HITACHI
Inspire the Next

JP1 Version 12

JP1/Navigation Platform Setup and Operations Guide

Notices

■ Relevant program products

P-292C-4PCL JP1/Navigation Platform 12-60 (For Windows Server 2012 R2, Windows Server 2016, Windows Server 2019, Windows Server 2022)

P-292C-4VCL JP1/Navigation Platform for Developers 12-60 (For Windows 8.1 x64, Windows 10 x64, Windows 11 x64)

■ Trademarks

HITACHI, HiRDB, JP1, uCosminexus are either trademarks or registered trademarks of Hitachi, Ltd. in Japan and other countries.

Active Directory is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

BSAFE is a trademark or registered trademark of Dell Inc. in the United States and other countries.

Intel is a trademark of Intel Corporation or its subsidiaries.

Intel Core is a trademark of Intel Corporation or its subsidiaries.

Microsoft is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

Microsoft Edge is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Windows is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

Windows Server is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

Other company and product names mentioned in this document may be the trademarks of their respective owners.

This product bundles Dell BSAFE^{TM} software developed by Dell Inc. in the United States.

Portions of this software were developed at the National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign.

Regular expression support is provided by the PCRE library package, which is open source software, written by Philip Hazel, and copyright by the University of Cambridge, England. The original software is available from ftp://ftp.csx.cam.ac.uk/pub/software/programming/pcre/

This product includes software developed by Andy Clark.

This product includes software developed by Ben Laurie for use in the Apache-SSL HTTP server project.

This product includes software developed by Daisuke Okajima and Kohsuke Kawaguchi (http://relaxngcc.sf.net/).

This product includes software developed by IAIK of Graz University of Technology.

This product includes software developed by Ralf S. Engelschall <rse@engelschall.com> for use in the mod_ssl project (http://www.modssl.org/).

This product includes software developed by the Apache Software Foundation (http://www.apache.org/).

This product includes software developed by the Java Apache Project for use in the Apache JServ servlet engine project (http://java.apache.org/).

This product includes software developed by the University of California, Berkeley and its contributors.

This software contains code derived from the RSA Data Security Inc. MD5 Message-Digest Algorithm, including various modifications by Spyglass Inc., Carnegie Mellon University, and Bell Communications Research, Inc (Bellcore).

Eclipse is an open development platform for tools integration provided by Eclipse Foundation, Inc., an open source community for development tool providers.

Java is a registered trademark of Oracle and/or its affiliates.

1. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.openssl.org/)

2. This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)

3. This product includes software written by Tim Hudson (tjh@cryptsoft.com)

4. This product includes the OpenSSL Toolkit software used under OpenSSL License and Original SSLeay License. OpenSSL License and Original SSLeay License are as follow:

```
LICENSE ISSUES
==============
The OpenSSL toolkit stays under a dual license, i.e. both the conditions of
the OpenSSL License and the original SSLeay license apply to the toolkit.
See below for the actual license texts. Actually both licenses are BSD-style
Open Source licenses. In case of any license issues related to OpenSSL
please contact openssl-core@openssl.org.
OpenSSL License
---------------
/* ===================================================================
* Copyright (c) 1998-2016 The OpenSSL Project. All rights reserved.
*
* Redistribution and use in source and binary forms, with or without
* modification, are permitted provided that the following conditions
```

```
 * are met:
 *
 * 1. Redistributions of source code must retain the above copyright
 * notice, this list of conditions and the following disclaimer.
 *
 * 2. Redistributions in binary form must reproduce the above copyright
 * notice, this list of conditions and the following disclaimer in
 * the documentation and/or other materials provided with the
 * distribution.
 *
 * 3. All advertising materials mentioning features or use of this
 * software must display the following acknowledgment:
 * "This product includes software developed by the OpenSSL Project
 * for use in the OpenSSL Toolkit. (http://www.openssl.org/)"
 *
 * 4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to
 * endorse or promote products derived from this software without
 * prior written permission. For written permission, please contact
 * openssl-core@openssl.org.
 *
 * 5. Products derived from this software may not be called "OpenSSL"
 * nor may "OpenSSL" appear in their names without prior written
 * permission of the OpenSSL Project.
 *
 * 6. Redistributions of any form whatsoever must retain the following
 * acknowledgment:
 * "This product includes software developed by the OpenSSL Project
 * for use in the OpenSSL Toolkit (http://www.openssl.org/)"
 *
 * THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT ``AS IS'' AND ANY
 * EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE
 * IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR
 * PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR
 * ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL,
 * SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT
 * NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES;
 * LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)
 * HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT,
 * STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE)
 * ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED
 * OF THE POSSIBILITY OF SUCH DAMAGE.
 * ====================================================================
```

```
 *
 * This product includes cryptographic software written by Eric Young
 * (eay@cryptsoft.com). This product includes software written by Tim
 * Hudson (tjh@cryptsoft.com).
 *
 */
Original SSLeay License
-----------------------
/* Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com)
 * All rights reserved.
 *
 * This package is an SSL implementation written
 * by Eric Young (eay@cryptsoft.com).
 * The implementation was written so as to conform with Netscapes SSL.
 *
 * This library is free for commercial and non-commercial use as long as
 * the following conditions are aheared to. The following conditions
 * apply to all code found in this distribution, be it the RC4, RSA,
 * lhash, DES, etc., code; not just the SSL code. The SSL documentation
 * included with this distribution is covered by the same copyright terms
 * except that the holder is Tim Hudson (tjh@cryptsoft.com).
 *
 * Copyright remains Eric Young's, and as such any Copyright notices in
 * the code are not to be removed.
 * If this package is used in a product, Eric Young should be given
attribution
 * as the author of the parts of the library used.
 * This can be in the form of a textual message at program startup or
 * in documentation (online or textual) provided with the package.
 *
 * Redistribution and use in source and binary forms, with or without
 * modification, are permitted provided that the following conditions
 * are met:
 * 1. Redistributions of source code must retain the copyright
 * notice, this list of conditions and the following disclaimer.
 * 2. Redistributions in binary form must reproduce the above copyright
 * notice, this list of conditions and the following disclaimer in the
 * documentation and/or other materials provided with the distribution.
 * 3. All advertising materials mentioning features or use of this software
 * must display the following acknowledgement:
 * "This product includes cryptographic software written by
 * Eric Young (eay@cryptsoft.com)"
```

```
* The word 'cryptographic' can be left out if the rouines from the library
* being used are not cryptographic related :-).
* 4. If you include any Windows specific code (or a derivative thereof) from
* the apps directory (application code) you must include an acknowledgement:
* "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"
*
* THIS SOFTWARE IS PROVIDED BY ERIC YOUNG ``AS IS'' AND
* ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE
* IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE
* ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE
* FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL
* DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS
* OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)
* HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT
* LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY
* OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF
* SUCH DAMAGE.
*
* The licence and distribution terms for any publically available version or
* derivative of this code cannot be changed. i.e. this code cannot simply be
* copied and put under another distribution licence
* [including the GNU Public Licence.]
*/
```

Other product and company names mentioned in this document may be the trademarks of their respective owners. Throughout this document Hitachi has attempted to distinguish trademarks from descriptive terms by writing the name with the capitalization used by the manufacturer, or by writing the name with initial capital letters. Hitachi cannot attest to the accuracy of this information. Use of a trademark in this document should not be regarded as affecting the validity of the trademark.

■ Microsoft product name abbreviations

This manual uses the following abbreviations for Microsoft product names.

Abbreviation			Full name or meaning
Active Directory			Microsoft(R) Active Directory
Windows	Windows 8.1	Windows 8.1 x64	Windows(R) 8.1 Enterprise (64-bit Edition)
			Windows(R) 8.1 Pro (64-bit Edition)
	Windows 10	Windows 10 x64	Windows(R) 10 Enterprise (64-bit Edition)
			Windows(R) 10 Pro (64-bit Edition)
	Windows 11	Windows 11 x64	Windows(R) 11 Enterprise (64-bit Edition)
			Windows(R) 11 Pro (64-bit Edition)

Abbreviation		Full name or meaning
Windows	Windows Server 2012 R2	Microsoft$^{(R)}$ Windows Server$^{(R)}$ 2012 R2 Datacenter
		Microsoft$^{(R)}$ Windows Server$^{(R)}$ 2012 R2 Standard
	Windows Server 2016	Microsoft$^{(R)}$ Windows Server$^{(R)}$ 2016 Datacenter
		Microsoft$^{(R)}$ Windows Server$^{(R)}$ 2016 Standard
	Windows Server 2019	Microsoft$^{(R)}$ Windows Server$^{(R)}$ 2019 Datacenter
		Microsoft$^{(R)}$ Windows Server$^{(R)}$ 2019 Standard
	Windows Server 2022	Microsoft$^{(R)}$ Windows Server$^{(R)}$ 2022 Datacenter
		Microsoft$^{(R)}$ Windows Server$^{(R)}$ 2022 Standard

■ Restrictions

Information in this document is subject to change without notice and does not represent a commitment on the part of Hitachi. The software described in this manual is furnished according to a license agreement with Hitachi. The license agreement contains all of the terms and conditions governing your use of the software and documentation, including all warranty rights, limitations of liability, and disclaimers of warranty.

Material contained in this document may describe Hitachi products not available or features not available in your country.

No part of this material may be reproduced in any form or by any means without permission in writing from the publisher.

■ Issued

Jan. 2022: 3021-3-D11-30(E)

■ Copyright

Summary of amendments

The following table lists changes in this manual (3021-3-D11-30(E)) and product changes related to this manual.

Changes	Location
The following operating system is now supported: • Microsoft(R) Windows Server(R) 2022 • Windows(R) 11	--
The following web browser is now supported: • Microsoft Edge The following web browser was removed from the supported web browsers: • Windows(R) Internet Explorer(R) 11 As a result, the following description was changed: • Notes on the web browsers used • The web browsers that can be used to access the Dashboard window from a machine • Character string for the web browser's tab name	*3.3.3*, *3.3.4*, *5.4.4*, *8.5.3(21)*
The limits on the functions of the following web browser were removed: • Google Chrome As a result, the following description was changed: • System configuration examples • Notes on the web browsers used	*3.2.3*, *3.3.4*
The following parameter values were deleted: The close_only and logout_close values in the ucnpCloseBtn parameter	*2.1.4*
The following properties were removed from the user property file (ucnp_user.properties): • ucnp.base.server.close.button.setting • ucnp.base.client.complete.button.window.close As a result, the following description was changed: • The user message properties file (ucnp_message_user.properties) • The number of users logged in concurrently • The description of the **Close** button in the Updating Plugin Parts window	*5.14*, *6.7.2*, *6.7.4*, *8.5.1*, *8.5.3*, *8.6*, *8.6.2(1)*
The same name can now be used for Operational Content between different groups. As a result, the following description was changed: • npimport command (import Operational Contents)	*9.10*
HTTPS is now supported. As a result, the following description was added or changed: • URLs used to access Navigation Platform windows • What to check before setup • Setup preparations when enabling HTTPS communications • Setup procedure • Configuration procedure when using HTTPS • URL used for calling Navigation Platform from other JP1 products • Service name and port number in the direction in which data passes through the firewall	*2.1.3*, *4.1*, *4.4*, *4.5*, *4.10*, *5.13.6*, *Appendix B.2*

Changes	Location
The following properties were added to the user property file (`ucnp_setup_user.properties`): • `ucnp.setup.server.cosminexus.hws.http.protocol` • `ucnp.setup.server.cosminexus.hws.http.cacert.enable` • `ucnp.setup.server.cosminexus.hws.http.ssl.privatekey.typ e`	*8.3.1*, *8.3.3(20)*, *8.3.3(21)*, *8.3.3(22)*
The delete confirmation message can now be displayed with the following commands. A `--delete-force` option for not displaying the delete confirmation message was also added. • `npimport` command (import Operational Contents) • `nppubimport` command (import Published Versions of Operational Contents)	*9.10*, *9.13*
The following property was added to the user setup property file (`ucnp_user.properties`): • `ucnp.base.server.command.import.delete.confirm.enable`	*8.5.1*, *8.5.3(5)*
The directory configuration of Navigation Platform was changed.	*3.5.3*, *3.6.5*, *5.2*, *9.5*, *9.16*

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

Preface

This manual describes how to operate the windows of the following products:

- JP1/Navigation Platform
- JP1/Navigation Platform for Developers

Note that the following products are no longer available in JP1/Navigation Platform 12-00 and later versions:

- Hitachi Navigation Platform
- Hitachi Navigation Platform for Developers

The title of this manual has been modified as follows to reflect this change:

Old title: Hitachi Navigation Platform Setup and Operations Guide

New title: JP1/Navigation Platform Setup and Operations Guide

■ Abbreviations for product names

This manual uses the following abbreviations for the above product names:

| Abbreviation		Full name
Navigation Platform	Navigation Platform	JP1/Navigation Platform
	Navigation Platform for Developers	JP1/Navigation Platform for Developers

■ Intended readers

This manual is intended for users who will deploy and operate Navigation Platform in their systems. Users who will deploy and operate Navigation Platform in their systems are assumed to have:

- Knowledge of Windows system management
- Basic knowledge of the directory server (Active Directory)

■ Conventions: Diagrams

This manual uses the following conventions in diagrams:

- Server
- Database
- Bus-type Local Area Network
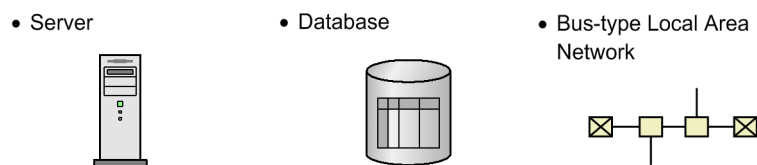
■ Conventions: Fonts and symbols

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: • 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.

■ Conventions: Version numbers

The version numbers of Hitachi program products are usually written as two sets of two digits each, separated by a hyphen. For example:

• Version 1.00 (or 1.0) is written as 01-00.

• Version 2.05 is written as 02-05.

• Version 2.50 (or 2.5) is written as 02-50.

- Version 12.25 is written as 12-25.

The version number might be shown on the spine of a manual as *Ver. 2.00*, but the same version number would be written in the program as *02-00*.

Contents

Part 3: Operation

5   Running Navigation Platform   111

9   Commands   271

Part 5: Troubleshooting

10   Troubleshooting   319

Appendixes   326

Index   353

1

Overview of Navigation Platform

This chapter reviews the key features and product structure of Navigation Platform, and then provides an overview of the tasks required to run Navigation Platform once it has been installed and set up.

1.1 About Navigation Platform

Navigation Platform is a product that provides a visual representation of operation flows and procedures. It allows you to consolidate scattered procedure manuals into a single platform, and allows individuals to share their knowledge and know-how across the organization so that they can execute operations more accurately and efficiently.

Deployment of Navigation Platform can be expected to increase work efficiency and the accuracy of tasks that require judgments from the person in charge. Examples of such tasks include the following:

- Handling of inquiries from customers
- Processing forms
- Performing operational management and monitoring of systems

Consider the example of operational management and monitoring of systems. This requires prompt handling of issues in response to failures or inquiries from users, regardless of who handles them. However, how these issues are handled can vary widely depending on each person's skills and experience.

Applying Navigation Platform to such tasks helps minimize individual variation in the quality and efficiency of the work by providing a visual representation of the parts of the tasks that had previously been left up to the experience and intuition of the person in charge. Furthermore, because it is able to record operations in logs, Navigation Platform can keep track of how much time is spent on each task, which tasks are susceptible to mistakes, and similar information that is useful when reviewing and analyzing operations.

1.1.1 Key features of Navigation Platform

Navigation Platform offers the following key features.

(1) Ability to execute tasks using intuitive operations

Navigation Platform can display the flow of operations in flowchart format. In addition, it can display Guides to the work required for each step in the flowchart in sequential order. Navigation Platform users can work more accurately and efficiently just by performing operations in their web browser in accordance with the flowchart.

The following figure shows an overview of the operation of Navigation Platform.

Figure 1–1: Overview of the operation of Navigation Platform
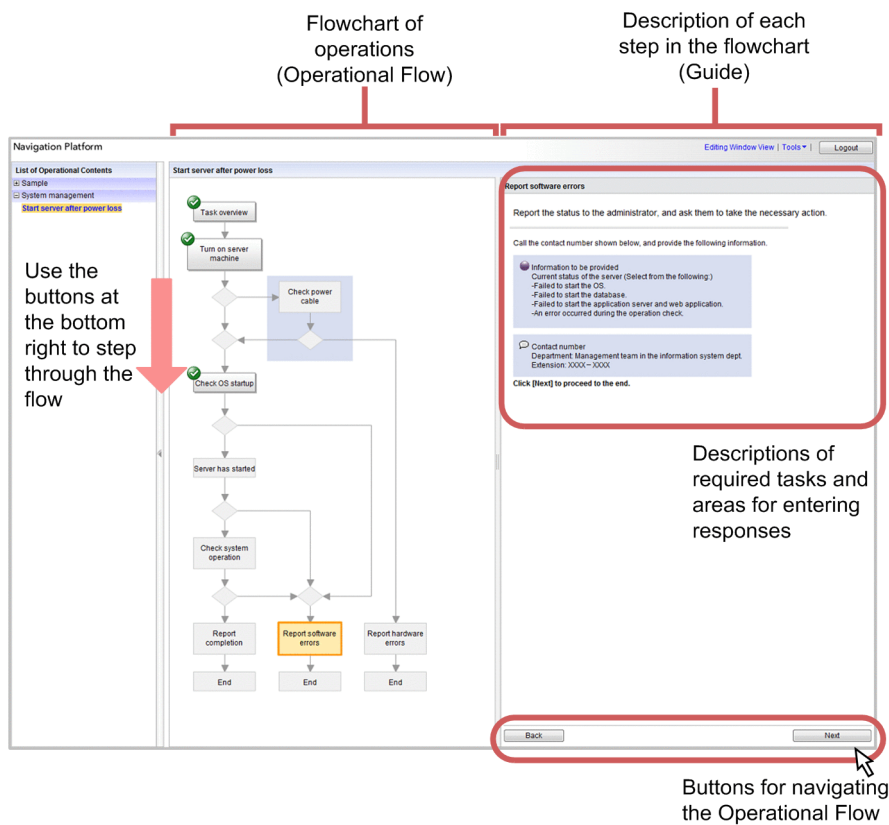
The operational information displayed on the Navigation Platform window includes the flowchart section, which is called the *Operational Flow*, and the section showing descriptions of the tasks required for each step in the flowchart, which are called *Guides*.

(2) Ability to create windows with no programming required

The operational information displayed on the Navigation Platform window (the Operational Flow and the Guides) is referred to collectively as an *Operational Content*. An Operational Content can be created in editing windows in a web browser. Content is created by selecting elements from the editing palette and placing the elements in the Operational Flow and the Guides.

When changes to the operation flows and procedures arise, minor changes are easily accommodated by revising the arrangement of the Operational Flow elements and the Guide descriptions in the editing window.

(3) Ability to link to external programs

You use the API provided by Navigation Platform to develop User Plugins for invoking web services, accessing operational databases, and otherwise linking to external programs of your choice.

In addition, by using ready-made System Plugins provided by Navigation Platform, you can link to other systems that use JP1 products by simply configuring settings on the screen.

JP1 products that can be linked using a System Plugin:

- JP1/Integrated Management - Manager 10-10 and later, JP1/Integrated Management 2 - Manager 12-00 and later (hereinafter abbreviated to JP1/IM-M)

- JP1/Integrated Management - View 10-10 and later, JP1/Integrated Management 2 - View 12-00 and later (hereinafter abbreviated to JP1/IM-V)

- JP1/Integrated Management - Service Support 10-10 and later, JP1/Service Support 11-00 and later (hereinafter abbreviated to JP1/IM-SS)

- JP1/Automatic Operation 10-52 and later (hereinafter abbreviated to JP1/AO)

Note that JP1/IM-M and JP1/IM-V are referred to collectively as JP1/IM.

The following figure provides an overview of the links between Navigation Platform and other JP1 products using System Plugins.

Figure 1–2: Overview of linkage with other JP1 products
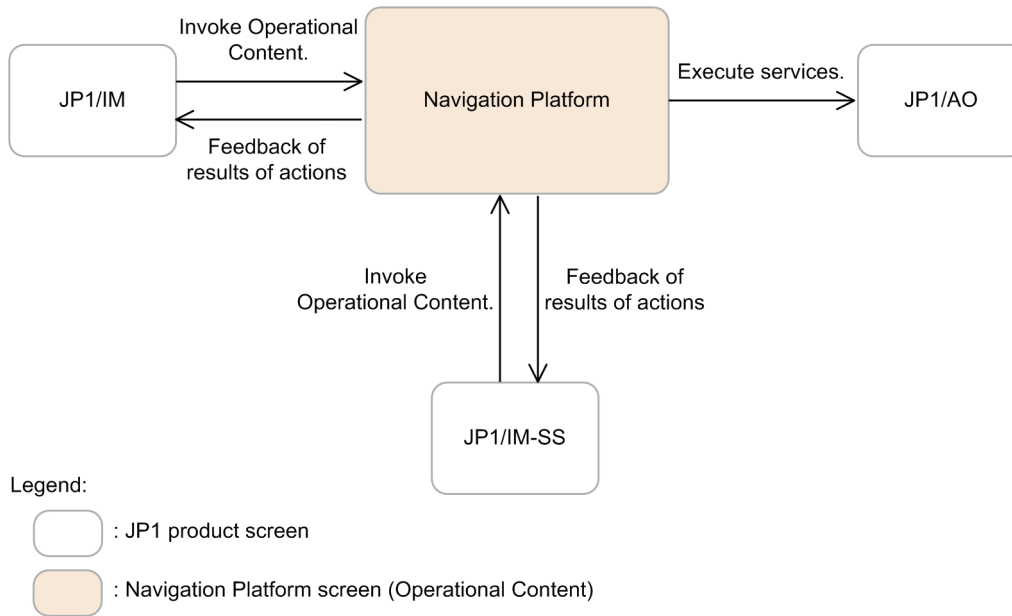
By using System Plugins, Navigation Platform and other JP1 products are able to inherit event information from each other. Because it is possible to invoke Operational Contents of Navigation Platform from the windows of other JP1 products, and then feed data from Operational Content processing results back to JP1 products through inheritance, the speed and accuracy of tasks such as incident response will increase.

