delete the existing JAAS user management definition file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\`

When the definition is applied

When you execute the `jsschauthorityserver` command, and restart the JP1/Service Support service, the definition is applied to JP1/IM - Service Support.

What is described

Do not edit any specification keys other than those explained in the following table. Use an equal sign (=) to connect a specification key and its value.

Table 12–6: List of specification keys that can be set in the JAAS user management definition file

Specification key name	Description	Default value
`java.naming.provider.url.0`	Specifies the URL for the LDAP directory server. A string of 1 to 4,096 bytes can be specified.	--

Specification key name	Description	Default value
com.jp1.imss.admin.auth.ldap.basedn.0	Use a string of half-width alphanumeric characters to specify the base DN of the LDAP directory server. A string of 1 to 512 bytes can be specified.	--
com.cosminexus.admin.auth.ldap.search.userrdn.0[#]	Specify true to perform authentication by using the organization unit (OU) of the hierarchy structure.	--
com.cosminexus.admin.auth.ldap.search.scope.0[#]	Specify subtree to perform authentication by using the organization unit (OU) of the hierarchy structure.	--
java.naming.security.principal.0[#]	Use a string of half-width alphanumeric characters to specify an identifier of a user to be authenticated when the user accesses the LDAP directory server. A string of 1 to 512 bytes can be specified.	--
java.naming.security.credentials.0	Use a string to specify a password for java.naming.security.principal.0.	--
com.jp1.imss.admin.auth.ldap.attr.userid.0	Use a string to specify an attribute name indicating the login ID of a user. • For linkage by using the full name of a user: CN • For linkage by using the user logon name (before Windows 2000): sAMAccountName	CN

Legend:

--: No setting values are available.

#

Must be specified if you specify sAMAccountName by using the com.jp1.imss.admin.auth.ldap.attr.userid.0 specification key.

Notes

- The JAAS user management definition file (hptl_jp1_imss_ua_conf.properties) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

Definition example 1

The following is a definition example when the Active Directory domain is jp1.imss, and a user in the Users container is used for authentication:

```
java.naming.provider.url.0=ldap://ldap-server:389
com.jp1.imss.admin.auth.ldap.basedn.0=CN=Users,DC=jp1,DC=imss
```

Definition example 2

The following is a definition example when the Active Directory domain is jp1.imss, and the user jp1admin whose password is jp1admin is registered in the userGroup organization unit, and both the user01 user in the userGroup organization unit and the user02 user in the subGroup organization unit under the userGroup organization unit are to be authenticated:

```
java.naming.provider.url.0=ldap://ldap-server:389
com.jp1.imss.admin.auth.ldap.basedn.0=OU=userGroup,DC=jp1,DC=imss
com.cosminexus.admin.auth.ldap.search.userrdn.0=true
com.cosminexus.admin.auth.ldap.search.scope.0=subtree
java.naming.security.principal.0=CN=jp1admin,OU=userGroup,DC=imss,DC=com
java.naming.security.credentials.0=jp1admin
```

Property file for JP1 product association setting (hptl_jp1_imss_jp1product_cooperation_setting.properties)

Description

This file defines whether to link with the following specific JP1 product, and users who can access the JP1 product:

- JP1/AO

Format

```
hptl_jp1_imss_jp1product_cooperation_flag=Whether to link with the specific
JP1 product
hptl_jp1_imss_jp1product_cooperation_userlist=IDs of the users who can
access the specific JP1 product
hptl_jp1_imss_information_search_userid=ID for the user for information
retrieval
```

File names

- `hptl_jp1_imss_jp1product_cooperation_setting.properties` (Property file for JP1 product association setting)

- `hptl_jp1_imss_jp1product_cooperation_setting.properties.model` (Model property file for JP1 product association setting)[#]

  \#

    You can use the model file to reset the contents of the property file for JP1 product association setting. To do so, delete the existing property file for JP1 product association setting, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\`

When the definition is applied

The definition is applied after the JP1/IM - Service Support service is restarted.

What is described

Do not edit any specification keys other than those explained in the following table. Use an equal sign (=) to connect a specification key and its value.

Table 12–7: List of specification keys that can be set in the property file for JP1 product association setting

Specification key name	Description	Default value
`hptl_jp1_imss_jp1product_cooperation_flag`	Specifies whether to link with the specific JP1 product. - `true`: Link with the specific JP1 product. - `false`: Do not link with the specific JP1 product. If you omit this specification, or specify a value that cannot be specified, `false` is set.	`false`
`hptl_jp1_imss_jp1product_cooperation_userlist`	When authentication of JP1/IM - Service Support is performed for the Item management database or the LDAP	--

Specification key name	Description	Default value
`hptl_jp1_imss_jp1product_cooperation_ userlist`	server, specify the ID of a user who link the authentication server with the specific JP1 product. A maximum of 1,000 users can be specified. When you specify multiple user IDs, use a comma (`,`) to separate them. Specifiable values are one-byte lowercase alphanumeric character string of 1 to 31 bytes. User IDs exceeding the specifiable number of users, or invalid user IDs are ignored.	--
`hptl_jp1_imss_information_search_user id`	When authentication for JP1/IM - Service Support is performed on the LDAP server, specify a user ID from the users already registered for information retrieval. Users for information retrieval indicate users who search users who can access JP1 products if you want to link the authentication server with the specific JP1 product. To prevent user IDs from being changed or deleted, assign a user ID dedicated to this purpose instead of one used for other purposes. Only one user can be specified. You can specify a string of 1 to 64 alphanumeric characters.	--

Legend:

    --: No default value

Whether to set specification keys

Setting of the specification keys changes depending on whether or not the authentication server is linked with the specific JP1 product. The following tables explain the specification key settings of the property file for JP1 product association setting.

Table 12–8: Specification key settings of the property file for JP1 product association setting (linking with the specific JP1 product)

Specification key name	Authentication server		
	Item management database	LDAP server	JP1/Base authentication server
`hptl_jp1_imss_jp1product_co operation_flag`	true	true	true
`hptl_jp1_imss_jp1product_co operation_userlist`	ID of a user who links the authentication server with the specific JP1 product	ID of a user who links the authentication server with the specific JP1 product	Setting is not required.
`hptl_jp1_imss_information_s earch_userid`	Setting is not required.	ID of an already registered user for information retrieval	Setting is not required.

Table 12–9: Specification keys of the property file for JP1 product association setting (without linking with the specific JP1product)

Specification key name	Authentication server		
	Item management database	LDAP server	JP1/Base authentication server
`hptl_jp1_imss_jp1product_co operation_flag`	false		

Specification key name	Authentication server		
	Item management database	LDAP server	JP1/Base authentication server
`hptl_jp1_imss_jp1product_co operation_userlist`	Setting is not required.		
`hptl_jp1_imss_information_s earch_userid`	Setting is not required.		

Notes

- The Property file for JP1 product association setting
  (`hptl_jp1_imss_jp1product_cooperation_setting.properties`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following is a definition example when you link the authentication server with JP1/AO, and set `user01` and `user02` as the users to be linked, and `kensaku01` as the user for information retrieval:

```
hptl_jp1_imss_jp1product_cooperation_flag=true
hptl_jp1_imss_jp1product_cooperation_userlist=user01,user02
hptl_jp1_imss_information_search_userid=kensaku01
```

Configuration file for issuing JP1 events (hptl_jp1_imss_jp1event_setting.properties)

Description

This file defines whether to issue a JP1 event from JP1/IM - Service Support, the name of the event server to connect to issue the JP1 event, the number of log files used when issuing JP1 events, the maximum size of a log file used when issuing a JP1 event, and whether to consolidate JP1 events.

For the following cases, if you want to issue a JP1 event from JP1/IM - Service Support, you need to edit this file:

- When the status of an event registered automatically from JP1/IM - Manager changes to `Close`, and the response status changes to `Processed` (via automated action).

- When an Item status is changed, it is reported to an external system.

- When Items are closed in a batch operation, JP1 events are consolidated.

For details about JP1 events, see *Appendix E. List of JP1 Events*.

Format

```
hptl_jp1_imss_je_def_flag=Whether to issue a JP1 event
hptl_jp1_imss_je_def_jp1base=Event server name
hptl_jp1_imss_je_log_file_num=Number of log files
hptl_jp1_imss_je_log_file_size=Maximum size of a log file
hptl_jp1_imss_je_def_batch=Whether to consolidate JP1 events
```

File names

- `hptl_jp1_imss_jp1event_setting.properties`

- `hptl_jp1_imss_jp1event_setting.properties.model` (Model configuration file for issuing JP1 events)[#]

    #

    You can use the model file to reset the contents of the configuration file for issuing JP1 events. To do so, delete the existing configuration file for issuing JP1 events, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\`

When the definition is applied

The definition is applied after the JP1/IM - Service Support service is restarted.

What is described

Do not edit any specification keys other than those explained in the following table. Use an equal sign (=) to connect a specification key and its value.

Table 12–10: List of specification keys that can be set in the configuration file for issuing JP1 events

Specification key name	Description	Default value
`hptl_jp1_imss_je_def_flag`	Sets whether to issue a JP1 event from JP1/IM - Service Support.	`false`

Specification key name	Description	Default value
`hptl_jp1_imss_je_def_flag`	• `false`: No events are issued. When `false` is specified, no JP1 events are issued from all processes and process work boards. • `true`: Events are issued. When `true` is specified, you can set whether to issue JP1 events for each process work board. In addition, you can set the status for issuing status-change JP1 events for each process or process work board.	`false`
`hptl_jp1_imss_je_def_jp1base`	Specifies the name of the event server on a host where JP1/IM - Service Support to be connected for issuing JP1 events operates. Connect to the specified event server to issue a JP1 event. When you use JP1/Base in a cluster configuration, specify the logical host name. If you omit this specification, the name of the host where JP1/IM - Service Support operates is assumed.	--
`hptl_jp1_imss_je_log_file_num`	Specifies the number of log files (`jp1imssevent[n].log`) for the JP1 event issuing function. You can specify a half-width numeric character (integer) from 1 to 16.	`8`
`hptl_jp1_imss_je_log_file_size`	Specifies the maximum size of a log file (`jp1imssevent[n].log`) for the JP1 event issuing function in bytes. You can specify a half-width numeric character (integer) from 4096 to 2147483647.	`4194304`
`hptl_jp1_imss_je_def_batch`	Specifies whether to consolidate JP1 events for completed-action linkage which are issued when batch operation on Items is performed. • `false`: Events are not consolidated. When `false` is specified, a JP1 event for completed-action linkage is issued for individual Items subject to batch operation. • `true`: Events are consolidated. When `true` is specified, among JP1 events for Items subject to batch operation, JP1 events for completed-action linkage for Items with the same JP1/IM - Manager host name (element ID: `JIMSD_FORM_IMHOSTNAME`) are consolidated, and then issued.	`true`

Legend:

--: No default value

Definition example

The following is a definition example when `Server` is assumed as the server name:

```
hptl_jp1_imss_je_def_flag=true
hptl_jp1_imss_je_def_jp1base=Server
hptl_jp1_imss_je_log_file_num=8
hptl_jp1_imss_je_log_file_size=4194304
hptl_jp1_imss_je_def_batch=false
```

Notes

• If JP1/IM - Service Support and JP1/IM - Manager are on different hosts, you must specify the forward conditions in the forward settings file (`forward`) for JP1/Base in order to forward JP1 events.

• Specify the name of the event server on the host where JP1/IM - Service Support operates as the event server name in `hptl_jp1_imss_je_def_jp1base`. If you specify the name of an event server on another host, events will not be issued.

- Even when consolidation of JP1 events is enabled, if only one Item is closed in a batch operation on Items, JP1 events for completed-action linkage are not consolidated. In this case, a JP1 event for completed-action linkage for that closed Item is issued. For details about JP1 events issued when batch operation is performed on Items, see *3.7 Batch operations on Items*.

- The Configuration file for issuing JP1 events (`hptl_jp1_imss_jp1event_setting.properties`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

URL definition file (jsslogin.url)

Description

This file defines the URL to be used when you log in to JP1/IM - Service Support from **All apps** in the Start screen for Windows Server 2012, or from the JP1_IM-SS Login window, which is registered in the Start menu for Windows Server 2008 or Windows Server 2003. You must edit the file in the following cases:

- When you change the number of the port that is used by JP1/IM - Service Support
- When you change the name of the host
- When you change email notification settings

Format

```
[DEFAULT]
BASEURL=http://server-name:port-number/jp1ss/index.jsp
[InternetShortcut]
URL=http://server-name:port-number/jp1ss/index.jsp
```

File names

- `jsslogin.url`
- `jsslogin.url.model` (Model URL definition file)#

    #

    You can use the model file to reset the contents of the URL definition file. To do so, delete the existing URL definition file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\login\`

When the definition is applied

The definition is applied the next time you start JP1/IM - Service Support from the JP1_IM-SS Login window.

What is described

Do not edit parameters that are not described below.

server-name

Specify the name of the server where JP1/IM - Service Support is installed. By default, `localhost` is set. If you change the server name, use the same server name for `BASEURL` and `URL`.

port-number

Specify the number of the port that is used to communicate with JP1/IM - Service Support through a web browser. If you did not change the port number to use during setup, you do not need to change this value. By default, `24401` is set. If you change this value, use the same port number for `BASEURL` and `URL`.

Notes

- The URL definition file (`jsslogin.url`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following is a definition example when the server name is changed to `Server1`, which is the name of the server where JP1/IM - Service Support is installed:

```
[DEFAULT]
BASEURL=http://Server1:24401/jp1ss/index.jsp
[InternetShortcut]
URL=http://Server1:24401/jp1ss/index.jsp
```

Access privileges input file (Optional)

Description

This file contains access-permission information that is used to set for JP1/IM - Service Support. This file must be created in CSV format. To set access-permission information in this file for JP1/IM - Service Support, execute the `jssaclimport` command.

Format

```
# comment (Linefeed)
"system-ID","process-work-board-ID","User/Role-ID-type","User/Role-
ID","access-permission","access-permission",... (Linefeed)
"system-ID","process-work-board-ID","User/Role-ID-type","User/Role-
ID","access-permission","access-permission",... (Linefeed)
    :
    :
```

Lines starting with a hash mark (#) are treated as comments.

Legend:

(Linefeed): Indicates a linefeed character.

File name

Use any file name.

Storage folder

Any folder on the host where the `jssaclimport` command is executed

When the definition is applied

When you execute the `jssaclimport` command, the definition is applied to JP1/IM - Service Support.

What is described

Specify access-permission information in the order shown in the following table.

Table 12–11: Access-permission information specified in the access privileges input file (for each line)

Specification order	Element name	Specifiable characters	Specifiable number of bytes	Specify or not
1	System ID	Half-width alphanumeric characters	1 to 64 bytes	Y
2	Process work board ID	Half-width alphanumeric characters	1 to 64 bytes	Y
3	User/Role ID type	Either USER or ROLE. Case insensitive	--	Y
4	User/Role ID	Half-width alphanumeric characters	1 to 64 bytes	Y

Specification order	Element name	Specifiable characters	Specifiable number of bytes	Specify or not
5	Access permission	Half-width alphanumeric characters	--	△

Legend:

--: Because the value you can specify is already determined, the value itself is the specifiable number of bytes.

Y: Elements you must specify

△ : Elements to specify if necessary

Each line contains access-permission information that can be set for a process work board. Each element of access-permission information is enclosed by double quotations (**"**), and separated by a comma (**,**). Note that you can specify multiple access permissions. To specify multiple access permissions, separate each access permission by a comma (**,**).

Specifiable values for an access permission

The following table lists and describes the values that can be set for access permissions.

Table 12–12: Values that can be specified for access permissions

Specifiable value[1]	Description
CREATE	*New item* permission for Items
EDIT	*Edit item* permission for Items
REFER	*View item* permission for Items
DELETE	*Delete item* permission for Items
ESCALATE	*Escalation* permission for Items
APPROVE	*Acknowledge item* permission for Items
CLOSE	*Close item* permission for Items
ST_INQUIRY[2]	*Edit item* permission for Items that are in *Received* status
ST_RESEARCH[2]	*Edit item* permission for Items that are in *Investigating* status
ST_PLANNING[2]	*Edit item* permission for Items that are in *Planning* status
ST_DISCUSSING[2]	*Edit item* permission for Items that are in *Discussing* status
ST_APPROVED[2]	*Edit item* permission for Items that are in *Acknowledged* status
ST_WAITING[2]	*Edit item* permission for Items that are in *Support Requested* status
ST_REVIEW[2]	*Edit item* permission for Items that are in *Reviewing* status
ST_CLOSE[2]	*Edit item* permission for Items that are in *Close* status
ST_USER01 to ST_USER40[2]	*Edit item* permission for Items for which a status among *Extended status 01* to *Extended status 40* is set.

#1

Case insensitive when access permissions are set.

#2

When you set access permissions for Items in a specified status, you can set a status used in the process work board.

To delete access permissions set for a user or role in the target process work board, set nothing for the access-permission elements (all access permissions are deleted as a result). When you add or change access permissions (including deletion of a part of access permissions), set all new access permissions. The access-permission element `""` is ignored.

Notes

- A maximum of 1,000,000 lines are allowed in the access privileges input file (excluding comment lines). If you want to set access-permission information that exceeds 1,000,000 lines, divide the access privileges input file and apply the contents of the divided files separately.

- If you set the same access-permission information multiple times for a target, an error occurs.

- If two or more lines have exactly the same values for *system-ID*, *process-work-board-ID*, *User/Role-ID-type*, and *User/Role-ID*, only the bottom-most written line becomes valid.

- The Access privileges input file must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition examples

Definition example 1

Adding new access permissions

The following definition example adds new access permissions for `user0001` and `role0001` in process work board `pwb0001` in `system0001`:

```
"system0001","pwb0001","USER","user0001","CREATE","REFER","ST_INQUIRY"
"system0001","pwb0001","ROLE","role0001","REFER","CLOSE","ST_APPROVED","ST
_CLOSE"
```

In this case, the following access permissions are newly registered:

- Access permissions that are set for `user0001`

  New item permission for Items, *View item* permission for Items, and *Edit item* permission for Items that are in *Received* status

- Access permissions that are set for `role0001`

  View item permission for Items, *Close item* permission for Items, *Edit item* permission for Items that are in *Acknowledged* status, and *Edit item* permission for Items that are in *Close* status

Definition example 2

Changing access permissions

The following definition example changes access permissions set for `user0002` in process work board `pwb0001` in `system0001`:

```
"system0001","pwb0001","USER","user0002","REFER","CLOSE"
```

In this case, access permissions are changed as follows:

- Access permissions that were set for `user0002`

  New item permission and *View item* permission for Items

- New access permissions for `user0002`

  View item permission and *Close item* permission for Items

Definition example 3

Deleting access permissions

The following definition example deletes access permissions set for `user0003` in process work board `pwb0001` in `system0001`:

```
"system0001","pwb0001","USER","user0003"
```

In this case, access permissions are deleted as follows:

- Access permissions that were set for `user0003`

  New item permission and *View item* permission for Items

- New access permissions for `user0003`

  None

Definition file for the Item search item form (Optional)

Description

This file defines the Item elements that are displayed in the Specify item search conditions window when you select **Process work board** at the top or a system from the list of process work boards in the main window (Item list). In addition, this file is used to convert selection codes to display names when a CSV file is output from the List of Item search results window. After the definition is applied to JP1/IM - Service Support, the Item elements that are displayed as search conditions when **Process work board** at the top or a system is selected are changed to the elements defined in this file.

Customize elements when you customize the Item form definition file for each process or when you want to decrease the number of Item elements that are used for a search. For details about the Item form definition file, see *Item form definition file (Optional)* in *Chapter 12. Definition Files*.

The table below lists the definition files for the Item search item form provided by default. Refer to these files to create and customize a definition file.

Table 12–13: Definition file for the Item search item form provided by default

File name	Description
IM-SS-path\itemform\jssdefault.xml	Definition file for the Item search item form
IM-SS-path\itemform\jssdefault.xml.model	Model definition file for the Item search item form

Format

```
<!-- XML declaration -->
<?xml version="1.0" encoding="UTF-8" ?>

<!-- Item form definition -->
<form-def xmlns="http://www.hitachi.co.jp/jp1/im-ss/jimss_form-1.0">
 <fid>JIMSD_FORM_MASTER</fid>
 <fname value="Item-form-name" />
 <description>comment</description>

<!-- Display elements -->
 <display-def>
  <position>
   <row><col fiid="element-ID" /></row>
   <row><col fiid="element-ID" /><col fiid="element-ID" /></row>
   <row><col fiid="element-ID" /></row>
    :
  </position>
 </display-def>

<!-- Element information -->
 <item-def>
  <item-text fiid="element-ID" search="true" >
   <label labelname="display-name" />
  </item-text>
    :
  <item-code fiid="element-ID" search="true" >
   <label labelname="display-name" />
   <options>
    <option value="0"></option>
```

```
      <option value="1">selection-code-display-name</option>
      <option value="2">selection-code-display-name</option>
      <option value="3">selection-code-display-name</option>
    </options>
  </item-code>
     :
 </item-def>
</form-def>
```

Text enclosed by `<!--` and `-->`is treated as a comment.

File name

Use any file name.

Storage folder

Any folder on the host where the `jssformdef` command is executed

When the definition is applied

The definition is applied after the contents of the Item form definition file are applied by using the `jssformdef` command.

What is described

Do not change parameters that are not described here.

XML declaration

Define the following declaration in the first line of the file:

```
<?xml version="1.0" encoding="UTF-8" ?>
```

Item form definition

Define the following four lines (only the `<description>` tag can be omitted), and then define the display elements, and element information respectively. In addition, define `</form-def>` in the last line of the file.

```
<form-def xmlns="http://www.hitachi.co.jp/jp1/im-ss/jimss_form-1.0">
  <fid>Item-form-ID</fid>
  <fname value="Item-form-name" />
  <description>comment</description>
```

The following describe the values that are specified for each tag:

item-form-ID
  The Item form ID you can specify for the Item search item form is `JIMSD_FORM_MASTER` only. You cannot specify other IDs.

item-form-name
  Specify the Item form name within 255 bytes. By default, `Master display elements` is set.

comment
  Specify comments for the Item form within 1,024 bytes. By default, `Item search item form` is set.

You can check the contents you specified for *Item-form-ID*, *Item-form-name*, and *comment* in the Item form management window and the Item form details window.

Display elements

Define the Item elements that are displayed in a window.

Define the elements between the `<position>` tag and the `</position>` tag as follows:

```
<row><col fiid="element-ID" /></row>
<row><col fiid="element-ID" /><col fiid="element-ID" /></row>
<row><col fiid="element-ID" /></row>
  :
```

A line begins with the `<row>` tag and ends with the `</row>` tag. You can specify one or two `<col>` tags between them. Specify the element ID for the Item element to be displayed for the `<col>` tag. Define all elements you defined in the Item form for each process. Unlike Item forms for each process, the description order does not have any meaning.

For details about element IDs, see *Item form definition file (Optional)* in *Chapter 12. Definition Files*.

Element information

Defines the element attributes. Defines all elements defined in Item forms for each process. For details about element attributes, see *Item form definition file (Optional)* in *Chapter 12. Definition Files*. When defining element attributes, add `search="true"` or `search="false"` after `fiid="element-ID"`. Elements to which you add `search="true"` are displayed in the window when you search items. Elements to which you add `search="false"` are not displayed in the window when you search items.

Specification example

```
<item-text fiid="JIMSD_FORM_SUMMARY" search="true" >
 <label labelname="Overview" />
</item-text>
```

Notes

- When you specify a selectable element as element information, you must specify all selection codes that are defined in each process. For example, when there are different selection codes for each process like the Cause element of an Item, you must specify all selection codes for Cause which are defined in each process. If you do not specify them, they might not be displayed in the Specify item search conditions window, or a selection code for a CSV file output from the List of item search results window might not be converted to the applicable display name.

- If strings specified for *item-form-name*, *comment*, *display-name*, and *selection-code-display-name* contain full-width characters, they are converted to three-byte or four-byte characters.

- The Definition file for the Item search item form must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: UTF-8

  - In an English environment: UTF-8

  - In a Chinese environment: UTF-8

Definition example

Definition example 1

The following is a definition example of the Item search item form when display order 4, and the `Information` selection code are added to the `Item type` Item element in the Item form definition file for each process. Note that this example shows only the part related to the `Item type` Item element.

```
<item-code fiid="JIMSD_FORM_ITEMCATEGORYCODE" search="true" >
 <label labelname="Item type" />
 <options>
  <option value="0"></option>
  <option value="1">Inquiry</option>
  <option value="2">Failure</option>
  <option value="3">Customer request</option>
  <option value="4">Information</option>
 </options>
</item-code>
```

Definition example 2

The following is a definition example of the Item search item form when the `Memorandum` Item element (text, 4,096 bytes) is added to the Item form definition file for the incident management process. Note that this example shows only the part related to the `Memorandum` Item element.

```
<!-- Display elements -->
 <row><col fiid="JIMSD_FORM_USERTEXT01" /></row>

<!-- Element information -->
<item-text fiid="JIMSD_FORM_USERTEXT01" search="true" type="textarea" >
 <label labelname="Memorandum" />
</item-text>
```

Property file for automatic Item-defaults input (hptl_jp1_imss_pwb_default_setting.properties)

Description

Use this file to specify whether to enter values automatically for **Occurrence date and time of item**, **Start date and time of item**, **Priority of item**, and **Deadline of item** for each process work board, and the value that is entered automatically for **Priority of item**.

The `hptl_jp1_imss_pwb_default_setting.properties` file is used to register or edit Items from the applicable window, and to register Items by using the Item registration command via an email.

If the **Use the settings in the property file for automatic item input.** check box is selected in the applicable window, values set for the property file for automatic Item-defaults input are registered automatically for **Occurrence date and time**, **Start date and time**, **Priority**, and **Deadline** when you register an Item. In addition, when you edit an Item, values set for the property file for automatic Item-defaults input are registered automatically for **Priority** and **Deadline**. Items that are not set to be entered automatically in the property file for automatic Item-defaults input are not registered automatically.

You can also set Items to be entered automatically in the New process work board window or the Edit the process work board window.

There are two types of property files for automatic Item-defaults input. Use the same settings for both of them. For details about files for registering Items by using the command for registering Items, see *Property file for automatic Item-defaults input (jp1imss_itementry_default.conf)* in *Chapter 12. Definition Files*.

Note:
> Note that if you use different settings for the two types of property files for automatic Item-defaults input, the values that are entered automatically differ depending on the method for registering Items.

Format

```
hptl_jp1_imss_pwb_default_XXXX_auto_priority=Whether the Item priority can
be entered automatically
hptl_jp1_imss_pwb_default_XXXX_priority_YY_ZZ=priority (Severity and Impact
level)
hptl_jp1_imss_pwb_default_XXXX_auto_accrual_date=Whether to enter the value
for Occurrence date and time of item automatically
hptl_jp1_imss_pwb_default_XXXX_auto_start_date=Whether to enter the value
for Start date and time of item automatically
hptl_jp1_imss_pwb_default_XXXX_auto_deadline=Whether to enter the value for
Deadline of item automatically
hptl_jp1_imss_pwb_default_XXXX_deadline_pri_high=Time added when Very
urgent is set for priority
hptl_jp1_imss_pwb_default_XXXX_deadline_pri_middle=Time added when Urgent
is set for priority
hptl_jp1_imss_pwb_default_XXXX_deadline_pri_normal=Time added when Standard
is set for priority
hptl_jp1_imss_pwb_default_XXXX_deadline_pri_nothing=Time added when Unset
is set for priority
hptl_jp1_imss_auto_deadline_start_time=Method for calculating working hours
  :
```

The above shows format for the property file for automatic Item-defaults input for windows.

File names

- `hptl_jp1_imss_pwb_default_setting.properties` (for windows)

- `hptl_jp1_imss_pwb_default_setting.properties.model` (Model file for windows)[#]

  #

  You can use the model file to reset the contents of the property file for automatic Item-defaults input. To do so, delete the existing property file for automatic Item-defaults input, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\`

When the definition is applied

When you use the values set for the property file for automatic Item-defaults input as settings for automatic input of Items, the definition is applied after the following JP1/IM - Service Support services are restarted, and then the Item is registered:

- JP1/Service Support - Web Service

- JP1/Service Support

What is described

You can edit the specification keys listed in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–14: List of specification keys that can be set in the property file for automatic Item-defaults input (for windows)

Specification key name	Description	Default value
`hptl_jp1_imss_pwb_default_`*XXXX*`_auto_priority`[#]	Specify whether to enter the value automatically for **Priority of item** when you create an Item in the target process work board. • `false`: No automatic input. • `true`: Automatic input. The value set for *priority* differs according to the combination of values for *Severity* and *Impact level*.	`false`

`hptl_jp1_imss_pwb_default_`*XXXX*`_priority_`*YY_ZZ*[#]	Specifies the value to be set for *priority* of an Item.
	
	• `high`: Very urgent
	• `middle`: Urgent
	• `normal`: Standard
	• `nothing`: Unset (None)
	
	The value set for *priority* is determined by *YY_ZZ* (the combination of values for *Severity* and *Impact level*).
	For *YY* (severity), specify one of the following integers:
	• 1: Emergency
	• 2: Alert
	• 3: Critical
	• 4: Error
	• 5: Warning
	• 6: Notice
	• 7: Information
		`1_3=high`
		`1_2=high`
		`1_1=high`
		`1_0=middle`
		`2_3=high`
		`2_2=high`
		`2_1=middle`
		`2_0=middle`
		`3_3=high`
		`3_2=middle`
		`3_1=middle`
		`3_0=middle`
		`4_3=middle`
		`4_2=middle`
		`4_1=middle`
		`4_0=normal`

Specification key name	Description	Default value
hptl_jp1_imss_pwb_default_*XXXX*_priority_*YY*_*ZZ*#	• 8: Debug • 0: Unset If you customize the Item form, and add a selection code for the severity, the selection code you added is not used to determine the priority. For *ZZ* (impact level), specify one of the following integers: • 3: Large • 2: Middle • 1: Small • 0: Unset If you customize the Item form, and add a selection code for the impact level, the selection code you added is not used to determine the priority.	5_3=middle 5_2=middle 5_1=normal 5_0=normal 6_3=middle 6_2=normal 6_1=normal 6_0=normal 7_3=normal 7_2=normal 7_1=normal 7_0=nothing 8_3=normal 8_2=normal 8_1=nothing 8_0=nothing 0_3=normal 0_2=nothing 0_1=nothing 0_0=nothing
hptl_jp1_imss_pwb_default_*XXXX*_auto_accrual_date#	Specifies whether to enter the value automatically for **Occurrence date and time of item** when you create an Item in the target process work board. • false: No automatic input. • true: Automatic input. When automatic input is set, and you create an Item in the New item window, the date and time when the window was opened is automatically set.	false
hptl_jp1_imss_pwb_default_*XXXX*_auto_start_date#	Specifies whether to enter the value automatically for **Start date and time of item** when you create an Item for the target process work board. • false: No automatic input. • true: Automatic input. When automatic input is set, and you create an Item in the New item window, the date and time when the window was opened is automatically set.	false
hptl_jp1_imss_pwb_default_*XXXX*_auto_deadline#	Specifies whether to enter the value automatically for **Deadline of item** when you create an Item in the target process work board. • false: No automatic input. • true: Automatic input. When automatic input is set, and you create an Item in the New item window, the date and time when the window was opened with the preset time added is automatically set. If you are editing an Item in the Edit item window when automatic input is set, the date and time when the window was opened or when the Item was registered with the preset time added is automatically set only if you change the Item priority setting. The number of hours to be added depends on the priority level.	false
hptl_jp1_imss_pwb_default_*XXXX*_deadline_pri_high#	Specifies the number of hours to be added when you set the deadline to be entered automatically. When Very urgent	24

Specification key name	Description	Default value
`hptl_jp1_imss_pwb_default_`*`XXXX`*`_deadline_pri_high`[#]	is set as the priority, the number of hours you specify by this key is added to the registration date and time for the Item. Then, the deadline is entered automatically. You can specify a number from 0 to 8760 (unit: hours). Use only half-width numeric characters.	24
`hptl_jp1_imss_pwb_default_`*`XXXX`*`_deadline_pri_middle`[#]	Specifies the number of hours to be added when you set the deadline to be entered automatically. When `Urgent` is set as the priority, the number of hours you specify by this key is added to the registration date and time of the Item. Then, the deadline is entered automatically. You can specify a number from 0 to 8760 (unit: hours). Use only half-width numeric characters.	36
`hptl_jp1_imss_pwb_default_`*`XXXX`*`_deadline_pri_normal`[#]	Specifies the number of hours to be added when you set the deadline to be entered automatically. When `Standard` is set as the priority, the number of hours you specify by this key is added to the registration date and time of the Item. Then, the deadline is entered automatically. You can specify a number from 0 to 8760 (unit: hours). Use only half-width numeric characters.	48
`hptl_jp1_imss_pwb_default_`*`XXXX`*`_deadline_pri_nothing`[#]	Specifies the number of hours to be added when you set the deadline to be entered automatically. When the priority is not set, the number of hours you specify by this key is added to the registration date and time of the Item. Then, the deadline is entered automatically. You can specify a number from 0 to 8760 (unit: hours). Use only half-width numeric characters.	60
`hptl_jp1_imss_auto_deadline_start_time`	Specifies the method for calculating and entering the deadline automatically. • `create`: Adds a number of working hours to the registration date and time of the Item depending on the priority level. • `open`: Adds a number of working hours to the date and time when the Edit item window was opened. The default value of this property is `create`. Because of this, operation is different before and after version upgrade. To keep operation the same before and after version upgrade, set `open` for this property.	create

#

For *XXXX*, specify any of the following process names:

`incident` for incident management

`problem` for problem management

`change` for change management

`release` for release management

Notes

• The Property file for automatic Item-defaults input (`hptl_jp1_imss_pwb_default_setting.properties`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  • In a Japanese environment: ISO-8859-1

  • In an English environment: ISO-8859-1

  • In a Chinese environment: ISO-8859-1

Definition example

The following is a definition example when Item elements for incident management are entered automatically:

```
hptl_jp1_imss_pwb_default_incident_auto_priority=false
hptl_jp1_imss_pwb_default_incident_priority_1_3=high
hptl_jp1_imss_pwb_default_incident_priority_1_2=high
hptl_jp1_imss_pwb_default_incident_priority_1_1=high
hptl_jp1_imss_pwb_default_incident_priority_1_0=middle
hptl_jp1_imss_pwb_default_incident_priority_2_3=high
hptl_jp1_imss_pwb_default_incident_priority_2_2=high
hptl_jp1_imss_pwb_default_incident_priority_2_1=middle
hptl_jp1_imss_pwb_default_incident_priority_2_0=middle
hptl_jp1_imss_pwb_default_incident_priority_3_3=high
hptl_jp1_imss_pwb_default_incident_priority_3_2=middle
hptl_jp1_imss_pwb_default_incident_auto_accrual_date=false
hptl_jp1_imss_pwb_default_incident_auto_start_date=false
hptl_jp1_imss_pwb_default_incident_auto_deadline=false
hptl_jp1_imss_pwb_default_incident_deadline_pri_high=24
hptl_jp1_imss_pwb_default_incident_deadline_pri_middle=36
hptl_jp1_imss_pwb_default_incident_deadline_pri_normal=48
hptl_jp1_imss_pwb_default_incident_deadline_pri_nothing=60
hptl_jp1_imss_auto_deadline_start_time=create
:
```

Property file for automatic Item-defaults input (jp1imss_itementry_default.conf)

Description

This file specifies whether to enter values automatically for **Occurrence date and time of item**, **Start date and time of item**, **Priority of item**, and **Deadline of item** for each process work board when you execute the Item registration command. It also specifies the value that is entered automatically for **Priority of item**.

The `jp1imss_itementry_default.conf` file is used when you register an Item by using the Item registration command, and when you edit an Item by using an Item editing command. When you edit an Item by using an Item editing command, the values for **Priority** and **Deadline** are registered automatically.

There are two types of property files for automatic Item-defaults input. Use the same settings for both of them. For details about files for registering Items from windows or by using the Item registration command, see *Property file for automatic Item-defaults input (hptl_jp1_imss_pwb_default_setting.properties)* in *Chapter 12. Definition Files*.

Note:
   Note that if you use different settings for the two types of property files for automatic Item-defaults input, the values that are entered automatically will differ depending on the method for registering Items.

Format

```
XXXX_auto_accrual_date=Whether the Occurrence date and time of item can be
entered automatically
XXXX_auto_start_date=Whether the Start date and time of item can be entered
automatically
XXXX_auto_priority=Whether the Priority of item can be entered automatically
XXXX_priority_YY_ZZ=priority (Severity and Impact level)
XXXX_auto_deadline=Whether the Deadline of item can be entered automatically
XXXX_deadline_pri_high=Amount of time to be added when Very urgent is set
for priority
XXXX_deadline_pri_middle=Amount of time to be added when Urgent is set for
priority
XXXX_deadline_pri_normal=Amount of time to be added when Standard is set
for priority
XXXX_deadline_pri_nothing=Amount of time to be added when Unset is set for
priority
   :
```

The above shows format for the property file for automatic Item-defaults input for commands.

File names

- `jp1imss_itementry_default.conf` (for commands)

- `jp1imss_itementry_default.conf.model` (Model file for commands)[#]

   #
      You can use the model file to reset the contents of the property file for automatic Item-defaults input. To do so, delete the existing property file for automatic Item-defaults input, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

When you use the values set for the property file for automatic Item-defaults input as settings for automatic Item input, the definition is applied when the Item is registered.

Table 12–15: List of specification keys that can be set for the property file for automatic Item-defaults input (for commands)

Specification key name	Description	Default value
*XXXX*_auto_accrual_date[#]	Specifies whether to enter the value automatically for **Occurrence date and time of item** when you create an Item in the target process work board. • false: No automatic input. • true: Automatic input. If you set automatic input, the date and time when the command was executed is set automatically.	false
*XXXX*_auto_start_date[#]	Specifies whether to enter the value automatically for **Start date and time of item** when you create an Item in the target process work board. • false: No automatic input. • true: Automatic input. If you set automatic input, the date and time when the command was executed is set automatically.	false
*XXXX*_auto_priority[#]	Specifies whether to enter the value automatically for **Priority of item** when you create an Item in the target process work board. • false: No automatic input. • true: Automatic input. The value set for *priority* differs according to the combination of the values for *Severity* and *Impact level*.	false
*XXXX*_priority_*YY*_*ZZ*[#]	Specifies the value to set for **Priority of item**: • 3: Very urgent • 2: Urgent • 1: Standard • 0: Unset (None) The value set for *priority* is determined by *YY*_*ZZ* (the combination of values for *Severity* and *Impact level*). For *YY* (severity), specify one of the following integers: • 1: Emergency • 2: Alert • 3: Critical • 4: Error • 5: Warning • 6: Notice • 7: Information • 8: Debug • 0: Unset For *ZZ* (impact level), specify one of the following integers: • 3: Large • 2: Middle • 1: Small • 0: Unset	1_3=3 1_2=3 1_1=3 1_0=2 2_3=3 2_2=3 2_1=2 2_0=2 3_3=3 3_2=2 3_1=2 3_0=2 4_3=2 4_2=2 4_1=2 4_0=1 5_3=2 5_2=2 5_1=1 5_0=1 6_3=2 6_2=1 6_1=1

Specification key name	Description	Default value

*XXXX*_priority_*YY_ZZ*#	Specifies the value to set for **Priority of item**:
	• 3: Very urgent
	• 2: Urgent
	• 1: Standard
	• 0: Unset (None)
	
	The value set for *priority* is determined by *YY_ZZ* (the combination of values for *Severity* and *Impact level*).
	For *YY* (severity), specify one of the following integers:
	• 1: Emergency
	• 2: Alert
	• 3: Critical
	• 4: Error
	• 5: Warning
	• 6: Notice
	• 7: Information
	• 8: Debug
	• 0: Unset
	
	For *ZZ* (impact level), specify one of the following integers:
	• 3: Large
	• 2: Middle
	• 1: Small
	• 0: Unset
		`6_0=1`
		`7_3=1`
		`7_2=1`
		`7_1=1`
		`7_0=0`
		`8_3=1`
		`8_2=1`
		`8_1=0`
		`8_0=0`
		`0_3=1`
		`0_2=0`
		`0_1=0`
		`0_0=0`

*XXXX*_auto_deadline#	Specifies whether to enter the value automatically for **Deadline of item** when you create an Item in the target process work board. • `false`: No automatic input. • `true`: Automatic input. When automatic input is set, the date and time with the number of hours added to the date and time when the command was executed is set automatically. The number of hours to be added differ according to the priority level.	`false`
*XXXX*_deadline_pri_high#	Specifies the number of hours to be added when you set to enter the deadline automatically. When `Very urgent` is set as the priority, the number of hours you specify by this key is added to the registration date and time of the Item, and then the deadline is entered automatically. You can specify a number from 0 to 8760 (unit: hours). Use only half-width numeric characters.	`24`
*XXXX*_deadline_pri_middle#	Specifies the number of hours to be added when you set to enter the deadline automatically. When `Urgent` is set as the priority, the number of hours you specify by this key is added to the registration date and time of the Item, and then the deadline is entered automatically. You can specify a number from 0 to 8760 (unit: hours). Use only half-width numeric characters.	`36`
*XXXX*_deadline_pri_normal#	Specifies the number of hours to be added when you set to enter the deadline automatically. When `Standard` is set as the priority, the number of hours you specify by this key is added to the registration date and time of the Item, and then the deadline is entered automatically. You can specify a number from 0 to 8760 (unit: hours).Use only half-width numeric characters.	`48`

Specification key name	Description	Default value
*XXXX*_deadline_pri_nothing[#]	Specifies the number of hours to be added when you set to enter the deadline automatically. When the priority is not set, the number of hours you specify by this key is added to the registration date and time of the Item, and then the deadline is entered automatically. You can specify a number from 0 to 8760 (unit: hours).Use only half-width numeric characters.	60

#

For *XXXX*, specify any of the following process names:

incident for incident management

problem for problem management

change for change management

release for release management

Notes

- The Property file for automatic Item-defaults input (jp1imss_itementry_default.conf) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following is a definition example when Item elements for change management are entered automatically:

```
change_auto_accrual_date=false
change_auto_start_date=false
change_auto_priority=true
change_priority_1_3=3
change_priority_1_2=3
change_priority_1_1=3
change_priority_1_0=2
change_priority_2_3=3
change_priority_2_2=3
change_priority_2_1=2
change_priority_2_0=2
change_priority_3_3=3
change_priority_3_2=2
change_auto_deadline=true
change_deadline_pri_high=24
change_deadline_pri_middle=36
change_deadline_pri_normal=48
change_deadline_pri_nothing=60
:
```

Item accumulation property file (hptl_jp1_imss_main_setting_kpi.properties)

Description

This file defines the threshold values for displaying accumulation results for Items in the main window (Item status). It also defines the contents to be displayed in the list of target Items.

The following information is defined. Edit it as required for operation.

- Unsolved period treated as extended

- Threshold value for displaying a pending Item with a warning

- Threshold value for displaying an uncompleted Item with a warning

- Threshold value for displaying a discussing Item with a warning

- Threshold value for displaying an extended Item with a warning

- Threshold value for displaying a top priority Item with a warning

- Threshold value for displaying a today's deadline Item with a warning

- Type of Items that are displayed in the list of target Items when you select a system

- Type of Items that are displayed in the list of target Items when you select a process

You can set the threshold value for displaying an Item with a warning in the main window (Item status) from the New process work board window or the Edit the process work board window.

Format

```
hptl_jp1_imss_kpi_term_incident=Unsolved period treated as extended
(Incident management)
hptl_jp1_imss_kpi_term_problem=Unsolved period treated as extended (Problem
management)
hptl_jp1_imss_kpi_term_change=Unsolved period treated as extended (Change
management)
hptl_jp1_imss_kpi_term_release=Unsolved period treated as extended (Release
management)
    :
hptl_jp1_imss_kpi_system_default_list=Type of Items to be displayed in the
list of target Items when you select a system
hptl_jp1_imss_kpi_process_default_list=Type of Items to be displayed in the
list of target Items when you select a process
```

Lines starting with a hash mark (#) are treated as comments.

File names

- `hptl_jp1_imss_main_setting_kpi.properties`

- `hptl_jp1_imss_main_setting_kpi.properties.model` (Model file of the Item accumulation property file)[#]

  #

  You can use the model file to reset the contents of the Item accumulation property file. To do so, delete the existing Item accumulation property file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\`

When the definition is applied

The definition is applied when you execute the `jsscollectdata` command.

In addition, the definition is applied to the main window (Item status) after the following services are restarted:

- JP1/Service Support - Web Service
- JP1/Service Support

What is described

Do not edit any specification keys other than those that are explained in the following table. Use an equal sign (=) to connect a specification key and its value.

Table 12–16: List of specification keys that can be set in the Item accumulation property file

Specification key name	Description	Default value
`hptl_jp1_imss_kpi_term_incident`	Specifies the unsolved period to be treated as extended by incident management (in hours). You can specify a numeric character (integer) from 0 to 876000. Use only half-width numeric characters.	`72`
`hptl_jp1_imss_kpi_term_problem`	Specifies the unsolved period to be treated as extended by problem management (in hours). You can specify a numeric character (integer) from 0 to 876000. Use only half-width numeric characters.	`168`
`hptl_jp1_imss_kpi_term_change`	Specifies the unsolved period to be treated as extended by change management (in hours). You can specify a numeric character (integer) from 0 to 876000. Use only half-width numeric characters.	`480`
`hptl_jp1_imss_kpi_term_release`	Specifies the unsolved period to be treated as extended by release management (in hours). You can specify a numeric character (integer) from 0 to 876000. Use only half-width numeric characters.	`480`
`hptl_jp1_imss_kpi_term_for `*XXX*	Specifies the unsolved period when the unsolved period treated as extended is changed in a specific process work board (in hours). You can specify this specification key more than once. By default, this key is commented out (preceded by a hash mark (#)). Therefore, if you want to set this key, remove the comment, or add this key to specify the following setting: • For *XXX* of the specification key name, specify the ID of the process work board for which you want to change the unsolved period. • Specify the value. This specification key has precedence over the specifications of other processes. But, if you specify an invalid process work board ID or an invalid value (values that are not described below), the values you specified for the individual processes are applied.	--

Specification key name	Description	Default value
`hptl_jp1_imss_kpi_term_for_XXX`	You can specify a numeric character (integer) from 0 to 876000. Use only half-width numeric characters.	--
`hptl_jp1_imss_kpi_unprocessed_incident`	Uses the number of Items to specify the threshold value for displaying a pending Item with a warning by incident management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_unprocessed_problem`	Uses the number of Items to specify the threshold value for displaying a pending Item with a warning by problem management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_unprocessed_change`	Uses the number of Items to specify the threshold value for displaying a pending Item with a warning by change management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half width numeric characters.	10
`hptl_jp1_imss_kpi_unprocessed_release`	Uses the number of Items to specify the threshold value for displaying a pending Item with a warning by release management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_unprocessed_for_XXX`	Uses the number of Items to specify the threshold value when you change the threshold value for displaying a pending Item with a warning by a specific process work board. You can specify this specification key more than once. By default, this key is commented out (preceded by a hash mark (#)). Therefore, if you want to set this key, remove the comment, or add this key to specify the following setting: • For *XXX* of the specification key name, specify the ID of the process work board for which you want to change the threshold value. • Specify the value. This specification key has precedence over the specifications of other processes. But, if you specify an invalid process work board ID or an invalid value (values that are not described below), the values you specified for the individual processes are applied. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	--
`hptl_jp1_imss_kpi_processing_incident`	Uses the number of Items to specify the threshold value for displaying an uncompleted Item with a warning by incident management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	30

Specification key name	Description	Default value
`hptl_jp1_imss_kpi_processing_problem`	Uses the number of Items to specify the threshold value for displaying an uncompleted Item with a warning by problem management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	30
`hptl_jp1_imss_kpi_processing_change`	Uses the number of Items to specify the threshold value for displaying an uncompleted Item with a warning by change management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	30
`hptl_jp1_imss_kpi_processing_release`	Uses the number of Items to specify the threshold value for displaying an uncompleted Item with a warning by release management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	30
`hptl_jp1_imss_kpi_processing_for_XXX`	Uses the number of Items to specify the threshold value for displaying an uncompleted Item with a warning by a specific process work board. You can specify this specification key more than once. By default, this key is commented out (preceded by a hash mark (#)). Therefore, if you want to set this key, remove the comment, or add this key to specify the following setting: • For *XXX* of the specification key name, specify the ID of the process work board for which you want to change the threshold value. • Specify the value. This specification key has precedence over the specifications of other processes. But, if you specify an invalid process work board ID or an invalid value (values that are not described below), the values you specified for the individual processes are applied. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	--
`hptl_jp1_imss_kpi_judging_incident`	Uses the number of Items to specify the threshold value for displaying a discussing Item with a warning by incident management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_judging_problem`	Uses the number of Items to specify the threshold value for displaying a discussing Item with a warning by problem management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_judging_change`	Uses the number of Items to specify the threshold value for displaying a discussing Item with a warning by change management.	10

Specification key name	Description	Default value
`hptl_jp1_imss_kpi_judging_change`	You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_judging_release`	Uses the number of Items to specify the threshold value for displaying a discussing Item with a warning by release management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_judging_for_XXX`	Uses the number of Items to change the threshold value for displaying a discussing Item with a warning by a specific process work board. You can specify this specification key more than once. By default, this key is commented out (preceded by a hash mark (#)). Therefore, if you want to set this key, remove the comment, or add this key to specify the following setting: • For *XXX* of the specification key name, specify the ID of the process work board for which you want to change the threshold value. • Specify the value. This specification key has precedence over the specifications of other processes. But, if you specify an invalid process work board ID or an invalid value (values that are not described below), the values you specified for the individual processes are applied. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	--
`hptl_jp1_imss_kpi_longterm_incident`	Uses the number of Items to specify the threshold value for displaying an extended Item with a warning by incident management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_longterm_problem`	Uses the number of Items to specify the threshold value for displaying an extended Item with a warning by problem management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_longterm_change`	Uses the number of Items to specify the threshold value for displaying an extended Item with a warning by change management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_longterm_release`	Uses the number of Items to specify the threshold value for displaying an extended Item with a warning by release management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10

Specification key name	Description	Default value
`hptl_jp1_imss_kpi_longterm_for` *XXX*	Uses the number of Items to specify the threshold value when you change the threshold value for displaying an extended Item with a warning by a specific process work board. You can specify this specification key more than once. By default, this key is commented out (preceded by a hash mark (#)). Therefore, if you want to set this key, remove the comment, or add this key to specify the following setting: • For *XXX* of the specification key name, specify the ID of the process work board for which you want to change the threshold value. • Specify the value. This specification key has precedence over the specifications of other processes. But, if you specify an invalid process work board ID or an invalid value (values that are not described below), the values you specified for the individual processes are applied. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	--
`hptl_jp1_imss_kpi_priority_incident`	Uses the number of Items to specify the threshold value for displaying a top priority Item with a warning by incident management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_priority_problem`	Uses the number of Items to specify the threshold value for displaying a top priority Item with a warning by problem management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_priority_change`	Uses the number of Items to specify the threshold value for displaying a top priority Item with a warning by change management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_priority_release`	Uses the number of Items to specify the threshold value for displaying a top priority Item with a warning by release management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_priority_for` *XXX*	Uses the number of Items to specify the threshold value when you change the threshold value for displaying a top priority Item with a warning by a specific process work board. You can specify this specification key more than once. By default, this key is commented out (preceded by a hash mark (#)). Therefore, if you want to set this key, remove the comment, or add this key to specify the following setting:	--

Specification key name	Description	Default value
`hptl_jp1_imss_kpi_priority_for_XXX`	• For *XXX* of the specification key name, specify the ID of the process work board for which you want to change the threshold value. • Specify the value. This specification key has precedence over the specifications of other processes. But, if you specify an invalid process work board ID or an invalid value (values that are not described below), the values you specified for the individual processes are applied. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	--
`hptl_jp1_imss_kpi_today_incident`	Uses the number of Items to specify the threshold value for displaying a today's deadline Item with a warning by incident management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_today_problem`	Uses the number of Items to specify the threshold value for displaying a today's deadline Item with a warning by problem management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_today_change`	Uses the number of Items to specify the threshold value for displaying a today's deadline Item with a warning by change management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_today_release`	Uses the number of Items to specify the threshold for displaying today's deadline Item with a warning by release management. You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	10
`hptl_jp1_imss_kpi_today_for_XXX`	Uses the number of Items to specify the threshold value when you change the threshold value for displaying a today's deadline Item with a warning by a specific process work board. You can specify this specification key more than once. By default, this key is commented out (preceded by a hash mark (#)). Therefore, if you want to set this key, remove the comment, or add this key to specify the following setting: • For *XXX* of the specification key name, specify the ID of the process work board for which you want to change the threshold value. • Specify the value. This specification key has precedence over the specifications of other processes. But, if you specify an invalid process work board ID or an invalid value (values that are not described below), the values you specified for the individual processes are applied.	--

Specification key name	Description	Default value
`hptl_jp1_imss_kpi_today_for `*`XXX`*	You can specify a numeric character (integer) from 0 to 2147483647. Use only half-width numeric characters.	--
`hptl_jp1_imss_kpi_system_default_list`	Specifies the type of Items to be displayed in the list of target Items when you display the Item status from the system perspective in **Check status** of the main window (Item status). Note that the Items of the target system that is displayed at the top in **Check status** are displayed. The following are specifiable values: • `process`: Uncompleted • `long`: Extended • `priority`: Top priority	`priority`
`hptl_jp1_imss_kpi_process_default_list` `t`	Specifies the type of Items to be displayed in the list of target Items when you display Item status from the process perspective in **Check status** of the main window (Item status). Note that the Items subject to incident management are displayed. The following are specifiable values: • `process`: Uncompleted • `unprocess`: Pending • `judging`: Discussing • `long`: Extended • `priority`: Top priority • `today`: Today's deadline	`priority`

Legend:

--: No default value

Note

- If you change the definitions of the Item accumulation property file, execute the `jsscollectdata` command to create accumulation data based on the new definitions.

- The Item accumulation property file (`hptl_jp1_imss_main_setting_kpi.properties`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/ IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: ISO-8859-1

  - In an English environment: ISO-8859-1

  - In a Chinese environment: ISO-8859-1

File for Item information entries (Optional)

Description

This file contains Item information to be registered in JP1/IM - Service Support. This file must be created in CSV format. To register the contents of this file in JP1/IM - Service Support, you must execute the `jssitemimport` command.

Format

```
#comment (Linefeed)
"process-work-board-ID","title","severity","impact-level","priority",...
(Linefeed)
"process-work-board-ID","title","severity","impact-level","priority",...
(Linefeed)
     :
     :
```

Lines starting with a hash mark (#) are treated as comments.

Legend:

    (Linefeed): Indicates a linefeed character.

File name

Use any file name.

Storage folder

Any folder on the host where the `jssitemimport` command is executed

When the definition is applied

When the `jssitemimport` command is executed, the contents of the file for Item information entries are applied to JP1/IM - Service Support.

What is described

Specify Item information in the order shown in the following table.

Table 12–17: Item information that is specified in the file for Item information entries (for each line)

Specification order	Element name	Specifiable characters	Specifiable number of bytes[#1]	Specify or not
1	Process work board ID	Half-width alphanumeric characters	1 to 64 bytes	Y
2	Title	Other than control characters (0x00 to 0x1F, and 0x7F)	1 to 512 bytes	Y
3	Severity	Values defined by the code mapping file	--	Δ
4	Impact level	Values defined by the code mapping file	--	Δ
5	Priority	Values defined by the code mapping file	--	Δ

Specification order	Element name	Specifiable characters	Specifiable number of bytes[#1]	Specify or not
6	Item type	Values defined by the code mapping file	--	△
7	Problem domain	Values defined by the code mapping file	--	△
8	Status	Values defined by the code mapping file	--	Y
9	Work status	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 4,096 bytes	△
10	Result	Values defined by the code mapping file	--	△
11	Update date and time[#2]	String in *YYYY*/*MM*/*DD* *hh*:*mm*:*ss* format[#3]	--	△
12	Occurrence date and time	String in *YYYY*/*MM*/*DD* *hh*:*mm*:*ss* format[#3]	--	△
13	Registration date and time	String in *YYYY*/*MM*/*DD* *hh*:*mm*:*ss* format[#3]	--	△
14	Start date and time	String in *YYYY*/*MM*/*DD* *hh*:*mm*:*ss* format[#3]	--	△
15	Person in charge type	Either USER or ROLE	--	Y
16	Person in charge	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 bytes	Y
17	Person in charge ID	Half-width alphanumeric characters and underscores	No more than 64 bytes	Y
18	Deadline	String in *YYYY*/*MM*/*DD* *hh*:*mm*:*ss* format[#3]	--	△
19	Respondent type	Either USER or ROLE	--	△ [#4]
20	Respondent	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 bytes	△ [#4]
21	Respondent ID	Half-width alphanumeric characters	No more than 64 bytes	△ [#4]
22	End date and time	String in *YYYY*/*MM*/*DD* *hh*:*mm*:*ss* format[#3]	--	△
23	Customer name	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 1,024 bytes	△
24	Inquirer	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 bytes	△
25	Cost (planned)	An integer from 0 to 2147483647	--	△
26	Cost (actual)	An integer from 0 to 2147483647	--	△
27	Impact service	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 bytes	△
28	Overview	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 2,048 bytes	△

Specification order	Element name	Specifiable characters	Specifiable number of bytes[1]	Specify or not
29	Occurred type	Values defined by the code mapping file	--	△
30	Cause	Values defined by the code mapping file	--	△
31	Fundamental cause	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 4,096 bytes	△
32	Workaround type	Values defined by the code mapping file	--	△
33	Workaround	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 4,096 bytes	△
34	Solution category	Values defined by the code mapping file	--	△
35	Solution	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 4,096 bytes	△
36	Problem component and version	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 1,024 bytes	△
37	How to avoid the problem in the future	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 4,096 bytes	△
38	Schedule and main steps	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 4,096 bytes	△
39	Impact assessment for change	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 4,096 bytes	△
40	Scale of change	Values defined by the code mapping file	--	△
41	Release type	Values defined by the code mapping file	--	△
42	Discussions result	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 2,048 bytes	△
43	Free memo column	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 4,096 bytes	△
44	Reason for severity	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 512 bytes	△
45	Reason for impact level	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 512 bytes	△
46	Reason for priority	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 512 bytes	△
47	Product name	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 1,024 bytes	△
48	Jobnet name	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 1,024 bytes	△
49	Job name	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 1,024 bytes	△
50	SNMP source	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 1,024 bytes	△

Specification order	Element name	Specifiable characters	Specifiable number of bytes[#1]	Specify or not
51	Monitored node name	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 bytes	△
52	Alarm name	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 bytes	△
53	Extended text 01	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 4,096 bytes	△
54	Extended text 02	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 4,096 bytes	△
55	Extended text 03	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 4,096 bytes	△
56	Extended text 04	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 4,096 bytes	△
57	Extended text 05	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 4,096 bytes	△
58	Extended text 06	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 2,048 bytes	△
59	Extended text 07	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 2,048 bytes	△
60	Extended text 08	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 2,048 bytes	△
61	Extended text 09	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 2,048 bytes	△
62	Extended text 10	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 2,048 bytes	△
63	Extended text 11	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 2,048 bytes	△
64	Extended text 12	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 2,048 bytes	△
65	Extended text 13	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 2,048 bytes	△
66	Extended text 14	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 2,048 bytes	△
67	Extended text 15	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 2,048 bytes	△
68	Extended text 16	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 512 bytes	△
69	Extended text 17	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 512 bytes	△
70	Extended text 18	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 512 bytes	△
71	Extended text 19	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 512 bytes	△
72	Extended text 20	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 512 bytes	△

Specification order	Element name	Specifiable characters	Specifiable number of bytes[#1]	Specify or not
73	Extended time data 01	String in *YYYY/MM/DD hh:mm:ss* format[#3]	--	△
74	Extended time data 02	String in *YYYY/MM/DD hh:mm:ss* format[#3]	--	△
75	Extended time data 03	String in *YYYY/MM/DD hh:mm:ss* format[#3]	--	△
76	Extended time data 04	String in *YYYY/MM/DD hh:mm:ss* format[#3]	--	△
77	Extended time data 05	String in *YYYY/MM/DD hh:mm:ss* format[#3]	--	△
78	Extended code data 01	Values defined by the code mapping file	--	△
79	Extended code data 02	Values defined by the code mapping file	--	△
80	Extended code data 03	Values defined by the code mapping file	--	△
81	Extended code data 04	Values defined by the code mapping file	--	△
82	Extended code data 05	Values defined by the code mapping file	--	△
83	Extended numeric value data 01	An integer from 0 to 2147483647 or blank	--	△
84	Extended numeric value data 02	An integer from 0 to 2147483647 or blank	--	△
85	Extended numeric value data 03	An integer from 0 to 2147483647 or blank	--	△
86	Extended numeric value data 04	An integer from 0 to 2147483647 or blank	--	△
87	Extended numeric value data 05	An integer from 0 to 2147483647 or blank	--	△
88	Extended user information type 01[#5]	Either USER or ROLE	--	△ [#6]
89	Extended user information 01[#5]	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 bytes	△
90	Extended user information ID 01[#5]	Half-width alphanumeric characters	No more than 64 bytes	△
91	Extended user information type 02[#5]	Either USER or ROLE	--	△ [#6]
92	Extended user information 02[#5]	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 bytes	△
93	Extended user information ID 02[#5]	Half-width alphanumeric characters	No more than 64 bytes	△

Specification order	Element name	Specifiable characters	Specifiable number of bytes[1]	Specify or not
94	Extended user information type 03[5]	Either USER or ROLE	--	Δ [6]
95	Extended user information 03[5]	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 bytes	Δ
96	Extended user information ID 03[5]	Half-width alphanumeric characters	No more than 64 bytes	Δ
97	Extended user information type 04[5]	Either USER or ROLE	--	Δ [6]
98	Extended user information 04[5]	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 bytes	Δ
99	Extended user information ID 04[5]	Half-width alphanumeric characters	No more than 64 bytes	Δ
100	Extended user information type 05[5]	Either USER or ROLE	--	Δ [6]
101	Extended user information 05[5]	Other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 bytes	Δ
102	Extended user information ID 05[5]	Half-width alphanumeric characters	No more than 64 bytes	Δ

Legend:

--: Because the value you can specify is already determined, the value itself is the specifiable number of bytes.

Y: Elements you must specify

Δ : Elements to specify if necessary

#1

When the string you specify contains full-width characters, they are converted to three or four bytes.

#2

If you specify the update date and time in the file for Item information entries, the time when you executed the jssitemimport command is registered in JP1/IM - Service Support.

#3

YYYY indicates the year, *MM* indicates the month, *DD* indicates the day, *hh* indicates the hour, *mm* indicates the minute, and *ss* indicates the second. Specifiable values are from 1970/01/02 00:00:00 to 2036/12/31 23:59:59. For example, if you want to set 10:30:25 on May 10, 2007, it will be 2007/05/10 10:30:25.

#4

When you enter an element related to a respondent, you must enter the values for **Respondent type**, **Respondent**, and **Respondent ID**. If a value is not entered, an error occurs.

#5

After you set view permissions for individual Items, one of **Extended user information type 01** to **05** will be selected as the element that specifies the view permissions for the Items. For the selected extended user information, set the Item view permissions owner. Extended user information consists of the extended user information type, extended user information, and extended user information ID.

For details about how to set up an environment when setting view permissions for individual Items, see *8.12 Setting an environment in which view permissions are set for individual Items*.

#6

Depending on the combination with the **Extended user information ID**, if a user or a role that does not exist is specified, an error occurs.

A line indicates information for an Item. Enclose elements of Item information in double-quotation marks (**"**), and separate elements with commas (**,**). Elements other than *process-work-board-ID*, *title*, *status*, *person-in-charge-type*, *person-in-charge*, and *Person in charge ID* are optional, but the elements cannot be omitted. Even if you do not want

to specify an Item, you need to leave double quotation marks (`"`) for the applicable element. In addition, the order that the Items must be specified in is fixed.

The following is an example when *severity* is omitted:

`"`*process-work-board-ID*`"`,`"`*title*`"`,`""`,`"`*impact-level*`"`,`"`*priority*`"`,`...`(Linefeed)

Notes

- *process-work-board-ID*, *title*, *status*, *person-in-charge-type*, *person-in-charge*, and *person-in-charge-ID* must be specified. In addition, you must create a process work board that has the applicable process work board ID before applying the contents of this file to JP1/IM - Service Support.

- When you specify information for the following elements, you must synchronize it with the values you specified in the code mapping file:

  Severity, impact level, priority, Item type, problem domain, status, result, occurrence type, workaround type, solution category, scale of change, and release type

  For details, see *Code mapping file (jp1imss_itemimport_codemap.conf)* in *Chapter 12. Definition Files*.

- Element names might be changed due to customization. For details, see *Item form definition file (Optional)* in *Chapter 12. Definition Files*. If you customize element names, replace the element names in Table 12-17 with the names after customization. Note that if you customize element names, the specification order does not change.

- If you specify 103 or more elements as elements in an input file, the first 102 elements are registered. Because elements from 53 to 102 are optional, they will be blank if you omit them.

- If a control character (0x00) is included in a setting element in an input file, it is not regarded as an invalid definition. In such a case, the characters before the control character in a specified string are treated as specified.

  For example, if you specify `hitachi` Δ `taro`[#] as the user name, `hitachi` becomes the display name.

  #: Here, Δ is assumed to be a control character (0x00).

- The File for Item information entries must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following is a definition example when you register multiple Item information for the AWebSystem process work board ID:

```
"AWebSystem","System
failure","Emergency","Small","Standard","Failure","Application","Received","
Before starting work","Not confirmed","Register","2006/10/30
10:15:30","2006/10/29 23:55:40","2006/10/30 10:15:30"...(Linefeed)
"AWebSystem","System
failure","Warning","Middle","Standard","Failure","Middleware","Received","Be
fore starting work","Not confirmed","Register","2006/10/30
10:15:30","2006/10/30 08:30:30","2006/10/30 10:15:30"...(Linefeed)
"AWebSystem","Abnormal end of
process","Critical","Large","Urgent","Failure","Application","Received","Bef
ore starting work","Not confirmed","Register","2006/10/30
```

```
10:15:30","2006/10/30 09:14:40","2006/10/30 10:15:30"...(Linefeed)
  :
```

File for extended Item information entries (Optional)

Description

These files contain Item information to be registered in JP1/IM - Service Support, and related information for the Items. These two files for extended Item information entries consist of an Item information CSV file and a related information CSV file. These files must be created in CSV format. To register the contents of these files in JP1/IM - Service Support, you must execute the jssitemimportEx command.

Format (Item information CSV file)

```
#comments (Linefeed)
#product-name, version-of-file-to-be-output,...(Linefeed)
#"system-ID-of-target-system","system-name-of-target-system",...(Linefeed)
"system-ID","system-name","process-work-board-ID","process-name",...
(Linefeed)
"system-ID","system-name","process-work-board-ID","process-name",...
(Linefeed)
    :
    :
#"Closed Item Number : number-of-entries"
#"UnClosed Item Number : number-of-entries"
```

Lines starting with a hash mark (#) are treated as comments.

Legend:

(Linefeed): Indicates a linefeed character.

Format (related information CSV file)

```
#comments (Linefeed)
#product-name, version-of-file-to-be-output,...(Linefeed)
#"process-work-board-ID","process-work-board-serial-number",...(Linefeed)
#"process-work-board-ID","process-work-board-serial-number",...(Linefeed)
#"process-work-board-ID","process-work-board-serial-number",...(Linefeed)
    :
    :
```

Lines starting with a hash mark (#) are treated as comments.

Legend:

(Linefeed): Indicates a linefeed character.

File names

- Item_PWB_*process-work-board-ID*.csv (Item information CSV file)
- ItemRefInfo_PWB_*process-work-board-ID*.csv (related information CSV file)

Storage folder

An arbitrary folder on a host where the jssitemimportEx command is executed.

Note that the folder configuration must be the same as the `jssitemexportEx` command's output destination folder. For details about the folder configuration, see *jssitemexportEx (exports extended Item information)* in *Chapter 11. Commands*.

When the definition is applied

When you execute the `jssitemimportEx` command, the contents of the Item information CSV file and the related information CSV file are applied to JP1/IM - Service Support.

What is described

The format of the Item information CSV file and the related information CSV file are the same as the format when you use the `jssitemexportEx` command to output Item information. In addition, the header section, the first line of the body (attribute name), and the footer section of both files can be omitted. For details about the Item information CSV file and the related information CSV file, see *jssitemexportEx (exports extended Item information)* in *Chapter 11. Commands*.

According to the order specified in the following table, specify Item information (Item information CSV file).

Table 12–18: Item information to be specified in the file for Item information entries (Item information CSV file) (for each line)

Specification order	Element name	Specifiable characters	Specifiable number of bytes[1]	Specify or not
1	System ID of target system[2], [3]	Half-width alphanumeric characters	1 to 64 bytes	Y
2	System name of target system[3]	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Note that this must be the system name corresponding to *system-ID-of-target-system*, which is registered in the Item management database.	1 to 128 bytes	Y
3	Process name[3]	A process of the process work board to be registered. Specify any one of the following: • Incident management • Problem management • Change management • Release management • Master process	--	Y
4	Process work board ID[2], [3]	Half-width alphanumeric characters	1 to 64 bytes	Y
5	Process work board serial numbers[4]	An integer from 1 to 2147483647	--	Y
6	Version number	An integer from 1 to 2147483647	--	Y
7	Related item serial number[3]	An integer from 1 to 2147483647. Note that this number is combined with the *Escalation number* to form an inter-process ID, which must be unique across Items.	--	Y
8	Escalation number	An integer from 1 to 99.	--	Y

Specification order	Element name	Specifiable characters	Specifiable number of bytes[#1]	Specify or not
8	Escalation number	Note that this number is combined with the *Related item serial number* to form an inter-process ID, which must be unique across Items.	--	Y
9	Item form ID[#2, #3]	An Item form used in a process work board. Specify any one of the following: • `JIMSD_FORM_INCIDENT` • `JIMSD_FORM_PROBLEM` • `JIMSD_FORM_CHANGE` • `JIMSD_FORM_RELEASE` • `JIMSD_FORM_MASTER` Specify the string corresponding to the process name.	--	Y
10	Version number of Item form[#2, #3]	An integer from 0 to 255	--	Y
11	Item status ID	Specify any one of the following: • `JIMSD_STAT_INQUIRY` • `JIMSD_STAT_RESEARCH` • `JIMSD_STAT_PLANNING` • `JIMSD_STAT_DISCUSSING` • `JIMSD_STAT_APPROVED` • `JIMSD_STAT_WAITING` • `JIMSD_STAT_REVIEW` • `JIMSD_STAT_CLOSE` • `JIMSD_STAT_USER01` to `JIMSD_STAT_USER40` You can register unused statuses on the process work board on which you want to register an Item.	--	Y
12	Item status name	Any characters other than control characters (0x00 to 0x1F, and 0x7F). You can register the Item even if the Item status name is different from the name of the Item status ID that is used in the process work board where you want to register the Item.	1 to 255 bytes	Y
13	Edit status	Either a null character or `Edit in progress.` The status is not registered in the Item management database.	--	Δ
14	Data type	Specify any one of the following: • `Most recent` • `History` • `Delete` If the type of data with the same process work board serial number is either `Most recent` or `Delete`, `Version number` must be the greatest number. For `History`, `Version number` must not be the greatest number.	--	Y
15	Escalation source process work board ID[#2, #5]	Half-width alphanumeric characters	0 to 64 bytes	Δ

Specification order	Element name	Specifiable characters	Specifiable number of bytes[#1]	Specify or not
16	Escalation source related Item serial number[#5]	An integer from 1 to 2147483647, or a null character. This number must be the same as the *Related item serial number*.	--	Δ
17	Escalation source escalation number[#5]	An integer from 1 to 98, or a null character. This number must be smaller than the *Escalation number*.	--	Δ
18	Escalation destination related Item serial number[#5]	An integer from 1 to 2147483647, or a null character. This number must be the same as the *Related item serial number*.	--	Δ
19	Escalation destination escalation number[#5]	An integer from 2 to 99, or a null character. This number must be greater than the *Escalation number*.	--	Δ
20	Escalation destination process work board ID[#2, #5]	Half-width alphanumeric characters	0 to 64 bytes	Δ
21	Escalation destination system ID[#5]	Half-width alphanumeric characters. This number must be the ID of the system to which the process work board of *Escalation destination process work board ID* that is registered in the Item management database belongs.	0 to 64 bytes	Δ
22	Escalation system name[#5]	Any characters other than control characters (0x00 to 0x1F, and 0x7F). This name must be the system name of *Escalation destination system ID* that is registered in the Item management database.	0 to 128 bytes	Δ
23	Escalation process name[#5]	Specify any of the following or a null character: • Incident management • Problem management • Change management • Release management • Master process This name must be the process name of *Escalation destination process work board ID* that is registered in the Item management database.	--	Δ
24	Link source event database serial number	An integer from 0 to 2147483647. Register this even if the serial number does not exist in the Item form.	--	Δ
25	JP1/IM-M host name	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Register this even if the host name does not exist in the Item form.	0 to 255 bytes	Δ
26	Severity[#6]	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
27	Impact level[#6]	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ

Specification order	Element name	Specifiable characters	Specifiable number of bytes[#1]	Specify or not
28	Priority[#6]	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
29	Item type[#6]	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
30	Problem domain[#6]	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
31	Occurred type[#6]	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
32	Cause[#6]	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
33	Result[#6]	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
34	Solution category code[#6]	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
35	Workaround type[#6]	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
36	Scale of change[#6]	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
37	Release type[#6]	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
38	Occurrence date and time	A string in $YYYY/MM/DD\ hh:mm:ss$ format[#7] or a null character	--	Δ
39	Deadline	A string in $YYYY/MM/DD\ hh:mm:ss$ format[#7] or a null character	--	Δ
40	Start date and time	A string in $YYYY/MM/DD\ hh:mm:ss$ format[#7] or a null character	--	Δ
41	End date and time	A string in $YYYY/MM/DD\ hh:mm:ss$ format[#7] or a null character	--	Δ
42	Title	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	1 to 512 bytes	Y
43	Overview	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 2,048 bytes	Δ
44	Impact service	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
45	Reason for severity	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 512 bytes	Δ
46	Reason for impact level	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 512 bytes	Δ
47	Reason for priority	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 512 bytes	Δ
48	Workaround	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 4,096 bytes	Δ

Specification order	Element name	Specifiable characters	Specifiable number of bytes[1]	Specify or not
49	Work status	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 4,096 bytes	Δ
50	Fundamental cause	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 4,096 bytes	Δ
51	Solution	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 4,096 bytes	Δ
52	Problem component and version	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 1,024 bytes	Δ
53	Schedule and main steps	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 4,096 bytes	Δ
54	Impact assessment for change	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 4,096 bytes	Δ
55	Discussions result	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 2,048 bytes	Δ
56	How to avoid the problem in the future	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 4,096 bytes	Δ
57	Free memo column	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 4,096 bytes	Δ
58	Product name	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 1,024 bytes	Δ
59	Jobnet name	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 1,024 bytes	Δ
60	Job name	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 1,024 bytes	Δ
61	SNMP source	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 1,024 bytes	Δ
62	Monitored node name	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
63	Alarm name	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
64	Customer name	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 1,024 bytes	Δ
65	Cost (planned)	An integer from 0 to 2147483647, or a null character	--	Δ
66	Cost (actual)	An integer from 0 to 2147483647, or a null character	--	Δ
67	Inquirer's name	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
68	Registrant ID[3]	Half-width alphanumeric characters	0 to 64 bytes	Δ
69	Registrant's name[3]	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Using only space characters is not allowed.	1 to 255 bytes	Y

Specification order	Element name	Specifiable characters	Specifiable number of bytes[1]	Specify or not
70	Registrant's name (English)[3]	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Using only space characters is not allowed.	0 to 255 bytes	Δ
71	Person in charge type[8]	Either USER or ROLE	--	Y
72	Person in charge ID[9]	Half-width alphanumeric characters	0 to 64 bytes	Δ
73	Name of person in charge[8]	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Using only space characters is not allowed.	1 to 255 bytes	Y
74	Name of person in charge (English)	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Using only space characters is not allowed.	0 to 255 bytes	Δ
75	Respondent type[8]	Either USER or ROLE, or a null character	--	Δ
76	Respondent ID[9]	Half-width alphanumeric characters	0 to 64 bytes	Δ
77	Respondent's name[8]	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Using only space characters is not allowed.	0 to 255 bytes	Δ
78	Respondent's name (English)	Any characters other than control characters (0x00 to 0x1F, and 0x7F).Using only space characters is not allowed.	0 to 255 bytes	Δ
79	Extended text 1	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 4,096 bytes	Δ
80	Extended text 2	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 4,096 bytes	Δ
81	Extended text 3	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 4,096 bytes	Δ
82	Extended text 4	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 4,096 bytes	Δ
83	Extended text 5	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 4,096 bytes	Δ
84	Extended text 6	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 2,048 bytes	Δ
85	Extended text 7	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 2,048 bytes	Δ
86	Extended text 8	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 2,048 bytes	Δ
87	Extended text 9	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 2,048 bytes	Δ
88	Extended text 10	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 2,048 bytes	Δ
89	Extended text 11	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 2,048 bytes	Δ

Specification order	Element name	Specifiable characters	Specifiable number of bytes[#1]	Specify or not
90	Extended text 12	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 2,048 bytes	Δ
91	Extended text 13	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 2,048 bytes	Δ
92	Extended text 14	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 2,048 bytes	Δ
93	Extended text 15	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 2,048 bytes	Δ
94	Extended text 16	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 512 bytes	Δ
95	Extended text 17	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 512 bytes	Δ
96	Extended text 18	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 512 bytes	Δ
97	Extended text 19	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 512 bytes	Δ
98	Extended text 20	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 512 bytes	Δ
99	Extended time data 1	A string in $YYYY/MM/DD\ hh:mm:ss$ format[#7] or a null character	--	Δ
100	Extended time data 2	A string in $YYYY/MM/DD\ hh:mm:ss$ format[#7] or a null character	--	Δ
101	Extended time data 3	A string in $YYYY/MM/DD\ hh:mm:ss$ format[#7] or a null character	--	Δ
102	Extended time data 4	A string in $YYYY/MM/DD\ hh:mm:ss$ format[#7] or a null character	--	Δ
103	Extended time data 5	A string in $YYYY/MM/DD\ hh:mm:ss$ format[#7] or a null character	--	Δ
104	Extended code data 1	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
105	Extended code data 2	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
106	Extended code data 3	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
107	Extended code data 4	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
108	Extended code data 5	Any characters other than control characters (0x00 to 0x1F, and 0x7F)	0 to 255 bytes	Δ
109	Extended numeric value data 1	An integer from 0 to 2147483647, or a null character	--	Δ
110	Extended numeric value data 2	An integer from 0 to 2147483647, or a null character	--	Δ

Specification order	Element name	Specifiable characters	Specifiable number of bytes[#1]	Specify or not
111	Extended numeric value data 3	An integer from 0 to 2147483647, or a null character	--	△
112	Extended numeric value data 4	An integer from 0 to 2147483647, or a null character	--	△
113	Extended numeric value data 5	An integer from 0 to 2147483647, or a null character	--	△
114	Type of extended user information 1[#8, #9]	Either USER or ROLE, or a null character	--	△
115	Extended user information 1[#9, #10]	Half-width alphanumeric characters	0 to 64 bytes	△
116	Extended user name 1[#8, #9]	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Using only space characters is not allowed.	0 to 255 bytes	△
117	Type of extended user information 2[#8, #9]	Either USER or ROLE, or a null character	--	△
118	Extended user information 2[#9, #10]	Half-width alphanumeric characters	0 to 64 bytes	△
119	Extended user name 2[#8, #9]	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Using only space characters is not allowed.	0 to 255 bytes	△
120	Type of extended user information 3[#8, #9]	Either USER or ROLE, or a null character	--	△
121	Extended user information 3[#9, #10]	Half-width alphanumeric characters	0 to 64 bytes	△
122	Extended user name 3[#8, #9]	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Using only space characters is not allowed.	0 to 255 bytes	△
123	Type of extended user information 4[#8, #9]	Either USER or ROLE, or a null character	--	△
124	Extended user information 4[#9, #10]	Half-width alphanumeric characters	0 to 64 bytes	△
125	Extended user name 4[#8, #9]	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Using only space characters is not allowed.	0 to 255 bytes	△
126	Type of extended user information 5[#8, #9]	Either USER or ROLE, or a null character	--	△
127	Extended user information 5[#9, #10]	Half-width alphanumeric characters	0 to 64 bytes	△

Specification order	Element name	Specifiable characters	Specifiable number of bytes[#1]	Specify or not
128	Extended user name 5[#8, #9]	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Using only space characters is not allowed.	0 to 255 bytes	Δ
129	Editor ID	Half-width alphanumeric characters	0 to 64 bytes	Δ
130	Editor's name	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Using only space characters is not allowed.	1 to 255 bytes	Y
131	Editor's name (English)	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Using only space characters is not allowed.	0 to 255 bytes	Δ
132	Registration date and time[#3]	A string in $YYYY/MM/DD\ hh:mm:ss$ format,[#7] or a null character	--	Δ
133	Update date and time	A string in $YYYY/MM/DD\ hh:mm:ss$ format,[#7] or a null character. This information must have the latest date and time among Items with the same process work board serial number when they are sorted in ascending *Version number* order.	--	Δ
134	Message ID	Any characters other than control characters (0x00 to 0x1F, and 0x7F). Using only space characters is not allowed.	0 to 255 bytes	Δ
135	Related information ID	0 to 160 integer ID numbers from 100 to 2147483647, separated by vertical bars (	). A maximum of 20 IDs can be specified for each *Related information type*. Do not repeat *Related information IDs* within the same record. *Details* must exist in the related information CSV file.	--	Δ
136	Attached file ID[#11]	0 to 5 integer IDs from 1 to 2147483647, separated by vertical bars (	). If an ID has less than 10 digits, add sufficient zeros (0) at the beginning to make it a 10-digit number. Use the same *Attached file ID* as the file name of the applicable attached file(s). Do not repeat *Attached file IDs* within the same record. In addition, arrange the IDs separated by vertical bars (	) in the same order as the applicable *Attached file IDs*.	--	Δ
137	Attached file(s)[#11]	0 to five attached file names separated by vertical bars (	). Use any characters other than control characters (0x00 to 0x1F, and 0x7F). In addition, arrange the file names separated by vertical bars (	) in the same order as the applicable *Attached file IDs*. Within the Items that have the same process work board ID, do not use a different *Attached file name* if the applicable *Attached file ID* is the same.	--	Δ

Legend:

--: Because the value you can specify is already determined, the value itself is the specifiable number of bytes.

Y: Elements you need to specify

∆ : Specify this element if necessary

#1

UTF-8 converted value. When the specified string contains full-width characters, they are converted to three or four bytes.

#2

Before applying the contents of the Item information CSV file to JP1/IM - Service Support, you must register this information in the Item management database. For **Escalation destination system ID**, you must specify the ID of the system to which the process work board that has the value you specified for **Escalation destination process work board ID** belongs.

#3

For some elements, you must always specify the same value within an individual file. The following table lists the elements for which you must specify the same value.

No.	Element name	Description
1	System ID	Specify the same value within the file.
2	System name	
3	Process name	
4	Process work board ID	
5	Related item serial number	For the identical process work board serial numbers within the file, specify the same values.
6	Item form ID	For the identical Items# within the file, specify the same Item form for all versions.
7	Version number of Item form	
8	Registrant ID	For the identical Items within the file, specify the same value.
9	Registrant's name	
10	Registrant's name (English)	
11	Registration date and time	

\#

The identical Item means the Items that have the same values for the following elements:

- Related item serial number

- Escalation number

- Process work board ID

- Process work board serial numbers

#4

Process work board serial numbers and the related item serial number are changed to new numbers. The new serial numbers can be checked in the open log. Because of this, save the open log before it is overwritten.

#5

You cannot change elements for the escalation source and those for the escalation destination at the same time. In addition, when you specify the process work board ID for the escalation destination or for the escalation source, you must do so for the escalation source elements or for the escalation destination elements separately.

#6

The information must be the selection code display name that is used in the applicable Item form.

#7

YYYY indicates the year, *MM* indicates the month, *DD* indicates the day, *hh* indicates the hour, *mm* indicates the minute, and *ss* indicates the second. Specifiable values are from 1970/01/02 00:00:00 to 2107/12/31 23:59:59. For example, if you want to set 10:30:25 on May 10th 2013, it will be 2013/05/10 10:30:25. Note that if you specify a date that does not exist, an error occurs.

#8

Specify this information for each type and for each name separately.

#9

After you set view permission for individual Items, one of **Extended user information type 01** to **05** will be selected as the element that specifies the view permissions for the Items. For the selected extended user information, set the Item view permissions owner. Extended user information consists of the extended user information type, extended user information, and extended user information ID.

For details about how to set up an environment when setting view permissions for individual Items, see *8.12 Setting an environment in which view permissions are set for individual Items*.

#10

If you specify ROLE for each type, you can specify the following system roles for the applicable ID:

- _jp1ITsystem
- _jp1user
- _jp1workmgr

#11

The name of attached file(s) for Item information must be in the *attached-file-ID_attached-file-name* format. In addition, you must specify the same value for the **Attached file ID** of the attached file(s) as the **Attached file ID**. For example, if the name of the attached file is 00001_file1.txt, the **Attached file ID** and the **Attached file** will be as follows:

Attached file ID: 00001

Attached file: file1.txt

When you execute the jssitemexportEx command, if the length of the path for an attached file name is equal to or greater than 255 bytes, the file name is cut at the 255th byte. Such an attached file is registered in the Item management database with the file name specified in the Item information CSV file.

Table 12–19: Item information to be specified in the file for Item information entries (related information CSV file) (for each line)

Specification order	Element name	Specifiable character	Specifiable number of bytes[1]	Specify or not
1	Process work board ID[2]	Half-width alphanumeric characters	1 to 64 bytes	△
2	Process work board serial number	An integer from 1 to 2147483647	--	△
3	Version number	An integer from 1 to 2147483647	--	△
4	Related information ID	An integer from 100 to 2147483647	--	△
5	Item form part ID	Elements that can be registered as related information[3]	--	△

Specification order	Element name	Specifiable character	Specifiable number of bytes[1]	Specify or not
6	Related information type	Specify any one of the following: • Related item(s) • Hardware information • Related information Specify a value corresponding to the Item form elements ID.[3]	--	Δ
7	Related information details	Specify any of the following values if *Related information type* is `Related item(s)`: • `Server name` • `IP address` • `Property number` When *Related information type* is not Related item(s), specify a null character.	--	Δ

8	Related information 1	Differs depending on the value for *Related information type*.
		
		For Related item(s):
		  Half-width alphanumeric characters and a hyphen (–)
		
		For Hardware information:
		  Any characters other than control characters (0x00 to 0x1F, and 0x7F)
		
		For Related information:
		  Any characters other than control characters (0x00 to 0x1F, and 0x7F)
			For Related item(s):
			  1 to 128 bytes
			
			For Hardware information:
			  1 to 255 bytes
			
			For Related information:
			  1 to 255 bytes
				Δ

9	Related information 2	Differs depending on the value for *Related information type*.
		
		For Related item(s):
		  Cannot be specified.
		
		For Hardware information:
		  Any characters other than control characters (0x00 to 0x1F, and 0x7F)
		
		For Related information:
		  Any characters other than control characters (0x00 to 0x1F, and 0x7F)
			For Hardware information:
			  Differs depending on the value specified for *Related information details*.[4]
			
			For Related information:
			  0 to 4,096 bytes
				Δ

Legend:

    --: Because the value you can specify is already determined, the value itself is the specifiable number of bytes.

    Δ : Specify this element if necessary

#1

    UTF-8 converted value. When the string you specify contains full-width characters, they are converted to three or four bytes.

#2

    Before applying the contents of the related information CSV files to JP1/IM - Service Support, you must register this information in the Item management database.

#3

    The following table lists the Item form elements IDs that can be specified as related information.

No.	Item form element name	Item form elements ID	Specifiable type of related information
1	Related information (AIM)	JIMSD_FORM_LINKAIM	Hardware information
2	Related information (Item)	JIMSD_FORM_LINKITEM	Related item(s)
3	Related information (URL)	JIMSD_FORM_LINKURL	Related information
4	Additional element: Link 01	JIMSD_FORM_REFINFO01	The type defined in an Item form. Any of the following values: • Hardware information • Related item(s) • Related information
5	Additional element: Link 02	JIMSD_FORM_REFINFO02	
6	Additional element: Link 03	JIMSD_FORM_REFINFO03	
7	Additional element: Link 04	JIMSD_FORM_REFINFO04	
8	Additional element: Link 05	JIMSD_FORM_REFINFO05	

#4

If you specify *Server name*, *IP address*, or *Property number* for *Related information details*, this information will be 1 to 64 bytes (UTF-8).

In the Item information CSV file and the related information CSV file, each line consists of information for an Item. Enclose elements of Item information in double-quotation marks ("), and separate elements with commas (,). You cannot omit elements. When you do not want to specify an element, use an empty set of double-quotation marks ("") in that element's location. In addition, the specification order of the elements is determined.

The following is an example when *Edit status* of an Item information CSV file is omitted:

"*syste-ID-of-target-system*","*system-name-of-target-system*","*process-name*","*process-work-board-ID*","*process-work-board-serial-number*","*version-number*","*related-item-serial-number*","*escalation-number*","*Item-form-ID*","*version-number-of-Item-form*","*Item-status-ID*","*Item-status-name*","","*data-type*",... (Linefeed)

Note that Item information CSV files and related information CSV files must be sorted in the following order:

- First sort key: Process work board serial number
- Second sort key: Version number

Notes

- Element names might be changed due to customization. For details, see *Item form definition file (Optional)* in *Chapter 12. Definition Files*. If an element name is changed due to customization, the specification order remains the same.

- If you want to use a linefeed character as part of an element value, set the configuration file for CSV as follows before registering the Item information:

  - `hptl_jp1_imss_replace_linefeed_flag`: true
  - `hptl_jp1_imss_replace_linefeed_string`: A string to be converted to a linefeed character

  For details about the configuration file for CSV, see *Configuration file for CSV (hptl_jp1_imss_csv_setting.properties)* in *Chapter 12. Definition Files*.

- The File for extended Item information entries (the Item information CSV file, and the related information CSV file) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932
  - In an English environment: ISO-8859-1

- In a Chinese environment: GB18030

Definition example

Definition example 1

The following is a definition example of an Item information CSV file when you register information for more than one Item:

```
#"JP1/IM-Service Support","#101000","ISO-8859-1","ITEMEXPORT_ITEM"
#"system-ID-of-target-system","system-name-of-target-system",...(Linefeed)
"1","1","1",...(Linefeed)
"2","1","1",...(Linefeed)
#"Closed Item Number : 45"
#"UnClosed Item Number : 5"
  :
```

Definition example 2

The following is a definition example of the related information CSV file when you register related information for more than one Item:

```
#"JP1/IM-Service Support","#101000","ISO-8859-1","ITEMEXPORT_REF"
#"process-work-board-ID","process-work-board-serial-number",...(Linefeed)
"pwb01","1",...(Linefeed)
"pwb01","1",...(Linefeed)
  :
```

Item form definition file (Optional)

Description

This file defines the Item elements of each process. After the definition is applied to JP1/IM - Service Support, the Item elements to be registered are changed to the elements that are defined in this file.

The table below lists the Item form definition files provided by default. See the contents of these files to create a definition file, and then customize it. Save the customized definition file because it can be read by using the `jssformcustomizer` command.

Table 12–20: Item form definition files provided by default

File name	Description
IM-SS-path\itemform\jssincident.xml	Item form definition file for incident management
IM-SS-path\itemform\jssincident.xml.model	Model file of the Item form definition file for incident management
IM-SS-path\itemform\jssproblem.xml	Item form definition file for problem management
IM-SS-path\itemform\jssproblem.xml.model	Model file of the Item form definition file for problem management
IM-SS-path\itemform\jsschange.xml	Item form definition file for change management
IM-SS-path\itemform\jsschange.xml.model	Model file of the Item form definition file for change management
IM-SS-path\itemform\jssrelease.xml	Item form definition file for release management
IM-SS-path\itemform\jssrelease.xml.model	Model file of the Item form definition file for release management
IM-SS-path\itemform\jssdefault.xml[#]	Definition file for the Item search item form
IM-SS-path\itemform\jssdefault.xml.model[#]	Model file of the Definition file for the Item search item form

\#

If you customized Item forms for each process, you must customize the Item search item form. If customized specifications do not match, elements might not be displayed in the Specify item search conditions window, or selection codes in the CSV file output from the List of item search results window might not be converted to display names. For details about the Item search item form, see *Definition file for the Item search item form (Optional)* in *Chapter 12. Definition Files*. For details about the Specify item search conditions window, see the chapter describing the procedure for searching Items in the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*.

Format

```
<!-- XML declaration -->
<?xml version="1.0" encoding="UTF-8" ?>

<!-- Item form definition -->
<form-def xmlns="http://www.hitachi.co.jp/jp1/im-ss/jimss_form-1.0">
 <fid>Item-form-ID</fid>
 <fname value="Item-form-name" />
 <description>comment</description>
<!-- Display position -->
 <display-def>
  <position>
   <row><col fiid="element-ID" /></row>
   <row><col fiid="element-ID" /><col fiid="element-ID" /></row>
```

```
    <row><col fiid="element-ID" /></row>
      :
  </position>
 </display-def>

<!-- Element information -->
 <item-def>
  <item-text fiid="element-ID" search="whether-to-display-information-in-
Specify-Item-search-condisions-window" >
    <label labelname="display-name" />
    <validate required="input-required" />
  </item-text>
      :
  <item-code fiid="element-ID" search="whether-to-display-information-in-
Specify-Item-search-condisions-window" >
    <label labelname="display-name" />
    <options>
     <option value="0"></option>
     <option value="1">selection-code-display-name</option>
     <option value="2">selection-code-display-name</option>
     <option value="3">selection-code-display-name</option>
    </options>
    <validate required="input-required" />
  </item-code>
      :
 </item-def>
</form-def>
```

Text between `<!--` and `-->` is treated as a comment.

File name

Use any file name.

Storage folder

Any folder on the host where the `jssformdef` command is executed

When the definition is applied

The definition takes effect after the contents of the Item form definition file are applied by using the `jssformdef`
command

What is described

Do not change parameters that are not described here.

XML declaration

The following declaration statement must be the first line of the file:

```
<?xml version="1.0" encoding="UTF-8" ?>
```

Item form definition

After you define the following lines (only the `<description>` tag pair can be omitted), define the display position
and the element information respectively. In addition, place `</form-def>` as the last line of the file.

```
<form-def xmlns="http://www.hitachi.co.jp/jp1/im-ss/jimss_form-1.0">
  <fid>Item-form-ID</fid>
  <fname value="Item-form-name" />
  <description>comment</description>
```

The following describes the values that are specified for each tag:

item-form-ID

> The ID you can specify varies according to the process. Specify the following value:
>
> For Item forms for incident management: `JIMSD_FORM_INCIDENT`
>
> For Item forms for problem management: `JIMSD_FORM_PROBLEM`
>
> For Item forms for change management: `JIMSD_FORM_CHANGE`
>
> For Item forms for release management: `JIMSD_FORM_RELEASE`

item-form-name

> Specify the Item form name within 255 bytes. By default, the following value is specified:
>
> For Item forms for incident management: Incident management form
>
> For Item forms for problem management: Problem management form
>
> For Item forms for change management: Change management form
>
> For Item forms for release management: Release management form

comment

> Specify comments for the Item form within 1,024 bytes.

Note that you can check the values you specify for *item-form-ID*, *item-form-name*, and *comment* in the Item form management window and the Item form details window.

Display position

Define the display position of an Item element in a window.

Define elements between the `<position>` tag and the `</position>` tag in the following format:

```
<row><col fiid="element-ID" /></row>
<row><col fiid="element-ID" /><col fiid="element-ID" /></row>
<row><col fiid="element-ID" /></row>
  :
```

A line begins with the `<row>` tag and ends with the `</row>` tag. You can specify one or two `<col>` tags between the `<row>` and `</row>` tags. Specify the element ID of an Item element to be displayed for the `<col>` tag. This definition determines the position of the elements to be displayed in a window. The display order in a window is the same as the description order defined in this definition file.

For details about the element ID, see Table 12-21.

Notes

- Do not remove the following information from the definition of the display position. The text enclosed by a parentheses indicates an Item ID.

  Title (`JIMSD_FORM_TITLE`), Process (`JIMSD_FORM_PROCESS`), System (`JIMSD_FORM_SYSTEM`), Item ID (`JIMSD_FORM_ITEMID`), Inter-process ID (`JIMSD_FORM_PROCESSITEMID`), Priority (`JIMSD_FORM_PRIORITYCODE`), Status (`JIMSD_FORM_ITEMSTATUSID`), Registrant (`JIMSD_FORM_REGISTRANT`), Registration date and time (`JIMSD_FORM_REGISTDATE`), Person in

charge (`JIMSD_FORM_ASSIGNED`), Deadline (`JIMSD_FORM_DEADLINE`), Update date and time (`JIMSD_FORM_LASTUPDATE`)

- The elements that are not defined here will not be displayed in a window even if they are defined in Element information, which is described below.

- If a string specified for the Item form name, comment, display name, and selection code display name contains full-width characters, the full-width characters are converted to three or four bytes.

- For the elements that are specified in the Item form definition file, do not use control characters (0x00 to 0x1F, 0x7F).

Element information

Element attributes are defined. Multiple attributes can be defined between the `<item-def>` and `</item-def>` tags in the format below. Note that only the text enclosed by double quotation marks in the following description can be changed:

Format of text input elements

```
<item-text fiid="element-ID" type="type" search="whether-to-display-in-
Specify-Item-search-conditions-window" >
 <label labelname="display-name" />
 <validate required="input-required" />
</item-text>
```

element-ID

   The ID is fixed for each Item element. See Table 12-21.

type

   You can only specify elements with IDs from `JIMSD_FORM_USERTEXT01` to `JIMSD_FORM_USERTEXT20`. The values for such elements can be changed. (It is not necessary to specify `type="type"` for elements with IDs that do not fall in the above range.) Specify `text` or `textarea`. If you omit this specification, `text` is assumed.

   `text`: Only one line is available for text input.

   `textarea`: Two or more lines are available for text input.

whether-to-display-in-Specify-Item-search-conditions-window

   Specify whether to display elements in the Specify item search conditions window. You can specify either `true` or `false`. If you omit this specification, `true` is assumed.

   `true`: Elements are displayed in the Specify item search conditions window.

   `false`: Elements are not displayed in the Specify item search conditions window.

   When you want to display elements in the Specify item search conditions window, the display name is shown in the drop-down list for specifying a key word.

display-name

   Specify the element name to be displayed in the window within 255 bytes.

input-required

   Specify whether an element must be entered, can be entered, or must be entered when the status is changed to `Close`. Add this element when you want to request input. If this specification is omitted, `none` is assumed.

   `all`: The element must be entered.

   `none`: The element can be entered.

   `close`: The element must be entered if the status is changed to `Close` for registration.

Format of numeric input elements

```
<item-number fiid="element-ID" search="whether-to-display-in-Specify-Item-
search-conditions-window" >
 <label labelname="display-name" />
 <validate required="input-required" />
</item-number>
```

element-ID

> The ID is fixed for each Item element. See Table 12-21.

whether-to-display-in-Specify-Item-search-conditions-window

> Specify whether to display the element in the Specify item search conditions window. You can specify `true` or `false`. If you omit this specification, `true` is assumed.
>
> `true`: Elements are displayed in the Specify item search conditions window.
>
> `false`: Elements are not displayed in the Specify item search conditions window.
>
> When you want to display an element in the Specify item search conditions window, the element is added to Search with this attribute.

display-name

> Specify the element name to be displayed in the window within 255 bytes.

input-required

> Specify whether an element must be entered, can be entered, or must be entered when the status is changed to `Close`. Add this text when you want to request input. If this specification is omitted, `none` is assumed.
>
> `all`: The element must be entered.
>
> `none`: The element can be entered.
>
> `close`: The element must be entered when the status is changed to `Close` for registration.

Format of USER or ROLE specification elements

```
<item-user fiid="element-ID" type="type" search="whether-to-display-in-
Specify-Item-search-conditions-window" >
 <label labelname="display-name" />
 <validate required="input-required" />
</item-user>
```

element-ID

> The ID is fixed for each Item element. See Table 12-21.

type

> You can only specify elements with IDs from `JIMSD_FORM_USEREXTTYPE01` to `JIMSD_FORM_USEREXTTYPE05`. The values for such elements can be changed. (It is not necessary to specify `type="type"` for elements with IDs that do not fall in the above range.) Specify either `user` or `userrole`. If you omit this specification, `user` is assumed.
>
> `user`: By clicking the **View** button next to the value input area, you can call the Select user window.
>
> `userrole`: By clicking the **View** button next to the value input area, you can call the Select user and role window.

whether-to-display-in-Specify-Item-search-conditions-window

> Specify whether to display elements in the Specify item search conditions window. You can specify `true` or `false`. If you omit this specification, `true` is assumed.
>
> `true`: The element is displayed in the Specify item search conditions window.
>
> `false`: The element is not displayed in the Specify item search conditions window.

When you want to display elements in the Specify item search conditions window, the display name is shown in the drop-down list for specifying key word conditions. In addition, an element is added to Search with this attribute.

display-name

Specify the element name to be displayed in the window within 255 bytes.

input-required

Specify whether an element must be entered, can be entered, or must be entered when the status is changed to `Close`. Add this text when you want to request input. If specification is omitted, `none` is assumed.

`all`: The element must be entered.

`none`: The element can be entered.

`close`: The element must be entered when the status is changed to `Close` for registration.

Format for selectable elements

```
<item-code fiid="element-ID" search="whether-to-display-in-Specify-Item-
search-conditions-window" >
 <label labelname="display-name" />
 <options>
  <option value="selection-code">selection-code-display-name</option>
  <option value="selection-code">selection-code-display-name</option>
  <option value="selection-code">selection-code-display-name</option>
     :
 </options>
 <validate required="input-required" />
</item-code>
```

element-ID

The ID is fixed for each Item element. See Table 12-21.

whether-to-display-in-Specify-Item-search-conditions-window

Specify whether to display elements in the Specify item search conditions window. You can specify `true` or `false`. If you omit this specification, `true` is assumed.

`true`: The element is displayed in the Specify item search conditions window.

`false`: The element is not displayed in the Specify item search conditions window.

When you want to display an element in the Specify item search conditions window, the element is added to Search with this attribute.

display-name

Specify the element name to be displayed in a window within 255 bytes.

selection-code

Specify numbers sequentially starting from 0.

In a window, selection codes are displayed in the drop-down list in the order they were specified.

Remarks: A maximum of 30 `<option>` tags can be specified. `<option value="0"></option>` can also be specified as `<option value="0" />`.

selection-code-display-name

Specify selection codes that are displayed in a window within 255 bytes. If you do not specify them (leave them blank), they are displayed as blank spaces in the window.

In the window, the selection code with `0` specified is displayed by default.

input-required

> Specify whether an element must be entered, can be entered, or must be entered when the status is changed to `Close`. Add this text when you want to request input. If specification is omitted, `none` is assumed.
>
> `all`: The element must be entered.
>
> `none`: The element can be entered.
>
> `close`: The element must be entered when the status is changed to `Close` for registration.

Format of date and time specification elements

```
<item-datetime fiid="element-ID" search="whether-to-display-in-Specify-
Item-search-conditions-window" >
 <label labelname="display-name" />
 <validate required="input-required" />
</item-datetime>
```

element-ID

> The ID is fixed for each Item element. See Table 12-21.

whether-to-display-in-Specify-Item-search-conditions-window

> Specify whether to display elements in the Specify item search conditions window. You can specify `true` or `false`. If you omit this specification, `true` is assumed.
>
> `true`: The element is displayed in the Specify item search conditions window.
>
> `false`: The element is not displayed in the Specify item search conditions window.
>
> When you want to display an element in the Specify item search conditions window, the element is added to Search with this attribute.

display-name

> Specify the element name to be displayed in the window within 255 bytes.

input-required

> Specify whether an element must be entered, can be entered, or must be entered when the status is changed to `Close`. Add this text when you want to request input. If specification is omitted, `none` is assumed.
>
> `all`: The element must be entered.
>
> `none`: The element can be entered.
>
> `close`: The element must be entered if the status is changed to `Close` for registration.

Format of link specification elements

```
<item-link fiid="element-ID" type="type" search="whether-to-display-in-
Specify-Item-search-conditions-window" >
 <label labelname="display-name" />
 <validate required="input-required" />
</item-link>
```

element-ID

> The ID is fixed for each Item element. See Table 12-21.

type

> You can only specify elements with IDs from `JIMSD_FORM_REFINFO01` to `JIMSD_FORM_REFINFO05`. The values for such elements can be changed. (It is not necessary to specify `type="type"` for elements of IDs that do not fall in the above range.) Specify `aim`, `item`, or `url`. If you omit this specification, `url` is assumed.
>
> `aim`: Specify this value if you want to link the element with management information of JP1/AIM.
>
> `item`: Specify this value if you want to link the element with another Item.

`url`: Specify this value if you want to link the element with a URL.

whether-to-display-in-Specify-Item-search-conditions-window

Specify whether to display elements in the Specify item search conditions window. You can specify `true` or `false`. If you omit this specification, `true` is assumed.

`true`: The element is displayed in the Specify item search conditions window.

`false`: The element is not displayed in the Specify item search conditions window.

To display en element in the Specify item search conditions window, display names are displayed in the drop-down list for specifying keyword conditions. In addition, an element is added to Search with this attribute.

display-name

Specify the element name to be displayed in the window within 255 bytes.

input-required

Specify whether an element must be entered, can be entered, or must be entered when the status is changed to `Close`. Add this text when you want to request input. If specification is omitted, `none` is assumed.

`all`: The element must be entered.

`none`: The element can be entered.

`close`: The element must be entered if the status is changed to `Close` for registration.

Format of attached file elements

```
<item-attached fiid="JIMSD_FORM_ATTACHED" search="whether-to-display-in-
Specify-Item-search-conditions-window" >
 <label labelname="Attached file(s)" />
</item-attached>
```

whether-to-display-in-Specify-Item-search-conditions-window

Specify whether to display elements in the Specify item search conditions window. You can specify `true` or `false`. If you omit this specification, `true` is assumed.

`true`: The element is displayed in the Specify item search conditions window.

`false`: The element is not displayed in the Specify item search conditions window.

When you want to display elements in the Specify item search conditions window, the display name is shown in the drop-down list for specifying a key word.

Format of status elements

```
<item-status fiid="JIMSD_FORM_ITEMSTATUSID" search="whether-to-display-in-
Specify-Item-search-conditions-window" >
 <label labelname="Status" />
</item-status>
```

whether-to-display-in-Specify-Item-search-conditions-window

Specify whether to display elements in the Specify item search conditions window. You can specify `true` or `false`. If you omit this specification, `true` is assumed.

`true`: The element is displayed in the Specify item search conditions window.

`false`: The element is not displayed in the Specify item search conditions window.

When you want to display an element in the Specify item search conditions window, the element is added to Search with this attribute.

Definition status in the Item form definition file

The Item form definition file which is provided by default defines elements that are commonly necessary for each process so that it is not necessary for users to create a definition file from scratch. The table below lists the definition status in each Item form definition file. Refer to the table when you customize the Item form definition file.

Table 12–21: Definition status of each Item form definition file

Display name (element-ID)	Input format in a window (maximum value)	Type	Definition status				What you can customize[#1]	What is affected
			I	P	C	R		
Title (`JIMSD_FORM _TITLE`)	Text (512 bytes)	text	Y	Y	Y	Y	• Change the display position. • Whether to display in the Specify item search conditions window	None
System (`JIMSD_FORM _SYSTEM`)	Generated automatically	text	Y	Y	Y	Y	• Change the display position.	None
Process (`JIMSD_FORM _PROCESS`)	Generated automatically	text	Y	Y	Y	Y	• Change the display position.	None
Item ID (`JIMSD_FORM _ITEMID`)	Generated automatically	text	Y	Y	Y	Y	• Change the display position. • Whether to display in the Specify item search conditions window	None
Inter-process ID (`JIMSD_FORM _PROCESSSITE MID`)	Generated automatically	text	Y	Y	Y	Y	• Change the display position. • Whether to display in the Specify item search conditions window	None
Severity (`JIMSD_FORM _SEVERITYCO DE`)	Select from the following: Emergency, Alert, Critical, Error, Warning, Notice, Information, and Debug	code	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Display order of selection codes • Changing selection codes	• For details about automatic Item element input, see *5.4.3 Using automatic input of Item settings*. • For details about registering Items from JP1/IM - View, see *4.2.1 Registering Items from JP1/IM - View*.
Reason for severity (`JIMSD_FORM _SEVERITYRE ASON`)	Text (512 bytes)	text	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Impact level (`JIMSD_FORM _IMPACTCODE`)	Select from the following: Small, Middle, Large	code	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element.	• For details about automatic Item element input, see

Display name (element-ID)	Input format in a window (maximum value)	Type	Definition status				What you can customize[#1]	What is affected
			I	P	C	R		
Impact level (JIMSD_FORM_IMPACTCODE)	Select from the following: Small, Middle, Large	code	Y	Y	Y	Y	• Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Display order of selection codes • Change selection codes	*5.4.3 Using automatic input of Item settings.*
Reason for impact level (JIMSD_FORM_IMPACTREASON)	Text (512 bytes)	text	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Priority (JIMSD_FORM_PRIORITYCODE)	Select from the following: Standard, Urgent, Very urgent	code	Y	Y	Y	Y	• Change the display position. • Whether to display in the Specify item search conditions window • Required or optional setting	None
Reason for priority (JIMSD_FORM_PRIORITYREASON)	Text (512 bytes)	text	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Item type (JIMSD_FORM_ITEMCATEGORYCODE)	Select from the following: Inquiry, Failure, Customer request	code	Y	Y	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Display order of selection codes • Change selection codes	None
Problem domain (JIMSD_FORM_ISSUECATEGORYCODE)	Select from the following: Application, Middleware, OS, Hardware, Network, and Process	code	Y	Y	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Display order of selection codes • Change selection codes	The following items when the Item accumulation data is output to a file: • Item data CSV file • Reports that was created by using sample macro For details, see *3.16.3(1) Information output to a CSV file*, and

Display name (element-ID)	Input format in a window (maximum value)	Type	Definition status				What you can customize[#1]	What is affected
			I	P	C	R		
Problem domain (`JIMSD_FORM _ISSUECATEG ORYCODE`)	Select from the following: Application, Middleware, OS, Hardware, Network, and Process	code	Y	Y	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Display order of selection codes • Change selection codes	*3.16.3(2) Downloading a macro file*.
Scale of change (`JIMSD_FORM _CHANGESCAL ECODE`)	Select from the following: Small scale, Middle scale, and Large scale	code	--	--	Y	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Display order of selection codes • Change selection codes	None
Release type (`JIMSD_FORM _RELEASETYP ECODE`)	Select from the following: Package release, Full release, and Delta release	code	--	--	--	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Display order of selection codes • Change selection codes	None

Status (`JIMSD_FORM _ITEMSTATUS ID`)	Select from the following:
	For incident management
	    Received, Investigating, Support Requested, Discussing, Acknowledged, and Close
	For problem management
	    Received, Investigating, Discussing, Acknowledged, Support Requested, and Close
	For change management
	    Received, Planning, Discussing, Acknowledged, Support Requested, Reviewing, and Close
		status	Y	Y	Y	Y	• Change the display position.[#3]
							• Whether to display in the Specify item search conditions window
								None

Display name (element-ID)	Input format in a window (maximum value)	Type	Definition status				What you can customize[#1]	What is affected
			I	P	C	R		
Status (`JIMSD_FORM_ITEMSTATUS ID`)	For release management Received, Planning, Discussing, Acknowledged, Support Requested, and Close	status	Y	Y	Y	Y	• Change the display position.[#3] • Whether to display in the Specify item search conditions window	None
Result (`JIMSD_FORM_RESULTCODE`)	Select from the following: For incident management Completed, Canceled, and Not confirmed For problem management Change completed, Known problem, and Unknown cause For change management, and release management Succeeded, Failed (planning error), Failed (human error), and Failed (others)	code	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Display order of selection codes • Change selection codes	The following items when the Item accumulation data is output to a file: • Item data CSV file • Reports that was created by using sample macro For details, see *3.16.3(1) Information output to a CSV file*, and *3.16.3(2) Downloading a macro file*.
Occurrence date and time (`JIMSD_FORM_ACCRUALDATE`)	Date, and time	datetime	Y	--	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	• Automatic Item element input For details, see *5.4.3 Using automatic input of Item settings*.
Occurred type[#2] (`JIMSD_FORM_PHENOMENON CODE`)	No option is defined. Basically, customized by users	code	--	--	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Display order of selection codes • Changing selection codes	None
Solution category (`JIMSD_FORM_SOLUTIONCO DE`)	Select from the following: Knowledge, Document, User solution, Secondary support, Problem management, and Third-party investigation	code	Y	Y	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Display order of selection codes • Change selection codes	The following items when the Item accumulation data is output to a file: • Item data CSV file • Reports that was created by using sample macro For details, see *3.16.3(1) Information output to a CSV file*, and *3.16.3(2) Downloading a macro file*.

Display name (element-ID)	Input format in a window (maximum value)	Type	Definition status				What you can customize[1]	What is affected
			I	P	C	R		
Registrant (JIMSD_FORM _REGISTRANT)	Generated automatically	user	Y	Y	Y	Y	• Change the display position. • Whether to display in the Specify item search conditions window	None
Registration date and time (JIMSD_FORM _REGISTDATE)	Generated automatically	datet ime	Y	Y	Y	Y	• Change the display position. • Whether to display in the Specify item search conditions window	None
Person in charge (JIMSD_FORM _ASSIGNED)	Specification of a user or a role by selection	user role	Y	Y	Y	Y	• Change the display position. • Whether to display in the Specify item search conditions window	None
Deadline (JIMSD_FORM _DEADLINE)	Date, and time	datet ime	Y	Y	Y	Y	• Change the display position. • Whether to display in the Specify item search conditions window • Required or optional setting	None
Respondent[2] (JIMSD_FORM _RESPONDENT)	Specification of a user or a role by selection	user role	--	--	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Start date and time (JIMSD_FORM _STARTDATE)	Date, and time	datet ime	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	• Automatic Item element input For details, see *5.4.3 Using automatic input of Item settings*.
End date and time (JIMSD_FORM _COMPDATE)	Date, and time	datet ime	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Customer name (JIMSD_FORM _CUSTOMERNA ME)	Text (1,024 bytes)	text	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None

Display name (element-ID)	Input format in a window (maximum value)	Type	Definition status				What you can customize[1]	What is affected
			I	P	C	R		
Inquirer (JIMSD_FORM _INQUIRYNAM E)	Text (255 bytes)	text	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Cost (planned) (JIMSD_FORM _ESTIMATEDC OST)	An integer from 0 to 2147483647	num ber	--	--	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Cost (actual) (JIMSD_FORM _ACTUALCOST)	An integer from 0 to 2147483647	num ber	--	--	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	The following items when the Item accumulation data is output to a file: • Item data CSV file • Reports that was created by using sample macro For details, see *3.16.3(1) Information output to a CSV file*, *3.16.3(2) Downloading a macro file*.
Impact service[2] (JIMSD_FORM _EFFECTSERV ICE)	Text (255 bytes)	texta rea	--	--	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Hardware information (JIMSD_FORM _LINKAIM)	Setting for referencing JP1/AIM	aim	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	• Linkage with JP1/ AIM. For details, see *4.3 Linkage with JP1/ AIM.*
Problem component and version (JIMSD_FORM _FAILURELOC ATION)	Text (1,024 bytes)	texta rea	--	--	Y	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name.[1]	None

Display name (element-ID)	Input format in a window (maximum value)	Type	Definition status				What you can customize[1]	What is affected
			I	P	C	R		
Problem component and version (`JIMSD_FORM_FAILURELOCATION`)	Text (1,024 bytes)	textarea	--	--	Y	--	• Required or optional setting	None
Related item(s) (`JIMSD_FORM_LINKITEM`)	Setting for referencing related item(s)	item	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Related information (`JIMSD_FORM_LINKURL`)	Setting for referencing an URL	url	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	• Linkage with WWW applications For details, see *4.5.3 Linkage with Web applications*.
Overview (`JIMSD_FORM_SUMMARY`)	Text (2,048 bytes)	textarea	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	• Registering Items from JP1/IM - View For details, see *4.2.1 Registering Items from JP1/IM - View*.
Workaround type (`JIMSD_FORM_AVOIDANCECODE`)	Select from the following: None, Not operated, Operated in degraded mode, Restarted, File recovered, Change rolled back, and Others	code	Y	Y	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Display order of selection codes • Change selection codes	None
Workaround (`JIMSD_FORM_AVOIDANCE`)	Text (4,096 bytes)	textarea	Y	Y	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Work status	Text (4,096 bytes)	textarea	Y	Y	Y	Y	• Change the display position.	• Item's work status display

Display name (element-ID)	Input format in a window (maximum value)	Type	Definition status				What you can customize[1]	What is affected
			I	P	C	R		
(JIMSD_FORM_SITUATION)	Text (4,096 bytes)	textarea	Y	Y	Y	Y	• Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	For details, see *3.3.3 Displaying the work status of an Item*.
How to avoid the problem in the future[2] (JIMSD_FORM_MEASURES)	Text (4,096 bytes)	textarea	--	--	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Cause (JIMSD_FORM_CAUSECODE)	Select from the following: For incident management, and problem management New software error, Known software error, New hardware error, Known hardware error, Documentation error, Document missing, User error, Specifications, Third-party error, and Process error For change management, and release management Customer request, Function extension, Business requirement, Incident and problem fix, and Process improvement	code	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Display order of selection codes • Changing selection codes	The following items when the Item accumulation data is output to a file: • Item data CSV file • Reports that was created by using sample macro For details, see *3.16.3(1) Information output to a CSV file*, and *3.16.3(2) Downloading a macro file*.
Fundamental cause (JIMSD_FORM_ROOTCAUSE)	Text (4,096 bytes)	textarea	Y	Y	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Solution (JIMSD_FORM_SOLUTION)	Text (4,096 bytes)	textarea	Y	Y	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None

Display name (element-ID)	Input format in a window (maximum value)	Type	Definition status				What you can customize[1]	What is affected
			I	P	C	R		
Schedule and main steps (JIMSD_FORM_SCHEDULE)	Text (4,096 bytes)	textarea	--	--	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Impact assessment for change (JIMSD_FORM_IMPACTEVAL)	Text (4,096 bytes)	textarea	--	--	Y	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Discussions result (JIMSD_FORM_DELIBERATIONRST)	Text (2,048 bytes)	textarea	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Free memo column (JIMSD_FORM_FREEDESCRIPTION)	Text (4,096 bytes)	textarea	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Product name (JIMSD_FORM_JP1PRODUCTNAME)	Text (1,024 bytes)	text	Y	Y	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	• Linking with JP1 products. For details, see *4.1.2 Event-driven linkage with JP1 products using automated actions*. • For details about registering Items from JP1/IM - View, see *4.2.1 Registering Items from JP1/IM - View*.
Jobnet name (JIMSD_FORM_JP1JOBNETNAME)	Text (1,024 bytes)	text	Y	Y	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window	• Event linkage with JP1 products For details, see *4.1.2 Event-driven linkage with JP1 products using automated actions*.

12. Definition Files

Display name (element-ID)	Input format in a window (maximum value)	Type	Definition status				What you can customize[1]	What is affected
			I	P	C	R		
Jobnet name (JIMSD_FORM_JP1JOBNETNAME)	Text (1,024 bytes)	text	Y	Y	--	--	• Change the display name. • Required or optional setting	• Event linkage with JP1 products For details, see *4.1.2 Event-driven linkage with JP1 products using automated actions*.
Job name (JIMSD_FORM_JP1JOBNAME)	Text (1,024 bytes)	text	Y	Y	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	• Linking with JP1 products. For details, see *4.1.2 Event-driven linkage with JP1 products using automated actions*.
SNMP source (JIMSD_FORM_JP1SNMPSRC)	Text (1,024 bytes)	text	Y	Y	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	• Linking with JP1 products. For details, see *4.1.2 Event-driven linkage with JP1 products using automated actions*.
Monitored node name (JIMSD_FORM_JP1NODENAME)	Text (255 bytes)	text	Y	Y	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	• Linking with JP1 products. For details, see *4.1.2 Event-driven linkage with JP1 products using automated actions*.
Alarm name (JIMSD_FORM_JP1ALARMNAME)	Text (255 bytes)	text	Y	Y	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	• Linking with JP1 products. For details, see *4.1.2 Event-driven linkage with JP1 products using automated actions*.
Attached file(s) (JIMSD_FORM_ATTACHED)	File (A maximum of five files, a maximum of five megabytes for a file)	attached	Y	Y	Y	Y	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name.	None
Update date and time (JIMSD_FORM_LASTUPDATE)	Generated automatically	datetime	Y	Y	Y	Y	• Change the display position. • Whether to display in the Specify item search conditions window	None

Display name (element-ID)	Input format in a window (maximum value)	Type	Definition status				What you can customize[1]	What is affected
			I	P	C	R		
Serial number[2] (JIMSD_FORM _IMEVENTNO)	Text (64 bytes)	text	--	--	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	• Linking with JP1 products. For details, see *4.1.2 Event-driven linkage with JP1 products using automated actions*. • For details about registering Items from JP1/IM - View, see *4.2.1 Registering Items from JP1/IM - View*.
JP1/IM-M host name[2] (JIMSD_FORM _IMHOSTNAME)	Text (1,024 bytes)	text	--	--	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	• Linking with JP1 products. For details, see *4.1.2 Event-driven linkage with JP1 products using automated actions*. • For details about registering Items from JP1/IM - View, see *4.2.1 Registering Items from JP1/IM - View*.
Added item: text[2] (JIMSD_FORM _USERTEXT01 to JIMSD_FORM_ USERTEXT05)	Text (4,096 bytes)	text texta rea	--	--	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Changing the type	None
Added item: text[2] (JIMSD_FORM _USERTEXT06 to JIMSD_FORM_ USERTEXT15)	Text (2,048 bytes)	text texta rea	--	--	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Change the type	None
Added item: text[2] (JIMSD_FORM _USERTEXT16 to JIMSD_FORM_ USERTEXT20)	Text (512 bytes)	text texta rea	--	--	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None

Display name (element-ID)	Input format in a window (maximum value)	Type	Definition status				What you can customize[1]	What is affected
			I	P	C	R		
Added item: text[2] (JIMSD_FORM _USERTEXT16 to JIMSD_FORM_ USERTEXT20)	Text (512 bytes)	textarea	--	--	--	--	• Change the type	None
Added item: numerical[2] (JIMSD_FORM _USERINT01 to JIMSD_FORM_ USERINT05)	An integer from 0 to 2147483647	number	--	--	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Added item: user[2] (JIMSD_FORM _USEREXTTYP E01 to JIMSD_FORM_ USEREXTTYPE 05)	Specification of a user or a role by selection	user user role	--	--	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Changing the type	None
Added item: code[2] (JIMSD_FORM _USERCODE01 to JIMSD_FORM_ USERCODE05)	Options are not defined. User customization is a prerequisite.	code	--	--	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting • Display order of selection codes • Changing selection codes	None
Added item: date and time[2] (JIMSD_FORM _USERTIME01 to JIMSD_FORM_ USERTIME05)	Date, and time	datetime	--	--	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None
Additional element: Link[2] (JIMSD_FORM _REFINFO01 to JIMSD_FORM_ REFINFO05)	Setting for referencing a URL	aim item url	--	--	--	--	• Change the display position. • Set to display or hide the applicable element. • Whether to display in the Specify item search conditions window • Change the display name. • Required or optional setting	None

Display name (element-ID)	Input format in a window (maximum value)	Type	Definition status				What you can customize[#1]	What is affected
			I	P	C	R		
Additional element: Link[#2] (`JIMSD_FORM _REFINFO01` to `JIMSD_FORM_ REFINFO05`)	Setting for referencing a URL	url	--	--	--	--	• Change the type	None

Legend:

    I: Item form definition file for incident management

    P: Item form definition file for problem management

    C: Item form definition file for change management

    R: Item form definition file for release management

    Y: Element that is set to be displayed by default

    --: Element that is set to be hidden (not defined) by default

#1

    Define how to change the display position, and whether to display or hide the element in the Display position area described in the What is described section. Define other elements in the Element information area described in the What is described section.

#2

    An element which is supposed to be created by users.

#3

    For details about other customization, see *3.15 Status management*.

Notes

• Use the same selection codes across processes. If they are not consistent, they might be converted to unintended selection codes when they are escalated, or they might not be inherited. For example, if you additionally define `<option value="4">Information</option>` for Item type in an incident management process, and `<option value="4">Reference Information</option>` in the problem management process, `Information` is converted to `Reference Information` when the incident management process is inherited to a problem management process. Also, if they are not defined additionally, `Information` is not inherited.

• When you customize an Item form for a process or an Item search item form, do not change the current selection code names. If you change selection code names after you start operation, search results in the List of item search results window or selection codes in the CSV file output from the List of item search results window might not be displayed correctly.

• If you delete selection codes from the Item form for a process, do not delete them from the Item search item form. If you delete selection codes from the Item search item form, you will no longer be able to search for Items that use deleted selection codes.

• When you delete an Item element, create an Item form definition file without the display position definition of the element you want to delete, and then apply the definition to JP1/IM - Service Support. Although you do not need to delete the information of the element you want to delete, we recommend you delete such information so that the Item form definition file will be easier to be understood.

• You can use selection codes for searching selectable Item elements.

• The Item form definition file (`jssincident.xml`, `jssproblem.xml`, `jsschange.xml`, `jssrelease.xml`, and `jssdefault.xml`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

    • In a Japanese environment: UTF-8

- In an English environment: UTF-8
- In a Chinese environment: UTF-8

Definition examples

Definition example 1

The following is a definition example when the SNMP source, monitored node name, and alarm name are deleted from the Item form definition file for incident management, which is provided by default. Note that the following example shows only the part related to changing the display position:

```
<display-def>
 <position>
  <row><col fiid="JIMSD_FORM_TITLE" /></row>
  <row><col fiid="JIMSD_FORM_ITEMID" /><col
fiid="JIMSD_FORM_LASTUPDATE" /></row>
  <row><col fiid="JIMSD_FORM_SYSTEM" /><col fiid="JIMSD_FORM_PROCESS" /></
row>
  <row><col fiid="JIMSD_FORM_ACCRUALDATE" /><col
fiid="JIMSD_FORM_DEADLINE" /></row>
  <row><col fiid="JIMSD_FORM_ASSIGNED" /><col
fiid="JIMSD_FORM_ITEMSTATUSID" /></row>
  <row><col fiid="JIMSD_FORM_CUSTOMERNAME" /><col
fiid="JIMSD_FORM_INQUIRYNAME" /></row>
  <row><col fiid="JIMSD_FORM_ITEMCATEGORYCODE" /><col
fiid="JIMSD_FORM_PROCESSITEMID" /></row>
  <row><col fiid="JIMSD_FORM_SUMMARY" /></row>
  <row><col fiid="JIMSD_FORM_REGISTDATE" /><col
fiid="JIMSD_FORM_REGISTRANT" /></row>
  <row><col fiid="JIMSD_FORM_STARTDATE" /><col
fiid="JIMSD_FORM_COMPDATE" /></row>
  <row><col fiid="JIMSD_FORM_SEVERITYCODE" /><col
fiid="JIMSD_FORM_SEVERITYREASON" /></row>
  <row><col fiid="JIMSD_FORM_IMPACTCODE" /><col
fiid="JIMSD_FORM_IMPACTREASON" /></row>
  <row><col fiid="JIMSD_FORM_PRIORITYCODE" /><col
fiid="JIMSD_FORM_PRIORITYREASON" /></row>
  <row><col fiid="JIMSD_FORM_SITUATION" /></row>
  <row><col fiid="JIMSD_FORM_LINKAIM" /></row>
  <row><col fiid="JIMSD_FORM_LINKITEM" /></row>
  <row><col fiid="JIMSD_FORM_LINKURL" /></row>
  <row><col fiid="JIMSD_FORM_JP1PRODUCTNAME" /></row>
  <row><col fiid="JIMSD_FORM_JP1JOBNETNAME" /></row>
  <row><col fiid="JIMSD_FORM_JP1JOBNAME" /></row>
  <row><col fiid="JIMSD_FORM_RESULTCODE" /></row>
  <row><col fiid="JIMSD_FORM_AVOIDANCECODE" /></row>
  <row><col fiid="JIMSD_FORM_AVOIDANCE" /></row>
  <row><col fiid="JIMSD_FORM_CAUSECODE" /></row>
  <row><col fiid="JIMSD_FORM_ROOTCAUSE" /></row>
  <row><col fiid="JIMSD_FORM_SOLUTIONCODE" /></row>
  <row><col fiid="JIMSD_FORM_SOLUTION" /></row>
  <row><col fiid="JIMSD_FORM_DELIBERATIONRST" /></row>
  <row><col fiid="JIMSD_FORM_FREEDESCRIPTION" /></row>
  <row><col fiid="JIMSD_FORM_ATTACHED" /></row>
 </position>
</display-def>
```

Definition example 2

The following is a definition example when display order 4, the Information selection code is added as the Item type Item element in the Item form definition file. Note that the following example shows only the part related to the Item type Item element:

```
<item-code fiid="JIMSD_FORM_ITEMCATEGORYCODE" search="true">
 <label labelname="Item type" />
 <options>
  <option value="0"></option>
  <option value="1">Inquiry</option>
  <option value="2">Failure</option>
  <option value="3">Customer request</option>
  <option value="4">Information</option>
 </options>
</item-code>
```

Definition example 3

The following is a definition example when the Memorandum Item element for text input (4,096 bytes) is added into the Item form definition file. Note that the following example shows only the part related to the Memorandum Item element:

```
<!-- Display position -->
 <row><col fiid="JIMSD_FORM_USERTEXT01" /></row>

<!-- Element information -->
<item-text fiid="JIMSD_FORM_USERTEXT01" search="true" type="textarea" >
 <label labelname="Memorandum" />
</item-text>
```

Configuration file for expanding an Item storage database (jssitemstoredbexpandinfo.bat)

Description

This file defines information necessary to expand the size of the Item storage database. This definition file is used when JP1/IM - Service Support Advanced Edition is used.

Format

```
@set ADD_AREA=storage-area-of-the-Item-storage-database-to-be-expanded
@set ADD_AREA_CATEGORY=category-of-the-Item-information
@set ADD_AREA_DIRECTORY=name-of-the-folder-to-store-the-Item-storage-
database-to-be-expanded-to
```

File names

- `jssitemstoredbexpandinfo.bat` (Configuration file for expanding an Item storage database)

- `jssitemstoredbexpandinfo.bat.model` (Model configuration file for expanding an Item storage database)[#]

    #

    Use the model file when you want to reset the contents of the configuration file for expanding an Item storage database. Note that you can change the name of the configuration file for expanding an Item storage database to any name except for its extension (`.bat`).

Storage folder

IM-SS-path`\conf\setup\`

When the definition is applied

When you execute the `jssitemstoredbexpand.bat` command, the definition is applied.

What is described

You can edit the specification keys explained in the table below. Use an equal sign (=) to connect a key and its value.

Table 12–22: List of specification keys that can be set in the configuration file for expanding an Item storage database

Specification key name	Description	Default value
`@set ADD_AREA`	Specifies the storage area of the Item storage database to be expanded. • `A`: Storage area A • `B`: Storage area B	--
`@set ADD_AREA_CATEGORY`	Specifies the category to be expanded. • `item`: Item storage area • `apdfile`: Attached file storage area	--
`@set ADD_AREA_DIRECTORY`	Use an absolute path of 133 bytes or less to specify the path to the folder in which to store the Item storage database to be expanded. You can specify half-width alphanumeric characters, periods (.), underscores (_), left parentheses (( ), right parentheses ( )), yen signs (\),	--

Specification key name	Description	Default value
`@set ADD_AREA_DIRECTORY`	and half-width spaces. You cannot specify a yen sign (\) at the end of the path. In a cluster environment, you can specify a folder on a shared disk only. If the specified folder does not exist, it is created when the `jssitemstoredbexpand.bat` command is executed.	--

Legend:
  --: No default value

Note

- If you specify the same key multiple times, the bottom-most specified setting is applied.

- The Configuration file for expanding an Item storage database (`jssitemstoredbexpandinfo.bat`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: UTF-8

  - In an English environment: UTF-8

  - In a Chinese environment: UTF-8

Definition example

The following definition example expands the Item storage area in storage area A of the Item storage database to `D:\Program Files\Hitachi\JP1SS\itemstoredb`.

```
@set ADD_AREA=A
@set ADD_AREA_CATEGORY=item
@set ADD_AREA_DIRECTORY=D:\Program Files\Hitachi\JP1SS\itemstoredb
```

Configuration file for setting up an Item storage database (jssitemstoredbinfo.bat)

Description

This file defines information necessary to set up the Item storage database. This definition file is used when JP1/IM - Service Support Advanced Edition is used.

Format

```
@set ADD_AREA=A
@setADD_AREA_DIRECTORY=Name-of-the-folder-to-store-the-Item-storage-
database-to
```

File names

- `jssitemstoredbinfo.bat` (Configuration file for setting up an Item storage database)

- `jssitemstoredbinfo.bat.model` (Model configuration file for setting up an Item storage database)[#]

    #

    Use the model file when you want to reset the contents of the configuration file for setting up an Item storage database. Note that you can change the name of the configuration file for setting up an Item storage database to any name except for its extension (`.bat`).

Storage folder

IM-SS-path`\conf\setup\`

When the definition is applied

When you execute the `jssitemstoredbsetup.bat` command, the definition is applied.

What is described

You can edit the specification keys explained in the table below. Use an equal sign (=) to connect a key and its value.

Table 12–23: List of specification keys that can be set in the configuration file for setting up an Item storage database

Specification key name	Description	Default value
`@set ADD_AREA`	Specifies the storage area of the Item storage database to be set up. • `A`: Storage area A • `B`: Storage area B	--
`@set ADD_AREA_DIRECTORY`	Use an absolute path of 133 bytes or less to specify the path to the folder in which to store the Item storage database to be set up. Note that you can expand the database in the same folder multiple times. You can specify half-width alphanumeric characters, periods (.), underscores (_), left parentheses (( ), right parentheses ( )), yen signs (\ ), and half-width spaces. You cannot specify any of the following folders: • A folder that does not exist • A folder that ends with a yen sign (\ ) • A folder on a network drive • A folder directly under the drive	--

Specification key name	Description	Default value
@set ADD_AREA_DIRECTORY	• Reserved device name In a cluster environment, you can specify a folder on a shared disk only.	--

Legend:
    --: No default value

Notes

- If you store the Item management database and Item storage database on the same disk, disk I/O contention might occur. To avoid disk I/O contention for efficient use, we recommend that you store the Item storage database and Item management database on separate disks.

- The disk that has the folder in which to store the Item storage database must have sufficient free space.

- The Configuration file for setting up an Item storage database (jssitemstoredbinfo.bat) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

    - In a Japanese environment: UTF-8

    - In an English environment: UTF-8

    - In a Chinese environment: UTF-8

Definition example

The following definition example sets up storage area A in the Item storage database (D:\Program Files\Hitachi\JP1SS\itemstoredb).

```
@set ADD_AREA=A
@set ADD_AREA_DIRECTORY=D:\Program Files\Hitachi\JP1SS\itemstoredb
```

Related-links property file (hptl_jp1_imss_link_setting.properties)

Description

This file defines the links to add to the **Related link** menu items in the main window (Item status) and to the optional menu items in the main window (Item list)

Format

```
#Setting related links (for the Related link menu items in the main window
(Item status))
hptl_jp1_imss_link_info_num=Number of links
hptl_jp1_imss_link_name_n=Display name
hptl_jp1_imss_link_url_n=URL
#Setting related links (for optional menu items in the main window (Item
list))
hptl_jp1_imss_main_link_info_num=Number of links
hptl_jp1_imss_main_link_name_$n=Display name
hptl_jp1_imss_main_link_url_$n=URL
```

Lines starting with a hash mark (#) are treated as comments.

File names

- `hptl_jp1_imss_link_setting.properties` (Related-links property file)

- `hptl_jp1_imss_link_setting.properties.model` (Model related-links property file)[#]

  #

  You can use the model file to reset the contents of the related-links property file. To do so, delete the existing related-links property file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\`

When the definition is applied

The definition is applied after the following JP1/IM - Service Support services are restarted:

- JP1/Service Support - Web Service

- JP1/Service Support

What is described

Do not edit any keys except the specifiable keys that are explained in the following table. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–24: List of specification keys that can be set in the related-links property file

Specification key name	Description	Default value
`hptl_jp1_imss_link_info_num`	Specifies the number of links to be displayed in the **Related link** menu item in the main window (Item status). Define the same number of pairs of `hptl_jp1_imss_link_name_n` and `hptl_jp1_imss_link_url_n` you specify here.	0

Specification key name	Description	Default value
`hptl_jp1_imss_link_info_num`	If the number of pairs of defined `hptl_jp1_imss_link_name_n` and `hptl_jp1_imss_link_url_n` is greater than the specified number, the definitions to the specified number become valid. You can specify an integer from 0 to 100. Use only half-width numeric characters.	0
`hptl_jp1_imss_link_name_n`	Specifies the display names of the links to be displayed in the **Related link** menu item in the main window (Item status). You can specify a string of 1 to 255 bytes. For *n* of the specification key name, specify an integer from 1 to the number you specified for `hptl_jp1_imss_link_info_num`. Use only half-width numeric characters.	--
`hptl_jp1_imss_link_url_n`	Specifies the URLs of the links to be displayed in the **Related link** menu item in the main window (Item status). You can specify a string of 1 to 4,096 bytes. For *n* of the specification key name, specify an integer from 1 to the number you specified for `hptl_jp1_imss_link_info_num`. Use only half-width numeric characters.	--
`hptl_jp1_imss_main_link_info_num`	Specifies the number of links to display in the optional menu items in the main window (Item list). Define the same number of pairs of `hptl_jp1_imss_main_link_name_$n` and `hptl_jp1_imss_main_link_url_$n` as you specify here. If the number of pairs of defined `hptl_jp1_imss_main_link_name_$n` and `hptl_jp1_imss_main_link_url_$n` is greater than the specified number, the definitions to the specified number become valid. You can specify an integer from 0 to 10. Use only half-width numeric characters.	0
`hptl_jp1_imss_main_link_name_$n`	Specifies the display names of the links to be displayed as optional menu items in the main window (Item list). You can specify a string of 1 to 255 bytes. For $*n* of the specification key name, specify an integer from 1 to the number specified for `hptl_jp1_imss_main_link_info_num`. Use only half-width numeric characters.	--
`hptl_jp1_imss_main_link_url_$n`	Specifies the links to be displayed as optional menu items in the main window (Item list). You can specify a string of 1 to 4,096 bytes. For $*n* in the specification key name, specify an integer from 1 to the number specified for `hptl_jp1_imss_main_link_info_num`. Use only half-width numeric characters.	--

Legend:

   --: No default value

Note

- If strings specified for the display name and the URL contain full-width characters, they are converted to three or four bytes.

- The Related-links property file (`hptl_jp1_imss_link_setting.properties`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

- In an English environment: ISO-8859-1
- In a Chinese environment: GB18030

Definition example

The following is a definition example when you set the JP1/AIM login window as a link in order to link with JP1/AIM. Note that the following definition example shows only the part that is necessary for the setting:

```
hptl_jp1_imss_link_info_num=1
hptl_jp1_imss_link_name_1=JP1/AIM
hptl_jp1_imss_link_url_1=http://Server1/jp1asset/login.htm
```

Code mapping file (jp1imss_itemedit_codemap.conf)

Description

This definition file associates a selection code and status specified by using the `jssitemedit` command with Item elements to be displayed in a window. Do not edit this file because it is associated with selectable Item elements defined by default.

If you customize an Item element or a status name, create a new file for the customization.

Note that when you create a new code mapping file, specify the file name described below within 255 bytes in the absolute path.

Format

```
;comment
[SEVERITY]
Emergency=1
   :
[IMPACT]
Small=1
   :
[PRIORITY]
Standard=1
   :
[ITEMCATEGORY]
Inquiry=1
   :
[ISSUECATEGORY]
Application=1
   :
```

Lines starting with a semicolon (`;`) are treated as comments.

File names

- `jp1imss_itemedit_codemap.conf` (Code mapping file)

- `jjp1imss_itemedit_codemap.conf.model` (Model code mapping file)[#]

  #

  You can use the model file to reset the contents of the code mapping file. To do so, delete the existing code mapping file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

The definition is applied to JP1/IM - Service Support when you execute the `jssitemedit` command.

What is described

The following is the format of the code mapping file:

```
[Section]
Key=value
Key=value
  :
```

For `Section`, specify a name indicating the applicable Item element. This is the name defined in the code mapping file. For `Key`, specify a value you will specify as an option of the `jssitemedit` command. You can specify a string of half-width or full-width alphanumeric characters for `Key`. For *value*, specify the display order of the selection codes that are defined in the Item form definition file.

To use JP1/IM - Service Support with the default Item form, you can use the code mapping file provided with the product as is. The table below lists the sections, keys, and values that can be defined in the file.

If you customize the Item form, you must edit the code mapping file to create a new file for the customized Item form.

Table 12–25: Sections, keys, and values that can be defined in the code mapping file

Section	Description	Key	Selection code in an Item element	Value
STATUS	Section for determining the selection value for the *Status* Item element	Received	Received	JIMSD_STAT _INQUIRY
		Close	Close	JIMSD_STAT _CLOSE
		Investigating	Investigating	JIMSD_STAT _RESEARCH
		Planning	Planning	JIMSD_STAT _PLANNING
		Discussing	Discussing	JIMSD_STAT _DISCUSSIN G
		Acknowledged	Acknowledged	JIMSD_STAT _APPROVED
		Support Requested	Support Requested	JIMSD_STAT _WAITING
		Reviewing	Reviewing	JIMSD_STAT _REVIEW
		Extended status 01 to Extended status 40	Extended status 01 to Extended status 40	JIMSD_STAT _USER01 to JIMSD_STAT _USER40
CAUSE	Section for determining the selection value for the *Cause* Item element	Blank	Δ (blank)	0
		New software error	New software error	1
		Known software error	Known software error	2
		New hardware error	New hardware error	3
		Known hardware error	Known hardware error	4

Section	Description	Key	Selection code in an Item element	Value
CAUSE	Section for determining the selection value for the *Cause* Item element	Documentation error	Documentation error	5
		Document missing	Document missing	6
		User error	User error	7
		Specifications	Specifications	8
		Third-party error	Third-party error	9
		Process error	Process error	10
		Customer request	Customer request	11
		Function extension	Function extension	12
		Business requirement	Business requirement	13
		Incident and problem fix	Incident and problem fix	14
		Process improvement	Process improvement	15
RESULT	Section for determining the selection value for the *Result* Item element	Blank	Δ (blank)	0
		Completed	Completed	1
		Canceled	Canceled	2
		Not confirmed	Not confirmed	3
		Change completed	Change completed	4
		Known problem	Known problem	5
		Unknown cause	Unknown cause	6
		Succeeded	Succeeded	7
		Failed (planning error)	Failed (planning error)	8
		Failed (human error)	Failed (human error)	9
		Failed (others)	Failed (others)	10
AVOIDANCE	Section for determining the selection value for the *Workaround type* Item element	Blank	Δ (Blank)	0
		None	None	1
		Not operated	Not operated	2
		Operated in degraded mode	Operated in degraded mode	3
		Restarted	Restarted	4
		File recovered	File recovered	5
		Change rolled back	Change rolled back	6

Section	Description	Key	Selection code in an Item element	Value
AVOIDANCE	Section for determining the selection value for the *Workaround type* Item element	Others	Others	7
SOLUTION	Section for determining the selection value for the *Solution category* Item element	Blank	Δ (Blank)	0
		Knowledge	Knowledge	1
		Document	Document	2
		User solution	User solution	3
		Secondary support	Secondary support	4
		Problem management	Problem management	5
		Third-party investigation	Third-party investigation	6
CHANGESCALE	Section for determining the selection value for the *Scale of change* Item element	Blank	Δ (Blank)	0
		Small scale	Small scale	1
		Middle scale	Middle scale	2
		Large scale	Large scale	3
RELEASETYPE	Section for determining the selection value for the *Release type* Item element	Blank	Δ (Blank)	0
		Package release	Package release	1
		Full release	Full release	2
		Delta release	Delta release	3
PHENOMENON	Section for determining the selection value for the *Occurred type* Item element	Blank	Δ (Blank)	0
SEVERITY	Section for determining the selection value for the *Severity* Item element	Blank	Δ (Blank)	0
		Emergency	Emergency	1
		Alert	Alert	2
		Critical	Critical	3
		Error	Error	4
		Warning	Warning	5
		Notice	Notice	6
		Information	Information	7
		Debug	Debug	8
IMPACT	Section for determining the selection value for the *Impact level* Item element	Blank	Δ (Blank)	0
		Small	Small	1
		Middle	Middle	2
		Large	Large	3

12. Definition Files

Section	Description	Key	Selection code in an Item element	Value
PRIORITY	Section for determining the selection value for the *Priority* Item element	Blank	Δ (Blank)	0
		Standard	Standard	1
		Urgent	Urgent	2
		Very urgent	Very urgent	3
ITEMCATEGORY	Section for determining the selection value for the *Item type* Item element	Blank	Δ (Blank)	0
		Inquiry	Inquiry	1
		Failure	Failure	2
		Customer request	Customer request	3
ISSUECATEGORY	Section for determining the selection value for the *Problem domain* Item element	Blank	Δ (Blank)	0
		Application	Application	1
		Middleware	Middleware	2
		OS	OS	3
		Hardware	Hardware	4
		Network	Network	5
		Process	Process	6
USERCODE01	User extended code	Optional	Optional	Optional
USERCODE02				
USERCODE03				
USERCODE04				
USERCODE05				

Notes

- You can use the `jssitemedit` command to specify a priority code from 0 to 3. If you specify another code in the `PRIORITY` section, the KNAB28006-E error occurs.

- You can specify a total of 48 statuses by using the `jssitemedit` command including eight default statuses provided by JP1/IM - Service Support, and 40 statuses that can be customized by users. If you specify any other status, the KNAB28006-E error occurs.

- The Code mapping file (`jp1imss_itemedit_codemap.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:
  - In a Japanese environment: MS932
  - In an English environment: ISO-8859-1
  - In a Chinese environment: GB18030

Definition example

The following are the contents of the default code mapping file (`jp1imss_itemedit_codemap.conf`):

```
[STATUS]
Received=JIMSD_STAT_INQUIRY
Investigating=JIMSD_STAT_RESEARCH
Planning=JIMSD_STAT_PLANNING
Discussing=JIMSD_STAT_DISCUSSING
Support Requested=JIMSD_STAT_WAITING
Reviewing=JIMSD_STAT_REVIEW
Acknowledged=JIMSD_STAT_APPROVED
Close=JIMSD_STAT_CLOSE
Extended status 01=JIMSD_STAT_USER01
Extended status 02=JIMSD_STAT_USER02
Extended status 03=JIMSD_STAT_USER03
Extended status 04=JIMSD_STAT_USER04
Extended status 05=JIMSD_STAT_USER05
Extended status 06=JIMSD_STAT_USER06
Extended status 07=JIMSD_STAT_USER07
Extended status 08=JIMSD_STAT_USER08
Extended status 09=JIMSD_STAT_USER09
Extended status 10=JIMSD_STAT_USER10
Extended status 11=JIMSD_STAT_USER11
Extended status 12=JIMSD_STAT_USER12
Extended status 13=JIMSD_STAT_USER13
Extended status 14=JIMSD_STAT_USER14
Extended status 15=JIMSD_STAT_USER15
Extended status 16=JIMSD_STAT_USER16
Extended status 17=JIMSD_STAT_USER17
Extended status 18=JIMSD_STAT_USER18
Extended status 19=JIMSD_STAT_USER19
Extended status 20=JIMSD_STAT_USER20
Extended status 21=JIMSD_STAT_USER21
Extended status 22=JIMSD_STAT_USER22
Extended status 23=JIMSD_STAT_USER23
Extended status 24=JIMSD_STAT_USER24
Extended status 25=JIMSD_STAT_USER25
Extended status 26=JIMSD_STAT_USER26
Extended status 27=JIMSD_STAT_USER27
Extended status 28=JIMSD_STAT_USER28
Extended status 29=JIMSD_STAT_USER29
Extended status 30=JIMSD_STAT_USER30
Extended status 31=JIMSD_STAT_USER31
Extended status 32=JIMSD_STAT_USER32
Extended status 33=JIMSD_STAT_USER33
Extended status 34=JIMSD_STAT_USER34
Extended status 35=JIMSD_STAT_USER35
Extended status 36=JIMSD_STAT_USER36
Extended status 37=JIMSD_STAT_USER37
Extended status 38=JIMSD_STAT_USER38
Extended status 39=JIMSD_STAT_USER39
Extended status 40=JIMSD_STAT_USER40

[CAUSE]
Blank=0
New software error=1
Known software error=2
New hardware error=3
Known hardware error=4
Documentation error=5
```

12. Definition Files

```
Document missing=6
User error=7
Specifications=8
Third-party error=9
Process error=10
Customer request=11
Function extension=12
Business requirement=13
Incident and problem fix=14
Process improvement=15

[RESULT]
Blank=0
Completed=1
Canceled=2
Not confirmed=3
Change completed=4
Known problem=5
Unknown cause=6
Succeeded=7
Failed (planning error)=8
Failed (human error)=9
Failed (others)=10

[AVOIDANCE]
Blank=0
None=1
Not operated=2
Operated in degraded mode=3
Restarted=4
File recovered=5
Change rolled back=6
Others=7

[SOLUTION]
Blank=0
Knowledge=1
Document=2
User solution=3
Secondary support=4
Problem management=5
Third-party investigation=6

[CHANGESCALE]
Blank=0
Small scale=1
Middle scale=2
Large scale=3

[RELEASETYPE]
Blank=0
Package release=1
Full release=2
Delta release=3

[PHENOMENON]
Blank=0
```

```
[SEVERITY]
Blank=0
Emergency=1
Alert=2
Critical=3
Error=4
Warning=5
Notice=6
Information=7
Debug=8

[IMPACT]
Blank=0
Small=1
Middle=2
Large=3

[PRIORITY]
Blank=0
Standard=1
Urgent=2
Very urgent=3

[ITEMCATEGORY]
Blank=0
Inquiry=1
Failure=2
Customer request=3

[ISSUECATEGORY]
Blank=0
Application=1
Middleware=2
OS=3
Hardware=4
Network=5
Process=6

[USERCODE01]

[USERCODE02]

[USERCODE03]

[USERCODE04]

[USERCODE05]
```

12. Definition Files

Code mapping file (jp1imss_itementry_codemap.conf)

Description

This definition file associates option information specified by using the `jssitementry` command with the information to be displayed in an Item element of a selection code in the Item form. Do not edit this file because it is associated with selectable Item elements that are defined by default.

If you customize an Item element or a status name, create a new file for the customization.

Note that when you create a new code mapping file, specify the file name described below within 255 bytes in the absolute path.

Format

```
;comment
[SEVERITY]
Emergency=1
   :
[IMPACT]
S=1
   :
[PRIORITY]
N=1
   :
[ITEMCATEGORY]
QUE=1
   :
[ISSUECATEGORY]
APP=1
   :
[CITYPE]
HOST=0
   :
```

Lines starting with a semicolon (`;`) are treated as comments.

File names

- `jp1imss_itementry_codemap.conf` (Code mapping file)

- `jp1imss_itementry_codemap.conf.model` (Model code mapping file)[#]

  #
  > You can use the model file to reset the contents of the code mapping file. To do so, delete the existing code mapping file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

The definition is applied to JP1/IM - Service Support when you execute the `jssitementry` command.

What is described

The following is the format of the code mapping file:

```
[Section]
Key=value
Key=value
  :
```

For `Section`, specify a name indicating the applicable Item element. This is the name defined in the code mapping file. For `Key`, specify a value you will specify as an option of the `jssitementry` command. You can specify a string of half-width or full-width alphanumeric characters for `Key`. For *value*, specify the display order of the selection codes that are defined in the Item form definition file.

To use JP1/IM - Service Support with the default Item form, you can use the code mapping file provided with the product as is. The table below lists the sections, keys, and values that can be defined in the file.

If you customize the Item form, you must edit the code mapping file of the customized Item form to create a new file.

Table 12–26: Sections, keys, and values that can be defined in the code mapping file

Section	Description	Key	Selection code in an Item element	Value
SEVERITY	Section for determining the selection value for the *Severity* Item element	Emergency	Emergency	1
		Alert	Alert	2
		Critical	Critical	3
		Error	Error	4
		Warning	Warning	5
		Notice	Notice	6
		Information	Information	7
		Debug	Debug	8
IMPACT	Section for determining the selection value for the *Impact level* Item element	S	Small	1
		M	Middle	2
		B	Large	3
PRIORITY	Section for determining the selection value for the *Priority* Item element	N	Normal	1
		M	Urgent	2
		H	Very urgent	3
ITEMCATEGORY	Section for determining the selection value for the *Item type* Item element	QUE	Inquiry	1
		FAL	Failure	2
		CR	Customer request	3
ISSUECATEGORY	Section for determining the selection value for the *Problem domain* Item element	APP	Application	1
		MID	Middleware	2
		OS	OS	3
		HRD	Hardware	4

Section	Description	Key	Selection code in an Item element	Value
ISSUECATEGORY	Section for determining the selection value for the *Problem domain* Item element	NET	Network	5
		PRO	Process	6
CITYPE	Section for determining the selection value for the *Asset type* Item element	HOST	Host name (JP1/AIM)	0
		IP	IP address (JP1 /AIM)	1
		ASSETID	Asset number	2
USERCODE01	User extended code	Optional	Optional	Optional
USERCODE02				
USERCODE03				
USERCODE04				
USERCODE05				

Notes

- Do not customize the PRIORITY section. If you customize and register an Item, the Item will be registered in the customized information in the Item management database, but it will not be displayed in the window.

- If you add or remove a selection code for an defined selectable element in the Item form definition file, you must modify the keys and values defined in the code mapping file accordingly. For example, if you add display order 4 of the selection code and selection code Very large to the Impact level element in the Item form definition file, you must define the code mapping file as follows:

```
[IMPACT]
S=1
M=2
B=3
BB=4
```

Note that you will also use BB you defined here as the specification value for the -ipt option of the jssitementry command.

For details about the jssitementry command, see *jssitementry (registers an Item)* in *Chapter 11. Commands*.

For details about the Item form definition file, see *Item form definition file (Optional)* in *Chapter 12. Definition Files*.

- The Code mapping file (jp1imss_itementry_codemap.conf) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:
  - In a Japanese environment: MS932
  - In an English environment: ISO-8859-1
  - In a Chinese environment: GB18030

Definition example

The following are the contents of the default code mapping file (jp1imss_itementry_codemap.conf):

```
[SEVERITY]
Emergency=1
```

```
Alert=2
Critical=3
Error=4
Warning=5
Notice=6
Information=7
Debug=8

[IMPACT]
S=1
M=2
B=3

[PRIORITY]
N=1
M=2
H=3

[ITEMCATEGORY]
QUE=1
FAL=2
CR=3

[ISSUECATEGORY]
APP=1
MID=2
OS=3
HRD=4
NET=5
PRO=6

[CITYPE]
HOST=0
IP=1
ASSETID=2
UCMDBHOST=3
UCMDBIP=4
UCMDBID=5

[USERCODE01]

[USERCODE02]

[USERCODE03]

[USERCODE04]

[USERCODE05]
```

12. Definition Files

Code mapping file (jp1imss_itemimport_codemap.conf)

Description

This definition file associates the file for Item information entries that is specified by using the `jssitemimport` command with information that is displayed as Item elements of selection codes in an Item form. Do not edit this file because it is associated with selectable Item elements that are defined by default.

If you customize an Item element or a status name, create a new file for the customization.

Note that when you create a new code mapping file, specify the file name described below within 255 bytes in the absolute path.

Format

```
;comment
[SEVERITY]
Emergency=1
   :
[IMPACT]
Small=1
   :
[PRIORITY]
Standard=1
   :
[ITEMCATEGORY]
Inquiry=1
   :
[ISSUECATEGORY]
Application=1
   :
[PHENOMENON]
-
[STATUS]
Received=JIMSS_STAT_INQUIRY
   :
[CAUSE]
New software error=1
   :
[RESULT]
Completed=1
   :
[SOLUTION]
Knowledge=1
   :
[AVOIDANCE]
None=1
   :
[CHANGESCALE]
Small scale=1
   :
[RELEASETYPE]
Package release=1
   :
```

Lines starting with a semicolon (`;`) are treated as comments.

Legend:

--: Not specified

File names

- `jp1imss_itemimport_codemap.conf` (Code mapping file)

- `jp1imss_itemimport_codemap.conf.model` (Model code mapping file)[#]

  #

  You can use the model file to reset the contents of the code mapping file. To do so, delete the existing code mapping file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

The definition is applied to JP1/IM - Service Support when you execute the `jssitemimport` command.

What is described

The following is the format of the code mapping file:

```
[Section]
Key=value
Key=value
   :
```

For `Section`, specify a name indicating the applicable Item element. This is a name determined in the code mapping file. For `Key`, specify a value defined in the file for Item information entries and specified as an option of the `jssitemimport` command. You can specify a string of half-width or full-width alphanumeric characters for `Key`. For *value*, specify the display order of the selection codes that are defined in the Item form definition file.

To use JP1/IM - Service Support with the default Item form, you can use the code mapping file provided with the product as is. The table below lists the sections, keys, and values that can be defined in the file.

If you customize the Item form, you must edit the code mapping file for the customized Item form to create a new file.

Table 12–27: Sections, keys, and values that can be defined in the code mapping file

Section	Description	Key	Selection code in an Item element	Value
SEVERITY	Section for determining the selection value for the *Severity* Item element	Emergency	Emergency	1
		Alert	Alert	2
		Critical	Critical	3
		Error	Error	4
		Warning	Warning	5
		Notice	Notice	6
		Information	Information	7

Section	Description	Key	Selection code in an Item element	Value
SEVERITY	Section for determining the selection value for the *Severity* Item element	Debug	Debug	8
IMPACT	Section for determining the selection value for the *Impact level* Item element	Small	Small	1
		Middle	Middle	2
		Large	Large	3
PRIORITY	Section for determining the selection value for the *Priority* Item element	Standard	Standard	1
		Urgent	Urgent	2
		Very urgent	Very urgent	3
ITEMCATEGORY	Section for determining the selection value for the *Item type* Item element	Inquiry	Inquiry	1
		Failure	Failure	2
		Customer request	Customer request	3
ISSUECATEGORY	Section for determining the selection value for the *Problem domain* Item element	Application	Application	1
		Middleware	Middleware	2
		OS	OS	3
		Hardware	Hardware	4
		Network	Network	5
		Process	Process	6
PHENOMENON	Section for determining the selection value for the *Occurred type* Item element	-- (No code)	-- (No code)	--
STATUS	Section for determining the selection value for the *Status* Item element	Received	Received	JIMSD_STAT _INQUIRY
		Close	Close	JIMSD_STAT _CLOSE
		Investigating	Investigating	JIMSD_STAT _RESEARCH
		Planning	Planning	JIMSD_STAT _PLANNING
		Discussing	Discussing	JIMSD_STAT _DISCUSSIN G
		Acknowledged	Acknowledged	JIMSD_STAT _APPROVED
		Support Requested	Support Requested	JIMSD_STAT _WAITING
		Reviewing	Reviewing	JIMSD_STAT _REVIEW
		Extended status 01 to Extended status 40	Extended status 01 to Extended status 40	JIMSD_STAT _USER01 to JIMSD_STAT _USER40

12. Definition Files

Section	Description	Key	Selection code in an Item element	Value
CAUSE	Section for determining the selection value for the *Cause* Item element	New software error	New software error	1
		Known software error	Known software error	2
		New hardware error	New hardware error	3
		Known hardware error	Known hardware error	4
		Documentation error	Documentation error	5
		Document missing	Document missing	6
		User error	User error	7
		Specifications	Specifications	8
		Third-party error	Third-party error	9
		Process error	Process error	10
		Customer request	Customer request	11
		Function extension	Function extension	12
		Business requirement	Business requirement	13
		Incident and problem fix	Incident and problem fix	14
		Process improvement	Process improvement	15
RESULT	Section for determining the selection value for the *Result* Item element	Completed	Completed	1
		Canceled	Canceled	2
		Not confirmed	Not confirmed	3
		Change completed	Change completed	4
		Known problem	Known problem	5
		Unknown cause	Unknown cause	6
		Succeeded	Succeeded	7
		Failed (planning error)	Failed (planning error)	8
		Failed (human error)	Failed (human error)	9
		Failed (others)	Failed (others)	10
SOLUTION	Section for determining the selection value for the *Solution category* Item element	Knowledge	Knowledge	1
		Document	Document	2
		User solution	User solution	3

Section	Description	Key	Selection code in an Item element	Value
SOLUTION	Section for determining the selection value for the *Solution category* Item element	`Secondary support`	`Secondary support`	`4`
		`Problem management`	`Problem management`	`5`
		`Third-party investigation`	`Third-party investigation`	`6`
AVOIDANCE	Section for determining the selection value for the *Workaround type* Item element	`None`	`None`	`1`
		`Not operated`	`Not operated`	`2`
		`Operated in degraded mode`	`Operated in degraded mode`	`3`
		`Restarted`	`Restarted`	`4`
		`File recovered`	`File recovered`	`5`
		`Change rolled back`	`Change rolled back`	`6`
		`Others`	`Others`	`7`
CHANGESCALE	Section for determining the selection value for the *Scale of change* Item element	`Small scale`	`Small scale`	`1`
		`Middle scale`	`Middle scale`	`2`
		`Large scale`	`Large scale`	`3`
RELEASETYPE	Section for determining the selection value for the *Release type* Item element	`Package release`	`Package release`	`1`
		`Full release`	`Full release`	`2`
		`Delta release`	`Delta release`	`3`
USERCODE01	User extended code	`Optional`	`Optional`	Optional
USERCODE02				
USERCODE03				
USERCODE04				
USERCODE05				

Notes

- Do not customize the `PRIORITY` section. If you customize and import an Item, the Item will be registered as the customized information in the Item management database, but it will not be displayed in a window.

- You can specify a total of 48 statuses by using the `jssitemimport` command including eight default statuses provided by JP1/IM - Service Support, and 40 statuses that can be customized by users. If you specify any other status, the KNAB26013-E error occurs. An Item status registered by using the `jssitemimport` command will be registered regardless of whether it is used in the process work board at the registration destination.

- For selectable elements defined in the Item form definition file, if you add or remove a selection code, you must modify the keys and values defined in the code mapping file accordingly. For example, if you add display order 4 of the selection code and selection code Very large to the Impact level element in the Item form definition file, you must define the code mapping file as follows:

```
[IMPACT]
Small=1
```

```
Middle=2
Large=3
Very large=4
```

Note that Very large which is defined here will also be used as the specification value of the Impact level element to be entered in the Item information file. This Very large value is also used as an argument of the `jssitemimport` command.

For details about the `jssitemimport` command, see *jssitemimport (imports Item information)* in *Chapter 11. Commands*.

For details about the Item form definition file, see *Item form definition file (Optional)* in *Chapter 12. Definition Files*.

- If you edit a status name, edit the code mapping file and the file for Item information entries in the following order:

    1. Edit the status name.

    2. Edit the code mapping file.

    3. Edit the file for Item information entries.

  Edit a defined key in the code mapping file according to the status name after the edit. For example, if you change Close to End, you must define the code mapping file as follows:

```
[STATUS]
Received=JIMSD_STAT_INQUIRY
End=JIMSD_STAT_CLOSE
```

  If the status name and the key defined in the code mapping file are different, no error occurs. But, if a key in the code mapping file and the matching key in the file for Item information entries are different, an error occurs.

- The Code mapping file (`jp1imss_itemimport_codemap.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

    - In a Japanese environment: MS932

    - In an English environment: ISO-8859-1

    - In a Chinese environment: GB18030

Definition example

The following example shows the default contents of the code mapping file (`jp1imss_itemimport_codemap.conf`):

```
[SEVERITY]
Emergency=1
Alert=2
Critical=3
Error=4
Warning=5
Notice=6
Information=7
Debug=8

[IMPACT]
Small=1
Middle=2
Large=3

[PRIORITY]
```

```
Standard=1
Urgent=2
Very urgent=3

[ITEMCATEGORY]
Inquiry=1
Failure=2
Customer request=3

[ISSUECATEGORY]
Application=1
Middleware=2
OS=3
Hardware=4
Network=5
Process=6

[PHENOMENON]

[STATUS]
Received=JIMSD_STAT_INQUIRY
Close=JIMSD_STAT_CLOSE

[CAUSE]
New software error=1
Known software error=2
New hardware error=3
Known hardware error=4
Documentation error=5
Document missing=6
User error=7
Specifications=8
Third-party error=9
Process error=10
Customer request=11
Function extension=12
Business requirement=13
Incident and problem fix=14
Process improvement=15

[RESULT]
Completed=1
Canceled=2
Not confirmed=3
Change completed=4
Known problem=5
Unknown cause=6
Succeeded=7
Failed (planning error)=8
Failed (human error)=9
Failed (others)=10

[SOLUTION]
Knowledge=1
Document=2
User solution=3
Secondary support=4
Problem management=5
```

```
Third-party investigation=6

[AVOIDANCE]
None=1
Not operated=2
Operated in degraded mode=3
Restarted=4
File recovered=5
Change rolled back=6
Others=7

[CHANGESCALE]
Small scale=1
Middle scale=2
Large scale=3

[RELEASETYPE]
Package release=1
Full release=2
Delta release=3

[USERCODE01]

[USERCODE02]

[USERCODE03]

[USERCODE04]

[USERCODE05]
```

12. Definition Files

System property file (hptl_jp1_imss_main_setting.properties)

Description

This file defines the setting information listed below. Edit this file as required for the operations.

1. The timeout value for the interval between double clicks in a window

2. Rules for sorting information, the number of displayed characters, and the number of items of displayed information in the List of items to be displayed in a window

3. JP1/Base logical host name

4. JP1/AIM server name

5. Sorting rules for the Item form list to be displayed in the Item form management window

6. The number of extended statuses to use

7. The expanded tree status of the process work board list

8. The threshold value (the number of Items that can be newly registered in the process work board) used to display a warning message when the `jssitemcount` (counts Items) command is executed

9. The number of log files (`jp1imssmain`*number*`.log`), the log file size, and the output level

10. The window displayed after the login for each role, and the viewpoint after the main window is switched

11. The status of editing an Item in the New item window or the Edit item window, displaying check boxes, the method of selecting a person in charge, the first string of the URL to be set for related items, and the number of URLs to be set for related items

12. When linking with JP1/AO, element IDs to be inherited to JP1/AO as the resource group name of the service, the service name, and the task name

13. The number of target elements and the target elements during a simple search

14. The number of elements in the Item form for which you can set the input-assistant function, the maximum number of input-candidate values, the maximum number of characters in an input-candidate value, the ID of the process work board that uses the input-assistant function, and the number of characters displayed for an input-candidate value

15. Code values for `Priority` that are accumulated as the top priority for the type of the accumulation elements

16. Whether the Item Management window function can be used, and the window size when the Item Management window function is used

17. Whether batch operation on Items can be used, and permissions to use batch operation on Items (approve and close Items in a batch)

Default actions in JP1/IM - Service Support for information 1 to 11, and 13 to 17 above are defined, but the information can be customized. Information 4 must be edited to link with JP1/AIM. Information 12 must be set to link with JP1/AO. Add information 15. if necessary when you customize the Item form.

Format

```
#System settings (Properties)
hptl_jp1_imss_doubleclick_timeout=Interval between double clicks
hptl_jp1_imss_item_list_initial_sort_key=Initial sort key
hptl_jp1_imss_item_list_initial_sort_order=Initial sort order
hptl_jp1_imss_item_list_display_characters=Number of characters to be
displayed in the list of items
hptl_jp1_imss_item_list_display_number=Number of Items to be displayed in
```

```
the list of items
hptl_jp1_imss_jp1base_virtual_hostname=Logical host name for JP1/Base
   :
hptl_jp1_imss_jp1_aim=JP1/AIM server
hptl_jp1_imss_itemformlist_initial_sort_key=Initial sort key
hptl_jp1_imss_itemformlist_initial_sort_order=Initial sort order
   :
hptl_jp1_imss_extstatus_number=Number of extended statuses
hptl_jp1_imss_pwblist_tree_default=Expanded tree status for the initial
display
hptl_jp1_imss_item_warning_threshold=Threshold number of Items that can be
newly registered in a process work board
   :
#Log settings (Log Information)
hptl_jp1_imss_log_file_num=Number of log files
hptl_jp1_imss_log_file_size=Log file size
   :
#Login settings (Login Information)
hptl_jp1_imss_login_working_manager=Main window (Work management role)
after a login
hptl_jp1_imss_login_pwb_manager=Main window (Process work board management
role) after a login
hptl_jp1_imss_login_user_manager=Main window (User management role) after a
login
hptl_jp1_imss_login_else=Main window (other than the system role) after a
login
hptl_jp1_imss_login_default=Viewpoint of the main window (Item status)
after a switch
   :
#Item settings (Item Information)
hptl_jp1_imss_item_edit_lock_cancel=Edit status of an Item
hptl_jp1_imss_assigned_selection_checkbox=Display of a check box
hptl_jp1_imss_assigned_selection_initial=Selection of the person in charge
hptl_jp1_imss_assigned_sort_compatible=Display status of the person in
charge
hptl_jp1_imss_assigned_sort_key=Sort key for the display order of persons
in charge
hptl_jp1_imss_add_item_info_url_num=Number of URLs to which you want to add
Item information
hptl_jp1_imss_add_item_info_url_$n=First characters of the URL to which you
want to add Item information
hptl_jp1_imss_ao_item_info_$n=ID of the element where you enter the
resource group name of the service, ID of the element where you enter the
service name, and ID of the element where you enter the task name

#Simple search settings (Simple Search Information)
hptl_jp1_imss_research_simple_string_number=Number of target elements for a
simple search
hptl_jp1_imss_research_simple_target=Target elements for a simple search

#Input-assistant function settings (Input Assist Information)
hptl_jp1_imss_input_assist_target_max=Number of elements in an Item form
where you can set the input-assistant function
hptl_jp1_imss_input_assist_nominate_max=Maximum number of the input-
candidate value
hptl_jp1_imss_input_assist_nominate_string_max=Maximum number of characters
for the input-candidate value
hptl_jp1_imss_input_assist_pwb_list=ID of the process work board that uses
```

```
the input-assistant function
hptl_jp1_imss_item_popup_display_characters=Number of characters to be
displayed for the input-candidate value

#Item accumulation function settings (No default setting)
hptl_jp1_imss_kpi_priority_code=Code value for Priority

#Item Management window function settings (Item Management Window)
hptl_jp1_imss_itemwindow_enable=Whether the Item Management window function
can be used
hptl_jp1_imss_itemwindow_size=Size of the Item Management window

#Settings for batch operation on Items (Item Batch Operation)
hptl_jp1_imss_batch_item_edit_max=Number of Items that can be edited at one
time by a batch operation on Items
hptl_jp1_imss_item_batch_ope_approval=Whether batch approval of Items can
be used
hptl_jp1_imss_item_batch_ope_approval_all_user_flag=Permission to use batch
approval of Items (for all users)
hptl_jp1_imss_item_batch_ope_approval_userlist=Permission to use batch
approval of Items (for each user)
hptl_jp1_imss_item_batch_ope_approval_rolelist=Permission to use batch
approval of Items (for each role)
hptl_jp1_imss_item_batch_ope_close=Whether batch closure of Items can be
used
hptl_jp1_imss_item_batch_ope_close_all_user_flag=Permission to use batch
closure of Items (for all users)
hptl_jp1_imss_item_batch_ope_close_userlist=Permission to use batch closure
of Items (for each user)
hptl_jp1_imss_item_batch_ope_close_rolelist=Permission to use batch closure
of Items (for each role)
```

Lines starting with a hash mark (#) are treated as comments.

File names

- `hptl_jp1_imss_main_setting.properties` (System property file)

- `hptl_jp1_imss_main_setting.properties.model` (Model system property file)[#]

    #

    You can use the model file to reset the contents of the system property file. To do so, delete the existing system property file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\`

When the definition is applied

The definition is applied after the following JP1/IM - Service Support services are restarted.

- JP1/Service Support - Web Service

- JP1/Service Support

What is described

Do not edit any keys except the specifiable keys that are explained in the following table.

System settings (Properties)

Some of the specification keys below are commented out (with a hash mark (#) at the beginning of the line) by default. Activate such keys as necessary (by removing the hash mark). Use an equal sign (=) to connect a specifiable key and its value.