Reference locations in this manual

If you want to link to other JP1 products, also see the following sections:

- *4.3 Setup preparations when using JP1/Base for user authentication*

- *5.13 Settings for linking to other JP1 products*

- *6.3 Setting access permissions for Operational Contents (when using JP1/Base for user authentication)*

For details about the Plugin Parts necessary to link to JP1 products, see the manual *JP1/Navigation Platform Content Editing Guide*.

1.1.2 Product structure

There are three Navigation Platform environments to be set up. Using Navigation Platform requires an *execution environment* for executing operations and an *editing environment* for editing Operational Contents. In addition, if you want to develop plugins, a *development environment* for developing plugins is required.

This section indicates which products are associated with the three types of environments.

Product to use in the execution environment

Navigation Platform

Product to use in the editing environment

Navigation Platform

Product to use in the development environment

Navigation Platform for Developers

Navigation Platform for Developers includes the functionality of Navigation Platform. Note that the development environment can also serve concurrently as the editing environment.

1.2 Overview of tasks from deployment to usage

This section describes the flow of tasks from deployment to usage of Navigation Platform and the specific tasks that are performed in each Navigation Platform environment.

1.2.1 Flow of tasks

The following figure shows the flow of tasks that are required from the deployment of Navigation Platform to the usage of Navigation Platform in your operations.

Figure 1–3: Flow of tasks from deployment to usage
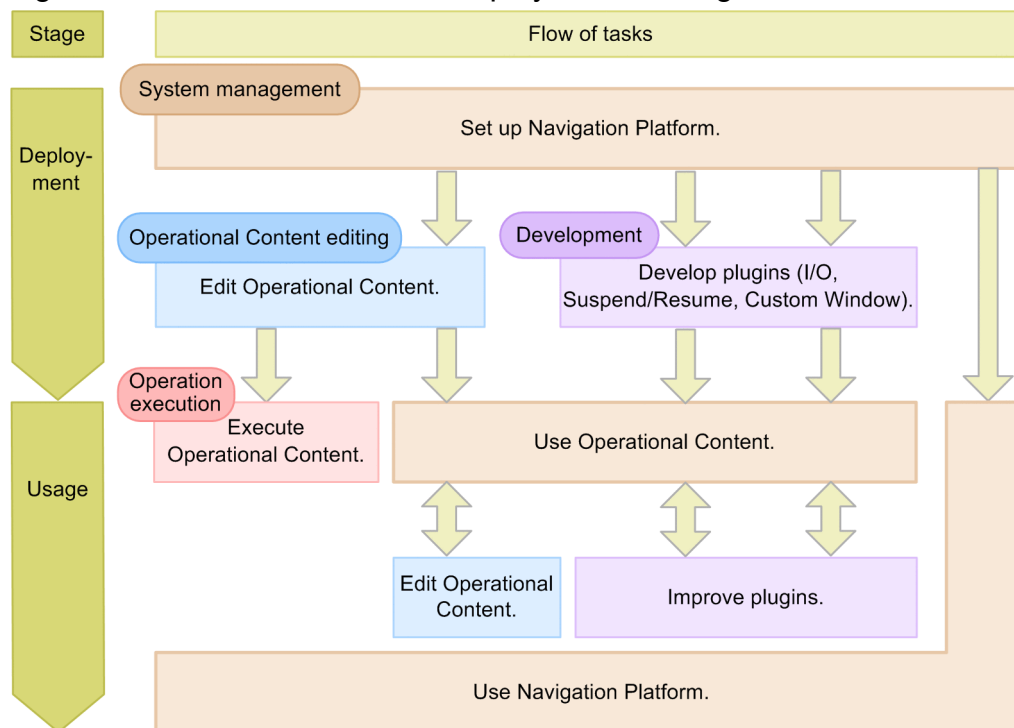
The following is an overview of the tasks shown in the figure.

(1) System management

The following is an overview of the system management tasks.

Tasks to be performed

The system management tasks are listed below. For details about system management, see *Part 2. Setup* and *Part 3. Usage*.

- Set up Navigation Platform

  Install Navigation Platform in your system and set it up. Also set up the directory server, which is prerequisite software.

- Use Navigation Platform

  Use the system on which Navigation Platform was set up.

- Use Operational Contents

Publish the Operational Contents created in the editing environment so that they are available for use in the execution environment, and introduce into the editing and execution environments the plugins and custom windows developed in the development environment.

In addition, if you are using user authentication, plan in advance which Operational Contents you want to make visible to which users. Then, based on the plan, create and set access permission groups when creating Operational Contents.

Environments for performing the tasks

These tasks are performed in the execution environment, editing environment, and development environment.

Users who perform the tasks

These tasks are performed by users with Administrator privileges in Windows and users with system administrator privileges in Navigation Platform.

In the Navigation Platform documentation, users who perform system management tasks are called *system administrators*.

(2) Editing Operational Contents

The following is an overview of the Operational Content editing tasks.

Tasks to be performed

The Operational Content editing tasks are listed below. For details about editing Operational Contents, see the manual *JP1/Navigation Platform Content Editing Guide*.

- Create Operational Contents
- Edit the Operational Contents that have been created

Environments for performing the tasks

These tasks are performed in the editing environment. The editing environment is accessed through a web browser.

Users who perform the tasks

These tasks are performed by users with administrator or editor access rights to the Operational Contents.

In the Navigation Platform documentation, a user who has permission to access an Operational Content as a manager is called a *Content Manager*, and a user who has permission to access an Operational Content as an editor is called a *Content Editor*.

When JP1/Base is used for user authentication, a user who has permission to access an Operational Content as a creator is called a *Content Creator*.

(3) Development

The following is an overview of the development tasks.

Tasks to be performed

The development tasks are listed below. For details about Navigation Platform development, see the manual *JP1/Navigation Platform Development Guide*.

- Development and improvement of Plugins (I/O, Suspend/Resume, and Custom Window)

Environments for performing the tasks

These tasks are performed in the development environment.

User who performs the tasks

These tasks are performed by users with Administrator privileges in Windows.

(4) Execution of operations

The following is an overview of the operational execution tasks.

Tasks to be performed

Execute operations while processing an Operational Content. For details about execution of operations, see the manual *JP1/Navigation Platform Content Editing Guide*.

Environments for performing the tasks

These tasks are performed in the execution environment. The execution environment is accessed through a web browser.

Users who perform the tasks

In the Navigation Platform documentation, individuals who execute operations are called *users*.

1.2.2 Tasks that can be performed in each Navigation Platform environment

The following table indicates the tasks that can be performed in the Navigation Platform execution environment, editing environment, and development environment.

Table 1‒1: Tasks that can be performed in each Navigation Platform environment

No.	Task to be performed		Execution environment	Editing environment	Development environment
1	System management	Set up Navigation Platform	Y	Y	Y
2		Use Navigation Platform	Y	Y	Y
3		Use Operational Contents	Y	Y	Y
4	Editing of Operational Contents	Create Operational Contents	N	Y	Y
5		Edit Operational Contents	N	Y	Y
6	Development	Develop and improve plugins (I/O, Suspend/Resume, and Custom Window)	N	N	Y
7	Execution of Operational Content		Y	Y	T

Legend:

Y: Can be performed.

T: Can be performed as a test.

N: Cannot be performed.

2

Navigation Platform Functions

Navigation Platform provides windows for using and creating Operational Contents. In addition, you can use plugins to link to external programs or to extend the functions of windows.

This chapter describes these functions of Navigation Platform.

2.1 Using and creating Operational Content

To use an Operational Content, you perform operations in an Operational Content Execution Window in your web browser. To create an Operational Content, you perform operations in an Operational Content Editing Window in your web browser.

You can customize the appearance of the Operational Content Execution Window and Operational Content Editing Window. For details about how to customize windows and for examples of customization, see *Chapter 7. Customizing Navigation Platform windows*.

2.1.1 What you can do in an Operational Content Execution Window

An Operational Content Execution Window is shown in the following figure.

Figure 2–1: Operational Content Execution Window
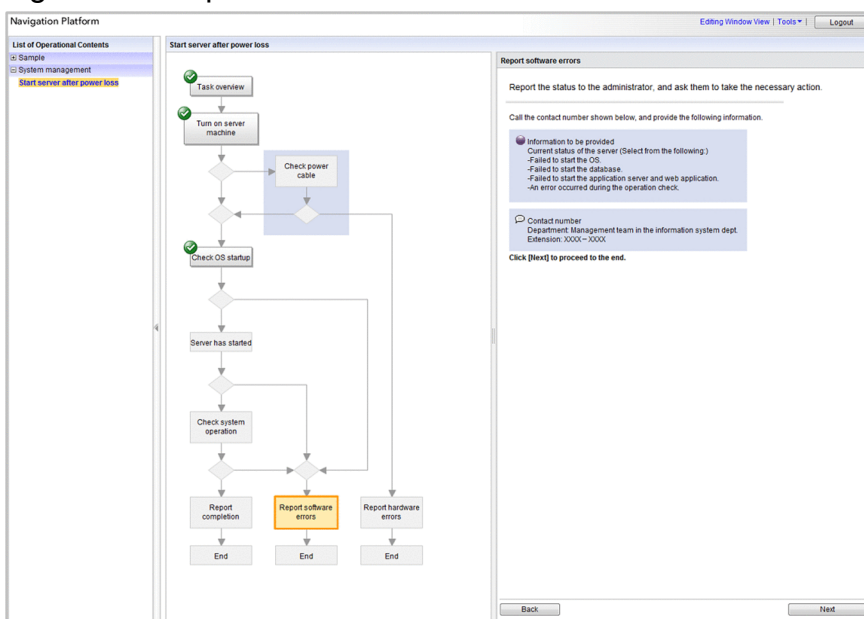
Note:
　　Menus and Operational Flows can be hidden depending on the setup configuration.

You can do the following in an Operational Content Execution Window:

- Understand operational procedures by referring to the Operational Flow
- Execute operations while referring to the explanations in the Guides
- Execute operations while displaying data such as JP1 event information in the Navigation Platform window (if you are using System Plugins)
- Execute operations while entering the data required by an external program in the Navigation Platform window (if you have developed a User Plugin to link to the program)
- Search the Operational Content
- Use the Reporting window to analyze operations
- In an offline environment, execute an Operational Content that is designed for offline execution

An Operational Content Execution Window can be customized to suit your requirements. The following figure shows an example of an Operational Content Execution Window that has been customized as described below.

Figure 2–2: Example of a customized Operational Content Execution Window

Change header logo.

Add Help.

Display links.

Change the color and design of components.
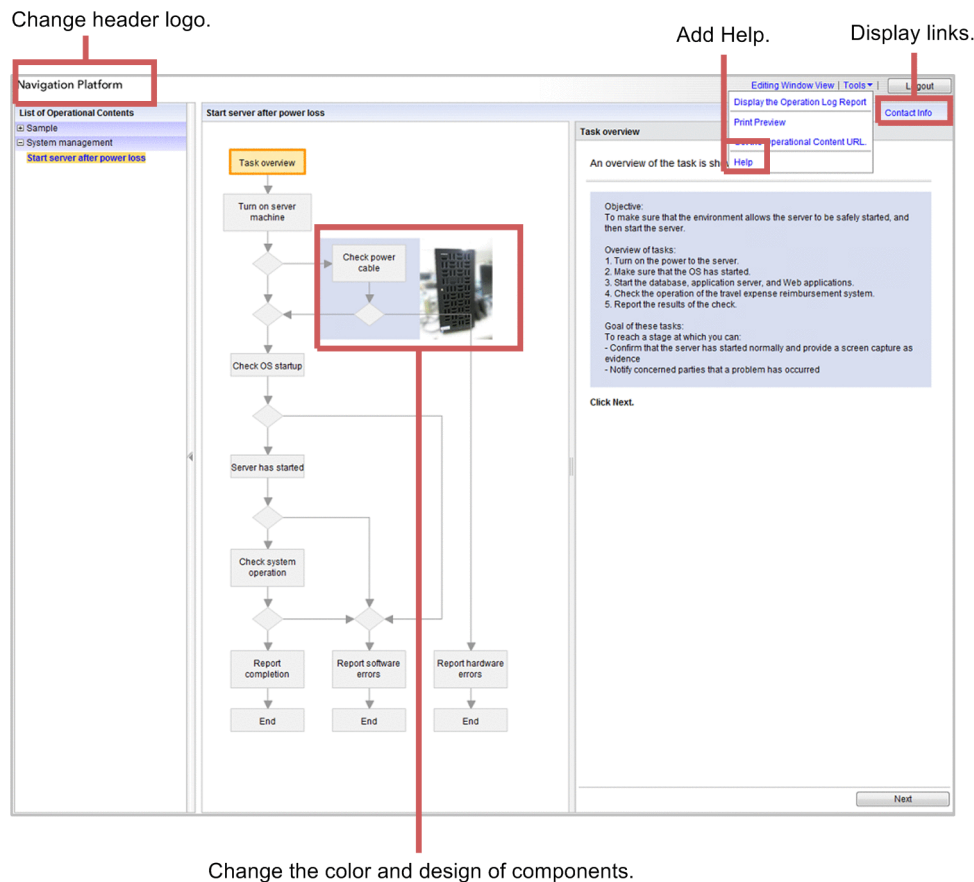
- Change the header logo, menu area, header links, and color and design of components

  By changing properties in the user property file (`ucnp_user.properties`), you can change visual features of the window, such as the header logo or the design and color of the components that appear in the Operational Flow. You can also add links in the header for where users can get help for operations.

  For details about the settings in the user property file, see *8.5 Specifying settings in the user property file (ucnp_user.properties)*.

  Additionally, by changing properties in the user label property file (`ucnp_label_user.properties`), you can change the displayed string of a link in the header.

  For details about the settings in the user label property file, see *8.7 Specifying settings in the user label property file (ucnp_label_user.properties)*.

- Display links to websites

  If there are websites that are referenced frequently while executing operations, you can display links to those sites by adding related links. For details about how to set related links, see the manual *JP1/Navigation Platform Content Editing Guide*.

- Change the details of messages

  By changing properties in the user message property file (`ucnp_message_user.properties`), you can change the details of messages with the following message IDs:

  `KDCZ00146-W`[#], `KDCZ10060-I`, `KDCZ00307-E`, `KDCZ00223-Q`

  #: Changes to the message details are also applied to the Operational Content Editing Window.

For details about the settings in the user message properties file, see *8.6 Specifying settings in the user message properties file (ucnp_message_user.properties)*.

- Add fonts that can be applied to resources in Operational Contents

  By changing properties in the user style property file (`ucnp_style_user.properties`), you can add non-system default font families to the set of fonts that can be applied to resources in Operational Contents.

  For details about the settings in the user style property file, see *8.8 Specifying settings in the user style property file (ucnp_style_user.properties)*.

📄 **Note**

- The Navigation Platform login window can also be customized by configuring settings in the user property file (`ucnp_user.properties`).

- You can also develop new windows separate from an Operational Content Execution Window and use them by linking them to the Operational Content Execution Window.

2.1.2 What you can do in an Operational Content Editing Window

An Operational Content Editing Window is shown in the following figure.

Figure 2–3: Operational Content Editing Window
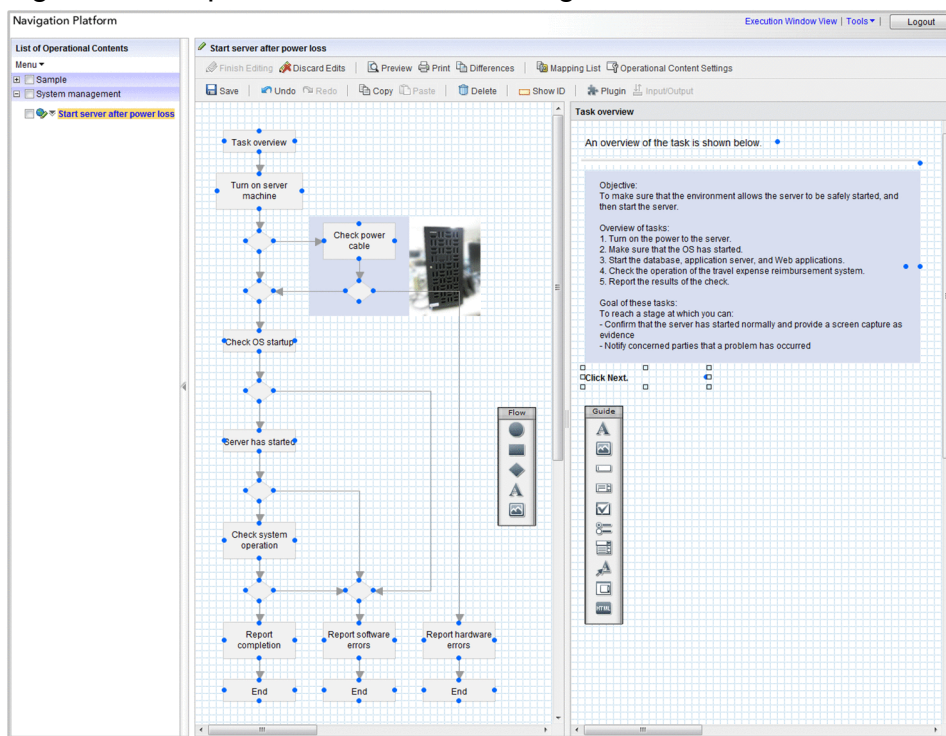
You can do the following in an Operational Content Editing Window:

- Create a new Operational Content
- Change, copy, and delete an Operational Content you have created
- Set access permissions to an Operational Content
- Associate an Operational Content with plugins (if you are using plugins)

- Create and display links to websites

- Publish an Operational Content to users

- Make private an Operational Content that was published

- Reserve publication of an Operational Content

- Delete an Operational Content publishing reservation

- Perform version management of an Operational Content

- Review changes to an Operational Content

> 📄 **Note**
>
> An Operational Content Editing Window can also be customized by changing the properties in the user property file (`ucnp_user.properties`) in the same way as for an Operational Content Execution Window. For details about the settings in the user property file, see *8.5 Specifying settings in the user property file (ucnp_user.properties)*.

2.1.3 URLs used to access Navigation Platform windows

This section explains the URLs used to access Navigation Platform windows from a web browser to work with Operational Contents.

A URL used to access a Navigation Platform window consists of a basic URL and parameters. Specification of parameters is optional. By including parameters with the basic URL, you can access a specific Operational Content directly, or select the types of buttons that can be used to exit Navigation Platform.

> ❗ **Important**
>
> The URLs describe here cannot be used as URLs to invoke Navigation Platform from other JP1 products. See *5.13.6 URL used for calling Navigation Platform from other JP1 products*.

If your system configuration does not include a directory server, you can omit the parameter that specifies a single sign-on password from the basic URL.

(1) Basic URLs for accessing Operational Content Execution Windows

When you use the URLs below to access Navigation Platform, the **Editing Window View** menu command does not appear in the window. This prevents the user from making changes to Operational Contents. Provide these URLs to users who will only use the Operational Contents, but who have no need to edit them in the Operational Content Editing Window.

When accessing Navigation Platform from the login window

The basic URL differs depending on whether you are specifying parameters as part of the URL. For details about parameter specification, see *2.1.4 Parameters that can be specified in basic URLs*.

- When not specifying parameters

```
http(s)://host-name:port-number/ucnpBase/
```

- When specifying parameters

```
http(s)://host-name:port-number/ucnpBase/portal/screen/TitlePortlet/portle
t/ucnp/pane/-44Ob44O844Og55S76Z2i/layout_id/default/tab_id/-44Ob44O844Og55
S76Z2i
```

When using the Cosminexus integrated user management framework to perform single sign-on

```
http(s)://host-name:port-number/ucnpBase/portal/screen/Home/action/PLoginU
ser?com.cosminexus.admin.auth.name=user-ID&com.cosminexus.admin.auth.passw
ord=password
```

Note:

    We recommend that you specify the POST method when using this URL to access an Operational Content Execution Window. If you specify the GET method, the user ID and password form part of the URL as a query, which can leave a trace in web server logs and other locations.

The values of the variables are explained below.

- *host-name*

  The host name or IP address of the J2EE server machine on which Navigation Platform is installed.

- *port-number*

  The value of the property ucnp.setup.server.cosminexus.hws.http.port that is set in the user setup property file (ucnp_setup_user.properties) (the port number of the web server on which Navigation Platform is installed). For details about the user setup property file, see *8.5 Specifying settings in the user property file (ucnp_user.properties)*.

- *user-ID*

  The user ID used for single sign-on. This user ID must be set in the com.cosminexus.admin.auth.name parameter of the HTTP request.

- *password*

  The password corresponding to the user ID used for single sign-on. This password must be set in the com.cosminexus.admin.auth.password parameter of the HTTP request.

(2) Basic URLs for accessing Operational Content Editing Windows

When you use the URLs below to access Navigation Platform, an Operational Content Editing Window appears when you log in.

When accessing Navigation Platform from the login window

```
http(s)://host-name:port-number/ucnpBase/portal/screen/TitlePortlet/portle
t/ucnp/pane/-44Ob44O844Og55S76Z2i/layout_id/default/tab_id/-44Ob44O844Og55
S76Z2i?start_editor=true&open_editor=true
```

When using the Cosminexus integrated user management framework to perform single sign-on

```
http(s)://host-name:port-number/ucnpBase/portal/screen/Home/action/PLoginU
ser?com.cosminexus.admin.auth.name=user-ID&com.cosminexus.admin.auth.passw
ord=password&start_editor=true&open_editor=true
```

Note:

    We recommend that you specify the POST method when using this URL to access an Operational Content Editing Window. If you specify the GET method, the user ID and password form part of the URL as a query, which can leave a trace in web server logs and other locations.

The values of the variables are explained below.

- *host-name*

  The host name or IP address of the J2EE server machine on which Navigation Platform is installed.

- *port-number*

  The value of the property `ucnp.setup.server.cosminexus.hws.http.port` that is set in the user setup property file (`ucnp_setup_user.properties`) (the port number of the web server on which Navigation Platform is installed). For details about the user setup property file, see *8.5 Specifying settings in the user property file (ucnp_user.properties)*.

- *user-ID*

  The user ID used for single sign-on. This user ID must be set in the `com.cosminexus.admin.auth.name` parameter of the HTTP request.

- *password*

  The password corresponding to the user ID used for single sign-on. This password must be set in the `com.cosminexus.admin.auth.password` parameter of the HTTP request.

(3) Basic URLs for accessing custom windows (new windows)

When you use the URLs below to access Navigation Platform, a custom window (new window) appears when you log in.