Table 12–28: List of specification keys that can be set in the system property file (System settings)

Specification key name	Description	Default value
`hptl_jp1_imss_doubleclick_timeout`	Specifies the timeout value in milliseconds for the interval between double clicks when a user uses the List of items window. You can specify a half-width integer from 1 to 2000. This value is commented out (with # at the beginning) by default. To change the value, remove the hash mark first.	300
`hptl_jp1_imss_item_list_initial_sort_key`	Specifies the initial sort element when the List of items is displayed. The following are specifiable values: • `priority`: Priority • `status`: Status • `editStatus`: Editing status • `title`: Title • `chargeUser`: Person in charge • `workTimeLimit`: Deadline • `updateTime`: Update date and time • `systemName`: System name • `processName`: Process name • `id`: Item ID • `registrationTime`: Registration date and time	registrationTime
`hptl_jp1_imss_item_list_initial_sort_order`	Specifies the initial sort order when the List of items is displayed. The following are specifiable values: • `asc`: Ascending order • `desc`: Descending order	desc
`hptl_jp1_imss_item_list_display_characters`	Specifies the number of characters to be displayed in Title of the windows shown below. For the characters exceeding the above number, `...` is displayed in a window. • Main window (Item list) • List of target items in the Main window (Item status) • History display window • List of item search results window • List of batch operation results window You can specify a half-width integer from 1 to 512.	20
`hptl_jp1_imss_item_list_display_number`	Specifies the number of Items to be displayed in the List of items. A half-width integer from 1 to 255 can be specified. We recommend operation without changing the default value (50).	50

Specification key name	Description	Default value
`hptl_jp1_imss_jp1_aim`	To see the Hardware information Item element, specifies the JP1/AIM servers where JP1/AIM is installed. If the port number of the JP1/AIM server is changed from one set when the JP1/AIM is installed, specify the value in *server-name:port-number* format. You can specify half-width alphanumeric characters, periods (`.`), colons (`:`), and hyphens (`-`). For a JP1/AIM server name, you can specify a string of 1 to 64 bytes. Use commas (`,`) as separators. A maximum of 255 server names can be specified.	`--`
`hptl_jp1_imss_itemformlist_initial_sort_key`	Specifies the initial sort element when the list of Item forms is displayed. The following are specifiable values: • `itemFormProcessName`: Process name • `itemFormStandard`: Standard • `itemFormId`: Item form ID • `itemFormVersion`: Version • `itemFormName`: Item form • `itemFormUpdateDate`: Update date and time	`itemFormProcessName`
`hptl_jp1_imss_itemformlist_initial_sort_order`	Specifies the initial sort order when the list of Item forms is displayed. The following are specifiable values: • `asc`: Ascending • `desc`: Descending	`asc`
`hptl_jp1_imss_extstatus_number`	Specifies the number of extended statuses you can use. You can specify a half-width integer from 0 to 40.	`10`
`hptl_jp1_imss_pwblist_tree_default`	Specifies the tree status when it is initially displayed in the list of process work boards of the main window (Item list). The following are specifiable values: • `open`: The tree is expanded. • `close`: The tree is folded.	`open`
`hptl_jp1_imss_jp1base_virtual_hostname`	If JP1/Base that is on the same server as JP1/IM - Service Support is a logical host, specify the logical host name of JP1/Base. The logical host name in this case is case insensitive. For a physical host, specify `JP1_DEFAULT`. If you do not link with the specific JP1 product, you do not need to change the default value.	`JP1_DEFAULT`
`hptl_jp1_imss_item_warning_threshold`	Specifies the threshold number of Items that can be newly registered in a process work board. The value set for this element is the threshold value used for displaying a warning message when the command for checking the number of Items is executed. If the number of Items that can be newly registered in a process work board becomes smaller than this value, a warning message is displayed. You can specify a half-width integer from 0 to *the upper limit number of Items that can be registered in a process work board*. The upper limit number of Items that can be registered in the process work board depends on the JP1/IM - Service	`5000`

Specification key name	Description	Default value
`hptl_jp1_imss_item_warning_threshold`	Support product being used. For details, see *Appendix D. List of Limits*.	5000

Legend:

--: No default value

Log settings (Log Information)

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–29: List of specification keys that can be set in the system property file (log settings)

Specification key name	Description	Default value
`hptl_jp1_imss_log_file_num`	Specifies the number of log files (`jp1imssmain`*number*`.log`). You can specify a half-width integer from 1 to 16.	8
`hptl_jp1_imss_log_file_size`	Converts the size of a log file (`jp1imssmain`*number*`.log`) into bytes, and specifies the converted size. You can specify a half-width integer from 4096 to 2147483647.	4194304

Login settings (Login Information)

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–30: List of specification keys that can be set in the system property file (login settings)

Specification key name	Description	Default value
`hptl_jp1_imss_login_working_manager`	Specifies the main window to be displayed when the user with the work management role logs in. The following are specifiable values: `kpi`: Main window (Item status) `item`: Main window (Item list)	`kpi`
`hptl_jp1_imss_login_pwb_manager`	Specifies the Main window to be displayed when the user with the process work board management role logs in. The following are specifiable values: `kpi`: Main window (Item status) `item`: Main window (Item list)	`item`
`hptl_jp1_imss_login_user_manager`	Specifies the Main window to be displayed when the user with the user management role logs in. The following are specifiable values: `kpi`: Main window (Item status) `item`: Main window (Item list)	`item`
`hptl_jp1_imss_login_else`	Specifies the Main window to be displayed when a user who does not belong to a system role logs in. The following are specifiable values: `kpi`: Main window (Item status) `item`: Main window (Item list)	`item`
`hptl_jp1_imss_login_default`	Specifies the viewpoint to be displayed when the window is switched to the main window (Item status). The following are specifiable values: `system`: System perspective	`system`

Specification key name	Description	Default value
`hptl_jp1_imss_login_default`	• `process`: Process perspective	`system`

Item settings (Item Information)

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–31: List of specification keys that can be set in the system property file (Item settings)

Specification key name	Description	Default value
`hptl_jp1_imss_item_edit_lock_cancel`	Specifies whether to release the editing status of an Item when the Edit item window is closed by the ✕ button in a WWW browser. The following are specifiable values: • `true`: Release editing status of an Item. • `false`: Do not release editing status of an Item.	`true`
`hptl_jp1_imss_assigned_selection_checkbox`[#1]	Specifies whether to display the **Select role member** check box when the New item window or the Edit item window is displayed. The following are specifiable values: • `display`: The **Select role member** check box is displayed. • `hide`: The **Select role member** check box is not displayed.	`hide`
`hptl_jp1_imss_assigned_selection_initial`[#1]	Specifies whether to select a person in charge from roles or members belonging to a role when the New item window or the Edit item window is displayed. The following are specifiable values: • `role`: Select a person in charge from roles. • `member`: Select a person in charge from role members. When the set value of `hptl_jp1_imss_assigned_selection_check box` is displayed, `role` is specified even if you specify `member`.	`role`
`hptl_jp1_imss_assigned_sort_compatible`	Specifies the display status of a person in charge, which is displayed in a drop-down list when the person in charge is selected in the New item window and the Edit item window. • `true`: Displays edit permissions, status permissions, roles, and users in that order. • `false`: According to the value specified for hptl_jp1_imss_assigned_sort_key, displays persons in charge in the order they were sorted.	`true`
`hptl_jp1_imss_assigned_sort_key`	Specifies the sort keys for persons in charge to be displayed in a drop-down list when a person in charge is selected in the New item window and the Edit item window. • `create`: Users and roles are displayed in that order. • `id`: Users are displayed in ascending order of their user IDs. Roles are displayed in ascending order of their role IDs. • `name`: User names and role names are displayed in ascending order. Note that when `true` is specified for hptl_jp1_imss_assigned_sort_compatible, you should specify `create`.	`create`

Specification key name	Description	Default value
`hptl_jp1_imss_add_item_info_url_num`	If you want to add Item information to URLs of related information, specify the number of URLs to which you want to add the information. You can specify a half-width integer from 0 to 100.	0
`hptl_jp1_imss_add_item_info_url_$n`	If you want to add Item information to URLs of related information, specify the first string of the URL to which you want to add the information. You can specify a string of 1 to 4,096 bytes. If the string you specified for the URL contains full-width characters, they are converted to three or four bytes. For $n, specify a number from 1 to the number specified for hptl_jp1_imss_add_item_info_url_num.[#2]	--
`hptl_jp1_imss_ao_item_info_$n`	To link with JP1/AO, specify element-IDs[#3] to be allocated to the following elements separated by a comma (,): • Resource group name of the service • Service name • Task name If you omit the task name, element ID, JIMSD_FORM_ITEMID is set. For $n, specify a number from 1 to the number specified for hptl_jp1_imss_add_item_info_url_num[#2].	--

Legend:

--: No default value

#1

According to the combination of `hptl_jp1_imss_assigned_selection_checkbox` and `hptl_jp1_imss_assigned_selection_initial`, the settings of a person in charge differ as shown in the following table.

Setting value for hptl_jp1_imss_assigned_selection_checkbox	Setting value for hptl_jp1_imss_assigned_selection_initial	Selection of the person in charge
`hide`	`role`	You can select the person in charge from roles or individual users. However, you cannot select the person in charge from members who belong to a role.
`hide`	`member`	You can select the person in charge from members who belong to a role, or from individual users. Note that you cannot select a role.
`display`	`role`	You can determine whether to select the person in charge from roles or from members who belong to a role for each Item. You can also select a person in charge from individual users.
`display`	`member`	

#2

The $n values specified in `hptl_jp1_imss_add_item_info_url_$n` and `hptl_jp1_imss_ao_item_info_$n` must match.

The following is a specification example:

`hptl_jp1_imss_add_item_info_url_1=URL of JP1/AO`

`hptl_jp1_imss_ao_item_info_1=JIMSD_FORM_USERTEXT01,JIMSD_FORM_USERTEXT02,JIMSD_FORM_ITEMID`

#3

The following table shows the element IDs that can be specified for `hptl_jp1_imss_ao_item_info_$n`.

No.	Element ID	Description
1	JIMSD_FORM_TITLE	Item title
2	JIMSD_FORM_SYSTEM	Name of the system in which an Item is registered.
3	JIMSD_FORM_PROCESS	Process name of the process work board in which the Item is registered.
4	JIMSD_FORM_ITEMID	An element consisting of the display ID (JIMSD_FORM_PWBID) of the process work board in which the Item is registered and the process work board serial number (JIMSD_FORM_PWB_ITEMID) of the Item, which are connected by a hyphen (-).
5	JIMSD_FORM_PWBID	Display ID of the process work board in which the Item is registered.
6	JIMSD_FORM_PWB_ITEMID	Item serial number within a process work board of the Item
7	JIMSD_FORM_PROCESSITEMID	An element consisting of the related item serial number (JIMSD_FORM_ITEMID) of an Item and the number of escalations (JIMSD_FORM_ESCNO) of the Item, which are connected by using a hyphen (-).
8	JIMSD_FORM_ITEMSERIALNO	Related item serial number of an Item
9	JIMSD_FORM_ESCNO	Number of escalations of an Item
10	JIMSD_FORM_SEVERITYREASON	Reason for setting the severity of an Item
11	JIMSD_FORM_IMPACTREASON	Reason for setting the Impact level of an Item
12	JIMSD_FORM_PRIORITYREASON	Reason for setting an Item - Priority.
13	JIMSD_FORM_ACCRUALDATE	Item - Occurrence date and time
14	JIMSD_FORM_REGISTDATE	Registration date and time of an Item
15	JIMSD_FORM_DEADLINE	Item - Deadline
16	JIMSD_FORM_STARTDATE	Item - Start date and time
17	JIMSD_FORM_COMPDATE	Completion date of an Item
18	JIMSD_FORM_CUSTOMERNAME	Customer name
19	JIMSD_FORM_INQUIRYNAME	Inquirer's name
20	JIMSD_FORM_EFFECTSERVICE	Service affected by an Item
21	JIMSD_FORM_FAILURELOCATION	Problem component and version of an Item
22	JIMSD_FORM_SUMMARY	Item overview
23	JIMSD_FORM_AVOIDANCE	Workaround type of an Item
24	JIMSD_FORM_SITUATION	Work status of an Item
25	JIMSD_FORM_MEASURES	How to avoid the problem in the future
26	JIMSD_FORM_ROOTCAUSE	Fundamental cause of an Item
27	JIMSD_FORM_SOLUTION	Solution of an Item
28	JIMSD_FORM_SCHEDULE	Schedule and main steps of an Item
29	JIMSD_FORM_IMPACTEVAL	Impact assessment of a change
30	JIMSD_FORM_DELIBERATIONRST	Discussions result of an Item

No.	Element ID	Description
31	JIMSD_FORM_FREEDESCRIPTION	Free memo column
32	JIMSD_FORM_JP1PRODUCTNAME	Name of the program that issued a JP1 event
33	JIMSD_FORM_JP1JOBNETNAME	Jobnet name for JP1/AJS
34	JIMSD_FORM_JP1JOBNAME	Job name for JP1/AJS
35	JIMSD_FORM_JP1SNMPSRC	Name of the source where an SNMP trap is generated for a JP1 event that was issued by using the SNMP trap conversion function of JP1/Base
36	JIMSD_FORM_JP1NODENAME	Monitored node name defined by using the integrated scope function of JP1/IM - Manager
37	JIMSD_FORM_JP1ALARMNAME	Alarm name of a JP1 event issued by JP1/PFM - Web Console
38	JIMSD_FORM_LASTUPDATE	Update date and time of an Item
39	JIMSD_FORM_IMEVENTNO	Serial number of a JP1 event
40	JIMSD_FORM_IMHOSTNAME	JP1/IM-M host name
41	JIMSD_FORM_USERTEXT01 to JIMSD_FORM_USERTEXT05	Additional element of the text data defined in the Item form by a user
42	JIMSD_FORM_USERTEXT06 to JIMSD_FORM_USERTEXT15	
43	JIMSD_FORM_USERTEXT16 to JIMSD_FORM_USERTEXT20	
44	JIMSD_FORM_USERTIME01 to JIMSD_FORM_USERTIME05	Additional element of the time data defined in the Item form by a user
45	JIMSD_PWB_SYS_ID	Process work board serial number in a system
46	JIMSD_JP1EVENT_MESSAGE	JP1 event message
47	JIMSD_JP1ORIGIN_HOSTNAME	JP1 event issuing host name
48	JIMSD_JP1EVENT_ID	ID of a JP1 event

If you specify an element ID that cannot be specified, the value for hptl_jp1_imss_ao_item_info_$n becomes invalid, and it is not inherited to JP1/AO.

Specify the value for hptl_jp1_imss_ao_item_info_$n in the following order:

- ID of the element where you enter the resource group name of the service

- ID of the element where you enter the service name

- ID of the element where you enter the task name

Settings for a simple search (Simple Search Information)

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–32: List of specification keys that can be set in the system property file (for settings for a simple search)

Specification key name	Description	Default value
hptl_jp1_imss_research_simple_string_number	Specifies the number of elements that can be specified during a simple search. You can specify a half-width integer from 1 to 5.	3
hptl_jp1_imss_research_simple_target	Specifies the elements to be searched during a simple search. A maximum of five elements can be specified by using commas (,) as separators. The following elements can be specified:	*title*, *summary*, *situation*

Specification key name	Description	Default value
hptl_jp1_imss_research_simple_target	• title: Title • severityReason: Reason for severity • impactReason: Reason for impact level • priorityReason: Reason for priority • registrant: Registrant[#] • assigned: Person in charge[#] • respondent: Respondent[#] • customerName: Customer name • inquiryName: Inquirer • effectService: Affected service • failureLocation: Problem component and version • summary: Overview • avoidance: Workaround • situation: Work status • measures: How to avoid the problem in the future • rootcause: Fundamental cause • solution: Solution • schedule: Schedule and main steps • impactEval: Impact assessment for change • deliberationRST: Discussions result • freeDescription: Free memo column • productName: Product name • jobnetName: Jobnet name • jobName: Job name • SNMPSRC: SNMP source • nodeName: Monitored node name • alarmName: Alarm name • userText_XX (where XX is a number from 01 to 20): Additional element (text) • userExtName_XX (where XX is a number from 01 to 05): Additional element (user, role) • IMEventNo: Serial number • IMHostName: JP1/IM-M host name	*title*, *summary*, *situation*

\#

Only names in **Registrant**, **Person in charge**, and **Respondent** are searched. IDs and English names are not searched.

Settings for the input-assistant function (Input Assist Information)

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–33: List of specification keys that can be set in the system property file (settings for the input-assistant function)

Specification key name	Description	Default value
hptl_jp1_imss_input_assist_target_max	Specifies the number of elements in the Item form where the input-assistant function can be specified by a single process work board. You can specify a half-width integer from 1 to 100.	10
hptl_jp1_imss_input_assist_nominate_max	Specifies the maximum number of input-candidate values that can be specified for a single Item form elements ID.	30

Specification key name	Description	Default value
`hptl_jp1_imss_input_assist_nominate_max`	You can specify a half-width integer from 1 to 100.	30
`hptl_jp1_imss_input_assist_nominate_string_max`	Specifies the maximum number of characters that can be specified as an input-candidate value. You can specify a half-width integer from 1 to 512.	128
`hptl_jp1_imss_input_assist_pwb_list`	Specifies process work board IDs that use the input-assistant function by using a commas (`,`) as separators. If an ID that does not exist is specified, such ID is ignored.	--
`hptl_jp1_imss_item_popup_display_characters`	Specifies the number of characters for an input-candidate value that is displayed in the New item window and the Edit item window. For the characters exceeding the above number, `...` is displayed in the window. For the number of characters, both half-width characters and full-width characters are counted as a character. You can specify a half-width integer from 1 to 255. However, we recommend you use the default value considering the size of the New item window and the Edit item window.	15

Legend:

--: No default value

Setting the Item accumulation function (No default setting)

By default, this specification key is not described. Add it if necessary. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–34: List of specification keys that can be set in the system property file (for setting the Item accumulation function)

Specification key name	Description	Default value
`hptl_jp1_imss_kpi_priority_code`	Specifies the code value for `Priority`, which is accumulated as a Top priority Item. Specify this element if necessary when you customize the Item form.	3

Setting the Item Management window function (Item Management Window)

Use an equal sign (=) to connect a specification key and its value.

Table 12–35: List of specification keys that can be set in the system property file (for setting the Item Management window function)

Specification key name	Description	Default value
`hptl_jp1_imss_itemwindow_enable`	Specifies whether to use the Item Management window function. You can specify either of the following values: • `Y`: The Item Management window function is used. • `N`: The Item Management window function is not used.	N
`hptl_jp1_imss_itemwindow_size`	Specifies the window size of the Item Management window by the unit of year when the Item Management window function is used. You can specify a half-width integer from 1 to 5.	3

Setting batch operation on Items (Item Batch Operation)

Use an equal sign (=) to connect a specification key and its value.

Table 12–36: List of specification keys that can be set in the system property file (for setting batch operation on Items)

Specification key name	Description	Default value
`hptl_jp1_imss_batch_item_edit_max`	Specifies the number of Items that can be edited at one time by a batch operation. You can specify a half-width integer from 1 to 100. However, when you perform a batch operation on Items in the main window (Item list), you cannot specify Items that exceed the upper limit[#] of the number of Items that can be displayed on the Item list. # The value specified for the `hptl_jp1_imss_item_list_display_number` key in the system property file. The default value is 50.	`100`
`hptl_jp1_imss_item_batch_ope_approval`	Specifies whether to change the status of target Items to *Acknowledged* in a batch operation. You can specify either of the following values: • `true`: The status of target Items is changed to *Acknowledged* in a batch operation. • `false`: The status of target Items is not changed to *Acknowledged* in a batch operation.	`false`
`hptl_jp1_imss_item_batch_ope_approval_all_user_flag`	Specifies whether all users can perform a batch operation that changes the status of target Items to *Acknowledged*. You can specify either of the following values: • `true`: All users can perform a batch operation that changes the status of target Items to *Acknowledged*. • `false`: Not all users can perform a batch operation that changes the status of target Items to *Acknowledged*.	`false`
`hptl_jp1_imss_item_batch_ope_approval_userlist`	Specifies the IDs of users who can perform a batch operation that changes the status of target Items to *Acknowledged*. Use this key to restrict the number of users who can perform this batch operation. You can specify lower-case, half-width alphanumeric characters. Use a character string from 1 to 64 bytes to specify a user ID. You can specify a maximum of 1,000 user IDs, separating them by a comma (`,`). If the number of specified user IDs exceeds the maximum, or if a specified user ID is invalid, applicable users will not be included in the users who can perform this batch operation. If the same user ID is duplicately specified, or if a specified user ID is invalid, they are not counted when the number of user IDs that can be specified is calculated. Note that if `true` is specified for `hptl_jp1_imss_item_batch_ope_approval_all_user_flag`, the user ID specified for `hptl_jp1_imss_item_batch_ope_approval_userlist` becomes invalid.	`--`
`hptl_jp1_imss_item_batch_ope_approval_rolelist`	Specifies the IDs of the roles that can perform a batch operation that changes the status of the target Items to	`--`

Specification key name	Description	Default value
`hptl_jp1_imss_item_batch_ope_approval_rolelist`	*Acknowledged*. Use this key to restrict the users who can perform this batch operation. You can specify lower-case, half-width alphanumeric characters. Use a character string from 1 to 64 bytes to specify a role ID. You can specify a maximum of 1,000 role IDs, separated by commas (`,`). If the number of specified role IDs exceeds the maximum, or if the specified role ID is invalid, applicable roles will not be included in the roles that can perform this batch operation. If the same role ID is duplicately specified, or if the specified role ID is invalid, the applicable role IDs are not counted when the number of role IDs that can be specified is calculated. Note that if `true` is specified for `hptl_jp1_imss_item_batch_ope_approval_all_user_flag`, the role ID specified for `hptl_jp1_imss_item_batch_ope_approval_rolelist` becomes invalid.	--
`hptl_jp1_imss_item_batch_ope_close`	Specifies whether to change the status of target Items to *Close* in a batch operation. You can specify either of the following values: • `true`: The status of target Items is changed to *Close* in a batch operation. • `false`: The status of target Items is not changed to *Close* in a batch operation.	`false`
`hptl_jp1_imss_item_batch_ope_close_all_user_flag`	Specifies whether all users can perform a batch operation that changes the status of the target Items to *Close*. You can specify either of the following values: • `true`: All users can perform a batch operation that changes the status of the target Items to *Close*. • `false`: Not all users can perform a batch operation that changes the status of target Items to *Close*.	`false`
`hptl_jp1_imss_item_batch_ope_close_userlist`	Specifies the IDs of the users who can perform a batch operation that changes the status of target Items to *Close*. Use this key to restrict the number of users who can perform this batch operation. You can specify lower-case, half-width alphanumeric characters. Use a character string from 1 to 64 bytes to specify a user ID. You can specify a maximum of 1,000 user IDs, separated by commas (`,`). If the number of specified user IDs exceeds the maximum, or if a specified user ID is invalid, applicable users will not be included in the users who can perform this batch operation. If the same user ID is duplicately specified, or if a specified user ID is invalid, they are not counted when the number of user IDs that can be specified is calculated. Note that if `true` is specified for `hptl_jp1_imss_item_batch_ope_close_all_user_flag`, the user ID specified for `hptl_jp1_imss_item_batch_ope_close_userlist` becomes invalid.	--
`hptl_jp1_imss_item_batch_ope_close_rolelist`	Specifies the IDs of the roles that can perform a batch operation that changes the status of target Items to *Close*.	--

Specification key name	Description	Default value
`hptl_jp1_imss_item_batch_ope_close_rolelist`	Use this key to restrict the number of users who can perform this batch operation. You can specify lower-case, half-width alphanumeric characters. Use a character string from 1 to 64 bytes to specify a role ID. You can specify a maximum of 1,000 role IDs, separated by commas (`,`). If the number of specified role IDs exceeds the maximum, or if a specified role ID is invalid, applicable roles will not be included in the roles that can perform this batch operation. If the same role ID is duplicately specified, or if a specified role ID is invalid, they are not counted when the number of role IDs that can be specified is calculated. Note that if `true` is specified for `hptl_jp1_imss_item_batch_ope_close_all_user_flag`, the role ID specified for `hptl_jp1_imss_item_batch_ope_close_rolelist` becomes invalid.	--

Notes

- Do not edit the sections other than the specification keys that are described in the What is described section.

- If you change the number of extended statuses that can be used for hptl_jp1_imss_extstatus_number, the extended statuses exceeding the specified number will no longer be searchable. If you want to search such extended statuses again, you must change the number of extended statuses you can use.

- Match the number of URLs you specified for hptl_jp1_imss_add_item_info_url_$*n* with the value you specified for hptl_jp1_imss_add_item_info_url_num.

- The System property file (`hptl_jp1_imss_main_setting.properties`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: ISO-8859-1

  - In an English environment: ISO-8859-1

  - In a Chinese environment: ISO-8859-1

Definition example

Definition example 1

The following definition example configures a JP1/AIM server (server name: Server1) to link with JP1/AIM. Note that the following example shows only the part that is necessary for the setting:

```
#Setting JP1/AIM linkeage
hptl_jp1_imss_jp1_aim=Server1
```

Definition example 2

The definition example below configures a JP1/AIM server (server name: Server1) whose port number has been changed to `8080` from the port number set when JP1/AIM was installed, to link with JP1/AIM. Note that the following example shows only the part that is necessary for the setting:

```
#Setting JP1/AIM linkeage
hptl_jp1_imss_jp1_aim=Server1:8080
```

Definition example 3

The definition example below defines to use the Item Management window function, and sets the window size to 4 years. Note that the following example shows only the part that is necessary for the setting:

```
#Setting the Item Management window function
hptl_jp1_imss_itemwindow_enable=Y
hptl_jp1_imss_itemwindow_size=4
```

Definition file for status-change JP1 events (hptl_jp1_imss_jp1event_status.properties)

Description

This file defines information held by an Item as an extended attribute of the status change JP1 event. By editing this file, you can define Item information to be stored in a JP1 event.

For details about JP1 events, see *Appendix E. List of JP1 Events*.

Format

```
hptl_jp1_imss_je_status_num=Number of extended attributes (index value)
hptl_jp1_imss_je_status_extattr_index_value=Extended attribute name
```

File names

- `hptl_jp1_imss_jp1event_status.properties` (Definition file for status-change JP1 events)

- `hptl_jp1_imss_jp1event_status.properties.model` (Model definition file for status-change JP1 events)[#]

  #

  You can use the model file to reset the contents of the definition file for status-change JP1 events. To do so, delete the existing definition file for status-change JP1 events, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\event\`

When the definition is applied

The definition is applied after the JP1/IM - Service Support service is restarted.

What is described

You can edit the specification keys described in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–37: List of specification keys that can be set in the definition file for status-change JP1 events

Specification key name	Description	Default value
`hptl_jp1_imss_je_status_num`	Specify an integer from 0 to 90 for *n* so that `hptl_jp1_imss_je_status_extattr_n` becomes valid. If the value is out of the specifiable range, 0 is assumed.	0
`hptl_jp1_imss_je_status_extattr_n`	Specify the extended attribute name applicable for an Item element. The element you specify is stored as an extended attribute of a JP1 event. You can comment out the property of each extended attribute by using #. For details about specifiable values, see Table 12-38.	--

Legend:

   --: No default value

Table 12–38: List of specifiable extended attribute names

No.	Item related element	Extended attribute	Extended attribute of the storage destination	Specification	Remarks
1	Title (Item name)	TITLE	Fixed	Y	--
2	System name	SYSTEM	Fixed	Y	--
3	System ID	SYSTEMID	Fixed	Y	--
4	Process name	PROCESS	Fixed	Y	--
5	Process work board ID	PWBID	Fixed	Y	--
6	Item ID	OBJECT_ID	Common	N	Cannot be specified in the definition file (must be stored in a JP1 event).
7	Inter-process ID	PROCESS_SEPID	Fixed	Y	--
8	Escalation source Item ID	FRESC_ITEMID	Fixed	Y	--
9	Escalation-destination Item ID	TOESC_ITEMID	Fixed	Y	If there are multiple escalation destinations, separate them with commas to store them.
10	Severity	ITEMSEVERITY	Fixed	Y	--
11	Reason for severity	ITEMSEVERITY_REASON	Fixed	Y	--
12	Impact level	IMPACT	Fixed	Y	--
13	Reason for impact level	IMPACT_REASON	Fixed	Y	--
14	Priority	PRIORITY	Fixed	Y	--
15	Reason for priority	PRIORITY_REASON	Fixed	Y	--
16	Item type	ITEM_CATEGORY	Fixed	Y	--
17	Problem domain	ISSUE_CATEGORY	Fixed	Y	--
18	Scale of change	CHANGE_SCALE	Fixed	Y	--
19	Release type	RELEASE_TYPE	Fixed	Y	--
20	Status	STATUS	Fixed	Y	--
21	Result	RESULT	Fixed	Y	--
22	Occurrence date and time	ACCRUALDATE	Fixed	Y	--
23	Occurred type[#1]	PHENOMENON	Fixed	Y	--
24	Solution category	SOLUTIONCODE	Fixed	Y	--
25	Registrant	REGISTRANT	Fixed	Y	--
26	Registrant ID	REGISTRANT ID	Fixed	Y	--
27	Registrant's email address	REGISTRANT_ADDRESS	Fixed	Y	--
28	Registrant's telephone number[#2]	REGISTRANT_TEL	Fixed	Y	--
29	Registration date and time	CREATIONDATE	Fixed	Y	--

12. Definition Files

No.	Item related element	Extended attribute	Extended attribute of the storage destination	Specification	Remarks
30	Person in charge	ASSIGNED	Fixed	Y	--
31	Person in charge type	ASSIGNEDTYPE	Fixed	Y	--
32	Person in charge ID	ASSIGNEDID	Fixed	Y	--
33	Email address of person in charge[#3]	ASSIGNED_ADDRESS	Fixed	Y	--
34	Telephone number of person in charge[#2, #3]	ASSIGNED_TEL	Fixed	Y	--
35	Deadline	DEADLINE	Fixed	Y	--
36	Respondent	RESPONDENT	Fixed	Y	--
37	Respondent type	RESPONDENTTYPE	Fixed	Y	--
38	Respondent ID	RESPONDENTID	Fixed	Y	--
39	Email address of respondent[#3]	RESPONDENT_ADDRESS	Fixed	Y	--
40	Phone number of respondent[#2, #3]	RESPONDENT_TEL	Fixed	Y	--
41	Editor	USER_NAME	Common	N	Cannot be specified in the definition file (must be stored in a JP1 event).
42	Editor ID	CREATOR_ID	Fixed	Y	--
43	Editor's email address	CREATOR_ADDRESS	Fixed	Y	--
44	Editor's telephone number[#2]	CREATOR_TEL	Fixed	Y	--
45	Process work board manager	PWB_ADMIN	Fixed	Y	--
46	Process work board manager ID	PWB_ADMINID	Fixed	Y	--
47	Email address of the process work board manager[#3]	PWB_ADMIN_ADDRESS	Fixed	Y	--
48	Phone number of the process work board manager[#2, #3]	PWB_ADMIN_TEL	Fixed	Y	--
49	Start date and time	STARTDATE	Fixed	Y	--
50	End date and time	COMPDATE	Fixed	Y	--
51	Customer name	CUSTOMER	Fixed	Y	--
52	Inquirer	INQUIRY	Fixed	Y	--
53	Cost (planned)	ESTIMATEDCOST	Fixed	Y	--
54	Cost (actual)	ACTUALCOST	Fixed	Y	--
55	Impact service[#1]	EFFECTSRV	Fixed	Y	--
56	Hardware information 01 to 20[#4, #5]	EQUIPMENT01 to EQUIPMENT20	Fixed	Y	--

No.	Item related element	Extended attribute	Extended attribute of the storage destination	Specification	Remarks
57	Device type 01 to 20[#4, #5]	EQUIPMENTTYPE01 to EQUIPMENTTYPE20	Fixed	Y	--
58	Server name 01 to 20[#4, #5]	AIMSRV01 to AIMSRV20	Fixed	Y	--
59	Problem component and version	FAILLOCATION	Fixed	Y	--
60	Related item(s) 01 to 20[#4, #5]	REFITEM01 to REFITEM20	Fixed	Y	--
61	Related information (Display name) 01 to 20[#4, #5]	REFINFODISP01 to REFINFODISP20	Fixed	Y	--
62	Related information01 to 20[#4, #5]	REFINF01 to REFINF20	Fixed	Y	--
63	Overview	SUMMARY	Fixed	Y	--
64	Workaround type	AVOIDANCETYPE	Fixed	Y	--
65	Workaround	AVOIDANCE	Fixed	Y	--
66	Work status	SITUATION	Fixed	Y	--
67	How to avoid the problem in the future[#1]	MEASURES	Fixed	Y	--
68	Cause	CAUSE	Fixed	Y	--
69	Fundamental cause	ROOTCAUSE	Fixed	Y	--
70	Solution	SOLUTION	Fixed	Y	--
71	Schedule and main steps	SCHEDULE	Fixed	Y	--
72	Impact assessment for change	IMPACTEVAL	Fixed	Y	--
73	Discussions result	DELIBERATIONRST	Fixed	Y	--
74	Free memo column	FREEDESC	Fixed	Y	--
75	Product name	PRODUCTNAME	Fixed	Y	--
76	Jobnet name	JOBNETNAME	Fixed	Y	--
77	Job name	JOBNAME	Fixed	Y	--
78	SNMP source	SNMPSRC	Fixed	Y	--
79	Monitored node name	NODENAME	Fixed	Y	--
80	Alarm name	ALARMNAME	Fixed	Y	--
81	Update date and time	LASTUPDATE	Common	N	Cannot be specified in the definition file (must be stored in a JP1 event).
82	Link source event database serial number	ITEMENTRY_SEQNO	Fixed	Y	--
83	JP1/IM-M host name	ITEMENTRY_ACTHOST	Fixed	Y	--
84	Extended text 01 to 05[#4]	USERTEXT01 to USERTEXT05	Fixed	Y	--

No.	Item related element	Extended attribute	Extended attribute of the storage destination	Specification	Remarks
85	Extended text 06 to 15[#4]	USERTEXT06 to USERTEXT15	Fixed	Y	--
86	Extended text 16 to 20[#4, #5]	USERTEXT16 to USERTEXT20	Fixed	Y	--
87	Extended numeric value data 01 to 05[#4]	USERINT01 to USERINT05	Fixed	Y	--
88	Extended user/role type 01 to 05[#4] or Extended user/role ID 01 to 05[#4]	USEREXTNAME01 to USEREXTNAME05	Fixed	Y	--
89	Extended user information ID 01 to 05[#4]	USEREXTINF01 to USEREXTINF05	Fixed	Y	--
90	Extended user type 01 to 05[#4]	USEREXTTYPE01 to USEREXTTYPE05	Fixed	Y	--
91	Extended code data 01 to 05[#4]	USERCODE01 to USERCODE05	Fixed	Y	--
92	Extended time data 01 to 05[#4]	USERTIME01 to USERTIME 05	Fixed	Y	--
93	Extended link data Hardware information 1 to 5_01 to 20[#4, #5]	USERLINK_EQUIPMENT01_01 to USERLINK_EQUIPMENT01_20 USERLINK_EQUIPMENT02_01 to USERLINK_EQUIPMENT05_20	Fixed	Y	--
94	Extended link data Device type 1 to 5_01 to 20[#4, #5]	USERLINK_EQUIPMENTTYPE01_01 to USERLINK_EQUIPMENTTYPE01_20 USERLINK_EQUIPMENTTYPE02_01 to USERLINK_EQUIPMENTTYPE05_20	Fixed	Y	--
95	Extended link data Server names 1 to 5_01 to 20[#4, #5]	USERLINK_AIMSRV01_01 to USERLINK_AIMSRV01_20 USERLINK_AIMSRV02_01 to USERLINK_AIMSRV05_20	Fixed	Y	--
96	Extended link data Related item(s) 1 to 5_01 to 20[#4, #5]	USERLINK_REFITEM01_01 to USERLINK_REFITEM01_20 USERLINK_REFITEM02_01 to USERLINK_REFITEM05_20	Fixed	Y	--
97	Extended link data Related information (Display name) 1 to 5_01 to 20[#4, #5]	USERLINK_REFINFODISP01_01 to USERLINK_REFINFODISP01_20 USERLINK_REFINFODISP02_01 to USERLINK_REFINFODISP05_20	Fixed	Y	--
98	Extended link data Related information 1 to 5_01 to 20[#4, #5]	USERLINK_REFINFO01_01 to USERLINK_REFINFO01_20 USERLINK_REFINFO02_01 to USERLINK_REFINFO05_20	Fixed	Y	--

Legend:

Y: Elements that can be specified in a definition file.

N: Elements that cannot be specified in a definition file.

--: None

#1

    This element is not displayed by default.

#2

    The phone number in the applicable user information is set. Information for Phone number 2 is not set.

#3

    If the person in charge, a respondent, and a process work board manager are roles, the applicable information is not stored.

#4

    Indicates multiple extended attributes.

#5

    Corresponds to the number assigned to the applicable Item.

Notes

- The property (`hptl_jp1_imss_je_status_extattr_`*n*) of an extended attribute that has an index value (*n*) which is greater than the value specified for `hptl_jp1_imss_je_status_num` is ignored.

- If the index value of a property (`hptl_jp1_imss_je_status_extattr_`*n*) for an extended attribute is smaller than the value specified for `hptl_jp1_imss_je_status_num`, the properties to *n* are valid.

- If a property (`hptl_jp1_imss_je_status_extattr_`*n*) for an extended attribute is specified more than once, the value that is specified later is valid.

- Because lines beginning with the hash marks (#) are commented out, they are ignored.

- If you specify an extended attribute that does not exist for `hptl_jp1_imss_je_status_extattr_`*n*, it is ignored.

- If the total size of the basic attribute value and the extended attribute value for a JP1 event to be issued is equal to or greater than 10,000 bytes, an error message is output to the error window and to the log file when the event is issued. When the specified string contains a full-width character, it is converted to two bytes, but the Item is registered in the Item database correctly.

- Even if issuing a JP1 event fails, the Item is registered in the Item database correctly.

- When an Item element stored in an extended attribute contains linefeed characters, tab characters, or control characters, they are replaced with spaces before the element is stored in a JP1 event.

- The Definition file for status-change JP1 events (`hptl_jp1_imss_jp1event_status.properties`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following is a definition example of Item information (extended attributes) to be stored in a JP1 event:

```
#Number of extended attributes to be stored in a JP1 event to be issued
hptl_jp1_imss_je_status_num=5
#Item title
hptl_jp1_imss_je_status_extattr_1=TITLE
#Item - Priority
hptl_jp1_imss_je_status_extattr_2=PRIORITY
#Phone number of the person in charge of the Item
hptl_jp1_imss_je_status_extattr_3=ASSIGNED_TEL
```

12. Definition Files

```
#Problem domain of the Item
hptl_jp1_imss_je_status_extattr_4=ISSUE_CATEGORY
#Item - Occurrence date and time
hptl_jp1_imss_je_status_extattr_5=ACCRUALDATE
```

Operation log configuration file (hptl_jp1_imss_access_log.properties)

Description

This file defines whether to output operation logs, the size of an operation log file, and the number of operation log files. By default, operation logs are not output.

Format

```
hptl_jp1_imss_access_log_enable=Whether to output operation logs
hptl_jp1_imss_access_log_file_size=Size of an operation log file
hptl_jp1_imss_access_log_file_num=Number of operation log files
```

File names

- `hptl_jp1_imss_access_log.properties` (Operation log configuration file)

- `hptl_jp1_imss_access_log.properties.model` (Model operation log configuration file)[#]

  #

  You can use the model file to reset the contents of the operation log configuration file. To do so, delete the existing operation log configuration file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\`

When the definition is applied

The definition is applied after the following JP1/IM - Service Support services are restarted:

- JP1/Service Support - Web Service

- JP1/Service Support

What is described

You can specify the specification keys described in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–39: List of specification keys that can be set in the operation log configuration file

Specification key name	Description	Default value
`hptl_jp1_imss_access_log_enable`	Specifies whether to output operation logs (`jp1imssaccesslog`*number*`.log`). If the setting is invalid, operation logs are not output. Output destination folder: *IM-SS-path*`\log\public\acceslog` Either `Y` (Output) or `N` (Do not output) can be specified.	N
`hptl_jp1_imss_access_log_file_size`	Specifies the size of an operation log file (`jp1imssaccesslog`*number*`.log`) in kilobytes. You can specify a half-width integer from 4 to 2097152.	16384
`hptl_jp1_imss_access_log_file_num`	Specifies the number of operation log files (`jp1imssaccesslog`*number*`.log`).	24

Specification key name	Description	Default value
hptl_jp1_imss_access_log_file_num	You can specify a half-width integer from 1 to 32.	24

Notes

- The Operation log configuration file (hptl_jp1_imss_access_log.properties) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following definition example sets operation logs to be output. In this definition example, the size of an operation log file is set to 20 megabytes (20,480 kilobytes), and the number of log files is set to 20.

```
hptl_jp1_imss_access_log_enable=Y
hptl_jp1_imss_access_log_file_size=20480
hptl_jp1_imss_access_log_file_num=20
```

Held Item definition file (jp1informleave_setting.conf)

Description

This file defines the conditions for judging an Item processing as held when you execute a command for notifying held Items.

Format

```
hptl_jp1_imss_target_pwb_list=Process work board ID
hptl_jp1_imss_target_priority_code=Priority
hptl_jp1_imss_target_range=Range of monitoring an Item by tracking back the
update date and time
hptl_jp1_imss_JIMSD_STAT_INQUIRY=Length of time until an Item with the
Received status is regarded as held after the Item is left unprocessed
hptl_jp1_imss_JIMSD_STAT_RESEARCH=Length of time until an Item with the
Investigating status is regarded as held after the Item is left unprocessed
hptl_jp1_imss_JIMSD_STAT_PLANNING=Length of time until an Item with the
Planning status is regarded as held after the Item is left unprocessed
hptl_jp1_imss_JIMSD_STAT_DISCUSSING=Length of time until an Item with the
Discussing status is regarded as held after the Item is left unprocessed
hptl_jp1_imss_JIMSD_STAT_APPROVED=Length of time until an Item with the
Acknowledged status is regarded as held after the Item is left unprocessed
hptl_jp1_imss_JIMSD_STAT_WAITING=Length of time until an Item with the
Support Requested status is regarded as held after the Item is left
unprocessed
hptl_jp1_imss_JIMSD_STAT_REVIEW=Length of time until an Item with the
Reviewing status is regarded as held after the Item is left unprocessed
hptl_jp1_imss_JIMSD_STAT_USER01=Length of time until an Item with the user
extended status is regarded as held after the Item is left unprocessed
    :
hptl_jp1_imss_JIMSD_STAT_USER40=Length of time until an Item with the user
extended status is regarded as held after the Item is left unprocessed
```

File names

- `jp1informleave_setting.conf` (Held Item definition file)

- `jp1informleave_setting.conf.model` (Model Held Item definition file)[#]

  #

  You can use the model file to reset the contents of the Held Item definition file. To do so, delete the existing Held Item definition file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

The definition is applied when the `jssinformleave` command is executed.

What is described

You can edit the specification keys described in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–40: List of specification keys that can be set in the Held Item definition file

Specification key name	Description	Default value
`hptl_jp1_imss_target_pwb_list`	Specifies the IDs of the process work boards to be monitored. Separate multiple process work board IDs with commas (`,`). If you specify an ID that does not exist, it is ignored.	--
`hptl_jp1_imss_target_priority_code`	Specifies the priority for the held Items for each status: • `3`: Very urgent • `2`: Urgent • `1`: Standard • `0`: Unset (None) To specify multiple priorities, separate them with commas (`,`).	3 (Very urgent)
`hptl_jp1_imss_target_range`	Specify the period (in hours) for tracking back the update date and time for monitoring an Item. Use a half-width number from 1 to 168 (= seven days).	24
`hptl_jp1_imss_JIMSD_STAT_INQUIRY`	Specify the period (in minutes) that an Item in the `Received` status can be left unprocessed before it is regarded as held. Use a half-width number from 0 to 1440 (=24 x 60). If this value is not specified, the status is excluded from the monitoring targets. If you use a value other than 0 to 1440, or a value out of hptl_jp1_imss_target_range, 60 (= one hour) is applied.	--
`hptl_jp1_imss_JIMSD_STAT_RESEARCH`	Specify the period (in minutes) that an Item in the `Investigating` status can be left unprocessed before it is regarded as held. Use a half-width number from 0 to 1440 (=24 x 60). If this value is not specified, the status is excluded from the monitoring target. If you use a value other than 0 to 1440, or a value out of hptl_jp1_imss_target_range, 60 (= one hour) is applied.	--
`hptl_jp1_imss_JIMSD_STAT_PLANNING`	Specify the period (in minutes) that an Item in the `Planning` status can be left unprocessed before it is regarded as held. Use a half-width number from 0 to 1440 (=24 x 60). If this value is not specified, the status is excluded from the monitoring target. If you use a value other than 0 to 1440, or a value out of hptl_jp1_imss_target_range, 60 (= one hour) is applied.	--
`hptl_jp1_imss_JIMSD_STAT_DISCUSSING`	Specify the period (in minutes) that an Item in the `Discussing` status can be left unprocessed before it is regarded as held. Use a half-width number from 0 to 1440 (=24 x 60). If this value is not specified, the status is excluded from the monitoring target. If you use a value other than 0 to 1440, or a value out of hptl_jp1_imss_target_range, 60 (= one hour) is applied.	--
`hptl_jp1_imss_JIMSD_STAT_APPROVED`	Specify the period (in minutes) that an Item in the `Acknowledged` status can be left unprocessed before	--

Specification key name	Description	Default value
`hptl_jp1_imss_JIMSD_STAT_APPROVED`	it is regarded as held. Use a half-width number from 0 to 1440 (=24 x 60). If this value is not specified, the status is excluded from the monitoring target. If you use a value other than 0 to 1440, or a value out of hptl_jp1_imss_target_range, 60 (= one hour) is applied.	--
`hptl_jp1_imss_JIMSD_STAT_WAITING`	Specify the period (in minutes) that an Item in the `Support Requested` status can be left unprocessed before it is regarded as held. Use a half-width number from 0 to 1440 (=24 x 60). If this value is not specified, the status is excluded from the monitoring target. If you use a value other than 0 to 1440, or a value out of hptl_jp1_imss_target_range, 60 (= one hour) is applied.	--
`hptl_jp1_imss_JIMSD_STAT_REVIEW`	Specify the period (in minutes) that an Item in the `Reviewing` status can be left unprocessed before it is regarded as held. Use a half-width number from 0 to 1440 (=24 x 60). If this value is not specified, the status is excluded from the monitoring target. If you use a value other than 0 to 1440, or a value out of hptl_jp1_imss_target_range, 60 (= one hour) is applied.	--
`hptl_jp1_imss_JIMSD_STAT_USER01` to `hptl_jp1_imss_JIMSD_STAT_USER40`	Specify the period (in minutes) that an Item in the user extended status can be left unprocessed before it is regarded as held. Use a half-width number from 0 to 1440 (=24 x 60). If this value is not specified, the status is excluded from the monitoring target. If you use a value other than 0 to 1440, or a value out of hptl_jp1_imss_target_range, 60 (= one hour) is applied.	--

Legend:

--: No default value

Definition example

The following is a definition example when an Item with a `Very urgent` priority and `Investigation` and `Planning` statuses is left unprocessed for 60 minutes or longer, and then it is monitored for 24 hours:

```
hptl_jp1_imss_target_pwb_list=pwb01,pwb02
hptl_jp1_imss_target_priority_code=3
hptl_jp1_imss_target_range=24

hptl_jp1_imss_JIMSD_STAT_INQUIRY=
hptl_jp1_imss_JIMSD_STAT_RESEARCH=60
hptl_jp1_imss_JIMSD_STAT_PLANNING=60
hptl_jp1_imss_JIMSD_STAT_DISCUSSING=
hptl_jp1_imss_JIMSD_STAT_APPROVED=
hptl_jp1_imss_JIMSD_STAT_WAITING=
hptl_jp1_imss_JIMSD_STAT_REVIEW=
hptl_jp1_imss_JIMSD_STAT_USER01=
hptl_jp1_imss_JIMSD_STAT_USER02=
```

```
            :
hptl_jp1_imss_JIMSD_STAT_USER40=
```

With the above settings, the following table shows examples of Items that are regarded as held and Items that are not regarded as held when you execute the `jssinformleave` command at 12:00.

Status	Update date and time of an Item	Judgment
`Investigating` and `Planning`	After 12:00 of the previous day before 11:00	Regarded as a held Item.
`Investigating` and `Planning`	After 11: 00	Not regarded as a held Item.

Note

- In a cluster environment, you must set both the primary and secondary definition files.
- The Held Item definition file (`jp1informleave_setting.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:
  - In a Japanese environment: MS932
  - In an English environment: ISO-8859-1
  - In a Chinese environment: GB18030

Definition file for the task practice service (jp1imss_service_setting.conf)

Description

This file defines the times or the intervals for automatically executing commands for Item information count (`jsscollectdata`), for registering Items by email (`jssitementrybymail`), for sending notifications before deadlines (`jssinformperiod`), and for notifying of held Items (`jssinformleave`). After you edit this file and restart the JP1/Service Support - Task Service service, the above commands are executed automatically.

Format

```
;comment
[jsscollectdata]
use=false
basetime=02:00
   :
[jssitementrybymail]
use=false
period=60
   :
[jssinformperiod]
use=false
basetime=03:00
   :
[jssinformleave]
use=false
period=60
monitorStart=08:00
monitorEnd=18:000
   :
```

Lines starting with a semicolon (`;`) are treated as comments.

File names

- `jp1imss_service_setting.conf` (Definition file for the task practice service)

- `jp1imss_service_setting.conf.model` (Model Definition file for the task practice service)[#]

    #

    You can use the model file to reset the contents of the Definition file for the task practice service. To do so, delete the existing Definition file for the task practice service, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\`

When the definition is applied

The definition is applied after the JP1/Service Support - Task Service service is restarted.

What is described

The following is the format of the Definition file for the task practice service:

```
[Section]
Key=value
Key=value
   :
```

You can specify the specification keys described in the table below for each section. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–41: List of sections and specification keys to be specified in theDefinition file for the task practice service

Element		Description	Default value
Section name	• [jsscollectdata] • [jssitementrybymail] • [jssinformperiod] • [jssinformleave]	Specify the name to identify the command you want to execute. You can specify only the values listed on the left.	Each section name is described in the applicable model file.
Specification key name	use	Specifies whether to execute the command. • false = Do not execute • true = Execute	false
	basetime	When the section name is jsscollectdata or jssinformperiod, specify the time from 00:00 to 23:59 to execute the command in the *hh:mm* format. To execute a command at the specified time, you must start the service in advance.	• For jsscollectdata: 02:00 • For jssinformperiod: 03:00
	period	When the section name is jssitementrybymail or jssinformleave, use a number to specify the interval for executing the command in minutes. The following are specifiable values: • For jssitementrybymail: 5 to 120 • For jssinformleave: 15 to 1440	60
	monitorStart	When the section name is jssinformleave, specify the time to start monitoring from 00:00 to 24:00 in the *hh:mm* format.	None
	monitorEnd	When the section name is jssinformleave, specify the time to end the monitoring from 00:00 to 24:00 in the *hh:mm* format. If you specify a time before the value set for monitorStart, it is regarded as the time on the following day. For example, if you set 21:00 for monitorStart, and 08:00 for monitorEnd, the status is monitored from 21:00 to 08:00 on the following morning.	None

Element		Description	Default value
Specification key name	`monitorEnd`	If you set the same time for `monitorStart` and `monitorEnd`, the status is continuously monitored. For example, if 00: 00 is set for `monitorStart`, and 00: 00 or 24:00 is set for `monitorEnd`, the status is endlessly monitored.	None

Notes

- If you want to execute commands that are executed when the JP1/Service Support - Task Service service stops, such as the `jssrev` or `jssdbbackup.bat` command, from another program regularly, consider the optimum execution time before you set the time for the service to execute such a command.

- When a command is executed at the specified time, no command is executed when the next specified time comes if the first command is not finished processing. Because of this, if it takes longer to process the first command, the following commands might be executed later than the specified time.

- If you change the Definition file for the task practice service (`jp1imss_service_setting.conf`) while the JP1/Support Service - Task Service service is running, you must restart the service.

- If you start the JP1/Service Support - Task Service service when all `use` key values are `false`, the service will fail to start. If you want to start the JP1/Service Support - Task Service service, you must set `true` for at least one of the `use` key values.

- The Definition file for the task practice service (`jp1imss_service_setting.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:
  - In a Japanese environment: MS932
  - In an English environment: ISO-8859-1
  - In a Chinese environment: GB18030

Definition example

The following is a definition example when the command (`jssinformleave`) for notifying held Items is executed at 60 minute intervals from 9:00 to 12:00:

```
[jssinformleave]
use=true
period=60
monitorStart=09:00
monitorEnd=12:00
```

Figure 12–1: Operation image

Service start-up time
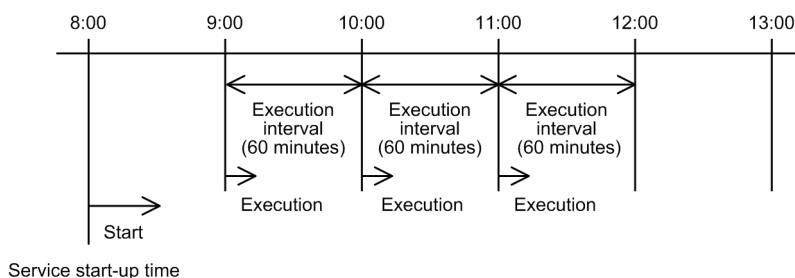
Set `monitorStart` to the time to start monitoring held Items, and set `monitorEnd` to the time to end the monitoring. The command for notifying held Items (`jssinformleave`) is executed at the intervals specified by `period` starting from the time when JP1/Service Support - Task Service was started. If you want to adjust the timing of execution of `jssinformleave`, you must consider `monitorStart`, `monitorEnd`, `period`, and the start timing of JP1/Service Support - Task Service. As shown in the above example, if you want to set the time to start executing `jssinformleave` to 9:00, you should start JP1/Service Support - Task Service at 8:00.

Configuration file for input-candidate values (Optional)

Description

This file defines cross-setting value correlation that links and displays input-candidate values to be displayed as elements in an Item form and elements in the Item form. You need to create a Configuration file for input-candidate values for each process work board that uses the input-assistant function.

The table below shows sample Configuration files for input-candidate values provided by default. Create and customize a definition file by referencing these files.

Table 12–42: Sample Configuration file for input-candidate values provided by default

File name	Description
IM-SS-path\home\public\inputassist\jss_input_assist_sample.txt	Sample Configuration file for input-candidate values
IM-SS-path\home\public\inputassist\jss_input_assist_sample.txt.model	Model file for the sample Configuration file for input-candidate values

Format

```
#comment
#key-value = value

#Settings for the IDs of elements for which you set the input-candidate
values
JIMSD_INPUT_ASSIST_n=element-ID
  :
#Settings for input-candidate values
element-ID_n=input-candidate-value
element-ID_n=input-candidate-value
  :
#Settings for cross-setting value correlation
relation-source-element-ID_n_RELATION_relation-destination-element-
ID=n[,n...]
relation-source-element-ID_n_RELATION_relation-destination-element-
ID=n[,n...]
  :
```

Lines starting with a hash mark (#) are treated as comments.

File name

A file name consists of the ID of a process work board that uses the input-assistant function and `.txt`. For example, if the process work board ID is `pwb`, the file name will be `pwb.txt`. A file with a name that consists of a process work board ID and an extension other than `.txt`, or a file that does not have an extension is not regarded as a Configuration file for input-candidate values.

Storage folder

IM-SS-path\home\public\inputassist

When the definition is applied

The New item window or the Edit item window opens with the definition applied.

What is described

The following is the format of the Configuration file for input-candidate values:

```
key-value = value
  :
```

For the Configuration file of input-candidate values, set the following items by using key values and values:

- Settings for the IDs of elements for which you set the input-candidate values

- Settings for input-candidate values

- Settings for cross-setting value correlation

The key values and values to be specified for each of the above settings are described below.

Setting for the IDs of elements for which you set the input-candidate values

This section describes how to set IDs of elements for which you want to set input-candidate values.

key-value

Specify JIMSD_INPUT_ASSIST_*n*. For *n*, specify an integer equal to or greater than 0, which is unique within the key values.

value

Specify an element ID of an Item form. The table below lists the specifiable elements and their element IDs. Note that if you specify an element ID that is not listed in the following table, the specification becomes invalid.

Table 12–43: List of Item elements and element IDs for which you can set input-candidate values

Item element	Element ID
Title	JIMSD_FORM_TITLE
Reason for severity	JIMSD_FORM_SEVERITYREASON
Reason for impact level	JIMSD_FORM_IMPACTREASON
Reason for priority	JIMSD_FORM_PRIORITYREASON
Customer name	JIMSD_FORM_CUSTOMERNAME
Inquirer	JIMSD_FORM_INQUIRYNAME
Product name	JIMSD_FORM_JP1PRODUCTNAME
Jobnet name	JIMSD_FORM_JP1JOBNETNAME
Job name	JIMSD_FORM_JP1JOBNAME
SNMP source	JIMSD_FORM_JP1SNMPSRC
Monitored node name	JIMSD_FORM_JP1NODENAME
Alarm name	JIMSD_FORM_JP1ALARMNAME
Serial number	JIMSD_FORM_IMEVENTNO
JP1/IM-M host name	JIMSD_FORM_IMHOSTNAME

Item element	Element ID
Added item: text[#]	`JIMSD_FORM_USERTEXT01` to `05`
	`JIMSD_FORM_USERTEXT06` to `15`
	`JIMSD_FORM_USERTEXT16` to `20`

\#

> Elements which are supposed to be created by users. For text input elements created by users, you can set input-candidate values only for single-line elements (item-text elements). You cannot set values for multi-line elements (item-textarea elements). If you set an input-candidate value for a multi-line element, the operation is not guaranteed. For details about element types, see *Item form definition file (Optional)* in *Chapter 12. Definition Files*.

Setting example

> The following is an example when the elements for which you want to set input-candidate values are **Title**, and **Customer name**:

```
JIMSD_INPUT_ASSIST_0=JIMSD_FORM_TITLE
JIMSD_INPUT_ASSIST_1=JIMSD_FORM_CUSTOMERNAME
```

Settings for input-candidate values

This section describes how to set input-candidate values to be displayed.

key-value

> Specify *element-ID_n*. For *element-ID*, specify the element ID you specified in *Setting for the IDs of elements for which you set the input-candidate values*. For *n*, specify an integer equal to or greater than 0, which is unique within the key values.

> If the specified element ID is wrong, or it is not the one you specified in *Setting for the IDs of elements for which you set the input-candidate values*, the specification becomes invalid.

value

> Specify the input-candidate value to be displayed. The specifiable length of an input-candidate value (a string) is defined in `hptl_jp1_imss_input_assist_nominate_string_max` of the system properties. Any full-width characters in an input-candidate value are converted to three or four bytes.

Setting example

> The following is an example when you want to set `Company A` and `Company B` as the input-candidate values for **Customer name**.

```
JIMSD_FORM_CUSTOMERNAME_0=Company A
JIMSD_FORM_CUSTOMERNAME_1=Company B
```

Settings for cross-setting value correlation

In this section, set cross-setting value correlation. By linking elements, you can narrow down input-candidate values for an element at the relation destination according to the selections specified for an element at the relation source.

For the relation source, you can set text-input type elements and selection-type elements in an Item form. For the relation destination, you can set text-input type elements.

When you set cross-setting value correlation for text-input type elements, you must set an input-candidate value for both relation source and relation destination elements. For cross-setting value correlation, according to the selections specified for relation source elements, input-candidate values of the relation destination elements are narrowed down. Therefore, both relation source and relation destination elements must be selection-type elements.

In addition, cross-setting value correlation can be set only for single-line text-input elements (item-text elements). It cannot be set for multiple-line elements (item-textarea elements). If an input-candidate value is set for a multiple-line element, the operation cannot be guaranteed. For a list of elements that can be set for the relation source and the relation destination, see Table 12-44 and Table 12-45.

For cross-setting value correlation, you can associate elements as follows:

- You can associate a relation source with multiple relation destinations.

  For example, you could set **Customer name** as the relation source, and **Title** and **Inquirer** as the relation destinations. However, you cannot set a relation destination for multiple relation sources. If you do so, this setting becomes invalid.

- You can set an element which is set as the relation destination, as an element of the relation source.

  For example, when you set **Inquirer** as the relation destination for **Customer name** of the relation source, you can also set the **Inquirer** as the relation source, and **Title** as the relation destination.

- You can specify settings so that when an option is selected at the relation source, the input-candidate values of all associated elements are determined.

  For example, when you associate **Customer name**, **Inquirer**, and **Title**, their input-candidate values are determined as follows:

  - Based on the selection for **Customer name**, input-candidate values for **Inquirer** and **Title** are determined.

  - Based on the selection for **Inquirer**, input-candidate values for **Customer name** and **Title** are determined.

  - Based on the selection for **Title**, input-candidate values for **Customer name** and **Inquirer** are determined.

  When you want to associate elements as described above, set **Customer name** as the relation source, and set **Inquirer** as the relation destination. When you set **Inquirer** as the relation source, set **Title** as the relation destination. When you set **Title** as the relation source, set **Customer name** as the relation destination.

key-value

Specify the key value in the *relation-source-element-ID_n*_RELATION_*relation-destination-element-ID* format in order to map relation source and relation destination elements.

Values to be specified for *relation-source-element-ID* and *n* differ depending on whether the relation source element format is a text input type or a selection type. For *relation-destination-element-ID*, specify the ID of an element which is the relation destination.

Values to be specified for *relation-source-element-ID* and *n* are described here for relation source elements of text-input type and of selection type separately.

For text-input type elements

For *relation-source-element-ID_n*, specify *element-ID_n*, which you specified as the key value for the input-candidate values setting when you set the relation source input-candidate values.

For selection type elements

For *relation-source-element-ID*, specify the element ID in an Item form. For *n*, specify the same value as the one entered in the display order for option value="*display-order*" in the selection type element format of the Item form definition file.

For details about selection type element IDs, see Table 12-45. For details about values for option value="*display-order*", see *Item form definition file (Optional)* in *Chapter 12. Definition Files*.

value

To narrow down input-candidate values for a relation destination element, specify a value in the *n*[,*n*...] format.

For *n*, specify *n* of the key value for the input-candidate value which you specified to set the input-candidate values for a relation destination element. If you specify another value, the specification becomes invalid.

To specify multiple values, separate them with half-width commas.

Setting example

The following is a setting example when `Customer name` is specified for the relation source, and Inquirer for the relation destination to set cross-setting value correlation:

```
JIMSD_FORM_CUSTOMERNAME_0_RELATION_JIMSD_FORM_INQUIRYNAME=0,1,2
JIMSD_FORM_CUSTOMERNAME_1_RELATION_JIMSD_FORM_INQUIRYNAME=3,4
```

The following table lists the elements that can be set for the relation source and the relation destination according to the format (text-input type or selection type) of the relation source elements.

Table 12–44: List of elements that can be set for the relation source and for the relation destination (when the relation source is the text-input type)

Item element of the relation source (element-ID)	Item elements that can be set for the relation destination
Title (JIMSD_FORM_TITLE)	Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Reason for severity (JIMSD_FORM_SEVERITYREASON)	Title, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Reason for impact level (JIMSD_FORM_IMPACTREASON)	Title, Reason for severity, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Reason for priority (JIMSD_FORM_PRIORITYREASON)	Title, Reason for severity, Reason for impact level, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Customer name (JIMSD_FORM_CUSTOMERNAME)	Title, Reason for severity, Reason for impact level, Reason for priority, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Inquirer (JIMSD_FORM_INQUIRYNAME)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Product name (JIMSD_FORM_JP1PRODUCTNAME)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Jobnet name (JIMSD_FORM_JP1JOBNETNAME)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Job name (JIMSD_FORM_JP1JOBNAME)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
SNMP source (JIMSD_FORM_JP1SNMPSRC)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Monitored node name (JIMSD_FORM_JP1NODENAME)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)

Item element of the relation source (element-ID)	Item elements that can be set for the relation destination
Alarm name (JIMSD_FORM_JP1AL ARMNAME)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Serial number (JIMSD_FORM_IMEVE NTNO)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, JP1/IM-M host name, and Added item: text (01 to 20)
JP1/IM-M host name (JIMSD_FORM_IMHOS TNAME)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, and Added item: text (01 to 20)
Added item: text (JIMSD_FORM_USERT EXT01 to 05)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (06 to 20)
Added item: text (JIMSD_FORM_USERT EXT06 to 15)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 05, 16 to 20)
Added item: text (JIMSD_FORM_USERT EXT 16 to 20)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 15)

Table 12–45: List of elements that can be set for the relation source and for the relation destination (when the relation source is the selection type)

Item element of the relation source (element-ID)	Item elements that can be set for the relation destination
Severity (JIMSD_FORM_SEVER ITYCODE)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Impact level (JIMSD_FORM_IMPAC TCODE)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Priority (JIMSD_FORM_PRIOR ITYCODE)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Item type (JIMSD_FORM_ITEMC ATEGORYCODE)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, Added item: text (01 to 20)
Problem domain (JIMSD_FORM_ISSUE CATEGORYCODE)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Scale of change (JIMSD_FORM_CHANG ESCALECODE)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Release type (JIMSD_FORM_RELEA SETYPECODE)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)

Item element of the relation source (element-ID)	Item elements that can be set for the relation destination
Result (JIMSD_FORM_RESUL TCODE)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Occurred type (JIMSD_FORM_PHENO MENONCODE)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, Added item: text (01 to 20)
Solution category (JIMSD_FORM_SOLUT IONCODE)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Workaround type (JIMSD_FORM_AVOID ANCECODE)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Cause (JIMSD_FORM_CAUSE CODE)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)
Extended code (JIMSD_FORM_USERC ODE01 to 05)	Title, Reason for severity, Reason for impact level, Reason for priority, Customer name, Inquirer, Product name, Jobnet name, Job name, SNMP source, Monitored node name, Alarm name, Serial number, JP1/IM-M host name, and Added item: text (01 to 20)

Notes

- Use characters other than control characters for key values and values. If a control character is used, the setting becomes invalid.

- *n*, which is used as key values and values, becomes valid even if it is not sequential as long as it is unique. When you set a one-digit number, set the value in one digit. When you set a two-digit number, set the value in two digits. When you set a one-digit number, if you set it as a two-digit number, like 01, the setting becomes invalid.

- When a key value satisfies any one of the following conditions, the setting becomes invalid:

  - A fixed string (such as _RELATION for cross-setting value correlation settings) contained in a key value is wrong.

  - Specify an element which is longer than the string comprising a key value by using an underscore (_).

  - A key value begins with a string other than JIMSD_INPUT_ASSIST or JIMSD_FORM.

- When settings for the IDs of elements for which you set the input-candidate values are correct, but settings for input-candidate values are wrong or not specified, the settings for the IDs of elements for which you set the input-candidate values also become invalid. For Item elements specified for settings for the IDs of elements for which you set the input-candidate values, you cannot use the input-assistant function.

- You can change the maximum value for *n*, which is used for key values and values, or the maximum number of characters for an input-candidate value in the system property. For details, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

- If you specify the same string more than once for settings of input-candidate values, the smallest *n* value for *relation-source-element-ID_n* is used as the key value for setting cross-setting value correlation.

- The Configuration file for input-candidate values must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

- In an English environment: ISO-8859-1
- In a Chinese environment: GB18030

Definition example

Definition example 1

The following is an example of defining Configuration file for input-candidate values when the input-candidate value is displayed as **Customer name**. Input-candidate values for **Customer name** are Company A, Company B, and Company C.

```
#Setting the ID of an Item element that sets input-candidate values
JIMSD_INPUT_ASSIST_0=JIMSD_FORM_CUSTOMERNAME

#Setting of the input-candidate values
JIMSD_FORM_CUSTOMERNAME_0=Company A
JIMSD_FORM_CUSTOMERNAME_1=Company B
JIMSD_FORM_CUSTOMERNAME_2=Company C
```

Definition example 2

A definition example of the Configuration file for input-candidate values when cross-setting value correlation is set for text-input type elements at both relation source and relation destination is shown below.

Set the relation source as **Customer name**, and the relation destination as **Inquirer**. Input-candidate values for **Customer name** are Company A, Company B, Company C, and Company D. Input-candidate values for **Inquirer** are Taro Hitachi, Jiro Hitachi, Saburo Hitachi, Shiro Hitachi, and Goro Hitachi.

When Company A is selected at the relation source, Taro Hitachi and Jiro Hitachi are displayed as input-candidate values at the relation destination. When Company B is selected at the relation source, Jiro Hitachi and Saburo Hitachi are displayed as the relation destination. When Company C is selected at the relation source, Saburo Hitachi and Shiro Hitachi are displayed as the input-candidate values at the relation destination. When Company D is selected at the relation source, Shiro Hitachi and Goro Hitachi are displayed as the input-candidate values at the relation destination.

```
#Settings for the ID of the Item element that sets the input-candidate
values
JIMSD_INPUT_ASSIST_0=JIMSD_FORM_CUSTOMERNAME
JIMSD_INPUT_ASSIST_1=JIMSD_FORM_INQUIRYNAME

#Settings for the input-candidate values
JIMSD_FORM_CUSTOMERNAME_0=Company A
JIMSD_FORM_CUSTOMERNAME_1=Company B
JIMSD_FORM_CUSTOMERNAME_2=Company C
JIMSD_FORM_CUSTOMERNAME_3=Company D
JIMSD_FORM_INQUIRYNAME_0=Taro Hitachi
JIMSD_FORM_INQUIRYNAME_1=Jiro Hitachi
JIMSD_FORM_INQUIRYNAME_2=Saburo Hitachi
JIMSD_FORM_INQUIRYNAME_3=Shiro Hitachi
JIMSD_FORM_INQUIRYNAME_4=Goro Hitachi

#Settings for cross-setting value correlation
JIMSD_FORM_CUSTOMERNAME_0_RELATION_JIMSD_FORM_INQUIRYNAME=0,1
JIMSD_FORM_CUSTOMERNAME_1_RELATION_JIMSD_FORM_INQUIRYNAME=1,2
```

```
JIMSD_FORM_CUSTOMERNAME_2_RELATION_JIMSD_FORM_INQUIRYNAME=2,3
JIMSD_FORM_CUSTOMERNAME_3_RELATION_JIMSD_FORM_INQUIRYNAME=3,4
```

Definition example 3

The definition example below of the Configuration file for input-candidate values when cross-setting value correlation is set for elements where the relation source is selection type format and the relation destination is text-input type format.

Set the relation source as `Severity`, and the relation destination as `Reason for severity`. `Severity` is defined as follows in the Item form definition file:

```
<item-code fiid="JIMSD_FORM_SEVERITYCODE" search="true" >
      <label labelname="Severity" />
      <options>
        <option value="0"></option>
        <option value="1">Emergency</option>
        <option value="2">Alert</option>
        <option value="3">Critical</option>
      </options>
</item-code>
```

Input-candidate values for **Reason for severity** are `Reason`, `Reason 1`, `Reason 2`, `Reason 3`, `Reason 4`, and `Reason 5`.

If the relation source is `Not selected`, `Reason`, `Reason 1`, and `Reason 2` are displayed as the input-candidate values for the relation destination. When `Emergency` is selected at the relation source, `Reason 3`, `Reason 4`, and `Reason 5` are displayed as the input-candidate values for the relation destination. When `Alert` is selected at the relation source, `Reason 1`, `Reason 3`, and `Reason 5` are displayed as the input-candidate values for the relation destination.

```
#Settings for the ID of the Item element that sets the input-candidate
values
JIMSD_INPUT_ASSIST_0=JIMSD_FORM_SEVERITYREASON

#Settings for the input-candidate values
JIMSD_FORM_SEVERITYREASON_0=Reason
JIMSD_FORM_SEVERITYREASON_1=Reason 1
JIMSD_FORM_SEVERITYREASON_2=Reason 2
JIMSD_FORM_SEVERITYREASON_3=Reason 3
JIMSD_FORM_SEVERITYREASON_4=Reason 4
JIMSD_FORM_SEVERITYREASON_5=Reason 5

#Settings for cross-setting value correlation
JIMSD_FORM_SEVERITYCODE_0_RELATION_JIMSD_FORM_SEVERITYREASON=0,1,2
JIMSD_FORM_SEVERITYCODE_1_RELATION_JIMSD_FORM_SEVERITYREASON=3,4,5
JIMSD_FORM_SEVERITYCODE_2_RELATION_JIMSD_FORM_SEVERITYREASON=1,3,5
```

Input-assistant property file (hptl_jp1_imss_input_assist_plugin.properties)

Description

The Input-assistant property file defines information related to a log file which is open to users. The log file is the destination for outputting analysis results of a Configuration file for input-candidate values, which is used for the input-assistant function.

Format

```
hptl_jp1_imss_input_assist_log=output-or-not-output-log-files
hptl_jp1_imss_input_assist_log_file_size=size-of-the-log-file
hptl_jp1_imss_input_assist_log_file_num=number-of-log-files
```

File names

- `hptl_jp1_imss_input_assist_plugin.properties`

- `hptl_jp1_imss_input_assist_plugin.properties.model` (Model file of the Input-assistant property file)#

    #

    You can use the model file to reset the contents of the Input-assistant property file. To do so, delete the existing Input-assistant property file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\`

When the definition is applied

The definition is applied after the JP1/IM - Service Support service is restarted.

What is described

Do not edit any keys except the specification keys that are explained in the following table. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–46: List of specification keys that can be set in the Input-assistant property file

Specification key name	Description	Default value
`hptl_jp1_imss_input_assist_log`	Specifies whether to output a log file (`jssinputassist_info`*number*`.log`). Output destination folder: *IM-SS-path*`\log\public\` When `Y` is specified, the log file is output. When a character other than Y is specified, the log file is not output.	`Y`
`hptl_jp1_imss_input_assist_log_file_size`	Specifies the size of the log file (`jssinputassist_info`*number*`.log`) in kilobytes. A half-width integer from 4 to 16384 can be specified.	8192
`hptl_jp1_imss_input_assist_log_file_num`	Specifies the number of log files (`jssinputassist_info`*number*`.log`). A half- width integer from 1 to 16 can be specified.	2

Messages output to a log file

For details about the messages output to log files, see *13.1 Output destinations for messages*.

Note

- If the settings described in the Input-assistant property file are not correct, a message is output to a log file of the input-assistant function.

- The Input-assistant property file (`hptl_jp1_imss_input_assist_plugin.properties`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/ IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: ISO-8859-1

  - In an English environment: ISO-8859-1

  - In a Chinese environment: ISO-8859-1

Definition example

The following is the default definition example:

```
hptl_jp1_imss_input_assist_log=Y
hptl_jp1_imss_input_assist_log_file_size=8192
hptl_jp1_imss_input_assist_log_file_num=2
```

Email definition file (jp1imss_mail_setting.conf)

Description

This file defines the sender, subject, and body of an email message. This file defines when to send email messages. It also defines whether to register Items by email, the details of email notification before deadlines, and details of email notification of held Items.

Format

```
hptl_jp1_imss_mail_server=Mail server
hptl_jp1_imss_mail_port=Port to use for email transmissions
hptl_jp1_imss_mail_user_max=Maximum number of users to whom you can send an
email message in a batch
hptl_jp1_imss_mail_form_name=Name of the sender of an email message
hptl_jp1_imss_mail_form_address=Address of the sender of an email message
hptl_jp1_imss_mail_charset=Character encoding of email messages for
notification before a deadline
hptl_jp1_imss_mail_notice_charset=Character encoding of email messages for
other than notification before a deadline
hptl_jp1_imss_mail_format=Email format

hptl_jp1_imss_mail_user_delete_flag=Whether to send an email message when a
user is deleted
hptl_jp1_imss_mail_user_delete_title=Title of an email message to be sent
when a user is deleted
hptl_jp1_imss_mail_user_delete_text=Body of an email message to be sent
when a user is deleted

hptl_jp1_imss_mail_role_delete_flag=Whether to send an email message when a
role is deleted
hptl_jp1_imss_mail_role_delete_title=Title of an email message to be sent
when a role is deleted
hptl_jp1_imss_mail_role_delete_text=Body of an email message to be sent
when a role is deleted

hptl_jp1_imss_mail_item_create_flag=Whether to send an email message when
an Item is created
hptl_jp1_imss_mail_item_create_title=Title of an email message to be sent
when an Item is created
hptl_jp1_imss_mail_item_create_text=Body of an email message to be sent
when an Item is created

hptl_jp1_imss_mail_item_escalation_flag=Whether to send an email message
when an Item is escalated
hptl_jp1_imss_mail_item_escalation_title=Title of an email message to be
sent when an Item is escalated
hptl_jp1_imss_mail_item_escalation_text=Body of an email message to be sent
when an Item is escalated

hptl_jp1_imss_mail_item_charge_flag=Whether to send an email message when
the person in charge is changed
hptl_jp1_imss_mail_item_charge_title=Title of an email message to be sent
when the person in charge is changed
hptl_jp1_imss_mail_item_charge_text=Body of an email message to be sent
when the person in charge is changed
```

```
hptl_jp1_imss_mail_item_close_flag=Whether to send an email message when an
Item is closed
hptl_jp1_imss_mail_item_close_title=Title of an email message to be sent
when an Item is closed
hptl_jp1_imss_mail_item_close_text=Body of an email message to be sent when
an Item is closed

hptl_jp1_imss_mail_inform_deadline_mail_maximum_num=Maximum number of Items
to be described in an email message to the person in charge (Notification
by email before a deadline)
hptl_jp1_imss_mail_inform_deadline_assigned_title=Title of an email message
to the person in charge (Notification by email before a deadline)
hptl_jp1_imss_mail_inform_deadline_assigned_text=Body of an email message
to the person in charge (Notification by email before a deadline)
hptl_jp1_imss_mail_inform_deadline_assigned_text_rep=Body of an email
message to the person in charge (sections to be repeated) (Notification by
email before a deadline)
hptl_jp1_imss_mail_inform_deadline_assigned_text_over=Body of an email
message to the person in charge (when the maximum number of Items that are
described in a message is exceeded) (Notification by email before a
deadline)
hptl_jp1_imss_mail_inform_deadline_pwb_title=Title of an email message to
the process work board manager (Notification by email before a deadline)
hptl_jp1_imss_mail_inform_deadline_pwb_text=Body of an email message to the
process work board manager (Notification by email before a deadline)
hptl_jp1_imss_mail_inform_leave_mail_maximum_num=Maximum number of Items to
be described in an email message to the person in charge (Notification of
held Items by email)
hptl_jp1_imss_mail_inform_leave_assigned_title=Title of an email message to
the person in charge (Notification of held Items by email)
hptl_jp1_imss_mail_inform_leave_assigned_text=Body of an email message to
the person in charge (Notification of held Items by email)
hptl_jp1_imss_mail_inform_leave_assigned_text_rep=Body of an email message
to the person in charge (sections to be repeated) (Notification of held
Items by email)
hptl_jp1_imss_mail_inform_leave_assigned_text_over=Body of an email message
to the person in charge (when the maximum number of Items that are
described in a message is exceeded) (Notification of held Items by email)
hptl_jp1_imss_mail_inform_leave_pwb_title=Title of an email message to the
process work board manager (Notification of held Items by email)
hptl_jp1_imss_mail_inform_leave_pwb_text=Body of an email message to the
process work board manager (Notification of held Items by email)

hptl_jp1_imss_mail_use_jssitementrybymail=Whether to register an Item by
mail
hptl_jp1_imss_mail_pop3_server=Email address of the POP3 server
hptl_jp1_imss_mail_pop3_port=Port number of the POP3 server
hptl_jp1_imss_mail_pop3_domain=Domain of a user who can register Items by
email
hptl_jp1_imss_mail_pop3_address=Email address of a user who can register
Items by email
hptl_jp1_imss_mail_pop3_user=User account of the mail server to which email
messages for registering Items by mail are sent
hptl_jp1_imss_mail_pop3_password=Password for the mail server to which
email messages for registering Items by email are sent
hptl_jp1_imss_mail_receive_number=Number of email messages to be obtained
from a mail server at a time
hptl_jp1_imss_mail_messageid_maxlen=Message ID length of an email message
```

```
that is used to suppress duplicated registration
hptl_jp1_imss_mail_tmp_file_max_size=Maximum size of a file in megabytes
where an email message is saved temporally
hptl_jp1_imss_mail_tmp_file_max_num=Maximum number of files to be output as
a file in which an email message is saved temporally
hptl_jp1_imss_mail_append_file_output_path=Path to the output destination
folder of an attached file
hptl_jp1_imss_mail_append_file_output_folder_max=Maximum number of folders
to which attached files are output
hptl_jp1_imss_mail_append_file_output_max_size=Maximum size of an attached
file to be output
```

Lines starting with a hash mark (#) are treated as comments.

File names

- `jp1imss_mail_setting.conf`

- `jp1imss_mail_setting.conf.model` (Model file of the Email definition file)[#]

    #

    You can use the model file to reset the contents of the Email definition file. To do so, delete the existing Email definition file, then copy and rename the model file.

Storage folder

IM-SS-path\`conf`

When the definition is applied

The definition is applied after the following JP1/IM - Service Support services are restarted:

- JP1/Service Support - Web Service
- JP1/Service Support

For the following commands, the definition is applied when they are executed:

- `jssitementrybymail` command (for registering an Item by email)
- `jssinformleave` command (for sending notification of held Items by email)
- `jssinformperiod` command (for sending notification by email before the deadline)
- `jssitementry` command[#] (for registering an Item)
- `jssitemedit` command[#] (for editing an Item)

#

For the `jssitementry` (registering an Item) command and the `jssitemedit` (editing an Item) command, the definition is applied when they are executed with the `-mail` option specified.

What is described

You can specify the specification keys described in the table below.

Settings for the mail server and for sending email messages

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–47: List of specification keys that can be set in the email definition file (Settings for a mail server and for sending email messages)

Specification key name	Description	Default value	Specify or not
hptl_jp1_imss_mail_server	Specifies the name of the SMTP server to which you send email messages.	localhost	△
hptl_jp1_imss_mail_port	Specifies the port number of the SMTP server to which you send email messages. A value from 1 to 65535 can be specified.	25	△
hptl_jp1_imss_mail_user_max	Specifies the maximum number of users to whom you can send an email message in a batch. If you want to send a message to users exceeding the number specified here, separate users by the number you specify here. Specify a value from 0 to 1000. When 0 is set, the maximum number of users to whom you can send a message is unlimited.	256	△
hptl_jp1_imss_mail_form_name	Specifies the email sender name that will be displayed by email software.	JP1/IM-SS	△
hptl_jp1_imss_mail_form_address	Specifies the email address of the sender to be displayed by email software. Example: administrator@hitachi.com Note that even if you specify a wrong address, email messages are sent to the entered address.	--	Y
hptl_jp1_imss_mail_charaset	Specifies the character encoding of email notification before a deadline and email notification of held Items. Select from one of the following codes: • us-ascii: ANSI code • iso-8859-1: Latin 1 code • iso-2022-jp: JIS code • shift_jis: Shift JIS • euc-jp: EUC • utf-8: Unicode UTF-8 • Windows-31J: Windows-31J • GB18030: GB18030 code • GB2312: GB2312 code • GBK: GBK code	In a Jananese environment: iso-2022-jp In an English environment: ISO-8859-1 In a Chinese environment: GB18030	△
hptl_jp1_imss_mail_notice_charaset	Specifies the character encoding of email messages(except notification before a deadline and regarding held Items) that are sent when the following operations are performed: • Creating an Item • Escalating an Item • Changing the person in charge • Closing an Item • Deleting a user • Deleting a role You can specify one of the following codes: • us-ascii: ANSI code • iso-8859-1: Latin 1 code • iso-2022-jp: JIS code	In a Jananese environment: Windows-31J In an English environment: ISO-8859-1 In a Chinese environment: GB18030	△

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_notice_ch araset`	• `shift_jis`: Shift JIS • `euc-jp`: EUC • `utf-8`: Unicode UTF-8 • `Windows-31J`: Windows-31J • `GB18030`: GB18030 code • `GB2312`: GB2312 code • `GBK`: GBK code	In a Jananese environment: `Windows-31J` In an English environment: `ISO-8859-1` In a Chinese environment: `GB18030`	Δ
`hptl_jp1_imss_mail_format`	Specifies the email format.	`text/plain`	Δ

Legend:

   Y: Must be specified.

   Δ : Specify if necessary.

   --: No default value

Settings for sending an email message when a user is deleted

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–48: List of specification keys that can be set in the email definition file (Settings for sending an email message when a user is deleted)

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_use r_delete_flag`	Specifies whether to send an email message when a user is deleted. When `ON` is set, the message is sent. When a value other than `ON` is set, the message is not sent.	`OFF`	Δ
`hptl_jp1_imss_mail_use r_delete_title`	Specifies the title of the email message to be sent when a user is deleted. You can specify a string that does not contain control characters (0x00 to 0x1F, and 0x7F). The title can be replaced with variables.[#] If you want to use `%`, specify `%%`. If you specify `\\`, they are converted to `\`. If you specify `\` only, it is not displayed.	`[User deletion notification]`	Δ
`hptl_jp1_imss_mail_use r_delete_text`	Specifies the body of the email message to be sent when a user is deleted. The body can be replaced with variables.[#] You can specify a string that does not contain control characters (0x00 to 0x1F, and 0x7F). If you want to use `%`, specify `%%`. If you want to use a linefeed character, specify `\n`. If you want to use a tab, specify `\t`. If you specify `\\`, they are converted to `\`. If you specify `\` only (the next character is other than `n`, `t`, or `\`), it is not displayed.	`User,` *%USERID%(%USERNAME %)* `is deleted.\nCheck the Items related to user,` *%USERID%(%USERNAME%)* `.`	Δ

Legend:

   Δ : Specify if necessary.

\#

   For details about variables, see *Converting information by using variables*.

Settings for sending an email message when a role is deleted

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–49: List of specification keys that can be set in the email definition file (Settings for sending an email message when a role is deleted)

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_role_delete_flag`	Specifies whether to send an email message when a role is deleted. When ON is set, the message is sent. When a value other than ON is set, the message is not sent.	OFF	△
`hptl_jp1_imss_mail_role_delete_title`	Specifies the title of the email message to be sent when a role is deleted. You can specify a string that does not contain control characters (0x00 to 0x1F, and 0x7F). The title can be replaced with variables.[#] If you want to use %, specify %%. If you specify \\, they are converted to \. If you specify \ only, it is not displayed.	[Role deletion notification]	△
`hptl_jp1_imss_mail_role_delete_text`	Specifies the body of the email message to be sent when a role is deleted. You can specify a string that does not contain control characters (0x00 to 0x1F, and 0x7F). You can use a variable to replace the body.[#] If you want to use %, specify %%. If you want to use a linefeed character, specify \n. If you want to use a tab, specify \t. If you specify \\, they are converted to \. If you specify \ only (the next character is other than n, t, or \), it is not displayed.	Role, *%ROLEID%*(*%ROLENAME%*) is deleted.\nCheck the Items related to role, *%ROLEID%*(*%ROLENAME%*).	△

Legend:

△ : Specify if necessary.

#

For details about variables, see *Converting information by using variables*.

Settings for sending an email message when an Item is created

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–50: List of specification keys that can be set in the email definition file (Settings for sending an email message when an Item is created)

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_item_create_flag`	Specifies whether to send an email message when an Item is created. When ON is set, the message is sent. When a value other than ON is set, the message is not sent.	OFF	△
`hptl_jp1_imss_mail_item_create_title`	Specifies the title of the email message to be sent when an Item is created.	[Notification of a created Item *%ITEMID%*] *%TITLE%*	△

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_ite m_create_title`	You can specify a string that does not contain control characters (0x00 to 0x1F, and 0x7F). The title can be replaced with variables.[#] If you want to use `%`, specify `%%`. If you specify `\\`, they are converted to `\`. If you specify `\` only, it is not displayed.	`[Notification of a created Item %ITEMID%] %TITLE%`	Δ
`hptl_jp1_imss_mail_ite m_create_text`	Specifies the body of the email message to be sent when an Item is created. You can specify a string that does not contain control characters (0x00 to 0x1F, and 0x7F). The body can be replaced with a variables.[#] If you want to use `%`, specify `%%`. If you want to use a linefeed character, specify `\n`. If you want to use a tab, specify `\t`. If you specify `\\`, they are converted to `\`. If you specify `\` only (the next character is other than n, t, or `\`), it is not displayed.	`A new Item is created in the %PROCESS% process of the %SYSTEM% system. \nItem ID: %ITEMID% \nTitle: %TITLE% \nPriority: %PRIORITY% \nStatus: %STATUS%\nPerson in charge: %CHARGE% \nDeadline: %PERIOD%\n`	Δ

Legend:

Δ : Specify when necessary.

#

For details about variables, see *Converting information by using variables*.

Settings for sending an email message when an Item is escalated

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–51: List of specification keys that can be set in the email definition file (Settings for sending an email when an Item is escalated)

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_ite m_escalation_flag`	Specifies whether to send an email message when an Item is escalated. When `ON` is set, the message is sent. When a value other than `ON` is set, the message is not sent.	`OFF`	Δ
`hptl_jp1_imss_mail_ite m_escalation_title`	Specifies the title of the email message to be sent when an Item is escalated. You can specify a string that does not contain control characters (0x00 to 0x1F, and 0x7F). The title can be replaced with variables.[#] If you want to use `%`, specify `%%`. If you specify `\\`, they are converted to `\`. If you specify `\` only, it is not displayed.	`[Item escalation notification %ITEMID%] %TITLE%`	Δ
`hptl_jp1_imss_mail_ite m_escalation_text`	Specifies the body of the email message to be sent when an Item is escalated. You can specify a string that does not contain control characters (0x00 to 0x1F, and 0x7F). The body can be replaced with a variables.[#] If you want to use `%`, specify `%%`.	`An Item is escalated to the %PROCESS% process on the %SYSTEM% system. \nItem ID: %ITEMID% \nTitle: %TITLE% \nPriority: %PRIORITY% \nStatus: %STATUS%\nPerson`	Δ

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_ite` `m_escalation_text`	If you want to use a linefeed character, specify `\n`. If you want to use a tab, specify `\t`. If you specify `\\`, they are converted to `\`. If you specify `\` only (the next character is other than `n`, `t`, or `\`), it is not displayed.	`in charge:` *%CHARGE%* `\nDeadline:` *%PERIOD%*`\n`	Δ

Legend:

   Δ : Specify if necessary.

\#

   For details about variables, see *Converting information by using variables*.

Title and body of the message to be sent when the person in charge is changed

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–52: List of specification keys that can be set in the email definition file (Title and body of a message to be sent when the person in charge is changed)

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_ite` `m_charge_flag`	Specifies whether to send an email message when the person in charge is changed. When ON is set, the message is sent. When a value other than `ON` is set, the message is not sent.	`OFF`	Δ
`hptl_jp1_imss_mail_ite` `m_charge_title`	Specifies the title of the email message to be sent when the person in charge is changed. You can specify a string that does not contain control characters (0x00 to 0x1F, and 0x7F). The title can be replaced with variables.[#] If you want to use `%`, specify `%%`. If you specify `\\`, they are converted to `\`. If you specify `\` only, it is not displayed.	`[Person-in-charge change` `notification` *%ITEMID%*`]` *%TITLE%*	Δ
`hptl_jp1_imss_mail_ite` `m_charge_text`	Specifies the message body to be sent when the person in charge is changed. You can specify a string that does not contain control characters (0x00 to 0x1F, and 0x7F). The body can be replaced with variables.[#] If you want to use `%`, specify `%%`. If you want to use a linefeed character, specify `\n`. If you want to use a tab, specify `\t`. If you specify `\\`, they are converted to `\`. If you specify `\` only (the next character is other than `n`, `t`, or `\`), it is not displayed.	`The person in charge of` `Item ID:` *%ITEMID%* `changed.` `\nSystem:` *%SYSTEM%* `\nProcess:` *%PROCESS%* `\nTitle:` *%TITLE%* `\nPriority:` *%PRIORITY%* `\nStatus:` *%STATUS%*`\nPerson` `in charge:` *%CHARGE%* `\nDeadline:` *%PERIOD%*`\n`	Δ

Legend:

   Δ : Specify if necessary.

\#

   For details about variables, see *Converting information by using variables*.

Title and body of an email message to be sent when an Item is closed

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–53: List of specification keys that can be set in the email definition file (Title and body of a message to be sent when an Item is closed)

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_item_close_flag`	Specifies whether to send an email message when an Item is closed. When ON is set, the message is sent. When a value other than ON is set, the message is not sent.	`OFF`	Δ
`hptl_jp1_imss_mail_item_close_title`	Specifies the title of the email message to be sent when an Item is closed. You can specify a string that does not contain control characters (0x00 to 0x1F, and 0x7F). The title can be replaced with variables.[#] If you want to use %, specify %%. If you specify \\, they are converted to \. If you specify \ only, it is not displayed.	`[Item close notification %ITEMID%]%TITLE%`	Δ
`hptl_jp1_imss_mail_item_close_text`	Specifies the message body to be sent when an Item is closed. You can specify a string that does not contain control characters (0x00 to 0x1F, and 0x7F). The body can be replaced with variables.[#] If you want to use %, specify %%. If you want to use a linefeed character, specify \n. If you want to use a tab, specify \t. If you specify \\, they are converted to \. If you specify \ only (the next character is other than n, t, or \), it is not displayed.	`Item ID: %ITEMID% closed. \nSystem: %SYSTEM% \nProcess: %PROCESS% \nTitle: %TITLE% \nPriority: %PRIORITY% \nStatus: %STATUS%\nPerson in charge: %CHARGE% \nDeadline: %PERIOD%\n`	Δ

Legend:

Δ : Specify if necessary.

\#

For details about variables, see *Converting information by using variables*.

Settings for sending notification by email before a deadline

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–54: List of specification keys that can be set in the email definition file (Settings for sending notification by email before the deadline)

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_inform_deadline_mail_maximum_num`	Specifies the maximum number of Items to be sent by an email message to the person in charge of notification by mail before the deadline. A half-width integer from 1 to 100 can be specified.	`20`	Δ
`hptl_jp1_imss_mail_inform_deadline_assigned_title`	Specifies the title of the email message to be sent to the person in charge of notification before the deadline.	`[For the person in charge of notification before the deadline.] Item - Deadline is coming closer.`	Δ

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_inform_deadline_assigned_text`	Specifies the body of the message to be sent to the person in charge of notification by email before the deadline.[#] If you want to use `%`, specify `%%`.If you want to use a linefeed character, specify `\n`.	The number of Items whose deadline is coming closer is *%ITEMNUM_ASSIGNED%*.`\n` The number of Items whose priority is Very urgent is *%ITEMNUM_PRIHIGH_ASSIGNED%*.`\n` The number of Items whose priority is Urgent is *%ITEMNUM_PRIMID_ASSIGNED%*.`\n` The number of Items whose priority is Standard is *%ITEMNUM_PRINOR_ASSIGNED%*.`\n` System: *%SYSTEM%*`\n` Process: *%PROCESS%*`\n` `--------\n`	Δ
`hptl_jp1_imss_mail_inform_deadline_assigned_text_rep`	Specifies the body (sections to be repeated) of the message to the person in charge of notification by email before the deadline.[#] If you want to use `%`, specify `%%`.If you want to use a linefeed character, specify `\n`.	Item - Deadline for *%ITEMID%* is coming closer.`\n` Title: *%TITLE%*`\n` Priority: *%PRIORITY%*`\n` Status: *%STATUS%*`\n` Person in charge: *%CHARGE%*`\n` Deadline: *%PERIOD%*`\n` `--------\n`	Δ
`hptl_jp1_imss_mail_inform_deadline_assigned_text_over`	Specifies the body of the email message which is output when the maximum number of Items that are described in a single message is exceeded to a person in charge of notification by email that the deadline is coming closer.[#] If you want to use `%`, specify `%%`.If you want to use a linefeed character, specify `\n`.	The maximum number of Items that can be described in this message is exceeded.`\n` There are *%ITEMNUM_ASSIGNED_REMAIN%* Items whose deadline is coming closer.`\n`	Δ
`hptl_jp1_imss_mail_inform_deadline_pwb_title`	Specifies the title of the email message notifying that the deadline is coming closer to a process work board manager[#] If you want to use `%`, specify `%%`.If you want to use a linefeed character, specify `\n`.	[Deadline notification for process work board managers] The Item deadline for *%ITEMNUM_PWB%* Items is coming closer.	Δ
`hptl_jp1_imss_mail_inform_deadline_pwb_text`	Specifies the body of the email message notifying that the deadline is coming closer to a process work board manager.[#] If you want to use `%`, specify `%%`.If you want to use a linefeed character, specify `\n`.	Advise the number of Items whose deadline is coming closer.`\n` Number of days before the deadline: *%BEFORE_DAYS%*`\nSettings for the number of email notifications:` *%SEND_FREQUENCY%*`\n` System: *%SYSTEM%*`\n` Process: *%PROCESS%*`\n` Number of Items: *%ITEMNUM_PWB%*`\n`	Δ

12. Definition Files

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_inform_deadline_pwb_text`	Specifies the body of the email message notifying that the deadline is coming closer to a process work board manager.[#] If you want to use `%`, specify `%%`.If you want to use a linefeed character, specify `\n`.	`The number of Items whose priority is set to Very urgent is %ITEMNUM_PRIHIGH_PWB%.\n The number of Items whose priority is set to Urgent is %ITEMNUM_PRIMID_PWB%.\n The number of Items whose priority is set to Standard is %ITEMNUM_PRINOR_PWB%.\n`	Δ

Legend:

   Δ : Specify if necessary.

\#

   For details about variables, see *Converting information by using variables*.

Settings for sending notification of held Items by email

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–55: List of specification keys that can be set in the email definition file (Settings for sending notification of held Items by email)

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_inform_leave_mail_maximum_num`	Specifies the maximum number of Items to be sent by a single email message to the person in charge of notification of held Items by email. A half-width integer from 1 to 100 can be specified.	`20`	Δ
`hptl_jp1_imss_mail_inform_leave_assigned_title`	Specifies the title of the email message to be sent to the person in charge of notification of held Items by email.	`[Held Item notification for the person in charge] Processing of Items is being delayed.`	Δ
`hptl_jp1_imss_mail_inform_leave_assigned_text`	Specifies the body of the email message to be sent to the person in charge of notification of held Items by email.[#] If you want to use `%`, specify `%%`.If you want to use a linefeed character, specify `\n`.	`The number of Items whose processing is being delayed is %ITEMNUM_ASSIGNED%.\n %ITEMNUM_LEAVE_DETAIL% \nPriority to be monitored: %PRIORITY_LIST% \nTime that is not updated: \n %ITEM_LEAVE_THRESHOLD% \nSystem: %SYSTEM% \nProcess: %PROCESS% \n--------\n`	Δ
`hptl_jp1_imss_mail_inform_leave_assigned_text_rep`	Specifies the body (the part to be repeated) of the email message to be sent to the person in charge of notification of held Items by email.[#] If you want to use `%`, specify `%%`.If you want to use a linefeed character, specify `\n`.	`Processing of the %ITEMID% Item is being delayed. \nTitle: %TITLE% \nPriority: %PRIORITY% \nStatus: %STATUS%\nPerson in charge: %CHARGE%`	Δ

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_inf orm_leave_assigned_tex t_rep`	Specifies the body (the part to be repeated) of the email message to be sent to the person in charge of notification of held Items by email.[#] If you want to use `%`, specify `%%`. If you want to use a linefeed character, specify `\n`.	`\nUpdate date and time:` *%LASTUPDATE%*`\n--------\n`	Δ
`hptl_jp1_imss_mail_inf orm_leave_assigned_tex t_over`	Specifies the body of the email message to the person in charge notification of held Items by email, which is sent when the maximum number of Items that are described in a single message is exceeded.[#] If you want to use `%`, specify `%%`. If you want to use a linefeed character, specify `\n`.	`The maximum number of Items that can be described in this notification is exceeded. \nThe remaining number of Items whose processing is being delayed is` *%ITEMNUM_ASSIGNED_REMAIN %%*`.\n`	Δ
`hptl_jp1_imss_mail_inf orm_leave_pwb_title`	Specifies the title of the email message to the person in charge of notification of held Items by email.[#] If you want to use `%`, specify `%%`. If you want to use a linefeed character, specify `\n`.	`[Held Item notification for the process work board manager] Processing of` *%ITEMNUM_PWB%* `Items is being delayed.`	Δ
`hptl_jp1_imss_mail_inf orm_leave_pwb_text`	Specifies the body of the email message to be sent to the process work board manager for notification of held Items by email.[#] If you want to use `%`, specify `%%`. If you want to use a linefeed character, specify `\n`.	`Advise the number of Items whose processing is being delayed.\nThe number of Items whose processing is being delayed is` *%ITEMNUM_PWB%*`.\n` *%ITEMNUM_LEAVE_DETAIL%* `\nPriority to be monitored:` *%PRIORITY_LIST%* `\nTime that is not updated: \n` *%ITEM_LEAVE_THRESHOLD%* `\nSystem:` *%SYSTEM%* `\nProcess:` *%PROCESS%*`\n`	Δ

Legend:

   Δ : Specify if necessary.

\#

   For details about variables, see *Converting information by using variables*.

Settings for registering Items by email

Use an equal sign (=) to connect a specifiable key and its value.

Table 12–56: List of specification keys in the email definition file (Settings for registering Items by email)

Specification key name	Description	Default value	Specify or not
`hptl_jp1_imss_mail_use_jssitem entrybymail`	Specifies whether to allow use of a command to register Items by email. When a value other than `ON` is set, the command cannot be used to register Items by email.	`OFF`	Y
`hptl_jp1_imss_mail_pop3_server`	Specifies the address of the POP3 server.	`localhost`	Δ
`hptl_jp1_imss_mail_pop3_port`	Specifies the port number of the POP3 server. Specify a half-width integer from 1 to 65535.	`110`	Y

Specification key name	Description	Default value	Specify or not
hptl_jp1_imss_mail_pop3_domain	Specifies the domain of a user who can register Items by email. To specify multiple users, separate them with semicolons (;). You can specify a maximum of 100 domains (strings that conform to RFC822).#	--	Δ
hptl_jp1_imss_mail_pop3_address	Specifies the email address of a user who can register Items by email. To specify multiple users, separate them with semicolons (;). You can specify a maximum of 1,000 email addresses (strings that conforms to RFC822).#	--	Y
hptl_jp1_imss_mail_pop3_user	Specifies the user account of a mail server to which an email message for registering Items by mail is sent.	--	Y
hptl_jp1_imss_mail_pop3_password	Specifies the password for a mail server to which an email message for registering an Item by email is sent.	--	Y
hptl_jp1_imss_mail_receive_number	Specifies the number of email messages to be obtained from the mail server at a time. Specify a half-width integer from 1 to 100.	50	Y
hptl_jp1_imss_mail_messageid_maxlen	Specifies the message ID length (in bytes) of an email message that is used to suppress duplicated registration. Specify a half-width integer from 1 to 255.	64	Y
hptl_jp1_imss_mail_tmp_file_max_size	Specifies the maximum size of a file where an email message is saved temporarily (in megabytes). Specify a half-width integer from 1 to 10.	5	Y
hptl_jp1_imss_mail_tmp_file_max_num	Specifies the maximum number of files to be output as a file in which an email message is saved temporarily. Specify a half-width integer from 1 to 200.	100	Y
hptl_jp1_imss_mail_append_file_output_path	Specifies the path to the output destination folder for the attached file(s) within 100 characters. Separate paths with slashes (/).	--	Y
hptl_jp1_imss_mail_append_file_output_folder_max	Specifies the maximum number of folders to which attached files can be output. Specify a half-width integer from 1 to 999.	200	Y
hptl_jp1_imss_mail_append_file_output_max_size	Specifies the maximum size of an attached file that can be output (in megabytes). Specify a half-width integer from 1 to 5.	5	Y

Legend:

Y: Must be specified.

Δ : Specify if necessary.

--: No default value

#

If both hptl_jp1_imss_mail_pop3_domain and hptl_jp1_imss_mail_pop3_address are specified, Item registration will be requested by emails with both of those specifications.

Converting information by using variables

For the title and body of an email message, you can specify information contained in Item information by using variables. When an email message is sent, variables are converted to information contained in Item information. To describe variables, use a format like *%USERID%*. The following table lists the variables you can use and the table after that shows the results after conversion.

Table 12–57: Variables you can use in the title or body of email messages

Information to be sent	Name of keys for which variables can be specified	Specifiable variable name
User deletion	• `hptl_jp1_imss_mail_user_delete_title` • `hptl_jp1_imss_mail_user_delete_text`	*%USERID%*
		%USERNAME%
Role deletion	• `hptl_jp1_imss_mail_role_delete_title` • `hptl_jp1_imss_mail_role_delete_text`	*%ROLEID%*
		%ROLENAME%
Item creation	• `hptl_jp1_imss_mail_item_create_title` • `hptl_jp1_imss_mail_item_create_text`	*%ITEMID%*
		%TITLE%
		%SYSTEM%
		%PROCESS%
		%PROCESSITEMID%
		%SEVERITY%
		%SEVERITYREASON%
		%IMPACT%
		%IMPACTREASON%
		%PRIORITY%
		%PRIORITYREASON%
		%ITEMCATEGORY%
		%ISSUECATEGORY%
		%CHANGESCALE%
		%RELEASETYPE%
		%STATUS%
		%RESULT%
		%ACCRUALDATE%
		%PHENOMENON%
		%SOLUTION%
		%REGISTRANT%
		%REGISTDATE%
		%CHARGE%
		%PERIOD%
		%RESPONDENT%
		%STARTDATE%
		%COMPDATE%
		%CUSTOMERNAME%
		%INQUIRYNAME%
		%ESTIMATEDCOST%

Information to be sent	Name of keys for which variables can be specified	Specifiable variable name
Item creation	• `hptl_jp1_imss_mail_item_create_title` • `hptl_jp1_imss_mail_item_create_text`	*%ACTUALCOST%*
		%EFFECTSERVICE% (Cannot be specified for the email title.)
		%FAILURELOCATION% (Cannot be specified for the email title.)
		%SUMMARY% (Cannot be specified for the email title.)
		%AVOIDANCECODE%
		%AVOIDANCE% (Cannot be specified for the email title.)
		%SITUATION% (Cannot be specified for the email title.)
		%MEASURES% (Cannot be specified for the email title.)
		%CAUSE%
		%ROOTCAUSE% (Cannot be specified for the email title.)
		%SOLUTION% (Cannot be specified for the email title.)
		%SCHEDULE% (Cannot be specified for the email title.)
		%IMPACTEVAL% (Cannot be specified for the email title.)
		%DELIBERATIONRST% (Cannot be specified for the email title.)
		%FREEDESCRIPTION% (Cannot be specified for the email title.)
		%JP1PRODUCTNAME%
		%JP1JOBNETNAME%
		%JP1JOBNAME%
		%JP1SNMPSRC%
		%JP1NODENAME%
		%JP1ALARMNAME%
		%LASTUPDATE%
		%IMEVENTNO%
		%IMHOSTNAME%
		%USERTEXT01% to *%USERTEXT20%* (Cannot be specified for the email title.)
		%USERINT01% to *%USERINT05%*

Information to be sent	Name of keys for which variables can be specified	Specifiable variable name
Item creation	• `hptl_jp1_imss_mail_item_create_title` • `hptl_jp1_imss_mail_item_create_text`	*%USEREXTTYPE01%* to *USEREXTTYPE05*
		%USERCODE01% to *%USERCODE05%*
		%USERTIME01% to *%USERTIME05%*
Escalation of an Item	• `hptl_jp1_imss_mail_item_escalation_title` • `hptl_jp1_imss_mail_item_escalation_text`	*%ITEMID%*
		%TITLE%
		%SYSTEM%
		%PROCESS%
		%PROCESSITEMID%
		%SEVERITY%
		%SEVERITYREASON%
		%IMPACT%
		%IMPACTREASON%
		%PRIORITY%
		%PRIORITYREASON%
		%ITEMCATEGORY%
		%ISSUECATEGORY%
		%CHANGESCALE%
		%RELEASETYPE%
		%STATUS%
		%RESULT%
		%ACCRUALDATE%
		%PHENOMENON%
		%SOLUTION%
		%REGISTRANT%
		%REGISTDATE%
		%CHARGE%
		%PERIOD%
		%RESPONDENT%
		%STARTDATE%
		%COMPDATE%
		%CUSTOMERNAME%
		%INQUIRYNAME%
		%ESTIMATEDCOST%
		%ACTUALCOST%
		%EFFECTSERVICE%

Information to be sent	Name of keys for which variables can be specified	Specifiable variable name
Escalation of an Item	• `hptl_jp1_imss_mail_item_escalation_title` • `hptl_jp1_imss_mail_item_escalation_text`	(Cannot be specified for the email title.)
		%FAILURELOCATION% (Cannot be specified for the email title.)
		%SUMMARY% (Cannot be specified for the email title.)
		%AVOIDANCECODE%
		%AVOIDANCE% (Cannot be specified for the email title.)
		%SITUATION% (Cannot be specified for the email title.)
		%MEASURES% (Cannot be specified for the email title.)
		%CAUSE%
		%SOLUTION% (Cannot be specified for the email title.)
		%SCHEDULE% (Cannot be specified for the email title.)
		%IMPACTEVAL% (Cannot be specified for the email title.)
		%DELIBERATIONRST% (Cannot be specified for the email title.)
		%FREEDESCRIPTION% (Cannot be specified for the email title.)
		%JP1PRODUCTNAME%
		%JP1JOBNETNAME%
		%JP1JOBNAME%
		%JP1SNMPSRC%
		%JP1NODENAME%
		%JP1ALARMNAME%
		%LASTUPDATE%
		%IMEVENTNO%
		%IMHOSTNAME%
		%USERTEXT01% to *%USERTEXT20%* (Cannot be specified for the email title.)
		%USERINT01% to *%USERINT05%*
		%USEREXTTYPE01% to *USEREXTTYPE05*
		%USERCODE01% to *%USERCODE05%*

Information to be sent	Name of keys for which variables can be specified	Specifiable variable name
Escalation of an Item	• `hptl_jp1_imss_mail_item_escalation_title` • `hptl_jp1_imss_mail_item_escalation_text`	*%USERTIME01%* to *%USERTIME05%*
Changes of the person in charge	• `hptl_jp1_imss_mail_item_charge_title` • `hptl_jp1_imss_mail_item_charge_text`	*%ITEMID%*
		%TITLE%
		%SYSTEM%
		%PROCESS%
		%PROCESSITEMID%
		%SEVERITY%
		%SEVERITYREASON%
		%IMPACT%
		%IMPACTREASON%
		%PRIORITY%
		%PRIORITYREASON%
		%ITEMCATEGORY%
		%ISSUECATEGORY%
		%CHANGESCALE%
		%RELEASETYPE%
		%STATUS%
		%RESULT%
		%ACCRUALDATE%
		%PHENOMENON%
		%SOLUTION%
		%REGISTRANT%
		%REGISTDATE%
		%CHARGE%
		%PERIOD%
		%RESPONDENT%
		%STARTDATE%
		%COMPDATE%
		%CUSTOMERNAME%
		%INQUIRYNAME%
		%ESTIMATEDCOST%
		%ACTUALCOST%
		%EFFECTSERVICE% (Cannot be specified for the email title.)

Information to be sent	Name of keys for which variables can be specified	Specifiable variable name
Changes of the person in charge	• `hptl_jp1_imss_mail_item_charge_title` • `hptl_jp1_imss_mail_item_charge_text`	*%FAILURELOCATION%* (Cannot be specified for the email title.)
		%SUMMARY% (Cannot be specified for the email title.)
		%AVOIDANCECODE%
		%AVOIDANCE% (Cannot be specified for the email title.)
		%SITUATION% (Cannot be specified for the email title.)
		%MEASURES% (Cannot be specified for the email title.)
		%CAUSE%
		%ROOTCAUSE% (Cannot be specified for the email title.)
		%SOLUTION% (Cannot be specified for the email title.)
		%SCHEDULE% (Cannot be specified for the email title.)
		%IMPACTEVAL% (Cannot be specified for the email title.)
		%DELIBERATIONRST% (Cannot be specified for the email title.)
		%FREEDESCRIPTION% (Cannot be specified for the email title.)
		%JP1PRODUCTNAME%
		%JP1JOBNETNAME%
		%JP1JOBNAME%
		%JP1SNMPSRC%
		%JP1NODENAME%
		%JP1ALARMNAME%
		%LASTUPDATE%
		%IMEVENTNO%
		%IMHOSTNAME%
		%USERTEXT01% to *%USERTEXT20%* (Cannot be specified for the email title.)
		%USERINT01% to *%USERINT05%*
		%USEREXTTYPE01% to *USEREXTTYPE05*
		%USERCODE01% to *%USERCODE05%*

Information to be sent	Name of keys for which variables can be specified	Specifiable variable name
Changes of the person in charge	• `hptl_jp1_imss_mail_item_charge_title` • `hptl_jp1_imss_mail_item_charge_text`	*%USERTIME01%* to *%USERTIME05%*
Closing an Item	• `hptl_jp1_imss_mail_item_close_title` • `hptl_jp1_imss_mail_item_close_text`	*%ITEMID%*
		%TITLE%
		%SYSTEM%
		%PROCESS%
		%PROCESSITEMID%
		%SEVERITY%
		%SEVERITYREASON%
		%IMPACT%
		%IMPACTREASON%
		%PRIORITY%
		%PRIORITYREASON%
		%ITEMCATEGORY%
		%ISSUECATEGORY%
		%CHANGESCALE%
		%RELEASETYPE%
		%STATUS%
		%RESULT%
		%ACCRUALDATE%
		%PHENOMENON%
		%SOLUTION%
		%REGISTRANT%
		%REGISTDATE%
		%CHARGE%
		%PERIOD%
		%RESPONDENT%
		%STARTDATE%
		%COMPDATE%
		%CUSTOMERNAME%
		%INQUIRYNAME%
		%ESTIMATEDCOST%
		%ACTUALCOST%
		%EFFECTSERVICE% (Cannot be specified for the email title.)
		%FAILURELOCATION%

Information to be sent	Name of keys for which variables can be specified	Specifiable variable name
Closing an Item	• `hptl_jp1_imss_mail_item_close_title` • `hptl_jp1_imss_mail_item_close_text`	(Cannot be specified for the email title.)
		%SUMMARY% (Cannot be specified for the email title.)
		%AVOIDANCECODE%
		%AVOIDANCE% (Cannot be specified for the email title.)
		%SITUATION% (Cannot be specified for the email title.)
		%MEASURES% (Cannot be specified for the email title.)
		%CAUSE%
		%ROOTCAUSE% (Cannot be specified for the email title.)
		%SOLUTION% (Cannot be specified for the email title.)
		%SCHEDULE% (Cannot be specified for the email title.)
		%IMPACTEVAL% (Cannot be specified for the email title.)
		%DELIBERATIONRST% (Cannot be specified for the email title.)
		%FREEDESCRIPTION% (Cannot be specified for the email title.)
		%JP1PRODUCTNAME%
		%JP1JOBNETNAME%
		%JP1JOBNAME%
		%JP1SNMPSRC%
		%JP1NODENAME%
		%JP1ALARMNAME%
		%LASTUPDATE%
		%IMEVENTNO%
		%IMHOSTNAME%
		%USERTEXT01% to *%USERTEXT20%* (Cannot be specified for the email title.)
		%USERINT01% to *%USERINT05%*
		%USEREXTTYPE01% to *USEREXTTYPE05*
		%USERCODE01% to *%USERCODE05%*
		%USERTIME01% to *%USERTIME05%*

Information to be sent	Name of keys for which variables can be specified	Specifiable variable name
Notification by email before the deadline	• `hptl_jp1_imss_mail_inform_deadline_as signed_title` • `hptl_jp1_imss_mail_inform_deadline_as signed_text_over` • `hptl_jp1_imss_mail_inform_deadline_as signed_text`	*%SYSTEM%*
		%PROCESS%
		%ITEMNUM_ASSIGNED%
		%ITEMNUM_PRIHIGH_ASSIGNED%
		%ITEMNUM_PRIMID_ASSIGNED%
		%ITEMNUM_PRINOR_ASSIGNED%
		%ITEMNUM_ASSIGNED_REMAIN%
		%ITEMNUM_PWB%
		%ITEMNUM_PRIHIGH_PWB%
		%ITEMNUM_PRIMID_PWB%
		%ITEMNUM_PRINOR_PWB%
	• `hptl_jp1_imss_mail_inform_deadline_pw b_title` • `hptl_jp1_imss_mail_inform_deadline_pw b_text`	*%SYSTEM%*
		%PROCESS%
		%ITEMNUM_ASSIGNED%
		%ITEMNUM_PRIHIGH_ASSIGNED%
		%ITEMNUM_PRIMID_ASSIGNED%
		%ITEMNUM_PRINOR_ASSIGNED%
		%ITEMNUM_PWB%
		%BEFORE_DAYS%
		%SEND_FREQUENCY%
		%ITEMNUM_PRIHIGH_PWB%
		%ITEMNUM_PRIMID_PWB%
		%ITEMNUM_PRINOR_PWB%
	• `hptl_jp1_imss_mail_inform_deadline_as signed_text_rep`	*%ITEMID%*
		%TITLE%
		%PRIORITY%
		%STATUS%
		%CHARGE%
		%PERIOD%
Notification of a held Item	• `hptl_jp1_imss_mail_inform_leave_assig ned_title` • `hptl_jp1_imss_mail_inform_leave_assig ned_text` • `hptl_jp1_imss_mail_inform_leave_assig ned_text_over`	*%ITEMNUM_ASSIGNED%*
		%ITEM_LEAVE_THRESHOLD%
		%PRIORITY_LIST%
		%ITEMNUM_LEAVE_DETAIL%
		%SYSTEM%
		%PROCESS%

Information to be sent	Name of keys for which variables can be specified	Specifiable variable name
Notification of a held Item	• `hptl_jp1_imss_mail_inform_leave_assigned_title` • `hptl_jp1_imss_mail_inform_leave_assigned_text` • `hptl_jp1_imss_mail_inform_leave_assigned_text_over`	*%ITEMNUM_ASSIGNED_REMAIN%* *%ITEMNUM_PWB%*
	• `hptl_jp1_imss_mail_inform_leave_pwb_title` • `hptl_jp1_imss_mail_inform_leave_pwb_text`	*%ITEMNUM_ASSIGNED%*
		%ITEM_LEAVE_THRESHOLD%
		%PRIORITY_LIST%
		%ITEMNUM_LEAVE_DETAIL%
		%SYSTEM%
		%PROCESS%
		%ITEMNUM_PWB%
	• `hptl_jp1_imss_mail_inform_leave_assigned_text_rep`	*%ITEMID%*
		%TITLE%
		%PRIORITY%
		%CHARGE%
		%LASTUPDATE%
		%PERIOD%

Table 12–58: Conversion results of variables

Specifiable variable name	Contents after conversion
%USERID%	Converted to the *user ID* of a user to be deleted.
%USERNAME%	Converted to the *user name* of a user to be deleted.
%ROLEID%	Converted to the *role ID* of a role to be deleted.
%ROLENAME%	Converted to the *role name* of a role to be deleted.
%ITEMID%	Converted to the *Item ID* of the applicable Item.
%TITLE%	Converted to the string to be displayed for *Title* of the applicable Item.
%SYSTEM%	Converted to the string to be displayed for *System* of the applicable Item.
%PROCESS%	Converted to the string to be displayed for *Process* of the applicable Item.
%PROCESSITEMID%	Converted to the string to be displayed for *Inter-process ID* of the applicable Item.
%SEVERITY%	Converted to the string to be displayed for *Severity* of the applicable Item.
%SEVERITYREASON%	Converted to the string to be displayed for *Reason for severity* of the applicable Item.
%IMPACT%	Converted to the string to be displayed for *Impact level* of the applicable Item.
%IMPACTREASON%	Converted to the string to be displayed for *Reason for Impact level* of the applicable Item.
%PRIORITY%	Converted to the string to be displayed for *Priority* of the applicable Item.
%PRIORITYREASON%	Converted to the string to be displayed for *Reason for priority* of the applicable Item.

Specifiable variable name	Contents after conversion
%ITEMCATEGORY%	Converted to the string to be displayed for *Item type* of the applicable Item.
%ISSUECATEGORY%	Converted to the string to be displayed for *Problem domain* of the applicable Item.
%CHANGESCALE%	Converted to the string to be displayed for *Scale of change* of the applicable Item.
%RELEASETYPE%	Converted to the string to be displayed for *Release type* of the applicable Item.
%STATUS%	Converted to the string to be displayed for *Status* of the applicable Item.
%RESULT%	Converted to the string to be displayed for *Result* of the applicable Item.
%ACCRUALDATE%	Converted to the string to be displayed for *Occurrence date and time* of the applicable Item.
%PHENOMENON%	Converted to the string to be displayed for *Occurred type* of the applicable Item.
%SOLUTION%	Converted to the string to be displayed for *Solution category* of the applicable Item.
%REGISTRANT%	Converted to the string to be displayed for *Registrant* of the applicable Item.
%REGISTDATE%	Converted to the string to be displayed for *Registration date and time* of the applicable Item.
%CHARGE%	Converted to the string to be displayed for *Person in charge* of the applicable Item.
%PERIOD%	Converted to the string to be displayed for *Deadline* of the applicable Item.
%RESPONDENT%	Converted to the string to be displayed for *Answerer* of the applicable Item.
%STARTDATE%	Converted to the string to be displayed for *Start date and time* of the applicable Item.
%COMPDATE%	Converted to the string to be displayed for *End date and time* of the applicable Item.
%CUSTOMERNAME%	Converted to the string to be displayed for *Customer name* of the applicable Item.
%INQUIRYNAME%	Converted to the string to be displayed for *Inquirer* of the applicable Item.
%ESTIMATEDCOST%	Converted to the string to be displayed for *Cost (planned)* of the applicable Item.
%ACTUALCOST%	Converted to the string to be displayed for *Cost (actual)* of the applicable Item.
%EFFECTSERVICE%	Converted to the string to be displayed for *Impact service* of the applicable Item.
%FAILURELOCATION%	Converted to the string to be displayed for *Problem component and version* of the applicable Item.
%SUMMARY%	Converted to the string to be displayed for *Overview* of the applicable Item.
%AVOIDANCECODE%	Converted to the string to be displayed for *Workaround type* of the applicable Item.
%AVOIDANCE%	Converted to the string to be displayed for *Workaround* of the applicable Item.
%SITUATION%	Converted to the string to be displayed for *Work status* of the applicable Item.
%MEASURES%	Converted to the string to be displayed for *How to avoid the problem in the future* of the applicable Item.
%CAUSE%	Converted to the string to be displayed for *Cause* of the applicable Item.
%ROOTCAUSE%	Converted to the string to be displayed for *Fundamental cause* of the applicable Item.
%SOLUTION%	Converted to the string to be displayed for *Solution* of the applicable Item.
%SCHEDULE%	Converted to the string to be displayed for *Schedule and main steps* of the applicable Item.
%IMPACTEVAL%	Converted to the string to be displayed for *Impact assessment for change* of the applicable Item.
%DELIBERATIONRST%	Converted to the string to be displayed for *Discussions result* of the applicable Item.
%FREEDESCRIPTION%	Converted to the string to be displayed for *Free memo column* of the applicable Item.
%JP1PRODUCTNAME%	Converted to the string to be displayed for *Product name* of the applicable Item.

12. Definition Files

Specifiable variable name	Contents after conversion
%JP1JOBNETNAME%	Converted to the string to be displayed for *Jobnet name* of the applicable Item.
%JP1JOBNAME%	Converted to the string to be displayed for *Job name* of the applicable Item.
%JP1SNMPSRC%	Converted to the string to be displayed for *SNMP source* of the applicable Item.
%JP1NODENAME%	Converted to the string to be displayed for *Monitored node name* of the applicable Item.
%JP1ALARMNAME%	Converted to the string to be displayed for *Alarm name* of the applicable Item.
%LASTUPDATE%	Converted to the string to be displayed for *Update date and time* of the applicable Item.
%IMEVENTNO%	Converted to the string to be displayed for *Event database serial number* of the applicable Item.
%IMHOSTNAME%	Converted to the string to be displayed for *JP1/IM-M host name* of the applicable Item.
%USERTEXT01% to %USERTEXT20%	Converted to the string to be displayed for *Extended text 01* to *Extended text 20* of the applicable Item.
%USERINT01% to %USERINT05%	Converted to the string to be displayed for *Extended numerical data 01* to *Extended numerical data 05* of the applicable Item.
%USEREXTTYPE01% to USEREXTTYPE05	Converted to the string to be displayed for *Extended user information type 01* to *Extended user information type 05* of the applicable Item.
%USERCODE01% to %USERCODE05%	Converted to the string to be displayed for *Extended code 01* to *Extended code 05* of the applicable Item.
%USERTIME01% to %USERTIME05%	Converted to the string to be displayed for *Extended time 01* to *Extended time 05* of the applicable Item.
%ITEMNUM_ASSIGNED%	Converted to the total number of target Items assigned to the applicable person in charge.
%ITEMNUM_PRIHIGH_ASSIGNED%	Converted to the number of Items whose priority set by the person in charge is `Very urgent`.
%ITEMNUM_PRIMID_ASSIGNED%	Converted to the number of Items whose priority set by the person in charge is `Urgent`.
%ITEMNUM_PRINOR_ASSIGNED%	Converted to the number of Items whose priority set by the person in charge is `Standard`.
%ITEMNUM_ASSIGNED_REMAIN%	Converted to the number of remaining Items which are not contained in the email message to the person in charge.
%ITEMNUM_PWB%	Converted to the total number of target Items assigned to the process work board manager.
%ITEMNUM_PRIHIGH_PWB%	Converted to the number of Items whose priority set by the process work board manager is `Very urgent`.
%ITEMNUM_PRIMID_PWB%	Converted to the number of Items whose priority set by the process work board manager is `Urgent`.
%ITEMNUM_PRINOR_PWB%	Converted to the number of Items whose priority set by the process work board manager is `Standard`.
%BEFORE_DAYS%	Converted to the number of days before sending the notification by email before the deadline.
%SEND_FREQUENCY%	Converted to the frequency for sending notification by email.
%ITEM_LEAVE_THRESHOLD%	Converted to a list of periods for an Item to be regarded as held after the Item is left unprocessed for each status.
%PRIORITY_LIST%	Converted to a list of priorities to be monitored.
%ITEMNUM_LEAVE_DETAIL%	Converted to the number of held Items for each status.
%LASTUPDATE%	Converted to the update date and time of the Item.

12. Definition Files

Notes

- If % exists only at the beginning of a variable, such as *%USERID*, it is sent without being converted.

- If a variable name contains an error, it is sent without being converted.

Note

- The Email definition file (`jp1imss_mail_setting.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following is a definition example when you set to send an email message when the person in charge is changed. Note that this example shows only the part that is necessary for the setting.

```
hptl_jp1_imss_mail_server=MailServer1
hptl_jp1_imss_mail_port=25
hptl_jp1_imss_mail_user_max=256
hptl_jp1_imss_mail_form_address=administrator@hitachi.com
hptl_jp1_imss_mail_notice_charaset=Windows-31J
hptl_jp1_imss_mail_item_charge_flag=ON
hptl_jp1_imss_mail_item_charge_title=[the person in charge change
notification %ITEMID%]%TITLE%
hptl_jp1_imss_mail_item_charge_text= the person in charge (Item ID: %ITEMID
%) changed.\nSystem: %SYSTEM%\nProcess: %PROCESS%\nTitle: %TITLE%
\nPriority: %PRIORITY%\nStatus: %STATUS%\nPerson in charge: %CHARGE%
\nDeadline: %PERIOD%\n
```

The following is a definition example of an email message to be used when notification is sent by email before the deadline:

```
hptl_jp1_imss_mail_form_name=JP1/IM-SS
hptl_jp1_imss_mail_form_address=administrator@hitachi.com
hptl_jp1_imss_mail_charaset=iso-2022-jp
hptl_jp1_imss_mail_format=text/plain
hptl_jp1_imss_mail_inform_deadline_mail_maximum_num=20
hptl_jp1_imss_mail_inform_deadline_assigned_title=[Deadline notification
for the person in charge] Item - Deadline is coming closer.
hptl_jp1_imss_mail_inform_deadline_assigned_text=The number of Items whose
deadline is coming closer is %ITEMNUM_ASSIGNED%.\n  The number of Items
whose priority is Very urgent is %ITEMNUM_PRIHIGH_ASSIGNED%.\n  The number
of Items whose priority is Urgent is %ITEMNUM_PRIMID_ASSIGNED%.\n  The
number of Items whose priority is Standard is %ITEMNUM_PRINOR_ASSIGNED%.
\nSystem: %SYSTEM%\n
Process: %PROCESS%\n--------\n
hptl_jp1_imss_mail_inform_deadline_assigned_text_rep=Item - Deadline for
%ITEMID% is coming closer.\nTitle: %TITLE%\nPriority: %PRIORITY%\nStatus:
%STATUS%\nPerson in charge: %CHARGE%\nDeadline: %PERIOD%\n --------\n
hptl_jp1_imss_mail_inform_deadline_assigned_text_over=The maximum number of
Items that can be described in this message is exceeded.\nThere are
```

```
%ITEMNUM_ASSIGNED_REMAIN% Items whose deadline is coming closer.\n
hptl_jp1_imss_mail_inform_deadline_pwb_title=[Deadline notification for the
process work board manager] The Item deadline for %ITEMNUM_PWB% Items is
coming closer.
hptl_jp1_imss_mail_inform_deadline_pwb_text=Advise the number of Items
whose deadline is coming closer.\nNumber of days before the deadline:
%BEFORE_HOURS%\nSettings for the number of email notifications:
%SEND_FREQUENCY%\nSystem: %SYSTEM%\nProcess: %PROCESS%\nNumber of Items:
%ITEMNUM_PWB%\n  The number of Items whose priority is set to Very urgent
is %ITEMNUM_PRIHIGH_ASSIGNED%.\n  The number of Items whose priority is set
to Urgent is %ITEMNUM_PRIMID_ASSIGNED%.\n  The number of Items whose
priority is set to Standard is %ITEMNUM_PRINOR_ASSIGNED%.\n
```

The following is an example of an email notification of held Items:

```
hptl_jp1_imss_mail_form_name=JP1/IM-SS
hptl_jp1_imss_mail_form_address=administrator@hitachi.com
hptl_jp1_imss_mail_charaset=iso-2022-jp
hptl_jp1_imss_mail_format=text/plain
hptl_jp1_imss_mail_inform_leave_mail_maximum_num=20
hptl_jp1_imss_mail_inform_leave_assigned_title=[Held Item notification for
a person in charge] Processing of Items is being delayed.
hptl_jp1_imss_mail_inform_leave_assigned_text=The number of Items whose
processing is being delayed is %ITEMNUM_ASSIGNED%.\n%ITEMNUM_LEAVE_DETAIL%
\nPriority to be monitored: %PRIORITY_LIST%\nTime that is not updated: \n
%ITEM_LEAVE_THRESHOLD%\nSystem: %SYSTEM%\nProcess: %PROCESS%\n--------\n
hptl_jp1_imss_mail_inform_leave_assigned_text_rep=Processing to the %ITEMID
% Item is being delayed.\nTitle: %TITLE%\nPriority: %PRIORITY%\nStatus:
%STATUS%\nPerson in charge: %CHARGE%\nUpdate date and time: %LASTUPDATE%
\n--------\n
hptl_jp1_imss_mail_inform_leave_assigned_text_over=The maximum number of
Items that can be described in this notification is exceeded.\nThe
remaining number of Items whose processing is being delayed is
%ITEMNUM_ASSIGNED_REMAIN%.\n
hptl_jp1_imss_mail_inform_leave_pwb_title=[Deadline notification for the
process work board manager] Processing of %ITEMNUM_PWB% Items is being
delayed.
hptl_jp1_imss_mail_inform_leave_pwb_text=Advise the number of Items whose
processing is being delayed.\nThe number of Items whose processing is being
delayed is %ITEMNUM_PWB%.\n%ITEMNUM_LEAVE_DETAIL%\nPriority to be
monitored: %PRIORITY_LIST%\nTime that is not updated: \n
%ITEM_LEAVE_THRESHOLD%\nSystem: %SYSTEM%\nProcess: %PROCESS%\n
```

The following is an example of an email message that is used for registering an Item by email:

```
hptl_jp1_imss_mail_use_jssitementrybymail=ON
hptl_jp1_imss_mail_pop3_server=MailServer2
hptl_jp1_imss_mail_pop3_port=110
hptl_jp1_imss_mail_pop3_address=user1@hitachi.com;user2@hitachi.com
hptl_jp1_imss_mail_pop3_domain=hitachi.co.jp
hptl_jp1_imss_mail_pop3_user=sender@hitachi.co.jp
hptl_jp1_imss_mail_pop3_password=sender_pswd
hptl_jp1_imss_mail_receive_number=50
hptl_jp1_imss_mail_messageid_maxlen=64
hptl_jp1_imss_mail_tmp_file_max_size=5
hptl_jp1_imss_mail_tmp_file_max_num=100
```

```
hptl_jp1_imss_mail_append_file_output_path=C:/jp1_imss/mail/append_file
hptl_jp1_imss_mail_append_file_output_folder_max=200
hptl_jp1_imss_mail_append_file_output_max_size=5
```

File for member information entries (Optional)

Description

This file contains information about users to be deleted from roles registered in JP1/IM - Service Support, or about users to be added to roles registered in JP1/IM - Service Support.

To use the File for member information entries to delete member information, execute the `jssmemberdelete` command. To add member information, execute the `jssmemberimport` command.

Format

```
#comments (Linefeed)
"role-ID","user-ID"(Linefeed)
"role-ID","user-ID"(Linefeed)
   ⋮
   ⋮
```

Lines starting with a hash mark (#) are treated as comments.

Legend:

(Linefeed): Indicates a linefeed character.

File name

Use any file name.

Storage folder

Any folder on the host where the `Jssmemberdelete` or `jssmemberimport` command is executed

When the definition is applied

When the `Jssmemberdelete` or `jssmemberimport` command is executed, the definition is applied to JP1/IM - Service Support.

What is described

Specify member information in the order shown in the following table.

Table 12–59: Member information that is specified in the File for member information entries (per line)

Specification order	Element name	Specifiable character and conditions	Specifiable number of bytes	Specify or not
1	Role ID	Half-width alphanumeric characters or a system role ID	1 to 64 bytes	Y
2	User ID	Half-width alphanumeric characters	1 to 64 bytes	Y

Legend:

Y: An element that must be specified.

A line indicates information for a member. Enclose elements of member information in double-quotation marks (`"`), and separate them with commas (`,`). Values for **Role ID** and **User ID** cannot be omitted.

Notes

- If you specify three or more elements as information for a member by mistake, only the first two elements are registered. The third and following elements are not registered.

- The File for member information entries must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following example will either delete two members (User IDs: 10009 and 10010) from a role (Role ID: Role1) or add them to the role:

```
"Role1","10009"
"Role1","10010"
```

Configuration file for character string substitution (jp1imss_replace_string_setting.conf)

Description

This file defines whether to replace a string contained in a textarea type element of an Item to be registered with a linefeed character when the Item is registered by using the Item registration (`jssitementry`) command.

Format

```
;comment (Linefeed)
[REPLACE]
REPLACE_FLAG=Whether to convert a string to a linefeed character(Linefeed)
REPLACE_STRING=A string to be converted to a linefeed character(Linefeed)
```

Lines starting with a semicolon (`;`) are treated as comments.

Legend:

(Linefeed): Indicates a linefeed character.

File names

- `jp1imss_replace_string_setting.conf` (Configuration file for character string substitution)

- `jp1imss_replace_string_setting.conf.model` (Model file of the Configuration file for character string substitution)#

  #

  You can use the model file to reset the contents of the Configuration file for character string substitution. To do so, delete the existing Configuration file for character string substitution, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

The definition is applied when the `jssitementry` command is executed.

What is described

You can specify the specification keys described in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–60: List of specification keys that can be set in the Configuration file for character string substitution

Specification key name	Description	Default value
REPLACE_FLAG	When you use the `jssitementry` command to register an Item, specify whether to replace a string (a value specified by REPLACE_STRING) contained in a textarea type element of an Item with a string for registration. Note that the string is not replaced for elements (other than textarea-type elements) for which a linefeed character cannot be specified. • `true`: Convert to a linefeed character.	`false`

Specification key name	Description	Default value
REPLACE_FLAG	• `false`: Do not convert to a linefeed character.	`false`
REPLACE_STRING	When you use the `jssitementry` command to register an Item, if you want to replace a string contained in a textarea-type element of an Item with a linefeed character, specify the string you want to replace with a linefeed character. Specify a string that is one to 32 bytes long and does not contain control codes, double quotation marks ("), and commas (,).	`[\r\n]`

Notes

- If you set to replace a string contained in a textarea-type element of an Item with a linefeed character by using Configuration file for character string substitution, do not insert a string to be replaced in the value of the form element ID from JIMSD_FORM_USERTEXT01 to JIMSD_FORM_USERTEXT20. If you insert such a string to be replaced and execute the `jssitementry` command, the operation cannot be guaranteed.

- TheConfiguration file for character string substitution (`jp1imss_replace_string_setting.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:
  - In a Japanese environment: MS932
  - In an English environment: ISO-8859-1
  - In a Chinese environment: GB18030

Definition example

The following example replaces `[\r\n]` with a linefeed character:

```
[REPLACE]
REPLACE_FLAG=true
REPLACE_STRING=[\r\n]
```

User management property file (hptl_jp1_imss_usermgr.properties)

Description

This file defines the setting information described below. Edit this file as required for system operations.

1. The number of log files (jp1imssuser*number*.log), the log file size, and the output level

2. A list of users to be displayed in a window, and the rules for sorting information in a list of roles

Although the default behavior in JP1/IM - Service Support for the above setting information is defined, it can be customized.

Format

```
#Settings for the list of users
hptl_jp1_imss_usermgr_userlist_initial_sort_key=Initial sort key
hptl_jp1_imss_usermgr_userlist_initial_sort_order=Initial sort order
hptl_jp1_imss_usermgr_userlist_post_sort_flg=Sort order of titles

#Settings for a list of roles
hptl_jp1_imss_usermgr_rolelist_initial_sort_key=Initial sort key
hptl_jp1_imss_usermgr_rolelist_initial_sort_order=Initial sort order

#Settings for a system
hptl_jp1_imss_usermgr_log_file_num=Number of log files
hptl_jp1_imss_usermgr_log_file_size=Log file size

#Setting for changing the password
hptl_jp1_imss_usermgr_edit_user_password=Whether the password can be changed
```

Lines starting with a hash mark (#) are treated as comments.

File names

- hptl_jp1_imss_usermgr.properties (User management property file)

- hptl_jp1_imss_usermgr.properties.model (Model file of the User management property file)[#]

  #

  You can use the model file to reset the contents of the User management property file. To do so, delete the existing User management property file, then copy and rename the model file.

Storage folder

IM-SS-path\conf\

When the definition is applied

The definition is applied after the following JP1/IM - Service Support services are restarted:

- JP1/Service Support - Web Service

- JP1/Service Support

What is described

Setting for a list of users

Do not edit any keys except those that are explained in the following table. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–61: List of specification keys that can be set in the User management property file (Settings for a list of users)

Specification key name	Description	Default value
`hptl_jp1_imss_usermgr_userlist _initial_sort_key`	Specifies the initial sort key used to display a list of users. The following are specifiable values: • `name`: Name • `org`: Organization • `post`: Title • `telNo`: Phone number • `mail`: Email address When `post` is specified, sorting is performed in the order specified in `hptl_jp1_imss_usermgr_userlist_post_sort_ flg`.	`name`
`hptl_jp1_imss_usermgr_userlist _initial_sort_order`	Specifies the initial sort order used to display a list of users. The following are specifiable values: • `asc`: Ascending • `desc`: Descending	`asc`
`hptl_jp1_imss_usermgr_userlist _post_sort_flg`	Specifies the sort method used to sort a list of users by title level. The following are specifiable values: • `postName`: Sorting is performed by character encoding (UTF-8) of title names. • `postOrderAsc`: Sorting is performed in the ascending order of the character encoding (UTF-8) of the title level. • `postOrderDesc`: Sorting is performed in descending order of the character encoding (UTF-8) for the title level.	`postName`

Settings for a list of roles

Do not edit any keys except those that are explained in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–62: List of specification keys that can be set in the User management property file (Settings for a list of roles)

Specification key name	Description	Default value
`hptl_jp1_imss_usermgr_rolelist _initial_sort_key`	Specifies the initial sort key when a list of roles is displayed. The following are specifiable values: • `roleId`: Role ID • `roleName`: Role name	`roleName`
`hptl_jp1_imss_usermgr_rolelist _initial_sort_order`	Specifies the initial sort order when a list of roles is displayed. The following are specifiable values: • `asc`: Ascending • `desc`: Descending	`asc`

Setting for a system

Do not edit any keys except those that are explained in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–63: List of specification keys that can be set in the User management property file (Settings for a system)

Specification key name	Description	Default value
`hptl_jp1_imss_usermgr_log_file_num`	Specifies the number of log files (`jp1imssuser`*number*`.log`). Specify a half-width integer from 1 to 16.	8
`hptl_jp1_imss_usermgr_log_file_size`	Specifies the size of the log file (`jp1imssuser`*number*`.log`) in bytes. Specify a half-width integer from 4096 to 2147483647.	4194304

Setting for changing a password

Do not edit any keys except those that are explained in the following table. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–64: List of specification keys that can be set in the User management property file (Settings for changing a password)

Specification key name	Description	Default value
`hptl_jp1_imss_usermgr_edit_user_password`	Specifies whether the password can be changed when user information is edited. The following are specifiable values: • `true`: The password can be changed. • `false`: The password cannot be changed. Note that the password of the user specified for `hptl_jp1_imss_information_search_userid` in the property file for JP1 product association setting can be changed even if `false` is specified. When an LDAP sever is used as an authentication server, if you change the password for user information, the password for the LDAP server is not changed. To use an LDAP server, specify `false` to keep the password from being changed.	`true`

Note

• Do not change any part except the specification keys described in the *What is described* section.

• The User management property file (`hptl_jp1_imss_usermgr.properties`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  • In a Japanese environment: ISO-8859-1

  • In an English environment: ISO-8859-1

  • In a Chinese environment: ISO-8859-1

Definition example

The following example changes the initial sort key used to display a list of users to the title. Note that this example shows only the part that is necessary for the setting.

```
hptl_jp1_imss_usermgr_userlist_initial_sort_key=post
```

File for user information entries (Optional)

Description

This file contains user information to be registered in JP1/IM - Service Support. This file must be created in CSV format. To register the contents of this file, you must execute the `jssuserimport` command.

Format

```
#comments (Linefeed)
"ID","Name","English name","Organization","Title","Title level","Email
address","Phone number","Phone number 2","Comment"(Linefeed)
"ID","Name","English name","Organization","Title","Title level","Email
address","Phone number","Phone number 2","Comment"(Linefeed)
  :
  :
```

Lines starting with a hash mark (#) are treated as comments.

Legend:

   (Linefeed): Indicates a linefeed character.

File name

Use any file name.

Storage folder

Any folder on the host where the `jssuserimport` command is executed

When the definition is applied

The definition is applied to JP1/IM - Service Support when the `jssuserimport` command is executed.

What is described

Specify user information in the order described in the following table.

Table 12–65: User information to be specified in the File for user information entries (for each line)

Specification order	Element name	Specifiable characters and conditions	Specifiable number of bytes#	Specify or not
1	ID	Half-width alphanumeric characters	1 to 64 bytes	Y
2	Name	Characters other than control characters (0x00 to 0x1F, and 0x7F)	1 to 255 bytes	Y
3	English name	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 byes	Δ
4	Organization	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 512 bytes	Δ
5	Title	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 byes	Δ
6	Title level	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 byes	Δ

Specification order	Element name	Specifiable characters and conditions	Specifiable number of bytes#	Specify or not
7	Email address	Standard ASCII characters, however, the following conditions apply: • Characters other than control characters (0x00 to 0x1F, and 0x7F) • Only one at sign (@) is contained. • Characters exist before and after the at sign (@). • No periods (.) at the beginning or the end. • No (,), <, >, [,], :, ;, \, ,, or half-width space (0x20) characters.	No more than 255 byes	△
8	Phone number	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 byes	△
9	Phone number 2	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 byes	△
10	Comment	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 512 bytes	△

Legend:

Y: An element that must be specified.

△ : An element to be specified if necessary.

#

If the specified string contains full-width characters, they are converted to three or four bytes.

Each line holds the information for one user. Enclose each element of user information in double-quotation marks (**"**), and separate the elements with commas (**,**). Elements other than *ID*, and *Name* are optional, but they cannot be omitted. Even if you do not want to specify an element, you need to leave a set of double quotation marks (**""**) for the applicable element. In addition, the order of specifying the elements is fixed.

The following is an example when **Title level** is omitted:

```
"ID","Name","English name","Organization","Title","","Email address","Phone
number","Phone number 2","Comment"(Linefeed)
```

Notes

• For the user password set in this definition file, the same characters as the ID are set.

• If you specify 11 or more elements by mistake for a user, elements from 1 to 10 are registered, but the 11th and the following elements are not registered.

• If you include a control character (0x00) for setting an element in an input file, it is not regarded as an invalid definition. In this case, characters to the control character (0x00) are regarded as specified.

For example, if you specify Hitachi △ Taro# as the user name, the display name will be Hitachi.

#: △ is assumed to be a control character (0x00).

• The File for user information entries must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

• In a Japanese environment: MS932

• In an English environment: ISO-8859-1

- In a Chinese environment: GB18030

Definition example

The following example enters information for 10 users in the File for user information entries:

```
"10009","Ichiro Yoyogi","Ichiro Yoyogi","System development
division","General manager","1","XXXXXX@hitachi.com","aaa-bbb-cccc","",""
"10010","Tomozo Totsuka","Tomozo Totsuka","System development
division","Manager","2","XXXXXX@hitachi.com","aaa-bbb-cccc","",""
"10011","Yoshio Yamada","Yoshio Yamada","System development
division","Manager","2","XXXXXX@hitachi.com","aaa-bbb-cccc","",""
"10012","Jiro Ueda","Jiro Ueda","System development division","Chief
engineer","3","XXXXXX@hitachi.com","aaa-bbb-cccc","",""
"10013","Kazuko Mitsukoshi","Kazuko Mitsukoshi","System development
division","Chief engineer","3","XXXXXX@hitachi.com","aaa-bbb-cccc","",""
"10014","Yoshiko Aihara","Yoshiko Aihara","System development
division","Engineer","4","XXXXXX@hitachi.com","aaa-bbb-cccc","",""
"10015","Shota Katakura","Shota Katakura","System development
division","Engineer","4","XXXXXX@hitachi.com","aaa-bbb-cccc","",""
"10016","Kanji Shibuya","Kanji Shibuya","System development
division","Engineer","4","XXXXXX@hitachi.com","aaa-bbb-cccc","",""
"10017","Yota Nakagawa","Yota Nakagawa","System development
division","Engineer","4","XXXXXX@hitachi.com","aaa-bbb-cccc","",""
"10018","Taichi Nakano","Taichi Nakano","System development
division","Engineer","4","XXXXXX@hitachi.com","aaa-bbb-cccc","",""
```

User information editing file (Optional)

Description

This file contains user information to be used to edit the user information registered in JP1/IM - Service Support. This file must be created in CSV format. To register the contents of this file in JP1/IM - Service Support, you must execute the `jssuseredit` command.

Format

```
#comments (Linefeed)
"Target user ID","ID","Name","English name","Organization","Title","Title
level","Email address","Phone number","Phone number 2","Comment"(Linefeed)
"Target user ID","ID","Name","English name","Organization","Title","Title
level","Email address","Phone number","Phone number 2","Comment"(Linefeed)
  :
  :
```

Lines starting with a hash mark (#) are treated as comments.

Legend:

    (Linefeed): Indicates a linefeed character.

File name

Use any file name.

Storage folder

Any folder on the host where the `jssuseredit` command is executed

When the definition is applied

The definition is applied to JP1/IM - Service Support when the `jssuseredit` command is executed.

What is described

Specify user information in the order described in the following table.

Table 12–66: User information to be specified in the user information editing file (for each line)

Specification order	Element name	Specifiable character and conditions	Specifiable number of bytes#	Specify or not
1	Target user ID	Half-width alphanumeric characters	1 to 64 bytes	Y
2	User ID	Half-width alphanumeric characters. When changing a user ID, you can change the user ID specified as the Target user ID to the value specified for this element.	1 to 64 bytes	Y
3	Name	Characters other than control characters (0x00 to 0x1F, and 0x7F)	1 to 255 bytes	Y

Specification order	Element name	Specifiable character and conditions	Specifiable number of bytes#	Specify or not
4	English name	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 bytes	Δ
5	Organization	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 512 bytes	Δ
6	Title	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 byes	Δ
7	Title level	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 byes	Δ
8	Email address	Standard ASCII characters, however, the following conditions apply: • Characters other than control characters (0x00 to 0x1F, and 0x7F) • Only one at sign (@) is contained. • Characters exist before and after the at sign (@). • No periods (.) at the beginning or the end. • No (,), <, >, [,], :, ;, \, ,, or half-width space (0x20) characters.	No more than 255 byes	Δ
9	Phone number	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 byes	Δ
10	Phone number 2	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 255 byes	Δ
11	Comment	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 512 bytes	Δ

Legend:

Y: An element that must be specified.

Δ : An element to specify if necessary.

#

If the specified string contains full-width characters, they are converted to three or four bytes.

Each line holds the information for one user. Enclose each element of user information in double-quotation marks ("), and separate the elements with commas (,). Elements other than *Target user ID*, *User ID*, and *Name* are optional, but they cannot be omitted. Even if you do not specify them, you need to leave a set of double-quotation marks ("") for the applicable elements. In addition, the order of specifying the elements is fixed.

The following is an example when *Title level* is omitted:

```
"Target user ID","ID","Name","English name","Organization","Title","","Email
address","Phone number","Phone number 2","Comment"(Linefeed)
```

Notes

- If you specify 12 or more elements by mistake as information for a single user, elements from 1 to 11 are registered, but the 12th and the following elements are not registered.

- The User information editing file must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following example enters the information for two users (Target user ID: 10009 and 10010) in the user information editing file:

```
"10009","10009","Ichiro Yoyogi","Ichiro Yoyogi","System development
division","General manager","1","XXXXXX@hitachi.com","aaa-bbb-cccc","",""
"10010","10010","Tomozo Totsuka","Tomozo Totsuka","System development
division","Manager","2","XXXXXX@hitachi.com","aaa-bbb-cccc","",""
```

User log definition file (jp1aclexport.conf)

Description

This file defines the size of the log file, the number of log files, and whether to output the execution result of the `jssaclexport` command to a log file open to users (`jssaclexport_info`*number*`.log`). By default, the execution result of the `jssaclexport` command is defined to be output to a log file open to users.

Format

```
;comments
[LOG]
ACLEXPORT_LOG=output-or-not-output-log-files
ACLEXPORT_FILESIZE=size-of-the-log-file
ACLEXPORT_FILENUM=number-of-log-files
```

Lines starting with a semi-colon (`;`) are treated as comments.

File names

- `jp1aclexport.conf` (User log definition file)

- `jp1aclexport.conf.model` (Model user log definition file)[#]

    #

    Use the model file when you want to reset the contents of the user log definition file. In this case, delete the user log definition file, copy the model file, and rename the file to the name of the user log definition file. Then you can use that file as the user log definition file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

When you execute the `jssaclexport` (exports access-permission information) command, the definition is applied to JP1/IM - Service Support.

What is described

You can edit the specification keys explained in the table below. Use an equal sign (=) to connect a key and its value.

Table 12–67: List of specification keys that can be set in the user log definition file

Specification key name	Description	Default value
ACLEXPORT_LOG	Specifies whether to output a log file (`jssaclexport_info`*number*`.log`). If the setting is invalid, the log file is not output. Output destination folder: *IM-SS-path*`\log\public\` Specify `Y` (output log files) or `N` (not output log files).	Y
ACLEXPORT_FILESIZE	Specifies the size of the log file (`jssaclexport_info`*number*`.log`) in KB. Specify a half-width integer from 4 to 16384.	8192
ACLEXPORT_FILENUM	Specifies the number of log files (`jssaclexport_info`*number*`.log`). Specify a half-width integer from 1 to 64.	2

Message output to a log file

For details about the message output to a log file, see *13.1 Output destinations for messages*.

Notes

- If you set to output log files, the `mmap` folder is created in the folder to output log files to (*IM-SS-path*`\log\public \`). When you change the size of the log file and the number of log files after you start operations, delete this `mmap` folder. If you do not delete this folder, the change will not be enabled.

- The user log definition file (`jp1aclexport.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following definition example changes the setting to outputting log files, and the size of the files to 4.

```
[LOG]
ACLEXPORT_LOG=Y
ACLEXPORT_FILESIZE=8192
ACLEXPORT_FILENUM=4
```

User log definition file (jp1aclimport.conf)

Description

This file defines the size of a log file and the number of log files that are used when the execution result of the `jssaclimport` command is output to a log file open to users (`jssaclimport_info`*nubmer*`.log`).

Format

```
;comments
[LOG]
ACLIMPORT_FILESIZE=size-of-the-log-file
ACLIMPORT_FILENUM=number-of-log-files
```

Lines starting with a semi-colon (`;`) are treated as comments.

File names

- `jp1aclimport.conf` (User log definition file)

- `jp1aclimport.conf.model` (Model user log definition file)[#]

  #

  Use the model file when you want to reset the contents of the user log definition file. In this case, delete the user log definition file, copy the model file, and rename the copy of the model file to the name of the user log definition file. Then you can use that file as the user log definition file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

When you execute the `jssaclimport` (imports access-permission information) command, the definition is applied to JP1/IM - Service Support.

What is described

You can edit the specification keys explained in the table below. Use an equal sign (=) to connect a key and its value.

Table 12–68: List of specification keys that can be set in the user log definition file

Specification key name	Description	Default value
ACLIMPORT_FILESIZE	Specifies the size of the log file (`jssaclimport_info`*number*`.log`) in KB. Specify a half-width integer from 4 to 16384.	8192
ACLIMPORT_FILENUM	Specifies the number of log files (`jssaclimport_info`*number*`.log`). Specify a half-width integer from 1 to 64.	2

Message output to a log file

For details about the message output to a log file, see *13.1 Output destinations for messages*.

Notes

- If you set to output log files, the `mmap` folder is created in the folder to output log files to (*IM-SS-path*`\log\public\`). When you change the size of the log file and the number of log files after you start operations, delete this `mmap` folder. If you do not delete this folder, the change will not be enabled.

- The user log definition file (`jp1aclimport.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following definition example changes the setting to outputting log files, and the size of the files to 4.

```
[LOG]
ACLIMPORT_FILESIZE=8192
ACLIMPORT_FILENUM=4
```

User log definition file (jp1informleave.conf)

Description

This file defines whether to output the execution results of the `jssinformleave` command to the log file (`jssinformleave_info`*number*`.log`) which is open to users, the size of the log file, and the number of log files. By default, the execution result is set to be output. If you want the `jssinformleave` command to be executed automatically when the JP1/Service Support - Task Service service starts, set the execution results to be output to the log file.

Format

```
;comment
[LOG]
INFORMLE_LOG=output-or-not-output-log-files
INFORMLE_FILESIZE=size-of-the-log-file
INFORMLE_FILENUM=number-of-log-files
```

Lines starting with a semicolon (`;`) are treated as comments.

File names

- `jp1informleave.conf` (User log definition file)

- `jp1informleave.conf.model` (Model file of the User log definition file)[#]

  #

  You can use the model file to reset the contents of the User log definition file. To do so, delete the existing User log definition file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

The definition is applied when the `jssinformleave` command is executed.

What is described

You can specify the specification keys described in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–69: List of specification keys that can be set in the User log definition file

Specification key name	Description	Default value
INFORMLE_LOG	Specifies whether to output the log file (`jssinformleave_info`*number*`.log`). If the setting is invalid, the log file is not output. Output destination folder: *IM-SS-path*`\log\public\` Specify `Y` (Output) or `N` (Do not output the log).	Y
INFORMLE_FILESIZE	Specifies the size of the log file (`jssinformleave_info`*number*`.log`) in kilobytes. Specify a half-width integer from 4 to 16384.	8192
INFORMLE_FILENUM	Specifies the number of log files (`jssinformleave_info`*number*`.log`).	2

Specification key name	Description	Default value
INFORMLE_FILENUM	Specify a half-width integer from 1 to 64.	2

Messages output to a log file

For details about the messages output to log files, see *13.1 Output destinations for messages*.

Notes

- When the log file is set to be output, the `mmap` folder is created under the log file output destination folder (*IM-SS-path*`\log\public\`). If you want to change the size of the log file and the number of log files after operation starts, delete the `mmap` folder. The changes will not take effect if you do not delete the folder.

- The User log definition file (`jp1informleave.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

    - In a Japanese environment: MS932

    - In an English environment: ISO-8859-1

    - In a Chinese environment: GB18030

Definition example

The following example sets the log files to be output. It changes the log file size to 10 megabytes (10,240 kilobytes), and the number of log files to four.

```
[LOG]
INFORMLE_LOG=Y
INFORMLE_FILESIZE=10240
INFORMLE_FILENUM=4
```

User log definition file (jp1informperiod.conf)

Description

This file defines whether to output the execution results of the `jssinformperiod` command to the log file (`jssinformperiod_info`*number*`.log`) which is open to users , specifies the size of the log file, and the number of log files. By default, the execution results are set to be output. If you want the `jssinformperiod` command to be executed automatically when JP1/Service Support - Task Service service starts, set the execution results to be output to the log file.

Format

```
;comment
[LOG]
INFORM_LOG=output-or-not-output-log-files
INFORM_FILESIZE=size-of-the-log-file
INFORM_FILENUM=number-of-log-files
```

Lines starting with a semicolon (`;`) are treated as comments.

File names

- `jp1informperiod.conf` (User log definition file)

- `jp1informperiod.conf.model` (Model file of the User log definition file)[#]

  \#

    You can use the model file to reset the contents of the User log definition file. To do so, delete the existing User log definition file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

The definition is applied after the following JP1/IM - Service Support services are restarted:

- JP1/Service Support - Web Service

- JP1/Service Support

What is described

You can specify the specification keys described in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–70: List of specification keys that can be set in the User log definition file

Specification key name	Description	Default value
`INFORM_LOG`	Specifies whether to output the log file (`jssinformperiod_info`*number*`.log`). If the setting is invalid, the log file is not output. Output destination folder: *IM-SS-path*`\log\public\` Specify `Y` (Output) or `N` (Do not output the log).	`Y`

Specification key name	Description	Default value
INFORM_FILESIZE	Specifies the size of the log file (`jssinformperiod_info`*number*`.log`) in kilobytes. Specify a half-width integer from 4 to 16384.	8192
INFORM_FILENUM	Specifies the number of log files (`jssinformperiod_info`*number*`.log`). Specify a half-width integer from 1 to 64.	2

Messages output to a log file

For details about the messages output to log files, see *13.1 Output destinations for messages*.

Notes

- When the log files are set to be output, the `mmap` folder is created under the log file output destination folder (*IM-SS-path*`\log\public\`). If you want to change the size of the log files and the number of log files after operation starts, delete the `mmap` folder. The changes will not take effect if you do not delete the folder.

- The User log definition file (`jp1informperiod.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following example sets the log file to be output. It changes the log file size to 10 megabytes (10,240 kilobytes), and the number of log files to four.

```
[LOG]
INFORM_LOG=Y
INFORM_FILESIZE=10240
INFORM_FILENUM=4
```

User log definition file (jp1itemcount.conf)

Description

This file defines the size of the log file, the number of log files, and whether to output the execution result of the `jssitemcount` command to a log file open to users (`jssitemcount_info`*number*`.log`). By default, the execution result of the `jssitemcount` command is defined to be output to a log file open to users.

Format

```
;comments
[LOG]
ITEMCOUNT_LOG=output-or-not-output-log-files
ITEMCOUNT_FILESIZE=size-of-the-log-file
ITEMCOUNT_FILENUM=number-of-log-files
```

Lines starting with a semi-colon (`;`) are treated as comments.

File names

- `jp1itemcount.conf` (User log definition file)

- `jp1itemcount.conf.model` (Model user log definition file)[#]

    #

    Use the model file when you want to reset the contents of the user log definition file. In this case, delete the user log definition file, copy the model file, and rename the copy of the model file to the name of the user log definition file. Then you can use that file as the user log definition file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

When you execute the `jssitemcount` command, the definition is applied.

What is described

You can edit the specification keys explained in the table below. Use an equal sign (=) to connect a key and its value.

Table 12–71: List of specification keys that can be set in the user log definition file

Specification key name	Description	Default value
ITEMCOUNT_LOG	Specifies whether to output a log file (`jssitemcount_info`*number*`.log`). If the setting is invalid, the log file is not output. Output destination folder: *IM-SS-path*`\log\public\` Specify `Y` (output log files) or `N` (not output log files).	Y
ITEMCOUNT_FILESIZE	Specifies the size of the log file (`jssitemcount_info`*number*`.log`) in KB. Specify a half-width integer from 4 to 16384.	8192
ITEMCOUNT_FILENUM	Specifies the number of log files (`jssitemcount_info`*number*`.log`). Specify a half-width integer from 1 to 64.	2

Message output to a log file

For details about the message output to a log file, see *13.1 Output destinations for messages*.

Notes

- If you set to output log files, the mmap folder is created in the folder to output log files to (*IM-SS-path*\log\public\). When you change the size of the log file and the number of log files after you start operations, delete this mmap folder. If you do not delete this folder, the change will not be enabled.

- The user log definition file (jp1itemcount.conf) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following definition example changes the setting to outputting log files, the size of the log file to 10 MB (10,240 KB), and the number of files to 10.

```
[LOG]
ITEMCOUNT_LOG=Y
ITEMCOUNT_FILESIZE=10240
ITEMCOUNT_FILENUM=10
```

User log definition file (jp1itemedit.conf)

Description

This file defines whether to output the execution results of the `jssitemedit` command to the log file (`jssitemedit_info`*number*`.log`) which is open to users, the size of the log file, and the number of log files. By default, the execution result is set to be output. To execute the `jssitemedit` command automatically from a linked product, such as JP1/IM - Manager, set the execution results to be output to the log file.

Format

```
;comment
[LOG]
EDIT_LOG=output-or-not-output-log-files
EDIT_FILESIZE=size-of-the-log-file
EDIT_FILENUM=number-of-log-files
```

Lines starting with a semicolon (`;`) are treated as comments.

File names

- `jp1itemedit.conf` (User log definition file)

- `jp1itemedit.conf.model` (Model file of the User log definition file)[#]

  #

  You can use the model file to reset the contents of the User log definition file. To do so, delete the existing User log definition file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

The definition is applied when the `jssitemedit` command is executed.

What is described

You can specify the keys described in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–72: List of specification keys that can be set in the User log definition file

Specification key name	Description	Default value
EDIT_LOG	Specifies whether to output the log file (`jssitemedit_info`*number*`.log`). If the setting is invalid, the log file is not output. Output destination folder: *IM-SS-path*`\log\command\jssitemedit\` Specify `Y` (output the log file) or `N` (Do not output the log).	Y
EDIT_FILESIZE	Specifies the size of the log file (`jssitemedit_info`*number*`.log`) in kilobytes. Specify a half-width integer from 4 to 16384.	8192
EDIT_FILENUM	Specifies the number of log files (`jssitemedit_info`*number*`.log`). Specify a half-width integer from 1 to 64.	2

Messages output to a log file

For details about the messages output to log files, see *13.1 Output destinations for messages*.

Notes

- When the log file is set to be output, the mmap folder is created under the log file output destination folder (*IM-SS-path*\log\command\jssitemedit\). If you want to change the size of the log file and the number of log files after operation starts, delete the mmap folder. The changes will not take effect if you do not delete the folder.

- The User log definition file (jp1itemedit.conf) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following example sets the log files to be output:

```
[LOG]
EDIT_LOG=Y
EDIT_FILESIZE=8192
EDIT_FILENUM=2
```

User log definition file (jp1itementry.conf)

Description

This file defines whether to output the execution results of the `jssitementry` command to the log file (`jssitementry_info`*number*`.log`) which is open to users, the size of the log file, and the number of log files. By default, the execution results are set to be output. To execute the `jssitementry` command automatically from a linked product, such as JP1/IM - Manager, set the execution result to be output to the log file.

Format

```
;comment
[LOG]
ENTRY_LOG=output-or-not-output-log-files
ENTRY_FILESIZE=size-of-the-log-file
ENTRY_FILENUM=number-of-log-files
```

Lines starting with a semicolon (`;`) are treated as comments.

File names

- `jp1itementry.conf` (User log definition file)

- `jp1itementry.conf.model` (Model file of the User log definition file)[#]

  #

  You can use the model file to reset the contents of the User log definition file. To do so, delete the existing User log definition file, then copy and delete the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

The definition is applied when the `jssitementry` command is executed.

What is described

You can specify the specification keys described in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–73: List of specification keys that can be set in the User log definition file

Specification key name	Description	Default value
ENTRY_LOG	Specifies whether to output the log file (`jssitementry_info`*number*`.log`). If the setting is invalid, the log file is not output. Output destination folder: *IM-SS-path*`\log\command\jssitementry\` Specify `Y` (Output) or `N` (Do not output the log).	Y
ENTRY_FILESIZE	Specifies the size of the log file (`jssitementry_info`*number*`.log`) in kilobytes. Specify a half-width integer from 4 to 16384.	8192
ENTRY_FILENUM	Specifies the number of log files (`jssitementry_info`*number*`.log`). Specify a half-width integer from 1 to 64.	2

Messages output to a log file

For details about the messages output to log files, see *13.1 Output destinations for messages*.

Notes

- When the log file is set to be output, the `mmap` folder is created under the log file output destination folder (*IM-SS-path*`\log\command\jssitementry\`). If you want to change the size of the log file and the number of log files after operation starts, delete the `mmap` folder. The changes will not take effect if you do not delete the folder.

- The User log definition file (`jp1itementry.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following example sets the log files to be output. It changes the log file size to 10 megabytes (10,240 kilobytes), and the number of log files to four.

```
[LOG]
ENTRY_LOG=Y
ENTRY_FILESIZE=10240
ENTRY_FILENUM=4
```

User log definition file (jp1itementrybymail.conf)

Description

This file defines whether to output the execution results of the `jssitementrybymail` command to the log file (`jssitementrybymail_info`*number*`.log`) which is open to users, the size of the log file, and the number of log files. By default, the file is set to be output. If you want the `jssitementrybymail` command to be executed automatically when the JP1/Service Support - Task Service service starts, set the execution results to be output to the log file.

Format

```
;comment
[LOG]
ENTRY_LOG=output-or-not-output-log-files
ENTRY_FILESIZE=size-of-the-log-file
ENTRY_FILENUM=number-of-log-files
```

Lines starting with a semicolon (`;`) are treated as comments.

File names

- `jp1itementrybymail.conf` (User log definition file)

- `jp1itementrybymail.conf.model` (Model file of the User log definition file)[#]

  #

  You can use the model file to reset the contents of the User log definition file. To do so, delete the existing User log definition file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

The definition is applied when the `jssitementrybymail` command is executed.

What is described

You can specify the specification keys described in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–74: List of specification keys that can be set in the User log definition file

Specification key name	Description	Default value
ENTRY_LOG	Specifies whether to output the log file (`jssitementrybymail_info`*number*`.log`). If the setting is invalid, the log file is not output. Output destination folder: *IM-SS-path*`\log\public\` Specify `Y` (Output) or `N` (Do not output the log).	Y
ENTRY_FILESIZE	Specifies the size of the log file (`jssitementrybymail_info`*number*`.log`) in kilobytes. Specify a half-width integer from 4 to 16384.	8192

Specification key name	Description	Default value
ENTRY_FILENUM	Specifies the number of log files (`jssitementrybymail_infonumber.log`). Specify a half-width integer from 1 to 64.	2

Messages output to a log file

For details about the messages output to log files, see *13.1 Output destinations for messages*.

Notes

- When the log file is set to be output, the `mmap` folder is created under the log file output destination folder (*IM-SS-path*`\log\public\`). If you want to change the size of the log file and the number of log files after operation starts, delete the `mmap` folder. The changes will not take effect if you do not delete the folder.

- The User log definition file (`jp1itementrybymail.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following example sets the log files to be output. It changes the log file size to 10 megabytes (10,240 kilobytes), and the number of log files to four.

```
[LOG]
ENTRY_LOG=Y
ENTRY_FILESIZE=10240
ENTRY_FILENUM=4
```

User log definition file (jp1itemexportEx.conf)

Description

This file defines whether to output the execution result of the `jssitemexportEx` (exports extended Item information) command to the log file (`jssitemexportEx_info`*number*`.log`) which is open to users, the size of the log file, and the number of log files. By default, the file is set to be output.

Format

```
;comment
[LOG]
EXPORT_LOG=output-or-not-output-log-files
EXPORT_FILESIZE=size-of-the-log-file
EXPORT_FILENUM=number-of-log-files
```

Lines starting with a semicolon (`;`) are treated as comments.

File names

- `jp1itemexportEx.conf` (User log definition file)

- `jp1itemexportEx.conf.model` (Model file of the User log definition file)[#]

  #

  You can use the model file to reset the contents of the User log definition file. To do so, delete the existing User log definition file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

The definition is applied to JP1/IM - Service Support when the `jssitemexportEx` (exports extended Item information) command is executed.

You can specify the specification keys described in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–75: List of specification keys that can be set in the User log definition file

Specification key name	Description	Default value
EXPORT_LOG	Specifies whether to output the log file `jssitemexportEx_info`*number*`.log`). If the setting is invalid, the log file is not output. Output destination folder: *IM-SS-path*`\log\public\` Specify `Y` (Output), or `N` (Do not output the log).	Y
EXPORT_FILESIZE	Specifies the size of the log file (`jssitemexportEx_info`*number*`.log`) in kilobytes. Specify a half-width integer from 4 to 16384.	8192
EXPORT_FILENUM	Specifies the number of log files (`jssitemexportEx_info`*number*`.log`). Specify a half-width integer from 1 to 64.	8

Messages output to a log file

For details about the messages output to log files, see *13.1 Output destinations for messages*.

Notes

- When the log file is set to be output, the `mmap` folder is created under the log file output destination folder (*IM-SS-path*`\log\public\`). If you want to change the size of the log file and the number of log files after operation starts, delete the `mmap` folder. The changes will not take effect if you do not delete the folder.

- The User log definition file (jp1itemexportEx.conf) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following example sets the log files to be output. It changes the log file size to 10 megabytes (10,240 kilobytes), and the number of log files to 10.

```
[LOG]
EXPORT_LOG=Y
EXPORT_FILESIZE=10240
EXPORT_FILENUM=10
```

User log definition file (jp1itemimportEx.conf)

Description

This file defines the size of the log file and the number of log files when the execution results of the `jssitemimportEx` (imports extended Item information) command are output to the log file (`jssitemimportEx_infonumber.log`) which is open to users.

Format

```
;comment
[LOG]
IMPORTEX_FILESIZE=size-of-the-log-file
IMPORTEX_FILENUM=number-of-log-files
```

Lines starting with a semicolon (`;`) are treated as comments.

File names

- `jp1itemimportEx.conf` (User log definition file)

- `jp1itemimportEx.conf.model` (Model file of the User log definition file)[#]

  \#

  You can use the model file to reset the contents of the User log definition file. To do so, delete the existing User log definition file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

The definition is applied to JP1/IM - Service Support when the `jssitemimportEx` (imports extended Item information) command is executed.

You can specify the specification keys described in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–76: List of specification keys that can be set in the User log definition file

Specification key name	Description	Default value
IMPORTEX_FILESIZE	Specifies the size of the log file (`jssitemimportEx_infonumber.log`) in kilobytes. Specify a half-width integer from 4 to 16384.	8192
IMPORTEX_FILENUM	Specifies the number of log files `jssitemimportEx_infonumber.log`). Specify a half-width integer from 1 to 64.	8

Messages output to a log file

For details about the messages output to log files, see *13.1 Output destinations for messages*.

Notes

- When the log file is set to be output, the mmap folder is created under the log file output destination folder (*IM-SS-path*\log\public\). If you want to change the size of the log files and the number of log files, delete the mmap folder. The changes will not take effect if you do not delete the folder.

- The User log definition file (jp1itemimportEx.conf) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The definition example below shows an example when the log file size and the number of log files are changed. It changes the log file size to 10 megabytes (10,240 kilobytes), and the number of log files to 10.

```
[LOG]
IMPORTEX _FILESIZE=10240
IMPORTEX _FILENUM=10
```

User log definition file (jp1itemstore.conf)

Description

This file defines the size of a log file and the number of log files that are used when the execution result of the `jssitemstore` command is output to a log file open to users (`jssitemstore_info`*nubmer*`.log`).

Format

```
;comments
[LOG]
ITEMSTORE_FILESIZE=size-of-the-log-file
ITEMSTORE_FILENUM= number-of-log-files
```

Lines starting with a semi-colon (`;`) are treated as comments.

File names

- `jp1itemstore.conf` (User log definition file)

- `jp1itemstore.conf.model` (Model user log definition file)[#]

  #

  Use the model file when you want to reset the contents of the user log definition file. In this case, delete the user log definition file, copy the model file, and rename the file to the name of the user log definition file. Then you can use that file as the user log definition file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

When you execute the `jssitemstore` command, the definition is applied.

What is described

You can edit the specification keys explained in the table below. Use an equal sign (=) to connect a key and its value.

Table 12–77: List of specification keys that can be set in the user log definition file

Specification key name	Description	Default value
ITEMSTORE_FILESIZE	Specifies the size of the log file (`jssitemstore_info`*number*`.log`) in KB. Specify a half-width integer from 4 to 16384.	8192
ITEMSTORE_FILENUM	Specifies the number of log files (`jssitemstore_info`*number*`.log`). Specify a half-width integer from 1 to 64.	8

Message output to a log file

For details about the message output to a log file, see *13.1 Output destinations for messages*.

Notes

- If you set to output log files, the `mmap` folder is created in the folder to output log files to (*IM-SS-path*\`log\public\`). When you change the size of the log file and the number of log files after you start operations, delete this `mmap` folder. If you do not delete this folder, the change will not be enabled.

- The user log definition file (`jp1itemstore.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following definition example changes the setting to outputting log files, the size of the log file to 10 MB (10,240 KB), and the number of files to 10.

```
[LOG]
ITEMSTORE_FILESIZE=10240
ITEMSTORE_FILENUM=6
```

User log definition file (jp1itemstoredbrotate.conf)

Description

This file defines whether to output the execution result of the `jssitemstoredbrotate` command to a log file open to users (`jssitemstoredbrotate_info`*number*`.log`), the size of the log file, and the number of log files.