When accessing Navigation Platform from the login window

```
http(s)://host-name:port-number/ucnpBase/portal/action/Plain/portlet/ucnp/
pane/-44Ob44O844Og44Kw44Or44O844O844OX/layout_id/default/url/L2FkcG9ydGxldHMvd
WNucC9qc3Avdmlldy9Sb290SWZyYW1lLmpzcA--?ucnpUserPageId=name-of-Custom-Wind
ow-Plugin
```

When using the Cosminexus integrated user management framework to perform single sign-on

```
http(s)://host-name:port-number/ucnpBase/portal/screen/Home/action/PLoginU
ser?com.cosminexus.admin.auth.name=user-ID&com.cosminexus.admin.auth.passw
ord=password&ucnpUserPageId=name-of-Custom-Window-Plugin
```

Notes:

- We recommend that you specify the `POST` method when using this URL to access a custom window. If you specify the `GET` method, the user ID and password form part of the URL as a query, which can leave a trace in web server logs and other locations.

- You must use the `ucnpUserData` parameter when passing data in a URL that accesses a custom window. You cannot use a parameter other than `ucnpUserData` to pass data.

The values of the variables are explained below.

- *host-name*

  The host name or IP address of the J2EE server machine on which Navigation Platform is installed.

- *port-number*

  The value of the property `ucnp.setup.server.cosminexus.hws.http.port` that is set in the user setup property file (`ucnp_setup_user.properties`) (the port number of the web server on which Navigation Platform is installed). For details about the user setup property file, see *8.5 Specifying settings in the user property file (ucnp_user.properties)*.

- *name-of-Custom-Window-Plugin*

  The value specified in the `userplugin.name` key in the plugin information property file when generating the template for the Custom Window Plugin.

  In the editing and execution environments, check with the user who developed the custom window regarding the value they specified for the `userplugin.name` key.

- *user-ID*

  The user ID used for single sign-on. This user ID must be set in the `com.cosminexus.admin.auth.name` parameter of the HTTP request.

- *password*

  The password corresponding to the user ID used for single sign-on. This password must be set in the `com.cosminexus.admin.auth.password` parameter of the HTTP request.

2.1.4 Parameters that can be specified in basic URLs

This subsection describes the parameters you can specify in basic URLs and the format to use when specifying these parameters.

(1) Format of parameters specifiable in basic URLs

Use the following format when specifying parameters in basic URLs:

> *basic-URL*?*parameter-name-1=parameter-value*`[[&`*parameter-name-2=parameter-value*`]...]`

Separate the basic URL and the first parameter with a question mark (`?`), and separate each subsequent parameter with an ampersand (`&`). You can specify multiple parameters by connecting them with ampersands (`&`) in this way.

By adding parameters to the end of the basic URL, you can control which window appears when a user logs in to Navigation Platform. You can also use parameters to integrate plugins and custom windows.

Under the following circumstances, because the basic URL already contains parameters, specify an ampersand (`&`) instead of a question mark (`?`) as the character that connects the basic URL to its parameters:

- When accessing the Operational Content Editing Window

- When accessing a custom window

- When using the Cosminexus integrated user management framework to perform single sign-on

(2) List of parameters specifiable in basic URLs

The table below lists the parameters you can specify in a basic URL. The parameters you can specify depend on the window you are accessing.

Table 2–1: Parameters specifiable in basic URLs

Parameter name	Parameter value	Description	Whether parameter can be used		
			Operational Content Execution Window	Operational Content Editing Window	Custom window (new window)
`contentId`	Operational Content ID	Directly opens the Operational Content associated with the specified ID. Whether the	Y	Y	N

Parameter name	Parameter value	Description	Whether parameter can be used		
			Operational Content Execution Window	Operational Content Editing Window	Custom window (new window)
contentId	Operational Content ID	Operational Content opens as editable or read-only depends on the status of the specified Operational Content. Operational Content IDs are case sensitive. You can acquire Operational Content IDs by using a menu command in the Operational Content Editing Window. For details about the menus in the Operational Content Editing Window, see the manual *JP1/Navigation Platform Content Editing Guide*. If the **Get URL** menu appears in the Operational Content Execution Window, you can acquire a URL with the Operational Content ID already set in the contentId parameter. To display the **Get URL** menu in the Operational Content Execution Window, the property ucnp.base.server.geturl.link.display must be set to true in the user property file (ucnp_user.properties). For details about the ucnp_user.properties user property file, see *8.5 Specifying settings in the user property file (ucnp_user.properties)*.	Y	Y	N
open_editor	true	Directly opens the Operational Content Editing Window after login. If you omit this parameter, the Operational Content Execution Window appears after login. The user can then switch to the Operational Content Editing Window by clicking the **Editing Window View** menu command.	N	Y	N
start_editor	true	Displays the **Editing Window View** and **Execution Window View** menu commands. When this parameter is specified, the user can switch between the Operational Content Execution Window and the Operational Content Editing Window. You cannot use this parameter in the execution environment.	Y	Y	N
ucnpCloseBtn[#]	logout	Specifies the behavior of the button used to exit Navigation Platform windows. If you specify logout, a **Logout** button is displayed that logs you out and returns you to the login window.	Y	Y	N
ucnpOptions	Values used by a User Plugin (I/O Plugin or Suspend/Resume Plugin)	This parameter provides values to be used by plugins. If you need to use a character in a parameter value that cannot be used in a URI, specify the value as a URL-encoded string. You can find out the values a plugin uses by contacting the user who developed the plugin.	Y	N	N

Parameter name	Parameter value	Description	Whether parameter can be used		
			Operational Content Execution Window	Operational Content Editing Window	Custom window (new window)
ucnpOptions	Values used by a User Plugin (I/O Plugin or Suspend/Resume Plugin)	For details about how the values of this parameter are used in a plugin, see the manual *JP1/Navigation Platform Development Guide*. The following describes the characters you can specify in a value of this parameter, and the maximum length of the value: Specifiable characters 　ASCII characters (excluding characters with the ASCII codes `0x00` to `0x1F` and `0x7F`). Maximum length of parameter value 　Character strings (or the length of the URL-encoded character string) must not exceed 1,024 bytes. If a character string exceeds 1,024 bytes in length, the message `KDCZ10306-W` is output to the trace file and characters beyond 1,024 bytes are deemed invalid.	Y	N	N
ucnpUserData	Values used by a custom window (new window)	This parameter provides values for use by custom windows (new windows). You can find out the values used by the new window by contacting the user who developed the window. For details about how the values of this parameter are used in the new window, see the manual *JP1/Navigation Platform Development Guide*.	N	N	Y
ucnpUserPageId	Name of Custom Window Plugin	Displays a custom window (new window) after login.	N	N	Y

Legend:
　Y: Can be used.
　N: Cannot be used.

\#
- If you use this parameter when `true` is specified for the property `ucnp.base.client.confirm.page.unload.enable` in the user property file (`ucnp_user.properties`), make sure that you also review the contents of message `KDCZ00146-W` in the user message properties file (`ucnp_message_user.properties`). For details about the user message properties file (`ucnp_message_user.properties`), see *8.6 Specifying settings in the user message properties file (ucnp_message_user.properties)*.

(3) Example of URL with parameters specified

The following is an example of a URL that combines a number of parameters:

```
http://host-name:port-number/ucnpBase/portal/screen/TitlePortlet/portlet/ucnp/
pane/-44Ob44O844Og55S76Z2i/layout_id/default?
open_editor=true&ucnpCloseBtn=logout&contentId=Operational-Content-ID
```

2.1.5 IDs and passwords for logging in to Navigation Platform

The IDs for logging in to Navigation Platform as a system administrator are specified in the property `ucnp.setup.server.system.admin.userids` in the user setup property file (`ucnp_setup_user.properties`). The default value is `user1`.

If you are using Active Directory for user authentication, a password corresponding to a value specified in the property `ucnp.setup.server.system.admin.userids` is required. If you do not know the passwords, ask the Active Directory administrator. If your setup environment does not use user authentication, password input is not required.

If you are using JP1/Base for user authentication, the JP1 user IDs and passwords must satisfy the conditions listed below. Confirm the JP1 users and passwords with the JP1/Base administrator.

- The JP1 user IDs and passwords must be registered in JP1/Base.
- The JP1 users must have been granted permission to access Navigation Platform.

2.2 Linking with external programs

Plugins are required to create Operational Contents that link to external programs and control the input and output of data between them. The following types of plugins can be used in Navigation Platform:

- System Plugins (no program development is required)
- User Plugins (program development is required)

If you want to exchange data with an external program or database that is not a JP1 product, you must develop a User Plugin. A User Plugin is also required if you want to add functionality for temporary storage of input data.

2.2.1 System Plugins

System Plugins are Plugin Parts provided by Navigation Platform that do not require program development. The System Plugins include the following:

- Data Store Plugin
- JP1 Link Plugin
- JavaScript Plugin (JavaScript needs to be written.)

In this manual, plugins to control the input and output of data are referred to generically as *I/O Plugins*.

I/O Plugins of the System Plugins include the following:

- Data Store Plugin
- Automatic Operation Property Output Plugin
- Automatic Operation Service Execution Plugin
- Automatic Operation Window URL Creation Plugin
- JP1 Event Status Change Plugin
- JP1 Event information output plugin
- Service Support Window URL Creation Plugin
- JavaScript Plugin
- I/O Plugins of the User Plugins

Plugins that do not communicate with a server are referred to as *Offline Plugins* and non-offline plugins *Online Plugins*. Offline Plugins include the following:

- Data Store Plugin
- JavaScript Plugin[#]

[#]

    If using JavaScript Plugin offline, it is necessary to select the **Execute in the browser** check box in the **Attribute Settings** window of the JavaScript Plugin part in advance.

(1) Data Store Plugin processing and behavior diagram

Using the Data Store Plugin, the input and output of data within an Operational Content can be managed, and values that are entered or selected by the user can be inherited and displayed by other nodes. The following is an example of an Operational Content that uses the Data Store Plugin.

Figure 2–4: Example of Operational Content using the Data Store Plugin
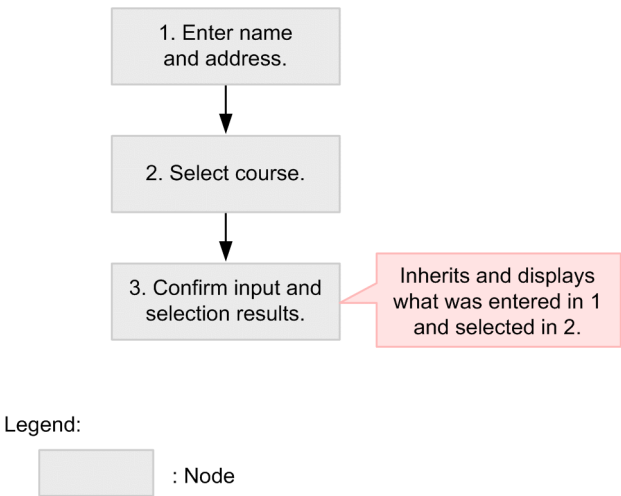
In this example, by placing a Data Store Plugin in each node, the data entered in nodes 1 and 2 is inherited by node 3, which outputs it for display.

(2) JP1 Link Plugin processing and behavior diagram

Using the JP1 Link Plugin, an Operational Content in Navigation Platform can be linked to other JP1 products in external systems. The following figure illustrates the Operational Flow when Navigation Platform is linked to other JP1 products.

Figure 2–5: Operational Flow when Navigation Platform is linked to other JP1 products
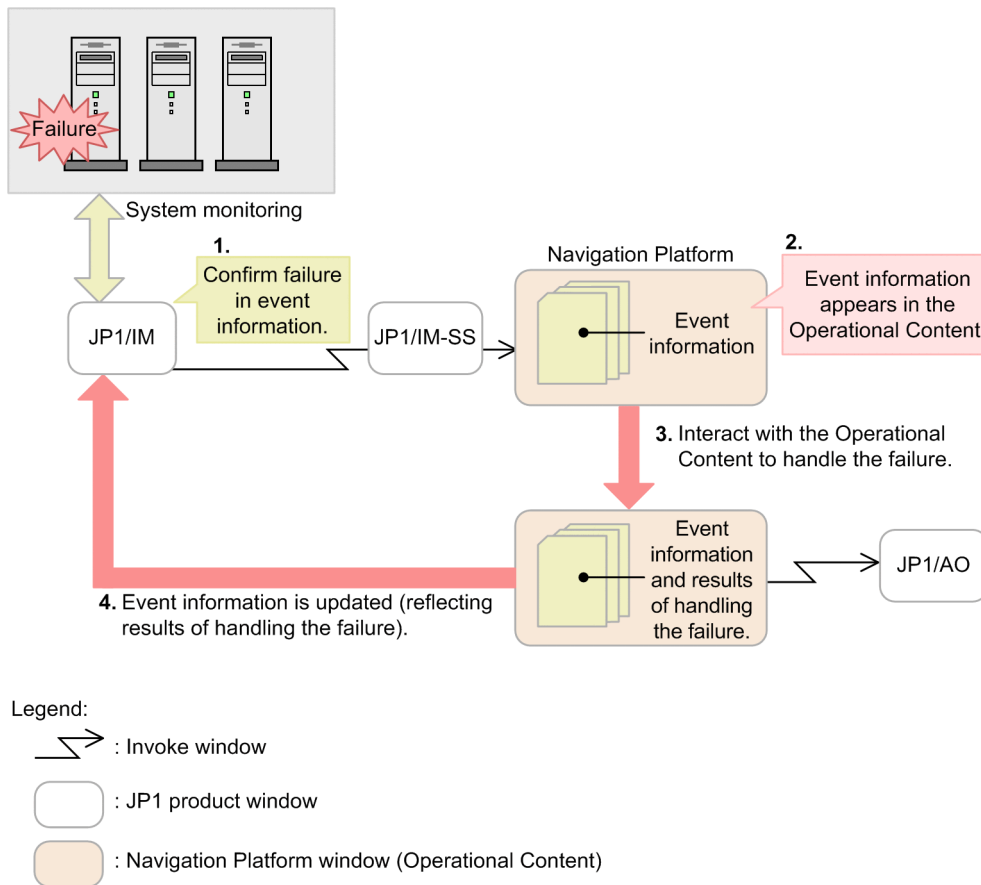
The figure represents the flow of operations as follows.

1. The occurrence of a failure is confirmed in the JP1/IM window.

2. In order to determine how to handle the failure, an Operational Content is invoked from the JP1/IM or JP1/IM-SS window.

3. The failure is handled by interacting with the Operational Content.

   In some cases, the failure can be handled more efficiently by invoking the JP1/AO window from the Operational Content.

4. The information that the failure has been handled is reflected in the JP1/IM window.

Note that development of a User Plugin is required in the event you wish to exchange data with external programs or databases that are not JP1 products,.

(3) JavaScript Plugin processing and behavior diagram

An overview of the JavaScript Plugins is illustrated below.

Figure 2–6: Overview of JavaScript Plugins
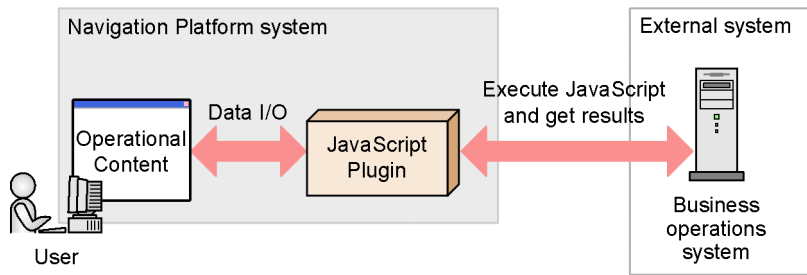
A JavaScript Plugin allows you to write server-side JavaScript running on a server or client-side JavaScript running on a web browser (on a client) that uses data from Operational Contents as input or output.

In this way, you can execute any processing that can be programmed with JavaScript by using JavaScript Plugins, without the need to develop User Plugins. The JavaScript written in a JavaScript Plugin is saved as part of Operational Contents.

Furthermore, with JavaScript Plugins, you can invoke a specified URL by using an API (JavaScript API) provided by Navigation Platform. For example, you can invoke a Web API (REST API, etc.) released on the cloud or the Web server from a JavaScript Plugin.

2.2.2 User Plugins

A User Plugin is a plugin that is developed using the API provided by Navigation Platform. The following types of User Plugins can be developed:

- I/O Plugin

  An I/O Plugin controls the input and output of data between external programs that cannot be controlled by a System Plugin.

- Suspend/Resume Plugin

  A Suspend/Resume Plugin enables a user to temporarily save information entered in the Operational Content Execution Window, and then restore that information when resuming operations. When you develop a Suspend/Resume Plugin, users will be able to view other operations while in the middle of their own operations, and resume their operations from the point of the temporarily saved status even after having logged out.

- Custom Window Plugin

  A Custom Window Plugin is a plugin for the development of new windows. It lets you display separate windows created independently of other Navigation Platform windows (custom windows) after logging in.

(1) I/O Plugin (User Plugin) processing and behavior diagram

An overview of the I/O Plugin (User Plugin) is illustrated below.

Figure 2–7: I/O Plugin (User Plugin) overview
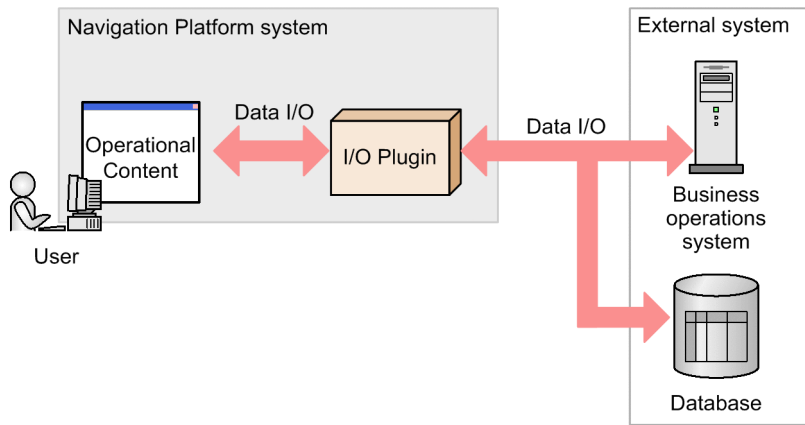
Once there is a link to the I/O Plugin (User Plugin), the following processing can be performed:

- Passing data between processes in the Operational Flow
- Inserting values entered in Guides into the database

For example, suppose that the flow of operations is as follows:

1. Make changes to the details of a contract
2. Confirm the changes

In this case, the Guide in step 2 (confirm the changes) is associated with an I/O Plugin (User Plugin) so that it is able to display the values that are entered in step 1 (make changes to the details of a contract). The following figure illustrates the behavior of the Operational Content Execution Window when a Guide is associated with an I/O Plugin (User Plugin).

Figure 2–8: Behavior of Operational Content Execution Window when a Guide is associated with an I/O Plugin (User Plugin)
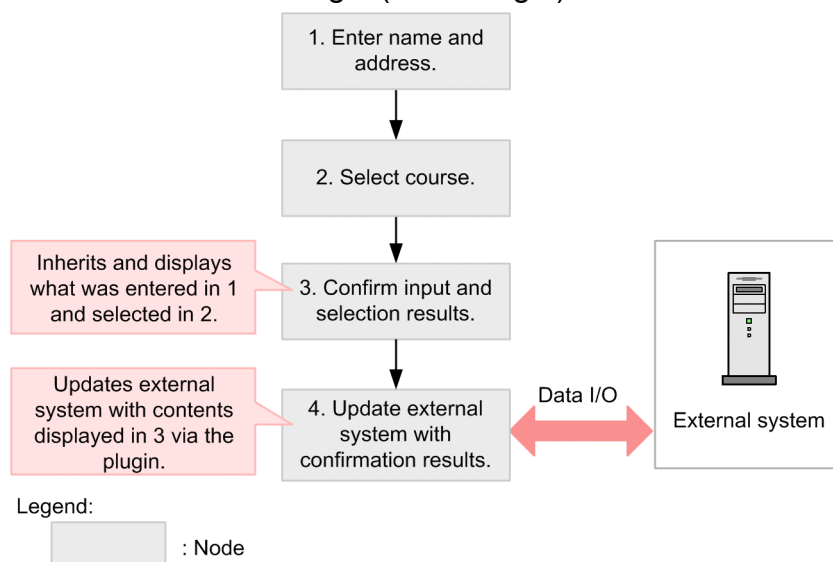
In addition to developing an I/O Plugin (User Plugin), it is necessary in order to use the plugin to use the Operational Content Editing Window to associate it with a Guide. For details about doing this, see the manual *JP1/Navigation Platform Content Editing Guide*.

(2) Suspend/Resume Plugin (User Plugin) behavior diagram

The following figure illustrates the behavior of the Operational Content Execution Window when a Suspend/Resume Plugin is used.

Figure 2–9: Behavior of Operational Content Execution Window when a Suspend/Resume Plugin is used
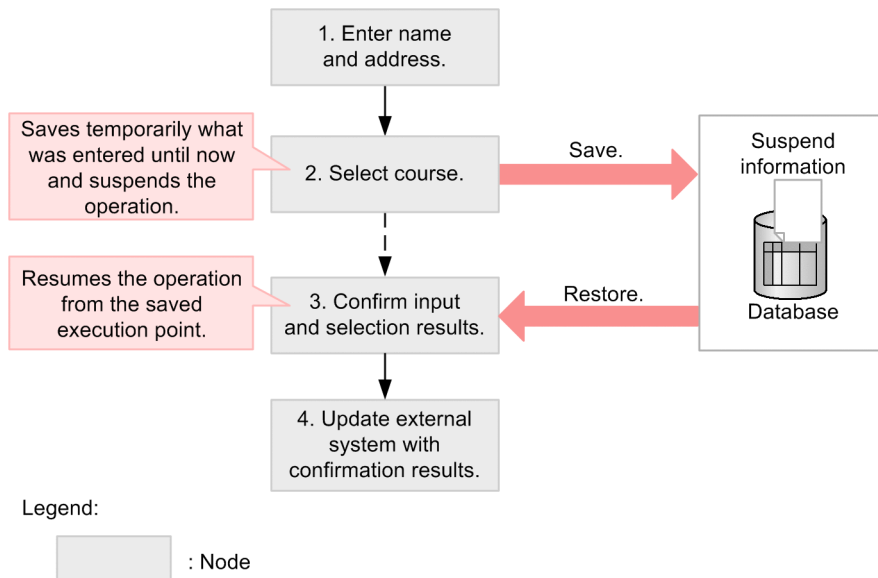
The user can save the information that was entered by clicking the **Suspend** button in the bottom right corner of the Operational Content Execution Window. When operations are resumed, the information listed below (*suspend information*) is restored.

- Process that was running before it was suspended

  The process that was running before the suspension is restored as the currently running process. In addition, the Operational Flow scrolls automatically[#1] to make the currently running process visible.

- Processes for which direct transition is enabled[#2]

  The statuses of processes that can directly transition to other nodes when you click on them are restored.

- Information entered in Guides

  The information that was entered in the Guides of each process is restored.

#1

Automatic scrolling occurs if the property `ucnp.base.client.autoscroll` is `true` in the user property file (`ucnp_user.properties`).

#2

Nodes that can directly transition to other nodes are displayed if the property `ucnp.base.client.directjump.enable` is `true` in the user property file (`ucnp_user.properties`).

In addition to developing the plugin, the tasks listed below are also required in order to use a Suspend/Resume Plugin. References to additional details are provided in parentheses.

- Estimate the amount of suspend information (see *3.4.3 Estimating the size when using a Suspend/Resume Plugin*)
- Set the following properties (see *8.5 Specifying settings in the user property file (ucnp_user.properties)*)

- Required: `ucnp.base.client.suspend.enable` (enables or disables use of Suspend/Resume Plugin)

- Optional: `ucnp.base.client.viewer.confirm.discardinput.enable` (enables or disables display of a dialog box for confirmation before discarding input information)

• Use the suspend information when adding or modifying an Operational Content (see *5.6 Handling suspend information*)

3

Preparing for Navigation Platform Setup

This chapter explains the procedures for installing and uninstalling Navigation Platform. It also explains what needs to be reviewed and verified before installation and provides information about upgrading Navigation Platform.

3.1 General procedure up to setup

Navigation Platform includes an editing environment and a development environment for creating Operational Contents, and an execution environment where Operational Contents are made available to users.

This section describes the general procedure leading up to the setup of each environment. References to the sections that provide detailed information are shown in parentheses.

1. Required: Reviewing and verifying the system configuration (*3.2*)

2. Required: Checking prerequisites (*3.3*)

3. Required: Estimating the size of the database server (*3.4.1*)

4. Optional: Estimating the size when using a Suspend/Resume Plugin (*3.4.3*)

5. Required: New installation of Navigation Platform (*3.5.1*, *3.5.2*)

3.2 System configuration

The Navigation Platform system is composed of the following elements:

- The server machines on which Navigation Platform is set up
- Client machines for accessing the Navigation Platform window via a web browser
- A user authentication server machine

> 📄 **Note**
>
> The user authentication products and web browsers are not included with Navigation Platform. They must be obtained separately.
>
> For information on the recommended specifications for the server and client machines, and the web browsers and user authentication products that can be used, see *3.3 Prerequisites for system setup*.

3.2.1 System configuration considerations

Navigation Platform can be set up on three types of server machines: a server for the execution environment (the Operational Content Execution Window), a server for the editing environment (the Operational Content Editing Window), and a server for the development environment. The execution environment server machine is where users access Operational Contents that have been created in the editing and development environments. When deciding on a system configuration, the following points must be taken into consideration:

- Whether you need to develop plugins and custom windows
- The number of users who will edit Operational Contents[#]
- The number of users who will maintain (modify) Operational Contents[#]
- The number of users who will interact with Operational Contents[#]
- Whether users will interact with Operational Contents on an iPad
- Whether Navigation Platform will be linked with other JP1 products (whether a JP1 Link Plugin will be used)
- Operational Content access management (whether an authentication server will be used for user authentication)

[#]
  Make sure there will be no more than 300 users per server.

For example configurations in which these factors are taken into account, see *3.2.3 System configuration examples*.

3.2.2 Authentication server deployment considerations

Deployment of an authentication server is optional. If there will be only a small number of individual users, Navigation Platform can be configured without an authentication server. If the Operational Contents will be used by an unspecified large number of users, we recommend deploying an authentication server for user management.

3.2.3 System configuration examples

The examples in this section illustrate different Navigation Platform system configuration patterns.

> **📄 Note**
>
> - If you want to use a configuration that is not consistent with any of the examples shown here, please contact us. Note that the descriptions in this manual assume a configuration in which the development environment, editing environment, and execution environment are each on a separate machine (the configuration illustrated in *(4) When you want to develop plugins and custom windows*).
>
> - The most appropriate property settings might be different for Operational Contents that are intended for use on an iPad compared to other Operational Contents. In situations where users will interact with Operational Contents on an iPad, we recommend setting up a dedicated execution environment that is configured for optimal display on the iPad.

> **❗ Important**
>
> When you use Mobile Safari as the web browser, there are limits to the functions available on Navigation Platform. For this reason, if you use Mobile Safari, we recommend that you prepare an environment dedicated to Mobile Safari as the execution environment for Navigation Platform.
>
> For details about the limited availability of functions when Mobile Safari is used, see *3.3.4(4) Limited availability of functions when Mobile Safari is used*.

---

(1) When you want to reduce the work required of the system administrator to use Operational Contents

To reduce the work required of the system administrator to use Operational Contents, we recommend a system configuration in which the editing environment also serves as the execution environment.

Figure 3–1: System configuration example (editing environment is also the execution environment)
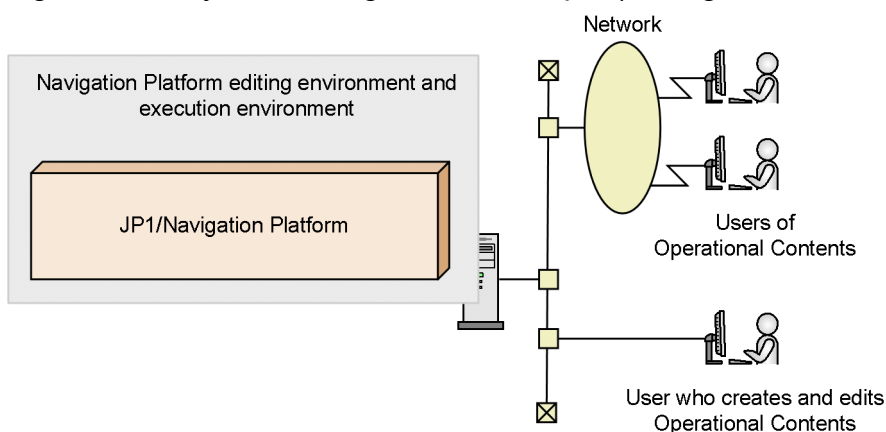
Running the editing environment and the execution environment on a single server machine can reduce the system administrator's workload, because no effort is required to export to the execution environment Operational Contents that have been created in the editing environment. On the other hand, there are other points to consider, such as the fact that the workload on the server might become large when many users access the server at the same time.

(2) When you want to protect users from the effects of editing mistakes

In order to ensure that users are not affected by editing mistakes while Operational Contents are being created, we recommend a system configuration that separates the editing environment from the execution environment.

Figure 3–2: System configuration example (separate editing and execution environments)
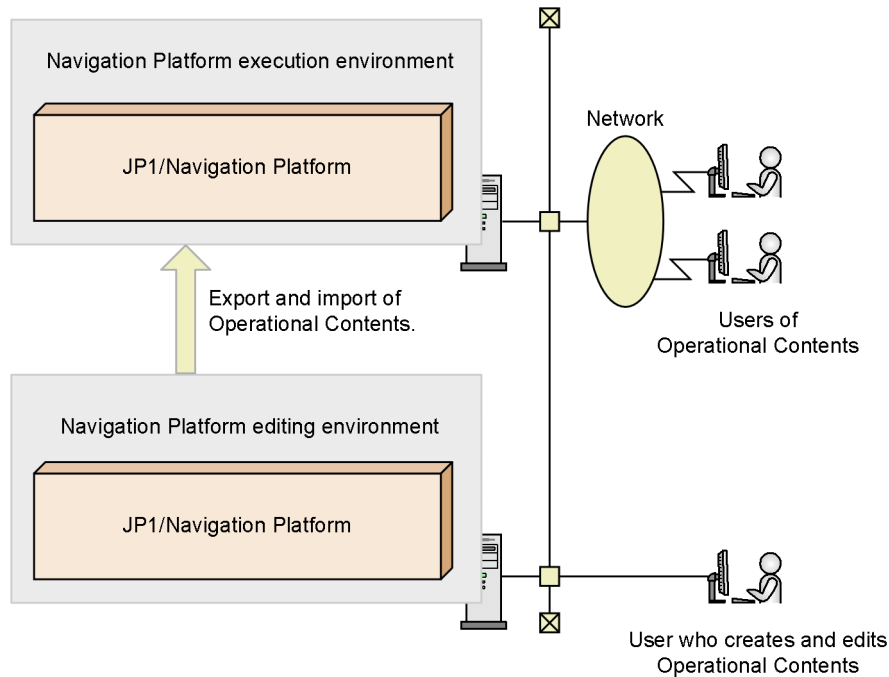
When you run the editing environment and the execution environment on separate machines, you must export the Operational Contents created in the editing environment and import them into the execution environment. In this case, the execution environment remains unaffected by editing mistakes, for example if an Operational Content is accidentally made private or is deleted while it is being used.

(3) When you want to balance the system workload

In order to balance the workload on the system, we recommend a system configuration that divides the execution environment among multiple servers.

Figure 3–3: System configuration example (multiple execution environments)
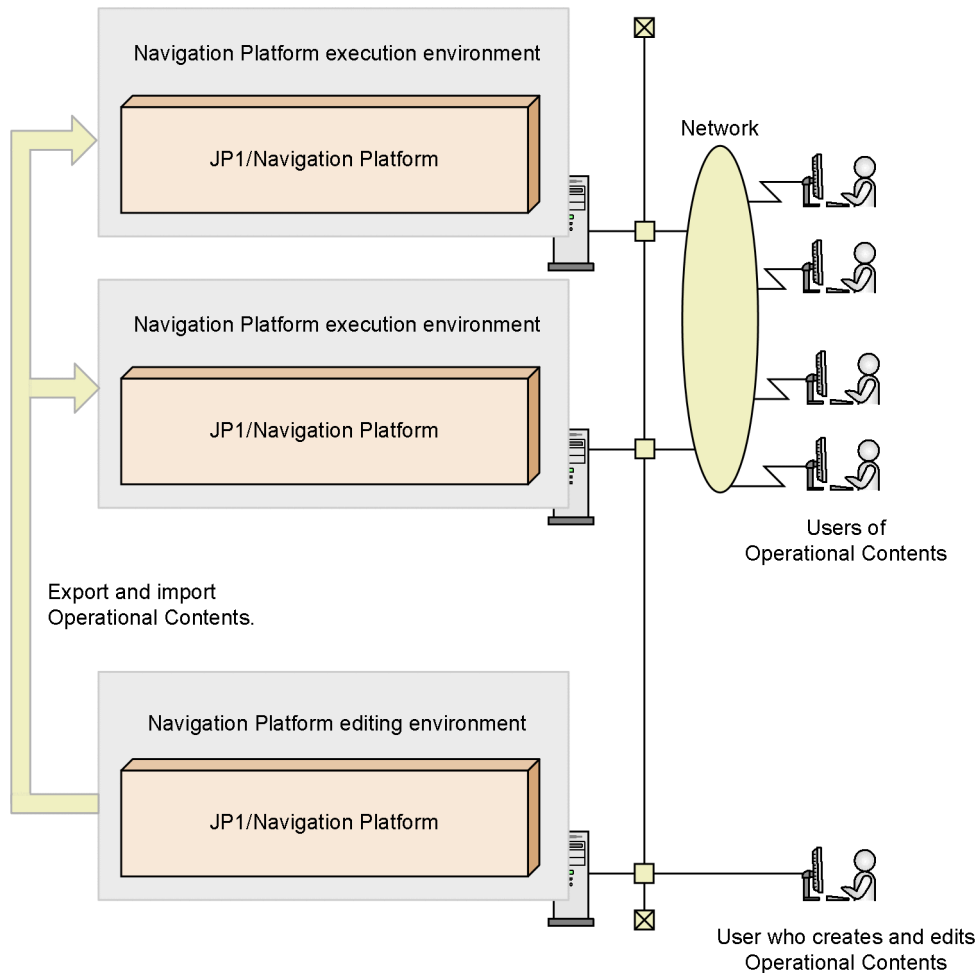
It is also possible to run execution environments on multiple server machines when using the configuration in *(2) When you want to protect users from the effects of editing mistakes*. Under this configuration, you can expect the benefits of reduced server workload and increased system availability. Note that when there are multiple execution environments, it is necessary to export the Operational Contents created in the editing environment and import them into all the execution environments.

(4) When you want to develop plugins and custom windows

In order to develop plugins and custom windows, we recommend a system configuration that includes a development environment.

Figure 3–4: System configuration example (with development environment)
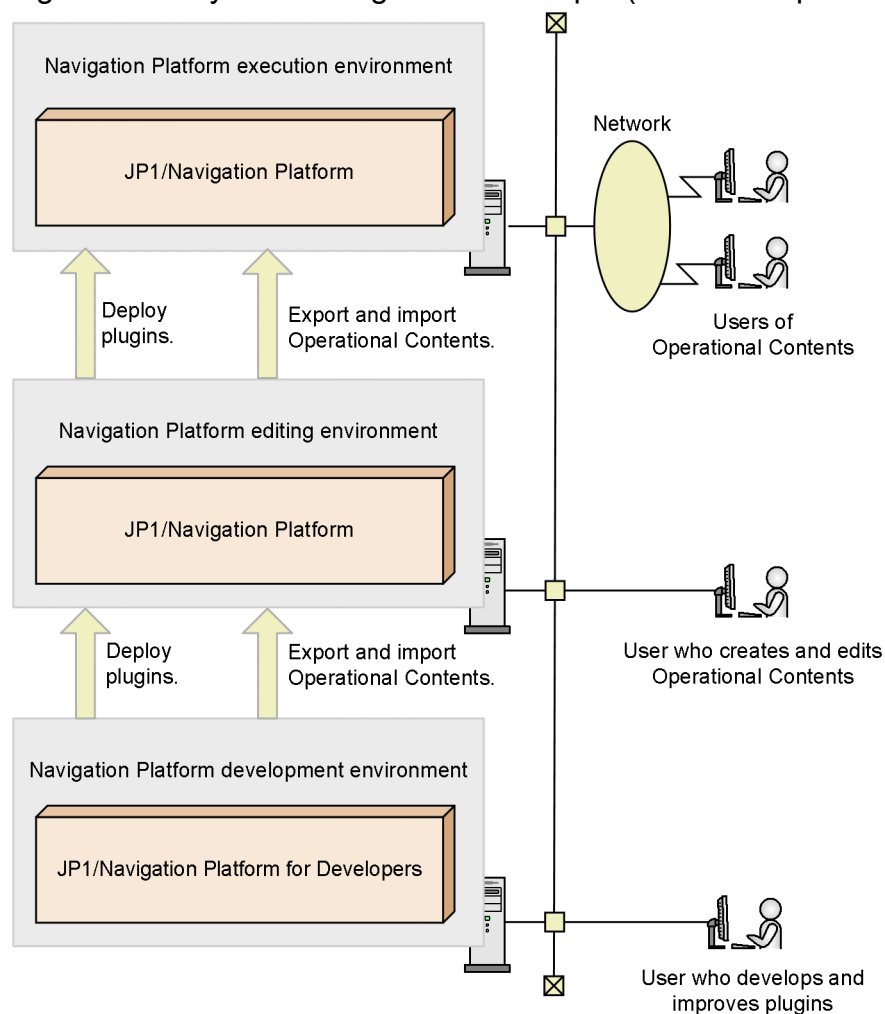
A development environment for developing User Plugins is necessary if you want to create sophisticated Operational Contents that use User Plugins. The User Plugins you develop in the development environment are first deployed to the editing environment. These User Plugins must also be deployed to the execution environment when the Operational Contents created in the editing environment are imported into the execution environment.

(5) When you want to link with other JP1 products

Figure 3–5: System configuration example (linked with other JP1 products)
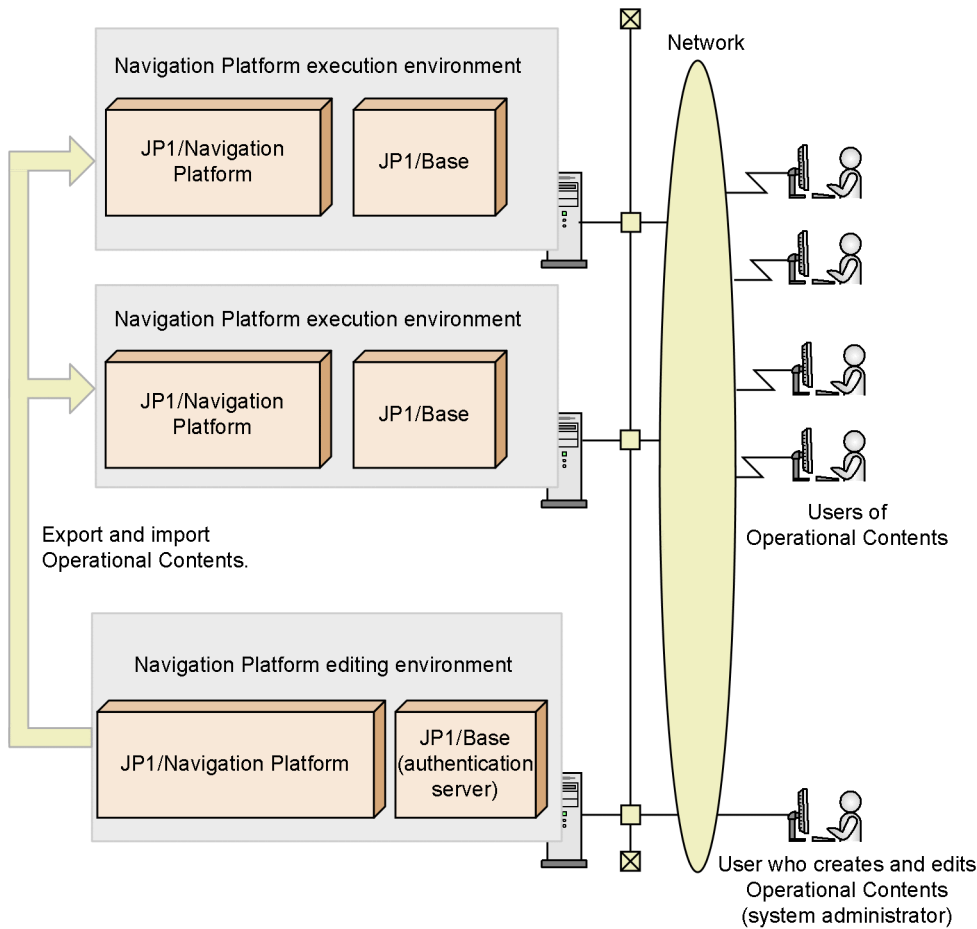
User authentication by JP1/Base is required in order to use the JP1 Link Plugin.

In configurations with multiple editing or execution environments, JP1/Base must be installed in each environment, but a single authentication server can be shared across the system. In the case of the diagram shown in *Figure 3-5 System configuration example (linked with other JP1 products)*, because the JP1/Base in the editing environment is used as the authentication server, the JP1/Base in the execution environment can use the authentication server in the editing environment to perform user authentication.

For the versions of JP1/Base that can be used in Navigation Platform, see *3.3.2 Types of user authentication that can be used in Navigation Platform*. For details about the JP1/Base user authentication functions and authentication servers, see the *JP1/Base User's Guide*.

We also recommend specifying the same language setting on the OS running the JP1 products and the OS running the Navigation Platform execution and editing environments.

If you do specify a different language setting on the OS running the JP1 products and the OS running the Navigation Platform execution and editing environments, make sure that you use ASCII character encoding for the data to be linked between them. If you use a non-ASCII character encoding, characters might become garbled.

3.3 Prerequisites for system setup

This section describes the prerequisites for setting up Navigation Platform.

3.3.1 Recommended specifications for a machine running Navigation Platform

The recommended machine specifications and settings for running Navigation Platform are shown below.

Recommended specifications for the execution and editing environment server machines[1]

> CPU: Intel Core i5 2 GHz or faster
>
> Memory: 2 GB or more[2]
>
> Hard disk: 26 GB or more[3]

Recommended specifications for the development environment machine[1]

> CPU: Intel Core i5 2 GHz or faster
>
> Memory: 3 GB or more[4]
>
> Hard disk: 26 GB or more[3]

Recommended specifications for client machines[1]

> CPU: Intel Core 2 Duo 3 GHz or faster
>
> Memory: 1 GB or more
>
> Hard disk: 1 GB or more
>
> Device (iPadOS): iPad that supports iPadOS[5]

[1]

> The machine specifications listed here include only the specifications required to run Navigation Platform. When determining the final machine specifications, supplement these recommended specifications with the specifications required to run the OS and other necessary software.

[2]

> When the dashboard function is used, the required hard disk capacity depends on the amount of operation log data. Add two times the storage needed for operation logs to the estimated hard disk capacity.
>
> For details about estimating the required memory capacity when using the dashboard function, see *5.4.4(2) Estimating the memory capacity when using the dashboard function*. For details about changing the memory capacity, see *5.4.4(7) Changing the memory capacity required for the storage service of the dashboard server*.
>
> If you will be uploading operation logs, you need to add hard disk capacity equivalent to the size of the operation logs for use as a temporary area. For details about uploading operation logs, see *5.4.4(5) Uploading operation logs*.

[3]

> The size of the operation log file might increase depending on how Navigation Platform is to be used. If necessary, increase the amount of hard disk space in proportion to the size of the operation log file. For more information about the relationship between how Navigation Platform is used and the size of the operation log file, see *3.4.2 Estimating the size of the operation log file*.

[4]

> In order to facilitate debugging, the development environment requires more memory than the execution and editing environments.

#5

Wi-Fi is the only connection mode that can be used to access Navigation Platform.

Recommended settings

- 24-bit or higher color screens are recommended for all machines. At less than 24 bits, the screen might exhibit color inconsistencies.

- Set the system font size to **Normal** on each machine. If the system font size is not set to **Normal**, text might not be displayed correctly, for example text might wrap to the next line in unexpected places.

- Make sure the region and language settings for the system account and the current users are the same. If the region and language settings are different, the trace files might not output correctly.

3.3.2 Types of user authentication that can be used in Navigation Platform

To use Navigation Platform in an environment with user authentication, a directory server or a JP1/Base authentication server is required. Note that Navigation Platform can also be used in an environment without user authentication.