Format

```
;comments
[LOG]
ITEMSTOREDBROTATE_LOG=output-or-not-output-log-files
ITEMSTOREDBROTATE_FILESIZE=size-of-the-log-file
ITEMSTOREDBROTATE_FILENUM=number-of-log-files
```

Lines starting with a semi-colon (`;`) are treated as comments.

File names

- `jp1itemstoredbrotate.conf` (User log definition file)

- `jp1itemstoredbrotate.conf.model` (Model user log definition file)[#]

  #

  Use the model file when you want to reset the contents of the user log definition file. In this case, delete the user log definition file, copy the model file, and rename the file to the name of the user log definition file. Then you can use that file as the user log definition file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

When you execute the `jssitemstoredbrotate` command, the definition is applied.

What is described

You can edit the specification keys explained in the table below. Use an equal sign (=) to connect a key and its value.

Table 12–78: List of specification keys that can be set in the user log definition file

Specification key name	Description	Default value
ITEMSTOREDBROTATE_LOG	Specifies whether to output a log file (`jssitemstoredbrotate_info`*number*`.log`). If the setting is invalid, the log file is not output. Output destination folder: *IM-SS-path*`\log\public\` You can specify `Y` (output log files) or `N` (not output log files).	Y
ITEMSTOREDBROTATE _FILESIZE	Specifies the size of the log file (`jssitemstoredbrotate_info`*number*`.log`) in KB. Specify a half-width integer from 4 to 16384.	8192
ITEMSTOREDBROTATE _FILENUM	Specifies the number of log files (`jssitemstoredbrotate_info`*number*`.log`). Specify a half-width integer from 1 to 64.	2

Message output to a log file

For details about the message output to a log file, see *13.1 Output destinations for messages*.

Notes

- If you set to output log files, the `mmap` folder is created in the folder to output log files to (*IM-SS-path*`\log\public\`). When you change the size of the log file and the number of log files after you start operations, delete this `mmap` folder. If you do not delete this folder, the change will not be enabled.

- The user log definition file (`jp1itemstoredbrotate.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following definition example changes the setting to outputting log files, the size of the log file to 10 MB (10,240 KB), and the number of files to 10.

```
[LOG]
ITEMSTOREDBROTATE_LOG=Y
ITEMSTOREDBROTATE_FILESIZE=10240
ITEMSTOREDBROTATE_FILENUM=4
```

User log definition file (jp1mailnotification.conf)

Description

This file defines whether to output the execution results of email notification from the `jssitementry`, `jssitementrybymail`, and `jssitemedit` commands to the log file (`jssmailnotification_info`*number*`.log`) which is open to users, the size of the log file, and the number of log files.

Format

```
;comment
[LOG]
MAILNOTIF_LOG=output-or-not-output-log-files
MAILNOTIF_FILESIZE=size-of-the-log-file
MAILNOTIF_FILENUM=number-of-log-files
```

Lines starting with a semicolon (`;`) are treated as comments.

File names

- `jp1mailnotification.conf` (User log definition file)

- `jp1mailnotification.conf.model` (Model file of the User log definition file)[#]

    \#

    You can use the model file to reset the contents of the User log definition file. To do so, delete the existing User log definition file, then copy and rename the model file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

The definition is applied when the `jssitemedit`, `jssitementry`, or `jssitementrybymail` command is executed with the `-mail` option specified.

What is described

You can specify the specification keys described in the table below. Use an equal sign (=) to connect a specifiable key and its value.

Table 12–79: List of specification keys that can be set in the User log definition file

Specification key name	Description	Default value
MAILNOTIF_LOG	Specifies whether to output the log file (`jssmailnotification_info`*number*`.log`). If the setting is invalid, the log file is not output. Output destination folder: *IM-SS-path*`\log\public\` Specify `Y` (Output) or `N` (Do not output the log).	Y
MAILNOTIF _FILESIZE	Specifies the size of the log file (`jssmailnotification_info`*number*`.log`) in kilobytes. Specify a half-width integer from 4 to 16384.	8192

Specification key name	Description	Default value
MAILNOTIF _FILENUM	Specifies the number of log files (jssmailnotification_info*number*.log). Specify a half-width integer from 1 to 64.	2

Messages output to a log file

For details about the messages output to log files, see *13.1 Output destinations for messages*.

Notes

- When the log file is set to be output, the mmap folder is created under the log file output destination folder (*IM-SS-path*\log\public\). If you want to change the size of the log file and the number of log files after operation starts, delete the mmap folder. The changes will not take effect if you do not delete the folder.

- The User log definition file (jp1mailnotification.conf) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following example sets the log file to be output. It changes the log file size to 10 megabytes (10,240 kilobytes), and the number of log files to four.

```
[LOG]
MAILNOTIF_LOG=Y
MAILNOTIF_FILESIZE=10240
MAILNOTIF_FILENUM=4
```

User log definition file (jp1refaclsetup.conf)

Description

This file defines the size of a log file and the number of log files that are used when the execution result of the `jssrefaclsetup` command is output to a log file open to users (`jssrefaclsetup_info`*nubmer*`.log`).

Format

```
;comments
[LOG]
REFACLSETUP_FILESIZE=size-of-the-log-file
REFACLSETUP_FILENUM=number-of-log-files
```

Lines starting with a semi-colon (`;`) are treated as comments.

File names

- `jp1refaclsetup.conf` (User log definition file)

- `jp1refaclsetup.conf.model` (Model user log definition file)[#]

    #

    Use the model file when you want to reset the contents of the user log definition file. In this case, delete the user log definition file, copy the model file, and rename the file to the name of the user log definition file. Then you can use that file as the user log definition file.

Storage folder

IM-SS-path`\conf\command\`

When the definition is applied

When you execute the `jssrefaclsetup` (sets up view permission settings for individual Items) command, the definition is applied to JP1/IM - Service Support.

What is described

You can edit the specification keys explained in the table below. Use an equal sign (=) to connect a key and its value.

Table 12–80: List of specification keys that can be set in the user log definition file

Specification key name	Description	Default value
REFACLSETUP_FILESIZE	Specifies the size of the log file (`jssrefaclsetup_info`*number*`.log`) in KB. Specify a half-width integer from 4 to 16384.	8192
REFACLSETUP_FILENUM	Specifies the number of log files (`jssrefaclsetup_info`*number*`.log`). Specify a half-width integer from 1 to 64.	2

Message output to a log file

For details about the message output to a log file, see *13.1 Output destinations for messages*.

Notes

- If you set to output log files, the `mmap` folder is created in the folder to output log files to (*IM-SS-path*`\log\public\`). When you change the size of the log file and the number of log files after you start operations, delete this `mmap` folder. If you do not delete this folder, the change will not be enabled.

- The user log definition file (`jp1refaclsetup.conf`) must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following definition example changes the size of the log file to 10 MB (10,240 KB), and the number of files to 4.

```
[LOG]
REFACLSETUP_FILESIZE=10240
REFACLSETUP_FILENUM=4
```

File for role information entries (Optional)

Description

This file contains role information to be registered in JP1/IM - Service Support. This file must be created in CSV format. To register the contents of this file in JP1/IM - Service Support, you must execute the `jssroleimport` command.

Format

```
#comments (Linefeed)
"role-ID","role-name","comment"(Linefeed)
"role-ID","role-name","comment"(Linefeed)
  :
  :
```

Lines starting with a hash mark (`#`) are treated as comments.

Legend:

(Linefeed): Indicates a linefeed character.

File name

Use any file name.

Storage folder

Any folder on the host where the `jssroleimport` command is executed

When the definition is applied

The definition is applied to JP1/IM - Service Support when the `jssroleimport` command is executed.

What is described

Specify role information in the order described in the following table.

Table 12–81: Role information to be specified in the File for role information entries (for each line)

Specification order	Element name	Specifiable character and conditions	Specifiable number of bytes[#]	Specify or not
1	Role ID	Half-width alphanumeric characters	1 to 64 bytes	Y
2	Role name	Characters other than control characters (0x00 to 0x1F, and 0x7F)	1 to 255 bytes	Y
3	Comment	Characters other than control characters (0x00 to 0x1F, and 0x7F)	No more than 512 bytes	Δ

Legend:

Y: An element that must be specified.

Δ : An element to specify if necessary.

#

If the specified string contains full-width characters, they are converted to three or four bytes.

Each line holds information for one role. Enclose each element of role information in double-quotation marks (`"`), and separate the elements with commas (`,`). Elements other than Role ID and Role name are optional, but such elements

cannot be omitted. Even if you do not want to specify an element, you need to leave a set of double quotation marks (`" "`) for it. In addition, the order of specifying the elements is fixed.

The following is an example when *Comment* is omitted:

```
"Role-ID","Role name",""(Linefeed)
```

Notes

- If you specify four or more elements by mistake as information for a role, elements from 1 to 3 are registered, but the fourth and the following elements are not registered.

- The File for role information entries must be created or edited with a character encoding that is compatible with the system locale of the machine on which JP1/IM - Service Support is installed. You can use one of the following character encodings:

  - In a Japanese environment: MS932

  - In an English environment: ISO-8859-1

  - In a Chinese environment: GB18030

Definition example

The following example enters three role information items in the File for role information entries:

```
"Role1","Role Name 1","First Role"
"Role2","Role Name 2","Second Role"
"Role3","Role Name 3","Third Role"
```

13

Messages

This chapter explains the messages output by JP1/IM - Service Support.

13.1 Output destinations for messages

The following table lists the output destinations of the KNAB messages that are output by JP1/IM - Service Support.

Table 13–1: Output destinations of messages

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[1]	Process log
KNAB00002-E	--	--	Y	Y	--	--	--	Y
KNAB00003-E	--	--	Y	Y	--	--	--	Y
KNAB00004-E	--	--	Y	Y	--	--	--	Y
KNAB00005-E	--	--	Y	Y	--	--	--	Y
KNAB00006-E	--	--	Y	--	--	--	--	Y
KNAB00007-E	--	--	Y	Y	--	--	--	Y
KNAB00008-E	--	--	Y	Y	--	--	--	Y
KNAB01001-E	--	--	Y	--	--	--	--	Y
KNAB01002-E	--	--	Y	--	--	--	--	Y
KNAB01003-E	--	--	Y	--	--	--	--	Y
KNAB01004-E	--	--	Y	--	--	--	--	Y
KNAB01005-E	--	--	Y	Y	--	--	--	Y
KNAB01006-E	--	--	Y	Y	--	--	--	Y
KNAB01007-E	--	--	Y	Y	--	--	--	Y
KNAB01008-E	--	--	Y	--	--	--	--	Y
KNAB01009-E	--	--	Y	--	--	--	--	Y
KNAB01010-E	--	--	Y	--	--	--	--	Y
KNAB02002-E	--	--	Y	--	--	--	--	--
KNAB02003-E	--	--	Y	--	--	--	--	--
KNAB02004-E	--	--	Y	--	--	--	--	--
KNAB03001-W	--	--	Y	Y	--	--	--	Y
KNAB03002-W	--	--	Y	Y	--	--	--	Y
KNAB04005-I	--	--	Y	Y	--	--	--	Y
KNAB04006-I	--	--	Y	--	--	--	--	--
KNAB04007-I	--	--	Y	--	--	--	--	--
KNAB10005-E	--	--	Y	Y	--	--	--	Y
KNAB10013-E	--	--	Y	--	--	--	--	--
KNAB10017-E	--	--	Y	--	--	--	--	--
KNAB10035-E	--	--	Y	--	--	--	--	--
KNAB11001-E	--	--	Y	--	--	--	--	Y

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB11002-E	--	--	Y	--	--	--	--	Y
KNAB11003-E	--	--	Y	--	--	--	--	Y
KNAB11004-E	--	--	Y	--	--	--	--	Y
KNAB11005-E	--	--	Y	--	--	--	--	Y
KNAB11006-E	--	--	Y	--	--	--	--	Y
KNAB11007-E	--	--	Y	--	--	--	--	Y
KNAB11008-E	--	--	Y	Y	--	--	--	Y
KNAB11009-E	--	--	Y	--	--	--	--	Y
KNAB11010-E	--	--	Y	--	--	--	--	Y
KNAB11011-E	--	--	Y	--	--	--	--	Y
KNAB11012-E	--	--	Y	--	--	--	--	Y
KNAB11013-E	--	--	Y	--	--	--	--	Y
KNAB11015-E	--	--	Y	--	--	--	--	Y
KNAB11016-E	--	--	Y	--	--	--	--	Y
KNAB11017-E	--	--	Y	--	--	--	--	Y
KNAB11018-E	--	--	Y	--	--	--	--	Y
KNAB11021-E	--	--	Y	--	--	--	--	Y
KNAB11022-E	--	--	Y	--	--	--	--	Y
KNAB11023-E	--	--	Y	--	--	--	--	Y
KNAB11025-E	--	--	Y	--	--	--	--	Y
KNAB11026-E	--	--	Y	--	--	--	--	Y
KNAB11027-E	--	--	Y	--	--	--	--	Y
KNAB11028-E	--	--	Y	--	--	--	--	Y
KNAB11030-E	--	--	Y	--	--	--	--	Y
KNAB11031-E	--	--	Y	--	--	--	--	Y
KNAB11032-E	--	--	Y	--	--	--	--	Y
KNAB11033-E	--	--	Y	--	--	--	--	Y
KNAB11035-E	--	--	Y	--	--	--	--	Y
KNAB11037-E	--	--	Y	--	--	--	--	Y
KNAB11038-E	--	--	Y	--	--	--	--	Y
KNAB11039-E	--	--	Y	--	--	--	--	Y
KNAB11040-E	--	--	Y	--	--	--	--	Y
KNAB11041-E	--	--	Y	--	--	--	--	Y
KNAB11042-E	--	--	Y	--	--	--	--	Y

13. Messages

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB11043-E	--	--	Y	--	--	--	--	Y
KNAB11044-E	--	--	Y	--	--	--	--	Y
KNAB11045-E	--	--	Y	--	--	--	--	Y
KNAB11046-E	--	--	Y	--	--	--	--	Y
KNAB11047-E	--	--	Y	--	--	--	--	Y
KNAB11048-E	--	--	Y	--	--	--	--	Y
KNAB12001-E	--	--	Y	--	--	--	--	Y
KNAB12002-E	--	--	Y	--	--	--	--	Y
KNAB12003-E	--	--	Y	--	--	--	--	Y
KNAB12013-E	--	--	Y	--	--	--	--	--
KNAB12014-E	--	--	Y	--	--	--	--	Y
KNAB13003-W	--	--	Y	--	--	--	--	--
KNAB13004-W	--	--	Y	--	--	--	--	Y
KNAB13005-W	--	--	Y	--	--	--	--	Y
KNAB14007-I	--	--	Y	--	--	--	--	--
KNAB15042-E	--	--	Y	--	--	--	--	Y
KNAB15064-W	--	--	Y	--	--	--	--	Y
KNAB15065-W	--	--	Y	--	--	--	--	Y
KNAB15066-W	--	--	Y	--	--	--	--	Y
KNAB15067-W	--	--	Y	--	--	--	--	Y
KNAB15068-W	--	--	Y	--	--	--	--	Y
KNAB15069-I	--	--	--	--	--	--	--	--
KNAB15070-I	--	--	--	--	--	--	--	--
KNAB15071-I	--	--	--	--	--	--	--	Y
KNAB15074-W	--	--	--	--	--	--	--	Y
KNAB15075-W	--	--	--	--	--	--	--	Y
KNAB15076-W	--	--	--	--	--	--	--	Y
KNAB15077-W	--	--	--	--	--	--	--	Y
KNAB15078-W	--	--	--	--	--	--	--	Y
KNAB15079-W	--	--	--	--	--	--	--	Y
KNAB15080-W	--	--	--	--	--	--	--	Y
KNAB15081-W	--	--	--	--	--	--	--	Y
KNAB15082-W	--	--	--	--	--	--	--	Y
KNAB15084-W	--	--	--	--	--	--	--	Y

13. Messages

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[1]	Process log
KNAB15087-I	--	--	--	--	--	--	--	Y
KNAB15088-I	--	--	--	--	--	--	--	Y
KNAB16001-I	--	--	--	--	--	--	--	Y
KNAB16002-I	--	--	--	--	--	--	--	Y
KNAB16003-I	--	--	--	--	--	--	--	Y
KNAB16004-I	--	--	--	--	--	--	--	Y
KNAB20001-I	--	--	--	--	--	Y	--	Y
KNAB20002-I	--	--	--	--	--	Y	--	Y
KNAB20003-I	--	--	--	--	--	Y	--	Y
KNAB20004-I	--	--	--	--	--	Y	Y	Y
KNAB20005-I	--	--	--	--	--	Y	--	Y
KNAB20006-I	--	--	--	--	--	Y	--	Y
KNAB20007-I	--	--	--	--	--	Y	--	Y
KNAB20008-I	--	--	--	--	Y	--	Y	Y
KNAB20010-I	--	--	--	--	--	Y	Y	Y
KNAB20011-I	Y	Y	--	--	--	--	--	--
KNAB20012-I	Y	Y	--	--	--	--	--	--
KNAB20013-W	--	Y	--	--	--	--	--	--
KNAB20014-E	--	Y	--	--	--	--	--	--
KNAB20020-I	--	--	--	--	--	Y	--	Y
KNAB20021-I	--	--	--	--	--	Y	--	Y
KNAB20022-I	--	--	--	--	--	Y	--	Y
KNAB20023-I	--	--	--	--	--	Y	--	Y
KNAB20024-I	--	--	--	--	--	Y	--	Y
KNAB20025-I	--	--	--	--	--	Y	--	Y
KNAB20026-I	--	--	--	--	--	Y	Y	Y
KNAB20028-I	--	--	--	--	--	Y	Y	Y
KNAB20029-I	--	--	--	--	--	Y	Y	Y
KNAB20030-I	--	--	--	--	--	Y	Y	Y
KNAB20031-I	--	--	--	--	--	Y	Y	Y
KNAB20032-I	--	--	--	--	--	Y	Y	Y
KNAB20033-I	--	--	--	--	--	--	Y	Y
KNAB20034-I	--	--	--	--	--	Y	Y	Y
KNAB20035-I	--	--	--	--	--	Y	Y	Y

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB20036-I	--	--	--	--	--	Y	Y	Y
KNAB20037-I	--	--	--	--	--	Y	Y	Y
KNAB20038-I	--	--	--	--	--	Y	Y	Y
KNAB20041-I	--	--	--	--	--	Y	Y	Y
KNAB20042-I	--	--	--	--	--	Y	Y	Y
KNAB20043-I	--	--	--	--	--	--	Y	Y
KNAB20103-I	--	--	--	--	--	Y	--	Y
KNAB20104-I	--	--	--	--	--	Y	--	Y
KNAB20105-I	--	--	--	--	--	Y	--	Y
KNAB20106-I	--	--	--	--	--	Y	--	Y
KNAB20107-I	--	--	--	--	--	Y	--	Y
KNAB20108-I	--	--	--	--	--	Y	--	Y
KNAB20109-I	--	--	--	--	--	Y	--	Y
KNAB20110-I	--	--	--	--	--	Y	--	Y
KNAB20111-I	--	--	--	--	--	Y	--	Y
KNAB20112-I	--	--	--	--	--	Y	--	Y
KNAB20114-I	--	--	--	--	--	Y	--	Y
KNAB20115-I	--	--	--	--	--	Y	--	Y
KNAB20116-I	--	--	--	--	--	Y	--	Y
KNAB20117-I	--	--	--	--	--	Y	--	Y
KNAB20118-I	--	--	--	--	--	Y	--	Y
KNAB20119-I	--	--	--	--	--	Y	--	Y
KNAB20120-I	--	--	--	--	--	Y	--	Y
KNAB20121-I	--	--	--	--	--	Y	--	Y
KNAB20122-I	--	--	--	--	--	Y	--	Y
KNAB20123-I	--	--	--	--	--	Y	--	--
KNAB20124-I	--	--	--	--	--	Y	--	--
KNAB20125-I	--	--	--	--	--	Y	--	Y
KNAB20128-I	Y	Y	--	--	--	--	--	--
KNAB20129-I	--	--	--	--	--	Y	--	Y
KNAB20130-I	--	--	--	--	--	Y	--	Y
KNAB20131-I	Y	Y	--	--	--	--	--	--
KNAB20133-I	--	--	--	--	--	Y	--	--
KNAB20134-I	--	--	--	--	--	Y	--	--

13. Messages

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB20135-I	--	--	--	--	--	Y	--	Y
KNAB20136-I	--	--	--	--	--	Y	--	Y
KNAB20137-I	--	--	--	--	--	Y	--	Y
KNAB20138-I	--	--	--	--	--	Y	--	Y
KNAB20139-I	--	--	--	--	--	Y	--	Y
KNAB20140-I	--	--	--	--	--	Y	--	Y
KNAB20141-I	--	--	--	--	--	Y	--	Y
KNAB20142-I	--	--	--	--	--	Y	--	Y
KNAB20143-I	--	--	--	--	--	Y	--	Y
KNAB20144-I	--	--	--	--	--	Y	--	Y
KNAB20145-I	--	--	--	--	--	Y	--	Y
KNAB20146-I	--	--	--	--	--	Y	--	Y
KNAB20147-I	--	--	--	--	--	Y	--	Y
KNAB20148-I	--	--	--	--	--	Y	--	Y
KNAB20149-I	--	--	--	--	--	Y	--	Y
KNAB20150-I	--	--	--	--	--	Y	Y	Y
KNAB20151-I	--	--	--	--	--	Y	Y	Y
KNAB20201-I	--	--	--	--	--	Y	--	Y
KNAB20202-I	--	--	--	--	--	Y	--	Y
KNAB20203-I	--	--	--	--	--	Y	--	Y
KNAB20204-I	--	--	--	--	--	Y	--	Y
KNAB20216-I	--	--	--	--	--	Y	--	Y
KNAB20217-I	--	--	--	--	--	Y	--	Y
KNAB20221-E	--	--	--	--	--	Y	--	Y
KNAB20222-I	--	--	--	--	--	Y	Y	Y
KNAB20223-I	--	--	--	--	--	Y	Y	Y
KNAB20224-I	--	--	--	--	--	Y	--	Y
KNAB20225-I	--	--	--	--	--	Y	--	Y
KNAB20226-I	--	--	--	--	--	Y	Y	Y
KNAB20228-I	--	--	--	--	--	Y	Y	Y
KNAB20229-I	--	--	--	--	--	--	Y	Y
KNAB20230-I	--	--	--	--	--	Y	Y	Y
KNAB20231-I	--	--	--	--	--	Y	Y	Y
KNAB20232-I	--	--	--	--	--	Y	Y	Y

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB20233-I	--	--	--	--	--	Y	Y	Y
KNAB20234-I	--	--	--	--	--	Y	Y	Y
KNAB20235-I	--	--	--	--	--	Y	Y	Y
KNAB20236-I	--	--	--	--	--	Y	--	Y
KNAB20237-I	--	--	--	--	--	Y	--	Y
KNAB20238-I	--	--	--	--	--	Y	--	Y
KNAB20239-I	--	--	--	--	--	Y	--	Y
KNAB20240-I	--	--	--	--	--	Y	--	Y
KNAB20241-I	--	--	--	--	--	Y	--	Y
KNAB20242-I	--	--	--	--	--	Y	--	Y
KNAB20243-I	--	--	--	--	--	Y	--	Y
KNAB20244-I	--	--	--	--	--	Y	--	Y
KNAB20251-I	--	--	--	--	--	Y	Y	Y
KNAB20257-I	--	--	--	--	--	--	Y	--
KNAB20258-I	--	--	--	--	--	--	Y	--
KNAB20259-I	--	--	--	--	--	--	Y	--
KNAB20260-I	--	--	--	--	--	--	Y	--
KNAB20263-I	--	--	--	--	--	--	Y	--
KNAB20264-I	--	--	--	--	--	--	Y	--
KNAB20265-I	--	--	--	--	--	--	Y	--
KNAB20266-I	--	--	--	--	--	Y	--	Y
KNAB20267-I	--	--	--	--	--	Y	--	Y
KNAB20268-I	--	--	--	--	--	Y	--	Y
KNAB20269-I	--	--	--	--	--	--	Y	--
KNAB20270-I	--	--	--	--	--	Y	--	Y
KNAB20271-I	--	--	--	--	--	Y	--	Y
KNAB20272-I	--	--	--	--	--	Y	Y	Y
KNAB20273-I	--	--	--	--	--	Y	--	Y
KNAB20275-I	--	--	--	--	--	Y	--	Y
KNAB20277-I	--	--	--	--	--	Y	Y	Y
KNAB20278-I	--	--	--	--	--	Y	Y	Y
KNAB20279-I	--	--	--	--	--	Y	Y	Y
KNAB20280-I	--	--	--	--	--	Y	Y	Y
KNAB20281-I	--	--	--	--	--	Y	Y	Y

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB20282-I	--	--	--	--	--	Y	Y	Y
KNAB20283-I	--	--	--	--	--	Y	--	Y
KNAB20284-I	--	--	--	--	--	Y	--	Y
KNAB20285-I	--	--	--	--	--	Y	Y	Y
KNAB20286-I	--	--	--	--	--	Y	Y	Y
KNAB20287-I	--	--	--	--	--	Y	Y	Y
KNAB20288-I	--	--	--	--	--	Y	Y	Y
KNAB20289-I	--	--	--	--	--	Y	Y	Y
KNAB20290-I	--	--	--	--	--	Y	Y	Y
KNAB20291-I	--	--	--	--	--	Y	Y	Y
KNAB20292-I	--	--	--	--	--	Y	Y	Y
KNAB20293-I	--	--	--	--	--	Y	Y	Y
KNAB20294-I	--	--	--	--	--	Y	Y	Y
KNAB20295-I	--	--	--	--	--	Y	Y	Y
KNAB20296-I	--	--	--	--	--	Y	Y	Y
KNAB20297-I	--	--	--	--	--	Y	Y	Y
KNAB20298-I	--	--	--	--	Y	--	Y	Y
KNAB20299-I	--	--	--	--	--	--	--	Y
KNAB20300-I	--	--	--	--	--	Y	Y	Y
KNAB20301-I	--	--	--	--	--	Y	Y	Y
KNAB20302-I	--	--	--	--	--	Y	Y	Y
KNAB20303-I	--	--	--	--	--	Y	Y	Y
KNAB22001-W	--	--	--	--	--	Y	--	Y
KNAB22002-W	--	--	--	--	--	Y	--	Y
KNAB22003-W	--	--	--	--	--	Y	--	Y
KNAB22004-W	--	--	--	--	--	Y	--	Y
KNAB22005-W	--	--	--	--	Y	--	--	Y
KNAB22006-W	--	--	--	--	Y	--	Y	Y
KNAB22007-W	--	--	--	--	Y	--	Y	Y
KNAB22008-W	--	--	--	--	--	--	Y	Y
KNAB22009-W	--	--	--	--	--	--	Y	Y
KNAB22010-W	--	--	--	--	--	--	Y	Y
KNAB22011-W	--	--	--	--	--	--	Y	Y
KNAB22012-W	--	--	--	--	--	--	Y	Y

13. Messages

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB22013-W	--	--	--	--	--	Y	Y	Y
KNAB22014-W	--	--	--	--	--	Y	Y	Y
KNAB22015-W	--	--	--	--	--	Y	Y	Y
KNAB22016-W	--	--	--	--	--	Y	Y	Y
KNAB22017-W	--	--	--	--	--	--	Y	Y
KNAB22018-W	--	--	--	--	--	Y	--	Y
KNAB22020-W	--	--	--	--	--	Y	--	Y
KNAB22021-W	--	--	--	--	--	Y	--	Y
KNAB22022-W	--	--	--	--	--	Y	Y	Y
KNAB22023-W	--	--	--	--	--	Y	--	Y
KNAB22024-W	--	--	--	--	--	Y	--	Y
KNAB22025-W	--	--	--	--	--	Y	--	Y
KNAB22026-W	--	--	--	--	--	Y	--	Y
KNAB22027-W	--	--	--	--	--	Y	--	Y
KNAB22028-W	--	--	--	--	Y	Y	Y	Y
KNAB22029-W	--	--	--	--	Y	Y	Y	Y
KNAB22101-W	--	--	--	--	--	Y	--	Y
KNAB22102-W	--	--	--	--	--	Y	--	Y
KNAB22103-W	--	--	--	--	--	Y	--	Y
KNAB22104-W	--	--	--	--	--	Y	--	Y
KNAB22105-W	--	--	--	--	--	Y	--	Y
KNAB22106-W	--	--	--	--	--	Y	--	Y
KNAB22107-W	--	--	--	--	--	Y	--	Y
KNAB22108-W	--	--	--	--	--	Y	--	Y
KNAB22109-W	--	--	--	--	--	Y	--	Y
KNAB22110-W	--	--	--	--	--	Y	--	Y
KNAB22111-W	--	--	--	--	--	Y	--	Y
KNAB22112-W	--	--	--	--	--	Y	--	Y
KNAB22113-W	--	--	--	--	--	Y	--	Y
KNAB22114-W	--	--	--	--	--	Y	--	Y
KNAB22115-W	--	--	--	--	--	--	Y	Y
KNAB22116-W	--	--	--	--	--	--	Y	Y
KNAB22121-W	--	--	--	--	Y	--	--	Y
KNAB22122-W	Y	--	--	--	--	--	--	--

13. Messages

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB22123-W	Y	--	--	--	--	--	--	--
KNAB24001-E	--	--	--	--	Y	--	Y	Y
KNAB24002-E	--	--	--	--	Y	Y	Y	Y
KNAB24003-E	--	--	--	--	Y	Y	Y	Y
KNAB24004-E	--	--	--	--	Y	Y	Y	Y
KNAB24005-E	--	--	--	--	Y	--	Y	Y
KNAB24006-E	--	--	--	--	--	Y	--	Y
KNAB24007-E	--	Y	--	--	--	--	--	--
KNAB24008-E	--	--	--	--	Y	Y	--	--
KNAB24101-E	--	--	--	--	Y	--	Y	Y
KNAB24102-E	--	--	--	--	Y	--	--	Y
KNAB24103-E	--	--	--	--	Y	--	--	Y
KNAB24104-E	--	--	--	--	Y	Y	Y	Y
KNAB24105-E	--	--	--	--	Y	--	--	Y
KNAB24106-E	--	--	--	--	Y	--	--	Y
KNAB24107-E	--	--	--	--	--	Y	--	Y
KNAB24108-E	Y	Y	--	--	--	--	--	--
KNAB24114-E	--	--	--	--	Y	--	--	Y
KNAB24115-E	--	--	--	--	Y	--	--	Y
KNAB24201-E	--	--	--	--	Y	Y	--	Y
KNAB24202-E	--	--	--	--	Y	--	--	Y
KNAB24203-E	--	--	--	--	Y	--	--	Y
KNAB24204-E	--	--	--	--	Y	--	Y	Y
KNAB24205-E	--	--	--	--	--	--	--	Y
KNAB24206-E	--	--	--	--	Y	--	--	Y
KNAB24207-E	--	--	--	--	Y	--	--	Y
KNAB24208-E	--	--	--	--	Y	--	--	Y
KNAB24209-E	--	--	--	--	Y	--	--	Y
KNAB24210-E	--	--	--	--	--	--	Y	--
KNAB24211-E	--	--	--	--	Y	--	Y	Y
KNAB24212-E	--	--	--	--	Y	--	--	Y
KNAB24213-E	--	--	--	--	Y	--	--	Y
KNAB24214-E	--	--	--	--	Y	--	--	Y
KNAB24215-E	--	--	--	--	Y	--	--	Y

13. Messages

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[1]	Process log
KNAB24216-E	--	--	--	--	--	--	--	Y
KNAB24217-E	--	--	--	--	Y	--	--	Y
KNAB24218-E	--	--	--	--	Y	--	--	Y
KNAB24219-E	--	--	--	--	Y	--	--	Y
KNAB24220-E	--	--	--	--	Y	--	--	Y
KNAB24221-E	--	--	--	--	Y	--	Y	--
KNAB24222-E	--	--	--	--	Y	--	Y	Y
KNAB24223-E	Y	--	--	--	--	--	--	--
KNAB24224-E	Y	--	--	--	--	--	--	--
KNAB24225-E	Y	--	--	--	--	--	--	--
KNAB24226-E	--	--	--	--	Y	--	Y	Y
KNAB24227-E	--	--	--	--	Y	--	Y	Y
KNAB24228-E	--	--	--	--	Y	--	Y	Y
KNAB24229-E	--	--	--	--	Y	--	Y	Y
KNAB24230-E	--	--	--	--	Y	--	Y	Y
KNAB24231-E	--	--	--	--	Y	--	Y	Y
KNAB24232-E	--	--	--	--	Y	--	Y	Y
KNAB24233-E	--	--	--	--	Y	--	Y	Y
KNAB26001-E	--	--	--	--	Y	--	--	Y
KNAB26002-E	--	--	--	--	Y	--	--	Y
KNAB26003-E	--	--	--	--	Y[2]	Y	--	Y
KNAB26004-E	--	--	--	--	Y	--	--	Y
KNAB26005-E	--	--	--	--	Y	Y	--	Y
KNAB26006-E	--	--	--	--	Y	Y	--	Y
KNAB26007-E	--	--	--	--	Y	Y	--	Y
KNAB26008-E	--	--	--	--	Y	--	Y	Y
KNAB26009-E	--	--	--	--	Y	--	Y	Y
KNAB26011-E	--	--	--	--	Y	--	--	Y
KNAB26012-E	--	--	--	--	Y	--	--	Y
KNAB26013-E	--	--	--	--	Y	--	--	Y
KNAB26015-E	--	--	--	--	Y	--	Y	Y
KNAB26016-E	--	--	--	--	Y	--	--	Y
KNAB26017-E	--	--	--	--	Y	--	Y	Y

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB26019-E	--	--	--	--	Y	--	Y	Y
KNAB26020-E	--	--	--	--	Y	--	--	Y
KNAB26021-E	--	--	--	--	Y	--	--	Y
KNAB26022-E	--	Y	--	--	--	--	--	--
KNAB26023-E	--	Y	--	--	--	--	--	--
KNAB26024-E	--	Y	--	--	--	--	--	--
KNAB26025-E	--	--	--	--	--	Y	--	Y
KNAB26026-E	--	--	--	--	--	--	Y	Y
KNAB26027-E	--	--	--	--	--	--	Y	Y
KNAB26028-E	--	--	--	--	--	--	Y	Y
KNAB26029-E	--	--	--	--	--	--	Y	Y
KNAB26030-E	--	--	--	--	--	--	Y	Y
KNAB26031-E	--	--	--	--	--	--	Y	Y
KNAB26032-E	--	--	--	--	--	--	Y	Y
KNAB26033-E	--	--	--	--	--	--	Y	Y
KNAB26034-E	--	--	--	--	--	--	Y	Y
KNAB26036-E	--	--	--	--	--	--	Y	Y
KNAB26037-E	--	--	--	--	--	--	Y	Y
KNAB26038-E	--	--	--	--	--	--	Y	Y
KNAB26039-E	--	--	--	--	--	--	Y	Y
KNAB26040-E	--	--	--	--	--	Y	--	Y
KNAB26041-E	--	--	--	--	--	Y	--	Y
KNAB26042-E	--	--	--	--	--	Y	Y	Y
KNAB26043-E	--	--	--	--	--	Y	Y	Y
KNAB26044-E	--	--	--	--	--	Y	--	Y
KNAB26045-E	--	--	--	--	--	--	Y	Y
KNAB26047-E	--	--	--	--	--	Y	--	Y
KNAB26048-E	--	--	--	--	--	Y	--	Y
KNAB26049-E	--	--	--	--	Y	--	Y	Y
KNAB26050-E	--	--	--	--	Y	--	Y	Y
KNAB26051-E	--	--	--	--	Y	--	Y	Y
KNAB26052-E	--	--	--	--	--	--	Y	Y
KNAB26054-E	--	--	--	--	--	Y	Y	Y
KNAB26055-E	--	--	--	--	--	Y	Y	Y

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB26056-E	--	--	--	--	--	Y	--	Y
KNAB26057-E	--	--	--	--	--	Y	--	Y
KNAB26058-E	--	--	--	--	--	Y	--	Y
KNAB26059-E	--	--	--	--	--	Y	--	Y
KNAB26060-E	--	--	--	--	--	Y	--	Y
KNAB26061-E	--	--	--	--	--	Y	--	Y
KNAB26062-E	--	--	--	--	--	Y	--	Y
KNAB26063-E	--	--	--	--	--	Y	Y	Y
KNAB26064-E	--	--	--	--	--	Y	--	Y
KNAB26065-E	--	--	--	--	--	Y	--	Y
KNAB26068-E	--	--	--	--	--	Y	--	Y
KNAB26069-E	--	--	--	--	--	Y	Y	Y
KNAB26070-E	--	--	--	--	--	Y	Y	Y
KNAB26071-E	--	--	--	--	Y	--	Y	Y
KNAB26072-E	--	--	--	--	Y	--	Y	Y
KNAB26073-E	--	--	--	--	Y	--	Y	Y
KNAB26074-E	--	--	--	--	Y	--	Y	Y
KNAB26081-E	--	--	--	--	--	--	Y	--
KNAB26082-E	--	--	--	--	--	--	Y	--
KNAB26083-E	--	--	--	--	--	--	Y	--
KNAB26084-E	--	--	--	--	--	--	Y	--
KNAB26085-E	--	--	--	--	--	--	Y	--
KNAB26086-E	--	--	--	--	--	Y	--	Y
KNAB26087-E	--	--	--	--	--	--	Y	--
KNAB26088-E	--	--	--	--	--	--	Y	--
KNAB26089-E	--	--	--	--	--	--	Y	--
KNAB26090-E	--	--	--	--	--	Y	--	--
KNAB26091-E	--	--	--	--	--	--	Y	--
KNAB26093-E	--	--	--	--	--	Y	--	Y
KNAB26094-E	--	--	--	--	--	Y	--	Y
KNAB26095-E	--	--	--	--	--	Y	--	Y
KNAB26096-E	--	--	--	--	--	Y	--	Y
KNAB26097-E	--	--	--	--	Y	--	Y	Y
KNAB26098-E	--	--	--	--	Y	--	Y	Y

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB26101-E	--	--	--	--	Y	--	Y	--
KNAB26102-E	--	--	--	--	Y	--	--	Y
KNAB26103-E	--	--	--	--	Y	--	--	Y
KNAB26104-E	--	--	--	--	Y	--	--	Y
KNAB26105-E	--	--	--	--	Y	--	--	Y
KNAB26106-E	--	--	--	--	Y	--	--	Y
KNAB26107-E	--	--	--	--	Y	--	--	Y
KNAB26108-E	--	--	--	--	Y	--	--	--
KNAB26109-E	--	--	--	--	Y	--	--	Y
KNAB26110-E	--	--	--	--	Y	--	--	Y
KNAB26111-E	--	--	--	--	Y	--	--	Y
KNAB26112-E	--	--	--	--	Y	--	--	Y
KNAB26113-E	--	--	--	--	Y	--	--	Y
KNAB26114-E	--	--	--	--	Y	--	--	Y
KNAB26115-E	--	--	--	--	Y	--	--	Y
KNAB26116-E	--	--	--	--	Y	--	--	Y
KNAB26117-E	--	--	--	--	Y	Y	Y	Y
KNAB26118-E	--	--	--	--	Y	--	--	Y
KNAB26119-E	--	--	--	--	Y	--	--	Y
KNAB26120-E	--	--	--	--	Y	--	--	Y
KNAB26121-E	--	--	--	--	Y	--	--	Y
KNAB26122-E	--	--	--	--	Y	--	--	Y
KNAB26123-E	--	--	--	--	Y	Y	--	Y
KNAB26124-E	--	--	--	--	Y	--	--	Y
KNAB26125-E	--	--	--	--	Y	--	--	Y
KNAB26126-E	--	--	--	--	Y	--	--	Y
KNAB26127-E	--	--	--	--	--	Y	--	Y
KNAB26128-E	--	--	--	--	--	Y	--	Y
KNAB26129-E	--	--	--	--	--	Y	--	Y
KNAB26130-E	--	--	--	--	--	Y	--	Y
KNAB26131-E	--	--	--	--	Y	--	--	Y
KNAB26132-E	--	--	--	--	--	Y	--	Y
KNAB26133-E	--	--	--	--	--	Y	--	Y
KNAB26134-E	--	--	--	--	--	Y	--	Y

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB26135-E	--	--	--	--	Y	--	--	Y
KNAB26136-E	--	--	--	--	Y	--	--	Y
KNAB26137-E	--	--	--	--	Y	--	--	Y
KNAB26138-E	--	--	--	--	Y	--	--	Y
KNAB26139-E	--	--	--	--	Y	--	--	Y
KNAB26140-E	--	--	--	--	Y	--	--	Y
KNAB26141-E	--	--	--	--	Y	--	--	Y
KNAB26142-E	--	--	--	--	Y	--	--	Y
KNAB26143-E	--	--	--	--	Y	--	--	Y
KNAB26144-E	--	--	--	--	Y	--	--	Y
KNAB26145-E	--	--	--	--	Y	--	--	Y
KNAB26146-E	--	--	--	--	Y	--	--	Y
KNAB26147-E	--	--	--	--	Y	--	--	Y
KNAB26148-W	--	--	--	--	Y	--	--	Y
KNAB26149-E	--	--	--	--	Y	--	--	Y
KNAB26150-E	--	--	--	--	Y	--	--	Y
KNAB26151-W	--	--	--	--	Y	--	--	Y
KNAB26152-E	--	--	--	--	Y	--	--	Y
KNAB26153-E	--	--	--	--	Y	--	--	Y
KNAB26154-E	--	--	--	--	Y	--	--	Y
KNAB26155-E	--	--	--	--	Y	--	--	Y
KNAB26156-E	--	--	--	--	Y	--	--	Y
KNAB26157-E	--	--	--	--	Y	--	Y	Y
KNAB26159-E	--	--	--	--	Y	--	Y	Y
KNAB26160-E	--	--	--	--	Y	--	Y	Y
KNAB26161-E	--	--	--	--	Y	--	Y	Y
KNAB26163-E	--	--	--	--	Y	--	Y	--
KNAB26165-E	--	--	--	--	Y	--	Y	--
KNAB26166-E	--	--	--	--	Y	--	Y	Y
KNAB26167-E	--	--	--	--	Y	--	Y	Y
KNAB26168-E	--	--	--	--	Y	--	Y	Y
KNAB26170-E	--	--	--	--	Y	--	Y	Y
KNAB26171-E	--	--	--	--	Y	--	Y	Y
KNAB26172-E	--	--	--	--	Y	--	Y	Y

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB26173-E	--	--	--	--	Y	--	Y	Y
KNAB26174-E	--	--	--	--	Y	--	Y	Y
KNAB26176-E	--	--	--	--	Y	--	--	Y
KNAB26178-E	--	--	--	--	Y	--	Y	Y
KNAB26179-E	--	--	--	--	Y	--	Y	Y
KNAB26180-E	--	--	--	--	Y	--	Y	Y
KNAB26181-E	--	--	--	--	--	Y	Y	Y
KNAB26182-E	--	--	--	--	Y	--	Y	Y
KNAB26183-E	--	--	--	--	Y	--	Y	Y
KNAB26184-E	--	--	--	--	Y	--	Y	Y
KNAB26185-E	--	--	--	--	Y	--	Y	Y
KNAB26186-E	--	--	--	--	Y	--	Y	Y
KNAB26188-E	--	--	--	--	Y	--	Y	Y
KNAB26189-E	--	--	--	--	Y	--	Y	Y
KNAB26190-E	--	--	--	--	Y	--	Y	Y
KNAB26191-E	--	--	--	--	--	--	Y	Y
KNAB26192-E	--	--	--	--	Y	--	Y	Y
KNAB26193-E	--	--	--	--	--	--	Y	Y
KNAB26194-E	--	--	--	--	Y	--	Y	Y
KNAB26195-E	--	--	--	--	Y	--	Y	Y
KNAB26196-E	--	--	--	--	Y	--	--	Y
KNAB26197-E	--	--	--	--	Y	--	Y	Y
KNAB26198-E	--	--	--	--	Y	--	Y	Y
KNAB26201-E	--	--	--	--	Y	--	--	Y
KNAB26202-E	--	--	--	--	Y	--	--	Y
KNAB26203-E	--	--	--	--	--	Y	Y	Y
KNAB26204-E	--	--	--	--	Y	--	--	Y
KNAB26205-E	--	--	--	--	Y	--	--	Y
KNAB26208-E	--	--	--	--	Y	--	--	Y
KNAB26209-E	--	--	--	--	Y	--	--	Y
KNAB26210-E	--	--	--	--	Y	--	--	Y
KNAB26211-E	--	--	--	--	Y	--	Y	Y
KNAB26213-E	--	--	--	--	--	Y	--	Y
KNAB26214-E	--	--	--	--	--	Y	--	Y

13. Messages

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB26215-E	--	--	--	--	--	Y	--	Y
KNAB26219-E	--	--	--	--	Y	--	Y	Y
KNAB26221-E	--	--	--	--	Y	--	Y	Y
KNAB26223-E	--	--	--	--	Y	--	Y	Y
KNAB28001-E	--	--	--	--	Y	--	Y	Y
KNAB28002-E	--	--	--	--	Y	--	Y	Y
KNAB28003-E	--	--	--	--	Y	--	Y	Y
KNAB28004-E	--	--	--	--	Y	--	Y	Y
KNAB28005-E	--	--	--	--	Y	--	Y	Y
KNAB28006-E	--	--	--	--	Y	--	Y	Y
KNAB28007-E	--	--	--	--	Y	--	--	Y
KNAB28008-E	--	--	--	--	Y	--	--	Y
KNAB28010-E	--	--	--	--	Y	--	Y	Y
KNAB28011-E	--	--	--	--	Y	--	--	Y
KNAB28012-E	--	--	--	--	Y	--	--	Y
KNAB28013-E	--	--	--	--	Y	--	--	--
KNAB28014-E	--	--	--	--	--	--	Y	Y
KNAB28015-E	--	--	--	--	--	--	Y	Y
KNAB28016-E	--	--	--	--	--	--	Y	Y
KNAB28017-E	--	--	--	--	--	--	Y	Y
KNAB28018-E	--	--	--	--	--	--	Y	Y
KNAB28020-E	--	--	--	--	--	--	Y	Y
KNAB28021-E	--	--	--	--	--	--	Y	Y
KNAB28022-E	--	--	--	--	--	Y	--	Y
KNAB28023-E	--	--	--	--	Y	Y	Y	Y
KNAB28024-E	--	--	--	--	--	--	Y	Y
KNAB28025-E	--	--	--	--	Y	--	Y	Y
KNAB28026-E	--	--	--	--	--	--	Y	Y
KNAB28027-E	--	--	--	--	--	--	Y	Y
KNAB28028-E	--	--	--	--	--	--	Y	Y
KNAB28029-E	--	--	--	--	Y	--	Y	Y
KNAB28030-E	--	--	--	--	Y	--	Y	Y
KNAB28031-E	--	--	--	--	Y	--	Y	Y
KNAB28032-E	--	--	--	--	Y	--	Y	Y

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB28033-E	--	--	--	--	--	--	Y	Y
KNAB28034-E	--	--	--	--	Y	--	Y	Y
KNAB28035-E	--	--	--	--	Y	--	Y	Y
KNAB28036-E	--	--	--	--	Y	--	Y	Y
KNAB28101-E	--	--	--	--	Y	--	--	Y
KNAB28102-E	--	--	--	--	Y	--	--	Y
KNAB28103-E	--	--	--	--	Y	Y	--	--
KNAB28104-Q	--	--	--	--	--	Y	--	--
KNAB28105-E	--	--	--	--	--	Y	Y	--
KNAB28107-I	--	--	--	--	--	Y	--	--
KNAB28108-Q	--	--	--	--	--	Y	--	--
KNAB28109-I	--	--	--	--	--	Y	--	--
KNAB28110-E	--	--	--	--	--	Y	--	--
KNAB28111-E	--	--	--	--	--	Y	--	--
KNAB28112-E	--	--	--	--	--	Y	--	--
KNAB28113-I	--	--	--	--	--	Y	--	--
KNAB28114-E	--	--	--	--	--	Y	--	Y
KNAB28115-E	--	--	--	--	--	Y	--	Y
KNAB28116-E	--	--	--	--	--	Y	--	Y
KNAB28117-E	Y	--	--	--	Y	Y	Y	Y
KNAB28118-E	Y	--	--	--	Y	Y	--	Y
KNAB28121-E	--	--	--	--	Y	--	Y	Y
KNAB28122-E	--	--	--	--	Y	--	Y	Y
KNAB28123-E	--	--	--	--	Y	--	Y	Y
KNAB28124-E	--	--	--	--	Y	--	Y	Y
KNAB28125-E	--	--	--	--	Y	--	Y	Y
KNAB30002-E	--	--	--	Y	--	--	--	--
KNAB30003-E	--	--	--	Y	--	--	--	--
KNAB30004-E	--	--	--	Y	--	--	--	--
KNAB30005-I	--	--	--	Y	--	--	--	--
KNAB30006-E	--	--	--	Y	--	--	--	--
KNAB30007-E	--	--	--	Y	--	--	--	--
KNAB30008-E	--	--	--	Y	--	--	--	--
KNAB30012-I	--	--	--	Y	--	--	--	Y

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB30013-I	--	--	--	Y	--	--	--	--
KNAB30105-E	--	--	--	Y	--	--	--	Y
KNAB30106-E	--	--	--	Y	--	--	--	Y
KNAB30107-E	--	--	--	Y	--	--	--	Y
KNAB30108-E	--	--	--	Y	--	--	--	Y
KNAB30109-E	--	--	--	Y	--	--	--	Y
KNAB30111-E	--	--	--	Y	--	--	--	Y
KNAB30112-E	--	--	--	Y	--	--	--	Y
KNAB30114-E	--	--	--	Y	--	--	--	Y
KNAB30155-E	--	--	--	Y	--	--	--	Y
KNAB30202-E	--	--	--	Y	--	--	--	Y
KNAB30205-E	--	--	--	Y	--	--	--	Y
KNAB30208-E	--	--	--	Y	--	--	--	Y
KNAB30210-E	--	--	--	Y	--	--	--	Y
KNAB30211-E	--	--	--	Y	--	--	--	Y
KNAB30214-E	--	--	--	Y	--	--	--	Y
KNAB99001-W	--	--	--	Y	--	--	--	Y
KNAB99002-E	--	--	--	Y	--	--	--	Y
KNAB99003-E	--	--	--	Y	--	--	--	Y
KNAB99006-W	--	--	--	Y	--	--	--	Y
KNAB99007-E	--	--	--	Y	--	--	--	Y
KNAB99008-E	--	--	--	Y	--	--	--	Y
KNAB99009-E	--	--	--	Y	--	--	--	Y
KNAB99010-E	--	--	--	Y	--	--	--	Y
KNAB99011-W	--	--	--	Y	--	--	--	Y
KNAB99012-E	--	--	--	Y	--	--	--	Y
KNAB99013-E	--	--	--	Y	--	--	--	Y
KNAB99014-E	--	--	--	Y	--	--	--	Y
KNAB99015-E	--	--	--	Y	--	--	--	Y
KNAB99017-W	--	--	--	Y	--	--	--	Y
KNAB99019-E	--	--	--	Y	--	--	--	Y
KNAB99025-E	--	--	--	Y	--	--	--	Y
KNAB99027-E	--	--	--	Y	--	--	--	Y
KNAB99028-E	--	--	--	Y	--	--	--	Y

Message ID	Output destination							
	HNTRLib2	Event log	Window	Dialog box	Standard error output	Standard output	Public log[#1]	Process log
KNAB99030-E	--	--	--	Y	--	--	--	Y
KNAB99031-E	--	--	--	Y	--	--	--	Y
KNAB99032-E	--	--	--	Y	--	--	--	Y
KNAB99034-W	--	--	--	Y	--	--	--	Y
KNAB99035-E	--	--	--	Y	--	--	--	Y
KNAB99037-W	--	--	--	Y	--	--	--	Y
KNAB99040-W	--	--	--	Y	--	--	--	Y
KNAB99041-W	--	--	--	Y	--	--	--	Y
KNAB99042-E	--	--	--	Y	--	--	--	Y
KNAB99043-E	--	--	--	Y	--	--	--	Y
KNAB99044-E	--	--	--	Y	--	--	--	Y
KNAB99045-W	--	--	--	Y	--	--	--	Y
KNAB99046-W	--	--	--	Y	--	--	--	Y
KNAB99047-E	--	--	--	Y	--	--	--	Y
KNAB99048-E	--	--	--	Y	--	--	--	Y
KNAB99049-E	--	--	--	Y	--	--	--	Y
KNAB99050-E	--	--	--	Y	--	--	--	Y
KNAB99090-E	--	--	--	Y	--	--	--	Y
KNAB99091-E	--	--	--	Y	--	--	--	Y
KNAB99098-E	--	--	--	Y	--	--	--	Y
KNAB99099-E	--	--	--	Y	--	--	--	Y

Legend:

HNTRLib2: Integrated trace log

Y: Output

--: Not output

#1

The following data is output to this log file: Execution results of the `jssinformperiod`, `jssitementry`, `jssitemedit`, `jssitementrybymail`, `jssinformleave`, `jssitemexportEx`, `jssitemimportEx`, `jssaclexport`, and `jssaclimport` commands, execution results of the `jssitementry`, `jssitemedit`, and `jssitementrybymail` command with the `-mail` option specified, and analysis results of the Configuration file for input-candidate values. These results are output only when the output is specified in the User log definition file and the Input-assistant property file. For details, see *User log definition file (jp1informperiod.conf)*, *User log definition file (jp1itementry.conf)*, *User log definition file (jp1itemedit.conf)*, *User log definition file (jp1itementrybymail.conf)*, *User log definition file (jp1informleave.conf)*, *User log definition file (jp1itemexportEx.conf)*, *User log definition file (jp1itemimportEx.conf)*, *User log definition file (jp1aclexport.conf)*, *User log definition file (jp1aclimport.conf)*, and *Input-assistant property file (hptl_jp1_imss_input_assist_plugin.properties)* in *Chapter 12. Definition Files*.

#2

This message is output only during backup and recovery.

13.2 List of event logs

Event logs output by JP1/IM - Service Support are displayed as application logs in the Event Viewer window.

To open the Event Viewer window in Windows Server 2003 or Windows Server 2008, select **Start**, **Administrative Tools**, and then **Event Viewer**. In Windows Server 2012, select **Start**, **Administrative Tools**, and then **Event Viewer**, or select **Start**, **All Applications**, and then **Event Viewer**.

13.2.1 Windows event logs output by JP1/IM - Service Support

A Windows event log output by JP1/IM - Service Support has the identifier `JP1/IM - Service Support` indicated in the **Source** column.

The following table lists the message information that can be output by JP1/IM - Service Support to a Windows event log.

Table 13–2: Message information output to a Windows event log

Message ID	Event ID	Type
KNAB20011	1	Information
KNAB20012	1	Information
KNAB20013	2	Warning
KNAB20014	3	Error
KNAB20128	1	Information
KNAB20131	1	Information
KNAB24007	3	Error
KNAB24108	3	Error
KNAB26022	3	Error
KNAB26023	3	Error
KNAB26024	3	Error

13.2.2 Messages output by JP1/IM - Service Support databases to the event log

A message output by Service Support databases has the identifier `JP1/Service Support - DB Server` indicated in the **Source** column. The following table lists the message information that can be output by JP1/IM - Service Support databases to the event log.

Table 13–3: Messages output by JP1/IM - Service Support databases to the event log

Message ID	Event ID	Type	Description	Action
KFPS01850-I	30000	Information	The Item management database has stopped.	--

13. Messages

Message ID	Event ID	Type	Description	Action
KFPS05210-I	30000	Information	The Item management database has started.	Immediately after the JP1/Service Support - DB Server service has started, startup of the Item management database is not complete yet. Therefore, check whether this message is output to determine whether the startup is complete.
KFPH00211-I	30000	Information	Free space on the Item management database has become scarce. This message is output when the percentage of space used compared to the total capacity of the Item management database reaches 80%, 90%, and 100%.	For JP1/IM - Service Support (Standard): Delete unnecessary data and then perform the following: 1. Execute the jssdelrec command to delete any data that is waiting to be deleted. 2. Execute the jssdbrorg.bat command to reorganize the free space of the Item management database. If the same message appears again, use the following procedure to increase the size of the Item management database: 1. Use the jssdbbackup.bat command to back up the Item management database (for extension). 2. Use the jsssetup.bat command to increase the size of the Item management database. 3. Use the jssdbrecovery.bat command to recover the data from the backup created in step 1. For JP1/IM - Service Support Advanced Edition: The capacity of the Item management database or Item storage database is insufficient. Execute the jssdbstatchk.bat command to check the usage of the Item management database and Item storage database. If the capacity of the Item management database is insufficient, delete unnecessary data or store Items as described below. • When deleting unnecessary data: 1. Delete unnecessary data. 2. Execute the jssdelrec command to delete any data that is waiting to be deleted. 3. Execute the jssdbrorg.bat command to reorganize the free space of the Item management database. • When storing Items: 1. Execute the jssitemstore command to store closed old Items in the Item storage database. 2. Execute the jssdbrorg.bat command to reorganize the free space of the Item management database. If the capacity of the Item storage database is insufficient, expand the Item storage database or rotate the storage areas according to the predefined operation of the Item storage database. For details about the procedures, see *10.2.11 Rotating the storage locations in the Item storage database* and *10.2.12 Expanding the Item storage database*.
KFPH00212-I	30000	Information	Reorganization of the database is required.	
KFPH00213-W	30001	Warning	The capacity of the database is insufficient. This message is output when there is no more free space in the database.	

Legend:
--: Not applicable

If a message beginning with KFP other than the above is displayed, an error might have occurred in the Item management database. Collect data and then contact the system administrator.

13.3 Message format

This section explains the format of messages output by JP1/IM - Service Support.

13.3.1 Format of output messages

Each message consists of a message ID, followed by the message text. Messages are output in the following format:

KNAB*nnnnn-Z message-text*

The message ID consists of the following information:

K

    System identifier

NAB

    Indicates a JP1/IM - Service Support message.

nnnnn

    Message serial number

Z

    Message type

    E: Error message. Processing is stopped.

    W: Warning message. Processing continues after message output.

    I: Information message, which reports information to the user.

    Q: Query message, which prompts the user to select the operation to be performed.

13.3.2 Format of message explanations

Messages are explained in the following format in this manual.

Message ID

> *message-text*[#]

Explanation of the output message text

(S)

    System action

(O)

    Actions that must be performed by the operator when the message is output.

    Note that the JP1/IM - Service Support manuals and actions to be taken for messages are intended for use by the following two types of administrators:

- System administrators

    In this manual, a system administrator is a user who manages the system required for operating the JP1/IM - Service Support programs including the Item management server and email server.

- JP1/IM - Service Support operation administrators

A user who manages JP1/IM - Service Support operations such as creating process work boards and assigning access permission based on this manual. Also see the explanation of actions to be taken for messages in the *Job Management Partner 1/Integrated Management - Service Support Operator's Guide*.

\#

Character strings in italic in the message text vary depending on the state.

13.4 Window operation (user management and role management) messages (KNAB00002 to KNAB04007)

The following describes the messages that are output during window operation (user management and role management).

KNAB00002-E

The value set in *input-element-name* is too long. Enter a character string within *number-of-bytes-that-can-be-entered* bytes.

The number of characters entered exceeds the maximum you can specify.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then revise the number of characters entered. Note that because the data registered in JP1/IM - Service Support is converted to UTF-8, full-width characters are equivalent to three- or four-byte characters.

KNAB00003-E

Enter *input-element-name* using half-width alphanumeric characters.

Characters other than half-width alphanumeric characters have been used.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then revise the characters entered.

KNAB00004-E

Enter *input-element-name* using characters that can be specified in an email address.

Characters that cannot be specified in an email address have been entered.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then revise the characters entered.

KNAB00005-E

Enter *input-element-name* using characters that can be specified in a password.

Characters that cannot be specified in a password have been entered.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then revise the characters entered.

KNAB00006-E

The password does not match the password confirmation input.

The password does not match the password confirmation input.

(S)

Waits for a user operation.

(O)

Check and, if necessary, revise the password.

KNAB00007-E

Character strings beginning with "_jp1" are reserved in the system.

A character string beginning with `_jp1` has been specified for the role ID.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then revise the characters entered.

KNAB00008-E

Enter using characters that can be specified in *input-element-name*.

Characters that cannot be specified have been entered.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then revise the characters entered.

KNAB01001-E

The selected *user-or-role* does not exist.

The selected user or role was not found. The selected user or role might have already been deleted.

(S)

Waits for a user operation.

(O)

Refresh the window and check whether the user or role has been deleted.

KNAB01002-E

The *window-name* window cannot be opened because you do not have the required permissions.

The user who attempted the operation does not have the required access permissions.

(S)

Waits for a user operation.

(O)

Assign the required permissions to the user or perform the operation as a user who has the required permissions.

KNAB01003-E

user-or-role cannot be registered because you do not have the required permissions.

The user who attempted the operation does not have the required permissions to register a user or role.

(S)

Waits for a user operation.

(O)

Assign the required permissions to the user or perform the operation as a user who has the required permissions.

KNAB01004-E

user-or-role cannot be deleted because you do not have the required permissions.

The user who attempted the operation does not have the required permissions to delete a user or role.

(S)

Waits for a user operation.

(O)

Assign the required permissions to the user or perform the operation as a user who has the required permissions.

KNAB01005-E

JP1 administrators (jpladmin) cannot be deleted.

The JP1 administrator (jp1admin) cannot be deleted.

(S)

Waits for a user operation.

(O)

Delete users other than JP1 administrators (jp1admin users).

KNAB01006-E

JP1 administrators (jp1admin) cannot be deleted from a system role.

The JP1 administrator (jp1admin) system role cannot be deleted.

(S)

Waits for a user operation.

(O)

Delete users other than jp1admin users.

KNAB01007-E

System roles cannot be deleted.

System roles cannot be deleted.

(S)

Waits for a user operation.

(O)

Delete roles other than system roles.

KNAB01008-E

The ID is already being used.

The ID is already being used.

(S)

Waits for a user operation.

(O)

Enter another ID.

KNAB01009-E

The old password is incorrect.

The old password is incorrect.

(S)

Waits for a user operation.

(O)

Check and, if necessary, revise the password.

KNAB01010-E

The registration could not be made because the maximum number (*maximum*) of *user-or-role* was exceeded.

The maximum number of users or roles that can be registered has been exceeded.

(S)

Waits for a user operation.

(O)

Delete unnecessary users, roles, or members of roles.

KNAB02002-E

A failure occurred on the server side.

An error occurred in the server.

(S)

Waits for a user operation.

(O)

Contact the system administrator to report the error.

KNAB02003-E

An invalid value was set to the request.

If the server started directly from the URL, the request data from the client to the Web server is invalid.

(S)

Waits for a user operation.

(O)

If the window operation caused the error, contact the system administrator.

KNAB02004-E

A failure occurred in the database. (*detailed-code*)

An attempt to access the database failed.

(S)

Waits for a user operation.

(O)

If -756 is indicated in *detailed-code*:

The capacity of the database is insufficient. Delete unnecessary data, and then perform the following:

1. Execute the jssdelrec command to delete any data that is waiting to be deleted.

2. Execute the jssdbrorg.bat command to reorganize the free space of the database.

If the same message appears again, use the following procedure to increase the database size:

1. Use the jssdbbackup.bat command to back up the database.

2. Use the jsssetup.bat command to increase the database size.

3. Use the jssdbrecovery.bat command to recover the data from the backup.

If -770 is indicated in *detailed-code*:

Too much processing is currently being attempted on the database. Wait a while and then retry the operation.

For other cases:

Check whether the jssdbbackup.bat, jssdbrecovery.bat, jssdbrorg.bat, or jssdbreclaim.bat command is being executed. If any of these commands is being executed, terminate it, and then retry the operation.

In addition, the machine itself might be heavily loaded. Wait a while and then retry the operation.

If the same error occurs again, contact the system administrator.

KNAB03001-W

user-or-role-name is already deleted.

An attempt was made to delete the user name or role name that has already been deleted.

(S)

Waits for a user operation.

(O)

Refresh the display and check whether the user or role has been deleted.

KNAB03002-W

user-name is already registered.

An attempt was made to add a currently registered member to a role.

(S)

Waits for a user operation.

(O)

Refresh the display and check whether the member has been added to the role.

KNAB04005-I

user-and-role is not selected.

In the Select user window or Select user and role window, **Settings** was clicked without a user or role selected.

(S)

Waits for a user operation.

(O)

Select the user or role, and then retry the operation.

KNAB04006-I

Close the window.

This message appears if a server error occurs or after you have logged in again.

(S)

Waits for a user operation.

(O)

Close the window.

KNAB04007-I

Click the [Return] button.

This message appears if a server error occurs or after you have logged in again.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then retry the operation. If the same message appears again, contact the system administrator.

13.5 Window operation (Item management) messages (KNAB10005 to KNAB16004)

The following describes the messages that are output during window operation (Item management).

KNAB10005-E

The specified *input-element-name* is too long. Enter a character string of *maximum* bytes or less.

This message appears if the input check detects that the number of entered characters that are converted to UTF-8 exceeds the maximum.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then correct the entry so that the number of characters entered does not exceed the maximum.

KNAB10013-E

An attached file cannot be registered. The maximum size of attached files is *maximum* MB.

A file that is to be registered as an attached file exceeds the maximum size.

(S)

Waits for a user operation.

(O)

Reduce the file size so that is smaller than the maximum by, for example, dividing the file, and then retry to attach the divided files.

KNAB10017-E

The specified process work board already exists.

A process work board having the same combination of systems and processes has already been created.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then revise the specified systems and processes.

KNAB10035-E

The maximum number of Items (*maximum*) for which a batch operation can be performed has been exceeded.

The number of selected Items exceeds the number on which the batch operation can be performed.

(S)

Waits for a user operation.

(O)

Return to the entry window, and reduce the number of selected Items so that it does not exceed the maximum.

KNAB11001-E

The selected *target* cannot be found.

The selected element does not exist on the database. The element might have been deleted by other users.

(S)

Waits for a user operation.

(O)

Refresh the display and check whether the element has been deleted.

KNAB11002-E

reference-target cannot be referenced because you do not have the required permissions.

The user who attempted the operation does not have the required permissions to view the selected element.

(S)

Waits for a user operation.

(O)

Assign the required permissions to the user or perform the operation as a user who has the required permissions.

KNAB11003-E

search-target cannot be searched because you do not have the required permissions.

The user who attempted the operation does not have the required permissions to view the element to be searched.

(S)

Waits for a user operation.

(O)

Assign the required permissions to the user or perform the operation as a user who has the required permissions.

KNAB11004-E

registration-target cannot be registered because you do not have the required permissions.

The user who attempted the operation does not have the required permissions to register the specified element.

(S)

Waits for a user operation.

(O)

Assign the required permissions to the user or perform the operation as a user who has the required permissions.

KNAB11005-E

update-target cannot be updated because you do not have the required permissions.

The user who attempted the operation does not have the required permissions to update the specified element.

(S)

Waits for a user operation.

(O)

Assign the required permissions to the user or perform the operation as a user who has the required permissions.

KNAB11006-E

deletion-target cannot be deleted because you do not have the required permissions.

The user who attempted the operation does not have the required permissions to delete the specified element.

(S)

Waits for a user operation.

(O)

Assign the required permissions to the user or perform the operation as a user who has the required permissions.

KNAB11007-E

operation cannot be executed because you do not have the required permissions.

The user who attempted the operation does not have the required permissions to perform the specified operation.

(S)

Waits for a user operation.

(O)

Assign the required permissions to the user or perform the operation as a user who has the required permissions.

KNAB11008-E

target cannot be registered because the maximum number (*maximum*) of *target* was exceeded.

The maximum number of systems, process work boards, or Items that can be registered has been exceeded.

(S)

Waits for a user operation.

(O)

Delete unnecessary systems, process work boards, or Items, and then register the system, process work board, or Item. If the number of times the Item has been edited has reached the maximum, the target Item cannot be edited or escalated. Register the contents of the target Item as a new Item.

KNAB11009-E

The state of a system or process work board was updated. Refresh the display to confirm the latest state.

The system or process work board might have been updated by other users.

(S)

Waits for a user operation.

(O)

　Refresh the display and check the status of the system or process work board.

KNAB11010-E

operation cannot be executed because an item is not being edited.

The specified operation cannot be performed because the Item is not being edited.

(S)

　Waits for a user operation.

(O)

　Refresh the display and check the status of the Item.

KNAB11011-E

operation cannot be executed because other users (*editing-user-name*) are editing an item.

An attempt was made to use the Item that was being edited by other users.

(S)

　Waits for a user operation.

(O)

　Perform the operation after other users finish editing the Item.

KNAB11012-E

An item that is being edited cannot be deleted.

An attempt was made to delete an Item that was being edited.

(S)

　Waits for a user operation.

(O)

　Delete the Item after other users finish editing the Item.

KNAB11013-E

The process work board of the specified item cannot be found.

The process work board on which the Item was created or viewed or on which the Item is to be registered was not found. It might have already been deleted by other users.

(S)

　Waits for a user operation.

(O)

　Refresh the display and check whether the process work board has been deleted.

KNAB11015-E

The escalation-source item of the specified item cannot be found.

The escalation-source Item was not found. It might have already been deleted by other users.

(S)

Waits for a user operation.

(O)

Refresh the display and check whether the escalation-source Item has been deleted.

KNAB11016-E

The escalation-source process work board of the specified item cannot be found.

The process work board for the escalation-source Item was not found. It might have already been deleted by other users.

(S)

Waits for a user operation.

(O)

Refresh the display and check whether the escalation-source process work board has been deleted.

KNAB11017-E

The user ID or password is incorrect.

The user ID or password is incorrect.

(S)

Waits for a user operation.

(O)

Specify a registered user ID or the correct password, and then retry the operation.

If this message appears after the correct user ID and password are entered, check the following and then log in again.

If the Item management database is used as an authentication server:

- Confirm that the JP1/Service Support - DB Server service or JP1/Service Support - DB Cluster Service service (for a cluster operation) is running.

- Check the environment variable group settings for the Item management database.

- Check whether the `jssdbbackup.bat`, `jssdbrecovery.bat`, `jssdbrorg.bat`, and `jssdbreclaim.bat` commands were executed.

If the service is running as an authentication server:

Check the status of the connection-target LDAP server or the JP1/Base authentication server. If the connection destination is an LDAP server, make sure that the relevant user account is not locked.

If the same error occurs again when the relevant user account is not locked, collect necessary data, and contact the system administrator.

If this message appears when you open the JP1/IM - Service Support window from a specific JP1 product, check the following and make corrections if necessary:

- Revise the settings of the JP1 product to be linked with JP1/IM - Service Support.

- Revise the contents of the property file for JP1 product association setting.

- Check the user ID specified for `hptl_jp1_imss_information_search_userid` in the property file for JP1 product association setting. Make sure that this user ID is registered in both the Item management database and the LDAP server.

- If the LDAP server is used as an authentication server, check the password for the user ID specified for `hptl_jp1_imss_information_search_userid` in the property file for JP1 product association setting. Make sure that the same password is registered in both the Item management database and the LDAP server.

For details about the property file for JP1 product association setting, see *Property file for JP1 product association setting (hptl_jp1_imss_jp1product_cooperation_setting.properties)* in *Chapter 12. Definition Files*.

If this message appears when you log in to JP1/IM - Service Support via JP1/IM - View, confirm that the user ID of the user who logged in to JP1/IM - View is registered in JP1/IM - Service Support. If it is registered, confirm that the password of the user who logged in to JP1/IM - View matches the user password registered in JP1/IM - Service Support.

If the same error occurs again after you have confirmed the above information, collect the data and contact the system administrator.

KNAB11018-E

editing cannot be executed because the process work board is not in operation.

An attempt was made to edit a process work board that was not in operation.

(S)

Waits for a user operation.

(O)

Refresh the display and confirm that the process work board is in operation. Then retry the operation.

KNAB11021-E

The process work board of the escalation destination cannot be found.

The process work board for the Item at the escalation destination was not found. It might have already been deleted by other users.

(S)

Waits for a user operation.

(O)

Refresh the display and check whether the process work board at the escalation destination has been deleted.

KNAB11022-E

registration or *editing* cannot be executed because other users are editing an item.

An attempt was made to register or edit an Item that was being edited by other users.

(S)

Waits for a user operation.

(O)

Perform the operation after other users finish editing the Item.

KNAB11023-E

The ID is already being used.

The ID is already being used.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then enter an ID that is not being used.

KNAB11025-E

operation cannot be executed because the process work board is in operation.

An attempt was made to perform an operation that was prohibited for a process work board that is in operation.

(S)

Waits for a user operation.

(O)

Change the status of the process work board, and then retry the operation.

KNAB11026-E

This is already updated.

The data was updated by another user during editing.

(S)

Waits for a user operation.

(O)

Refresh the display and confirm that the data has been updated, and then perform the operation.

KNAB11027-E

operation cannot be executed because *target* is deleted.

Operation was attempted for an element that was already deleted.

(S)

Waits for a user operation.

(O)

Refresh the display and confirm that the target of the operation has been deleted.

KNAB11028-E

operation-target is not up-to-date. Refresh the display to confirm the latest state.

The displayed element is not up to date.

(S)

Waits for a user operation.

(O)

Refresh the display and check the latest status.

KNAB11030-E

The system name is already being used.

The same system name has already been registered.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then enter an unregistered system name.

KNAB11031-E

The process work board cannot be created because the target system does not exist.

An attempt was made to create a process work board before creating the target system.

(S)

Waits for a user operation.

(O)

Create the target system first.

KNAB11032-E

The attached file cannot be acquired. Confirm that the file name of the attached file is correct. Also, confirm that the file size is no less than one byte.

A nonexistent file or a zero-byte file was specified.

(S)

Waits for a user operation.

(O)

Confirm that the specified file exists and that the file contains at least one byte.

KNAB11033-E

File attachment failed. Click the [Return] button and try again.

An attempt to acquire an attached file failed.

(S)

Waits for a user operation.

(O)

Click the **Return** button and then attach the file again in the entry window.

KNAB11035-E

The selected item form cannot be deleted because it is in use.

This message appears when an attempt is made to delete an Item form that is in use.

(S)

    Waits for a user operation.

(O)

    The Item form is in use. Perform the following and then delete the Item form:

- Delete all Items that are using the Item form.
- If the Item form is set in the process work board, change the setting.
- If the Item form is used as the process standard Item form, change the setting.

KNAB11037-E

There are no macro files.

There are no macro files in the installation folder for JP1/IM - Service Support macros (*IM-SS-path*\home\public\report\).

(S)

    Waits for a user operation.

(O)

    Check the installation folder for JP1/IM - Service Support macros (*IM-SS-path*\home\public\report\). If the folder contains no macro files, deploy the macro files.

KNAB11038-E

The system or process to be output does not exist.

This message appears if the Accumulation data output to file window does not contain the target system or process to be output.

(S)

    Waits for a user operation.

(O)

    Create the target system or process, and then open the window again.

KNAB11039-E

registered data is already being used. Enter a different name. (Name: *duplicate-name*)

This message appears if a name that is already in use is entered when duplicate names are prohibited.

(S)

    Waits for a user operation.

(O)

    Specify a different name.

KNAB11040-E

Enter up to *number-of-search-conditions* search conditions.

This message appears if the number of search conditions specified in the search area in the main window exceeds the predefined value.

(S)

Waits for a user operation.

(O)

Reduce the number of search conditions specified in the search area in the main window, and then retry the search.

KNAB11041-E

The item cannot be escalated because its status is set to prohibit escalation.

This message appears if an attempt is made to escalate an Item whose status is set to prohibit escalation.

(S)

Waits for a user operation.

(O)

Escalate an Item permitted for escalation. If you want to escalate an Item prohibited for escalation, review the setting for prohibited escalation.

KNAB11042-E

The process work board to which the item is to be registered cannot be found.

This message appears if the process work board to which the Item is to be registered was not found.

(S)

Waits for a user operation.

(O)

Create a process work board to which the Item will be registered, and then assign the required permissions to register the Item.

KNAB11043-E

Searching is not possible because the Item form that is in use was changed.

This message appears if the Item form being used is changed during a search.

(S)

Waits for a user operation.

(O)

Start the Specify item Search conditions window and restart the search.

KNAB11044-E

The specified Item to be inherited was not found.

The specified Item to be inherited (source Item) does not exist.

(S)

Waits for a user operation.

(O)

Make sure that the Item to be inherited (source Item) has not been deleted.

KNAB11045-E

The process work board of the specified Item to be inherited was not found.

The process work board in which the Item to be inherited (source Item) is registered does not exist.

(S)

Waits for a user operation.

(O)

Make sure that the process work board in which the Item to be inherited (source Item) is registered has not been deleted.

KNAB11046-E

For the specified Item form, the definition of elements to be specified when setting permissions to view Items is invalid or does not exist.

This message is output when the **View permissions for individual Items** option is enabled and the specified Item form meets any of the following conditions:

- The **Type** attribute of an element that specifies permissions to view Items is not userrole.
- An element that specifies permissions to view Items is not a mandatory element.
- There are no elements that specify permissions to view Items in the Item form.

(S)

Waits for a user operation.

(O)

Check whether an extended user information element to be used as an element that specifies permissions to view Items has been added to the specified Item form. If such an element has been added, make sure that the **Type** attribute of the extended user information element is userrole, and that the element is a mandatory element.

KNAB11047-E

For the standard Item form for the specified process, the definition of elements to be specified when setting permissions to view Items is invalid or does not exist.

This message is output when the **View permissions for individual Items** option is enabled and the process standard Item form for the specified process meets any of the following conditions:

- The **Type** attribute of an element specified when setting permissions to view Items is not userrole.
- An element that specifies permissions to view Items is not a mandatory element.
- There are no elements that specify permissions to view Items in the Item form.

(S)

Waits for a user operation.

Check whether an extended user information element used to specify permissions to view Items has been added to the process standard Item form for the specified process. If such an element has been added, make sure that the **Type** attribute of the extended user information element is userrole, and that the element is a mandatory element.

KNAB11048-E

You cannot *operation* because the selected Item is a stored Item.

The action indicated in the message was performed on a stored Item.

(S)

Waits for a user operation.

(O)

The selected Item might have been stored by another user. Refresh the display and check whether the Item you selected has been stored.

KNAB12001-E

A failure occurred in the database. (*detailed-code*)

An attempt to access the database failed.

(S)

Waits for a user operation.

(O)

If -756 is indicated in *detailed-code*:

For JP1/IM - Service Support (Standard):

Delete unnecessary data, and then perform the following:

1. Execute the jssdelrec command to delete any data that is waiting to be deleted.

2. Execute the jssdbrorg.bat command to reorganize the free space of the Item management database.

If the same message appears again, use the following procedure to increase the size of the Item management database:

1. Use the jssdbbackup.bat command to back up the Item management database (for extension).

2. Use the jsssetup.bat command to increase the size of the Item management database.

3. Use the jssdbrecovery.bat command to recover the data from the backup created in step 1.

For JP1/IM - Service Support Advanced Edition:

The capacity of the Item management database is insufficient. Delete unnecessary data or store Items as described below.

- When deleting unnecessary data:

1. Delete unnecessary data.

2. Execute the jssdelrec command to delete any data that is waiting to be deleted.

3. Execute the jssdbrorg.bat command to reorganize the free space of the Item management database.

- When storing Items:

1. Execute the jssitemstore command to store closed old Items in the Item storage database.

2. Execute the `jssdbrorg.bat` command to reorganize the free space of the Item management database.

If `-205` is indicated in *detailed-code*:

JP1/IM - Service Support might have been set up without the `-vup` option specified. In this case, re-execute the setup command with the `-vup` option specified.

If `-204` is indicated in *detailed-code*:

The backup file collected in a previous- version environment might have been recovered in the latest-version environment. In such a case, perform the following procedure:

1. Uninstall the latest version.

2. Perform a new installation of the version of JP1/IM - Service Support used when the backup file was created.

3. Set up JP1/IM - Service Support.

4. Recover the backup file collected in the old version environment.

5. Perform an overwrite installation of the latest version.

6. Execute the setup command with the `-vup` option specified.

For other cases:

Check whether the `jssdbbackup.bat`, `jssdbrecovery.bat`, `jssdbrorg.bat`, `jssdbreclaim.bat`, or `jssrefaclsetup` command is being executed. If any of these commands is being executed, terminate it, and then retry the operation.

In addition, the machine itself might be heavily loaded. Wait a while and then retry the operation.

If the same error occurs again, contact the system administrator.

KNAB12002-E

A failure occurred on the server side. (*error-code*)

An error occurred in the server.

(S)

Waits for a user operation.

(O)

Confirm that the environment is set up correctly, and then retry the operation. If the same error occurs again, contact the system administrator to report the error.

KNAB12003-E

An invalid value was set to the request.

If the server started directly from the URL, the request data from the client to the Web server is invalid.

(S)

Waits for a user operation.

(O)

Close the window in which the error occurred, and then open the window again and retry the operation. If the window operation caused the error, a backup file collected in the latest version environment might have been recovered in a previous- version environment. In such a case, perform the following procedure:

1. Perform an overwrite installation of the latest version.

2. Execute the setup command with the `-vup` option specified.

3. Recover the backup file collected in the latest-version environment.

If the same error occurs again, contact the system administrator.

KNAB12013-E

The session is disconnected. Log in, and then try again.

This message appears if the session is disconnected unexpectedly.

(S)

Waits for a user operation.

(O)

Log in, and then retry the operation.

KNAB12014-E

The function to set up view permissions for each Item cannot be used in this environment. Re-execute the command to set up view permissions for each Item.

The environment for using the function to set up view permissions for individual Items is invalid.

(S)

Waits for a user operation.

(O)

Check whether one of the conditions below exists. If one exists, re-execute the `jssrefaclsetup` command (sets up view permission settings for individual Items) with the `-id` option specified:

- After the database was recovered by executing the `jssdbrecovery.bat` command (recovers the database) using a backup file that was created by executing the Item management backup command with the `-expand` option specified, the `jssrefaclsetup` command (sets up view permission settings for individual Items) is not executed.

- An attempt to execute the `jssrefaclsetup` command with the `-id` option specified failed.

If this message appears again after the `jssrefaclsetup` command (sets up view permission settings for individual Items) terminated normally, use the data collection tool to collect data, and then contact the system administrator.

KNAB13003-W

The item cannot be referenced.

The Item was deleted from the Item management database.

(S)

Waits for a user operation.

(O)

Refresh the display and confirm that the Item exists.

KNAB13004-W

A time-out occurred because the search operation exceeded the fixed time.

This message appears if a timeout occurred because the search operation exceeded the fixed time.

(S)

Waits for a user operation.

(O)

In the Specify Item search conditions window, filter the search range by specifying the search range, keywords, and attributes or by selecting the **Match all conditions** radio button. Then retry the search.

KNAB13005-W

Failed to output the operation log. (*event* was successful.)

Output of the operation log failed.

(S)

Waits for a user operation.

(O)

Confirm that the output folder has sufficient free space and you have write permission for it. After you have confirmed correct operation, restart the JP1/IM - Service Support service.

If this message is output again, use the data collection tool to collect data, and then contact the system administrator.

KNAB14007-I

There is no help file.

There is no HTML manual in JP1/IM - Service Support.

(S)

Waits for a user operation.

(O)

Make sure that the provided HTML manual is correctly installed in *IM-SS-path*\home\public\manual\ja\, *IM-SS-path*\home\public\manual\en\, or *IM-SS-path*\home\public\manual\zh\. For details about the installation procedure, see *6.7 Procedure for incorporating a manual*.

KNAB15042-E

Acquiring user information failed.

Acquiring user information failed.

(S)

Waits for a user operation.

(O)

If the LDAP server or JP1/Base authentication server is used as an authentication server, register user information in the Item management database. If the Item management database is used as an authentication server, contact the system administrator.

KNAB15064-W

Issuing the JP1 event failed. JP1/Base is not on the same host. Event ID: *event-ID*, item ID: *Item-ID* (*operation* succeeded)

The JP1 event could not be issued because J1/Base did not exist on the same host.

(S)

Waits for a user operation.

Outputs a log.

(O)

Make sure that JP1/Base is installed on the same host. Alternatively, make sure that the event server name specified in the configuration file for issuing JP1 events is correct. You can check the results of the operation by refreshing the display.

KNAB15065-W

Issuing the JP1 event failed. A connection could not be made to the destination server of the JP1 event transmission. Event ID: *event-ID*, item ID: *Item-ID* (*operation* succeeded)

The JP1 event could not be issued because the JP1/Base event server was not running.

(S)

Waits for a user operation.

Outputs a log.

(O)

Start the JP1/Base event server. You can check the results of the operation by refreshing the display.

KNAB15066-W

Failed to issue a JP1 event. The total size of attribute values storable in the JP1 event exceeds the upper limit (10,000 bytes). (event ID = *event-ID*, Item ID = *Item-ID*) (*operation* was successful)

The JP1 event could not be issued because the sum of the attribute values for a JP1 event exceeded the maximum (10 KB).

(S)

Waits for a user operation.

Outputs a log.

(O)

Revise the extended attributes specified in the definition file for status-change JP1 events. You can check the results of the operation by refreshing the display.

KNAB15067-W

An error occurred during the issuance of a JP1 event. Event ID: *event-ID*, item ID: *Item-ID* (*operation* succeeded)

Issuance of the JP1 event failed.

(S)

Waits for a user operation.

Outputs a log.

(O)

Contact the system administrator to report the error.

KNAB15068-W

An error occurred during the transmission of a JP1 event. Event ID: *event-ID*, item ID: *Item-ID* (*operation* succeeded)

Transmission of a JP1 event failed.

(S)

Waits for a user operation.

Outputs a log.

(O)

Contact the system administrator to report the error.

KNAB15069-I

The item status was registered by closure.

The Item was registered with the Closed status.

This message is stored for Message of the JP1 event basic attribute.

KNAB15070-I

The item was registered using the status of the JP1 event issuance target.

The Item was registered with the status for which the JP1 event will be issued.

This message is stored for the Message of the JP1 event basic attribute.

KNAB15071-I

Issuing the JP1 event succeeded. Event ID: *event-ID*, item ID: *Item-ID*

The JP1 event was issued successfully.

KNAB15074-W

A value in the input candidate value-setting file (*configuration-file-name*) is invalid. The setting will be ignored. (Key: *key-value*, value: *value*, ErrorType: *error-type*)

This message appears if an invalid value is specified in the Configuration file for input-candidate values. The following table lists and describes the error types.

Table 13–4: Meaning of error types

Error type	Meaning
1	The value contains control characters.
2	A character string that is not an Item element ID is specified.

Error type	Meaning
3	An invalid type of Item element ID is specified.
4	The number of characters specified in the character string exceeds the maximum that can be specified.
5	A character string other than an Item element ID defined in the settings for the ID of the Item element that sets the input-candidate values was specified.

(S)

Outputs a log and continues processing, ignoring the settings.

(O)

Check the contents of the Configuration file for input-candidate values and the system property file.

KNAB15075-W

A key value in the input candidate value-setting file (*configuration-file-name*) is invalid. The setting will be ignored. The "n" value of the key value is not a specifiable numerical value. (Key: *key-value*)

This message appears if the *n* value of the key value specified in the Configuration file for input-candidate values is not a specifiable numerical value.

(S)

Outputs a log and continues processing, ignoring the settings.

(O)

Revise the contents of the Configuration file for input-candidate values.

KNAB15076-W

A setting in the input candidate value-setting file (*configuration-file-name*) is invalid. The setting will be ignored. There is no "input candidate value setting" for "the item ID setting for setting an input candidate value". (Key: *key-value*, value: *value*)

This message appears if an input candidate value is not defined for the Item element ID specified in the settings for the ID of the Item element that sets the input-candidate values.

(S)

Outputs a log and continues processing, ignoring the settings.

(O)

Revise the contents of the Configuration file for input-candidate values.

KNAB15077-W

A setting of the input candidate value-setting file (*configuration-file-name*) is invalid. The setting will be ignored. The key name format is invalid. (Key: *key-value*)

This message appears if the format of the key name specified in the Configuration file for input-candidate values is invalid.

(S)

Outputs a log and continues processing, ignoring the settings.

(O)

Revise the contents of the Configuration file for input-candidate values.

KNAB15078-W

A setting of the input candidate value-setting file (*configuration-file-name*) is invalid. The setting will be ignored. Multiple definitions are performed by using the same key value. (Key: *key-value*, value: *value*)

This message appears if multiple definitions are specified by using the same key value. The definition on the last line of the configuration file takes effect.

(S)

Outputs a log and continues processing, ignoring the settings.

(O)

Revise the contents of the Configuration file for input-candidate values.

KNAB15079-W

A setting of the input candidate value-setting file (*configuration-file-name*) is invalid. The setting will be ignored. Multiple relation sources are defined for one relation destination. (Key: *key-value*, value: *value*)

This message appears if multiple relation sources are defined for one relation destination.

(S)

Outputs a log and continues processing, ignoring the settings.

(O)

Revise the contents of the Configuration file for input-candidate values.

KNAB15080-W

A value of the input candidate value-setting file (*configuration-file-name*) is invalid. The setting will be ignored. (Key: *key-value*, ErrorType: *value*)

This message appears if an invalid value is specified in the Configuration file for input-candidate values. The following table lists and describes the error types.

Table 13–5: Meaning of error types

Error type	Meaning
1	In the settings for the ID of the Item element that sets the input-candidate values, the key value contains a character string other than the specified Item element ID.
2	A character string that is not an Item element ID is specified for the relation source.
3	An invalid type of Item element ID is specified for the relation source.
4	A character string other than the defined Item element ID is specified in the settings for the ID of the Item element that sets the input-candidate values for the relation source.
5	A character string that is not an Item element ID is specified for the relation destination.
6	An invalid type of Item element ID is specified for the relation destination.
7	A character string other than the defined Item element ID is specified in the settings for the ID of the Item element that sets the input-candidate values for the relation destination.

(S)

    Outputs a log and continues processing, ignoring the settings.

(O)

    Revise the contents of the Configuration file for input-candidate values.

KNAB15081-W

There is no input candidate value-setting file. (Process work board ID: "*process-work-board-ID*")

This message appears if the Configuration file for input-candidate values does not exist for the process work board specified for `hptl_jp1_imss_input_assist_pwb_list`.

(S)

    Outputs a log and continues processing, ignoring the settings.

(O)

    Check the definition of `hptl_jp1_imss_input_assist_pwb_list`, which is a specification key of the system property file. If you want to use the auxiliary input function for Items, create a Configuration file for input-candidate values.

KNAB15082-W

The size of the input candidate value-setting file exceeds the maximum. The maximum file size is *maximum* KB. (File name: *configuration-file-name*)

This message appears if the size of the Configuration file for input-candidate values exceeds the maximum size.

(S)

    Outputs a log and continues processing, ignoring the settings.

(O)

    Revise the contents of the Configuration file for input-candidate values.

KNAB15084-W

Failed to load the input candidate value-setting file. (Factor: *cause*)

This message appears if an attempt to load the Configuration file for input-candidate values failed.

(S)

    Outputs a log and continues processing, ignoring the settings.

(O)

    Correct the cause of the loading failure, and then retry the operation. If the loading still fails after the cause of the failure has been removed, contact the system administrator.

KNAB15087-I

Analysis of the input candidate value-setting file started.

This message appears when analysis of the Configuration file for input-candidate values has started.

KNAB15088-I

Analysis of the input candidate value-setting file is complete.

This message appears when analysis of the Configuration file for input-candidate values has ended.

KNAB16001-I

The Item was created. (Item ID = *Item-ID*)

This message appears when an Item is created.

(S)

Outputs an operation log.

KNAB16002-I

The Item was edited. (Item ID = *Item-ID*, Item version number = *Item-version-number*)

This message appears when an Item is edited.

(S)

Outputs an operation log.

KNAB16003-I

The Item was deleted. (Item ID = *Item-ID*)

This message appears when an Item is deleted.

(S)

Outputs an operation log.

KNAB16004-I

The Item was escalated. (escalation destination Item ID = *escalation-destination-Item-ID*, escalation source Item ID = *escalation-source-Item-ID*, Item version number = *Item-version-number*)

This message appears when an Item is escalated.

(S)

Outputs an operation log.

13.6 Setup command messages (KNAB20001 to KNAB28125)

The following describes the messages that are output during setup or command execution.

KNAB20001-I

processing-name will now start.

The command will now start.

KNAB20002-I

Please wait.

The command is being executed.

KNAB20003-I

Output of the item list ended successfully.

The Item list output command has ended successfully.

KNAB20004-I

Item registration ended successfully.

The Item registration command has ended successfully.

KNAB20005-I

User information was imported. (Number of items: *number-of-imported-user-information-elements*)

The user information import command has ended successfully.

KNAB20006-I

Item information was imported. (Number of items: *number-of-imported-Item-information-elements*)

The Item information import command has ended successfully.

KNAB20007-I

Output of item history ended successfully.

The Item history output command ended successfully.

KNAB20008-I

Item editing ended successfully.

The Item editing command ended successfully.

KNAB20010-I

Command parameter (*command-details*)

This message indicates that the command was executed with the specification indicated by *command-details*.

KNAB20011-I

The service JP1/Service Support - Task Service started.

This message reports that the JP1/Service Support - Task Service service has started.

KNAB20012-I

The service JP1/Service Support - Task Service stopped.

This message reports that the JP1/Service Support - Task Service service has ended.

KNAB20013-W

A section name (*section-name*) of the property file is invalid.

The section name[#] specified in the Definition file for the task practice service (`jp1imss_service_setting.conf`) is invalid.

A maximum of 32 bytes of a section name can be displayed.

(S)

Outputs the message and continues processing.

(O)

This section is not valid. Revise the Definition file for the task practice service, and then restart the JP1/Service Support - Task Service service. If the same error occurs again, contact the system administrator.

KNAB20014-E

The contents of the property file are invalid. (Details: *detailed-information*)

The specification of the Definition file for the task practice service (`jp1imss_service_setting.conf`) is invalid.

One of the following messages is displayed in *detailed-information*.

Table 13–6: Detailed information

Detailed information	Cause
Too many sections.	There are too many sections.
The same *section-name* section exists.	The same section name exists.
The *key-name* key of the *section-name* section is not specified correctly.	- The `use` key does not exist or its value is outside the proper range. - The `period` key does not exist or its value is outside the proper range. - The `basetime` key does not exist or its value is outside the proper range.

Detailed information	Cause
The property file does not exist or does not have a valid section.	The Definition file for the task practice service does not exist or does not have a valid section.

(S)

Cancels startup of the service.

(O)

Revise the specification of the Definition file for the task practice service (`jp1imss_service_setting.conf`), and then restart the JP1/Service Support - Task Service service. If the same error occurs again, contact the system administrator.

KNAB20020-I

Output of the *resource-name* list ended successfully.

The list output command ended successfully.

KNAB20021-I

Role information was imported. (Number of items: *number-of-elements*)

The role information import command ended successfully.

KNAB20022-I

Member information was imported. (Number of items: *number-of-elements*)

The member information import command ended successfully.

KNAB20023-I

Member information was deleted. (Number of items: *number-of-elements*)

The member information deletion command ended successfully.

KNAB20024-I

processing-name ended successfully.

Command processing ended successfully.

KNAB20025-I

User information was edited. (Number of items: *number-of-elements*)

The user information editing command ended successfully.

KNAB20026-I

output-target was exported.

The command to export extended Item information or the command to export access-permission information output a file.

What is indicated in *output-target* depends on the executed command and output target.

If the command to export extended Item information is executed:

> If an Item of the system is output:
>> *output-target*: Item of the system (*display-ID*)
>> *display-ID* indicates the display ID of the system.

> If Items of the process work board are output:
>> *output-target*: Items (*number-of-Items*) of the process work board (*display-ID*)
>> *display-ID* indicates the display ID of the process work board.
>
>> The number of Items that were output is indicated in *number-of-Items*.

If the command to export access-permission information is executed:

> If access permissions for the system are output:
>> *output-target*: Access permissions for the system (*display-ID*)
>> *display-ID* indicates the display ID of the system.

> If access permissions for the process work board are output:
>> *output-target*: Access permissions for the process work board (*display-ID*)
>> *display-ID* indicates the display ID of the process work board.

KNAB20028-I

output-target will now be exported.

Processing of the command to export extended Item information or the command to export access-permission information will start.

What is indicated in *output-target* depends on the executed command and output target.

If the command to export extended Item information is executed:

> If an Item of the system is output:
>> *output-target*: Item of the system (*display-ID*)
>> *display-ID* indicates the display ID of the system.

> If an Item of the process work board is output:
>> *output-target*: Item of the process work board (*display-ID*)
>> *display-ID* indicates the display ID of the process work board.

If the command to export access-permission information is executed:

> If access permissions for the system are output:
>> *output-target*: Access permissions for the system (*display-ID*)
>> *display-ID* indicates the display ID of the system.

> If access permissions for the process work board are output:
>> *output-target*: Access permissions for the process work board (*display-ID*)
>> *display-ID* indicates the display ID of the process work board.

KNAB20029-I

Processing to check the import data of the process work board (*display-ID-of-the-process-work-board*) will now start.

The command for importing extended Item information starts checking for invalid data contained in the data to be imported.

KNAB20030-I

Processing to check the import data of the process work board (*display-ID-of-the-process-work-board*) ended.

The command for importing extended Item information has ended checking for invalid data contained in the data to be imported.

KNAB20031-I

system (display-ID-of-the-system) or process work board (display-ID-of-the-process-work-board) will now be imported.

The command for importing extended Item information starts processing of the system or process work board.

KNAB20032-I

The ID was changed. (target = *changed-ID-type*, before change = *ID-before-change*, after change = *ID-after-change*)

This message appears when an ID is changed.

This message is output to the public log if either of the following IDs is changed:

- Related Item serial number
- Process work board serial number

One of the following values is indicated in *changed-ID-type*:

- Related Item serial number
- Process work board serial number
- Related information ID
- Attached file ID

KNAB20033-I

The Item was imported. (before import = *Item-ID-before-import*, after import = *Item-ID-after-import*)

The command for importing extended Item information has completed import of the Item.

KNAB20034-I

number-of-Items-(Items-of-system-(display-ID-of-the-system)-or-Items-of-the-process-work-board-(display-ID-of-the-process-work-board)) was imported.

The command for importing extended Item information has completed import.

KNAB20035-I

The import data check will now start.

The command for importing extended Item information starts checking for invalid data contained in the data to be imported.

KNAB20036-I

The import data check ended.

The command for importing extended Item information has ended checking for invalid data contained in the data to be imported.

KNAB20037-I

Processing to register the Item will now start.

The command for importing extended Item information is about to start registration of the Item.

KNAB20038-I

Processing to register the Item ended.

The command for importing extended Item information has ended registration of the Item.

KNAB20041-I

The processing to set access permissions will now start.

The command to import access-permission information starts setting of access permissions.

KNAB20042-I

The processing to set access permissions ended.

The command to import access-permission information has ended setting of access permissions.

KNAB20043-I

Access permissions for the process work board (*process-work-board-ID*) were set for *user (user-ID)-or-role (role-ID)*.

The command to import access-permission information has completed setting of access permissions.

KNAB20103-I

Backup processing will now start.

Backup will start.

KNAB20104-I

Backup of the database ended successfully.

Backup ended successfully.

KNAB20105-I

Recovery will now start.

Recovery will start.

KNAB20106-I

Recovery of the database ended successfully.

Recovery has ended successfully.

KNAB20107-I

Reorganization will now start.

Reorganization will start.

KNAB20108-I

Reorganization of the database ended successfully.

Reorganization has ended successfully.

KNAB20109-I

The release of free space will now start.

Free space will be released.

KNAB20110-I

The release of free space in the database ended successfully.

The release of free space has ended successfully.

KNAB20111-I

Database initialization will now start.

The Item management database initialization command will be executed.

KNAB20112-I

Database initialization ended successfully.

The Item management database initialization command ended.

KNAB20114-I

Setup will now start.

Setup of JP1/IM - Service Support will start.

KNAB20115-I

The database will now be initialized.

Initialization of the Item management database will start during setup of JP1/IM - Service Support.

KNAB20116-I

The definition file will now be updated.

Update of the definition file will start during setup of JP1/IM - Service Support.

KNAB20117-I

Connection pooling will now be set.

Setup of the connection pooling will start during setup of JP1/IM - Service Support.

KNAB20118-I

The WWW application will now be registered.

Registration of the Web application will start during setup of JP1/IM - Service Support.

KNAB20119-I

Setup ended successfully.

Setup of JP1/IM - Service Support ended successfully.

KNAB20120-I

Unsetup will now start.

Cancellation of the setup of JP1/IM - Service Support will start.

KNAB20121-I

The database will now be deleted.

Deletion of the Item management database will start during cancellation of the setup of JP1/IM - Service Support.

KNAB20122-I

Unsetup ended successfully.

Cancellation of the setup of JP1/IM - Service Support ended successfully.

KNAB20123-I

JP1/IM - Service Support will now be set up.

The setup command will be executed.

KNAB20124-I

Unsetup of JP1/IM - Service Support will now start.

The setup cancellation command will be executed.

KNAB20125-I

The database will now be initialized. (Size: *database-size (S | M | L | LL | XL)*)

The Item management database initialization command will be executed.

KNAB20128-I

The JP1/Service Support service started.

The JP1/Service Support service started successfully.

KNAB20129-I

Data collection will now start.

Data collection will start.

KNAB20130-I

Data collection ended successfully.

The data collection tool ended successfully.

KNAB20131-I

The JP1/Service Support service stopped.

The JP1/Service Support service stopped.

KNAB20133-I

The database will now be initialized. (Size: *database-size (S | M | L | LL | XL)*)

The database will be initialized during setup of JP1/IM - Service Support.

KNAB20134-I

The database will not be initialized.

The database will not be initialized during setup of JP1/IM - Service Support.

KNAB20135-I

The cluster configuration of JP1/IM - Service Support will now be set up.

This message appears when setup of the cluster for JP1/IM - Service Support starts.

KNAB20136-I

Cluster setup ended successfully.

This message appears when setup of the cluster for JP1/IM - Service Support ended successfully.

KNAB20137-I

The definition file for the cluster will now be updated.

This message appears when the definition file for the cluster is updated during setup of the cluster for JP1/IM - Service Support.

KNAB20138-I

The storage registry of the shared directory path will now be registered.

This message appears when the storage registry is registered during setup of the cluster for JP1/IM - Service Support.

KNAB20139-I

Setup-type information files will now be updated.

This message appears when the setup-type information files are updated in accordance with this setup during setup of JP1/IM - Service Support.

KNAB20140-I

Databases on the shared disk will now be deleted.

This message appears when the shared folder database is deleted during cancellation of the cluster setup for JP1/IM - Service Support.

KNAB20141-I

The storage registry of the shared directory path will now be deleted.

This message appears when the registry is deleted during cancellation of the cluster setup for JP1/IM - Service Support.

KNAB20142-I

Unsetup of the cluster configuration of JP1/IM - Service Support will now start.

This message appears when cancellation of the cluster setup for JP1/IM - Service Support starts.

KNAB20143-I

Unsetup of the cluster ended successfully.

This message appears when cancellation of the cluster setup for JP1/IM - Service Support has ended successfully.

KNAB20144-I

The upgrade will now start.

This message appears when upgrading of JP1/IM - Service Support starts.

KNAB20145-I

The upgrade ended successfully.

This message appears when upgrading of JP1/IM - Service Support has ended successfully.

KNAB20146-I

JP1/IM - Service Support will now be upgraded.

This message appears when a setup command is executed.

KNAB20147-I

The database will now be upgraded.

This message appears when update of the database starts during upgrading of JP1/IM - Service Support.

KNAB20148-I

The WWW application will now be upgraded.

This message appears when update of the Web application starts during upgrading of JP1/IM - Service Support.

KNAB20149-I

The database environment will now be set.

This message appears when the standby database is configured during setup of the cluster for JP1/IM - Service Support.

KNAB20150-I

Backup of the *database-type* is complete.

Backup of the JP1/IM - Service Support database is complete.

KNAB20151-I

Recovery of the *database-type* is complete.

Recovery of the JP1/IM - Service Support database is complete.

KNAB20201-I

Registration of the item form will now start.

Registration of the Item form will start.

KNAB20202-I

Registration of the item form ended successfully.

Registration of the Item form ended successfully.

KNAB20203-I

Data awaiting deletion will now be deleted.

The data waiting to be deleted will be deleted.

KNAB20204-I

Data awaiting deletion was deleted successfully.

The data waiting to be deleted was deleted successfully.

KNAB20216-I

The aggregation of item information will now start.

This message appears when update of the aggregation table starts.

KNAB20217-I

The aggregation of item information ended.

This message appears when update of the aggregation table has ended successfully.

KNAB20221-E

The item information failed to be aggregated because it is already being aggregated.

This message appears if you attempted to execute an Item information count command while that command was already being executed.

(S)

Cancels processing of the duplicate command.

(O)

Wait until the current Item information count command terminates, and then re-execute the command.

KNAB20222-I

Email-based item registration will now start.

This message appears when email-based registration starts.

KNAB20223-I

Email-based item registration ended.

This message appears when email-based registration ends.

KNAB20224-I

A master system/temporary reception process work board will now be created.

This message appears when creation of a master system or a temporary receipt process work board starts.

KNAB20225-I

A master system/temporary reception process work board was created.

This message appears when creation of a master system or a temporary receipt process work board has ended.

KNAB20226-I

Item registration succeeded for all emails.

This message appears when the email-based Item registration command successfully registered Items for all emails.

KNAB20228-I

The attached file was saved successfully.

This message appears when the attached file is saved successfully.

KNAB20229-I

The temporary email save file was saved successfully.

This message appears when the temporary email save file is saved successfully.

KNAB20230-I

Email notification of expiration will now start.

This message appears when email notification of expiration by the expiration notification command starts.

(S)

Continues command processing.

KNAB20231-I

Email notification of expiration will now end.

This message appears when email notification of expiration by the expiration notification command has ended.

(S)

Continues command processing.

KNAB20232-I

Expiration items will now be checked.

This message appears when the deadline check of the Items by the expiration notification command starts.

(S)

Continues command processing.

KNAB20233-I

The number of items for which an expiration notification is to be sent is *number-of-Items*.

This message appears when the deadline check of the Items by the expiration notification command has ended.

(S)

Continues command processing.

KNAB20234-I

An email was sent to the person in charge (user ID = *user-ID*).

This message appears when the expiration notification command sends an email to the person in charge.

(S)

Continues command processing.

KNAB20235-I

An email was sent to a process work board administrator (user ID = *user-ID*) (PWBID = *process-work-board-ID*).

This message appears when the expiration notification command sends an email to a process work board administrator.

(S)

Continues command processing.

KNAB20236-I

master-system-or-temporary-receipt-process-work-board was created successfully.

This message appears when a master system or temporary receipt process work board is created successfully.

KNAB20237-I

The item will now be deleted.

This message appears when deletion of the Item starts.

(S)

Continues command processing.

KNAB20238-I

The item was deleted successfully.

This message appears when deletion of the Item ended normally.

(S)

Continues command processing.

KNAB20239-I

The number of deleted items is *number-of-Items*.

This message indicates the number of processed Items when the Item deletion processing ends.

(S)

Continues command processing.

KNAB20240-I

The item will now be deleted.

This message appears when deletion of the Item starts.

(S)

Continues command processing.

KNAB20241-I

Deletion will now be canceled.

This messaged appears when cancellation of deletion starts.

(S)

Continues command processing.

KNAB20242-I

Deletion was canceled successfully.

This message appears when cancellation of deletion ends.

(S)

Continues command processing.

KNAB20243-I

The number of items whose deletion was canceled is *number-of-Items*.

This message indicates the number of processed Items when the cancellation of deletion ends.

(S)

Continues command processing.

KNAB20244-I

Deletion will now be canceled.

This message appears when cancellation of deletion starts.

(S)

Continues command processing.

KNAB20251-I

No emails were registered in the email server.

This message appears if no emails were registered on the email server when the email-based Item registration command was executed.

(S)

   Continues processing.

KNAB20257-I

> The email notification of remaining items will now be sent.

This message appears when the email notification of held Items starts.

KNAB20258-I

> The email notification of remaining items will now end.

This message appears when the email notification of held Items ends.

KNAB20259-I

> Remaining items will now be checked.

This message appears when held Items are checked.

KNAB20260-I

> The number of remaining items in the notification is *number-of-Items*.

This message appears when checking of Items by the notification command for held Items has ended.

(S)

   Outputs the message and continues processing.

KNAB20263-I

> The emails will now be issued.

This message appears when issuance of emails starts.

(S)

   Outputs the message and continues processing.

KNAB20264-I

> The emails were issued successfully.

This message appears when issuance of emails has ended.

(S)

   Outputs the message and continues processing.

KNAB20265-I

> The email notifications are not set.

This message appears if email notification at the relevant timing is not set in the Email definition file (`jp1imss_mail_setting.conf`).

(S)

    Outputs the message and then terminates processing.

KNAB20266-I

The switching of certification servers will now start.

This message appears when switching of the authentication server starts.

(S)

    Outputs the message and continues processing.

KNAB20267-I

The switching of certification servers will now end.

This message appears when switching of the authentication server ends.

(S)

    Outputs the message and continues processing.

KNAB20268-I

The *LDAP*, *JP1/IM - Service Support*, or *JP1/Base authentication-server* server is used for certification.

This message indicates information about the server used for authentication.

(S)

    Outputs the message and continues processing.

KNAB20269-I

There are no changes to be reported by a notification email.

This message appears if there were no changes to be reported to the user when email notification was performed.

(S)

    Outputs the message and continues processing.

KNAB20270-I

The confirmation of a certification server will now start.

This message appears when confirmation of the server currently used for authentication starts.

(S)

    Outputs the message and continues processing.

KNAB20271-I

The confirmation of a certification server will now end.

This message appears when confirmation of the server currently used for authentication ends.

(S)

Outputs the message and continues processing.

KNAB20272-I

No export-target *output-target* was found.

There is no output target when the command to export extended Item information or the command to export access-permission information is executed.

What is indicated in *output-target* depends on the executed command and output target.

If the command to export extended Item information is executed:

If the target system is not found:

output-target: System

If the target process work board is not found:

output-target: Process work board

If the target Item is not found:

output-target: Item

If the command to export access-permission information is executed:

If the target access permission information is not found:

output-target: Access permission information

(S)

Outputs the message and continues processing.

KNAB20273-I

The name of an attached file was omitted from the output. (Item ID = *Item-ID*, file name = *fine-name*)

The abbreviated name of the attached file was output due to restriction of the output path.

What is indicated in *output-target* depends on the output target.

(S)

Continues command processing.

KNAB20275-I

Now deleting the Item history and related information...

The history information and related information for the Item are deleted.

KNAB20277-I

The domain of the Item storage database will be extended as follows:

```
---------------------------------------------
Database for which the domain is to be extended: *storage-area-for-extending-the-domain*
Extension domain category: *extension-domain-category-indicated-by-item-or-apdfile*
Directory where the extension domain is to be created: *directory-where-the-Item-storage-database-extension-domain-is-created*
File to be created: *HiRDB-system-domain-file-name*
---------------------------------------------
```

This message indicates information specified in the configuration file for expanding an Item storage database.

KNAB20278-I

Access permissions will be changed. (added = *number-of-new-users-to-add-permissions*, updated = *number-of-users-to-update-access-permissions*, deleted = *number-of-users-to-delete-all-access-permissions*)

This message indicates the number of added, updated, and deleted access permissions specified in the access privileges input file.

Access permissions are counted as follows:

Added

The *added* count is incremented by one when access permission is set for a user who does not have access permissions. Multiple access permissions set for the user are counted as one.

Updated

The *updated* count is incremented by one when access permissions of a user who already has access permissions are changed. This applies to the cases where some access permissions of the user are added or deleted, and where the same access permission is set for the user. In this case, multiple changes in access permissions of the user are counted as one.

Deleted

The *deleted* count is incremented by one when all access permissions of a user who already has access permissions are deleted. Multiple access permissions set for the user are counted as one.

KNAB20279-I

The total number of currently registered Items is *total-number-of-Items-registered-in-JP1/IM-SS*

When the command to count Items is executed, this message indicates the total number of Items registered in JP1/IM-SS.

KNAB20280-I

The number of Items registered in *system-name*(*system-ID*) is *number-of-Items-registered-in-the-target-system*.

When the command to count Items is executed, this message indicates the number of Items registered in the system.

KNAB20281-I

The number of Items registered to *process-name*(*process-ID*) of *system-name*(*system-ID*) is *number-of-Items-registered-in-the-target-process-work-board*.

When the command to count Items is executed, this message indicates the number of Items registered to the process work board.

KNAB20282-I

The process work board for which Items are to be counted does not exist.

This message appears if the process work board to be checked does not exist when the command to count Items is executed.

KNAB20283-I

The Item storage database will be set up as follows:

Database to be set up: *storage-area-to-be-set-up*
Directory where the Item storage database is to be set up: *directory-where-the-Item-storage-database-is-set-up*

This message displays information specified in the configuration file for setting up an Item storage database.

KNAB20284-I

Setup of *Item-storage-area-or-attached-file-storage-area* is complete.

Setup of each storage area in the Item management database is complete.

KNAB20285-I

Items will be stored as follows:

Storage area: *name-of-the-storage-area-where-the-target-is-stored*
Items to be stored: *what-is-specified-for-"-ct" (yyyy/mm/dd-yyyy/mm/dd)*

This message indicates what is specified for the option of the command to store Items.

KNAB20286-I

Items have been stored. (number of Items = *number-of-Items)*

This message indicates that Items are stored.

KNAB20287-I

Items are being stored. (progress = *progress*%)

This message indicates the progress of Item storage processing as a multiple of 25%.

KNAB20288-I

Stored Items will be deleted as follows:

> Storage area for which Items are to be deleted: *name-of-the-storage-area-to-be-deleted*
> --

This message indicates the storage areas that will be deleted by the command to delete stored Items.

KNAB20289-I

> The Item storage database will be switched as follows:
> --
> Active storage area before the switch: *storage-area-name-before-rotation*
> Active storage area after the switch: *storage-area-name-at-the-switching-destination*
> --

This message indicates the storage area used as the switching destination.

KNAB20290-I

> A file with the same name as the file to be created already exists in the directory where the file is to be created.

A file with the same name as the file to be created already exists in the directory where the extension domain of the Item storage database is to be created.

KNAB20291-I

> If this processing continues, a file will be overwritten. (file name = *fine-name*)

If this processing continues, the file indicated by *file-name* will be overwritten.

KNAB20292-I

> *Item-form-element-ID* will be set as an element to be specified when setting permissions to view Items.

Processing will start to set an element that specifies the permissions to view Items.

(S)

    Outputs the message and continues processing.

KNAB20293-I

> *Item-form-element-ID* is being set as an element to be specified when setting permissions to view Items.

This message indicates the Item form element ID that is set as an element that specifies the permissions to view Items.

(S)

    Outputs the message and continues processing.

KNAB20294-I

> *Item-form-element-ID* was set as an element to be specified when setting permissions to view Items.

Processing to set an element that specifies the permissions to view Items terminated.

(S)

    Outputs the message and continues processing.

KNAB20295-I

Item-form-element-ID is already set as an element to be specified when setting permissions to view Items.

The specified extended user information element has already been set as an element that specifies the permissions to view Items.

(S)

    Outputs the message and continues processing.

KNAB20296-I

Processing to check the element that sets the permissions to view Items will now start.

Processing will now start to check the element that specifies the view permissions to view Items.

(S)

    Outputs the message and continues processing.

KNAB20297-I

Processing to check the element that sets view permissions for Items finished.

Processing finished checking the element that specifies the permissions to view Items.

(S)

    Outputs the message and continues processing.

KNAB20298-I

The extended user information element to be used as an element to be specified when setting permissions to view Items is not set.

The extended user information element to be used as an element that specifies the permissions to view Items is not specified by using the command to set up view permission settings for individual Items.

(S)

    Cancels command processing.

KNAB20299-I

The following Item was stored. (Item ID = *Item-ID*)

This message indicates the Item stored by the command to store Items.

(S)

    Outputs the message and continues processing.

KNAB20300-I

Target Items and process work boards will be checked.

This message indicates that the target Items and process work boards will be checked.

KNAB20301-I

All of the target Items can be stored.

This message indicates that all target Items can be stored.

(S)

If the `-ch` option is specified for the `jssitemstore` command (stores Items):

Outputs the message and terminates processing.

If the `-ch` option is not specified for the `jssitemstore` command (stores Items):

Outputs the message and continues processing.

KNAB20302-I

processing-name is now executing.

This message indicates that the processing requires a long time.

(S)

Outputs the message and continues processing.

KNAB20303-I

Stored Items were not deleted.

If stored Items are contained in the specified range, this message indicates that stored Items have not been deleted.

(S)

Outputs the message and continues processing.

KNAB22001-W

The import of user information failed. (Detailed information: *detailed-information*)

The user information import command failed to import the user information in the CSV file.

One of the following messages is displayed in *detailed-information*.

Table 13–7: Detailed information

Detailed information	Cause
The value of (*element-name*) on line *line-number* is invalid.	A value of the CSV file is invalid.
The format of the data (*element-data*) on line *line-number* is invalid.	The format of the CSV file is invalid.
There are insufficient data elements on line *line-number*.	The number of data elements in the CSV file is smaller than the required value.
The user (*user-ID*) already exists.	A user having the specified user ID already exists.

(S)

 Outputs the message and continues processing.

(O)

 Correct the user information which failed to be imported, and then execute the user information import command.

KNAB22002-W

 The import of item information failed. (Detailed information: *detailed-information*)

The Item information import command failed to import the user information in the CSV file.

One of the following messages is displayed in *detailed-information*.

Table 13–8: Detailed information

Detailed information	Cause
The value of (*element-name*) on line *line-number* is invalid.	A value of the CSV file is invalid.
The format of the data (*element-data*) on line *line-number* is invalid.	The format of the CSV file is invalid.
There are insufficient data elements on line *line-number*.	The number of data elements in the CSV file is smaller than the required value.
The process work board (*process-work-board-ID*) does not exist.	The specified process work board is not found.
The process work board (*process-work-board-ID*) is not operating.	The specified process work board is not operating.
user-ID-or-role-ID does not exist.	The specified user or role is not found.

(S)

 Outputs the message and continues processing.

(O)

 Correct the Item information which failed to be imported, and then execute the user information import command.

KNAB22003-W

 A user with the specified ID (*user-ID*) already exists.

The login ID of the user information in the CSV file specified for the user information import command has already been registered in the Item management database.

(S)

 Outputs the message and continues processing.

(O)

 Correct the user login ID to be imported or delete the existing user. Then execute the user information import command.

KNAB22004-W

 The number of items that were output is *maximum-number-of-Items-output-to-CSV-file*, because the total number of items to be output exceeds the maximum.

The number of Items to be output by the Item list output command or Item history output command exceeds the maximum number of Items that can be output.

(S)

    Outputs the message and continues processing.

(O)

    Change the specification conditions for the data to be output, and then re-execute the command.

KNAB22005-W

The user cannot be registered because the number of users registered on JP1/IM - Service Support reached the maximum (*maximum-number-of-users-that-can-be-registered*).

The number of registered users has reached the maximum.

(S)

    Cancels command processing.

(O)

    Delete users registered on JP1/IM - Service Support, and then re-execute the command.

KNAB22006-W

The item cannot be registered because the number of items registered on JP1/IM - Service Support reached the maximum (*maximum-number-of-Items-that-can-be-registered*).

The number of registered Items has reached the maximum.

(S)

    Cancels command processing.

(O)

    Delete Items registered on JP1/IM - Service Support, and then re-execute the command.

KNAB22007-W

The item cannot be registered because the number of items registered on the process work board reached the maximum (*maximum-number-of-Items-that-can-be-registered*).

The number of Items registered on the process work board has reached the maximum.

(S)

    Outputs the message and continues processing.

(O)

    Use the `jssdelrec` command to delete the Items waiting to be deleted from the process work board, and then re-execute the command. If no Items are waiting to be deleted, delete unnecessary Items from the window and then use the `jssdelrec` command to delete them from the database. Then re-execute the command.

KNAB22008-W

No subject is set for the email, so the main subject of the item will be set to "No Subject".

This message appears if the subject of the email is not set.

(S)

    Continues command processing.

KNAB22009-W

Registration of the item failed because the state of the process work board on which the item was to be registered is not in operation. The item is registered on a temporary reception process work board.

This message appears if registration of the Item failed because the process work board on which the Item was to be registered was not in operation.

(S)

Continues command processing.

KNAB22010-W

The destination on which the item is to be registered does not exist. The item is registered on a temporary reception process work board.

This message appears if the destination on which the Item is to be registered does not exist.

(S)

Continues command processing.

KNAB22011-W

Items with attached files cannot be registered on the process work board on which the item is to be registered. The item is registered on a temporary reception process work board.

This message appears if an attached file is not contained in the elements of the Item form used by the process work board on which the Item is to be registered.

(S)

Continues command processing.

KNAB22012-W

An invalid address is contained in the address of the email sender. (*invalid-email-address*)

This message appears if the email address specified for the email sender is invalid.

(S)

Continues command processing.

(O)

Revise the email address of the sender.

KNAB22013-W

An email address is not set to *person-in-charge-or-process-work-board-administrator* (user ID = *user-ID*).

This message appears if the email address for the person in charge or the process work board administrator is not set.

(S)

Continues command processing.

(O)

Set the email address of the destination user.

KNAB22014-W

user-ID-or-role-ID does not exist.

This message appears if the destination user or role does not exist.

(S)

Continues command processing.

(O)

Revise the user information.

KNAB22015-W

An email could not be sent to *person-in-charge-or-process-work-board-administrator* (user ID = *user-ID*).

This message appears if the email address of the destination user is invalid.

(S)

Continues command processing.

(O)

Set the correct email address of the destination user.

KNAB22016-W

The value of the property file (*property-file-name*) is invalid. The default value will be used. (Key: *property-key-name*, value: *specified-default-value*)

If the value set for the property file is invalid, the default value will be set.

(S)

Continues command processing.

(O)

Check and, if necessary, revise the property file settings. Delete any space after an equal sign (=).

KNAB22017-W

Registration of the item failed. The item is registered on a temporary reception process work board.

This message appears if registration of the Item with the specified process work board failed due to an internal error.

(S)

Continues command processing.

KNAB22018-W

Data optimization failed.

This message appears if data optimization failed.

(S)

Continues command processing.

(O)

Contact the system administrator.

KNAB22020-W

The import of member information failed. (Detailed information: *detailed-information*)

The member information import command failed to import the member information in the CSV file.

One of the following messages is displayed in *detailed-information*.

Table 13–9: Detailed information

Detailed information	Cause
The value of (*element-name*) on line *line-number* is invalid.	A value of the CSV file is invalid.
The format of the data (*element-data*) on line *line-number* is invalid.	The format of the CSV file is invalid.
There are insufficient data elements on line *line-number*.	The number of data elements in the CSV file is smaller than the required value.
The role (*role-ID*) specified on line *line-number* does not exist.	A role having the specified role ID does not exist.
The user (*user-ID*) specified on line *line-number* does not exist.	A user having the specified user ID does not exist.

(S)

Outputs the message and continues processing.

(O)

Correct the member information which failed to be imported, and then re-execute the member information import command.

KNAB22021-W

Member deletion failed. (Detailed information: *detailed-information*)

The member information deletion command failed to delete the member information in the CSV file.

One of the following messages is displayed in *detailed-information*.

Table 13–10: Detailed information

Detailed information	Cause
The value of (*element-name*) on line *line-number* is invalid.	A value of the CSV file is invalid.
The format of the data (*element-data*) on line *line-number* is invalid.	The format of the CSV file is invalid.
There are insufficient data elements on line *line-number*.	The number of data elements in the CSV file is smaller than the required value.
The role (*role-ID*) specified on line *line-number* does not exist.	A role having the specified role ID does not exist.
The user (*user-ID*) specified on line *line-number* does not exist.	A user having the specified user ID does not exist.
The JP1 administrator (jp1admin) specified on line *line-number* cannot be deleted from the system roles.	An attempt was made to delete the JP1 administrator from the system roles.

(S)

Outputs the message and continues processing.

(O)

Correct the member information which failed to be deleted, and then re-execute the member information deletion command.

KNAB22022-W

The number items that were output is only *maximum-number-of-elements-output-to-CSV-file* because the total number of items to be output (*processing-name*) exceeds the maximum.

The number of items (indicated by *processing-name*) to be output exceeds the maximum number of items that a command can output.

What is indicated in *processing-name* depends on the executed command.

- For the `jssuserlist` command: Users

- For the `jssrolelist` command: Roles

- For the `jssmemberlis` command: Members

- For the `jssaclexport` command: Access permissions

(S)

Outputs the message and continues processing.

(O)

Change the specification conditions for the data to be output, and then re-execute the command.

KNAB22023-W

The role cannot be registered because the number of registered roles reached the maximum (*maximum-number-of-roles-that-can-be-registered*).

The number of registered roles has reached the maximum.

(S)

Outputs the message and continues processing.

(O)

Delete roles registered on JP1/IM - Service Support, and then re-execute the command.

KNAB22024-W

The member cannot be added because the number of members registered in role *role-ID* reached the maximum (*maximum-number-of-members-that-can-be-added-to-the-role*).

The number of members registered in the specified role has reached the maximum.

(S)

Outputs the message and continues processing.

(O)

Delete unnecessary members from the role, and then re-execute the command.

KNAB22025-W

> The import of role information failed. (Detailed information: *detailed-information*)

The role information import command failed to import the role information in the CSV file.

One of the following messages is displayed in *detailed-information*.

Table 13–11: Detailed information

Detailed information	Cause
The value of (*element-name*) on line *line-number* is invalid.	A value of the CSV file is invalid.
The format of the data (*element-data*) on line *line-number* is invalid.	The format of the CSV file is invalid.
There are insufficient data elements on line *line-number*.	The number of data elements in the CSV file is smaller than the required value.
The role (*role-ID*) specified on line *line-number* already exists.	A role having the specified role ID already exists.

(S)

Outputs the message and continues processing.

(O)

Correct the role information which failed to be imported, and then execute the role information import command.

KNAB22026-W

> The number of files that were processed is only *maximum-number-of-files-for-member-information-entries-or-member-information-editing-files* because the input files exceed the maximum.

The number of files for member information entries or User information editing files specified in the member information import command, member information deletion command, or user information edit command exceeded the maximum.

(S)

Outputs the message and continues processing.

(O)

Reduce the number of records so that the number of files for member information entries or User information editing files does not exceed the maximum. Alternatively, divide the file and retry the operation.

KNAB22027-W

> Editing of user information failed. (Detailed information: *detailed-information*)

The user information editing command failed to edit the user information in the CSV file.

One of the following messages is displayed in *detailed-information*.

Table 13–12: Detailed information

Detailed information	Cause
The value of (*element-name*) on line *line-number* is invalid.	A value of the CSV file is invalid.
The format of the data (*element-data*) on line *line-number* is invalid.	The format of the CSV file is invalid.

Detailed information	Cause
There are insufficient data elements on line *line-number*.	The number of data elements in the CSV file is smaller than the required value.
The user (*user-ID*) specified on line *line-number* does not exist.	A user having the specified user ID does not exist.
The user ID of the JP1 administrator (jp1admin) specified on line *line-number* cannot be changed.	An attempt was made to change the user ID of the JP1 administrator.
A user having the user ID (*user-ID*) specified on line *line-number* already exists.	A user having the new user ID exists.

(S)

Outputs the message and continues processing.

(O)

Correct the user information which failed to be edited, and then re-execute the user information editing command.

KNAB22028-W

The remaining number of Items that can be registered to *process-name*(*process-work-board-ID*) of *system-name*(*system-ID*) is *number-of-Items-that-can-be-registered-to-the-PWB*.

When the Items are counted, this message appears if the remaining number of Items that can be registered to the process work board has reached the user-defined threshold and is smaller than the upper limit.

(S)

Outputs the message and continues processing.

(O)

Check the remaining number of Items that can be registered. If necessary, delete unnecessary Items.

KNAB22029-W

The maximum number of Items that can be registered to *process-name*(*process work board-ID*) of *system-name*(*system-ID*) has been reached.

When the Items are counted, this message appears if the number of Items has reached the upper limit.

(S)

Outputs the message and continues processing.

(O)

If you plan to register new Items to the process work board, delete unnecessary Items, and then register the required Items.

KNAB22101-W

The computer's system information cannot be collected successfully.

The computer's system information cannot be collected successfully.

(S)

Continues command processing without collecting the computer's system information.

(O)

Collect the computer's system information separately.

KNAB22102-W

The Dr. Watson log and crush dump cannot be collected successfully.

The Dr. Watson log and crash dump cannot be collected successfully.

(S)

Continues command processing without collecting the Dr. Watson log and crash dump.

(O)

If your OS is Windows Server 2012 or Windows Server 2008:

Collect the user's dump separately.

If your OS is Windows Server 2003:

Collect the Dr. Watson log and crash dump separately.

KNAB22103-W

Version information cannot be collected successfully.

Version information cannot be collected successfully.

(S)

Continues command processing without collecting version information.

(O)

Collect the version information separately.

KNAB22104-W

The integrated trace log cannot be collected successfully.

The integrated trace log cannot be collected successfully.

(S)

Continues command processing without collecting the integrated trace log.

(O)

Collect the integrated trace log separately.

KNAB22105-W

The setting of the host name set to the computer cannot be collected successfully.

The `Hosts` file cannot be acquired successfully.

(S)

Continues command processing without collecting the host name set in the computer.

(O)

Collect the host name set in the computer separately.

KNAB22106-W

The setting data of the service port set to the computer cannot be collected successfully.

The `Services` file cannot be acquired successfully.

(S)

Continues command processing without collecting the service port set in the computer.

(O)

Collect the service port set in the computer separately.

KNAB22107-W

Registry information cannot be collected successfully.

Registry information cannot be collected successfully.

(S)

Continues command processing without collecting registry information.

(O)

Collect registry information separately.

KNAB22108-W

The binding status of JP1/IM - Service Support cannot be collected successfully.

The binding status of JP1/IM - Service Support cannot be acquired successfully.

(S)

Continues command processing without collecting the binding status of JP1/IM - Service Support.

(O)

Collect the binding status of JP1/IM - Service Support separately.

KNAB22109-W

The NIC mounting status cannot be collected successfully.

The NIC mounting status cannot be acquired successfully.

(S)

Continues command processing without collecting the NIC mounting status.

(O)

Collect the NIC mounting status separately.

KNAB22110-W

The start service list data cannot be collected successfully.

The start service list data cannot be collected successfully.

(S)

    Continues command processing without collecting the start service list data.

(O)

    Collect the start service list data separately.

KNAB22111-W

> The computer's environment variables cannot be collected successfully.

The computer's environment variables cannot be acquired successfully.

(S)

    Continues command processing without collecting the computer's environment variables.

(O)

    Collect the computer's environment variables separately.

KNAB22112-W

> The data of *data-name* cannot be collected successfully.

The data cannot be acquired successfully.

(S)

    Continues command processing without collecting the data.

(O)

    Collect the data separately.

KNAB22113-W

> The locale "C" is assumed because setting the locale failed.

An attempt to set the locale failed. The locale C is assumed.

(S)

    Continues command processing.

(O)

    Contact the system administrator.

KNAB22114-W

> A Windows event log (*event-log-name*) will not be collected because its size exceeds *event-log-size* KB.

The size of the Windows event log exceeds the maximum size that can be acquired. The event log cannot be acquired.

(S)

    Continues command processing without collecting the Windows event log.

(O)

    Collect the Windows event log indicated by *event-log-name* separately.

KNAB22115-W

The specified process work board ID (*process-work-board-ID*) does not exist.

This message appears if the process work board ID specified in the Held Item definition file
(`jp1informleave_setting.conf`) does not exist.

(S)

Continues command processing.

(O)

Make sure that an existing process work board ID is specified for `hptl_jp1_imss_target_pwb_list` in the
Held Item definition file (`jp1informleave_setting.conf`). If necessary, correct the setting.

KNAB22116-W

The default value will be used for the threshold value of the remaining items because the threshold value of
remaining items exceeds the monitoring range. (Key: *property-key-name*, value: *specified-default-value*)

This message appears if the period of time after which the Items are determined as being held exceeds the monitoring
range.

(S)

Continues command processing.

(O)

Check and, if necessary, revise the settings of the Held Item definition file
(`jp1informleave_setting.conf`).

KNAB22121-W

The *output-target* status is invalid.

The status of the output-target system or process work board is invalid.

What is indicated in *output-target* depends on the output target.

If the system is specified:

output-target: System (*system-ID*)

system-ID indicates the display ID of the system.

If the process work board is specified:

output-target: Process work board (*PWBID*)

PWBID indicates the display ID of the process work board.

(S)

Continues command processing.

(O)

Check and correct the status of the system or process work board. Then, re-execute the command.

KNAB22122-W

There is an error in the definition file. error code: *detailed-code*

An error was found in the definition file settings. The default value was set or the invalid value was disabled.

(S)

Continues processing.

(O)

If `001` is indicated in *detailed-code*:

Check the following key values in the property file for JP1 product association setting, and then set the values again.

- `hptl_jp1_imss_jp1product_cooperation_flag` key (this key specifies whether to link with a specific JP1 product)

    If an invalid value is specified for the key, `false` is set.

- `hptl_jp1_imss_jp1product_cooperation_userlist` key (this key specifies the user IDs of users who are permitted to access a specific JP1 product)

    If the values specified for the key contain an invalid user ID, that user ID does not take effect.

- `hptl_jp1_imss_information_search_userid` key (this key specifies the user IDs used for information searches)

    Any invalid value specified for the key does not take effect.

KNAB22123-W

JP1/Base authentication failed. error code: *detailed-code*

JP1/Base authentication failed.

(S)

Continues processing.

(O)

If `008` is indicated in *detailed-code*:

Specify a registered user ID or the correct password, and then retry the operation.

If this message appears when the correct user ID and password are entered, check and, if necessary, correct the status of the JP1/Base authentication server, and then retry the operation. If JP1/Base authentication still fails, use the data collection tool to collect data and contact the system administrator.

KNAB24001-E

A system error occurred in the server.

A system error occurred in the server.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24002-E

An error occurred in the database of JP1/IM - Service Support. (*detailed-code*)

An error occurred in the database of JP1/IM - Service Support.

(S)

Cancels command processing.

(O)

If `-713` is indicated in *detailed-code*:

The working space of the database is insufficient. If you want to use the `jssitemhistory` or `jssitemlist` command to output large volumes of Item information, filter the Item information by, for example, specifying the start and end dates, and then re-execute the command. For other cases, wait a while and then retry the operation. If the same error occurs again, contact the system administrator.

If `-722` is indicated in *detailed-code*:

The log area in the database is insufficient. A large amount of Item information might have been registered in a batch by using the `jssitemimport` or `jssitemimportEx` command. Reduce the amount of registered Item information, and then re-execute the command. For other cases, contact the system administrator.

If `-756` is indicated in *detailed-code*:

For JP1/IM - Service Support (Standard)

Delete unnecessary data, and then perform the following:

1. Execute the `jssdelrec` command to delete any data that is waiting to be deleted.

2. Execute the `jssdbrorg.bat` command to reorganize the free space of the Item management database.

If the same message appears again, use the following procedure to increase the size of the Item management database:

1. Use the `jssdbbackup.bat` command to back up the Item management database (for extension).

2. Use the `jsssetup.bat` command to increase the size of the Item management database.

3. Use the `jssdbrecovery.bat` command to recover the data from the backup created in step 1.

For JP1/IM - Service Support Advanced Edition:

The capacity of the Item management database or Item storage database is insufficient. Execute the `jssdbstatchk.bat` command to check the usage of the Item management database and Item storage database.

If the capacity of the Item management database is insufficient, delete unnecessary data or store Items as described below.

- When deleting unnecessary data:

1. Delete unnecessary data.

2. Execute the `jssdelrec` command to delete any data that is waiting to be deleted.

3. Execute the `jssdbrorg.bat` command to reorganize the free space of the Item management database.

- To store Items:

1. Execute the `jssitemstore` command to store closed old Items in the Item storage database

2. Execute the `jssdbrorg.bat` command to reorganize the free space of the Item management database

If the capacity of the Item storage database is insufficient, expand the Item storage database or rotate the storage areas according to the predefined operation of the Item storage database. For details about the procedures, see *10.2.11 Rotating the storage locations in the Item storage database* and *10.2.12 Expanding the Item storage database*.

If `-770` is indicated in *detailed-code*:

Too much processing is currently being attempted on the database. Wait a while and then retry the operation.

If `-1703` is indicated in *detailed-code*:

Start of a new transaction is suppressed in the database. If a large amount of Item information was registered by using the `jssitemimport` or `jssitemimportEx` command, reduce the amount of registered Item information, wait a while, and then retry the operation. For other cases, contact the system administrator.

For other cases:

Check whether the `jssdbbackup.bat`, `jssdbrecovery.bat`, `jssdbrorg.bat`, `jssdbreclaim.bat`, or `jssrefaclsetup` command is being executed. If any of these commands is being executed, terminate it, and then retry the operation.

In addition, the machine itself might be heavily loaded. Wait a while and then retry the operation.

If the same error occurs again, contact the system administrator.

KNAB24003-E

An internal error occurred in a command.

An internal error occurred in a command.

(S)

Cancels command processing.

(O)

This message might appear when you cancel command execution by pressing the **Ctrl** + **C** keys. Wait a while, and then re-execute the command. If this message appears when command execution was not canceled, use the data collection tool to collect data and contact the system administrator.

KNAB24004-E

A connection cannot be made to the database of JP1/IM - Service Support.

A connection to the JP1/IM - Service Support database cannot be established.

(S)

Cancels command processing.

(O)

Check and, if necessary, correct the startup status of the JP1/IM - Service Support database and the connection status of the network so that command execution is possible.

Make sure that the `jssdbbackup.bat`, `jssdbrecovery.bat`, `jssdbrorg.bat`, and `jssdbreclaim.bat` commands are not executed concurrently, and then retry the operation. If the error occurs again, use the data collection tool to collect data and contact the system administrator.

KNAB24005-E

The connection with the database of JP1/IM - Service Support was terminated.

The connection with the JP1/IM - Service Support database was disconnected during execution of a command.

(S)

Cancels command processing.

(O)

Check and, if necessary, correct the startup status of the Item management database and the connection status of the network. If necessary, correct the statuses so that command execution is possible. If the error occurs again, use the data collection tool to collect data and contact the system administrator.

KNAB24006-E

The disk capacity is insufficient.

A file cannot be output due to insufficient disk capacity during execution of a command.

(S)

Cancels command processing.

(O)

Check the disk capacity of the execution host, allocate sufficient free space on the disk, and then re-execute the command.

KNAB24007-E

A system error occurred. (Detailed code: *maintenance-code*)

This message appears if a fatal error occurred during execution of the JP1/Service Support - Task Service service.

(S)

If the service was being started: Startup of the service is canceled.

If the service was running: The message is output and processing continues.

If the service was being stopped: The service is stopped.

(O)

Collect the data, and then contact the system administrator.

KNAB24008-E

Initialization of a command failed.

This message appears if initialization of a command failed.

(S)

Cancels command processing.

(O)

Check the access permission and disk capacity of the log output destination.

KNAB24101-E

The service JP1/Service Support - DB Server is not started.

The JP1/Service Support - DB Server service is not started.

(S)

Cancels command processing.

(O)

Start the JP1/Service Support - DB Server service, and then re-execute the command.

KNAB24102-E

The database is not running.

The database is not running.

(S)

Cancels command processing.

(O)

Restart the JP1/Service Support - DB Server service and wait a while. Then re-execute the command.

KNAB24103-E

A system error occurred during the execution of a setup command. (Cause: *cause*)

An unexpected error was detected during execution of a setup command.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect data and contact the system administrator.

KNAB24104-E

Memory is insufficient.

Memory is insufficient.

(S)

Cancels command processing.

(O)

Increase the memory capacity.

If the memory capacity is insufficient during execution of the `jssitementrybymail` command, reduce the value of `hptl_jp1_imss_mail_receive_number` in the Email definition file (`jp1imss_mail_setting.conf`), and then re-execute the command. If memory is still insufficient, obtain the email from the email server and register the email contents from the window.

KNAB24105-E

The JP1/Service Support service failed to start.

The JP1/Service Support service failed to start.

(S)

Cancels command processing.

(O)

Confirm whether the service has started, and then re-execute the command.

If the service cannot start, make sure that the setup is complete. If the setup is complete and this message appears, use the data collection tool to collect data and contact the system administrator.

KNAB24106-E

The JP1/Service Support service failed to stop.

The JP1/Service Support service failed to stop.

(S)

Cancels command processing.

(O)

Confirm whether the service has stopped, and then re-execute the command.

If the service cannot stop, use the data collection tool to collect data and contact the system administrator.

KNAB24107-E

A system error occurred in the setting of a locale.

A system error occurred in the setting of a locale.

(S)

Cancels command processing.

(O)

Contact the system administrator.

KNAB24108-E

The JP1/Service Support service failed to start.

The JP1/Service Support service failed to start.

(S)

Cancels command processing.

(O)

Confirm the following:

- Setup is complete.
- If JP1/AO is linked and the JP1/Base authentication function is used, there are no problems in the contents of the system property file and the property file for JP1 product association setting.

If output of operation logs is specified, confirm the following.

For a physical host environment:

- There is sufficient free disk space on the system drive on which JP1/IM - Service Support is installed.
- You have the required permissions to create the *IM-SS-path*\log\public\accesslog folder.
- You have the required permissions to create and write to a file in the *IM-SS-path*\log\public \accesslog folder.

For a cluster environment:

- You can access the shared folder.

- There is sufficient free disk space on the system drive containing the shared folder.

- You have the required permissions to create the *shared-folder*`\log\public\accesslog` folder.

- You have the required permissions to create and write to a file in the *shared-folder*`\log\public\accesslog` folder.

If the same error occurs again after confirming the above items, use the data collection tool to collect data and contact the system administrator.

KNAB24114-E

A system error occurred during the execution of a command to extend an Item storage database. (*cause*)

An unexpected error was detected during execution of the command to expand an Item storage database.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24115-E

A system error occurred during the execution of a command to set up an Item storage database. (*cause*)

An unexpected error was detected during execution of a command to set up an Item storage database.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24201-E

A system error occurred during the registration of an item form. (Cause: *cause*, details: *details*)

A system error occurred during the registration of an Item form.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24202-E

A system error occurred during the deletion of data awaiting deletion. (Cause: *cause*, details: *details*)

A system error occurred during the deletion of data waiting to be deleted.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24203-E

A system error occurred during the aggregation of item information. (Cause: *cause* details: *details*)

A system error occurred during the aggregation of Item information.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24204-E

A system error occurred during the delivery of an expiration notification email. (Cause: *cause*, details: *details*)

A system error occurred during the delivery of an expiration notification email.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24205-E

A system error occurred during a database upgrade. (*cause*)

A system error occurred during the upgrade of the database.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24206-E

A system error occurred during the deletion of an item. (Cause: *cause*, details: *details*)

A system error occurred during the deletion of an Item.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24207-E

A system error occurred during the canceling of deletion. (Cause: *cause*, details: *details*)

A system error occurred during the cancellation of deletion.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24208-E

A system error occurred during the registration of an item from an email. (Cause: *cause*, details: *details*)

A system error occurred during the registration of an Item from an email.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24209-E

A system error occurred during the creation of a master system and temporary reception process work board. (Cause: *cause*, details: *details*)

A system error occurred during the creation of a master system and temporary receipt process work board.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24210-E

A system error occurred during the issuance of an email. (Cause: *cause*, details: *details*)

A system error occurred during the issuance of an email.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24211-E

A system error occurred during the delivery of an email notification of remaining items. (Cause: *cause*, details: *details*)

A system error occurred during the delivery of an email notification of held Items.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24212-E

A system error occurred during the execution of a certification server switching command. (Cause: *cause*, details: *details*)

A system error occurred during the execution of an authentication server switching command.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24213-E

A system error occurred during the execution of a role import command. (Cause: *cause*, details: *details*)

A system error occurred during the execution of a role import command.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24214-E

A system error occurred during the execution of a member import command. (Cause: *cause*, details: *details*)

A system error occurred during the execution of a member import command.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24215-E

A system error occurred during the execution of a member deletion command. (Cause: *cause*, details: *details*)

A system error occurred during the execution of a member deletion command.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24216-E

A system error occurred during the execution of an item form-defined editing utility. (Cause: *cause*, details: *details*)

A system error occurred during execution of an Item form-defined editing utility.

(S)

 Cancels command processing.

(O)

 Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24217-E

A system error occurred during user list output. (Cause: *cause*, details: *details*)

A system error occurred during execution of a user list output command.

(S)

 Cancels command processing.

(O)

 Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24218-E

A system error occurred during role list output. (Cause: *cause*, details: *details*)

A system error occurred during execution of a role list output command.

(S)

 Cancels command processing.

(O)

 Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24219-E

A system error occurred during member list output. (Cause: *cause*, details: *details*)

A system error occurred during execution of a member list output command.

(S)

 Cancels command processing.

(O)

 Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24220-E

A system error occurred during the editing of user information. (Cause: *cause*, details: *details*)

A system error occurred during execution of a user editing command.

(S)

 Cancels command processing.

(O)

 Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24221-E

A system error occurred during the export of item information. (Cause: *cause*, details: *details*)

A system error occurred during execution of a command for exporting extended Item information.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24222-E

A system error occurred during the import of extended Item information. (cause = *cause*, details = *details*)

A system error occurred during execution of a command for importing extended Item information.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24223-E

An error occurred in starting the service. error code: *detailed-code*

The service failed to start due to an invalid setting.

(S)

Cancels startup of the service.

(O)

If `001` is indicated in *detailed-code*:

The probable causes are listed below. Check and, if necessary, revise the property file for JP1 product association setting and the system property file, and then restart the service.

- The file does not exist.
- You do not have file access permission.
- The file is being used by another program.

If restart of the service failed, use the data collection tool to collect data and contact the system administrator.

If `002` is indicated in *detailed-code*:

Check the value of the `hptl_jp1_imss_jp1base_virtual_hostname` key, which specifies the logical host name of JP1/Base, and then restart the service.

If `003` is indicated in *detailed-code*:

Make sure that the JP1/Base logical host specified for the `hptl_jp1_imss_jp1base_virtual_hostname` key, which specifies the logical host name of JP1/Base, in the system property file exists, and then restart the service. If restart of the service fails again, use the data collection tool to collect data and contact the system administrator.

If `010` is indicated in *detailed-code*:

Make sure that JP1/Base is installed on the same host, and then restart the service.

KNAB24224-E

There is an error in the definition file. error code: *detailed-code*

An error occurred due to an invalid setting.

(S)

Cancels the operation.

(O)

If `004` is indicated in *detailed-code*:

Check and correct the settings of the environment variable group on the Item management database. If the operation fails again, use the data collection tool to collect data and contact the system administrator.

If `005` is indicated in *detailed-code*:

To perform single sign-on to JP1/IM - Service Support, check and correct the value of the `hptl_jp1_imss_jp1product_cooperation_flag` key, which specifies whether to link with a specific JP1 product, in the property file for JP1 product association setting.

If `007` is indicated in *detailed-code*:

Check and correct the settings of the environment variable group in the Item management database. If the operation fails again, use the data collection tool to collect data and contact the system administrator.

The user who attempts single sign-on to JP1/IM - Service Support is not set in the `hptl_jp1_imss_jp1product_cooperation_userlist` key in the property file for JP1 product association setting. This key specifies the user IDs of users who are permitted to link with a specific JP1 product. Check and, if necessary, revise the setting.

KNAB24225-E

JP1/Base authentication failed. error code: *detailed-code*

JP1/Base authentication failed.

(S)

Cancels the operation.

(O)

If `006` is indicated in *detailed-code*:

Make sure that the JP1/Base authentication server has started, and then retry the operation. If authentication fails again, use the data collection tool to collect data and contact the system administrator.

If `008` is indicated in *detailed-code*:

Specify a registered user ID or the correct password, and then retry the operation.

If this message appears when the correct user ID and password are entered, check and, if necessary, correct the status of the JP1/Base authentication server, and then retry the operation. If JP1/Base authentication still fails, use the data collection tool to collect data and contact the system administrator.

KNAB24226-E

A system error occurred during the execution of the command to export access permission information. (cause = *cause*, details = *details*)

A system error occurred during execution of the command to export access-permission information.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24227-E

A system error occurred during the execution of the command to import access permission information. (cause = *cause*, details = *details*)

A system error occurred during execution of the command to import access-permission information.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24228-E

A system error occurred during the execution of the command to count Items. (cause = *cause*, details = *details*)

A system error occurred during execution of the command to count Items.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24229-E

A system error occurred during the execution of the command to store an Item. (cause = *cause*, details = *details*)

A system error occurred during execution of the command to store Items.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24230-E

A system error occurred during the execution of the command to delete stored Items in a batch.

An error occurred during execution of the command to delete stored Items.

(S)

　　Cancels command processing.

(O)

　　Re-execute the command. If the error occurs again, use the data collection tool to collect data, and then contact the system administrator.

KNAB24231-E

A system error occurred during the execution of the command to switch the Item storage database. (cause = *cause*, details = *details*)

A system error occurred during execution of the command to rotate Item storage databases.

(S)

　　Cancels command processing.

(O)

　　Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24232-E

A system error occurred during the execution of a command to set up view permissions for every Item. (cause = *cause*, details = *details*)

A system error occurred during execution of the command to set up view permission settings for individual Items.

(S)

　　Cancels command processing.

(O)

　　Use the data collection tool to collect the data, and then contact the system administrator.

KNAB24233-E

Failed to get registry information.

An attempt to acquire registry information failed.

(S)

　　Cancels command processing.

(O)

　　Use the data collection tool to collect the data, and then contact the system administrator.

KNAB26001-E

The specified file (*file-path*) already exists.

A file of the same name already exists in the path specified in the argument.

(S)

　　Cancels command processing.

(O)

Specify a unique file name, and then re-execute the command.

KNAB26002-E

The specified file (*file-path*) does not exist.

The file was not found on the path specified in the argument.

(S)

Cancels command processing.

(O)

Specify the name of an existing file, and then re-execute the command.

KNAB26003-E

The specified directory (*directory-path*) does not exist.

The directory specified in the argument was not found.

(S)

Cancels command processing.

(O)

Specify the name of an existing directory, and then re-execute the command.

KNAB26004-E

(*file-path*) is a directory.

A directory is specified as a read target.

(S)

Cancels command processing.

(O)

Specify a file name, and then re-execute the command.

KNAB26005-E

A file (*file-path*) cannot be created.

The file cannot be created.

(S)

Cancels command processing.

(O)

Check and, if necessary, revise the file name and access permissions for the folder in which the file is to be created so that the file can be created, and then re-execute the command.
Also, check the disk capacity of the execution host, allocate sufficient free space on the disk, and then re-execute the command.

KNAB26006-E

The specified process work board (*process-work-board-name*) does not exist.

The specified process work board was not found.

(S)

Cancels command processing.

(O)

Specify an existing process work board, and then re-execute the command.

KNAB26007-E

The specified item (*Item-title*, *process-work-board-serial-number*) does not exist.

This message appears if the specified Item does not exist. The Item is indicated as *Item-title* for the Item history output command. For a command for batch deletion of Items or for email notification, the Item is indicated as *process-work-board-serial-number*.

(S)

Cancels command processing.

(O)

Specify an existing Item, and then re-execute the command.

KNAB26008-E

The specified *user-ID-or-role-ID* does not exist.

The specified user ID or role ID does not exist.

(S)

Cancels command processing.

(O)

Specify an existing user or role, and then re-execute the command.

KNAB26009-E

registrant-login-ID has no item registration permissions.

The registrant does not have the required Item registration permissions.

(S)

Cancels command processing.

(O)

Specify a user with the required Item registration permissions as the registrant, and then re-execute the command.

KNAB26011-E

A user with the specified ID (*user-login-ID*) already exists.

The login ID of the user in the CSV file specified for the user information import command has already been registered in the Item management database.

(S)

Cancels command processing.

(O)

Correct the user login ID to be imported or delete the existing user. Then execute the user information import command.

KNAB26012-E

Failed to import user information. (Detailed information: *detailed-information*)

The user information import command failed to import the user information in the CSV file.

One of the following messages is displayed in *detailed-information*.

Table 13–13: Detailed information

Detailed information	Cause
The value of (*element-name*) on line *line-number* is invalid.	A value of the CSV file is invalid.
The format of the data (*element-data*) on line *line-number* is invalid.	The format of the CSV file is invalid.
There are insufficient data elements on line *line-number*.	The number of data elements in the CSV file is smaller than the required value.
The user (*user-ID*) already exists.	A user having the specified user ID already exists.

(S)

Cancels command processing.

(O)

Correct the user information which failed to be imported, and then re-execute the user information import command.

KNAB26013-E

Failed to import item information. (Detailed information: *detailed-information*)

The Item information import command failed to import the Item information in the CSV file.

One of the following messages is displayed in *detailed-information*.

Table 13–14: Detailed information

Detailed information	Cause
The value of (*element-name*) on line *line-number* is invalid.	A value of the CSV file is invalid.
The format of the data (*element-data*) on line *line-number* is invalid.	The format of the CSV file is invalid.
There are insufficient data elements on line *line-number*.	The number of data elements in the CSV file is smaller than the required value.
The process work board (*process-work-board-ID)* does not exist.	The specified process work board is not found.
The process work board (*process-work-board-ID*) is not operating.	The specified process work board is not operating.
user-ID-or-role-ID does not exist.	The specified user or role is not found.

(S)

    Cancels command processing.

(O)

    Correct the Item information which failed to be imported, and then re-execute the Item information import command.

KNAB26015-E

The specified process work board (*process-work-board-ID*) is not in operation.

The specified process work board is not in operation.

(S)

    Cancels command processing.

(O)

    Change the status of the process work board to the Operating status, and then execute the command.

KNAB26016-E

The user cannot be registered because the number of users registered in JP1/IM - Service Support reached the maximum (*maximum-number-of-users-that-can-be-registered*).

The number of registered users has exceeded the maximum.

(S)

    Cancels command processing.

(O)

    Delete unnecessary users, and then execute the command.

KNAB26017-E

The item cannot be registered because the number of items registered in JP1/IM - Service Support reached the maximum (*maximum-number-of-Items-that-can-be-registered*).

The number of registered Items has exceeded the maximum.

(S)

    Cancels command processing.

(O)

    Use the `jssdelrec` command to delete any Items waiting to be deleted from the database, and then re-execute the command.

    If no Items are waiting to be deleted, delete unnecessary Items from the window and then use the `jssdelrec` command to delete them from the database. Then re-execute the command.

KNAB26019-E

The item cannot be registered because the number of items registered on the process work board reached the maximum (*maximum-number-of-Items-that-can-be-registered*).

The number of Items registered on the process work board has exceeded the maximum.

(S)

Cancels command processing.

(O)

Use the `jssdelrec` command to delete any Items waiting to be deleted from the process work board, and then re-execute the command.

If no Items are waiting to be deleted, delete unnecessary Items from the window and then use the `jssdelrec` command to delete them from the database. Then re-execute the command.

KNAB26020-E

The working space is insufficient because large volumes of information will be output.

This message appears if the working space of the database is insufficient because large volumes of Item information will be output.

(S)

Cancels command processing.

(O)

The working space of the database is insufficient. If you want to use the `jssitemhistory` or `jssitemlist` command to output large volumes of Item information, filter the Item information by, for example, specifying the start and end dates, and then re-execute the command. For other cases, wait a while and then retry the operation. If the same error occurs again, contact the system administrator.

KNAB26021-E

The working space of the database is insufficient because large volumes of item information are specified in the item information input file.

This message appears if the working space of the database is insufficient because large volumes of Item information are specified in the file for Item information entries.

(S)

Cancels command processing.

(O)

The working space of the database is insufficient. An attempt might have been made to register large volumes of Item information at one time by using the `jssitemimport` command. Reduce the amount of Item information entered in the file for Item information entries, and then re-execute the command. For other cases, contact the system administrator.

KNAB26022-E

A command failed to start. (Command name: *failed-command-name*, detailed code: *maintenance-error-code*)

This message appears if an operation command failed to start.

(S)

Outputs the message and continues processing.

(O)

Collect the data, and then contact the system administrator.

KNAB26023-E

A command did not end successfully. (Command name: *failed-command-name*, detailed code: *command-return-code*)

This message appears if the executed command did not terminate successfully.

(S)

Outputs the message and continues processing.

(O)

For the actions to be taken, see *jsscollectdata (counts Item information)*, *jssinformperiod (notifies of closing deadlines)*, or *jssitementrybymail (registers emails as Items)* in *Chapter 11. Commands*.

KNAB26024-E

A command failed to stop. (Command name: *failed-command-name*, detailed code: *maintenance-error-code*)

This message appears if a running operation command failed to stop.

(S)

Outputs the message and continues processing.

(O)

Collect the data, and then contact the system administrator.

KNAB26025-E

Failed to create *master-system-or-temporary-receipt-process-work-board*.

This message appears if an attempt to create a master system or a temporary receipt process work board failed.

(S)

Cancels command processing.

(O)

If any other error has occurred, see the description of actions to be taken for that error. If no other error has occurred, collect the data and then contact the system administrator.

KNAB26026-E

Failed to connect to an email server.

This message appears if an attempt to connect to an email server fails.

(S)

Cancels command processing.

(O)

Check and, if necessary, revise the values of the keys (`hptl_jp1_imss_mail_pop3_server`, `hptl_jp1_imss_mail_pop3_port`, `hptl_jp1_imss_mail_pop3_user`, and `hptl_jp1_imss_mail_pop3_password`) specified in the Email definition file (`jp1imss_mail_setting.conf`).

If the problem cannot be corrected, use the data collection tool to collect data and contact the system administrator.

KNAB26027-E

The email-based item registration command cannot be executed because it is already being executed.

This message appears if you attempted to execute an email-based registration command while that command was already being executed.

(S)

Cancels command processing.

(O)

Wait until the current email-based registration command terminates, and then re-execute the command.

KNAB26028-E

An email was received from an unregistered user/domain. (Email address: *email sender address*)

This message appears if an email was received from a user or domain that was not registered in advance.

(S)

Cancels Item registration by using the email from the unregistered user or domain, and then starts Item registration for another email.

(O)

Check and, if necessary, revise the settings of users or domains that can register Items by using emails.

KNAB26029-E

A character string is specified whose encoding is not supported.

This message appears if a character string of unsupported encoding is specified as the subject of an email.

(S)

Cancels Item registration for the received email, and then starts Item registration for another email.

(O)

Check and, if necessary, revise the encoding of the character string of the sent email. The encoding supported is ISO-2022-JP.

KNAB26030-E

The output destination of the attached file cannot be found.

This message appears if the output destination folder of the file attached to the email does not exist.

(S)

Cancels the attached file output processing specified in the email.

(O)

Check and, if necessary, revise the value of the property key
(`hptl_jp1_imss_mail_append_file_output_path`) in the Email definition file
(`jp1imss_mail_setting.conf`).

KNAB26031-E

Failed to create the output destination sub-folder of the attached file.

This message appears if the folder could not be created because the maximum number of output destination subfolders that can be created for attached files has been reached.

(S)

Cancels the attached file output processing specified in the email.

(O)

Delete unnecessary subfolders from the output destination folder for attached files.

KNAB26032-E

Failed to output the attached file.

This message appears if the file size exceeded the maximum size that can be saved during attached file output processing or if the name of the file attached to the email is too long.

(S)

Cancels the attached file output processing specified in the email.

(O)

Reduce the size of the attached file, and then resend the email. Revise the maximum file size that can be saved. Make sure that the name of the file attached to the email contains not more than 100 characters.

KNAB26033-E

Failed to register the item because the temporary reception process work board is not in operation.

This message appears if registration of the Item failed because the temporary receipt process work board was not in operation.

(S)

Cancels Item registration for the received email, and then starts Item registration for another email.

(O)

Check the status of the temporary receipt process work board.

KNAB26034-E

A temporary reception process work board does not exist.

This message appears if registration of the Item failed because a temporary receipt process work board does not exist.

(S)

Cancels Item registration for the received email, and then starts Item registration for another email.

(O)

Create a temporary receipt process work board.

KNAB26036-E

Failed to register the item because the item is already registered.

This message appears if an email with the same content has already been registered as an Item by the email-based registration command.

(S)

Cancels Item registration for the received email, and then starts Item registration for another email.

(O)

If you want to register the email that could not be registered as an Item, receive the email from the email server, and then register the content of the Item from the window.

KNAB26037-E

An item with an attached file cannot be registered on a temporary reception process work board.

This message appears if an element for an attached file is not contained in the Item form used by the temporary receipt process work board.

(S)

Cancels Item registration for the received email, and then starts Item registration for another email.

(O)

Add an element for an attached file to the Item form used by the temporary receipt process work board.

KNAB26038-E

Failed to output a temporary email save file. (*detailed-information*)

This message appears if an attempt to output a temporary email save file failed.

detailed-information:

-1: The maximum number of files that can be output has been exceeded.

-2: The maximum file size that can be output has been exceeded.

(S)

Cancels Item registration for the received email, and then starts Item registration for another email.

(O)

Collect the data, and then contact the system administrator.

KNAB26039-E

Failed to delete the email from the email server.

This message appears if an attempt to delete the email from the email server failed.

(S)

Cancels command processing.

(O)

Collect the data, and then contact the system administrator.

KNAB26040-E

The command for creating a master system and temporary reception process work board cannot be executed because it is already being executed.

This message appears if you attempted to execute a command for creating a master system or temporary receipt process work board while that command was already being executed.

(S)

Cancels command processing.

(O)

Wait until the command currently being executed for creating a master system or temporary receipt process work board terminates, and then re-execute the command.

KNAB26041-E

A temporary reception process work board cannot be created because a master system does not exist.

This message appears if you attempted to create a temporary receipt process work board while a master system did not exist.

(S)

Cancels command processing.

(O)

Create a master system, and then create a temporary receipt process work board.

KNAB26042-E

Failed to register items in some emails.

This message appears if an attempt to register Items failed for some emails.

(S)

Cancels command processing.

(O)

See the public log, and remove the cause of the error. If you cannot correct the cause of the problem, collect the data and then contact the system administrator.

KNAB26043-E

Failed to register the items in all emails.

This message appears if an attempt to register Items failed for all emails.

(S)

Cancels command processing.

(O)

See the public log, and remove the cause of the error. If you cannot correct the cause of the problem, collect the data and then contact the system administrator.

KNAB26044-E

master-system-or-temporary-receipt-process-work-board already exists.

This message appears if you attempt to create a master system or temporary receipt process work board that already exists.

(S)

　　Cancels command processing.

KNAB26045-E

　Both the specified address and domain of the email sender are invalid.

This message appears if both the specified email sender address and domain are invalid.

(S)

　　Cancels command processing.

(O)

　　Specify the correct values for the email sender address and domain.

KNAB26047-E

　A temporary reception process work board cannot be created because the master system is awaiting deletion.

This message appears if you attempt to create a temporary receipt process work board while the master system is waiting to be deleted.

(S)

　　Cancels command processing.

(O)

　　Change the status of the master system to Operating, and then re-execute the command.

KNAB26048-E

　The item form does not match the definition "(added item: link)". (*unmatched-option*)

This message appears if the type of the specified extended link element is different from the type of the Item form.

(S)

　　Cancels command processing.

(O)

　　Check and, if necessary, revise the type of the element .

KNAB26049-E

　The expiration notification command cannot be executed because it is already being executed.

This message appears if you attempted to execute an expiration notification command while that command was already being executed.

(S)

　　Cancels command processing.

(O)

　　Wait until the current expiration notification command terminates, and then re-execute the command.

KNAB26050-E

Expiration notification failed for some items.

This message appears if expiration notification for some Items failed.

(S)

Cancels command processing.

(O)

See the public log, and remove the cause of the error. If you cannot correct the cause of the problem, collect the data and then contact the system administrator.

KNAB26051-E

Expiration notification failed for all items.

This message appears if expiration notification for all Items failed.

(S)

Cancels command processing.

(O)

See the public log, and remove the cause of the error. If you cannot correct the cause of the problem, collect the data and then contact the system administrator.

KNAB26052-E

Failed to register the item.

This message appears if an attempt to register an Item on a temporary receipt process work board failed due to an internal error.

(S)

Cancels processing of the current email for registering the Item, and then starts Item registration for another email.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB26054-E

Failed to output the file attachments of some emails.

This message appears if an attempt to output the attached files of some emails failed.

(S)

Cancels processing to output the attached files. Processing of the email-based registration command continues.

(O)

See the public log, and remove the cause of the error. If you cannot correct the cause of the problem, collect the data and then contact the system administrator.

KNAB26055-E

Failed to output all email file attachments.

This message appears if an attempt to output the attached files for all emails failed.

(S)

Cancels processing to output the attached files. Processing of the email-based registration command continues.

(O)

See the public log, and remove the cause of the error. If you cannot correct the cause of the problem, collect the data and then contact the system administrator.

KNAB26056-E

The specified system (*system-name*) does not exist.

This message appears if the specified system does not exist.

(S)

Cancels command processing.

(O)

Specify an existing system, and then re-execute the command.

KNAB26057-E

Failed to delete the item.

This message appears if an attempt to delete the Item failed.

(S)

Cancels command processing.

(O)

Check and, if necessary, revise the settings, and then retry the operation.

KNAB26058-E

Failed to cancel deletion.

This message appears if an attempt to cancel the deletion failed.

(S)

Cancels command processing.

(O)

Check and, if necessary, revise the settings, and then retry the operation.

KNAB26059-E

The item deletion command cannot be executed because it is already being executed.

This message appears if you attempted to execute a batch Item deletion command while that command was already being executed.

(S)

Cancels command processing.

(O)

Wait until the batch Item deletion command being executed terminates, and then re-execute the command.

KNAB26060-E

The deletion canceling command cannot be executed because it is already being executed.

This message appears if you attempted to execute a command for canceling batch deletion of Items while that command was already being executed.

(S)

Cancels command processing.

(O)

Wait until the command currently being executed terminates, and then re-execute the command.

KNAB26061-E

The item deletion command cannot be executed because a deletion canceling command is being executed.

This message appears if you attempted to execute a batch Item deletion command while a command for canceling batch deletion of Items was being executed.

(S)

Cancels command processing.

(O)

Wait until the command currently being executed terminates, and then re-execute the command.

KNAB26062-E

The deletion canceling command cannot be executed because an item deletion command is being executed.

This message appears if you attempted to execute a command for canceling batch deletion of Items while a batch Item deletion command was being executed.

(S)

Cancels command processing.

(O)

Wait until the batch Item deletion command currently being executed terminates, and then re-execute the command.

KNAB26063-E

The notification command for remaining items cannot be executed because it is being executed.

This message appears if you attempted to execute a notification command for held Items while that command was already being executed.

(S)

Cancels command processing.

(O)

Wait until the notification command currently being executed terminates, and then re-execute the command.

KNAB26064-E

Failed to import member information. (Detailed information: *detailed-information*)

The member information import command failed to import the member information in the CSV file.

One of the following messages is displayed in *detailed-information*.

Table 13–15: Detailed information

Detailed information	Cause
The value of (*element-name*) on line *line-number* is invalid.	A value of the CSV file is invalid.
The format of the data (*element-data*) on line *line-number* is invalid.	The format of the CSV file is invalid.
There are insufficient data elements on line *line-number*.	The number of data elements in the CSV file is smaller than the required value.
The role (*role-ID*) specified on line *line-number* does not exist.	A role having the specified role ID does not exist.
The user (*user-ID*) specified on line *line-number* does not exist.	A user having the specified user ID does not exist.

(S)

Cancels command processing.

(O)

Correct the member information which failed to be imported, and then re-execute the member information import command.

KNAB26065-E

Failed to delete the member. (Detailed information: *detailed-information*)

The member information deletion command failed to delete the member information in the CSV file.

One of the following messages is displayed in *detailed-information*.

Table 13–16: Detailed information

Detailed information	Cause
The value of (*element-name*) on line *line-number* is invalid.	A value of the CSV file is invalid.
The format of the data (*element-data*) on line *line-number* is invalid.	The format of the CSV file is invalid.
There are insufficient data elements on line *line-number*.	The number of data elements in the CSV file is smaller than the required value.
The role (*role-ID*) specified on line *line-number* does not exist.	A role having the specified role ID does not exist.
The user (*user-ID*) specified on line *line-number* does not exist.	A user having the specified user ID does not exist.
The JP1 administrator (jp1admin) specified on line *line-number* cannot be deleted from the system roles.	An attempt was made to delete the JP1 administrator from the system roles.

(S)

Cancels command processing.

(O)

Correct the member information which failed to be deleted, and then re-execute the member information deletion command.

KNAB26068-E

The specified role (*role-ID*) does not exist.

The specified role does not exist.

(S)

Cancels command processing.

(O)

Correct the specified role, and then re-execute the command.

KNAB26069-E

The *processing-name-command* command cannot be executed because a *processing-name-command* command is being executed.

You attempted to execute commands that cannot be executed together, or attempted to execute the command that is currently being executed.

(S)

Cancels command processing.

(O)

After the current command terminates, re-execute the command.

KNAB26070-E

processing-name failed.

Processing of the command failed.

(S)

Cancels command processing.

(O)

Take action according to the message that was output immediately before this error message and the precautionary notes of the command. Then, re-execute the command.

KNAB26071-E

editor-login-ID does not have item editing permissions.

This message appears if the editor does not have Item editing permissions.

(S)

Cancels command processing.

(O)

Specify a user with the required Item editing permissions for an editor, and then re-execute the command.

KNAB26072-E

editor-login-ID does not have *Item-approving-or-closing* permissions.

This message appears if the editor does not have the required permissions for approving or closing Items.

(S)

Cancels command processing.

(O)

Specify a user with the required permissions for approving or closing Items as an editor, and then re-execute the command.

KNAB26073-E

Multiple instances of the specified item (*JP1-event-database-serial-number*) exist.

This message appears if multiple Items have the specified JP1 event database serial number.

(S)

Cancels command processing.

(O)

Specify a process work board serial number for the `-pi` option and then re-execute the command. Alternatively, delete other Items that have duplicated JP1 event database serial numbers, and then re-execute the command, or edit the Item from the window.

To edit the Item from the window, check whether the Item form used by the target Item contains the element you want to edit, such as a JP1 event database serial number. If such an element is not present, register another Item form that contains the element you want to edit, and then use that Item form to register a new Item.

KNAB26074-E

The specified item (*process-work-board-serial-number-or-JP1-event-database-serial-number*) is being edited by other users.

This message appears if the specified Item is being edited by other users.

(S)

Cancels command processing.

(O)

After editing of the Item by other users is complete, re-execute the command. Alternatively, specify the `-f` option and re-execute the command.

KNAB26081-E

person-in-charge-or-registrant (*user-name*) does not exist.

This message appears if the destination user does not exist on the database.

(S)

Cancels command processing.

(O)

Check and, if necessary, revise the destination user information.

KNAB26082-E

An email address is not set to *person-in-charge-or-process-work-board-administrator* (user ID = *user-ID*).

This message appears if the email address of the destination user is not set.

(S)

Cancels command processing.

(O)

Set the email address of the destination user.

KNAB26083-E

Some remaining item notifications failed.

This message appears if notification of some held Items failed.

(S)

Cancels command processing.

(O)

See the public log, and remove the cause of the error. If you cannot correct the cause of the problem, collect the data and then contact the system administrator.

KNAB26084-E

All remaining item notifications failed.

This message appears if notification of all held Items failed.

(S)

Cancels command processing.

(O)

See the public log, and remove the cause of the error. If you cannot correct the cause of the problem, collect the data and then contact the system administrator.

KNAB26085-E

Failed to issue an email.

This message appears if issuing of a notification email failed.

(S)

Cancels command processing.

(O)

If any other error has occurred, see the description of actions to be taken for that error. If no other error has occurred, collect the data and then contact the system administrator.

KNAB26086-E

The certification server switching command cannot be executed because it is already being executed.

This message appears if you attempted to execute an authentication server switching command while that command was already being executed.

(S)

Cancels command processing.

(O)

Wait until the authentication server switching command currently being executed terminates, and then re-execute the command.

KNAB26087-E

The process work board to be checked is not set.

This message appears if the process work board ID is not set for the process work board specified in the Held Item definition file (`jp1informleave_setting.conf`).

(S)

Outputs the message and terminates processing.

(O)

Check the settings of the Held Item definition file (`jp1informleave_setting.conf`), and then execute the notification command for held Items.

KNAB26088-E

The status to be checked is not set.

This message appears if the period of time after which the Items are determined as being held is not set for the status specified for the monitoring target in the Held Item definition file (`jp1informleave_setting.conf`).

(S)

Outputs the message and terminates processing.

(O)

Check the settings of the Held Item definition file (`jp1informleave_setting.conf`), and then execute the notification command for held Items.

KNAB26089-E

The monitoring target does not exist.

This message appears if the process work board or status specified for the monitoring target was not found when the notification command for held Items was executed.

(S)

Outputs the message and terminates processing.

(O)

Edit the Held Item definition file (`jp1informleave_setting.conf`), and then execute the notification command for held Items. If this command does not need to be executed by using the JP1/Service Support - Task Service service, disable this command in the settings of the JP1/Service Support - Task Service service, and then restart the service.

KNAB26090-E

The authentication server settings are invalid.

This message appears if the authentication server setting is invalid.

(S)

Outputs the message and terminates processing.

(O)

Specify the `-ldap` option, `-imss`, or `-base` option, and re-execute the command. If the command fails again, use the data collection tool to collect data and then contact the system administrator.

KNAB26091-E

A valid process work board ID is not specified.

This message appears if the process work board ID specified for the monitoring target was not found in the database when the notification command for held Items was executed.

(S)

Outputs the message and terminates processing.

(O)

Edit the Held Item definition file (`jp1informleave_setting.conf`) and then execute the notification command for held Items.

KNAB26093-E

Failed to import role information. (Detailed information: *detailed-information*)

The role information import command failed to import the role information in the CSV file.