(1) User authentication by directory server

To perform user authentication by directory server, you use Active Directory, which is provided with the OS.

> 💡 **Tip**
>
> When Navigation Platform is used in an environment without user authentication, there is no need to enter a password in the login window. Permissions to create, delete, and modify Operational Contents are determined by the user ID that is entered at the time of login. If you want to allow users other than the system administrator to edit Operational Contents, this can be done in one of the following ways:
>
> - Multiple users have system administrator user IDs.
>   System administrator user IDs can be specified in a properties file created during setup. For details about the relevant property, see *8.3.3(6) System administrator ID (ucnp.setup.server.system.admin.userids)*.
>
> - The system administrator creates an access permission group and then grants Content Manager and Content Editor permissions to other users' user IDs.
>   For details about the types of permissions and about how to create an access permission group, see *6.2 Setting access permissions for Operational Contents (when using a directory server for user authentication)* and *6.4 General procedure for managing accesses to Operational Contents (when using a directory server for user authentication)*.

(2) User authentication by JP1/Base

To perform user authentication by JP1/Base, the following product is required:

- JP1/Base 11-00 or later

  Install JP1/Base 11-00 or later on the server machine on which Navigation Platform is installed. If there are multiple server machines, JP1/Base 11-00 or later must be installed on each one. However, only one server machine needs to be configured as the authentication server. Multiple server machines can use a single authentication server.

  User authentication by JP1/Base is required in order to use the JP1 Link Plugin. You can also set access rights to Operational Contents by setting JP1 permissions and JP1 resource groups of JP1 users. For details about JP1

permissions and JP1 resource groups, see *6.3 Setting access permissions for Operational Contents (when using JP1/ Base for user authentication)*.

3.3.3 Web browsers supported by Navigation Platform

The table below lists the combinations of web browsers and operating systems that can be used on client machines to access Navigation Platform windows. Make sure that the latest security updates have been applied to your web browser before accessing Navigation Platform.

Table 3–1: Supported web browsers and operating systems

Web browser	OS
• Microsoft Edge • Google Chrome	Windows 8.1, Windows 10, Windows 11
Safari for mobile devices (hereafter Mobile Safari)	iPadOS

Note: Operation is not guaranteed for users who use the developer tools in Microsoft Edge.

3.3.4 Notes on the web browsers used

This section lists cautionary notes related to the configuration and use of operating systems and web browsers when using Navigation Platform.

(1) Notes on OS settings

Navigation Platform does not support the following supplementary Unicode characters:

- Characters outside the Basic Multilingual Plane (BMP)
- Characters whose Unicode code point is within the range from `U+10000` to `U+10FFFF`
- Characters represented by UTF-16-encoded surrogate pairs

(2) Notes on Microsoft Edge and Google Chrome settings

- Make sure that the latest security updates have been applied.
- When using Navigation Platform, we recommend that you set the text size in your web browser to **Medium** or smaller. If you use a larger text size, some text might not fit in the window.
- In the settings for temporary Internet files, we recommend that you select **Automatically** as the option for checking for newer versions of stored pages. If you select another option, images might not be displayed correctly.
- Some scripts associated with Navigation Platform might not work in certain environments. In this situation, review the settings on the **Security** tab of the Internet Options dialog box as needed, and add the URL for Navigation Platform to the list of trusted sites. Note that changing these settings results in a lower security level.
- Web browsers will sometimes fail to display an external website specified in an inline frame part. Whether an external website is displayed depends on the configuration of the website.
- Turn the **JavaScript** option On. When Off, Navigation Platform will not work.
- In the **Allow sites to save and read cookie data** option, turn on cookies. If cookies are disabled, you will not be able to log in to Navigation Platform.

(3) Notes on Microsoft Edge and Google Chrome operation

- Do not log in to Navigation Platform from multiple accounts on the same PC.

- Do not use multiple Operational Content Editing Windows on the same PC.

- Do not use the **Back** button in your browser when working in Navigation Platform. The information displayed after doing so might not be current.

- Do not use the **F5** key or the **Refresh** button to refresh your browser window while an Operational Content is executing. This will cause any data you have input to be lost, and it might prevent Navigation Platform from working properly.

- If you enter more than 1,024 characters in a text box, part of the character string might not be visible on screen. We recommend that you specify a value less than 1,025 as the maximum number of characters that can be entered in a text box.

- If the message shown below appears while you are using your web browser, wait until the action that is in progress finishes. Do not click the **Recover webpage** button. If you click the **Recover webpage** button to interrupt the current action, Navigation Platform might not work correctly.

  host-name **is not responding.**

- In some cases, the message in a message dialog box might extend beyond the bottom of the screen, making the **OK** button inaccessible. In this situation, you can use one of the following methods to close the message dialog box:

  - Click the × button at the top right of the message dialog box.

  - Make sure that the message dialog box is the active window, and press the **Enter** or **Esc** key.

- If you use the same web browser instance used for the previous Navigation Platform session to continue working in Navigation Platform, Windows might output the following warning message:

  Out of Virtual Memory. Your system is low on virtual memory. To ensure that Windows runs properly, increase the size of your virtual memory paging file. For more information, see Help.

  If you encounter this message, close your web browser and then open it again.

- If your web browser displays an error message or buttons become unresponsive, close the window you are using, log in again, and then repeat the operation you were performing. If the problem re-occurs, contact maintenance personnel.

- If you use the rectangle select function to select parts or connectors and then press the **Delete** key, the selected items might not be deleted. In this case, delete the items by clicking the **Delete** button on the toolbar.

- When a character string that includes successive symbols is displayed in the Navigation Platform window, the string might not wrap to the next line. In this case, make the text visible by resizing the browser window.

- If you repeatedly operate each item in the Select Dashboard window from a Web browser, the screen may not be displayed correctly or the Web browser may exit. In that case, restart the web browser.

- If the web browser does not respond for over 10 seconds, reload the page and try again.

- The **Close** button, and the function to close the window or tab you are working in when work is complete cannot be used in Microsoft Edge and Google Chrome. If either of these functions is used, click the **X** button on the window or tab when logging out, or when work is complete to close.

(4) Limited availability of functions when Mobile Safari is used

When you access a Navigation Platform window from Mobile Safari, there are limits to the available functions, as described below.

- The Operational Content Editing Window is not available.

- You cannot specify the following parameters in the URL used to access a Navigation Platform window:

- `start_editor` parameter
- `open_editor` parameter
- The following items are available in the Operational Content Execution Window, but with limitations:
  - Text box (Not recommended)
  - Text area (Not recommended)
  - Inline frame part (Not recommended)
  - Resize bar
  - Automatic scrolling in the Operational Flow area (Limitation: The scrolling progress is not shown.)
- The following functions are not available in the Operational Content Execution Window:
  - HTML parts[#1]
  - Starting editing an Operational Content
  - Function that displays a confirmation dialog box when a screen transition occurs or when the window is closed (`ucnp.base.client.confirm.page.unload.enable` property)[#1]
  - Print function (`ucnp.base.server.print.link.display` property)[#1]
  - Reporting window for the operation log[#2]
  - Dashboard window for the operation log

  #1

  Because the print function is not available, set either `editor` or `none` for the `ucnp.base.server.print.link.display` property in the user property file (`ucnp_user.properties`) of the execution environment. If a value other than the default value is specified for any of the other user properties (those other than `ucnp.base.server.print.link.display`), you have to correct those settings as well.

  #2

  A link for opening the Reporting window for the operation log is displayed only when the following conditions are satisfied:

  - The login user has greater privileges than the Content Manager does.

  - `true` is specified for the `ucnp.base.client.operationlog.enable` property in the user property file (`ucnp_user.properties`) of the execution environment.

  - A value other than `all` is specified for the `ucnp.base.client.directjump.enable` property in the user property file (`ucnp_user.properties`) of the execution environment.

  If you want to simply hide the link for opening the Reporting window for the operation log, restrict users accessing a Navigation Platform window by using Google Chrome by referring to the above-mentioned display conditions.

(5) Notes on Mobile Safari settings

- Set **JavaScript** to **ON**.
- Disable private browsing mode. If private browsing mode is enabled, Navigation Platform operation might become unstable.
- Set **Block Cookies** to **Allow from Websites I Visit** or **Always Allow**. Note that using the **Always Allow** setting lowers the security level.

(6) Notes on Mobile Safari operation

- If the **Print** menu is displayed in Mobile Safari when viewing an Operational Content Execution Window, the operation of Navigation Platform when you click the **Print** menu is not guaranteed.

- If Navigation Platform has not responded to an action within at least 10 seconds, reload the page and repeat the action.

- If a message appears indicating that a communication error has occurred or your session is invalid, repeat the action according to the message. If repeating the action does not resolve the problem, check the network connection status. You might be able to recover your network connection by turning Wi-Fi off and then on again.

- Your session might be interrupted if you run Mobile Safari in the background or your iPad enters sleep mode while you are working with an Operational Content. If your session is interrupted, the data you were working on will be lost. You will also lose the data you were working on if you view another Operational Content or if you navigate to a page that is not part of Navigation Platform.

  Depending on the options selected when Navigation Platform was set up, a **Suspend** button might appear in the Operational Content Execution Window. If you click the **Suspend** button before logging out, the progress you have made is saved even if your session is interrupted or you navigate to another page.

- You cannot cut, copy, or paste characters in text boxes and text areas.

- Do not perform the following actions while the software keyboard is displayed:

  - Tap and hold a text box or text area

  - Scroll an area outside the software keyboard

  - Tap an area outside the software keyboard

  If you perform any of these actions with the software keyboard displayed, you will no longer be able to input text. To resume text input, you will need to dismiss the software keyboard and then display it again.

- When you enter single-byte alphanumeric characters in a text box or text area, the first character is automatically capitalized. If you want the first character to be a lowercase letter, tap the **Shift** key to release the shift.

- Emoji entered in text boxes or text areas might become garbled.

- Do not select any suggestion displayed by the autocorrect function. If you tap an autocorrect suggestion, you will no longer be able to input text. To resume text input, you will need to dismiss the software keyboard and then display it again.

- Usually, tapping outside the software keyboard dismisses the keyboard. If this does not happen, tap the button at the bottom right of the keyboard.

- Scrolling down through the entire Operational Content Execution Window might hide the header area (**Tools** menu, **Logout** button, etc.). Scroll up to display the header area again.

- If you close one tab in the browser while two are open, a blank area is displayed below the Operational Content Execution Window. To eliminate this blank area, resize the window (by, for example, rotating the window or by displaying the **Bookmark** bar).

- If your web browser displays an error message or buttons become unresponsive, close the window you are using, log in again, and then repeat the operation you were performing. If the problem re-occurs, contact maintenance personnel.

3.4 Estimating system-related sizes

This section explains how to estimate the sizes of various system properties required to use Navigation Platform, including the size of the database server, the size of the operation log file, and the size when using a Suspend/Resume Plugin.

3.4.1 Estimating the size of the database server

The size of the database required to set up Navigation Platform is 15 GB. This size is based on the assumption that Operational Contents will be created and used at the scale indicated below.

Table 3–2: Amount of Operational Content that can be created using the size of the database at setup time

Item	Scale
Maximum number of Operational Contents	500
Number of nodes per Operational Content (average)	20
Number of parts placed in a flow area (average)	30
Number of plugins per Operational Content (average value of the total number of User Plugins and System Plugins)	20
Number of items placed in a Guide area (average)	35

If you want to create more Operational Contents than can be created using the size of the database at the time of setup, or if the number of nodes or number of items per Operational Content exceeds the averages shown above, you will need to expand the size of the database after setup. For information about expanding the size of the database, see *5.3 Running the database*.

3.4.2 Estimating the size of the operation log file

To estimate the size of the operation log file, consider your required usage of Navigation Platform, using the following table as a reference.

Table 3–3: Usage of operation log assumed by Navigation Platform

No.	Item	Scale (numbers)
1	Number of users interacting with an Operational Content Execution Window per day	10
2	Number of Operational Contents to be executed per user per hour	6
3	Number of nodes per Operational Content	10
4	Actual hours of work on Navigation Platform per day	8 hours
5	Length of time to retain the operation log	180 days[#]

\#

The Navigation Platform Reporting window lets you analyze the operation log for up to six months. We therefore recommend not changing the default value of 180 days as the length of time to retain the operation log.

If you plan to use Navigation Platform on a scale different from the numbers shown in the table, you must estimate the disk space required according to the formulas below.

(1) Formulas for estimating the size of the operation log file (when using URLs without ucnpOptions parameters)

Formula when the property `ucnp.base.server.operationlog.user.analyze.info` is `true`

> In *Table 3-3 Usage of operation log assumed by Navigation Platform*, 1.0 × {(*numbers assumed for the environment to be set up corresponding to rows 1 to 4 in the table*} divided individually and then multiplied by (*numbers in rows 1 to 4 in the table*} = *operation log file size required for the environment to be set up* (unit: GB)

Formula when the property `ucnp.base.server.operationlog.user.analyze.info` is `false`

> Calculation result of the estimation formula when the property `ucnp.base.server.operationlog.user.analyze.info` is `true` × 0.25 = *operation log file size required for the environment to be set up* (unit: GB)

Estimation example

- In the environment to be set up, the assumed number of users (No. 1 in *Table 3-3 Usage of operation log assumed by Navigation Platform*) is 20.

- In the environment to be set up, the assumed number of Operational Contents to be executed per user per hour (No. 2 in *Table 3-3 Usage of operation log assumed by Navigation Platform*) is 9.

- The property `ucnp.base.server.operationlog.user.analyze.info` is set to `true`

The operation log file size required for an environment satisfying these conditions can be calculated as follows:

$1.0 \times \{20 \div 10\} \times \{9 \div 6\} = 1 \times 2 \times 1.5 = 3.0$ GB

> 💡 **Tip**
>
> If the operation log file becomes too large, it becomes difficult to analyze for your own purposes. Therefore, if there is no need to analyze the operation log for your own purposes, we recommend specifying `false` for the property `ucnp.base.server.operationlog.user.analyze.info` in the user property file (`ucnp_user.properties`).

---

(2) Formula for estimating the size of the operation log file (when using URLs with ucnpOptions parameters)

If the URL to access Navigation Platform includes `ucnpOptions` parameters, the values specified in the `ucnpOptions` parameters will be added to the operation log. This means the results of the following formula must be added to the calculation results of the estimation formula in *3.4.2(1) Formulas for estimating the size of the operation log file (when using URLs without ucnpOptions parameters)*.

Formula for the operation log file size required for `ucnpOptions` parameters

> *Size of the ucnpOptions parameter × row 1 × row 2 × row 3 × row 4* in *Table 3-3 Usage of operation log assumed by Navigation Platform* × 180 = *operation log file size required for the ucnpOptions parameter* (unit: GB)

3.4.3 Estimating the size when using a Suspend/Resume Plugin

If you want to use Suspend/Resume Plugins, prepare an external storage device (such as a database) to manage the suspend information. Any external storage device can be used to manage suspend information, as long as it is separate from Navigation Platform's embedded database and it has enough space to hold the suspend information.

This section explains the management of suspend information and how to estimate the amount of suspend information, and also provides an example of performing the estimation.

(1) Suspend information management units

You must first decide on the units for managing the suspend information that is to be saved to the external storage device.

The figure below shows an example of how individual suspend information is managed on a per-user and per-Operation Content basis. In this example, because the user IDs and the Operational Content IDs are unique, it is possible to keep track of individual suspend information for each user in each operation.

Figure 3–6: Relationship between users and suspend information
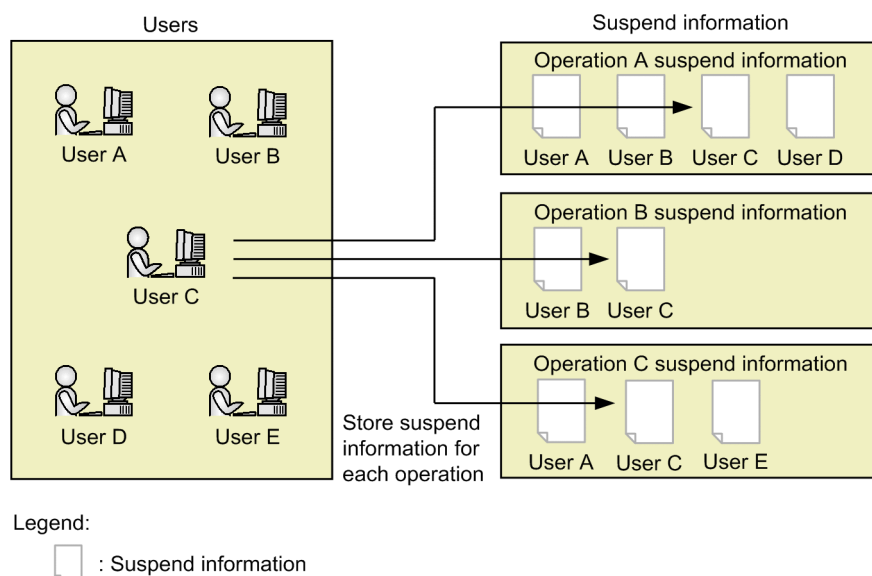
When you have used the API provided by Navigation Platform to develop a Suspend/Resume Plugin, deletion of the suspend information is invoked at the following times.

- When the user clicks the **Finish** button in the Operational Content Execution Window (when the operation is finished)
  When the Operational Content is finished, the suspend information for the user who finished it is deleted.

- When changes are made to an Operational Content shown in the Operational Content Execution Window
  When an Operational Content is modified, the suspend information for all users is deleted.

- When a user who is editing an Operational Content in the Operational Content Editing Window deletes it
  When an Operational Content is deleted, the suspend information for all users is deleted.

- When the user attempts to resume the operation in the Operational Content Execution Window and an integrity error occurs
  If the Operational Content has been updated since the time suspend information was saved, an integrity error occurs. At this time, the suspend information of the user who selected the relevant Operational Content is deleted.

(2) Procedure to estimate the size of suspend information

Use the following procedure to estimate the data size of suspend information.

1. Estimate the data size per unit of suspend information (average value over all Operational Contents).

   Estimation formula

   {(*Average size of data entered by user* + 350) × *number of Guide Parts* + 640} × *number of Process Nodes* + (*average size of data entered by user* + 560) × *number of Data Store Plugin parameters* + 2,700 = *data size per unit of suspend information* (unit: bytes)

2. Estimate the number of users of Operational Contents (average value over all Operational Contents).

3. Estimate the required data size from steps 1 and 2.

   Estimation formula

   Data size per unit of suspend information × *number of users of Operational Contents* × *number of Operational Contents* = *Required data size* (unit: bytes)

(3) Size estimation example

The following is an example of estimating the amount of suspend information based on the conditions listed below.

Conditions for estimate (all values are averages)

- Number of Operational Contents: 100
- Number of Process Nodes: 30
- Average size of data entered by a user: 1,000 bytes
- Number of Guide Parts: 50
- Number of Data Store Plugin parameters: 30
- Number of users of Operational Contents: 20

Estimation example (data size per unit of suspend information)

{(1,000 + 350) × 50 + 640} × 30 + (1,000 + 560) × 30 + 2,700 = 2,093,700 bytes

Estimation example (required data size)

2,093,700 × 20 × 100 = 4,187,400,000 bytes ≒ 3.9 GB

3.5 Installing Navigation Platform

This section explains the procedure to perform a new installation of Navigation Platform and describes the post-installation directory structure.

If you want to upgrade Navigation Platform and migrate the pre-upgrade environment so that you can use it unchanged after the upgrade, see *3.6.5 Upgrade procedure*.

3.5.1 What to check before installing

User logged in to the machine

> Installation and setup must be performed by users with Windows administrator privileges. You must start the tasks by selecting **Run as administrator**.
>
> The use of an OS user name containing single-byte symbols is not allowed.

Machine requirements

> The installation machine must support IPv4. For other specifications, see the server machine specifications in *3.3.1 Recommended specifications for a machine running Navigation Platform*.

Free disk space

> The disk on which Navigation Platform is to be installed must have at least 25 GB of free space.
>
> We recommend securing an extra margin of free disk space for installation of Navigation Platform. If you have only the minimum amount of free space, you might encounter problems such as running out of space soon after Navigation Platform starts.

Status of Windows Firewall service

> Make sure the Windows Firewall service is running. If the Windows Firewall service is stopped, installation processing will be suspended.

Installation directory

> The installation directory is subject to the conditions listed below. If these conditions are not satisfied, Navigation Platform might not work correctly.
>
> - The directory name must not exceed 60 characters, and must use only the following characters:
>   Single-byte alphanumeric characters (`A` to `Z`, `a` to `z`, `0` to `9`)
>   Single-byte spaces
>   Single-byte backslashes (`\`)
>   Single-byte colons (`:`)
>
> - For the path separator character, use a single backslash character (`\`). Do not use double backslash characters (`\\`).
>
> - Do not specify a network drive or the root of a drive as the installation destination.
>
> - The name of the directory must contain no leading or trailing spaces.
>
> - If you include a single-byte space in the path name of the installation directory, there cannot be a file or directory that shares the same path name up to the single-byte space. For example, if there is a directory called `C:\Program`, you cannot specify the installation directory `C:\Program Files`.
>
> - The installation directory must not include directories that start with a single-byte period (`.`).

3.5.2 Procedure for a new installation

This section explains the procedure for a new installation of Navigation Platform using the Hitachi Integrated Installer. Navigation Platform will be installed in a development environment, an editing environment, and an execution environment.

> **❗ Important**
>
> - The installation must be performed by a user with Windows administrator privileges. Start the installation by selecting **Run as administrator**.
> - Install only one of JP1/Navigation Platform or JP1/Navigation Platform for Developers product on a single machine. You cannot install multiple Navigation Platform products on the same machine.

1. Insert the CD-ROM and execute `HCD_INST.EXE`.

2. Click the **Continue** button to start the integrated installation process from Hitachi Integrated Installer.

3. Confirm the settings, and then click the **Install** button to start the installation.
   The software components required for Navigation Platform will be installed in order.

4. Click the **Next** button on the installation start screen.
   The destination selection screen will appear.

5. Specify the location where you want to install Navigation Platform.
   The default installation directory is as follows:
   OS-installation-drive`:\Program Files\Hitachi\HNP`

   We recommend using the default directory displayed on the destination selection screen unless there is a particular need to deviate from the default. If you want to install Navigation Platform in a different directory, click the **Browse** button and select a directory.

   Note that if you are migrating server machines, you must specify the same directory in the source (old) machine and the destination (new) machine.