One of the following messages is displayed in *detailed-information*.

Table 13–17: Detailed information

Detailed information	Cause
The value of (*element-name*) on line *line-number* is invalid.	A value of the CSV file is invalid.
The format of the data (*element-data*) on line *line-number* is invalid.	The format of the CSV file is invalid.
There are insufficient data elements on line *line-number*.	The number of data elements in the CSV file is smaller than the required value.
The role (*role-ID*) specified on line *line-number* already exists.	A role having the specified role ID already exists.

(S)

Cancels command processing.

(O)

Correct the role information which failed to be imported, and then execute the role information import command.

KNAB26094-E

Processing was stopped because an input file exceeded the maximum (*maximum-number-of-files-of-member-information-entries-or-member-information-editing-files*).

The number of files for member information entries or User information editing files specified in the member information import command, member information deletion command, or user information edit command exceeded the maximum.

(S)

Cancels command processing.

(O)

Reduce the number of records so that the number of files for member information entries or User information editing files does not exceed the maximum. Alternatively, divide the file and retry the operation.

KNAB26095-E

The output target *member* does not exist.

The output target for the specified conditions does not exist.

(S)

Cancels command processing.

(O)

Revise the conditions and then re-execute the command.

KNAB26096-E

Failed to edit user information. (Detailed information: *detailed-information*)

The user information editing command failed to edit the user information in the CSV file.

One of the following messages is displayed in *detailed-information*.

Table 13–18: Detailed information

Detailed information	Cause
The value of (*element-name*) on line *line-number* is invalid.	A value of the CSV file is invalid.
The format of the data (*element-data*) on line *line-number* is invalid.	The format of the CSV file is invalid.
There are insufficient data elements on line *line-number*.	The number of data elements in the CSV file is smaller than the required value.
The user (*user-ID*) specified on line *line-number* does not exist.	A user having the specified user ID does not exist.
The user ID of the JP1 administrator (jp1admin) specified on line *line-number* cannot be changed.	An attempt was made to change the user ID of the JP1 administrator.
A user having the user ID (*user-ID*) specified on line *line-number* already exists.	A user having the new user ID exists.

(S)

Cancels command processing.

(O)

Correct the user information which failed to be edited, and then re-execute the user information editing command.

KNAB26097-E

The output destination folder (*output-destination-folder*) for the export file includes a file or folder (*output-file-name*) that has the same name.

A file or folder that has the same name as the output destination folder for the export file already exists.

(S)

Cancels command processing.

(O)

Change the output destination folder or delete the file or folder in the output destination folder, and then re-execute the command.

KNAB26098-E

There is no export-target *output-target*.

The system or process work board specified as the export target does not exist.

What is indicated in *output-target* depends on the output target.

If the system is specified:

output-target: System (*system-ID*)

system-ID indicates the display ID of the system.

If the process work board is specified:

output-target: Process work board (*PWBID*)

PWBID indicates the display ID of the process work board.

(S)

Cancels command processing.

(O)

Revise the specified system ID or process work board ID, and then re-execute the command.

KNAB26101-E

Execute from the command prompt of JP1/IM - Service Support.

The command was executed by using a method other than the command prompt of JP1/IM - Service Support.

(S)

Cancels command processing.

(O)

From the **Start** menu, select **Programs**, **JP1_Integrated Management - Service Support**, and then **JP1_IM-SS Command Prompt**. Then, in the window that opens, execute the command.

KNAB26102-E

Database backup failed.

The database backup command failed.

(S)

Cancels command processing.

(O)

Check the conditions described in precautionary notes of the `jssdbbackup.bat` command and the conditions listed below. If any of the conditions exist, correct the cause, and then re-execute the command.
If any option is specified:

- The backup file is specified on the network drive.
- A UNC path is specified.
- The drive specified as the backup file output destination does not exist. Alternatively, the medium is not inserted in the machine.
- The drive specified as the backup file output destination cannot be used.
- There is insufficient free space on the drive on which the files are stored.
- The JP1/Service Support service was started during execution of the command.
- The JP1/Service Support - DB Server service was stopped during execution of the command.
- Another JP1/IM - Service Support command was executed during execution of the command.

If the `-f` option is specified:

- The file name is not specified by using the absolute path.
- A folder is specified for the backup file name.
- The backup file name specified by using the absolute path contains more than 259 bytes.
- The backup file name contains more than 255 bytes.
- Multibyte characters or a character string that cannot be specified in the operating system is specified in the file name.

If the `-o` option is specified:

- The folder name is not specified by using the absolute path.
- A file name is specified for the backup file output folder.

If none of the above conditions exists, collect the data and then contact the system administrator.

KNAB26103-E

Database recovery failed.

The database recovery command failed.

(S)

Cancels command processing.

(O)

Check the conditions described in the precautionary notes of the `jssdbbackup.bat` command, and the conditions listed below.
If any of the conditions exist when an error recovery is performed, correct the cause of the condition, and then re-execute the command.
If any of the conditions exist when an extension recovery is performed, perform an error recovery by using the error backup file that was created before the command was executed. Then, correct the cause of the condition and re-execute the command.

If any option is specified:

- The backup file is specified on the network drive.

- A UNC path is specified.

- The drive specified as the backup file output destination does not exist. Alternatively, the medium is not inserted in the machine.

- The drive specified as the backup file output destination cannot be used.

- The JP1/Service Support service was started during execution of the command.

- The JP1/Service Support - DB Server service was stopped during execution of the command.

- Another JP1/IM - Service Support command was executed during execution of the command.

- An extension recovery was performed by using a file collected during an error backup. Alternatively, an error recovery was performed by using a file collected during an extension backup.[#]

- An extension recovery was performed by specifying the size of the Item management database smaller than that specified for performing an extension backup. Alternatively, the recovery-target Item management database was too small to save the data due to database reconfiguration when backup was executed.[#]

- The setup status and number of Item storage area expansions are different from those of the backup.[#]

#

   If the −o option was specified to create backup data, information shown below was stored during backup in the dbpath.txt file that was output to the backup file output folder. Check the following information to identify the cause of the error:

   - Options specified when the jssdbbackup.bat command was executed

   - Database size

   - Setup information for the Item management database and Item storage database, and information about the directories where the databases are expanded

If the −f option is specified:

- The file name is not specified by using the absolute path.

- A folder is specified for the backup file name.

- The backup file name specified by using the absolute path contains more than 259 bytes.

- The backup file name contains more than 255 bytes.

- Multibyte characters or a character string that cannot be specified in the operating system is specified in the file name.

If the −i option is specified:

- The folder name is not specified by using the absolute path.

- A file name is specified for the backup file output folder.

- Multibyte characters or a character string that cannot be specified in the operating system is specified in the folder name.

If the recovery was performed by using a backup file collected in a different version environment, perform the following procedure.

If the backup file collected in the latest version environment is recovered in an older version environment:

   1. Perform an overwrite installation of the latest version.

   2. Execute the setup command with the −vup option specified.

   3. Recover the backup file collected in the latest version environment.

If the backup file collected in an older version environment is recovered in the latest version environment:

1. Uninstall the latest version.

2. Perform a new installation of the version of JP1/IM - Service Support used when the backup file was collected.

3. Set up JP1/IM - Service Support.

4. Recover the backup file collected in the old version environment.

5. Perform an overwrite installation of the latest version.

6. Execute the setup command with the -vup option specified.

If none of the above cases applies, collect the data and then contact the system administrator.

KNAB26104-E

The file (*necessary-file-path*) required for command execution was not found.

The file required for command execution was not found.

(S)

Cancels command processing.

(O)

If the file was moved, return the file to its original location. If the file was deleted, re-install JP1/IM - Service Support.

KNAB26105-E

Database reorganization failed.

The Item management database reorganization command failed.

(S)

Cancels command processing.

(O)

Check and, if necessary, correct the cause of the following conditions, and then execute the command:

- The JP1/Service Support service was started during execution of the command.

- The JP1/Service Support - DB Server service was stopped during execution of the command.

- Another JP1/IM - Service Support command was executed during execution of the command.

If the output destination folder for temporary files used for reorganization was specified during execution of the jssdbrorg.bat command (reorganizes the Item management database), check whether the following conditions exist:

- There is insufficient free space on the drive specified as the output destination folder.

- A file is specified as the output destination folder.

- A root folder of the disk drive is specified as the output destination folder.

- A network drive is specified as the output destination folder.

- Multibyte characters or a character string that cannot be specified in the operating system is specified for the output destination folder.

- A character string that contains characters other than the characters specified below is specified for the output destination folder:

- Half-width alphanumeric characters

- Half-width spaces

- Half-width symbols

- \, @, #, ., ( )

- The drive specified as the output destination folder does not exist.

- A UNC path is specified for the output destination folder.

- A character string consisting of 180 or more bytes is specified for the output destination folder.

If any of the above conditions exists, perform a recovery by using the backup file obtained before the `jssdbrorg.bat` command was executed. Next, correct the cause of the error, and then re-execute the `jssdbrorg.bat` command.

In addition, the required database size will be larger than the one before the reorganization because the data storage efficiency will be changed by the database reorganization. Execute the `jssitemdeletion` and `jssdelrec` commands to delete unnecessary Items, and then execute the `jssdbrorg.bat` command.

If none of the above cases applies, collect the data and then contact the system administrator.

KNAB26106-E

Failed to release free space in the database.

The command for releasing free space in the Item management database failed.

(S)

Cancels command processing.

(O)

Check and, if necessary, correct the cause of the following conditions, and then execute the command:

- The JP1/Service Support - DB Server service was stopped during execution of the command.

- Another JP1/IM - Service Support command was executed during execution of the command.

If none of the above conditions exists, collect the data, and then contact the system administrator.

KNAB26107-E

Database setup is not complete.

The setup command is not complete or initialization of the database is not complete.

(S)

Cancels command processing.

(O)

If the setup is not complete, execute the setup command. If initialization of the Item management database is not complete, execute the initialization command.

KNAB26108-E

The JP1/Service Support service is running.

The JP1/Service Support service is running.

(S)

Cancels command processing.

(O)

Terminate the JP1/Service Support service, and then re-execute the command. If the command has an option that disables confirmation of the service startup, specify that option and then re-execute the command.

KNAB26109-E

Database initialization failed. (Detailed code: *detailed-code*)

Initialization of the Item management database failed.

(S)

Cancels command processing.

(O)

Re-execute the command.

If the error occurs again, use the data collection tool to collect data and contact the system administrator.

KNAB26110-E

The value specified in the setup information file is invalid. (Detailed code: *detailed-code*)

The value specified in the setup information file is invalid.

(S)

Cancels command processing.

(O)

Revise the value specified in the setup information file.

KNAB26111-E

The specified port number is already in use. (Port number: *port-number*)

The specified port number is already in use.

(S)

Cancels command processing.

(O)

Specify a port number that is not being used by other products.

KNAB26112-E

The specified disk does not have the required capacity. (Detailed code: *detailed-code*)

The specified disk does not have the required capacity.

(S)

Cancels command processing.

(O)

Revise the disk capacity.

KNAB26113-E

Failed to delete the existing database. (Detailed code: *detailed-code*)

An attempt to delete the Item management database failed.

(S)

Cancels command processing.

(O)

Resources (shared disk, logical IP address, and logical host name) are not assigned to the host on which the command was executed. Assign the resources to the host on which you want to execute the command, and then re-execute the command.

If the error occurs again, use the data collection tool to collect data and contact the system administrator.

KNAB26114-E

Memory is insufficient. (Detailed code: *detailed-code*)

Memory is insufficient.

(S)

Cancels command processing.

(O)

Increase the amount of memory.

KNAB26115-E

Failed to store the initial data. (Detailed code: *detailed-code*)

An attempt to store the initial data failed.

(S)

Cancels command processing.

(O)

Re-execute the command.

If the error occurs again, use the data collection tool to collect data and contact the system administrator.

KNAB26116-E

Table creation failed. (Detailed code: *detailed-code*)

An attempt to create a table failed.

(S)

Cancels command processing.

(O)

Re-execute the command.

If the error occurs again, use the data collection tool to collect data and contact the system administrator.

KNAB26117-E

You do not have administrator permissions.

The user who executed the command does not have Administrator permissions.

(S)

Cancels command processing.

(O)

Execute the command as a user with Administrator permissions.

KNAB26118-E

Failed to copy the file (*file-path*).

An attempt to copy the file failed.

(S)

Cancels command processing.

(O)

If the `jsshasetup` command is executed:

Resources (shared disk, logical IP address, and logical host name) might not have been assigned to the host on which the command was executed. Check the resources on the host on which the command was executed. If the resources are not assigned, assign them, and then re-execute the command.

For other cases:

Check the file indicated in the error message, and then re-execute the command.

If the command fails again, use the data collection tool to collect data and then contact the system administrator.

KNAB26119-E

Failed to set connection pooling. (Detailed code: *detailed-code*)

Setup of connection pooling failed.

(S)

Cancels command processing.

(O)

If the `-r` option is specified:

Confirm that the setup command has been executed successfully with the `-s` option specified (all setup processing). If it has not, execute the setup command with the `-s` option specified.

For other cases:

Re-execute the command. If the same error occurs again, use the data collection tool to collect data and contact the system administrator.

KNAB26120-E

Failed to delete the WWW application.

The Web application was not deleted.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB26121-E

Setup failed.

Setup failed.

(S)

Cancels command processing.

(O)

Take action according to the message that was output before this error message, and then re-execute the setup command.

KNAB26122-E

The file (*file-path*) does not exist.

The file does not exist.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB26123-E

Failed to load the file (*file-path*).

An attempt to load the file failed.

(S)

Cancels command processing.

(O)

The probable causes are as follows:

- The file does not exist.
- You do not have file access permissions.
- The file is being used by another program.

Check and, if necessary, revise the file indicated in the error message, and then re-execute the command.

If the command fails again, use the data collection tool to collect data and then contact the system administrator.

KNAB26124-E

Failed to write the file (*file-path*).

An attempt to write to the file failed.

(S)

Cancels command processing.

(O)

Check and, if necessary, revise the file indicated in the error message, and then re-execute the command.

If the command fails again, use the data collection tool to collect data and then contact the system administrator.

KNAB26125-E

Unsetup failed.

Setup cancellation failed.

(S)

Cancels command processing.

(O)

Take action according to the message that was output before this error message, and then re-execute the setup cancellation command.

KNAB26126-E

The format of the specified item form definition file is invalid.

The format of the Item form definition file or the XML specification is incorrect.

(S)

Cancels command processing.

(O)

Revise the format of the Item form definition file, and then retry the operation.

KNAB26127-E

The information of *information-name* cannot be acquired.

The specified information cannot be acquired.

(S)

Continues command processing without acquiring the information indicated in the message.

(O)

Collect the information indicated in the message separately.

KNAB26128-E

The directory (*directory-name*) cannot be created.

The directory cannot be created.

(S)

Does not collect part of the data.

(O)

Specify the directory name and access permissions again, and then retry the operation.

KNAB26129-E

An internal command option is invalid.

An internal command option is invalid.

(S)

Does not collect part of the data.

(O)

Contact the system administrator.

KNAB26130-E

A Windows event log (*event-log-name*) cannot be collected.

The event log cannot be acquired.

(S)

Continues command processing without collecting the Windows event log.

(O)

Collect the Windows event log indicated by *event-log-name* separately.

KNAB26131-E

Database initialization failed.

Initialization of the database failed.

(S)

Cancels command processing.

(O)

Take action according to the message that was output before this error message, and then re-execute the command. If the error occurs again, use the data collection tool to collect data and contact the system administrator.

KNAB26132-E

Part of the data cannot be collected.

The data collection tool could not collect some data.

(S)

Cancels command processing.

(O)

Contact the system administrator.

KNAB26133-E

Database {*backup* | *recovery*} succeeded, but restart failed.

This message appears if restarting the database failed after execution of the internal command for backing up or recovering the database.

(S)

Cancels command processing.

(O)

Check the database status, and then restart the database.

The file created when the backup was executed can be used as is.

If restarting the database fails again, use the data collection tool to collect data and then contact the system administrator.

KNAB26134-E

Database {*backup* | *recovery*} and restart failed.

This message appears if execution of the internal command for backing up or recovering the database failed and restart of the database also failed.

(S)

Cancels command processing.

(O)

Check and, if necessary, correct the cause of the conditions described in the notes in the manual or the following conditions, and then execute the command:

- The file name or folder name is not specified by using the absolute path and full path.
- The backup file is specified on the network drive.
- A folder is specified for the backup file name.
- A UNC path is specified.
- The backup file name is not a full path consisting of 259 or less bytes.
- The backup file name in the folder does not contain 255 or less bytes.
- Multibyte characters or a character string that cannot be specified in the operating system is specified in the file name.
- The drive specified as the backup file output destination does not exist.
- A medium is not inserted into the drive specified as the backup file output destination.
- The drive specified as the backup file output destination cannot be used.
- The JP1/Service Support service was started during execution of the command.
- The JP1/Service Support - DB Server service was terminated during execution of the command.
- Another JP1/IM - Service Support command was executed during execution of the command.
- An extension recovery was performed by using a file collected during an error backup. Alternatively, an error recovery was performed by using a file collected during an extension backup.
- An extension recovery was performed by specifying the size of the Item management database smaller than that specified for performing an extension backup.

If none of the above conditions exists, collect the data and then contact the system administrator.

If any of the above conditions exists during execution of an error recovery, correct the cause of the error, and restart the database. Then re-execute the command.

If any of the above conditions exists during execution of an extension recovery, perform the following procedure.

1. Restart the database.

2. Perform the error recovery by using the error backup file collected before the command was executed.

3. Correct the cause of the extension recovery failure, and then retry the extension recovery.

If restarting the database fails, use the data collection tool to collect data and contact the system administrator.

KNAB26135-E

Specify "-c online" and execute a setup command.

This message appears if `-c standby` is specified for a setup command that is executed for the first time in a cluster environment.

(S)

Cancels command processing.

(O)

Specify the `-c online` argument, and then re-execute the command.

KNAB26136-E

Failed to register the storage registry of a shared directory.

This message appears if the storage registry of a shared directory could not be registered.

(S)

Cancels command processing.

(O)

Re-execute the command.

If the command fails again, use the data collection tool to collect data and then contact the system administrator.

KNAB26137-E

Failed to update a setup type information file.

This message appears if update of the local setup-type information file or cluster setup-type information file failed.

(S)

Cancels command processing.

(O)

Re-execute the command.

If the command fails again, use the data collection tool to collect data and then contact the system administrator.

KNAB26138-E

A command used for a different configuration is being executed.

This message appears if a `jssha`*xxxxx*`.bat` format command is executed in a single configuration or if a `jss`*xxxxx*`.bat` format command is executed in a cluster configuration.

(S)

Cancels command processing.

(O)

Execute a `jssxxxxx.bat` format command in a single configuration and execute a `jsshaxxxxx.bat` format command in a cluster configuration.

KNAB26139-E

Failed to delete the storage registry of a shared directory.

This message appears if the storage registry of a shared directory could not be deleted.

(S)

Cancels command processing.

(O)

Re-execute the command.

If the command fails again, use the data collection tool to collect data and then contact the system administrator.

KNAB26140-E

Cluster setup failed.

This message appears if an attempt to set up a cluster failed.

(S)

Cancels command processing.

(O)

Take action according to the message that was output before this error message, and then re-execute the cluster setup command.

KNAB26141-E

Unsetup of the cluster failed.

This message appears if an attempt to cancel the cluster setup failed.

(S)

Cancels command processing.

(O)

Take action according to the message that was output before this error message, and then re-execute the command for cancelling the cluster setup.

KNAB26142-E

The upgrade failed.

This message appears if the upgrade failed.

(S)

Cancels command processing.

(O)

Take action according to the message that was output before this error message, and then re-execute the update setup command.

KNAB26143-E

The database upgrade failed.

This message appears if an attempt to upgrade the database failed.

(S)

Cancels command processing.

(O)

Recover the environment to the status before the upgrade according to the procedure required if installation failed in *6.2.3 Backing up the environment*, and then re-execute the command.

For a cluster environment, recover the environment to the status before the upgrade according to the procedure required if upgrading failed in *9.8 Version upgrade in a cluster environment*, and then re-execute the command.

If the command fails again, use the data collection tool to collect data and then contact the system administrator.

KNAB26144-E

The WWW application upgrade failed.

This message appears if an attempt to upgrade the Web application failed.

(S)

Cancels command processing.

(O)

If the `-vup` option is specified:

Recover the environment to the status before the upgrade according to the procedure required if installation failed in *6.2.3 Backing up the environment*, and then re-execute the command.

For a cluster environment, recover the environment to the status before the upgrade according to the procedure required if upgrading failed in *9.8 Version upgrade in a cluster environment*, and then re-execute the command.

If the command fails again, use the data collection tool to collect data and then contact the system administrator.

If the `-r` option is specified:

Recover the environment as described below, and then re-execute the command.

- In a single configuration

1. Execute the `jssunsetup.bat` (performs unsetup of JP1/IM - Service Support) command.

2. Execute the `jsssetup.bat` (sets up JP1/IM - Service Support) command according to the size of the backup data created in advance on the Item management database.

3. Execute the `jssdbrecovery.bat` command (recovers the database) to recover the Item management database from the backup data created beforehand.

- In a cluster configuration:

1. Change the active server to the primary server.

2. Execute the `jsshaunsetup.bat` (performs unsetup of JP1/IM - Service Support in a cluster environment) command.

3. Change the active server to the standby server.

4. Execute the `jsshaunsetup.bat` (performs unsetup of JP1/IM - Service Support in a cluster environment) command.

5. Change the active server to the primary server.

6. Execute the `jsshasetup.bat` (sets up JP1/IM - Service Support for a cluster environment) command with the `-c online -s` option specified according to the size of the backup data created in advance on the Item management database.

7. Change the active server to the primary server.

8. Execute the `jsshasetup.bat` (sets up JP1/IM - Service Support for a cluster environment) command with the `-c standby` option specified.

9. Change the active server to the primary server.

10. Execute the `jssdbrecovery.bat` command (recovers the database) to recover the Item management database from the backup data created beforehand.

If the command fails again, use the data collection tool to collect data and then contact the system administrator.

KNAB26145-E

The latest version of JP1/IM - Service Support is already set up.

This message appears if the latest version of JP1/IM - Service Support has already been set up.

(S)

Cancels command processing.

(O)

If the JP1/Service Support service cannot start, execute the command with the `-r` option specified to set up JP1/IM - Service Support. For other cases, no action is required.

KNAB26146-E

Perform unsetup of the configuration and then set it up again.

This message appears if the setup is not canceled before the configuration is changed.

(S)

Cancels command processing.

(O)

If the command was executed on the host in a single configuration, cancel the setup of the single configuration, and then re-execute the command. For other cases, cancel the setup of the cluster configuration on all hosts in the cluster environment. Then, create the cluster environment again.

KNAB26147-E

The setup environment is invalid.

This message appears if the setup environment is invalid.

(S)

Cancels command processing.

(O)

If the `jsshadbinit.bat` command is executed:

Resources (shared disk, logical IP address, and logical host name) might have not been assigned to the host on which the command was executed. Check the resources on the host on which the command was executed. If the resources are not assigned, assign them, and then re-execute the command.

For other cases:

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB26148-W

Failed to create a temporary reception process work board. (Detailed code: *detailed-code*)

An attempt to create the master system and temporary receipt process work board failed.

The following describes the meaning of the detailed codes.

1: The system ID is already in use.

2: The process work board ID is already in use.

3: The master system already exists.

4: The temporary receipt process work board already exists.

5: An invalid system ID was specified.

6: An invalid process work board ID was specified.

7: The master system does not exist.

8: The master system is waiting to be deleted.

9: The command is running.

10: Creation failed due to any other cause.

11: A system with the same name as the master system already exists.

(S)

Continues command processing.

(O)

Correct the cause of the error indicated in *detailed-code*, and then execute the command for creating the master system and temporary receipt process work board.

If the value indicated in *detailed code* is 5, 6, or 10, contact the system administrator.

KNAB26149-E

The JP1/Service Support - Task Service service is running.

The JP1/Service Support - Task Service service is running.

(S)

Cancels command processing.

(O)

Stop the JP1/Service Support - Task Service service, and then re-execute the command. If the command has an option that disables confirmation of the service startup, specify that option and then re-execute the command.

KNAB26150-E

When upgrading from version 08-10, the "-s "S|M|L"" option cannot be omitted.

The `-s {S | M | L}` option cannot be omitted for upgrading from version 08-10.

(S)

Cancels command processing.

(O)

Use the `-s {S | M | L}` option to specify the size of the database that was created in a version before the upgrading, and then re-execute the command.

KNAB26151-W

The size of the previously-created database will now be set. (Size: *size*)

For upgrading from version 08-11 or later, the value specified for the `-s {S | M | L | LL}` option is disabled. The size of the database that was created last time will be used.

(S)

Continues command processing.

KNAB26152-E

The JP1/Service Support - DB Cluster Service service is running.

This message appears if the JP1/Service Support-DB Cluster Service service is running.

(S)

Cancels command processing.

(O)

Stop the JP1/Service Support-DB Cluster Service service, and then re-execute the command.

KNAB26153-E

When upgrading in a reserve system, the argument "-t" cannot be specified.

The `-t` option that creates a master system or temporary receipt process work board cannot be specified as an argument for upgrading of a standby system.

(S)

Cancels command processing.

(O)

Delete the `-t` option and then re-execute the command.

KNAB26154-E

When upgrading from version 08-10, the "LL" and "XL" size cannot be specified.

LL or XL size cannot be specified for upgrading from version 08-10.

(S)

Cancels command processing.

(O)

Use the -s {S | M | L} option to specify the size of the database that was created in a version before the upgrading, and then re-execute the command.

KNAB26155-E

The item cannot be edited because the number of edits to the item reached the maximum (*maximum-number-of-times-Item-can-be-edited* times).

The number of times the Item has been edited has reached the maximum.

(S)

Cancels command processing.

(O)

The target Item cannot be edited or escalated. Register the contents of the target Item as a new Item.

KNAB26156-E

Failed to update the settings file of the database. (Detailed code: *detailed-code*)

An attempt to update the settings file of the database failed.

(S)

Cancels command processing.

(O)

Re-execute the command. If the error occurs again, use the data collection tool to collect data and contact the system administrator.

KNAB26157-E

Failed to create a file for the Item storage database.

An attempt to create a file for expanding the Item storage database failed.

(S)

Cancels command processing.

(O)

The probable causes are as follows:

- The amount of free space is insufficient on the drive specified for the directory where the extension domain of the Item storage database or the Item storage database is to be created.

- You do not have permissions to access the directory where the Item storage database or extension domain of the Item storage database is to be created.

- A network drive is specified as the directory where the extension domain of the Item storage database is to be created.

- A UNC path is specified for the directory where the extension domain of the Item storage database is to be created.

If any of the above conditions exist, correct the cause of the error, and then re-execute the command. If none of the above cases apply, collect the data, and then contact the system administrator.

KNAB26159-E

Setup of the Item storage database (*storage-area-A-or-B-in-the-Item-storage-database*) is not complete.

Setup of the specified Item storage database is not complete yet.

(S)

Cancels command processing.

(O)

Execute the command to set up the Item storage database.

KNAB26160-E

The specified domain cannot be extended, because the maximum number of extensions (*maximum-number-of-expansions*) has been exceeded. (domain to be extended = *domain-to-be-expanded*, extension domain category = *extension-domain-category*)

The number of expansions for the domain (*domain-to-be-expanded*) of the indicated domain category specified for the Item storage database has reached the maximum.

(S)

Cancels command processing.

KNAB26161-E

An attempt to change the configuration of the Item storage database failed.

An attempt to change the configuration of the Item storage database failed.

(S)

Cancels command processing.

(O)

Check and, if necessary, correct the startup status of the JP1/IM - Service Support database and the connection status of the network so that command execution is possible. If the command fails again, use the data collection tool to collect data, and then contact the system administrator.

KNAB26163-E

Failed to update information for the Item storage database.

An attempt to update the number of Item storage database expansions failed.

(S)

Cancels command processing.

(O)

Use the following procedure to re-execute the command:

1. Perform unsetup of the Item management database.

2. Set up the Item management database.

3. Set up the Item storage database.

4. See `dbpath.txt` stored in the backup file output directory and, if necessary, expand the database to make the environment the same as the environment where the backup file was created.

5. Recover the backup data.

6. Re-execute the command to expand the Item storage database.

If the command fails again, use the data collection tool to collect data, and then contact the system administrator.

KNAB26165-E

This command can only be executed in JP1/IM - Service Support Advanced Edition.

A command that can be executed only in JP1/IM - Service Support Advanced Edition was executed in JP1/IM - Service Support (Standard).

(S)

Cancels command processing.

KNAB26166-E

To change an element to be specified when setting permissions to view Items, disable the setting "View permissions for individual Items" in the process work board.

The **View permission settings for individual Items** option is enabled for a process work board.

(S)

Cancels command processing.

(O)

See the public log, and then take corrective action for the KNAB26167-E message.

KNAB26167-E

The "View permissions for individual Items" setting for the process work board (*process-work-board-ID*) is enabled.

The **View permission settings for individual Items** option is enabled for a process work board.

(S)

Cancels command processing.

(O)

Disable the **View permission settings for individual Items** option for the target process work board, and then re-execute the command.

KNAB26168-E

Item-form-element-ID could not be set as an element to be specified when setting permissions to view Items.

The **View permission settings for individual Items** option is enabled for a process work board.

(S)

Cancels command processing.

(O)

Take action according to the message that was output immediately before this message and the precautionary notes of the command.

KNAB26170-E

Setup of *storage-area-name (Item-storage-area-or-attached-file-storage-area)* failed.

An attempt to set up a storage area in the Item storage database failed.

(S)

Cancels command processing.

(O)

Correct the cause of the error, and then re-execute the command. If some storage areas have already been set up, execute the command to perform unsetup of the Item storage database, and then re-execute the command.

KNAB26171-E

The database size specified during setup is invalid.

This message appears in either of the following cases:

- The Item management database has not been set up.
- The Item management database has been set up with a size other than XL specified.

(S)

Cancels command processing.

(O)

Set up the Item management database by specifying XL as the database size, and then re-execute the command.

KNAB26172-E

databases-name is not set up.

The prerequisite database is not set up.

(S)

Cancels command processing.

(O)

Set up the prerequisite database, and then re-execute the command.

KNAB26173-E

The specified period contains an unclosed Item.

The specified period contains an Item that is not closed.

(S)

Cancels command processing.

(O)

Close the unclosed Items indicated in the public log, and then re-execute the command.

KNAB26174-E

An attempt to store an Item failed. (Item ID = *Item-ID*)

An attempt to store the Item failed.

(S)

Cancels command processing.

(O)

For details about the actions to be taken, see the message that was output immediately before this message, and the precautionary notes of each command.

KNAB26176-E

The following Item is not closed. (Item ID = *Item-ID*)

The Item indicated by *Item-ID* is not closed.

(S)

Cancels command processing.

(O)

Close the Item indicated by *Item-ID*, and then re-execute the command.

KNAB26178-E

A system error occurred during the unsetup operation for the Item storage database.

Unsetup processing of the Item storage database failed.

(S)

Cancels command processing.

(O)

Re-execute the command. If the command fails again, use the data collection tool to collect the data, and then contact the system administrator.

KNAB26179-E

An attempt to delete the Item storage database failed.

An attempt to delete the Item storage database failed.

(S)

Cancels command processing.

(O)

Re-execute the command. If the command fails again, use the data collection tool to collect the data, and then contact the system administrator.

KNAB26180-E

The operation (*command-name*) cannot be performed because the specified Item is a stored Item.

A command not applicable to stored Items was executed for a stored Item.

(S)

Cancels command processing.

KNAB26181-E

Failed to check the element that sets view permissions for Items.

An attempt to check the element that specifies the permissions to view Items failed.

(S)

Cancels command processing.

KNAB26182-E

Failed to update the database definition file.

An attempt to update the database definition file failed.

(S)

Cancels command processing.

(O)

Re-execute the command. If the command fails again, use the data collection tool to collect the data, and then contact the system administrator.

KNAB26183-E

Failed to get database information.

An attempt to acquire database information failed.

(S)

Cancels command processing.

(O)

Re-execute the command. If the command fails again, use the data collection tool to collect the data, and then contact the system administrator.

If the command is executed in a cluster configuration, resources (shared disk, logical IP address, and logical host name) might have not been assigned to the host on which the command was executed. Check the status of the resources, and then move the resources to the host on which the command is to be executed. Then re-execute the command.

KNAB26184-E

This option can only be specified in JP1/IM - Service Support Advanced Edition.

An option that can only be specified in JP1/IM - Service Support Advanced Edition was specified in JP1/IM - Service Support (Standard) to execute the command.

(S)

Cancels command processing.

KNAB26185-E

The specified storage area *storage-area-name* is already set up.

The storage area specified for setup has already been set up.

(S)

Cancels command processing.

KNAB26186-E

The configuration for the specified directory *directory-path* is invalid.

The configuration of directories of files in the directory specified by the argument is invalid.

(S)

Cancels command processing.

(O)

If the database backup command is executed:

Past backup data might remain in the directory.

If you want to overwrite the backup data, re-execute the command with the -ow option specified.

For other cases, specify another directory, and then re-execute the command.

If the database recovery command is executed:

Specify the directory that is specified for the -o option of the database backup command.

KNAB26188-E

The following Item was changed to a state where it cannot be stored while the command to store Items is executing. (Item ID = *Item-ID*)

During execution of the command to store Items, the Item was changed to a state where it cannot be stored. For example, the Item status was changed to other than *Close* or the Item was placed in the *Waiting to be deleted* state.

(S)

Cancels command processing.

(O)

Change the status of the Item so that it can be stored, and then re-execute the command.

KNAB26189-E

The storage area for the exchange destination does not exist.

The command to rotate Item storage databases was executed when storage area B was not set up.

(S)

Cancels command processing.

(O)

Set up storage area B in the Item storage database, and then re-execute the command.

KNAB26190-E

The specified period contains an Item awaiting deletion.

The specified period contains an Item in the *Waiting to be deleted* state.

(S)

Cancels command processing.

(O)

Delete the Item indicated in the public log from the database or release the Item from the *Waiting to be deleted* state, and then re-execute the command.

When releasing the Item from the *Waiting to be deleted* state, perform the following procedure, and then re-execute the command:

1. Release the Item from the *Waiting to be deleted* state.

2. Check the status of the above Item.

3. If the status of the Item is not *Close*, change the status to *Close*.

KNAB26191-E

The following Item is awaiting deletion. (Item ID = *Item-ID*)

This message indicates the Item ID of the Item that is registered in the specified period and that is in the *Waiting to be deleted* state.

(S)

Cancels command processing.

(O)

Delete the Item of the indicated Item ID or release the Item from the *Waiting to be deleted* state, and then re-execute the command.

KNAB26192-E

A process work board awaiting deletion exists.

A process work board is in the *Waiting to be deleted* state.

(S)

Cancels command processing.

(O)

Delete the process work board indicated in the public log from the database or release the process work board from the *Waiting to be deleted* state, and then re-execute the command.

To release the process work board from the *Waiting to be deleted* state, perform the following procedure, and then re-execute the command:

1. Release the process work board from the *Waiting to be deleted* state.

2. Check whether the process work board contains an Item that is registered in the specified period and whose status is not *Close*.

3. If an Item that meets the above conditions exists, change the status of that Item to *Close*.

KNAB26193-E

The following process work board is awaiting deletion. (process work board ID = *process-work-board-ID*)

This message indicates the process work board ID of a process work board in the *Waiting to be deleted* state.

(S)

Cancels command processing.

(O)

Delete the process work board of the indicated process work board ID or release the process work board from the *Waiting to be deleted* state, and then re-execute the command.

KNAB26194-E

The following process work board was changed to a state where it cannot be stored while the command to store Items is executing. (process work board ID = *process-work-board-ID*)

During execution of the command to store Items, the process work board was changed to a state where Items cannot be stored, such as *Waiting to be deleted*.

(S)

Cancels command processing.

(O)

Change the status of the process work board so that Items can be stored, and then re-execute the command.

KNAB26195-E

The Item cannot be stored. Check the log *file-path*.

The status of the Item and process work board to be stored does not satisfy the storage conditions.

(S)

Cancels command processing.

(O)

Take action according to the message indicated in the public log, and then re-execute the command.

KNAB26196-E

The status of the Item storage database is invalid.

The status of the Item storage database is invalid.

(S)

Cancels command processing.

(O)

See the public log of the command to set up an Item storage database, and make sure that no error message was output. Also, make sure that the command to set up an Item storage database terminated normally.

If the command has not terminated normally, re-execute the command.

If the command terminated normally, contact the system administrator.

KNAB26197-E

Failed to check the target Items and process work boards.

An error occurred while the target Item and process work board were being checked.

(S)

Cancels command processing.

(O)

Take action according to the message that was output immediately before this message and the precautionary notes of the command. Then, re-execute the command.

KNAB26198-E

Processing will be stopped. Part of the target Items was stored. (number of Items = *number-of-Items*)

Processing of the command to store Items was canceled.

(S)

Cancels command processing.

(O)

Take action according to the message that was output immediately before this message and the precautionary notes of the command. Then, re-execute the command.

KNAB26201-E

The contents of the command environmental definition file are invalid.

The contents of the command environmental definition file are invalid.

(S)

Cancels command processing.

(O)

Confirm that the setup has been performed successfully.

If the setup is incomplete, perform the setup again.

If the setup has been performed successfully, contact the system administrator.

KNAB26202-E

An error occurred during analysis of the item form definition file. (Detailed code: *detailed-code*, detailed information: *detailed-information*)

An error occurred during analysis of the Item form definition file.

The following table lists and describes the detailed codes.

Table 13–19: Meaning of detailed codes

Detailed code	Meaning
0	Detailed information
1	A value of a prohibited range is specified. (A prohibited value is specified.)

Detailed code	Meaning
2	The required element is not specified.
3	An invalid number of elements is specified.
4	The specified value does not correspond to the Item form ID specified in `"/form-def/item-def/*/@fiid"`.
5	A user ID or role ID that does not exist is specified.
6	An Item form ID that is not specified in `"/form-def/display-def/position/row/col/@fiid"` is specified.

If `0` is indicated in *detailed-code*, a detailed error message is indicated in *detailed-information*. If `1` or a greater value is indicated in *detailed-code*, the absolute path of the element or attribute in which the error was detected is output. The following table shows absolute path examples.

Table 13–20: Examples of output absolute paths

Example	Meaning
`"/AAA"`	Root element with element name `AAA`
`"/AAA/BBB"`	Subelement (element name `BBB`) of the root element with the name `AAA`
`"/AAA/*"`	Subelement of the root element with an arbitrary element name
`"/AAA/@CCC"`	Attribute (attribute name `CCC`) of the root element
`"/AAA/BBB(2)"`	Subelement of the root element. This is also the second element of element name `BBB`. (*n*) is output only when multiple elements with the same name can be specified.

(S)

Cancels command processing.

(O)

Correct the cause of the error, and then re-execute the command.

KNAB26203-E

Failed to load the command environment definition file.

An attempt to load the command environment definition file failed.

(S)

Cancels command processing.

(O)

Confirm that the setup has been performed successfully.

If the setup is incomplete, perform the setup again.

If the setup has been performed successfully, check the following and revise the definition files, and then re-execute the command.

If the authentication server switching command is executed:

Check the JAAS user management definition file (`hptl_jp1_imss_ua_conf.properties`) for the following causes of errors:

- The file does not exist in the *IM-SS-path*\\`conf` folder.

- There is a folder that has the same name as the file.

- The file cannot be read.

If the notification command for held Items is executed:

Check the Email definition file (`jp1imss_mail_setting.conf`) and the Held Item definition file (`jp1informleave_setting.conf`) for the following causes of errors:

- The Email definition file does not exist in the *IM-SS-path*\\`conf` folder.

- The Held Item definition file does not exist in the *IM-SS-path*\\`conf`\\`command` folder.

- There is a folder that has the same name as the file.

- The file cannot be read.

If the email-based registration command is executed:

Check the Email definition file (`jp1imss_mail_setting.conf`) and the property file for automatic Item-defaults input (`hptl_jp1_imss_pwb_default_setting.properties`) for the following causes of errors:

- The file does not exist in the *IM-SS-path*\\`conf` folder.

- There is a folder that has the same name as the file.

- The file cannot be read.

If the command for exporting extended Item information is executed:

Check the configuration file for CSV (`hptl_jp1_imss_csv_setting.properties`) and the CSV column name mapping file (`jp1imss_itemcsv_columnmap.conf`) specified by the `-m` option for the following causes of errors:

- The configuration file for CSV does not exist in the *IM-SS-path*\\`conf` folder.

- The CSV column name mapping file does not exist in the file path specified by the `-m` option.

- There is a folder that has the same name as the file.

- The file cannot be read.

- The name of the CSV column name mapping file is a reserved device name.

If the command for issuing an email is executed:

Check the email definition file (`jp1imss_mail_setting.conf`) for the following causes of errors:

- The file does not exist in the *IM-SS-path*\\`conf` folder.

- There is a folder that has the same name as the file.

- The file cannot be read.

If a command other than the above is executed, contact the system administrator.

KNAB26204-E

Failed to register the item form.

An attempt to register an Item form failed.

(S)

Cancels command processing.

(O)

Take action as described in the operator's action indicated in the message that was output immediately before this message.

KNAB26205-E

Failed to delete data awaiting deletion.

The data waiting to be deleted cannot be deleted.

(S)

Cancels command processing.

(O)

Take action as described in the operator's action indicated in the message that was output immediately before this message.

KNAB26208-E

Only a *maximum-number-of-Item-forms-having-the-same-Item-form-ID* item form that has the same item form ID can be registered.

No more Item forms can be registered because the number of Item forms having the same Item form IDs in the database exceeds the value indicated in *maximum-number-of-Item-forms-having-the-same-Item-form-ID*.

(S)

Cancels command processing.

(O)

Delete Item forms that are not in use, and then re-execute the command.

KNAB26209-E

The item to be output does not exist.

The Item to be output with the specified conditions does not exist.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB26210-E

Failed to aggregate item information.

This message appears if an attempt to aggregate Item information failed.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB26211-E

File (*file-path*) does not exist or cannot be loaded.

This message appears if an attempt to load a file for input-candidate values failed.

(S)

Cancels command processing.

(O)

Confirm that the file exists. If it exists, check whether you have read permission for the file.

If this message is output again, use the data collection tool to collect data, and then contact the system administrator.

KNAB26213-E

Certification server switching failed.

This message appears if an attempt to switch the authentication server failed.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB26214-E

Confirmation of the certification server failed.

This message appears if confirmation of the authentication server failed.

(S)

Cancels command processing.

(O)

Use the data collection tool to collect the data, and then contact the system administrator.

KNAB26215-E

Failed to execute the certification server switching command.

This message appears if a problem occurred during execution of the authentication server switching command.

(S)

Cancels command processing.

(O)

Confirm that the setup has been performed successfully.

If the setup is incomplete, perform the setup again.

If the setup has been performed successfully, re-execute the command.

If the command fails again, use the data collection tool to collect data and then contact the system administrator.

KNAB26219-E

The *output-target* state is invalid.

The status of the output-target system or process work board is invalid.

What is indicated in *output-target* depends on the output target.

If the system is specified:

output-target: System (*system-ID*)

system-ID indicates the display ID of the system.

If the process work board is specified:

output-target: Process work board (*PWBID*)

PWBID indicates the display ID of the process work board.

(S)

Cancels command processing.

(O)

Check and correct the status of the system or the process work board. Then, re-execute the command.

KNAB26221-E

Failed to import the Item (Item ID = *Item-ID*)

An attempt to import the Item failed.

(S)

Cancels command processing.

(O)

See the public log, and remove the cause of the error. If you cannot correct the cause of the problem, collect the data and then contact the system administrator.

KNAB26223-E

This command cannot be executed because another command that cannot be executed concurrently is being executed.

An attempt was made to execute a command that cannot be executed concurrently with another command.

(S)

Cancels command processing.

(O)

Wait for another command to terminate, and then re-execute the command.

KNAB28001-E

You do not have the permissions to execute the command.

The user executing the command does not have Administrator permissions.

(S)

Cancels command processing.

(O)

Execute the command as a user with Administrator permissions.

KNAB28002-E

A character that cannot be specified for an argument is specified.

A character that cannot be specified for an argument is specified.

(S)

Cancels command processing.

(O)

Change the argument value that caused the error to a valid value, and then re-execute the command.

KNAB28003-E

An argument of the command is invalid.

An argument of the command is invalid.

(S)

Cancels command processing.

(O)

Revise the argument of the command.

KNAB28004-E

option-value exceeds the number of bytes that can be specified.

The number of bytes that can be specified as the option value was exceeded.

(S)

Cancels command processing.

(O)

Change the option value that caused the error to a valid value, and then re-execute the command.

KNAB28005-E

The contents of the command environment setting file are invalid.

A value of the command environment setting file is invalid.

(S)

Cancels command processing.

(O)

Collect the data, and then contact the system administrator.

KNAB28006-E

The contents of the mapping file are invalid.

The contents of the mapping file are invalid.

(S)

Cancels command processing.

(O)

Correct the contents of the mapping file that caused the error, and then re-execute the command.

KNAB28007-E

The specified end date is earlier than the start date.

The end date of the output range is earlier than the start date.

(S)

Cancels command processing.

(O)

Specify the valid range of dates, including the years, and then re-execute the command.

KNAB28008-E

The file cannot be read.

The specified file cannot be read.

(S)

Cancels command processing.

(O)

Specify a file for which you have the required write permission, and then re-execute the command.

KNAB28010-E

The option (*option-name*) is duplicated.

The same option is specified twice during execution of a command.

(S)

Cancels command processing.

(O)

Specify the correct argument according to the instructions indicated in `Usage` after the error message.

KNAB28011-E

A date that cannot be specified for an argument is specified.

A value that cannot be specified is specified for the option that sets the date.

(S)

Cancels command processing.

(O)

Specify the correct argument according to the instructions indicated in `Usage` after the error message.

KNAB28012-E

A value that cannot be specified for an argument is specified.

A value that cannot be specified for the option is specified.

(S)

Cancels command processing.

(O)

Specify the correct argument according to the instructions indicated in `Usage` after the error message.

KNAB28013-E

The contents of the log setting file are invalid.

The contents specified in the log settings file are invalid.

(S)

Cancels command processing.

(O)

Correct the values specified in the log settings file, and then re-execute the command.

KNAB28014-E

The contents of the command environment setting file are invalid (*key-name-with-invalid-value*).

This message appears if a value in the command environment settings file is invalid.

(S)

Cancels command processing.

(O)

Collect the data, and then contact the system administrator.

KNAB28015-E

The command cannot be executed because email-based item registration commands are disabled.

The email-based registration command is disabled in the email definition file.

(S)

Cancels command processing.

(O)

Collect the data, and then contact the system administrator.

KNAB28016-E

email-subject, *email-text*, *email-message-ID* cannot be acquired.

This message appears if information cannot be acquired from the email.

(S)

    Cancels Item registration for the received email, and then starts Item registration for another email.

(O)

    Collect the data, and then contact the system administrator.

KNAB28017-E

email-subject, *email-text*, *email-message-ID* is too long.

This message appears if the information acquired from the email is too long.

(S)

    Cancels Item registration for the received email, and then starts Item registration for another email.

(O)

    If the subject or text of the email is too long, shorten the subject or text and then send the email. If the message ID of the email is too long, check and, if necessary, revise the settings of the specification key (`hptl_jp1_imss_mail_messageid_maxlen`) in the Email definition file (`jp1imss_mail_setting.conf`).

KNAB28018-E

The email format is invalid.

This message appears if the email format is invalid.

The following shows example cases for which this message is output:

- An element of the email header is invalid.

- The beginning and end of the MIME part of the email do not correspond.

- A value specified in the email definition file is invalid.

(S)

    Cancels Item registration for the received email, and then starts Item registration for another email.

(O)

    Confirm that the values specified in the email definition file are correct.

    In addition, the processing of the client that sent the email might be invalid. In such case, change the client for sending emails, and then resend the email.

KNAB28020-E

The email cannot be analyzed because the nest hierarchy of the email's MIME part is too deep.

This message appears if the email cannot be analyzed because the MIME part in the email contains too many nests. This occurs when, for example, an attempt is made to register an email that was repeatedly forwarded as an Item.

(S)

    Cancels Item registration for the received email, and then starts Item registration for another email.

(O)

    Create a new email, and send it.

KNAB28021-E

Multiple addresses are specified for the email sender (From).

This message appears if multiple addresses are specified for the email sender (From).

(S)

Cancels Item registration for the received email, and then starts Item registration for another email.

(O)

Specify only one address for the email sender (From), and then send the email.

KNAB28022-E

system-name, *system-ID*, or *process-work-board-ID* is duplicated.

This message appears if the specified system name, system ID, or process work board ID already exists.

(S)

Cancels command processing.

(O)

Specify a different ID, and then re-execute the command. Alternatively, change the existing system name `master system`, and then re-execute the command.

KNAB28023-E

email-subject, *system-ID*, or *process-work-board-ID* is invalid.

This message appears if the email acquired from the email server is too large. This message also appears if the system ID or process work board ID contains characters other than half-width alphanumeric characters, or if the work board serial number contains characters other than numbers.

(S)

For the email-based registration command:

Cancels processing of the current email for registering the Item, and then starts Item registration for another email.

For the command for creating the master system or temporary receipt process work board:

Cancels command processing.

For the command for canceling batch deletion of Items:

Cancels command processing.

(O)

For the email-based registration command:

Remove the control characters from the subject of the email, and then resend the email.

For the command for creating the master system or temporary receipt process work board:

Specify a different ID, and then re-execute the command. For the ID, you can specify 1 to 64 bytes of half-width alphanumeric characters.

For the command for canceling batch deletion of Items:

Only numbers can be specified for the process work board serial number. Specify the process work board serial number by referring to the process work board serial numbers output by the Item list output command.

KNAB28024-E

The email is too large.

This message appears if the email received from the email server is too large.

(S)

Cancels Item registration for the received email, and then starts Item registration for another email.

(O)

If you want to register the email that could not be registered as an Item, receive the email from the email server, and then register the content of the Item from the window.

KNAB28025-E

There is no import-target *system (display-ID-of-the-system) or process work board (display-ID-of-the-process-work-board)*.

The system or process work board specified during execution of the command for importing extended Item information does not exist.

The probable causes of the error are as follows:

- The folder corresponding to the specified system ID does not exist under the folder specified by the -i option.
- The process work board having the name acquired from the Item information CSV file does not exist in the system corresponding to the name of the higher folder (system ID) that stores the Item information CSV file.
- The Item information CSV file corresponding to the process work board ID specified for the -p -id option does not exist.

(S)

Cancels command processing.

(O)

Revise the configuration of the folder specified by the -i option and the information about the Item management database for which you want to execute the command for importing extended Item information. Then re-execute the command.

KNAB28026-E

The CSV data to be imported is invalid. (file name = *file-name*, line = *line-of-the-invalid-data*, column = *column-of-the-invalid-data*, error details = *error-details*)

The import target CSV data specified by the option of the command for importing extended Item information is invalid.

If the column of the invalid data cannot be identified, a hyphen (-) is indicated.

If an error occurred in an element of pipe-separated information elements, the error location is indicated after error details.

(S)

Cancels command processing.

(O)

Take one of the following actions based on the error details, and then re-execute the command.

File format error

> Check and, if necessary, correct either of the following:
>
> - Confirm that each element in the CSV file is enclosed in double quotation marks (**"**).
>
> - Confirm that the number of columns in the CSV file to be imported is appropriate.

Specified ID error

> The data with the ID specified for the CSV data does not exist in the Item management database. Revise the CSV data or create the data with the specified ID in the Item management database.

Inconsistency between the folder configuration and import data

> The configuration of the folder specified by the -i option is inconsistent with the information about the system and process work board entered in the CSV file. Match the following information to the system information at the import destination:
>
> - System ID of the target system
>
> - Process work board ID

ID and name mismatch

> The name acquired from the ID information registered in import-destination JP1/IM - Service Support does not match the name entered in the CSV data. Match the following information to the system information at the import destination:
>
> - Target system
>
> - Item status
>
> - Escalation-target system

Invalid attached file

> Take the following actions:
>
> - Make sure that the attached file specified in the Item information CSV file exists in the appropriate location under the folder specified by the -i option. If the process work board serial number of the related Item consists of less than five digits, the name of the folder storing the attached file folder must begin with zero. In addition, the attached file ID contained in the file name must match the attached file ID entered in the Item information CSV file.
>
> - Make sure that the attached file ID contained in the file name is unique within the same folder.
>
> - Make sure that the size of the attached file for the Item does not exceed the maximum size that can be registered in JP1/IM - Service Support.

Integrity error between elements

> Integrity between elements is not maintained. See *File for extended Item information entries (Optional)* in *Chapter 12. Definition Files* and revise the specifications of the elements.

Invalid character used

> A character or value that cannot be specified for an element is entered in the CSV file. Revise the specification of elements.

Format error

> The element format is invalid. Make sure that the format appropriate for the element type is used.

Invalid range of specification

> The number of bytes specified for the element exceeds the upper or lower limit. Revise the specification. If the function for replacing linefeed characters is enabled, revise the setting so that the character string after the replacement is within the specifiable range.

Sort error

The CSV data is not sorted in ascending order of the process work board serial number or version number. Revise the setting so that the CVS data is sorted in ascending order.

KNAB28027-E

The Item form does not exist. (file name = *file-name*, line = *line-of-the-invalid-data*, Item form ID = *Item-form-ID*, Item form version = *Item-form-version*)

The import target CSV data specified by the option of the command for importing extended Item information is invalid.

(S)

Cancels command processing.

(O)

Take the following actions, and then re-execute the command for importing extended Item information.

1. Register an Item form that is consistent with the data to be imported.

2. Change the Item form version of the CSV data to be imported to match the Item form version registered in step 1 above.

KNAB28028-E

The Item form and Item information are inconsistent. (Item form ID = *Item-form-ID-which-became-an-error*, Item form version = *Item-form-version-which-became-an-error*, file name = *file-name*, line = *line-of-the-invalid-data*, column = *column-of-the-invalid-data*, error details = *error-details*)

(S)

Cancels command processing.

(O)

Take one of the following actions based on the error details, and then re-execute the command.

Form error

Revise the Item form and set elements to correct the following problems:

- An element that does not exist in the Item form is specified.

- The Item form ID is inconsistent with the related information type.

Required element error

An element that must be specified in the Item form or the element that must be specified when an Item is closed is not entered in the CSV data. Enter the value.

When the program determines whether the required Item is specified for closing an Item, the data for which `JIMSD_STAT_CLOSE` is set for the Item status ID in the Item information CSV file is determined to be a closed Item.

KNAB28029-E

The Item cannot be registered because the limit on the number of Items that can be registered has been reached. (target = *Items-exceeding-upper-limit*)

The Item cannot be registered because the maximum number of Items that can be registered will be exceeded.

Either of the following is indicated in *target*:

- JP1/IM - Service Support
- Value of the process work board display ID

(S)

Cancels command processing.

(O)

Take one the following actions, and then re-execute the command:

- Delete the data whose data type is **Latest** or **Delete** to reduce the number of Items to be registered.
- Delete any previously registered Items that are unnecessary.

KNAB28030-E

The CSV file (*file-name*) contains invalid data.

The loaded CSV data includes invalid data.

(S)

Cancels command processing.

(O)

See the public log, and remove the cause of the error. If you cannot correct the cause of the problem, collect the data and then contact the system administrator.

KNAB28031-E

The number of target systems to be imported has exceeded the limit.

The number of target systems to be imported exceeds the maximum.

(S)

Cancels command processing.

(O)

Reduce the number of target systems to be imported, and then re-execute the command.

KNAB28032-E

No import-target Item was found.

The command for importing extended Item information was executed, but the applicable Item information CSV file was not found.

The probable causes of the error are as follows:

- The folder having the name that matches a system name that exists on the Item management database does not exist under the folder specified by the −i option of the command for importing extended Item information.
- A process work board that matches the process work board ID contained in the name of the Item information CSV file does not exist in the Item management database.
- No Item information CSV file exists.

(S)

Cancels command processing.

(O)

Make sure that the Item information CSV file is placed correctly, and then re-execute the command.

KNAB28033-E

The content of the CSV file (*fine-name*) is invalid. (detailed information = *detailed-information*)

The contents of the CSV file are invalid.

One of the following messages is displayed in *detailed-information*.

Table 13–21: Detailed information

Detailed information	Cause
The value of (*element-name*) on line *line-number* is invalid.	A value of the CSV file is invalid.
The format of the data (*element-data*) on line *line-number* is invalid.	The format of the CSV file is invalid.
There are insufficient data elements on line *line-number*.	The number of data elements in the CSV file is smaller than the required value.
The system (*system-ID*) specified on line *line-number* does not exist.	A system having the specified system ID does not exist.
The process work board (*process-work-board-ID*) specified on line *line-number* does not exist.	A process work board having the specified process work board ID does not exist.
The role (*role-ID*) specified on line *line-number* does not exist.	A role having the specified role ID does not exist.
The user (*user-ID*) specified on line *line-number* does not exist.	A user having the specified user ID does not exist.
The process work board (*process-work-board-ID*) does not use the status (*access-permission-name*) specified on line *line-number*.	The process work board does not use the status having the specified status ID.
The status (*access-permission-name*) specified on line *line-number* is already defined.	The same status is specified twice.
The access permission (*access-permission-name*) specified on line *line-number* does not exist.	The specified access permission does not exist.

(S)

If checking of the contents of the CSV file is complete: Cancels command processing.

If checking of the contents of the CSV file is not complete: Outputs the message and continues processing.

(O)

Correct the access-permission information that could not be imported, and then execute the command to import access-permission information.

KNAB28034-E

The user (*specified-element*) specified in the CSV file (*fine-name*) does not exist.

The system, process work board, user, or role specified in the CSV file does not exist.

What is indicated in *specified-element* depends on the specified element.

If the system does not exist:

System (*system-ID*)

system-ID indicates the display ID of the system.

If the process work board does not exist:

Process work board (*process-work-board-ID*)

process-work-board-ID indicates the display ID of the process work board.

If the user does not exist:

User (*user-ID*)

user-ID indicates the display ID of the user.

If the role does not exist:

Role (*role-ID*)

role-ID indicates the display ID of the role.

(S)

Cancels command processing.

(O)

Revise the contents of the access privileges input file, and then re-execute the command to import access-permission information.

KNAB28035-E

The process work board (*process-work-board-ID*) does not use the status (*status-name*).

The specified process work board does not use the status of the access permission for the status specified in the CSV file used by the command to import access-permission information.

(S)

Cancels command processing.

(O)

Check and, if necessary, correct the status used by the process work board indicated by *process-work-board-ID*, and then re-execute the command.

KNAB28036-E

An option used in a different configuration is being set.

Either -c online or -c standby is specified in a single configuration.

Alternatively, neither -c online nor -c standby is specified in a cluster configuration.

(S)

Cancels command processing.

(O)

In a single configuration, execute the command without -c online or -c standby specified.

In a cluster configuration, execute the command with -c online or -c standby specified.

KNAB28101-E

The value specified in the setup information file is invalid. (Detailed code: *element-name*)

The value specified in the setup information file is invalid.

(S)

Cancels command processing.

(O)

If the `jsshasetup.bat` command is executed:

Resources (shared disk, logical IP address, and logical host name) might not have been assigned to the host on which the command was executed. Check the resources on the host on which the command was executed. If the resources are not assigned, assign them, and then re-execute the command.

For other cases:

Correct the values specified in the setup information file, and then execute the setup command.

KNAB28102-E

The setup information file is invalid.

Invalid characters are specified in the setup information file.

(S)

Cancels command processing.

(O)

Confirm that the setup information file does not contain invalid characters, and then execute the setup command.

KNAB28103-E

file-name is a reserved device name.

The file name or folder name contains a reserved device name.

(S)

Cancels command processing.

(O)

Remove the reserved device name from the specified folder name, and then re-execute the command.

KNAB28104-Q

Continue processing? (Y/N)

Specify `Y` to continue processing. Specify `N` to stop processing.

(S)

Waits for a user operation.

KNAB28105-E

For the standard Item form for the specified process, the definition of elements to be specified when setting permissions to view Items is invalid or does not exist.

This message appears if the **View permission settings for individual Items** option is enabled for a process work board that uses the process standard Item form, and the standard Item form for the specified process meets any of the following conditions:

- The **Type** attribute of an element that specifies permissions to view Items is not `userrole`.

- An element that specifies permissions to view Items is not a mandatory element.

- There are no elements that specify permissions to view Items in the Item form.

(S)

Cancels command processing.

(O)

Make sure that the extended user information element used as an element that specifies the permissions to view Items has been added to the standard Item form for the specified process. If such an element has been added, make sure that the **Type** attribute of the extended user information element is `userrole`, and that the element is a mandatory element.

KNAB28107-I

The password for database connection will now be changed.

(S)

Continues command processing.

KNAB28108-Q

Enter a password.

(S)

Waits for a user operation.

KNAB28109-I

The password was changed.

(S)

Continues command processing.

KNAB28110-E

An invalid password was entered.

(S)

Cancels command processing.

(O)

Specify a valid password, and then re-execute the command.

KNAB28111-E

Failed to edit the password file.

(S)

Cancels command processing.

(O)

Re-execute the command. If the command fails again, use the data collection tool to collect data and then contact the system administrator.

KNAB28112-E

Failed to edit the settings file.

(S)

Cancels command processing.

(O)

Re-execute the command. If the command fails again, use the data collection tool to collect data and then contact the system administrator.

KNAB28113-I

The password file will now be created.

(S)

Continues command processing.

KNAB28114-E

An option (*option-name*) is not specified for the property file (*file-name*).

This message appears if an option is not specified in the property file.

(S)

Cancels command processing.

(O)

Check and, if necessary, specify the option in the property file, and then re-execute the command.

KNAB28115-E

The contents of the property file (*file-name*) are invalid.

This message appears if the value of the property file is invalid.

(S)

Cancels command processing.

(O)

Check and, if necessary, correct the value of the option in the property file, and then re-execute the command.

KNAB28116-E

The LDAP server type is invalid.

It the `-ldap` option is specified in the authentication server switching command, this message appears if the server type name is invalid or the specified server type does not exist.

(S)

Cancels command processing.

(O)

Check and, if necessary, revise the server type name, and then re-execute the command.

KNAB28117-E

Failed to obtain the message *message-ID*. (error code = *error-code*)

Failed to load the message file.

(S)

Continues command processing.

(O)

Collect the data, and then contact the system administrator.

KNAB28118-E

Failed to obtain the message *message-ID*.

Failed to load the message file.

(S)

Continues command processing.

(O)

Collect the data, and then contact the system administrator.

KNAB28121-E

The configuration file for extending the Item storage database is invalid.

The configuration file for expanding an Item storage database contains an invalid character.

(S)

Continues command processing.

(O)

Make sure that the configuration file for expanding an Item storage database does not contain invalid characters, and then re-execute the setup command.

KNAB28122-E

The content of the configuration file (*fine-name*) for extending the Item storage database is invalid. (element name = *element-name*)

The value specified in the configuration file for expanding an Item storage database is invalid.

(S)

Continues command processing.

(O)

Correct the value specified in the configuration file for expanding an Item storage database, and then re-execute the command.

If this message appears when the command with the `-c` option specified is executed, resources (shared disk, logical IP address, and logical host name) might have not been assigned to the host on which the command was executed. Check the status of the resources, and then move the resources to the host on which the command is to be executed. Then re-execute the command.

KNAB28123-E

The configuration file for setting up the Item storage database is invalid.

The configuration file for setting up an Item storage database contains an invalid character.

(S)

Continues command processing.

(O)

Make sure that the configuration file for setting up an Item storage database does not contain invalid characters, and then re-execute the setup command.

KNAB28124-E

The content of the configuration file (*fine-name*) for sett0ing up the Item storage database is invalid. (element name = *element-name*)

A value specified in the configuration file for setting up an Item storage database is invalid.

(S)

Continues command processing.

(O)

Correct the value specified in the configuration file for setting up an Item storage database, and then re-execute the command.

If this message appears when the command with the `-c` option specified is executed, resources (shared disk, logical IP address, and logical host name) might have not been assigned to the host on which the command was executed. Check the status of the resources, and then move the resources to the host on which the command is to be executed. Then re-execute the command.

KNAB28125-E

Failed to execute the command to set up view permissions for each Item. Re-execute the command to set up view permissions for each Item.

An attempt to execute the `jssrefaclsetup` command (sets up view permission settings for individual Items) with the `-id` option specified failed.

(S)

Continues command processing.

(O)

Re-execute the `jssrefaclsetup` command (sets up view permission settings for individual Items) with the `-id` option specified.

13.7 Item form definition file editing messages (KNAB30002 to KNAB30214)

The following describes the messages that are output during editing of the Item form definition file.

KNAB30002-E

The specified file (*specified-file-path*) does not exist.

This message appears if the file specified in the window is not found.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then check the specified file path.

KNAB30003-E

specified-file-path is a directory.

This message appears if the file specified in the window is a path.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then check the specified file path.

KNAB30004-E

The specified directory (*specified-file-path*) does not exist.

This message appears if the directory specified as the output destination is not found during window input check.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then check the specified file path.

KNAB30005-I

The specified file (*specified-file-path*) already exists. Overwrite it?

This message appears if the file specified as the output destination is found to already exist during window input check.

(S)

Waits for a user operation.
Yes: Overwrites and outputs the file.
No: Returns to the previous window.

KNAB30006-E

The file (*specified-file-path*) cannot be created.

This message appears if the file specified in the window cannot be created.

(S)

Waits for a user operation.

(O)

Return to the entry window. Then, check and, if necessary, revise the file path, file name, and access permissions for the directory in which the file is to be created so that the file can be created, and then re-execute the command.

Also, check the disk capacity of the execution host, allocate sufficient free space on the disk, and then re-execute the command.

KNAB30007-E

The disk capacity is insufficient.

This message appears if the file cannot be output during command execution due to, for example, insufficient disk capacity.

(S)

Waits for a user operation.

(O)

Return to the entry window and allocate sufficient free space on the disk. Then re-execute the command.

KNAB30008-E

Failed to read the file (*specified-file-path*).

This message appears if an attempt to read the file failed.

(S)

Waits for a user operation.

(O)

Return to the entry window. Then revise the specified file path, file name, and access permissions so that the file can be accessed, and then retry the operation.

KNAB30012-I

Item-form-definition-file-name was output.

This message appears when the file is output correctly.

(S)

Waits for a user operation.

KNAB30013-I

Are you sure you want to discard your edits?

This message appears if there is definition information that is being created.

(S)

Waits for a user operation.

Yes: Aborts the editing and continues processing.

No: Returns to the previous window.

KNAB30105-E

The item cannot be deleted.

This message appears if an attempt is made to delete an element required for the system from the window.

(S)

Cancels the deletion and waits for a user operation.

(O)

Return to the entry window, and then continue editing.

KNAB30106-E

The specified item is already located on the window.

This message appears if an attempt is made to locate an element that is already located on the window.

(S)

Cancels the addition and waits for a user operation.

(O)

Return to the entry window, and then continue editing.

KNAB30107-E

Three or more items cannot be arranged in a row.

This message appears if an attempt is made to locate the third element horizontally.

(S)

Cancels the addition and waits for a user operation.

(O)

Return to the entry window, and then continue editing.

KNAB30108-E

The value specified in (*attribute-name*) of (*element-ID*) is too long. Enter a character string of within *length* bytes.

This message appears if the number of entered characters exceeds the maximum during window input check.

(S)

Waits for a user operation.

(O)

Return to the entry window, and correct the entry so that the number of entered characters does not exceed the maximum.

KNAB30109-E

Do not use a control character for (*attribute-name*) of (*element-ID*).

This message appears during window input check if a control character is entered for the attribute for which control characters are prohibited.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then remove the control character.

KNAB30111-E

(*attribute-name*) of (*element-ID*) is not specified correctly.

This message appears if the specification is invalid or contradicted during window input check.

When a value is selected from multiple candidate values, this message appears if a wrong value is selected or if the setting contains a contradiction.

(S)

Waits for a user operation.

(O)

Return to the entry window. Then check and, if necessary, correct the entered value.

KNAB30112-E

Specify a numeric character for (*attribute-name*) of (*element-ID*) .

This message appears if a non-numeric character is specified for an attribute that requires a numeric value during window input check.

(S)

Waits for a user operation.

(O)

Return to the entry window. Then check and, if necessary, correct the entered value.

KNAB30114-E

Set the choice code of (*element-ID*) to a range that does not exceed (*maximum*).

This message appears if a choice code that exceeds the maximum range of the code that can be defined is defined during window input check.

(S)

Waits for a user operation.

(O)

Return to the entry window, and then specify a choice code that does not exceed the maximum value defined by the range.

KNAB30155-E

The preview screen cannot be displayed because a temporary file cannot be created.

When the preview screen is displayed, a temporary file is created in the *IM-SS-path*\log folder. This message appears if the preview screen cannot be displayed because the disk capacity is insufficient or because the required access permissions are not assigned.

(S)

Waits for a user operation.

(O)

Check whether the access permissions for the *IM-SS-path*\log folder have been changed. Also check whether or not the disk has sufficient free space.

KNAB30202-E

An error occurred during analysis of the item form definition. (*detailed-information*)

This message appears if an error occurred during analysis of the Item form definition file.

(S)

Stops reading the Item form definition file.

(O)

Check whether the Item form definition file is correct.

KNAB30205-E

The required input item cannot be found. (*element-ID*)

This message appears if an element required for the system was not found during the Item form definition check.

(S)

Stops reading the Item form definition file.

(O)

Add the required element ID to the Item form definition file.

KNAB30208-E

A character string of more than *length* bytes is set to (*attribute's-xml-tag*) of (*element-ID*).

This message appears if the number of entered characters exceeded the maximum during the Item form definition check.

(S)

Stops reading the Item form definition file.

(O)

Change the character string specified in the tag of the element ID in the Item form definition file so that it is within the maximum.

KNAB30210-E

(*attribute's-xml-tag*) of (*element-ID*) is changed from (*correct-value*).

This message appears if an attempt was made to change an attribute that cannot be changed during the Item form definition check.

(S)

Stops reading the Item form definition file.

(O)

In the Item form definition file, return the value specified for the tag of the element ID to a value that can be changed.

KNAB30211-E

(*attribute's-xml-tag*) of (*element-ID*) is not specified correctly.

This message appears if the specification is invalid or contradicted during Item form definition check.

When a value is selected from multiple candidate values, this message appears if a wrong value is selected or if the setting contains a contradiction.

(S)

Stops reading the Item form definition file.

(O)

Check and, if necessary, correct the value specified for the tag of the element ID in the Item form definition file.

KNAB30214-E

The choice code of (*element-ID*) exceeds the maximum (*maximum*).

This message appears if a choice code that exceeds the maximum range of the code that can be defined is defined during Item form definition check.

(S)

Stops reading the Item form definition file.

(O)

In the Item form definition file, specify a choice code for the element ID that does not exceed the maximum range.

13.8 Installation messages (KNAB99001 to KNAB99099)

The following describes the messages that are output when installation is performed.

KNAB99001-W

This platform is not supported. Do you want to stop installation?

This platform is not supported.

(S)

Waits for a user operation.
Yes: Stops processing.
No: Continues processing.

(O)

Install the product in a supported OS.

KNAB99002-E

This platform is not supported. Installation will be stopped.

This platform is not supported.

(S)

Stops processing.

(O)

Install the product in a supported OS.

KNAB99003-E

Your login account does not have the required permissions for installation.
Use an administrator account.

Your login account does not have the required permissions for installation.

(S)

Stops processing.

(O)

Use an administrator account to perform installation.

KNAB99006-W

The path specified as the installation destination is invalid.
Specify a fixed disk.

The path specified as the installation destination is invalid.

(S)

Stops processing.

Only a fixed disk can be specified as the installation destination drive. Check the specified path and then specify the correct installation path.

KNAB99007-E

Removal of *product-name version* failed.

Uninstallation failed.

(S)

Stops processing.

(O)

Perform a repair installation, and then uninstall the product. If uninstallation fails again, use the data collection tool to collect data, and then contact the system administrator.

KNAB99008-E

Failed to stop the service.

An attempt to stop the service failed.

(S)

Stops processing.

(O)

Stop the unnecessary service, and then perform the installation again.

KNAB99009-E

Failed to delete the service.

An attempt to delete the service failed.

(S)

Stops processing.

(O)

Collect the data, and then contact the system administrator.

KNAB99010-E

Failed to copy the file.

An attempt to copy a file failed.

(S)

Stops processing.

(O)

Stop the unnecessary service, and then perform the installation again.

KNAB99011-W

Failed to delete the file.
Delete the file below after the installation is complete.
File for which deletion failed: *file-for-which-deletion-failed*

An attempt to delete a file failed.

(S)

Continues processing.

(O)

After the installation is complete, delete the file for which deletion failed.

KNAB99012-E

Failed to open the file.
File for which opening failed: *file-name*

An attempt to open a file failed.

(S)

Stops processing.

(O)

Stop the unnecessary service, and then perform the installation again.

KNAB99013-E

The file cannot be accessed.
File that could not be accessed: *file-name*

The file cannot be accessed.

(S)

Stops processing.

(O)

Stop the unnecessary service, and then perform the installation again.

KNAB99014-E

Installation will now be stopped because the information required for installation is insufficient.

The information required for installation is insufficient.

(S)

Stops processing.

(O)

Stop the unnecessary service, and then perform the installation again.

KNAB99015-E

The information cannot be set to the registry.

The information cannot be set in the registry.

(S)

Stops processing.

(O)

Stop the unnecessary service, and then perform the installation again.

KNAB99017-W

Failed to set the environmental variable path.
Value for which registration failed: *path-name*

An attempt to set the `Path` environment variable failed.

(S)

Continues processing.

(O)

After the installation is complete, register the value that failed to be registered. This value is indicated in the dialog box for the `Path` environment variable.

KNAB99019-E

Processing will now stop because a service (*service-name*) is running.

An unnecessary service is running.

(S)

Stops processing.

(O)

Stop the service indicated by the service name, and then perform the installation again.

KNAB99025-E

A file required for installation cannot be found.

A file required for installation cannot be found.

(S)

Stops processing.

(O)

Collect the data, and then contact the system administrator.

KNAB99027-E

Service registration failed.

The service is already running.

(S)

    Stops processing.

(O)

    Restart the computer, and then perform the installation again.

KNAB99028-E

> File creation failed.

A file required for installation was not found.

(S)

    Stops processing.

(O)

    Stop the unnecessary service, and then perform the installation again.

KNAB99030-E

> The information of the installed *product name version* cannot be acquired.

The information cannot be acquired.

(S)

    Stops processing.

(O)

    Collect the data, and then contact the system administrator.

KNAB99031-E

> Failed to back up the information of *product name version*.

Backup failed.

(S)

    Stops processing.

(O)

    Collect the data, and then contact the system administrator.

KNAB99032-E

> Failed to inherit the information of *product name version*.

An attempt to inherit information failed.

(S)

    Stops processing.

(O)

    Collect the data, and then contact the system administrator.

KNAB99034-W

> Failed to delete the environmental variable path.
>
> Value for which deletion failed: *path-name*

An attempt to delete the `Path` environment variable failed.

(S)

Continues processing.

(O)

After the installation is complete, delete the value that failed to be deleted. This value is indicated in the dialog box for the `Path` environment variable.

KNAB99035-E

> *product-name version* cannot be installed because it is not being installed on a fixed disk.

The installation destination is not a fixed disk.

(S)

Stops processing.

(O)

Make sure that the product indicated in *product-name* is installed correctly.

KNAB99037-W

> The disk specified as the installation destination has insufficient free capacity. Specify a disk other than \n.

The disk specified as the installation destination does not have sufficient free space.

(S)

Stops processing.

(O)

Select a drive that has sufficient free space.

KNAB99040-W

> The path specified as the installation destination is invalid.
>
> Invalid special characters: (, ; * ? " < > | $ % & ' ` / ^ ! # { } [ ] + - = @ ~ : \); or Japanese was specified.

The path specified as the installation destination is invalid. Invalid special characters: (, ; * ? " < > | $ % & ' ` / ^ ! # { } [ ] + - = @ ~ : \); or multibyte character was specified.

(S)

Returns to the previous window.

(O)

Check the manual and then enter the correct character string.

KNAB99041-W

> The path specified as the installation destination is invalid.

> A character string of 39 bytes or more was specified for the installation path.

A character string consisting of 39 bytes or more was specified for the installation path.

(S)

Returns to the previous window.

(O)

Specify an installation path consisting of less than 39 bytes.

KNAB99042-E

> Failed to build the database server.

An attempt to set up the database server failed.

(S)

Stops processing.

(O)

Check whether the firewall service is running. If the firewall service is not running, start it and then perform installation.
If the same error occurs again, collect the data, and then contact the system administrator.

KNAB99043-E

> Failed to delete the database server.

An attempt to delete the database server failed.

(S)

Stops processing.

(O)

Collect the data, and then contact the system administrator.

KNAB99044-E

> Failed to build the WWW application server.

An attempt to set up the Web application server failed.

(S)

Stops processing.

(O)

Collect the data, and then contact the system administrator.

KNAB99045-W

> The program folder name is invalid.
> A character string of 256 bytes or more was specified for the program folder.

A character string of 256 bytes or more was specified for the program folder.

(S)

Returns to the previous window.

(O)

Specify the program folder by using a character string of less than 256 bytes.

KNAB99046-W

The character string specified as the program folder name is invalid.

Invalid special characters: (, ; * ? " < > | $ % & ' ` / ^ ! # { } [ ] + = @ : \); or Japanese was specified.

The character string specified as the program folder name is invalid. Invalid special characters: (, ; * ? " < > | $ % & ' ` / ^ ! # { } [ ] + = @ : \); or multibyte character was specified.

(S)

Returns to the previous window.

(O)

Check the manual and then enter the correct character string.

KNAB99047-E

Failed to delete the WWW application server.

An attempt to delete the Web application server failed.

(S)

Stops processing.

(O)

Collect the data, and then contact the system administrator.

KNAB99048-E

Installation cannot be performed because *file-name* exists.

Installation cannot be performed because the file indicated by *file-name* exists.

(S)

Stops processing.

(O)

Take one of the following actions:

- Change the installation folder.
- Rename the file indicated by *file-name*.
- Move the file indicated by *file-name*.
- Delete the file indicated by *file-name*.

KNAB99049-E

An internal error occurred during the stopping of a service.

An internal error occurred while the service was being stopped.

(S)

    Stops processing.

(O)

    In a cluster environment:

        Check whether the node was switched to the machine that is performing installation. If the node was not switched, perform the following procedure:

            1. Switch the node to the machine that will perform installation.

            2. Use the service control manager to stop the JP1/Service Support - DB Server service on the Item management database server.

            3. Perform installation.

    For upgrading JP1/IM - Service Support from version 8 to version 9 or later:

        Perform a repair installation of JP1/IM - Service Support version 8, and then upgrade JP1/IM - Service Support to version 9 or later.

    For repair installation of JP1/IM - Service Support version 9 or later:

        Create a file named `recovery.bat` in the following folder, and then perform a repair installation of JP1/IM - Service Support version 9 or later:

        IM-SS-path`\tools\setup\tmp`

        After the repair installation is performed, delete the `recovery.bat` file.

KNAB99050-E

An overwrite installation cannot be performed in this environment. Installation will now stop.

An overwrite installation cannot be performed in this environment.

(S)

    Stops processing.

(O)

    See the manual and check the prerequisites.

KNAB99090-E

Memory is insufficient.
Stop unnecessary applications and then perform installation again.

Memory is insufficient.

(S)

    Stops processing.

(O)

    Stop the unnecessary application, and then perform the installation again.

KNAB99091-E

An internal error occurred.
Collect the data and contact the system administrator.

An internal error occurred.

(S)

Stops processing.

(O)

Collect the data, and then contact the system administrator.

KNAB99098-E

An error might have occurred in operation. Perform installation from HCD_INST.EXE.

The operation might be incorrect.

(S)

Stops processing.

(O)

Perform installation from HCD_INST.EXE.

KNAB99099-E

Code 9999
Media might be defective. Contact your supplier.

The media might be defective.

(S)

Stops processing.

(O)

Contact your supplier.

14

Troubleshooting

This chapter describes how to handle problems that might occur in JP1/IM - Service Support and explains the typical causes of problems.

14.1 Troubleshooting procedure

Use the following procedure to troubleshoot problems in JP1/IM - Service Support:

1. Check the status

   Check the status of the problem. If a message is output, check the contents of the message.

   For details about how to take actions for possible problems, see *14.5 Troubleshooting problems*.

2. Collect data.

   If you cannot solve the problem by taking the above action or if an internal error or communication error occurred, you need to collect data to identify the cause of the problem. *14.2 Types of log information* and collect necessary data.

3. Investigate the problem

   Determine the cause of the problem based on the data you have collected, and identify where the problem occurred or narrow down the range of the problem.

14.2 Types of log information

There are four types of log information that can be output during JP1/IM - Service Support operation.

- Common message log
- Integrated trace log
- Public log
- Process-specific trace log

This section describes the four types of log information. For details about the list of log files output by JP1/IM - Service Support, see *Appendix A. List of Files*.

14.2.1 Common message log

The common message log provides information for use by system administrators. The messages in this log contain the minimum required information about problems.

The common message log is output to the Windows event log file.

14.2.2 Integrated trace log

The integrated trace log is the trace information that is output by different programs into one destination file by using Hitachi Network Objectplaza Trace Library (HNTRLib2). This log information contains more detailed messages than those in the common message log.

The integrated trace log is output to the following file by default:

system-drive:\Program Files\Hitachi\HNTRLib2\spool\hntr2{1|2|3|4}.log

You can view the integrated trace log file by using any text editor. The following shows an example of output to an integrated trace log file.

Figure 14–1: Example of output to an integrated trace log file
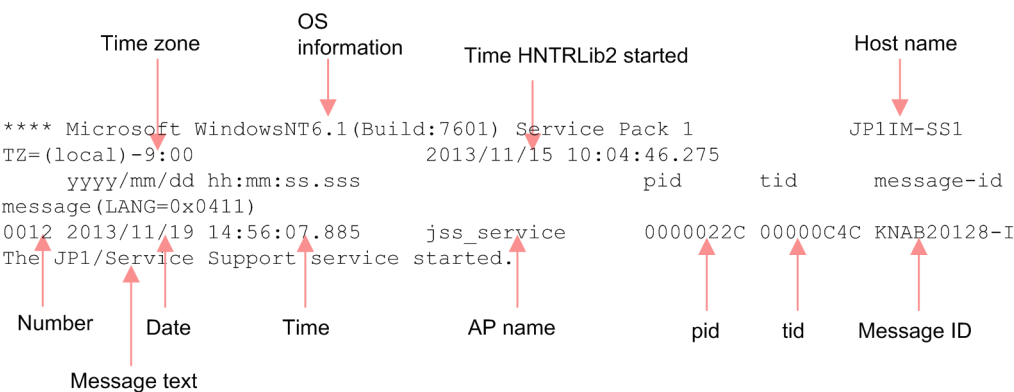
Tables 14-1 and 14-2 describe the header information and output elements in the integrated trace log file.

Table 14–1: Header information for the integrated trace log file

Header information	Description
OS information	Information about the OS on which Hitachi Network Objectplaza Trace Library (HNTRLib2) is running
Host name	The name of the host on which Network Objectplaza Trace Library (HNTRLib2) is running
Time zone	The time zone for the OS
Time HNTRLib2 started	Time that Hitachi Network Objectplaza Trace Library (HNTRLib2) started

Table 14–2: Output elements of the integrated trace log file

Output element	Description
Number (4 digits)	The sequence number of the trace record. A number is assigned for each process for which log data is output.
Date (10 bytes)	The date the trace was collected: *yyyy/mm/dd* (year/month/day)
Time (12 bytes)	The local time the trace was collected: *hh:mm:ss.sss* (hour:minute:second:millisecond)
AP name	The name that identifies an application (application identification name). The AP name output by JP1/IM - Service Support is `jss_service`.
pid	The process ID assigned by the OS
tid	The thread ID that identifies a thread
Message ID	The message ID described in the format of output messages. The message IDs in this log are used by JP1/IM - Service Support.
Message text	The text of a message output to the integrated trace log. The message texts in this log are those output by JP1/IM - Service Support.

14.2.3 Public log

The public log is the log information that is open to users to help them solve problems. The results of operations and commands shown in the table below can be output as public logs. Whether to output the execution results to a public log file, the file size, and the number of files are defined in the definition files shown in the table. For details, see the description of each definition file.

Table 14–3: Operations for which public log is output and definition files

No.	Item	Definition file
1	Issuing a JP1 event	Configuration file for issuing JP1 events (`hptl_jp1_imss_jp1event_setting.properties`)
2	`jssinformleave` command	User log definition file (`jp1informleave.conf`)
3	`jssinformperiod` command	User log definition file (`jp1informperiod.conf`)
4	`jssitemcount` command	User log definition file (`jp1itemcount.conf`)
5	`jssitemedit` command	User log definition file (`jp1itemedit.conf`)
6	`jssitementry` command	User log definition file (`jp1itementry.conf`)
7	`jssitementrybymail` command	User log definition file (`jp1itementrybymail.conf`)
8	`jssitemexportEx` command	User log definition file (`jp1itemexportEx.conf`)

No.	Item	Definition file
9	`jssitemimportEx` command	User log definition file (`jp1itemimportEx.conf`)
10	`jssitemstore` command	User log definition file (`jp1itemstore.conf`)
11	`jssitemstoredbexpand.bat` command	--
12	`jssitemstoredbrotate` command	User log definition file (`jp1itemstoredbrotate.conf`)
13	`jssrefaclsetup` command	User log definition file (`jp1refaclsetup.conf`)
14	`jssaclexport` command	User log definition file (`jp1aclexport.conf`)
15	`jssaclimport` command	User log definition file (`jp1aclimport.conf`)
16	`jssstoreitemdel.bat` command	--
17	Input auxiliary function	Input-assistant property file (`hptl_jp1_imss_input_assist_plugin.properties`)
18	Email notification	User log definition file (`jp1mailnotification.conf`)
19	Operation log	Operation log configuration file (`hptl_jp1_imss_access_log.properties`)

Legend:

--: Not applicable

14.2.4 Process-specific trace log

The process-specific trace log is the log information output by the JP1/IM - Service Support functions. This log information is output to different log files depending on the function. The process-specific trace logs are not public information because they contain product information.

14.3 Data that must be collected when a problem occurs

This section describes the data that must be collected when a problem occurs.

JP1 provides a data collection tool that collects the required data in a batch. This tool can collect both system information for the OS and JP1 information.

14.3.1 System information for the OS

You need to collect the following information about the OS. You can use the data collection tool to collect this information.