6. Click the **Next** button.
   The user information settings screen appears.

7. Enter the user name and company name and click the **Next** button.
   The program folder selection screen appears.

8. Select the program folder to be added to the programs in the Start menu.
   The default, regardless of the type of product, is **Navigation Platform Server**. If you want to use a different folder, enter a folder name, or choose a directory from the list of existing folders.

9. Click the **Next** button.
   The installation start screen appears.

10. Review the installation information.
    The current settings will be displayed. If there are settings you want to change, click the **Back** button, and change the settings.
    When you click the **Next** button, the installation progress will be shown.
    When the installation is done, you will see a dialog box informing you that the installation has been completed.

11. Close the screen indicating that the installation has been completed.

12. Once the installation is complete, restart the machine when the message appears prompting you to restart.

13. Apply patches as necessary.

   For details about how to apply patches, see *3.7 Procedure for applying patches*.

Note:

   If you cancel the installation or if an error occurs during the installation processing, Navigation Platform will be installed in an incomplete state. In such a case, either start the installation process again from the beginning, or uninstall as described in *3.8 Uninstalling Navigation Platform* and then perform the installation again.

3.5.3 Directory structure of Navigation Platform

The directory structure when Navigation Platform is installed in its default location is shown below.

```
OS-installation-drive:\Program Files\Hitachi
  └HNP
    └PP
      └DB
      └OpenSearch
      └uCPF
      └uCPSB
```

The convention for references to the directory in this manual is shown in the table below. Note that this table assumes that the OS is installed on the C drive.

Table 3–4: Correspondence between the actual directory and how it is referred to in this manual

What the directory is called in the manual	Default installation directory
Navigation Platform installation directory	C:\Program Files\Hitachi\HNP

3.6 Upgrading Navigation Platform

3.6.1 Products eligible for upgrades

The following table lists the products that are eligible to be upgraded to the Navigation Platform product version covered by this manual.

Table 3–5: Products eligible for upgrade

No.	Product ID	Product name	Version
1	P-2943-4PA4	Hitachi Navigation Platform	10-10 or later
2	P-2943-4VA4	Hitachi Navigation Platform for Developers	10-10 or later
3	P-292C-4PBL	JP1/Navigation Platform	11-00 or later
4	P-292C-4VBL	JP1/Navigation Platform for Developers	11-00 or later
5	P-292C-4PCL	JP1/Navigation Platform	12-00 or later
6	P-292C-4VCL	JP1/Navigation Platform for Developers	12-00 or later

In the following cases, contact customer support:

- You want to upgrade a product prior to version 10-10.

- You want to upgrade an environment that was set up on a Windows OS that is not supported by the current Navigation Platform.

3.6.2 Upgrading procedure

The general procedure for upgrading is shown below. For the detailed procedures, see *3.6.5 Upgrade procedure*.

1. Back up the data from the upgrade target.

2. Perform the unsetup procedure to restore the previous version's environment.

3. Uninstall the previous version's environment.

4. Upgrade JP1/Base.

5. Upgrade JP1/Automatic Operation.

6. Upgrade Eclipse.

7. Install Navigation Platform.

8. Revise the user setup property file (`ucnp_setup_user.properties`).

9. Set up Navigation Platform.

10. Extend the database.

11. Restore the data from the upgrade target.

3.6.3 What to check before upgrading

Before upgrading, perform the following tasks:

- To prevent script errors during login after the upgrade, clear the web browser's cache.
  The cache needs to be cleared on all web browsers that will be used to access Navigation Platform after the upgrade.
- If you are using JP1/Base for user authentication, upgrade JP1/Base before upgrading Navigation Platform.

Next, in order to upgrade, the following requirements must be satisfied:

- Navigation Platform must be running, stopped, or not yet set up.
- All steps in the upgrade procedure must be performed in the same machine environment.
- When the length of the path to the directory in which Navigation Platform before upgrade is installed exceeds 60 characters, you cannot upgrade the Navigation Platform unless you change the installation directory. In this case, you have to select a new installation directory so that the length of the path to it does not exceed 60 characters.
- The command must be executed by the user who installed Navigation Platform.
- The server must have enough free disk space.
- The dashboard server is stopped.

3.6.4 Data that can be upgraded

This section describes the data that is inherited during an upgrade procedure when you upgrade one of the eligible Navigation Platform products to the version covered by this manual. When you perform the upgrade, the new version will inherit only the data indicated in the following table.

Table 3–6: Data within the scope of the upgrade

No.	Type of data	Data
1	Operational Content	All Operational Contents that have been created[#1] (including information about access permissions)
2		JP1/Base settings (JP1 resource groups and JP1 permission levels)
3	Static files	Static files uploaded from the File Registration and Management window *Navigation-Platform-installation-directory*\PP\uCPSB\httpsd\htdocs\ucnpuserstaticfiles and below
4		Static files saved at the discretion of the user *Navigation-Platform-installation-directory*\PP\uCPSB\httpsd\htdocs and below except for ucnpuserstaticfiles or ucnp
5	Navigation Platform settings	User setup property file (ucnp_setup_user.properties)
6		User property file (ucnp_user.properties)
7		User message properties file (ucnp_message_user.properties)
8		User label properties file (ucnp_label_user.properties)
9		User style properties file (ucnp_style_user.properties)
10		Service properties file (ucnp_service.ini)
11		Access user management file for the dashboard function

No.	Type of data	Data
12	Navigation Platform settings	Memory capacity settings for the dashboard server
13		JP1 event mapping file (`ucnp_jp1event_mapping.txt`)
14	Data created by developers	User Plugins (I/O Plugin, Suspend/Resume Plugin)
15		Custom windows (new JSP windows)
16		Settings for resource adapters used in User Plugins (database connection settings)
17		Libraries used by User Plugins or custom windows
18	Application server settings	Authentication server settings (`ua.conf` and Portal Manager settings)
19	Database	Database extension information
20	Operation log	Operation log file[#2][#3]
21	Task	User-created tasks that execute commands provided by Navigation Platform

#1

Operational Contents created with versions earlier than the following program versions cannot be imported:

- Hitachi Navigation Platform 10-10

- JP1/Navigation Platform 11-00

If you want to transfer Operational Contents, contact our customer support center.

#2

Following the upgrade, you will be able to use the operation log reporting window after processing the operation log for analysis.

#3

Following the upgrade, a new dashboard window is created from the inherited operation log by operation log analysis processing.

The dashboard window before the upgrade is not inherited.

3.6.5 Upgrade procedure

This subsection explains the procedure to upgrade Navigation Platform.

(1) Procedure for backing up the data from the upgrade target

Perform the procedure below in the pre-upgrade environment.

> **📄 Note**
>
> For details about the properties and directories cited in this procedure, see the documentation for the product being upgraded.

1. Create a backup folder in a location of your choice.

2. Create a folder named `contents` directly under the backup folder.

3. Execute the following command to export all the Operational Contents to the `contents` folder:

```
Navigation-Platform-installation-directory\bin\npexport backup-folder-path
\contents\backupcontents.zip
```

4. Create a folder named `htdocs` directly under the backup folder.

5. Copy the following folder into the `htdocs` folder directly under the backup folder:

```
Navigation-Platform-installation-directory\PP\uCPSB\httpsd\htdocs\ucnpuser
staticfiles
```

6. If there are a folders other than `ucnpuserstaticfiles` in the `htdocs` source folder indicated in step 5, copy them into the `htdocs` folder directly under the backup folder.

   However, the `ucnp` folder does not need to be copied.

7. Copy the following folder to just below the backup folder:

```
Navigation-Platform-installation-directory\conf
```

8. If you are upgrading JP1/Navigation Platform from a version earlier than 12-50 to version 12-50 or later, convert the character encoding of existing property files to UTF-8 with the `native2ascii` Java tool.

   You need to convert the following property files contained in the *Navigation-Platform-installation-directory*\conf folder, which you copied to just below the backup folder in step 7:

   - `ucnp_label_user_ja.properties`

   - `ucnp_message_user.properties`

   - `ucnp_user.properties`

   - `ucnp_setup_user.properties`

   Execute the following command to convert the character encoding of the property files to UTF-8:

```
native2ascii -reverse -encoding UTF-8 name-of-property-file-to-be-converte
d file-name-for-temporary-storage
copy file-name-for-temporary-storage name-of-property-file-to-be-converted
```

   Note:

   Make sure that this procedure for UTF-8 conversion is executed only for existing property files that need to be converted.

   Additionally, we recommend that you back up property files before converting them.

9. If plugins are being used, back them up.

   Perform the following step if you are upgrading a development environment.

   Back up the following folders by copying each folder to the backup folder:

   - *Navigation-Platform-installation-directory*\pluginSDK

   - *Navigation-Platform-installation-directory*\usrlib\sys

   - *Navigation-Platform-installation-directory*\PP\uCPSB\CC\server\usrconf\ejb\uCNP_J2EE\usrconf.properties

   - *Navigation-Platform-installation-directory*\PP\uCPSB\CC\server\usrconf\ejb\uCNP_J2EE\usrconf.cfg

   - Resource adapter settings files (connector attribute files)

     In the development environment, these files can be acquired from the location that was specified when the `cjsetprop` command was executed.

   If you are upgrading an execution environment, back up the following directory by copying it to the backup folder:

- *Navigation-Platform-installation-directory*`\plugin_files`

If the plugin data is stored in another location, obtain the required files based on the list in *6.6.1 Files that are received from the development environment*, and back them up.

10. Note the number of times the database has been extended.

For future reference, note the number of files starting with `usr_contents_` in the following folder, which corresponds to the number of times the database has been extended:

Navigation-Platform-installation-directory`\PP\DB\AREA`

11. Stop Navigation Platform.

12. Back up the operation logs.

Perform this step if you have enabled the operation log function.

Back up the following folder by copying it to the backup folder.

Folder to back up

Navigation-Platform-installation-directory`\operationlogs`

The operation log storage folder can be changed by changing the property `ucnp.base.server.operationlog.path` in the user property file (`ucnp_user.properties`). If the property has been changed from its default value, back up the folder specified as the value of the property to the backup folder.

13. Back up the dashboard server's memory capacity settings.

Perform this step if you are using the dashboard function.

Create the `opensearch` folder in the backup directory and copy the following source folder, including the folder itself:

Source folder

Navigation-Platform-installation-directory`\PP\OpenSearch\opensearch\config`

14. Back up the tasks.

Perform this step if you have created tasks that execute commands provided by Navigation Platform.

Create the `task` folder in the backup directory, and then back up the settings of the tasks that execute commands provided by Navigation Platform.

(2) Procedure to perform unsetup to restore the previous version's environment

Perform the unsetup procedure by consulting the documentation for the product that is to be upgraded.

(3) Uninstall the previous version's environment

Perform the following procedure in the environment where the unsetup procedure was completed:

1. Uninstall the product to be upgraded by following its documentation.

2. Restart the OS.

3. If there are any remaining logs or other files you want to keep in the Navigation Platform installation directory, back them up before deleting them.

4. Delete the following folder:

```
Navigation-Platform-installation-directory
```

(4) Upgrade JP1/Base

In the case of an environment in which JP1/Base has been set up, perform the following procedure:

> **📄 Note**
>
> For details about using JP1/Base in this procedure, see the *JP1/Base User's Guide*. For details about the properties in this procedure, see the documentation for the product being upgraded.

1. Upgrade JP1/Base.
   After upgrading JP1/Base, start or restart the JP1/Base-related services as needed.

2. If you are upgrading JP1/Base from a version earlier than 11-00, change the JP1 permission levels specified in JP1/Base as follows:

Before change	After change
JP1_IMNP_Admin	HNP_Admin
JP1_IMNP_Editor	HNP_Editor
JP1_IMNP_User	HNP_User

3. If the current JP1/Base version is earlier than 12-50 and that version will continue to be used without upgrading, add the JP1 permission level `HNP_Creator` for Content Creators to the JP1 permission levels specified in JP1/Base.
   Edit the definition in the JP1/Base user permission level file as described in the following table, and then execute the `jbsaclreload` command:

File path	File name	Item to be changed	Changed definition

`%ProgramFiles(x86)%`
`\Hitachi\JP1Base\conf`
`\user_acl`
	`JP1_AccessLevel`	`; for Hitachi`
		`Navigation`
		`Platform`
			`HNP_Admin:HNP_CONTENTS:Refe`
			`r,Update,Create,Admin`
			`HNP_Creator:HNP_CONTENTS:Re`
			`fer,Update,Create`
			`HNP_Editor:HNP_CONTENTS:Ref`
			`er,Update`
			`HNP_User:HNP_CONTENTS:Refer`

For details about how to use the `jbsaclreload` command, see the manual for JP1/Base.

(5) Upgrade JP1/Automatic Operation

In the case of an environment linked to JP1/Automatic Operation, perform the following procedure:

1. Upgrade JP1/Automatic Operation.
   For details about how to upgrade JP1/Automatic Operation, see the JP1/Automatic Operation documentation. After upgrading JP1/Automatic Operation, start or restart the JP1/Automatic Operation-related services as needed.

2. If you are using the Automatic Operation Service Execution Plugin, delete the directory specified in the `ucnp.base.client.jp1ao.submittask.passwordfile.path` property.

(6) Upgrade Eclipse

Perform the following steps when you are upgrading a development environment.

1. Back up the settings from the Eclipse that was installed before the upgrade.

2. Uninstall the Eclipse that was installed before the upgrade.

3. Set up the new Eclipse.
   For details about setting up Eclipse, see the manual *JP1/Navigation Platform Development Guide*.

(7) Install Navigation Platform

For details about how to install Navigation Platform, see *3.5.2 Procedure for a new installation*.

(8) Revise the user setup property file

Copy the sample file for the post-upgrade user setup property file (`ucnp_setup_user.properties`), and modify the settings as needed. For the location of the sample file and where to copy it to, see *8.3.2 Storage location of the user setup property file*.

Because different properties will be available before and after the upgrade, and there will be properties whose default value has changed, you must not use the user setup property file that was backed up. For details about the differences between the properties before and after an upgrade, see *Appendix D. Properties That Need to Be Checked When a Version Upgrade is Performed*.

(9) Set up Navigation Platform

For details about how to set up Navigation Platform, see *Chapter 4. Setting Up Navigation Platform*.

(10) Extend the database

Use the `npextendrdarea` command (extend the database) to extend the database by only the number of times the database had been extended previously, which you noted during the backup procedure.

(11) Restore the data from the upgrade target

Restore the pre-upgrade environment by copying to the post-upgrade Navigation Platform the data that was backed up in *(1) Procedure for backing up the data from the upgrade target*.

1. Edit the backed-up user property file (`ucnp_user.properties`) and service properties file (`ucnp_service.ini`).
   Some properties that were available in the previous version might not be available after the upgrade. Examine the differences between the properties before and after the upgrade and then edit the properties files. For details about the differences between the properties before and after an upgrade, see *Appendix D. Properties That Need to Be Checked When a Version Upgrade is Performed*.
   In addition, if you change the path to the installation directory upon the upgrade, you have to check all settings that contain the path.

2. If you use the dashboard function, manually migrate the settings that define users of the dashboard function. (This step is applicable only when you upgrade Navigation Platform either from Hitachi Navigation Platform 10-50 or later or from JP1/Navigation Platform versions 11-50 to 12-00.)

Because the mode of management of users of the dashboard function (users who are allowed access to the Dashboard window) has changed since JP1/Navigation Platform 12-10, you have to manually migrate the settings that define users of the dashboard function.

For the `ucnp.base.server.dashboard.auth.userids` property[#] in the user property file (`ucnp_user.properties`), specify a list of user IDs of users who are not only allowed to log in to Navigation Platform but are also allowed access to the Dashboard window.

#

Immediately after setup, the following values are set. Modify these settings as necessary.

- When JP1 authentication is used to authenticate users (user authentication by JP1/Base): `user1,jp1admin`

- When an authentication scheme other than JP1 authentication is used to authenticate users: `user1`

The names (user IDs) of the registered users of the dashboard function prior to the upgrade are specified in the following files:

- *Navigation- Platform-installation-directory*`\conf\kibana.htpasswd`[#]

- *backup-directory*`\conf\kibana.htpasswd`

#

After the upgrade, this file is no longer used. If you do not need it, delete it.

Note:

Skip step 2 if you do not use the dashboard function.

3. If you have customized the contents of messages, reset the messages in the user message properties file.

Configure the messages that were customized in the backed-up user message properties file in the post-upgrade user message properties file.

Backed-up user message properties file	User message properties file after upgrade
backup-directory`\conf\ucnp_message_user.properties`	*Navigation-Platform-installation-directory*`\conf\ucnp_message_user.properties`
backup-directory`\conf\ucnp_message_user_ja.properties`	*Navigation-Platform-installation-directory*`\conf\ucnp_message_user_ja.properties`

4. If you have associated JP1 events with Operational Contents prior to the upgrade, copy the backed-up JP1 event mapping file to the folder indicated below.

File to be copied

Backup-directory`\conf\ucnp_jp1event_mapping.txt`

Destination directory

Navigation-Platform-installation-directory`\conf`

5. Restart Navigation Platform.

6. Copy the backed-up User Plugins.

For details about the procedure to use in an execution environment, see *6.6 Applying the files created in the development environment*. However, instead of the data in the section *Files to import from the development environment*, copy the data that was backed up in *(1) Procedure for backing up the data from the upgrade target*.

In the case of a development environment, reconstruct the environment based on the following table.

Acquired file	How to restore
Navigation-Platform-installation-directory`\pluginSDK`	Copy the backed-up plugins to the following directory, overwriting any files with the same names:

Acquired file	How to restore

Navigation-Platform-installation-directory\pluginSDK	Copy source directory
	    backup-directory\pluginSDK\plugin
	
	Copy destination directory
	    Navigation-Platform-installation-directory\pluginSDK\plugin
	
	After copying the plugins, see the description about building plugins in the manual *JP1/Navigation Platform Development Guide*.
	
	If the installation directory has changed, change the following class paths as needed:
	• *Navigation-Platform-installation-directory*\lib\ucnppluginif.jar
	• *Navigation-Platform-installation-directory*\syslib\ucnpsys.jar
	• *Navigation-Platform-installation-directory*\lib\ucnpclasses.jar
	• *Navigation-Platform-installation-directory*\PP\uCPSB\CC\client\lib\j2ee-javax.jar

Navigation-Platform-installation-directory\usrlib\sys	See the description about adding plugins in the manual *JP1/Navigation Platform Development Guide*.
Navigation-Platform-installation-directory\PP\uCPSB\CC\server\usrconf\ejb\uCNP_J2EE\usrconf.properties	See the description about changing J2EE server settings in the manual *JP1/Navigation Platform Development Guide*.
Navigation-Platform-installation-directory\PP\uCPSB\CC\server\usrconf\ejb\uCNP_J2EE\usrconf.cfg	
Resource adapter settings files (connector attribute files)	See the description about adding database connectivity in the manual *JP1/Navigation Platform Development Guide*.

7. Copy the backed-up static files to the following folder:

```
Navigation-Platform-installation-directory\PP\uCPSB\httpsd\htdocs
```

Do not overwrite the ucnp folder directly below the destination htdocs folder.

8. Execute the following command to import the Operational Contents:

Navigation-Platform-installation-directory\bin\npimport -d *backup-folder*\contents\backupcontents.zip

Note:

When JP1/Navigation Platform is upgraded from a version earlier than 12-50, the names of groups to which Operational Contents belong are changed if they include a backslash (\). Starting from JP1/Navigation Platform 12-50, a backslash (\) in a name of a group to which an Operational Content belongs is interpreted as a separator for group levels. To address this, a backslash (\) used in existing group names is replaced with two consecutive backslashes (\\) when they are imported (which causes no change in the displayed names).

If the npimport command (import Operational Content) terminates with an error, message KDCZ10382-E is output, and the name of the access permission group in the message is Standard access permissions, perform the procedure described in *(16) If the npimport command (import Operational Content) terminates with an error* below.

(12) Restore the operation log

Perform this procedure if you have enabled the operation log function. In this procedure, the operation log storage folder can be changed by changing the property `ucnp.base.server.operationlog.path` in the user property file (`ucnp_user.properties`). Substitute the new folder name as appropriate.

1. Stop Navigation Platform.

2. Delete all the files in the operation log storage folder.

3. Copy the operation log.
   After renaming the operation log, copy it as follows.
   Source
   > Operation log under the backup folder

   Destination
   > *Navigation-Platform-installation-directory*`\operationlogs`

   After the operation log has been copied, no analysis results will be displayed in the Reporting window until the time set in the service properties file (`ucnp_service.ini`) has elapsed.

4. Start Navigation Platform.

(13) Update search data

Update the search data. If the search function is enabled but no search data update interval has been set in the service properties file, use the `npupdatesearchdata` command (update search data) to update the search data.

(14) Reconfiguring the dashboard server's memory capacity settings

Perform this step if you are using the dashboard function.

1. Open the following file in a text editor:
   ```
   backup-directory\opensearch\config\jvm.options.npsettings.txt
   ```

2. Check the memory size.
   -Xms*NNNN*m (*NNNN*: numeric value): Minimum size (MB)
   -Xmx*NNNN*m (*NNNN*: numeric value): Maximum size (MB)

3. Execute the following command, in which the memory sizes checked in step 2 are specified:
   ```
   Navigation-Platform-installation-directory\bin\npdashboardsetstoragememory
     minimum-size maximum-size
   ```

4. Start the dashboard server.

(15) Restore the tasks

Perform this step if you have created tasks that execute commands provided by Navigation Platform.

From the following folder, restore the settings of the tasks that execute commands provided by Navigation Platform:

backup-directory`\task`

(16) If the npimport command (import Operational Content) terminates with an error

Perform the following procedure when the `npimport` command (import Operational Content) terminates with an error, message `KDCZ10382-E` is output, and the name of the access permission group in the message is `Standard access permissions`:

1. Specify `true` for the property `ucnp.base.server.acl.defaultacl.name.japaneseonly` in the user property file (`ucnp_user.properties`).

2. Restart Navigation Platform.

3. Execute the following command to re-import the Operational Contents:

```
Navigation-Platform-installation-directory\bin\npimport -d backup-folder\c
ontents\backupcontents.zip
```

4. Change the name of the access permission group.

   Log in to Navigation Platform with system administrator permissions and change the name of the access permission group `Standard access permissions` to a name other than 標準アクセス権限 or `Standard access permissions`. For information about how to change the name of the access permission group, see *6.2 Setting access permissions for Operational Contents (when using a directory server for user authentication)*.

5. Specify `false` for the property `ucnp.base.server.acl.defaultacl.name.japaneseonly` in the user property file (`ucnp_user.properties`).