Table 14–4: System information for the OS

Type of information	Data to be collected	File name[#]
Date collection date and time	• Execution result of `date /t` • Execution result of `time /t`	`date.log`
Windows event log	• Application *system-root-folder*`\system32\config\AppEvent.Evt` • System *system-root-folder*`\system32\config\SysEvent.Evt`	• `SysEvent(Backup).evt` • `AppEvent(Backup).evt`
Host name setting on the machine	*system-root-folder*`\system32\drivers\etc\hosts`	`hosts`
Service port setting on the machine	*system-root-folder*`\system32\drivers\etc\services`	`services`
NIC installation status	Execution result of `ipconfig /all`	`ipconfig.log`
List of started services	Execution result of `net start`	`netstart.log`
Bind status	Execution result of `netstat`	`netstat.log`
Registry information	Execution result of `regedit`	`regedit.log`
List of files	Execution result of `dir`	`dir.log`
Machine's environment variable	Execution result of `set`	`set.log`
Dr. Watson log file	*Dr. Watson-log-folder*`\drwtsn32.log`	`drwtsn32.log`
Crush dump	*Dr. Watson-crush-dump-folder*`\user.dmp`	`user.dmp`
Machine's system information	Execution result of `msinfo32 /report` *file-name*	`msinfo32.log`

\#

File name in the storage location after the data collection tool is executed. For details about where the file is stored, see *jss_log.bat (collects data)* in *Chapter 11. Commands*.

14.3.2 JP1 information

You need to collect the following information about JP1. You can use the data collection tool to collect this information. For a problem in a network connection, you also need to collect the files from the connection-target machine.

Table 14–5: JP1 information

Type of information		Data to be collected	File name
JP1/IM - Service Support	Integrated trace log	Files under *system-drive*:\Program Files\Hitachi \HNTRLib2\spool\	Same as the information source file names
	Environment setting information	Files under *IM-SS-path*\conf	Same as the information source file names
	Log information	Files under *IM-SS-path*\log	Same as the information source file names
		Files under *shared-folder*\log\#	
	Setup information	• Files under *IM-SS-path*\tools\setup\ • Files under *IM-SS-path*\work\setup\	Same as the information source file names
		• Files under *shared-folder*\tools\setup\#	
	Version information	*system-drive*:\Program Files\InstallShield Installation Information\ {FFF9C54A-48C0-4898-ACBF-93137C462B42}\Setup.ilg, Setup.ini	Setup.ilg, Setup.ini
	History of patch application	*IM-SS-path*\Patchlog.txt	Same as the information source file name

\#
   This data is collected only when the system is used in a cluster configuration.

14.3.3 Operation information

You need to collect the following information about the operation that was being performed when a problem occurred:

- Details about the operation
- Details about the problem
- Time that the problem occurred
- Machine configuration (the version of each OS, host name, and the JP1/IM - Service Support configuration)
- Reproducibility
- Login user name

14.3.4 Error information displayed on the screen

Make hard copies of the following:

- Error messages output by JP1/IM - Service Support and the OS
- Messages output by commands

14.4 Collecting data

This section describes how to collect data when a problem occurs.

14.4.1 Executing the data collection tool

Start the command prompt and execute the data collection tool (`jss_log.bat`).

After a problem occurred, do not restart the machine before executing the data collection tool. If you restart the machine, the data might be lost.

14.4.2 Checking the operation information

Check and record the information about the operation that was being performed when the problem occurred. You need to check the following information:

- Details about the operation
- Details about the problem
- Time that the problem occurred
- Machine configuration (the version of each OS, host name, and the JP1/IM - Service Support configuration)
- Reproducibility
- Login user name

14.4.3 Collecting errors displayed on the screen

If an error message is displayed on the screen, also collect that information. Make hard copies of the following:

- Error messages output by JP1/IM - Service Support and the OS
- Messages output by commands

14.5 Troubleshooting problems

This section describes how to troubleshoot possible problems.

14.5.1 List of possible problems

Table 14–6: List of possible problems

No.	Problem
1	The Web browser cannot connect to JP1/IM - Service Support.
2	When you updated the user information, role information, process work board information, or system information, different update contents were displayed.
3	Search results take a long time to display.
4	The process work board or the target system is not displayed.
5	The KNAB12001-E error message was output during window operation.
6	You registered an Item form, but the process standard Item form was not updated.
7	The process standard Item form was unintentionally updated when you registered an Item form.
8	The KNAB11017-E error message was output, but the user name and the password are correct.
9	The KNAB26202-Eerror message was output during execution of the Item form registration command.
10	The Items that match the search conditions during a simple search are not displayed in the List of item search results window.
11	The definition file settings were not applied correctly.
12	You received a garbled email.
13	A value was specified for **Unsolved time treated as extended** in the New process work board window or Edit the process work board window, but the default (72 hours) was used to determine extended Items in the main window (Item status).
14	An error occurred when a value was entered for **Unsolved time treated as extended** in the Edit the process work board window.
15	After cancelling command execution by, for example, pressing the **Ctrl+C** keys, you cannot confirm that the command has terminated.
16	You cannot log in to a specific JP1 product in a single sign-on manner.
17	One of the messages listed below was displayed in the Windows event log. For details about the actions to be taken, see *13.2.2 Messages output by JP1/IM - Service Support databases to the event log* . • KFPH00211-I • KFPH00212-I • KFPH00213-W

(1) The Web browser cannot connect to JP1/IM - Service Support

Cause

Some possible causes of the problem are as follows:

- The JP1/Service Support service or the JP1/Service Support - Web Service service has stopped.

- A network problem has occurred between the Web browser and the JP1/IM - Service Support server.

- The specified port number is incorrect.

Action

- Make sure that the JP1/Service Support service and JP1/Service Support - Web Service service are running.
- Execute the `Ping` command to confirm the connection to the server.
- Execute the `telnet` command to confirm the connection to the target port.

(2) When you updated the user information, role information, process work board information, or system information, different update contents were displayed

Cause

Another user updated the same information at the same time that you updated the information.

Action

Enter the correct information and retry the update.

(3) Search results take a long time to display

Cause

Processing takes a long time because too many Items contain the character strings specified as search conditions.

Action

Narrow down the search range by adding the filtering conditions such as the status and registration date.

You can also select the **Match all conditions** radio button to narrow down the search range.

(4) The process work board or the target system is not displayed

Cause

The process work board or the target system might have been deleted inadvertently.

Action

If the process work board was deleted, log in as a user who belongs to the process work board management role. Then, in the main window (Item list), select the desired process work board in the list of process work boards, and then select **Action**, and then **Cancel deletion of the process work board**.

If the target system was deleted, log in as a user who belongs to the process work board management role. Then, in the target system management window, select the target system, and then select **Action**, and then **Deletion cancellation**.

(5) The KNAB12001-E error message was output during window operation

Cause

The possible causes of the problems are as follows:

- JP1/Service Support - DB Server has stopped.
- The client environment variable group is specified incorrectly.
- The capacity of the Item management database is insufficient.

- The machine is heavily loaded.
- The `jssdbbackup.bat`, `jssdbrecovery.bat`, `jssdbrorg.bat`, or `jssdbreclaim.bat` command is being executed.

Action

Take the following actions:

- Make sure that JP1/Service Support - DB Server is running.
- Start the HiRDB client environment variable registration tool as follows:
  - In a Japanese environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm.exe`
  - In a English environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm_e.exe`
  - In a Chinese environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm_e.exe`

  After starting the tool, check the settings of the client environment variable group as shown below. At this time, do not click the **Test** button. Clicking this button will cause an error.

Check the following settings for the client environment variable group:
  - Check whether a user group was created rather than a system group.
  - Make sure that the environment variable group name is correct.
  - Make sure that the environment variable group is specified correctly.

If a space was included before or after the value specified for the HiRDB client environment variable registration tool, the character string containing the space will be set. Check whether the set value includes a space.

- If `-756` is indicated in *detailed-code*, the capacity of the Item management database is insufficient.
  Delete unnecessary data, and then perform the following:
  1. Execute the `jssdelrec` command to delete any data waiting to be deleted.
  2. Execute the `jssdbrorg.bat` command to reorganize the free space of the database.
- Check whether the machine is heavily loaded. Wait a while and then retry the operation.
- If the `jssdbbackup.bat`, `jssdbrecovery.bat`, `jssdbrorg.bat`, or `jssdbreclaim.bat` command was being executed, terminate the command and then re-execute it.

(6) You registered an Item form, but the process standard Item form was not updated

Cause

The Item form might not have been registered as the process standard Item form because the Item form registration command was executed with the `-n` option specified.

Action

- In the Item form management window, select the Item form you want to specify as the standard Item form, and then select **Action**, and then **Set in the process standard item form**.
- If the Item was registered before you changed the Item form, register the Item again.

(7) The process standard Item form was unintentionally updated when registered an Item form

Cause

The Item form might have been registered as the process standard Item form because the Item form registration command was executed without the `-n` option specified.

Action

- In the Item form management window, select the Item form you want to specify as the standard Item form, and then select **Action**, and then **Set in the process standard item form**.

- If the Item was registered before you changed the Item form, register the Item again.

(8) The KNAB11017-E error message was output, but the user name and the password are correct

Cause

The possible causes of the problems are as follows:

- JP1/Service Support - DB Server has stopped.

- The client environment variable group is not specified.

- The client environment variable group is specified incorrectly.

- The `jssdbbackup.bat`, `jssdbrecovery.bat`, `jssdbrorg.bat`, or `jssdbreclaim.bat` command is being executed.

- If the UAC feature is enabled in the Windows Server 2012 or Windows Server 2008 environment, the client environment variable group setting does not take effect because an administrator did not execute the file as follows:

    - In a Japanese environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm.exe`

    - In a English environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm_e.exe`

    - In a Chinese environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm_e.exe`

Action

- Make sure that JP1/Service Support - DB Server is running.

- Start the HiRDB client environment variable registration tool and check the settings of the client environment variable group setting as shown below. At this time, do not click the **Test** button. Clicking this button will cause an error.

    In addition, the file that starts the tool for registering HiRDB client environment variables differs depending on the language environment of the Item management server as follows:

    - In a Japanese environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm.exe`

    - In a English environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm_e.exe`

    - In a Chinese environment: *IM-SS-path*`\dbms\db\CLIENT\UTL\pdcltadm_e.exe`

Check the following settings for the client environment variable group:

- Check whether a user group was created rather than a system group.

- Make sure that the environment variable group name is correct.

- Make sure that the environment variable group is specified correctly.

If a space was included before or after the value specified for the HiRDB client environment variable registration tool, the character string containing the space will be set. Check whether the set value includes a space.

- If the `jssdbbackup.bat`, `jssdbrecovery.bat`, `jssdbrorg.bat`, or `jssdbreclaim.bat` command was being executed, terminate the command and then re-execute it.

- If the UAC feature is enabled in the Windows Server 2012 or Windows Server 2008 environment, you need to execute the HiRDB client environment variable registration tool as an administrator as follows:

  - In a Japanese environment: *IM-SS-path*\dbms\db\CLIENT\UTL\pdcltadm.exe

  - In a English environment: *IM-SS-path*\dbms\db\CLIENT\UTL\pdcltadm_e.exe

  - In a Chinese environment: *IM-SS-path*\dbms\db\CLIENT\UTL\pdcltadm_e.exe

  To do so, right-click `pdcltadm.exe` or `pdcltadm_e.exe` and, in the list of properties that opens, select **Run as administrator**.

(9) The KNAB26202-E error message was output during execution of the Item form registration command

Cause

The possible causes of the problems are as follows:

- The start tag and the end tag are not specified as a pair.

- A character other than a half-width space, linefeed character, or tab character is specified outside the region enclosed by a start tag and an end tag.

- The element ID is incorrect.

Action

- Specify the start tag and the end tag as a pair.

- Delete any characters specified outside the region enclosed by the start tag and the end tag, other than a half-width space, linefeed character, or tab character.

- Specify the correct Item ID. Be careful not to confuse zero 0 with the letter O.

(10) The Items that match the search conditions during a simple search are not displayed in the List of item search results window

Cause

The Items might be specified incorrectly in the search conditions.

Action

Check and, if necessary, correct the following for the search target elements specified in the system property file:

- Make sure that all the specified element names are correct. Also make sure that uppercase and lowercase are specified correctly.

- Make sure that the six or less elements are specified as search targets.

(11) The definition file settings were not applied correctly

Cause

The possible causes of the problems are as follows:

- The definition contents are invalid.
- The JP1/IM - Service Support service has not restarted.
- Duplicate settings are specified in the definition file.

Action

Take the following actions:

- Revise the definition contents.
- Restart the JP1/IM - Service Support service.
- Delete the duplicate settings.

(12) You received a garbled email

Cause

The character code of the email sent from the JP1/IM - Service Support might not be supported by the email server or email client.

Action

Take one of the following actions:

- Add \n to the end of the character string in the email text specified in the Email definition file.
- Change the character code for emails (`hptl_jp1_imss_mail_notice_charaset` key and `hptl_jp1_imss_mail_charaset` key) specified in the Email definition file.
- Change the title and text of email specified in the Email definition file so that ASCII characters are not used.

For details about the Email definition file, see *Email definition file (jp1imss_mail_setting.conf)* in *Chapter 12. Definition Files*.

(13) A value was specified for Unsolved time treated as extended in the New process work board window or Edit the process work board window, but the default (72 hours) was used to determine extended Items in the main window (Item status)

Cause

A value greater than 876,000 (hours) might be specified for **Unsolved time treated as extended**.

Action

In the Edit the process work board window, enter a half-width integer in the range from 0 to 876,000 for **Unsolved time treated as extended**.

(14) An error occurred when a value was entered for Unsolved time treated as extended in the Edit the process work board window

Cause

A value greater than 876,000 (hours) might be specified for **Unsolved time treated as extended**.

Action

In the Edit the process work board window, enter a half-width integer in the range from 0 to 876,000 for **Unsolved time treated as extended**.

(15) After cancelling command execution by, for example, pressing the Ctrl+C keys, you cannot confirm that the command has terminated

Cause

Execution of a subprocess might continue because the execution was canceled by using the **Ctrl+C** keys.

Action

Take the following actions:

- Close the JP1_IM-SS Command Prompt window.
- Wait a while, and then re-execute the command paying attention to the precautionary notes for the command.

(16) If you cannot log in to a specific JP1 product in a single sign-on manner

The following shows a specific JP1 product:

- JP1/AO

Cause

The possible causes of the problems are as follows:

- In the system property file (`hptl_jp1_imss_main_setting.properties`), the property keys that are needed to link with the specific JP1 product are not set or invalid values are specified for those property keys.
- In the system property file (`hptl_jp1_imss_main_setting.properties`), the property keys that are needed to link with the specific JP1 product are not set or invalid values are specified for those property keys.
- Setup of JP1/Base is not complete.
  - JP1/Base is not installed on the machine on which JP1/IM - Service Support is installed.
  - The user who wants to access the specific JP1 product in a single sign-on manner is not registered on the JP1/Base authentication server.
  - JP1/IM - Service Support and the specific JP1 product are connected to different JP1/Base authentication servers.
  - The service of JP1/Base that is used as the authentication server is not running.

Action

Take the following actions:

- Checking the system property file (`hptl_jp1_imss_main_setting.properties`)

- Checking the property file for JP1 product association setting (`hptl_jp1_imss_jp1product_cooperation_setting.properties`)
- Checking JP1/Base

Checking the system property file (`hptl_jp1_imss_main_setting.properties`)

Perform the following checks for the settings in the system property file (`hptl_jp1_imss_main_setting.properties`). Correct any errors. For details about the system property file, see *System property file (hptl_jp1_imss_main_setting.properties)* in *Chapter 12. Definition Files*.

If you are logging in to JP1/AO using single sign-on:

- Make sure that the keys in the file are not commented out. (Lines beginning with a hash mark are treated as comment lines.)

- Make sure that the value set for the `hptl_jp1_imss_add_item_info_url_num` key is larger than the values of the `hptl_jp1_imss_add_item_info_url_$n` key and the `hptl_jp1_imss_ao_item_info_$n` key.

- Make sure that the URL used for linking with JP1/AO is set for the `hptl_jp1_imss_add_item_info_url_$n` key.

  For the `hptl_jp1_imss_add_item_info_url_$n` key, set the URL for launching the JP1/AO Submit Service dialog box. For details about URLs for linking with JP1/AO, see the description of direct-access URLs in the *Job Management Partner 1/Automatic Operation Administration Guide*.

- Make sure that the correct element ID is set for the `hptl_jp1_imss_ao_item_info_$n` key.

Checking the property file for JP1 product association setting (`hptl_jp1_imss_jp1product_cooperation_setting.properties`)

Perform the following checks for the settings in the property file for JP1 product association setting (`hptl_jp1_imss_jp1product_cooperation_setting.properties`). Correct any errors. For details about the system property file, see *Property file for JP1 product association setting (hptl_jp1_imss_jp1product_cooperation_setting.properties)* in *Chapter 12. Definition Files.*.

- Make sure that the keys in the file are not commented out. (Lines beginning with a hash mark are treated as comment lines.)

- Make sure that the value of the `hptl_jp1_imss_jp1product_cooperation_flag` key is `true`.

If JP1/IM - Service Support authentication uses information obtained from the Item management database or LDAP server:

Confirm that the user ID of the user who accesses the specific JP1 product in a single sign-on manner is set for the `hptl_jp1_imss_jp1product_cooperation_userlist` key.

If JP1/IM - Service Support authentication uses information obtained from the LDAP server:

- Confirm that the user ID of the information search user set for the `hptl_jp1_imss_information_search_userid` key exists in the Item management database.

- Confirm that the user ID and password of the information search user registered in the Item management database are the same as the user ID and password of the information search user registered on the LDAP server.

Checking JP1/Base

Perform the following checks for JP1/Base. Correct any errors. For details about installing and settings, see the *Job Management Partner 1/Base User's Guide*.

- Confirm that JP1/Base is installed on a machine on which JP1/IM - Service Support is installed.

- If JP1/IM - Service Support login authentication uses the Item management database or the LDAP server, make sure that the user who accesses the specific JP1 product in a single sign-on manner is registered on the JP1/Base authentication server.

  If the user is not registered, register a user who can access the specific JP1 product using single sign-on. Make sure that the user ID and password of that user are the same as those for a user of the Item management database or the LDAP server.

- Confirm that JP1/IM - Service Support and the specific JP1 product are connected to the same JP1/Base authentication server.

  If connected to different JP1/Base authentication servers, make sure that JP1/IM - Service Support and the specific JP1 product are connected to the same JP1/Base authentication server.

- Confirm that the service of JP1/Base to be used as the authentication server is running.

  If the service is not running, start it.

Appendixes

A. List of Files

This appendix lists and describes the files and folders used for JP1/IM - Service Support. It also explains the log files that can be output by JP1/IM - Service Support.

A.1 List of files and folders used for JP1/IM - Service Support

The table below lists and describes the files and folders used for JP1/IM - Service Support. The word *View* in the table has the following meaning:

- View a folder: Check what is stored in the folder.
- View a file: Open the file and check the contents.

Table A–1: List of files and folders that users can reference and edit

File name and folder name	Contents	View	Edit
IM-SS-path\conf\	Environment settings folder	Y	N
IM-SS-path\conf\hptl_jp1_imss_access_log.properties	Operation log configuration file	Y	Y
IM-SS-path\conf\hptl_jp1_imss_access_log.properties.model	Model file of the Operation log configuration file	Y	N
IM-SS-path\conf\hptl_jp1_imss_csv_setting.properties	Configuration file for CSV	Y	Y
IM-SS-path\conf\hptl_jp1_imss_csv_setting.properties.model	Model file of the configuration file for CSV	Y	N
IM-SS-path\conf\hptl_jp1_imss_jp1event_setting.properties	Configuration file for issuing JP1 events	Y	Y
IM-SS-path\conf\hptl_jp1_imss_jp1event_setting.properties.model	Model file of the configuration file for issuing JP1 events	Y	N
IM-SS-path\conf\hptl_jp1_imss_jp1product_cooperation_setting.properties	Property file for JP1 product association setting	Y	Y
IM-SS-path\conf\hptl_jp1_imss_jp1product_cooperation_setting.properties.model	Model file of the property file for JP1 product association setting	Y	N
IM-SS-path\conf\hptl_jp1_imss_link_setting.properties	Related-links property file	Y	Y
IM-SS-path\conf\hptl_jp1_imss_link_setting.properties.model	Model file of the related-links property file	Y	N
IM-SS-path\conf\hptl_jp1_imss_main_setting.properties	System property file	Y	Y
IM-SS-path\conf\hptl_jp1_imss_main_setting.properties.model	Model file of the system property file	Y	N

File name and folder name	Contents	View	Edit
IM-SS-path\conf \hptl_jp1_imss_main_setting_kpi.properties	Item accumulation property file	Y	Y
IM-SS-path\conf \hptl_jp1_imss_main_setting_kpi.properties .model	Model file of the Item accumulation property file	Y	N
IM-SS-path\conf \hptl_jp1_imss_pwb_default_setting.propert ies	Property file for automatic Item-defaults input	Y	Y
IM-SS-path\conf \hptl_jp1_imss_pwb_default_setting.propert ies.model	Model file of the property file for automatic Item-defaults input	Y	N
IM-SS-path\conf \hptl_jp1_imss_usermgr.properties	User management property file	Y	Y
IM-SS-path\conf \hptl_jp1_imss_usermgr.properties.model	Model file of the user management property file	Y	N
IM-SS-path\conf \hptl_jp1_imss_input_assist_plugin.propert ies	Input-assistant property file	Y	Y
IM-SS-path\conf \hptl_jp1_imss_input_assist_plugin.propert ies.model	Model file of the input-assistant property file	Y	N
IM-SS-path\conf\jp1imss_mail_setting.conf	Email definition file	Y	Y
IM-SS-path\conf \jp1imss_mail_setting.conf.model	Model file of the email definition file	Y	N
IM-SS-path\conf\jp1imss_service_setting.conf	Definition file for the task practice service	Y	Y
IM-SS-path\conf \jp1imss_service_setting.conf.model	Model file of the definition file for the task practice service	Y	N
IM-SS-path\conf\command\	Command environment settings folder	Y	N
IM-SS-path\conf\command \jp1imss_itemcsv_columnmap.conf	CSV column name mapping file	Y	N
IM-SS-path\conf\command \jp1imss_itemcsv_columnmap.conf.model	Model file of the CSV column name mapping file	Y	N
IM-SS-path\conf\command \jp1imss_itemedit_codemap.conf	Code mapping file for the Item editing command	Y	N
IM-SS-path\conf\command \jp1imss_itemedit_codemap.conf.conf.model	Model file of the code mapping file for the Item editing command	Y	N
IM-SS-path\conf\command \jp1imss_itementry_codemap.conf	Code mapping file for the Item registration command	Y	N
IM-SS-path\conf\command \jp1imss_itementry_codemap.conf.model	Model file of the code mapping file for the Item registration command	Y	N
IM-SS-path\conf\command \jp1imss_itemimport_codemap.conf	Code mapping file for the Item information import command	Y	N
IM-SS-path\conf\command \jp1imss_itemimport_codemap.conf.model	Model file of the code mapping file for the Item information import command	Y	N

File name and folder name	Contents	View	Edit
IM-SS-path\conf\command\jp1imss_itementry_default.conf	Property file for automatic Item-defaults input (for commands)	Y	Y
IM-SS-path\conf\command\jp1imss_itementry_default.conf.model	Model file of the property file for automatic Item-defaults input (for commands)	Y	N
IM-SS-path\conf\command\jp1imss_replace_string_setting.conf	Configuration file for character string substitution	Y	Y
IM-SS-path\conf\command\jp1imss_replace_string_setting.conf.model	Model file of the configuration file for character string substitution	Y	N
IM-SS-path\conf\command\jp1informleave.conf	User log definition file for held Item notification	Y	Y
IM-SS-path\conf\command\jp1informleave.conf.model	Model file of the user log definition file for held Item notification	Y	N
IM-SS-path\conf\command\jp1informperiod.conf	User log definition file for expiration notification	Y	Y
IM-SS-path\conf\command\jp1informperiod.conf.model	Model file of the user log definition file for expiration notification	Y	N
IM-SS-path\conf\command\jp1itemedit.conf	User log definition file for Item editing	Y	Y
IM-SS-path\conf\command\jp1itemedit.conf.model	Model file of the user log definition file for Item editing	Y	N
IM-SS-path\conf\command\jp1itementry.conf	User log definition file for Item registration	Y	Y
IM-SS-path\conf\command\jp1itementry.conf.model	Model file of the user log definition file for Item registration	Y	N
IM-SS-path\conf\command\jp1itementrybymail.conf	User log definition file for email-based Item registration	Y	Y
IM-SS-path\conf\command\jp1itementrybymail.conf.model	Model file of the user log definition file for email-based Item registration	Y	N
IM-SS-path\conf\command\jp1itemexportEx.conf	User log definition file for export of extended Item information	Y	Y
IM-SS-path\conf\command\jp1itemexportEx.conf.model	Model file of the user log definition file for export of extended Item information	Y	N
IM-SS-path\conf\command\jp1itemimportEx.conf	User log definition file for import of extended Item information	Y	Y
IM-SS-path\conf\command\jp1itemimportEx.conf.model	Model file of the user log definition file for import of extended Item information	Y	N
IM-SS-path\conf\command\jp1aclexport.conf	User log definition file for export of access permission information	Y	Y
IM-SS-path\conf\command\jp1aclexport.conf.model	Model file of the user log definition file for export of access-permission information	Y	N
IM-SS-path\conf\command\jp1aclimport.conf	User log definition file for import of access-permission information	Y	Y
IM-SS-path\conf\command\jp1aclimport.conf.model	Model file of the user log definition file for import of access-permission information	Y	N
IM-SS-path\conf\command\jp1itemcount.conf	User log definition file for counting Items	Y	Y
IM-SS-path\conf\command\jp1itemcount.conf.model	Model file of the user log definition file for counting Items	Y	N

File name and folder name	Contents	View	Edit
IM-SS-path\conf\command\jp1itemstore.conf	User log definition file for storing Items	Y	Y
IM-SS-path\conf\command\jp1itemstore.conf.model	Model file of the user log definition file for storing Items	Y	N
IM-SS-path\conf\command\jp1itemstoredbrotate.conf	User log definition file for rotating Item storage databases	Y	Y
IM-SS-path\conf\command\jp1itemstoredbrotate.conf.model	Model file of the user log definition file for rotating Item storage databases	Y	N
IM-SS-path\conf\command\jp1refaclsetup.conf	User log definition file for setting up view permission settings for individual Items	Y	Y
IM-SS-path\conf\command\jp1refaclsetup.conf.model	Model file of the user log definition file for setting up view permission settings for individual Items	Y	N
IM-SS-path\conf\event\hptl_jp1_imss_jp1event_status.properties	Definition file for status-change JP1 events	Y	Y
IM-SS-path\conf\event\hptl_jp1_imss_jp1event_status.properties.model	Model file of the definition file for status-change JP1 events	Y	N
IM-SS-path\conf\setup\	Setup environment settings folder	Y	N
IM-SS-path\conf\setup\jssexpanddbinfo.bat	Configuration file for expanding an Item storage database	Y	Y
IM-SS-path\conf\setup\jssexpanddbinfo.bat.model	Model file of the configuration file for expanding an Item storage database	Y	N
IM-SS-path\conf\setup\jssitemstoredbinfo.bat	Configuration file for setting up an Item storage database	Y	Y
IM-SS-path\conf\setup\jssitemstoredbinfo.bat.model	Model file of the configuration file for setting up an Item storage database	Y	N
IM-SS-path\conf\setup\jsssetupinfo.bat	Setup information file	Y	Y
IM-SS-path\conf\setup\jsssetupinfo.bat.model	Model file of the setup information file	Y	N
IM-SS-path\conf\setup\jsshasetupinfo.bat	Setup information file for the cluster	Y	Y
IM-SS-path\conf\setup\jsshasetupinfo.bat.model	Model file of the setup information file for the cluster	Y	N
IM-SS-path\home\public\manual\ja\ *M-SS-path*\home\public\manual\en\ *M-SS-path*\home\public\manual\zh\	Manual installation folder	Y	N
IM-SS-path\home\public\report\	Storage folder for the macro file for creating reports	Y	Y
IM-SS-path\home\public\report\jss_report.xls	Macro file for creating reports	Y	Y
IM-SS-path\home\public\report\jss_report.xls.model	Model file of the macro file for creating reports	Y	N
IM-SS-path\home\public\inputassist\	Storage folder for the configuration file for input-candidate values	Y	Y
IM-SS-path\home\public\inputassist\jss_input_assist_sample.txt	Sample file of the configuration file for input-candidate values	Y	Y

File name and folder name	Contents	View	Edit
IM-SS-path\home\public\inputassist\jss_input_assist_sample.txt.model	Model sample file of the configuration file for input-candidate values	Y	N
IM-SS-path\itemform\	Storage folder for the Item form definition file	Y	N
IM-SS-path\itemform\jsschange.xml	Item form definition file (for change management)	Y	Y
IM-SS-path\itemform\jsschange.xml.model	Model file of the Item form definition file (for change management)	Y	N
IM-SS-path\itemform\jssdefault.xml	Definition file for the Item search item form	Y	Y
IM-SS-path\itemform\jssdefault.xml.model	Model file of the definition file for the Item search item form	Y	N
IM-SS-path\itemform\jssincident.xml	Item form definition file (for incident management)	Y	Y
IM-SS-path\itemform\jssincident.xml.model	Model file of the Item form definition file (for incident management)	Y	N
IM-SS-path\itemform\jssproblem.xml	Item form definition file (for problem management)	Y	Y
IM-SS-path\itemform\jssproblem.xml.model	Model file of the Item form definition file (for problem management)	Y	N
IM-SS-path\itemform\jssrelease.xml	Item form definition file (for release management)	Y	Y
IM-SS-path\itemform\jssrelease.xml.model	Model file of the Item form definition file (for release management)	Y	N
IM-SS-path\log\	Log folder	Y	N

Legend:

    Y: Can be viewed or edited

    N: Should not be viewed or edited

The following table lists and describes the files and folders that the users do not need to view or edit.

Table A–2: Files and folders that the users do not need to view or edit

File name and folder name	Description
IM-SS-path\bin\	Command folder
Files and folders under *IM-SS-path*\conf\ that are not covered in Table A-1	Files and folders used for setting up a JP1/IM - Service Support
Files and folders under *IM-SS-path*\conf\command that are not covered in Table A-1	Folder for the Item form registration command
IM-SS-path\db\	Item management database installation folder[#]
IM-SS-path\dbms\	Item management database's system files and folders
IM-SS-path\lib\	Library folder
IM-SS-path\model\	Model file folder
IM-SS-path\tools\	Tools and tool storage folder
IM-SS-path\uCPSB\	Files and folders of the WWW container server
IM-SS-path\work\	Deployment target storage folder

#

    This folder is created if the default name (*IM-SS-path*\db) of the Item management database installation folder is specified for the `jsssetupinfo.bat` command.

A.2 List of log files output by JP1/IM - Service Support

The table below shows the types of log information output by JP1/IM - Service Support and the default file names and folder names.

The *File switching trigger* column indicates when JP1/IM - Service Support switches the output destination log file. JP1/IM - Service Support switches the output destination or overwrites the file when the file size reaches the value indicated in this column or when the event indicated in this column occurs. If there are multiple log files and the amount of used disk space reaches the maximum, the file with the oldest update date is overwritten.

If a cluster system, these log files are stored on a shared disk. When you use a cluster system, replace *IM-SS-path*\log\ in the following table with *shared-folder*\log\.

Table A–3: List of JP1/IM - Service Support log files and folders

Log type	File name and folder name	Maximum disk space requirement	File switching trigger
JP1/IM - Service Support portlet log	*IM-SS-path*\log\Server\jp1imssmain{1|2|3|4|5|6|7|8}.log	32 megabytes	4 megabytes
User management portlet log	*IM-SS-path*\log\Server\jp1imssuser{1|2|3|4|5|6|7|8}.log	32 megabytes	4 megabytes
Log of the Item list output command	*IM-SS-path*\log\command\jssitemlist{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the Item history output command	*IM-SS-path*\log\command\jssitemhistory{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the Item registration command	*IM-SS-path*\log\command\jssitementry{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the user import command	*IM-SS-path*\log\command\jssuserimport{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the Item import command	*IM-SS-path*\log\command\jssitemimport{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the Item form registration command (for C language)	*IM-SS-path*\log\command\jssformdefc{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the Item form registration command (for Java)	*IM-SS-path*\log\command\jssformdefj{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the deletion command (for C language)	*IM-SS-path*\log\command\jssdelrecc{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the deletion command (for Java)	*IM-SS-path*\log\command\jssdelrecj{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the Item registration command using emails	*IM-SS-path*\log\command\jssitementrybymail{1|2|3|4}.log	16 megabytes	4 megabytes

Log type	File name and folder name	Maximum disk space requirement	File switching trigger
Log of the command for exporting extended Item information (for C language)	*IM-SS-path*\log\command\jssitemexportExc{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command for exporting extended Item information (for Java)	*IM-SS-path*\log\command\jssitemexportExj{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command for importing extended Item (for C language)	*IM-SS-path*\log\command\jssitemimportExc{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command for importing extended Item (for Java)	*IM-SS-path*\log\command\jssitemimportExj{1|2|3|4|5|6|7|8|9|10|11|12}.log	96 megabytes	8 megabytes
Log of the command for creating a master system and a temporary receipt process work board (for C language)	*IM-SS-path*\log\command\jsscreatesysandpwbc{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command for creating a master system and a temporary receipt process work board (for Java)	*IM-SS-path*\log\command\jsscreatesysandpwbj{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the Item information count command (for C language)	*IM-SS-path*\log\command\jsscollectdatac{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the Item information count (for Java)	*IM-SS-path*\log\command\jsscollectdataj{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the expiration notification command	*IM-SS-path*\log\command\jssinformperiod{1|2|3|4}.log	16 megabytes	4 megabytes
Log of database upgrading (for C language)	*IM-SS-path*\log\command\jssvupdbdatac{1|2|3|4}.log	16 megabytes	4 megabytes
Log of database upgrading (for Java)	*IM-SS-path*\log\command\jssvupdbdataj{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the batch Item deletion command (for C language)	*IM-SS-path*\log\command\jssitemdeletionc{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the batch Item deletion command (for Java)	*IM-SS-path*\log\command\jssitemdeletionj{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command for canceling batch deletion of Items (for C language)	*IM-SS-path*\log\command\jssrevc{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command for canceling batch deletion of Items (for Java)	*IM-SS-path*\log\command\jssrevj{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the Item editing command	*IM-SS-path*\log\command\jssitemedit{1|2|3|4}.log	16 megabytes	4 megabytes

Log type	File name and folder name	Maximum disk space requirement	File switching trigger
Log of the command to export access-permission information (for C language)	*IM-SS-path*\log\command\jssaclexportc{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command to export access-permission information (for Java)	*IM-SS-path*\log\command\jssaclexportj{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command to import access-permission information (for C language)	*IM-SS-path*\log\command\jssaclimportc{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command to import access-permission information (for Java)	*IM-SS-path*\log\command\jssaclimportj{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command to count Items (for C language)	*IM-SS-path*\log\command\jssitemcountc{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command to count Items (for Java)	*IM-SS-path*\log\command\jssitemcountj{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command to set up view permission settings for individual Items (for C language)	*IM-SS-path*\log\command\jssrefaclsetupc{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command to set up view permission settings for individual Items (for Java)	*IM-SS-path*\log\command\jssrefaclsetupj{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the database initialization command[1]	*IM-SS-path*\log\command\jssdbinit{None[2]|2|3|4|5}.log	100 kilobytes	The command is executed
Database reorganization command	*IM-SS-path*\log\command\jssdbrorg.log	100 kilobytes	The command is executed
Log of the command for releasing the free space in the Item management database	*IM-SS-path*\log\command\jssdbreclaim.log	20 kilobytes	The command is executed
Log of the database backup command[1]	*IM-SS-path*\log\command\jssdbbackup.log Note that output log files increase depending on the option specified for the command. 1. With -f -maint specified: *IM-SS-path*\log\command\jssdbbackupresult.log 2. With -o -maint specified: *IM-SS-path*\log\command\jssdbbackupMdb.log *IM-SS-path*\log\command\jssdbbackupSdbA.log *IM-SS-path*\log\command\jssdbbackupSdbB.log	10 kilobytes	The command is executed
Log of the database recovery command[1]	*IM-SS-path*\log\command\jssdbrecovery.log Note that output log files increase depending on the option specified for the command. 1. With -f -maint specified:	10 kilobytes	The command is executed

Log type	File name and folder name	Maximum disk space requirement	File switching trigger
Log of the database recovery command[#1]	*IM-SS-path*\log\command\jssdbrecoveryresult.log 2. With -o -maint specified: *IM-SS-path*\log\command\jssdbrecoveryMdb.log *IM-SS-path*\log\command\jssdbrecoverySdbA.log *IM-SS-path*\log\command\jssdbrecoverySdbB.log	10 kilobytes	The command is executed
Log of the database backup file	*IM-SS-path*\log\command\jssdbbackupresult.log	10 kilobytes	The command is executed
Log of the recovered RDAREA	*IM-SS-path*\log\command\jssdbrecoveryresult.log	20 kilobytes	The command is executed
Log of the setup command[#1]	*IM-SS-path*\log\command\jsssetup{None[#2]|2|3|4|5}.log	1 megabytes	The command is executed
Log of the setup cancellation command[#1]	*IM-SS-path*\log\command\jssunsetup{None[#2]|2|3|4|5}.log	10 kilobytes	The command is executed
Log of the environment settings for files	*IM-SS-path*\log\command\jsswebconconf{None[#2]|2|3|4|5}.log	20 kilobytes	The command is executed
Log of the setup check processing	*IM-SS-path*\log\command\jsssetupcheckinfo{None[#2]|2|3|4|5}.log	10 kilobytes	The command is executed
Log of the command to check the database status (for batch)	*IM-SS-path*\log\command\jssdbstatchkb{None[#2]|2|3|4|5}.log	10 kilobytes	The command is executed
Log of the command to check the database status (for Java)	*IM-SS-path*\log\command\jssdbstatchkj{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command to store Items (for C language)	*IM-SS-path*\log\command\jssitemstorec{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command to store Items (for Java)	*IM-SS-path*\log\command\jssitemstorej{1|2|3|4|5|6|7|8|9|10|11|12}.log	96 megabytes	8 megabytes
Log of the command to expand an Item storage database	*IM-SS-path*\log\command\jssitemstoredbexpand{None[#2]|2|3|4|5}.log	100 megabytes	The command is executed
Log of the command to set up an Item storage database	*IM-SS-path*\log\command\jssitemstoredbsetup{None[#2]|2|3|4|5}.log	100 megabytes	The command is executed
Log of the command to rotate Item storage databases (for C language)	*IM-SS-path*\log\command\jssitemstoredbrotatec{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command to rotate Item storage databases (for Java)	*IM-SS-path*\log\command\jssitemstoredbrotatej{1|2|3|4}.log	16 megabytes	4 megabytes
Log of the command to delete stored Items	*IM-SS-path*\log\command\jssstoreitemdel{None[#2]|2|3|4|5}.log	5 megabytes	The command is executed
Log of the database initialization command for the cluster	*IM-SS-path*\log\command\jsshadbinit{None[#2]|2|3|4|5}.log	100 kilobytes	The command is executed

Log type	File name and folder name	Maximum disk space requirement	File switching trigger

Log of the setup command for the cluster	For the log of the setup command for the cluster, the output destination and contents vary depending on whether the command was executed on the primary server or secondary server and the options specified for the command.
	
	If the command was executed on the primary server:
	
	1. With the `-c online` option specified:
	
	shared-folder`\log\command\online`
	`\jsshasetup{`None[#2]`|2|3|4|5}.log`
	
	shared-folder`\log\command\online`
	`\jsshadbinit{`None[#2]`|2|3|4|5}.log`
	
	shared-folder`\log\command\online`
	`\jsshaconconf{`None[#2]`|2|3|4|5}.log`
	
	shared-folder`\log\command\online`
	`\jsshasetupcheckinfo{`None[#2]`|2|3|4|5}.log`
	
	shared-folder`\log\command\online`
	`\jsswebconconf{`None[#2]`|2|3|4|5}.log`
	
	2. With the `-r` option specified:
	
	shared-folder`\log\command\online\jsshasetup{1|`
	`2|3|4|5}.log`
	
	3. With the `-vup` option specified:
	
	shared-folder`\log\command\online`
	`\jsshasetup{`None[#2]`|2|3|4|5}.log`
	
	shared-folder`\log\command\online`
	`\jsshaconconf{`None[#2]`|2|3|4|5}.log`
	
	shared-folder`\log\command\online`
	`\jsswebconconf{`None[#2]`|2|3|4|5}.log`
	
	shared-folder`\log\command\jssvupdbdatac{1|2|3|`
	`4}.log`
	
	shared-folder`\log\command\jssvupdbdataj{1|2|3|`
	`4}.log`
	
	If the command was executed on the secondary server:
	
	1. With the `-c standby` option specified:
	
	shared-folder`\log\command\standby_`*secondary-server-name*`\jsshasetup{`None[#2]`|2|3|4|5}.log`
	
	shared-folder`\log\command\standby_`*secondary-server-name*`\jsshadbinit{`None[#2]`|2|3|4|5}.log`
	
	shared-folder`\log\command\standby_`*secondary-server-name*`\jsshaconconf{`None[#2]`|2|3|4|5}.log`
	
	shared-folder`\log\command\standby_`*secondary-server-name*`\jsshasetupcheckinfo{`None[#2]`|2|3|4|5}.log`
	
	shared-folder`\log\command\standby_`*secondary-server-name*`\jsswebconconf{`None[#2]`|2|3|4|5}.log`
	
	2. With the `-r` option specified:
	
	shared-folder`\log\command\standby_`*secondary-server-name*`\jsshasetup{`None[#2]`|2|3|4|5}.log`
	
	3. With the `-vup` option specified:
	
	shared-folder`\log\command\standby_`*secondary-server-name*`\jsshasetup{`None[#2]`|2|3|4|5}.log`
	
	shared-folder`\log\command\standby_`*secondary-server-name*`\jsshadbinit{`None[#2]`|2|3|4|5}.log`
		1 megabytes	The command is executed

Log type	File name and folder name	Maximum disk space requirement	File switching trigger
Log of the setup command for the cluster	*shared-folder*\log\command\standby_*secondary-server-name*\jsshaconf{None[#2]|2|3|4|5}.log *shared-folder*\log\command\standby_*secondary-server-name*\jsswebconconf{None[#2]|2|3|4|5}.log	1 megabytes	The command is executed
Log of the setup cancellation command for the cluster	The output destination of the log of the setup cancellation command for the cluster varies depending on whether the command was executed on the primary server or secondary server. If the command was executed on the primary server: *shared-folder*\log\command\online\jsshaunsetup{None[#2]|2|3|4|5}.log If the command was executed on the secondary server: *shared-folder*\log\command\standby_*secondary-server-name*\jsshaunsetup{None[#2]|2|3|4|5}.log	10 kilobytes	The command is executed
Log of the setup command for the cluster (updates the cluster definition file)	*IM-SS-path*\log\command\jsshaconf{None[#2]|2|3|4|5}.log	20 kilobytes	The command is executed
Log of registration, startup, and deletion of services[#1]	*IM-SS-path*\log\system\jssService{1|2}.log	2 megabytes	1 megabytes
Log of registration, startup, and deletion of task services[#1]	*IM-SS-path*\log\system\jssTaskService{1|2|3|4}.log	4 megabytes	1 megabytes

#1
    Even if you use a cluster system, you do not have to replace the output destination path with *shared-folder*\log\.

#2
    A number is not added to the name of the first log file.

In addition to the log files output by the system, JP1/IM - Service Support provides public logs that are open to users. Users can specify whether to output the public logs to a file, the file size, and the number of files. By default, the public logs are not output. Note that the names of the public log files and folders and their sizes in the following table are the default values.

Table A–4: JP1/IM - Service Support public log files and folders

Log type	File name and folder name	Size	Log file format
Public log of the Item registration command	*IM-SS-path*\log\command\jssitementry\jssitementry_info{1|2}.log	8,192 kilobytes	Trace file for multi-processing
Operation log	*IM-SS-path*\log\public\acceslog\jp1imssaccesslog{1|2|3|4|5|6|7|8|9|10|11|12|13|14|15|16|17|18|19|20|21|22|23|24}.log	16,384 kilobytes	Wraparound file (WRAP2)
Operation log for the cluster	*shared-folder*\log\public\acceslog\jp1imssaccesslog{1|2|3|4|5|6|7|8|9|10|11|12|13|14|15|16|17|18|19|20|21|22|23|24}.log	16,384 kilobytes	Wraparound file (WRAP2)
Public log of the Item registration command using emails	*IM-SS-path*\log\public\jssitementrybymail\jssitementrybymail_info{1|2}.log	8,192 kilobytes	Trace file for multi-processing
Public log of the JP1 event issuing function	*IM-SS-path*\log\public\jp1imssevent{1|2|3|4|5|6|7|8}.log	4,096 kilobytes	Wraparound file (WRAP2)

Log type	File name and folder name	Size	Log file format
Public log of the expiration notification command	*IM-SS-path*\log\public\jssinformperiod_info{1|2}.log	8,192 kilobytes	Trace file for multi-processing
Public log of the auxiliary input function	*IM-SS-path*\log\public\jssinputassist_info{1|2}.log	8,192 kilobytes	Wraparound file (WRAP2)
Public log of the email notification function	*IM-SS-path*\log\public\jssmailnotification_info{1|2}.log	8,192 kilobytes	Trace file for multi-processing
Public log of the Item editing command	*IM-SS-path*\log\command\jssitemedit\jssitemedit_info{1|2}.log	8,192 kilobytes	Trace file for multi-processing
Public log of the notification command for held Items	*IM-SS-path*\log\public\jssinformleave_info{1|2}.log	8,192 kilobytes	Trace file for multi-processing
Public log of the command for exporting extended Item information	*IM-SS-path*\log\public\jssitemexportEx_info{1|2|3|4|5|6|7|8}.log	8,192 kilobytes	Trace file for multi-processing
Public log of the command for importing extended Item information	*IM-SS-path*\log\public\jssitemimportEx_info{1|2|3|4|5|6|7|8}.log	8,192 kilobytes	Trace file for multi-processing
Public log of the command to export access-permission information	*IM-SS-path*\log\public\jssaclexport_info{1|2}.log	8,192 kilobytes	Trace file for multi-processing
Public log of the command to import access-permission information	*IM-SS-path*\log\public\jssaclimport_info{1|2}.log	8,192 kilobytes	Trace file for multi-processing
Public log of the command to count Items	*IM-SS-path*\log\public\jssitemcount_info{1|2}.log	8,192 kilobytes	Trace file for multi-processing
Public log of the command to set up view permission settings for individual Items	*IM-SS-path*\log\public\jssrefaclsetup_info{1|2}.log	8,192 kilobytes	Trace file for multi-processing
Public log of the command to store Items	*IM-SS-path*\log\public\jssitemstore_info{1|2|3|4|5|6|7|8}.log	8,192 kilobytes	Trace file for multi-processing
Public log of the command to expand an Item storage database	*IM-SS-path*\log\public\jssitemstoredbexpand_info{1|2|3|4|5}.log	10 kilobytes	Sequential file (SEQ2)
Public log of the command to rotate Item storage databases	*IM-SS-path*\log\public\jssitemstoredbrotate_info{1|2|3|4|5}.log	8,192 kilobytes	Trace file for multi-processing
Public log of the command to set up an Item storage database	*IM-SS-path*\log\public\jssitemstoredbsetup_info{1|2|3|4|5}.log	20 kilobytes	Sequential file (SEQ2)
Public log of the command to set up an Item storage database for the cluster	*shared-folder*\log\public\jssitemstoredbsetup_info{1|2|3|4|5}.log	20 kilobytes	Sequential file (SEQ2)
Public log of the command to delete stored Items	*IM-SS-path*\log\public\jssstoreitemdel_info{1|2|3|4|5}.log	10 kilobytes	Sequential file (SEQ2)

The log file format is information that is required in order to use the JP1/Base log file trap function. For details about this function, see the *Job Management Partner 1/Base User's Guide*.

B. List of Processes

The table below lists the processes of P1/IM - Service Support. The value in parentheses is the number of processes that can run concurrently.

Table B–1: Processes of JP1/IM - Service Support

Process name	Function
jss_service.exe(1)	Process for controlling the service that starts JP1/IM - Service Support
cjstartweb.exe(1)	Process for the WWW container server service
cprfd.exe(1)	Process that outputs WWW container server trace information to a file
pdprcd.exe(1)	Process that manages monitoring and startup of the Item management database server
httpsd.exe(2)	Process for the Web server service
rotatelogs2.exe(2)	Process for outputting Web server logs
pdsha.exe(1)	Process for a cluster environment (this process is started only in a cluster system)
hntr2srv.exe(1)	Process for starting Hitachi Network Objectplaza Trace Library (HNTRLib2)
hntr2mon.exe(1)	Process for Hitachi Network Objectplaza Trace Library (HNTRLib2)
jss_taskservice.exe(1)	Process for controlling the service that starts JP1/Service Support - Task Service

C. List of Port Numbers

This appendix describes the JP1/IM - Service Support port numbers. The protocol to be used is TCP/IP. The port numbers are set when JP1/IM - Service Support is set up.

C.1 Port numbers used by JP1/IM - Service Support

The following table lists and describes the port numbers used by JP1/IM - Service Support.

Table C–1: Port numbers of JP1/IM - Service Support

Port number	Description
24400/tcp	Used for communication with the Item management database server
24401/tcp	Used for communication with the Web server or Web browser
24402/tcp	Used to link the WWW container server to the Web server
24403/tcp	Used to shut down the communication with the WWW container server
24404/tcp	Used for communication with the Web server for system setting

Note that the following port numbers are used to send and receive emails.

Table C–2: Port numbers used to send and receive emails

Port number	Description
25/tcp	Used for communication with the SMTP server
110/tcp	Used for communication with the POP3 server

C.2 Firewall passage direction

The table below indicates the firewall passage direction. The firewall types that JP1/IM - Service Support supports are packet filtering and NAT (static mode).

Table C–3: Firewall passage direction

Service name	Port number	Description
JP1/Service Support - Web Service	24401/tcp[#]	Web browser ➡ JP1/IM - Service Support

Legend:

➡ : Direction in which connection is established

\#

The port number can be changed as required.

D. List of Limits

Some limits of JP1/IM - Service Support depend on the product. The following tables show the limits that apply to all JP1/IM - Service Support products and the limits that depend on the product.

D.1 List of limits applicable to all JP1/IM - Service Support products

The following table shows the limits applicable to all JP1/IM - Service Support products.

Table D–1: Limits applicable to all JP1/IM - Service Support products

No.	Element	Limit
1	Number of process work boards that can be created in a system	4
2	Total number of processes	4
3	Number of users who can log in at one time	100[#1]
4	Number of users and roles that can be set for one access permission specified in a process work board	1,000[#2]
5	Number of Items that can be created manually or automatically in JP1/IM - Service Support	2,147,483,647[#3]
6	Number of times escalation can be performed for a related Item serial number	98 times[#4]
7	Number of times an Item can be edited	5,000 times[#3, #5]
8	Number of files that can be attached to one Item	5
9	Size of a file that can be attached to one Item	5 megabytes[#6]
10	Number of related information elements that can be specified for one Item	20
11	Number of times an Item form can be changed	255 times[#7]
12	Number of choices that can be specified for one selection element	30
13	Number of statuses that can be created	40
14	Number of users that can be created	1,000[#8] (including jp1admin users)
15	Number of roles that can be created	1,000 (including system roles)[#8]
16	Number of users that can belong to one role	1,000[#9]
17	Number of Items that can be displayed in a list of Items per page	255
18	Number of search result elements that can be displayed in a list	100
19	Number of JP1/IM - Manager servers that can link with one instance of JP1/IM - Service Support	1
20	Number of JP1/AIM servers that can link with one instance of JP1/IM - Service Support	255
21	Number of JP1/AO servers that can link with one instance of JP1/IM - Service Support	1

#1

    A maximum of 100 users can log in at one time, but the maximum number of simultaneous accesses to the Item management database is 10. Therefore, if 11 or more users simultaneously access the Item management database, response might become slow.

It is assumed that an average of 20 users and roles are registered for one permission. If the Item management database reaches the maximum size, it might become impossible to set access permissions even if the limit is not exceeded.

#3

If the Item management database reaches the maximum size, it might become impossible to create or edit Items even if the limit is not exceeded.

#4

If the number of times an Item was edited reaches the limit (5,000 times), or if the Item management database reaches the maximum size, Items cannot be escalated even if the escalation limit is not exceeded.

#5

This value includes the number of times an Item is escalated.

#6

It is assumed that the average size of files attached to an Item is 256 kilobytes. If the Item management database for storing attached files reaches the maximum size, it might become impossible to create Items with attached files even if the file size limit is not exceeded.

#7

It is assumed that one process uses an average of 20 Item forms. If the Item management database reaches the maximum size, it might become impossible to change an Item form even if the limit is not exceeded.

#8

If the Item management database reaches the maximum size, it might become impossible to create users or roles even if the limit is not exceeded.

#9

It is assumed that an average of 100 users are registered for one role. If the Item management database reaches the maximum size, it might become impossible to register users for a role even if the limit is not exceeded.

D.2 List of limits that depend on the JP1/IM - Service Support product

The following table shows the limits that depend on the JP1/IM - Service Support product.

Table D–2: Limits that depend on the JP1/IM - Service Support product

No.	Element	Limit	
		JP1/IM - Service Support (Standard)	JP1/IM - Service Support Advanced Edition
1	Total number of target systems that can be created	100[#1]	200[#1]
2	Total number of process work boards that can be created	400[#2]	800[#2]
3	Number of Items that can be created manually or automatically in a process work board	A combined total of 99,999 created Items and escalated Items[#3, #4]	A combined total of 200,000 created Items and escalated Items[#3, #4]
4	Number of Items that can be escalated in a process work board	A combined total of 99,999 created Items and escalated Items[#3, #4]	A combined total of 200,000 created Items and escalated Items[#3, #4]

#1

Including systems waiting to be deleted, and not including master systems.

#2

Including process work boards waiting to be deleted, and not including temporary receipt process work boards.

#3

If the Item management database reaches the maximum size, it might become impossible to create or edit Items even if the limit is not exceeded.

#4

If the number of Items reaches the maximum, you can register more Items by deleting unnecessary Items.

E. List of JP1 Events

JP1/IM - Service Support can issue the following JP1 events:

- JP1 event for completed-action linkage (event ID: 00005F00)
- JP1 event for changing status (event ID: 00005F01)
- Consolidated JP1 event for completed-action linkage (event ID: 00005F02)

This appendix provides details about the JP1 events that can be issued by JP1/IM - Service Support for each event ID.

For details about the JP1 event attributes, see the *Job Management Partner 1/Base User's Guide*.

E.1 Details for event ID 00005F00

Attribute type		Element	Attribute name	Contents
Basic attribute		Event ID	N/A	`00005F00`
		Message	N/A	`KNAB15069-I The item status was registered by closure.`
Extended attribute	Common information	Severity	SEVERITY	`Information`
		User name	USER_NAME	*name-of-the-user-who-registered-the-Item*
		Product name	PRODUCT_NAME	`/HITACHI/JP1/IM/SS`
		Object type	OBJECT_TYPE	`ITEM`
		Object name	OBJECT_NAME	*/system-name/process-name/Item-name*
		Object ID	OBJECT_ID	*Item-ID*
		Event type	OCCURRENCE	`CLOSE`
		End time	END_TIME	Item update time
		Platform[1]	PLATFORM	`Windows`
		Action version[1]	ACTION_VERSION	`085000`
	Specific information	Registrant[1]	REGISTRANT	*name-of-the-user-who-registered-the-Item*
		JP1/IM - Manager host name	ITEMENTRY_ACTHOST	Name of the host on which an automated action (Item registration) of JP1/IM - Manager was performed[2], or the name of the JP1/IM - Manager host to which JP1/IM - View used to register Items has logged in
		Link-source event database serial number	ITEMENTRY_SEQNO	Event database serial number of the JP1 event that triggered an automated action (Item registration) of JP1/IM - Manager[2]. Alternatively, the event database serial number of the event to be registered as an Item in JP1/IM - Service Support

Legend:

   N/A: Not applicable

#1

To display this element in detailed information in the JP1/IM - View event information, you need to set up the environment. For details, see *8.15.1 Setting an environment for linking with JP1/IM - Manager*.

#1

To display this element in detailed information in the JP1/IM - View event information, you need to set up the environment. For details, see *8.15.1 Setting an environment for linking with JP1/IM - Manager*.

#2

The JP1 event will not be issued if this information is not defined for the automated action for registering the Item.

E.2 Details for event ID 00005F01

Attribute type		Element	Attribute name	Contents
Basic attribute		Event ID	N/A	`00005F01`
		Message	N/A	`KNAB15070-I The item was registered using the status of the JP1 event issuance target.`
Extended attribute	Common information	Severity	SEVERITY	`Information`
		User name	USER_NAME	*name-of-the-user-who-registered-the-Item*
		Product name	PRODUCT_NAME	`/HITACHI/JP1/IM/SS`
		Object type	OBJECT_TYPE	`ITEM`
		Object name	OBJECT_NAME	*/system-name/process-name/Item-name*
		Object ID	OBJECT_ID	*Item-ID*
		Event type	OCCURRENCE	`STATUS`
		End time	END_TIME	Item update time
		Platform[1]	PLATFORM	`Windows`
		Action version[1]	ACTION_VERSION	`085000`
	Specific information	User-specified extended attribute [1]	Extended attribute that can be specified for a JP1 event	Element of a user-specified extended attribute for a JP1 event in the definition file[2]

Legend:

   N/A: Not applicable

#1

To display this element in detailed information in the JP1/IM - View event information, you need to set up the environment. For details, see *8.15.1 Setting an environment for linking with JP1/IM - Manager*.

#2

For details about the extended attributes that can be specified for a JP1 event, see *Definition file for status-change JP1 events (hptl_jp1_imss_jp1event_status.properties)* in *Chapter 12. Definition Files*.

E.3 Details of event ID 00005F02

Attribute type	Element	Attribute name	Contents
Basic attribute	Event ID	N/A	`00005F02`
	Message	N/A	`KNAB15069-I The item status was registered by closure.`

Attribute type		Element	Attribute name	Contents
Extended attribute	Common information	Severity	SEVERITY	Information
		User name	USER_NAME	*name-of-the-user-who-edited-Items-in-batch-operation*
		Product name	PRODUCT_NAME	/HITACHI/JP1/IM/SS
		Object type	OBJECT_TYPE	ITEM
		Event type	OCCURRENCE	CLOSE
		End time	END_TIME	*end-time-of-batch-operation-on-Items*
		Platform[#1]	PLATFORM	Windows
		Action version[#1]	ACTION_VERSION	085000
	Specific information	JP1/IM - Manager host name	ITEMENTRY_ACTHOST	Name of the host on which an automated action (Item registration) of JP1/IM - Manager was performed[#2], or the name of the JP1/IM - Manager host to which JP1/IM - View used to register Items has logged in
		Link-source event database serial number	ITEMENTRY_SEQNO	Event database serial number of the JP1 event that triggered an automated action (Item registration) of JP1/IM - Manager[#2, #3]. Alternatively, the event database serial number of the event to be registered as an Item in JP1/IM - Service Support[#3]
		Item ID list	ITEMENTRY_ITEMID	List of Item IDs

Legend:

N/A: Not applicable

#1

To display this element in detailed information in the JP1/IM - View event information, you need to set up the environment. For details, see *8.15.1 Setting an environment for linking with JP1/IM - Manager*.

#2

The JP1 event will not be issued if this information is not defined for the automated action for registering the Item.

#3

Multiple event database serial numbers are separated by commas (,).

A consolidated JP1 event for completed-action linkage (event ID: 00005F02) is generated by consolidating JP1 events for completed-action linkage (event ID: 00005F00) that has the same host name (element ID: JIMSD_FORM_IMHOSTNAME). The consolidated JP1 event for completed-action linkage is issued when multiple Items are closed in a batch operation. If this JP1 event is issued, a JP1 event for completed-action linkage is not issued. To issue a consolidated JP1 event for completed-action linkage, you need to set up a configuration file for issuing JP1 events. For details about the file, see *Configuration file for issuing JP1 events (hptl_jp1_imss_jp1event_setting.properties)* in *Chapter 12. Definition Files*.

F. Outputting operation logs

JP1/IM - Service Support outputs a history of operations as operation logs. An operation log provides information about what operation (creation, edition, escalation, or deletion of an Item) was performed and when and by whom it was performed.

This appendix describes the operation log information output by JP1/IM - Service Support.

F.1 Types of events output in operation logs

The table below describes the type of events that can be output in operation logs, and when JP1/IM - Service Support outputs an operation log. An event type is an identifier used to classify events output to the operation log.

Table F–1: Identification of events output in the operation log

Event type	Description	Trigger of output by JP1/IM - Service Support
ContentAccess	Indicates that Item information managed by JP1/IM - Service Support was accessed.	An operation log event is output when one of the following operations is performed from a window: • Creating an Item • Editing an Item • Deleting an Item • Escalating an Item

F.2 Operation log save format

The following describes the format used to save operation logs.

Operation logs are output to a `jp1imssaccesslog`*n*`.log` file. When this file reaches a certain size, the logs are output to another file that is named by incrementing the number at the end of the file name by 1. That is, when `jp1imssaccesslog1.log` reaches a certain size, the logs are written to `jp1imssaccesslog2.log`. When `jp1imssaccesslog2.log` reaches a certain size, the logs are written to `jp1imssaccesslog3.log`.

If the last one of the log files that can be created reaches a certain size, the logs are written to the initialized `jp1imssaccesslog1.log`. When `jp1imssaccesslog1.log` reaches a certain size, the logs are written to the initialized `jp1imssaccesslog2.log`.

The size of an operation log file and the number of operation log files can be specified in the configuration file for operation logs. For details about this configuration file, see *Operation log configuration file (hptl_jp1_imss_access_log.properties)* in *Chapter 12. Definition Files*.

F.3 Operation log output format

The following describes the format of operation log output, output elements, and examples.

(1) Operation log output format

An output operation log consists of `CALFHM` indicating the operation log format, an operation log revision number, and the output elements.

```
CALFHM x.x,output-element-1=value-1,output-element-2=value-2,...,output-
element-n=value-n
```

(2) Output destination

Operation logs are output to either of the following destinations.

For a physical host environment:
   IM-SS-path\log\public\accesslog

For a cluster environment:
   shared-folder\log\public\accesslog

(3) Output elements

There are two types of output elements: common output elements and specific output elements. The following describes these elements:

- Common output elements
  These elements are output by all JP1 products that can output operation logs.

- Specific output element
  These elements are unique to each JP1 product that can output operation logs.

(a) Common output elements

The following table describes the values output for the common output elements and their meanings.

Table F–2: Common output elements for the operation log

No.	Output element		Value	Contents
	Element name	Output attribute		
1	Common specification identifier	--	CALFHM	Identifier of the operation log format
2	Common specification revision number	--	1.0	Revision number used to manage operation logs
3	Sequence number	seqnum	Sequence number	Sequence number of the operation log
4	Message ID	msgid	KNAB*xxxx-x*	Message ID for each product
5	Date and time	date	*YYYY-MM-DD*T*hh*:*mm*:*ss.sss*TZD[#]	Date and time that the operation log was output, and the time zone
6	Source program name	progid	JP1IMSS	Name of the program in which the event occurred
7	Source component name	compid	Server	Name of the component in which the event occurred

No.	Output element		Value	Contents
	Element name	Output attribute		
8	Source process ID	`pid`	*process-ID*	ID of the process in which the event occurred
9	Source location	`ocp:host`	*host-name*	Name of the host on which the event occurred
10	Event type	`ctgry`	`ContentAccess`	Identifier used to classify the event output to the operation log
11	Event result	`result`	`Success`	Result of the event
12	Subject identification information	`subj:uid`	*user-ID*	Information for the user who generated the event

Legend:

--: No attribute names are output.

\#

YYYY is the year, *MM* is the month, *DD* is the day, *hh* is the hour, *mm* is the minute, *ss* is the second, and *sss* is the millisecond.

`T` separates the date from the time.

`TZD` is a time zone identifier. One of the following is output.

+*hh:mm*: Indicates a positive time difference of hh:mm from the UTC time.

−*hh:mm*: Indicates a negative time difference of hh:mm from the UTC time.

`Z`: Indicates the same time as the UTC time.

(b) Specific output elements

The following table describes the values output for the specific output elements and their meanings.

Table F–3: Specific elements for the operation log

No.	Output element		Value	Contents
	Element name	Output attribute		
1	Object information	`obj`	Item	Information about the Item that generated the event
		`obj:rid`	*related-Item-serial-number*	

2	Operation information	--	• `Entry`
			  Creating an Item
			• `Edit`
			  Editing an Item
			• `Delete`
			  Deleting an Item
			• `Escalation`
			  Escalating an Item
				Information about the user operation that generated the event

3	Optional description	`msg`	*any-message*	Message describing the event

Legend:

--: No attribute names are output.

(4) Operation log output example

The following is an example of an operation log that is output when an Item is escalated from the window.

```
CALFHM 1.0, seqnum=66, msgid=KNAB16004-I,
date=2013-11-20T09:14:47.499+09:00,
progid=JP1IMSS, compid=Server, pid=1844, ocp:host=IMSSHOST,
ctgry=ContentAccess, result=Success, subj:uid=jp1admin, obj=Item,
obj:rid=0000000011, op=Escalation,
msg="The Item was escalated. (escalation destination Item ID =
processworkboard12-00004, escalation source Item ID =
processworkboard11-00011, Item version number = 9)"
```

F.4 When operation log data is output

The following table describes when operation log data is output and the message IDs that are output with the operation log data.

Table F–4: When operation log data is output and the corresponding message IDs

No.	Times when operation log data is output[#]	Event type	Message ID
1	An Item is created	ContentAccess	KNAB16001-I
2	An Item is edited		KNAB16002-I
3	An Item is deleted		KNAB16003-I
4	An Item is escalated		KNAB16004-I

\#

    This condition is applicable to operations performed from windows.

For details about the messages, see *13.5 Window operation (Item management) messages (KNAB10005 to KNAB16004)*.

F.5 Settings for outputting data to the operation log

You need to use the operation log configuration file for to specify the information required to output data to the operation log. For details about this configuration file, see *Operation log configuration file (hptl_jp1_imss_access_log.properties)* in *Chapter 12. Definition Files*.

G. Version Changes

This appendix describes the changes made to each version.

G.1 Changes in 10-50

- Windows Server 2012 R2 was added to the list of supported operating systems.
- JP1/IM - Service Support Advanced Edition was added as a JP1/IM - Service Support product.

  Users of JP1/IM - Service Support Advanced Edition can now save Items registered in the Item management database to the Item storage database. It is now possible to specify XL size for an Item management database.

  - `jssdbbackup.bat` command (backs up databases)
  - `jssdbinit.bat` command (initializes databases)
  - `jssdbrecovery.bat` command (recovers a database)
  - `jssdbrorg.bat` command (reorganizes the Item management database)
  - `jsshadbinit.bat` command (initializes the database in a cluster environment)
  - `jsshasetup.bat` command (sets up JP1/IM - Service Support in a cluster environment)
  - `jsshaunsetup.bat` command (performs unsetup of JP1/IM - Service Support in a cluster environment)
  - `jssitemstore` command (stores Items)
  - `jssitemstoredbexpand.bat` command (expands an Item storage database)
  - `jssitemstoredbrotate` command (rotates Item storage databases)
  - `jssitemstoredbsetup.bat` command (sets up an Item storage database)
  - `jsssetup.bat` command (sets up JP1/IM - Service Support)
  - `jssstoreitemdel.bat` command (deletes stored Items)
  - `jssunsetup.bat` command (performs unsetup of JP1/IM - Service Support)
  - Configuration file for expanding an Item storage database (`jssitemstoredbexpandinfo.bat`)
  - Configuration file for setting up an Item storage database (`jssitemstoredbinfo.bat`)
  - User log definition file (`jp1itemstore.conf`)
  - User log definition file (`jp1itemstoredbrotate.conf`)
- By using the Item Management window function, users can now work with Items that were registered within a specific time frame.
  - System property file (`hptl_jp1_imss_main_setting.properties`)
- The status of multiple Items can now be changed to *Acknowledged* or *Close* in a batch operation. In addition, a consolidated JP1 event for completed-action linkage can now be issued when the status of multiple Items are changed to *Close* in a batch operation.
  - System property file (`hptl_jp1_imss_main_setting.properties`)
  - Configuration file for issuing JP1 events (`hptl_jp1_imss_jp1event_setting.properties`)
  - Definition file for status-change JP1 events (`hptl_jp1_imss_jp1event_status.properties`)
- View permission can now be set for individual Items.

- jssrefaclsetup command (sets up view permission settings for individual Items)
- User log definition file (jp1refaclsetup.conf)

- Items can now be created based on existing Items registered in JP1/IM - Service Support.

- Items registered in JP1/IM - Service Support can now be printed.

- The number of Items registered in JP1/IM - Service Support can now be checked.
  In addition, a message is now output if the number of Items drops below the predefined threshold when Items are counted.
  - jssitemcount command (count Items)
  - System property file (hptl_jp1_imss_main_setting.properties)
  - User log definition file (jp1itemcount.conf)

- Access-permission information can be set by using a command, and can be output to a CSV file by using a command.
  - jssaclexport command (exports access-permission information)
  - jssaclimport command (imports access-permission information)
  - Access privileges input file (optional)
  - User log definition file (jp1aclexport.conf)
  - User log definition file (jp1aclimport.conf)

- Item information that can be reported by email was added.
  - Email definition file (jp1imss_mail_setting.conf)

- The status of JP1/IM - Service Support databases can now be checked.
  - jssdbstatchk.bat command (checks the database status)

- Precautionary notes on running anti-virus software were added.

- Version upgrading procedures were added.

- The following messages were added:
  KNAB10035-E, KNAB11044-E to KNAB11048-E, KNAB12014-E, KNAB20041-I to KNAB20043-I, KNAB20150-I to KNAB20151-I, KNAB20277-I to KNAB20299-I, KNAB20300-I to KNAB20303-I, KNAB22028-W to KNAB22030-W, KNAB24114-E to KNAB24115-E, KNAB24226-E to KNAB24233-E, KNAB26097-E, KNAB26157-E, KNAB26159-E to KNAB26161-E, KNAB26163-E, KNAB26165-E to KNAB26168-E, KNAB26170-E to KNAB26174-E, KNAB26176-E, KNAB26178-E to KNAB26186-E, KNAB26188-E to KNAB26198-E, KNAB26223-E, KNAB28033-E to KNAB28036-E, KNAB28105-E, KNAB28121-E to KNAB28125-E, KNAB99050-E,

- The following message was deleted:
  KNAB20274-I

- Operator actions for the following messages were changed:
  KNAB12001-E, KNAB24002-E, KNAB26144-E, KNAB28011-E

- System action for the following messages was changed:
  KNAB13005-W, KNAB26149-E

- Explanations of the following messages were changed:
  KNAB20026-I, KNAB20028-I, KNAB20272-I, KNAB22022-W

- Message content of the following messages were changed:
  KNAB20125-I, KNAB20133-I, KNAB26154-E

- Explanation and operator actions for the following messages were changed:
  KNAB26102-E to KNAB26103-E

H. Reference Material for This Manual

This appendix provides reference information, including various conventions, for this manual.

H.1 Related publications

This manual is part of a related set of manuals. The manuals in these are listed below.

- *Job Management Partner 1 Version 10 Job Management Partner 1/Base User's Guide* (3021-3-314(E))
- *Job Management Partner 1 Version 10 Job Management Partner 1/Integrated Management - Manager Overview and System Design Guide* (3021-3-305(E))
- *Job Management Partner 1 Version 10 Job Management Partner 1/Integrated Management - Manager Configuration Guide* (3021-3-306(E))
- *Job Management Partner 1 Version 10 Job Management Partner 1/Integrated Management - Manager Command and Definition File Reference* (3021-3-309(E))
- *Job Management Partner 1 Version 10 Job Management Partner 1/Integrated Management - Service Support Operator's Guide* (3021-3-365(E))
- *Job Management Partner 1 Version 10 Job Management Partner 1/Automatic Operation Administration Guide* (3021-3-083(E))
- *Job Management Partner 1/Asset Information Manager Planning and Setup Guide* (3020-3-S77 (E))
- *Job Management Partner 1/Software Distribution Administrator's Guide Volume 1(For Windows Systems)* (3020-3-S81(E))

H.2 Conventions: Abbreviations for product names

This manual uses the following abbreviations for the product names.

Abbreviation	Full name or meaning
HNTRLib2	Hitachi Network Objectplaza Trace Library 2
HP NNM	HP Network Node Manager Starter Edition Software 7.5 or later
JP1/AJS	Job Management Partner 1/Automatic Job Management System 2 - Agent
	Job Management Partner 1/Automatic Job Management System 2 - Manager
	Job Management Partner 1/Automatic Job Management System 2 - View
	Job Management Partner 1/Automatic Job Management System 3 - Agent
	Job Management Partner 1/Automatic Job Management System 3 - Manager
	Job Management Partner 1/Automatic Job Management System 3 - View
JP1/AO	Job Management Partner 1/Automatic Operation

Abbreviation	Full name or meaning
JP1/Cm2/NNMi	JP1/Cm2/Network Node Manager i 09-00 or later
JP1/IM - Manager	Job Management Partner 1/Integrated Management - Manager
JP1/IM - Service Support or JP1/IM - SS	Job Management Partner 1/Integrated Management - Service Support
	Job Management Partner 1/Integrated Management - Service Support Advanced Edition
JP1/IM - Service Support (Standard)	Job Management Partner 1/Integrated Management - Service Support
JP1/IM - Service Support Advanced Edition	Job Management Partner 1/Integrated Management - Service Support Advanced Edition
JP1/IM - View	Job Management Partner 1/Integrated Management - View
JP1/AIM	Job Management Partner 1/Asset Information Manager
JP1/Software Distribution	JP1/Software Distribution Client
	JP1/Software Distribution Client - Base
	JP1/Software Distribution Client - Delivery Feature
	JP1/Software Distribution Client - Operation Log Feature
	JP1/Software Distribution Manager
JP1/PFM - Web Console	Job Management Partner 1/Performance Management - Web Console

H.3 Conventions: Acronyms

This manual uses the following acronyms.

Acronym	Full name or meaning
ASCII	American Standard Code for Information Interchange
CAB	Change Advisory Board
CD-ROM	Compact Disc - Read Only Memory
CSV	Comma Separated Value
DB	Database
DNS	Domain Name System
DSN	Deep Space Network
GUI	Graphical User Interface
HA	High Availability
HTTP	Hyper Text Transfer Protocol
ID	Identifier
IP	Internet Protocol
IT	Information Technology
ITIL	Information Technology Infrastructure Library
JAAS	Java(TM) Authentication and Authorization Service

Acronym	Full name or meaning
JSP	JavaServer Pages(TM)
NAT	Network Address Translation
NIC	Network Interface Card
ODBC	Open Database Connectivity
OS	Operating System
PC	Personal Computer
POP	Post Office Protocol
RFC	Request for Change
SMTP	Simple Mail Transfer Protocol
SNMP	Simple Network Management Protocol
UCS	Universal multi-octet coded Character Set
UNC	Universal Naming Convention
URL	Uniform Resource Locator
UTF	UCS Transformation Format
WWW	World Wide Web
XML	eXtensible Markup Language

H.4 Conventions: KB, MB, GB, and TB

This manual uses the following conventions:

- 1 KB (kilobyte) is 1,024 bytes.
- 1 MB (megabyte) is $1,024^2$ bytes.
- 1 GB (gigabyte) is $1,024^3$ bytes.
- 1 TB (terabyte) is $1,024^4$ bytes.

I. Glossary

agent

A general term for a computer managed by JP1/IM - Manager. An agent must have JP1/Base installed.

attachment

A file that can be attached to an Item.

change management

Activity that identifies what changes could be made to improve IT services. Change management involves careful consideration of potential changes and how they will be implemented, taking into consideration the risk of system failures and the impact the change might have on business operations.

In JP1/IM - Service Support, this activity is managed on a *change management* process work board.

Also see *process work board*.

cluster system

A system configured with multiple servers that work together as a single system.

The purpose of such a system is to improve availability by preventing interruptions of business operations by passing processing to another server when an error occurs. The process of one system taking over from a failed system is called *failover*.

If the active server (primary node) fails, the standby server (secondary node) takes over. Because job processing is switched from the active to the standby node, a cluster system is also called a *node switching system*.

Cluster systems include load-sharing systems with multiple servers that perform parallel processing. In this manual, however, *cluster system* refers only to the use of failover to prevent interruption of work tasks.

Also see *failover*.

control character

In this manual, the following are called control characters:

- ASCII characters from 0x00 to 0x1F, and 0x7F

email management server

An email server that manages the email messages sent when an Item is registered by email.

escalation

The act of transferring responsibility for an Item to another process manager who is better positioned to resolve it.

event server

A program that manages JP1 events under JP1/Base. JP1 events can be collected and distributed while the event server is active.

failover

The process of continuing JP1 processing on another server when a failure occurs on the active server. Failover may also be initiated by the system administrator.

Because a secondary node takes over from the primary node, failover is also known as *node switching*.

HP NNM

A generic term for an integrated network management program that manages the configuration, performance, and troubleshooting of an organization's networks.

incident management

An activity intended to keep service disruption to a minimum. Incident management applies to user inquiries and events that threaten to disrupt normal operations, and aims to ensure that the appropriate answers and workarounds are presented to the user at the earliest opportunity.

In JP1/IM - Service Support, this activity is managed on the *incident management* process work board.

Also see *process work board*.

integrated manager

A general term for a server running JP1/IM - Manager. An integrated manager manages the events that occur in a system, and provides the platform for operations that relate to those events.

Also see *JP1/IM - Manager*.

inter-process ID

An inter-process ID is a value that combines the automatically assigned related Item serial number with a number that increments with each escalation. The related Item serial number lets you identify the same Item at different tiers of escalation, and the incrementing number lets you know how many times the Item has been escalated. Each inter-process ID is unique within the JP1/IM - Service Support platform.

Item

A record of a task, and a unit by which task resolution is approached on a process work board. Several Items can be registered on a process work board, and the information in an Item can be updated by more than one user. You can define the relationships between Items by entering information about related Items in the Item elements.

Note that in this manual, Items might be called by the following names according to the process where the Item is registered:

- Item registered in an incident management process: *Incident*
- Item registered in a problem management process: *Problem*
- Item registered in a change management process: *Change*
- Item registered in a release management process: *Release*

Also see *process work board* and *process*.

Item form

The format of a window in which Item information is entered. Item forms are defined in a definition file associated with a process work board.

Also see *process work board*.

Item ID

An ID that JP1/IM - Service Support automatically assigns to registered Items. The Item ID uniquely identifies an Item within the JP1/IM - Service Support framework.

Item management console

A computer used to log in to JP1/IM - Service Support on an Item management server using a Web browser. Users can use an Item management console to view or manipulate Items.

Also see *Item management server*.

Item management database

The database provided by JP1/IM - Service Support.

The Item management database manages every piece of information created or defined by users in the course of using JP1/IM - Service Support. This includes configuration information for the systems and processes defined by users of JP1/IM - Service Support, and information about Items these users have registered or changed.

Item management database server

An internal component of JP1/IM - Service Support that manages the Item management database.

Also see *WWW container server* and *Web server*.

Item management server

A server on which JP1/IM - Service Support is installed. Items are managed in the Item management database on an Item management server. Users can view Items by accessing the Item management server using a Web browser.

Also see *Item* and *Item management database*.

Item storage database

The name of a database provided by JP1/IM - Service Support Advanced Edition.

Items that can no longer be managed in the Item management database due to space constraints or other reasons can be transferred to the Item storage database. By storing past Items in the Item storage database, you can use these Items as a knowledge base to be consulted as needed. Note that Items stored in the Item storage database can only be viewed.

Item view permissions owner

A user who has a permission to view an Item in a process work board where the option to set view permissions for individual Items is enabled. Only users who have view permissions for a particular Item can view the Item in a process work board with this option enabled. You can set the Item view permissions owner when you create or edit an Item.

IT service

A service that is based on an IT system and satisfies a user requirement. IT services collectively support an organization's business operations and services.

JP1/AIM

A program that centrally manages IT assets such as hardware information (including network devices), software information, and contract information in a database. In doing so, JP1/AIM helps to reduce management costs and streamline IT asset management tasks such as deploying assets, managing software licenses, and maintaining equipment.

JP1/AIM server

A general term for a server that runs JP1/AIM. A JP1/AIM server manages asset information and provides services that relate to asset information.

Also see *JP1/AIM*.

JP1/AJS

A program that automates work tasks.

In JP1/AJS, you can define sequences of tasks to execute at regular intervals, or have certain processing start when a specific event occurs.

JP1/AO

A program that automates system operations.

JP1/AO provides service templates that define the processing associated with typical operating procedures, allowing administrators to work more efficiently.

JP1/Base

A program that provides the core functionality of JP1/IM.

JP1/Base allows you to send and receive JP1 events, manage users, and control the order in which services start. It also acts as the agent in a JP1/IM system.

JP1/Base is a prerequisite program for JP1/IM - Manager.

JP1/IM - Manager

A program that provides integrated system management through centralized monitoring and operation across an entire system.

JP1/IM - Service Support

A program that records and manages user inquiries, system faults, and the problems and considerations that arise as a result of these system faults. JP1/IM - Service Support manages these matters as *Items* requiring resolution.

Also see *Items*.

JP1/PFM - Web Console

One of the JP1/PFM programs. JP1/PFM - Web Console provides the Web application server functionality that allows users to centrally monitor system activity in a Web browser. JP1/PFM - Web Console has the following functions:

- Displaying the GUI

- Integrated monitoring and management

- Defining reports and alarms

JP1/Software Distribution

A general term for a system that distributes software and manages clients using batch operations over a network.

jp1admin user

The user who has the system administrator role in JP1/IM - Service Support. This account is registered by default.

JP1 event

Information used to manage events occurring in the system within the JP1 framework.

The information recorded in a JP1 event is categorized by attribute as follows:

Basic attributes

Attributes possessed by every JP1 event.

Basic attribute names are expressed as, for example, `B.ID` (or simply `ID`) for the event ID.

Extended attributes

Attributes that are optionally set by the program that issued the JP1 event. An extended attribute consists of the following common information and program-specific information:

- Common information (extended attribute information in a format shared by all programs)

- Program-specific information (other information in a format specific to the program issuing the event)

Extended attribute names are expressed as, for example, `E.SEVERITY` (or simply `SEVERITY`) for the severity level.

JP1 events are managed by the JP1/Base event service. Events generated in the system are recorded in a database as JP1 events.

List of Items

An area in the user interface that displays a list of Items according to the view conditions defined in JP1/IM - Service Support. For example, the main window (Item list) lists the Items associated with the system or process selected in the list of process work boards.

A list of Items allows the user to view the title of each Item, the work status, and the person in charge.

logical host

A virtual server that executes JP1 in a cluster system. If a failure occurs, failover takes place between logical hosts.

Each logical host has a logical IP address and shared disk, which another logical host inherits in the event of a failover. The logical host runs applications such as JP1 using this IP address and shared disk.

When a failover occurs, the secondary logical host inherits the logical IP address and shared disk and continues operating the JP1 framework. Thus, despite JP1 running on a different physical server, other hosts can access the server using the same IP address. To the host, it appears as if one server is operating continuously.

Also see *cluster system* and *failover*.

main window (Item list)

One of the main windows of JP1/IM - Service Support. The left frame shows the list of process work boards, the top right frame shows the list of Items, and the right bottom frame shows an Item preview. This window serves as the starting point for Item management.

main window (Item status)

One of the main windows of JP1/IM - Service Support. The left frame features a menu, and the right frame displays a list of target Items. This window serves as the starting point for managing the status of tasks associated with Items.

managed Item

An item registered in an Item management database.

Also see *Item management database* and *stored Item*.

node switching system

Also see *cluster system*.

physical host

A physical server that forms part of a cluster system when JP1 is used in a cluster environment. As opposed to a logical host (a logical server that does not depend on a physical server and can be failed over).

Also see *cluster system*, *logical host*, and *failover*.

problem management

Activity whose aim is to identify and resolve the cause of incidents that prevent a system from operating normally. JP1/IM - Service Support manages, as *problems*, inquiries from users, system errors, and other matters that warrant further investigation, helping to diagnose the root cause of problems and identify permanent solutions.

In JP1/IM - Service Support, this activity is managed on a *problem management* process work board.

Also see *process work board*.

process

In this manual, the term *process* has one of two meanings:

- A task as categorized by JP1/IM - Service Support. The four categories are *incident management*, *problem management*, *change management*, and *release management*.
- An internal program that a program uses to operate

Also see *incident management*, *problem management*, *change management*, and *release management*.

process perspective

A perspective from which Item statuses can be displayed in the main window (Item status). The process perspective is suitable for users who wish to view the detailed status of processes within a specific system.

Also see *system perspective*.

process standard Item form

An Item form designed for a specific process.

You can use a different Item form for each process work board. However, JP1/IM - Service Support also allows you to prepare in advance a standard Item form for each process.

Process standard Item forms can be defined in the Item form management window.

process work board

A location where tasks are recorded for each process. From a process work board, users can perform tasks oriented to problem resolution such as registering and updating Items and escalating an Item to another process.

Also see *process*.

process work board list

A list of process work boards that manage the tasks associated with a process. The process work board list displays the target systems and processes in a hierarchy, allowing you to view the Items at each level in the hierarchy in the Item list area.

Also see *process work board*, *target system*, *process*, and *Item list*.

process work board manager

The user and role responsible for managing a process work board. A user who acts as the process work board manager for a process work board has editing rights for that process work board and full access to all of its Items.

release management

Activity that implements the improvements to IT services proposed by the change management process. This involves building, testing, and deploying solutions according to an implementation plan.

In JP1/IM - Service Support, this activity is managed on a *release management* process work board.

Also see *process work board*.

role

A group to which users who log in to JP1/IM - Service Support belong. Like users, roles are assigned access permission for process work boards and Items.

status

Information representing the status of an Item. You can view the status of an Item in the list of Items. Generally, statuses are used to monitor and summarize whether Items are being resolved, and if not, what progress is being made.

Also see *Item* and *list of Items*.

status ID

An ID that uniquely identifies a status within the JP1/IM - Service Support framework.

stored Item

An Item stored in the Item storage database. The Item storage database is a database provided by JP1/IM - Service Support Advanced Edition.

Also see *Item storage database* and *managed Item*.

system perspective

A perspective from which Item statuses can be displayed in the main window (Item status). The system perspective is suitable for users who wish to view the status of Items in the overall context of the systems being managed by JP1/IM - Service Support.

Also see *process perspective*.

system role

A role defined in the JP1/AIM - Service Support system. The role ID is prefixed with the characters _jp1. Users who build environments for JP1/IM - Service Support must be assigned this role.

target system

A term for a system being managed by JP1/IM - Service Support. The systems managed by JP1/IM - Service Support are organized in the list of process work boards.

Also see *list of process work boards*.

Web server

An internal component of JP1/IM - Service Support that is the point of contact with the Item management console (Web browser).

Also see *WWW container server* and *Item management database server*.

WWW container server

An internal component of JP1/IM - Service Support that controls the display of the user interface.

Also see *Web server* and *Item management database server*.

Index

G

H

I