6. Restart Navigation Platform.

3.6.6 After upgrading

After the upgrade has been complete, do the following:

- If the Operational Content created in the pre-upgrade environment includes HTML parts, the contents displayed in the HTML parts might have changed after the upgrade. For Operational Contents that include HTML parts, examine the contents displayed after the upgrade, and change settings as needed.

  For details about how to configure HTML parts, see the manual *JP1/Navigation Platform Content Editing Guide*.

3.7 Procedure for applying patches

A *patch* is a software enhancement that is provided after a product has been released. Once you have finished installing Navigation Platform, obtain the latest patches from the software support service's website, and apply them.

3.8 Uninstalling Navigation Platform

Navigation Platform can be uninstalled from **Programs and Features** in the Windows Control Panel, or by using the Hitachi Integrated Installer. This section explains the procedure for each of these methods of uninstalling Navigation Platform.

❗ Important

- Work files created during setup and log files generated during system operation will remain after Navigation Platform has been uninstalled. Delete them manually if necessary.

- If other users are accessing files or directories during the uninstall process, you will not be able to delete those files and directories. In such a case, a message might appear to notify you that you need to restart the OS.

3.8.1 Uninstalling Navigation Platform using the Windows uninstall function

The following is the procedure for uninstalling Navigation Platform from **Programs and Features** in the Windows Control Panel.

1. Perform the unsetup procedure, or stop the service.

   If setup has been completed

   > Perform the unsetup procedure for Navigation Platform as instructed in *4.7 Unsetup procedure*.

   If setup has not been completed

   > Stop the `Navigation Platform DataBase` service.

2. Select **Programs and Features** from the Windows Control Panel.

3. Select **Navigation Platform - Server** and remove it.

   Do not select the program indicted below.

   Program that must not be selected

   > HiRDB XML Extension Version 8 _NP0

   Note:

   > Depending on the program, a dialog box might appear requesting confirmation that you want to remove (uninstall). Select **Yes**. If you accidentally select **No**, you will need to restart step 3.

Point to note after completing uninstallation

> Once uninstallation has been completed, shut down or restart the OS without logging off. If you log out from the OS after completing an uninstallation, an error dialog box might appear the next time you log in. However, even if the error dialog box appears, it will not cause any problems in the operation of the OS.

3.8.2 Uninstalling Navigation Platform using the Hitachi Integrated Installer

Below, this subsection explains the procedure for uninstalling Navigation Platform using the Hitachi Integrated Installer.

1. Perform the unsetup procedure, or stop the service.

   If setup has been completed

   Perform the unsetup procedure for Navigation Platform as instructed in *4.7 Unsetup procedure*.

   If setup has not been completed

   Stop the `Navigation Platform DataBase` service.

2. Insert the CD-ROM and execute HCD_INST.EXE.

3. Click the **Continue** button to start the integrated installation process from Hitachi Integrated Installer.

4. Select the **Remove** mode radio button and start the uninstall process.

   Depending on the program, a dialog box might appear requesting confirmation that you want to remove (uninstall). Select **Yes**.

   If you accidentally select **No**, you will need to start over from step 2.

5. Close the screen indicating that uninstallation has been completed.

Point to note after completing uninstallation

   Once uninstallation has been completed, shut down or restart the OS without logging off. If you log out from the OS after completing an uninstallation, an error dialog box might appear the next time you log in. However, even if the error dialog box appears, it will not cause any problems in the operation of the OS.

4

Setting Up Navigation Platform

This chapter explains the procedures for performing setup and unsetup of Navigation Platform, and the tasks that are required after setup.

4.1 What to check before setup

Permissions of users who will log in to the machine

Installation and setup tasks must be performed by a user with Windows administrator privileges (user who installed Navigation Platform). Depending on the task, it might be necessary to start by selecting **Run as administrator**.

Free disk space

Setup requires at least 25 GB of free disk space. The same requirement applies to re-setup.

Installation directory

Do not move, edit, or delete any directories or files under the Navigation Platform installation directory.

Communication protocol

When enabling HTTPS communications, do not specify `http` as the URL protocol for URLs of image used for Operational Contents, and URLs specified for inline frames. Images and inline frames specifying an http protocol URL may not appear depending on your browser settings.

Port numbers

In a default setup, Navigation Platform uses port numbers `80`, `24701` to `24704`, and `24710` to `24713`. Check whether these ports are being used by other applications.

If any of these ports are being used by another application, you will need to either change the port number settings in that application, or change the default port number settings in Navigation Platform during setup.

For details about specification of port numbers, see *8.3.3 Details about the properties in the user setup property file*.

Data to be overwritten

When you execute the `npsetup` command (perform setup of Navigation Platform), the user property file of the existing environment is overwritten. If you will perform unsetup and then perform re-setup in an environment where setup has already been performed, make a backup of the user property file as necessary.

Whether and how to perform user authentication

If you want to link with other JP1 products, you must perform setup in an environment that uses JP1/Base user authentication. User authentication is not necessary in a development environment, but in the editing and execution environments, you must decide whether you want to use authentication to manage the users logging in to Navigation Platform. Also, if you want to implement user authentication to manage the users who log in, you will need to decide in advance the type of user authentication to use. For details about the user authentication that can be used in Navigation Platform, see *3.3.2 Types of user authentication that can be used in Navigation Platform*.

To perform setup in an environment in which user authentication is used, you must make changes to the default property specifications. For details about the property that specifies the type of user authentication, see *8.3.3 Details about the properties in the user setup property file*.

4.2 Setup preparations when using Active Directory for user authentication

If you want to use Active Directory for user authentication, you must first change the property `ucnp.setup.server.ldap.directory.kind` in the user setup property file (`ucnp_setup_user.properties`) from its default value to `AD`.

Then, by contacting the Active Directory administrator or by other means, gather the information listed below. The name of the corresponding property in the user setup property file is indicated in parentheses.

- Communication protocol of the Active Directory (`ucnp.setup.server.ldap.protocol`)

  This information must be specified when LDAPS is used for the communication protocol.

- Name of the Active Directory server (`ucnp.setup.server.ldap.hostname`)

- Port number to use when connecting to Active Directory (`ucnp.setup.server.ldap.port`)

- Distinguished name (DN) of the Active Directory authenticator user (`ucnp.setup.server.ldap.java.naming.security.principal`)

- Active Directory authenticator password (`ucnp.setup.server.ldap.java.naming.security.credentials`)

- Base DN to start searching for Active Directory user (`ucnp.setup.server.ldap.com.cosminexus.admin.auth.ldap.basedn`)

  The value specified here must refer to a node that is above the user to be authenticated and that can be searched by Active Directory.

- Base DN to start searching for Active Directory group (`ucnp.setup.server.ldap.group.basedn`)

  The value specified here must refer to a node that is above the group to be used in the Navigation Platform access permission settings and that can be searched by Active Directory.

In cases where you want to specify a value other than the default, or the settings need to be configured explicitly, change the values of properties listed in parentheses. For details about the values specified for each property, see *8.3.3 Details about the properties in the user setup property file*.

4.3 Setup preparations when using JP1/Base for user authentication

Property settings

If you want to use JP1/Base for user authentication, you must first change the property `ucnp.setup.server.ldap.directory.kind` in the user setup property file (`ucnp_setup_user.properties`) from its default value to `JP1Auth`.

JP1/Base preparations

Next, install and set up JP1/Base. After the setup is complete, start JP1/Base and leave it in its start status, then set the JP1 resource group and JP1 permission level.

When user authentication is performed through JP1/Base, JP1 resource groups are used to manage levels of access, and JP1 permission levels are used to manage the contents of operations. You need to consider what kinds of access rights to grant to each user (via the JP1 resource groups and JP1 permission levels configured in JP1/Base), depending on which users will be editing the Operational Contents, the range of publication of the Operational Contents, and how they will be used.

For details about how to install, set up, specify various settings for, and register JP1/Base, see the *JP1/Base User's Guide*.

> **❶ Important**
>
> If you want to link an Operational Content from Navigation Platform to another JP1 product, the JP1/Base used by the JP1 product to be linked and the JP1/Base used by Navigation Platform must be configured with the same user authentication block. If the user authentication blocs are different, linkage is not possible.

4.3.1 JP1 resource groups supported by Navigation Platform

The following two types of JP1 resource groups can be used in Navigation Platform:

- JP1 resource group that is set system-wide (required)
- JP1 resource groups that are set in an Operational Content (optional)

(1) About a JP1 resource group that is set system-wide

A system-wide JP1 resource group is a JP1 resource group that is set only once in a Navigation Platform System (environment). The JP1 permission level set within this JP1 resource group is applied to all operations across the entire system.

(2) About the name of a JP1 resource group that is set system-wide

The name of a system-wide JP1 resource group for a particular system is specified in the property `ucnp.base.server.jp1auth.system.resource.group` in the user property file (`ucnp_user.properties`). If nothing is specified for the property `ucnp.base.server.jp1auth.system.resource.group`, a system-wide JP1 resource group is assumed to have the name `*`.

When deciding on the name of a system-wide JP1 resource group, consider whether there will be multiple environments.

For example, in a case where the editing environment and the execution environment are separated, or where there are multiple execution environments, you can set a different system-wide JP1 resource group for each environment. Using

different names for the system-wide JP1 resource group in each environment can make system management easier in circumstances such as the following:

- Different users will manage each environment
- Different permissions will be granted to the same user in the different environments

Even if there will be multiple environments, we recommend using the same system-wide JP1 resource group name in all environments in cases where the same permissions will be given to the same users in all environments.

(3) About JP1 resource groups that are set in Operational Content

JP1 resource groups that are set in an Operational Content are valid for the Operational Content in which they are set. The JP1 permission level set within such a JP1 resource group applies only to the Operational Content in which it is set. Up to 10 JP1 resource groups can be set for one Operational Content.

Note that the system-wide JP1 resource group always applies to an Operational Content, even when no JP1 resource groups specific to that Operational Content have been set.

(4) About the names of JP1 resource groups that are set in an Operational Content

Specify a name that is not * and that is different from the property `ucnp.base.server.jp1auth.system.resource.group` in the user property file (`ucnp_user.properties`).

A maximum of 64 characters can be used, restricted to single-byte alphanumeric characters and the underscore (_). These names are case sensitive.

4.3.2 JP1 permission levels supported by Navigation Platform

The following four JP1 permission levels can be used in Navigation Platform:

- `HNP_Admin`
  A user with the JP1 permission level `HNP_Admin` is called a *Content Manager*.
- `HNP_Creator`
  A user with the JP1 permission level `HNP_Creator` is called a *Content Creator*.
- `HNP_Editor`
  A user with the JP1 permission level `HNP_Editor` is called a *Content Editor*.
- `HNP_User`
  A user with the JP1 permission level `HNP_User` is called a *user*.

The following table shows the Navigation Platform operations that can be performed at each JP1 permission level:

Table 4–1: Operations that can be executed at each JP1 permission level

No.	Operation	JP1 permission level			
		HNP_Admin	HNP_Creator	HNP_Editor	HNP_User
1	Adding Operational Contents	Y	Y	N	N

No.	Operation	JP1 permission level			
		HNP_Admin	HNP_Creator	HNP_Editor	HNP_User
2	Copying Operational Contents	Y	Y	N	N
3	Deleting Operational Contents	Y	Y	N	N
4	Editing Operational Contents[#1]	Y	Y	Y	N
5	Referencing Operational Contents[#2]	Y	Y	Y	Y
6	Unlocking Operational Contents	Y	N	N	N
7	Making Operational Contents public or private	Y	N	N	N
8	Checking detailed information for each version	Y	Y	Y	N
9	Checking differences compared with previous versions	Y	Y	Y	N
10	Renaming Operational Contents	Y	Y	N	N
11	Changing Operational Contents' groups	Y	Y	N	N
12	Setting access permissions for Operational Contents (resource settings).	Y	Y	N	N
13	Checking the JP1 resource groups that are set for Operational Contents	Y	Y	Y	N
14	Setting related links	Y	Y	Y	N

Legend:

Y: Operation is permitted.

N: Operation is not permitted.

#1

Editing refers to operations such as starting editing, finishing editing, discarding edits, and printing that can be performed on an Operational Content that is displayed in the Operational Content Editing Window.

#2

Referencing refers to operations such as printing and retrieving URLs that can be performed on an Operational Content that is displayed in the Operational Content Execution Window.

4.3.3 Combinations of JP1 resource groups and JP1 permission levels

The operations a user can execute in Navigation platform depend on the combination of the JP1 resource group and JP1 permission level.

> **💡 Tip**
>
> You can set multiple JP1 resource groups for the same user. This includes both the system-wide JP1 resource group and JP1 resource groups specific to individual Operational Contents.
>
> When a JP1 permission level is set for a JP1 resource group named * in Navigation Platform, the setting is assumed to apply to a system-wide JP1 resource group.

The subsections below indicate the operations that can be executed by different users, and the combinations of JP1 resource group and JP1 permission level that are set for those users.

(1) User who can execute all operations (system administrator)

JP1 users registered with this combination are allowed to execute all operations in Navigation Platform.

JP1 resource group
> System-wide

JP1 permission level
> `HNP_Admin`

(2) User who can create Operational Contents and perform operations on specific Operational Contents for copying, deleting, renaming, changing groups, resource setting, editing, making public/private, and unlocking (Content Manager)

JP1 users registered with this combination are allowed to execute operations on newly created Operational Contents for copying, editing, deleting, renaming, changing groups, and setting JP1 resource groups to which the users belong to. In addition, they can execute operations at the `HNP_Admin` JP1 permission level on Operational Contents where the JP1 resource groups they belong to are set.

JP1 resource group
> Operational Content-specific

JP1 permission level
> `HNP_Admin`

(3) User who can perform operations on Operational Contents for creating, copying, deleting, renaming, changing groups, and resource setting, and edit all Operational Contents (Content Creator)

JP1 users registered with this combination are allowed to execute operations at the `HNP_Creator` JP1 permission level on all Operational Contents.

JP1 resource group
> System-wide

JP1 permission level
> `HNP_Creator`

(4) User who can create Operational Contents, and perform operations on specific Operational Contents for copying, deleting, renaming, changing groups, resource setting, and editing (Content Creator)

JP1 users registered with this combination are allowed to execute operations at the `HNP_Creator` JP1 permission level on Operational Contents where the JP1 resource groups they belong to are set.

JP1 resource group
> Operational Content-specific

JP1 permission level
    `HNP_Creator`

(5) User who can only edit all Operational Contents (Content Editor)

JP1 users registered with this combination are allowed to execute operations at the `HNP_Editor` JP1 permission level on all Operational Contents.

JP1 resource group
    System-wide
JP1 permission level
    `HNP_Editor`

(6) User who can only edit specific Operational Contents (Content Editor)

JP1 users registered with this combination are allowed to execute operations at the `HNP_Editor` JP1 permission level on Operational Contents where the JP1 resource groups they belong to are set.

JP1 resource group
    Operational Content-specific
JP1 permission level
    `HNP_Editor`

(7) User who can only reference and execute all Operational Contents (user)

JP1 users registered with this combination are allowed to execute operations at the `HNP_User` JP1 permission level on all Operational Contents.

JP1 resource group
    System-wide
JP1 permission level
    `HNP_User`

(8) User who can only reference and execute specific Operational Contents (user)

JP1 users registered with this combination are allowed to execute operations at the `HNP_User` JP1 permission level on Operational Contents where the JP1 resource groups they belong to are set.

JP1 resource group
    Operational Content-specific
JP1 permission level
    `HNP_User`

4.3.4 JP1 user registration procedure

When the setup of JP1/Base is complete, the users who will access Navigation Platform are registered as JP1 users.

A JP1 user name can consist of up to 31 single-byte alphanumeric characters. The password corresponding to a JP1 user name must be at least 6 and no more than 32 ASCII-encoded characters. However, the following symbols and control character codes are not allowed:

\, ", :, tab, space, `0x00` to `0x1F`, and `0x7F`

For details about the characters allowed in JP1 user names and passwords, and the JP1 user registration procedure, see the *JP1/Base User's Guide*.

4.3.5 Procedure for adding HNP_Creator

If the JP1/Base version is earlier than 12-50, edit the definition in the JP1/Base user permission level file as described in the following table, and then execute the `jbsaclreload` command:

File path	File name	Item to be changed	Changed definition

`%ProgramFiles(x86)%`
`\Hitachi\JP1Base\conf`
`\user_acl`
	`JP1_AccessLevel`	`; for Hitachi`
		`Navigation`
		`Platform`
			`HNP_Admin:HNP_CONTENTS:Refe`
			`r,Update,Create,Admin`
			`HNP_Creator:HNP_CONTENTS:Re`
			`fer,Update,Create`
			`HNP_Editor:HNP_CONTENTS:Ref`
			`er,Update`
			`HNP_User:HNP_CONTENTS:Refer`

For details about how to use the `jbsaclreload` command, see the manual for JP1/Base.

4.3.6 Procedure for setting the service start sequence

When you use JP1/Base for user authentication, JP1/Base must always be started before Navigation Platform. To do this, configure the JP1/Base start sequence definition file so that the services are started in the following order:

1. JP1/Base

2. `NavigationPlatformStartService` (shown as *Navigation Platform Start Service*)

For details about how to use the start sequence definition file, see the description about setting the service start and stop sequences in the *JP1/Base User's Guide*.

4.4 Setup preparations when enabling HTTPS communications

When enabling HTTPS communications, you must first change the property
`ucnp.setup.server.cosminexus.hws.http.protocol` in the user setup property file
(`ucnp_setup_user.properties`) from its default value to `https`.

Next, specify the following information as needed. The content inside parentheses refers to the corresponding property name in the user setup property file.

- Application of web server CA certificate settings
  (`ucnp.setup.server.cosminexus.hws.http.cacert.enable`)

  To enable CA certificate settings, set this to `true`.

- Encryption method used for the private server key for the web server
  (`ucnp.setup.server.cosminexus.hws.http.ssl.privatekey.type`)

  Specify the encryption method for the private server key used with the SSL certificate.

  Available encryption methods include RSA encryption, ECC (elliptic-curve cryptography), or both. When using both RSA encryption and ECC (elliptic-curve cryptography), the Web browser (client side) switches the server certificate to use, based on the encryption suite that it supports.

- For details about values specified for each property, see *8.3.3 Details about the properties in the user setup property file*.

4.5 Setup procedure

This section describes the Navigation Platform setup procedure.

1. To set up Navigation Platform with changes to the default settings, copy the sample user setup property file (`ucnp_setup_user.properties`) to the directory shown below and then edit it.

   Source file (sample file)

   Navigation-Platform-installation-directory`\sample\conf\ucnp_setup_user.properties`

   Destination directory

   Navigation-Platform-installation-directory`\conf`

   To set up Navigation Platform with the default settings, this step is not necessary. Start from step 2.

   > 💡 **Tip**
   >
   > If you are setting up a development environment, you need to change the values of the following properties:
   >
   > - Set to `true` the value of the property `ucnp.setup.server.cosminexus.debug.enable`.
   >
   > - Set the property `ucnp.setup.server.cosminexus.debug.jdwp.port` to a port number that is not being used on the machine where Navigation Platform is being set up and that you will be able to use for debugging User Plugins.

   > 📄 **Note**
   >
   > - If you are not using user authentication, leave the properties related to the directory server as they are in the sample file.
   >
   > - If you specify Japanese text for a user setup property, use UTF-8 encoding for editing and do not include a Byte Order Mark.

2. Start JP1/Base. (This step is applicable only when you use JP1/Base for user authentication.)

   If JP1/Base is not up and running, start it. For details about how to start JP1/Base, see the *JP1/Base User's Guide*.

   Note:

   Skip step 2 if you do not use JP1/Base for user authentication.

3. Create files necessary to establish an HTTPS connection, or place existing files. (This only applies for communications using the HTTPS protocol.)

   For details about how to create or place the files necessary to establish an HTTPS connection, see *4.10 Configuration procedure when using HTTPS*.

   Note:

   Step 3 is not required when not using communications based on the HTTPS protocol.

4. Execute the `npsetup` command (perform setup of Navigation Platform).

   Command path

   Navigation-Platform-installation-directory`\bin\npsetup`

If an error occurs, take corrective action in accordance with the message that is displayed, perform the unsetup procedure, and then perform setup again. For details about the messages, see the manual *JP1/Navigation Platform Messages*. For details about the unsetup procedure, see *4.7 Unsetup procedure*.

If Windows Firewall displays a warning message, click the **Permit access** button to cancel the block.

5. Display the login window.

   Enter the following URL into your web browser and verify that the Navigation Platform login window is displayed.

   ```
   http://host-name:port-number/ucnpBase/
   ```

   > **📄 Note**
   >
   > For an https connection, specify the following URL:
   >
   > ```
   > https://host-name:port-number /ucnpBase/
   > ```

   host-name
   The host name or IP address of the J2EE server machine.

   port-number
   The port number of the web server.
   This is the value specified in the property `ucnp.setup.server.cosminexus.hws.http.port` in the user setup property file (`ucnp_setup_user.properties`).

   Login ID
   Enter the value specified for the property `ucnp.setup.server.system.admin.userids` in the user setup property file. The default value is `user1`.

   Login password
   If you are using Active Directory for user authentication, enter a user password that was set in Active Directory. If you are using JP1/Base for user authentication, enter a JP1 user ID and password registered in JP1/Base. If you set up Navigation Platform without configuring user authentication, no password is required at login time.

6. Edit the user property file (`ucnp_user.properties`) as necessary, and then restart the system.

   For details about what settings can be configured in the user property file (`ucnp_user.properties`) and the user message properties file (`ucnp_message_user.properties`), see *8.1 Property files whose settings need to be specified*.

   Note that changes to the property files do not take effect until you restart the system. For details about how to restart the system, see *5.1 Starting and stopping the system*.

   > **❗ Important**
   >
   > After setup, take note of the points below. For the flow of tasks after setup, see *4.8 General procedure after setup*.
   >
   > - Do not make any changes to the user setup property file (`ucnp_setup_user.properties`) that was edited during setup unless you first perform the unsetup procedure in the environment that was set up. If you change the environment before performing unsetup, Navigation Platform might not work correctly.
   > - After you perform setup using the `npsetup` command (perform setup of Navigation Platform), do not make any changes to the environment other than to perform the tasks shown in the table below. Otherwise, Navigation Platform might not work correctly.

Table 4–2: Tasks that can be performed after the environment has been set up

No.	Task that can be performed	Remarks
1	Add plugins	For details about how to develop plugins, see the manual *JP1/Navigation Platform Development Guide*. For details about how to add plugins that you have developed, see *6.6 Applying the files created in the development environment*.
2	Customize windows	For details about how to customize windows, see *Chapter 7. Customizing Navigation Platform windows*.

4.6 Points to note before performing unsetup

- Stop Navigation Platform before executing the `npunsetup` command (perform unsetup of Navigation Platform).

- If you change system settings for or add files to a system that was set up using the `npsetup` command (perform setup of Navigation Platform), Navigation Platform might not work correctly.

- Note that performing the unsetup procedure deletes all Operational Content data. In addition, when you perform setup again after the unsetup, the property files other than the user setup property file will be overwritten, and the property values in the files will be returned to their default values.

- If you intend to perform unsetup, re-setup, and then resume using Navigation Platform, use the `npdatabackup` command (back up environment) to make a backup of the existing environment. For details about how to use the `npdatabackup` command, see *9.6 npdatabackup command (back up environment)*.

4.7 Unsetup procedure

This section describes the Navigation Platform unsetup procedure.

1. Use the `npdatabackup` command (back up environment) to make a backup.

   Command path

      Navigation-Platform-installation-directory`\bin\npdatabackup`

   Data related to the configuration of the system environment cannot be backed up using the `npexport` command (export Operational Content). You must use the `npdatabackup` command (back up environment) for this purpose. For the detailed procedure, see steps 1 to 3 in *5.2.2 Backing up the entire system*.

2. Use the `npunsetup` command (perform unsetup of Navigation Platform) to perform unsetup.

   Command path

      Navigation-Platform-installation-directory`\bin\npunsetup`

   When prompted to confirm whether to perform unsetup, enter a single-byte `Y` and press the **Enter** key.

3. If you have a task related to Navigation Platform, delete that task.

4. If necessary, remove static files used in the Operational Contents.
   Static files are not deleted by the `npunsetup` command. If you do not want to leave behind static files after unsetup, you must delete those files manually.

5. Delete any CA certificate that was imported when LDAPS was used.
   For details about the deletion procedure, see "*3. Deleting the CA certificate registered in the keystore*" in *5.15.1 Procedure for registering or updating a CA certificate in the keystore*.

If unsetup fails, eliminate the cause of the failure and then execute the `npunsetup` command again.

4.8 General procedure after setup

The tasks that are required after setup has been completed are different for each environment, as indicated below.

For details about the tasks that are required up to the point when you start using Navigation Platform, see *6.1 Tasks required from creation to use of Operational Contents*.

Tasks after setting up the editing environment

The following tasks must be performed as preparations in order to begin creating Operational Contents.

1. Enter the URL to access the Navigation Platform window in your web browser.

2. Log in using a system administrator ID (default: `user1`).

3. If you are using Active Directory for user authentication, create access permission groups and assign the Content Manager and Content Editor roles (access permissions) to the other users.

4. If you are using JP1/Base for user authentication, contact the JP1 administrator and verify that the JP1 permission levels corresponding to the Content Manager, Content Creator and Content Editor roles have been set for the other users.

Tasks after setting up the execution environment

The following tasks must be performed as preparations in order to begin publishing and using Operational Contents.

1. Import the Operational Contents from the editing environment.

2. If necessary, review the development environment and apply settings such as the J2EE server memory setting to the execution environment.

3. Enter the URL to access the Navigation Platform window in your web browser.

4. Log in using any user ID and check whether the imported Operational Contents appear and work correctly.

Tasks after setting up the development environment

If you want to associate plugins in the development environment, the following tasks must be performed as preparations.

1. Import the Operational Contents from the editing environment.

2. Enter the URL to access the Navigation Platform window in your web browser.

3. Log in using a system administrator ID (default: `user1`).

4.9 Procedure for implementing user authentication after setting up Navigation Platform

This section describes the procedure for changing a Navigation Platform environment that was set up without configuring user authentication to an environment that uses user authentication.

1. Stop the system if it is running.

   For details about how to stop the system, see *5.1 Starting and stopping the system*.

2. Use the `npdatabackup` command (back up environment) to back up the data from the Operational Contents and setting files.

   For details about how to perform backups, see *5.2.1 Backup frequency and the data to be backed up*.

   For details about the command, see *9.6 npdatabackup command (back up environment)*.

3. Perform the unsetup procedure on Navigation Platform.

   For details about how to perform unsetup of Navigation Platform, see *4.7 Unsetup procedure*.

4. Depending on the type of user authentication to be used, prepare for the setup by consulting one of the following sections:

   4.2 Setup preparations when using Active Directory for user authentication

   4.3 Setup preparations when using JP1/Base for user authentication

5. Perform the setup procedure on Navigation Platform.

   For details about how to perform setup of Navigation Platform, see *4.5 Setup procedure*.

6. Use the `npimport` command (import Operational Contents) to restore the Operational Content data that was backed up in step 2.

   Example of executing the `npimport` command

   > `npimport -d` *backup-destination-directory-from-step-2*`\contents.zip`

   > For details about the command, see *9.10 npimport command (import Operational Contents)*.

7. Restore the user message properties file (`ucnp_message_user.properties`) that was backed up in step 2 by copying it.

   Source directory for user message properties file

   > *backup-destination-directory-from-step-2*`\HNP\conf`

   Destination directory for user message properties file

   > *Navigation-Platform-installation-directory*`\conf`

8. Update the new user property file with the contents of the user property file (`ucnp_user.properties`) that was backed up in step 2.

   Location of backed-up user property file

   > *backup-destination-directory-from-step-2*`\HNP\conf`

   Location of new user property file

   > *Navigation-Platform-installation-directory*`\conf`

> **! Important**
>
> If you simply overwrite the new user property file with the backed-up user property file, you will lose the properties that were set during setup and Navigation Platform will not work. You must therefore edit the new user property file so that it reflects the contents of the backed-up user property file.

9. If necessary, change the values specified for the following properties in the user property file.

   - If you want to display the **Logout** button in the Operational Content Execution Window and Operational Content Editing Window, set the `ucnp.base.server.logoutbutton.display` property.

10. Restart Navigation Platform.

   For details about how to restart the system, see *5.1 Starting and stopping the system*.

4.10 Configuration procedure when using HTTPS

4.10.1 Files required for HTTPS communication and where to place them

(1) Files required for HTTPS communication

The files required by Navigation Platform for HTTPS communication are outlined below.

Table 4–3: Files required for HTTPS communication and prerequisites

No.	File	Prerequisites
1	Private server key	When using RSA encryption • Key length: 2048 bits • PKCS#1 format • Encrypted[#1#2] When using ECC (elliptic-curve cryptography) • Key length: 256 bits or 384 bits (when the elliptic curve is NIST P-256 or P-384) • PKCS#8 format • Encrypted[#1#2]
2	Password file (file used to decrypt the private server key)	Must be generated with the `sslpasswd.bat` command provided with Navigation Platform.
3	Server certificate	The following conditions must be met: 1. X.509 PEM format 2. The CA signature algorithm and key length combination must be either of the following: When using RSA encryption • Signature algorithm: SHA-256 • Key length of the private key: 2048 bits When using ECDSA (elliptic-curve DSA) encryption • Signature algorithm: SHA-256 • Key length of the private key: 256 bits or 384 bits (NIST P-256 or P-384)
4	CA certificate (file required when the server certificate is issued by the CA)[#3]	X.509 PEM format

#1

For details about how to check whether the private server key is encrypted, see *4.10.3(1) Procedure for confirming private server key encryption*.

#2

For details about how to create an encrypted private server key from an unencrypted private server key, see *4.10.4 Procedure to encrypt unencrypted private server keys*.

#3

When using both RSA encryption and ECC server certificates, use the same CA certificate.

(2) Placement of files required for HTTPS communication

Files required for HTTPS communication must be placed before running the `npsetup` command (setup).

Place the file corresponding to the encryption method specified for the `ucnp.setup.server.cosminexus.hws.http.ssl.privatekey.type` property in the user setup property file (`ucnp_setup_user.properties`).

Details on the encryption method and corresponding file destination are provided below.

Table 4–4: Files required for HTTPS communication and their destination path

No.	Private server key encryption method	File type	File name[#]	File destination path
1	RSA	Private server key	`httpsdkey.pem`	`%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server`
2		assword file	`.keypasswd`	`%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server`
3		Server certificate	`httpsd.pem`	`%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server`
4	ECC	Private server key	`httpsdkey-ecc.pem`	`%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server`
5		assword file	`.keypasswd-ecc`	`%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server`
6		Server certificate	`httpsd-ecc.pem`	`%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server`
7	Both RSA/ECC	CA certificate	`anycert.pem`	`%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\cacert`

\#

    File names cannot be changed.

4.10.2 Procedure for creating files required for HTTPS communication

This section describes the procedure for creating files required for HTTPS communication.

> **❗ Important**
>
> The backup/restore commands cannot be used with files created using this procedure. Always make sure to acquire a backup. We recommend that you acquire a backup of certificate signing requests (CSR), and other files not required when setting up or starting Navigation Platform, as necessary.

(1) File creation procedure when issuing server certificates from a CA (certificate authority)

Specify the following values in the user setup property file (`ucnp_setup_user.properties`):

- `ucnp.setup.server.cosminexus.hws.http.protocol` = https
- `ucnp.setup.server.cosminexus.hws.http.cacert.enable` = true
- `ucnp.setup.server.cosminexus.hws.http.ssl.privatekey.type` = *encryption-method*

1. Perform the following procedure for each encryption method required:
   - Create a private server key.
   - Create a password file.
   - Create a certificate signing request (CSR).

- Send the certificate signing request (CSR) to the CA.
- Receive the server certificate, CA certificate from the CA.

2. Place the private server key, password file, server certificate, and CA certificate.

(2) File creation procedure when creating a self-signed certificate for verification purposes

Specify the following values in the user setup property file (`ucnp_setup_user.properties`):

- `ucnp.setup.server.cosminexus.hws.http.protocol` = https
- `ucnp.setup.server.cosminexus.hws.http.cacert.enable` = false
- `ucnp.setup.server.cosminexus.hws.http.ssl.privatekey.type` = *encryption-method*

1. Perform the following procedure for each encryption method required:
   - Create a private server key.
   - Create a password file.
   - Create a certificate signing request (CSR).
   - Create a self-signed certificate.

2. Place the private server key, password file, and server certificate.

(3) Procedure to create a private server key (RSA encryption method)

Create a PKCS#1 format private web server key using RSA encryption.

Files will be overwritten by the output file without prior confirmation upon command execution. Back up the existing file before executing the command, if necessary.

1. Run the following command to create an encrypted private server key (PKCS#1 format).

   Format

   ```
   "Navigation-Platform-installation-directory\PP\uCPSB\httpsd\sbin\openssl.b
   at" genrsa -rand file-path-for-random-number-generation type-of-encryption
   -used-for-private-key -out output-path-of-private-server-key-file bit-leng
   th-of-private-key
   ```

   Parameter

   - *file-path-for-random-number-generation*: Path of any file used for random number generation
     Specify a file of a sufficiently large size for random number generation.

   - *type-of-encryption-used-for-private-key*: `-des` or `-des3`
     If `-des` is specified, DES (Data Encryption Standard) will be selected as the encryption type.
     If `-des3` is specified, Triple DES will be selected as the encryption type.
     This parameter is irrelevant to the type of encryption for communication between the web server and web browsers.

   - *output-path-of-private-server-key-file*:
     `"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsdkey.pem"` (fixed)

   - *bit-length-of-private-key*: `2048` (fixed)

Cautionary note:

Users will be prompted to enter the pass phrase twice when the command is executed. Enter the same pass phrase twice, from 4 to 64 characters in length. Note that an error will not occur even if a pass phrase of 65 characters or longer is entered.

Take a note of the pass phrase entered as this will be used again when executing other commands.

Command execution example

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\openssl.bat" genrsa -rand "C:\Windows\Sy
stem32\notepad.exe" -des -out "%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server
\httpsdkey.pem" 2048
```

(4) Procedure to create a private server key (ECC (elliptic-curve cryptography) method)

Create a PKCS#8 format private web server key using ECC (elliptic-curve cryptography).

Files will be overwritten by the output file without prior confirmation upon command execution. Back up the existing file before executing the command, if necessary.

1. Run the following command to create a pre-encryption private server key.

Format

```
"Navigation-Platform-installation-directory\PP\uCPSB\httpsd\sbin\openssl.b
at" ecparam -genkey -noout -rand file-path-for-random-number-generation -n
ame elliptic-curve-name -out output-path-of-pre-encryption-private-server-
key-file
```

Parameter

- *file-path-for-random-number-generation*: Path of any file used for random number generation
  Specify a file of a sufficiently large size for random number generation.

- *elliptic-curve-name*: `P-256` or `P-384`
  Specify the name of the elliptic curve used for private key generation.

- *output-path-of-pre-encryption-private-server-key-file*:
  Specify the path of the file used for input in the following step.
  As this is an unencrypted private server key file, take due care to prevent against a data breach.

Command execution example

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\openssl.bat" ecparam -genkey -noout -ran
d "C:\Windows\System32\notepad.exe" -name P-256 -out "%TEMP%\httpsdkey-ecc
-unencrypted.pem"
```

2. Run the following command to create an encrypted private server key (PKCS#8 format).

Format

```
"Navigation-Platform-installation-directory\PP\uCPSB\httpsd\sbin\openssl.b
at" pkcs8 -topk8 -in path-of-the-pre-encryption-private-server-key-file -o
ut output-path-of-post-encryption-private-server-key-file -v2 private-key-
encryption-algorithm
```

Parameter

- *path-of-the-pre-encryption-private-server-key-file*:

Specify the file path created in step 1.

- *output-path-of-post-encryption-private-server-key-file*:

  `"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsdkey-ecc.pem"` (fixed)

- *private-key-encryption-algorithm*: `des-cbc` or `des-ede3-cbc`

  Specify the algorithm used for private key encryption.

  This parameter is irrelevant to the type of encryption for communication between the web server and web browsers.

Cautionary note:

Users will be prompted to enter the pass phrase twice when the command is executed. Enter the same pass phrase twice, from 4 to 64 characters in length. Note that an error will not occur even if a pass phrase of 65 characters or longer is entered.

Take a note of the pass phrase entered as this will be used again when executing other commands.

Command execution example

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\openssl.bat" pkcs8 -topk8 -in "%TEMP%\ht
tpsdkey-ecc-unencrypted.pem" -out "%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\se
rver\httpsdkey-ecc.pem" -v2 des-cbc
```

(5) Procedure for creating a password file

Create the password file corresponding to the private server key.

This procedure assumes that a private server key has already been created. This procedure applies to both RSA encryption-type and ECC-type private server keys.

Files will be overwritten by the output file without prior confirmation upon command execution. Back up the existing file before executing the command, if necessary.

1. Run the following command to create the password file corresponding to the private server key.

   Format

   ```
   "Navigation-Platform-installation-directory\PP\uCPSB\httpsd\sbin\sslpasswd
   .bat" path-of-the-private-server-key-file output-path-of-the-password-file
   ```

   Parameter

   - *path-of-the-private-server-key-file*:

     When using RSA encryption

     `"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsdkey.pem"`

     When using ECC

     `"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsdkey-ecc.pem"`

   - *output-path-of-the-password-file*:

     Specify the output destination path.

     When using RSA encryption

     `"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\.keypasswd"`

     When using ECC

     `"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\.keypasswd-ecc"`

   Command execution example (when using RSA encryption)

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\sslpasswd.bat" "%UCNP_HOME%\PP\uCPSB\htt
psd\conf\ssl\server\httpsdkey.pem" "%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\s
erver\.keypasswd"
```

Command execution example (when using ECC)

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\sslpasswd.bat" "%UCNP_HOME%\PP\uCPSB\htt
psd\conf\ssl\server\httpsdkey-ecc.pem" "%UCNP_HOME%\PP\uCPSB\httpsd\conf\s
sl\server\.keypasswd-ecc"
```

(6) Procedure for creating a certificate signing request (CSR)

Create a certificate signing request (CSR). This procedure can also be used to create a self-signed certificate.

This procedure assumes that a private server key has already been created. This procedure applies to both RSA encryption-type and ECC-type private server keys.

Files will be overwritten by the output file without prior confirmation upon command execution. Back up the existing file before executing the command, if necessary.

1. Run the following command to create a certificate signing request (CSR).

   Users will be prompted to enter the pass phrase when the command is executed. Enter the pass phrase that was set when creating the private server key.

   Format

   ```
   "Navigation-Platform-installation-directory\PP\uCPSB\httpsd\sbin\openssl.b
   at" req -new hash-type-used-for-the-signature-algorithm -key path-of-the-p
   rivate-server-key-file -out CSR-file-output-path [-addext subjectAltName-v
   alue]
   ```

   Parameter

   - *hash-type-used-for-the-signature-algorithm*: `-sha256`, `-sha384`, or `-sha512`

   - *path-of-the-private-server-key-file*:
     When using RSA encryption
     `"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsdkey.pem"`
     When using ECC
     `"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsdkey-ecc.pem"`

   - *CSR-file-output-path*:
     When using RSA encryption
     `"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsd.csr"`
     When using ECC
     `"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsd-ecc.csr"`

   - *subjectAltName-value*:
     Set the `subjectAltName` value in the server certificate.
     The domain name or IP address of the server can be specified in the following format:
     - When specifying a single domain name
     "subjectAltName=DNS:jp1np.hitachi.jp"
     When specifying multiple domain names
     - "subjectAltName=DNS:jp1np.hitachi.jp, DNS:jp1xxx.hitachi.jp"

When specifying a domain name and an IP address

- "subjectAltName=DNS:jp1np.hitachi.jp, IP:192.168.0.1"

Command execution example (when using RSA encryption, with a domain name of `jp1np.hitachi.jp`)

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\openssl.bat" req -new -sha256 -key "%UCN
P_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsdkey.pem" -out "%UCNP_HOME%\P
P\uCPSB\httpsd\conf\ssl\server\httpsd.csr" -addext "subjectAltName=DNS:jp1
np.hitachi.jp"
```

(7) Procedure for creating a self-signed certificate

This section describes the procedure for creating a server certificate (self-signed certificate) for confirming operations for verification purposes without going through a CA (certificate authority).

This procedure assumes that a private server key has already been created. This procedure applies to both RSA encryption-type and ECC-type private server keys.

Files will be overwritten by the output file without prior confirmation upon command execution. Back up the existing file before executing the command, if necessary.

1. When setting the `subjectAltName` value in the server certificate, create a text file that contains the `subjectAltName` value.

   The explanations provided in this procedure refer to this text file as `san.txt`.

   File format

   ```
   subjectAltName = subjectAltName-value
   ```

   File example (when specifying a single domain name)

   ```
   subjectAltName = DNS:jp1np.hitachi.jp
   ```

   File example (when specifying an IP address)

   ```
   subjectAltName = IP:192.168.0.1
   ```

2. Run the following command to create a server certificate.

   Format

   ```
   "Navigation-Platform-installation-directory\PP\uCPSB\httpsd\sbin\openssl.b
   at" x509 -req -days period-of-validity-(days) -in certificate-signing-requ
   est-(CSR)-file-path -signkey private-server-key-file-path -out server-cert
   ificate-file-output-path [-extfile subjectAltName-value-configuration-file
   -path]
   ```

   Parameter

   - *period-of-validity-(days)*: Whole number from 1 to 10,000

   - *certificate-signing-request-(CSR)-file-path*:

     When using RSA encryption

     `"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsd.csr"`

     When using ECC

     `"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsd-ecc.csr"`

   - *private-server-key-file-path*:

When using RSA encryption

`"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsdkey.pem"`

When using ECC

`"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsdkey-ecc.pem"`

- *server-certificate-file-output-path*:

    When using RSA encryption

    `"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsd.pem"`

    When using ECC

    `"%UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsd-ecc.pem"`

- *subjectAltName-value-configuration-file-path*:

    Specify the full path of the file created in step 1.

Command execution example (when using RSA encryption)

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\openssl.bat" x509 -req -days 3650 -in "%
UCNP_HOME%\PP\uCPSB\httpsd\conf\ssl\server\httpsd.csr" -signkey "%UCNP_HOM
E%\PP\uCPSB\httpsd\conf\ssl\server\httpsdkey.pem" -out "%UCNP_HOME%\PP\uCP
SB\httpsd\conf\ssl\server\httpsd.pem" -extfile "%UCNP_HOME%\PP\uCPSB\https
d\conf\ssl\server\san.txt"
```

4.10.3 Procedure for confirming files used for HTTPS communications

This section describes the procedure for confirming the contents of the private server key, certificate signing request (CSR), and server certificate files.

(1) Procedure for confirming private server key encryption

You can verify whether the private server key is encrypted by opening it in a text editor. The format used for private server key files is shown below for each encryption method.

(a) When using RSA encryption

Format of an unencrypted private server key file

```
-----BEGIN RSA PRIVATE KEY-----
...Multi-line enumeration of alphanumeric characters and symbols...
-----END RSA PRIVATE KEY-----
```

Format of an encrypted private server key file

```
-----BEGIN RSA PRIVATE KEY-----
Proc-Type: 4,ENCRYPTED
DEK-Info: information-on-the-encryption-method

...Multi-line enumeration of alphanumeric characters and symbols...
-----END RSA PRIVATE KEY-----
```

(b) When using ECC

Format of an unencrypted private server key file

```
-----BEGIN EC PRIVATE KEY-----
...Multi-line enumeration of alphanumeric characters and symbols...
-----END EC PRIVATE KEY-----
```

Format of an encrypted private server key file

```
-----BEGIN ENCRYPTED PRIVATE KEY-----
...Multi-line enumeration of alphanumeric characters and symbols...
-----END ENCRYPTED PRIVATE KEY-----
```

(2) Procedure for confirming a certificate signing request (CSR)

You can verify the encryption method used for the public key, the SAN (Subject Alternative Name), and other information included in the certificate signing request (CSR) by executing the following command to output the information in text form.

Format

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\openssl.bat" x509 -in server-certificate
-file-path -noout -text
```

Command execution example (when using RSA encryption)

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\openssl.bat" req -in "%UCNP_HOME%\PP\uCP
SB\httpsd\conf\ssl\server\httpsd.csr" -text
```

(3) Procedure for confirming the server certificate

You can verify the encryption method used for the public key, the SAN (Subject Alternative Name), and other information included in the server certificate by executing the following command to output the information in text form.

Format

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\openssl.bat" x509 -in server-certificate
-file-path -noout -text
```

Command execution example (when using RSA encryption)

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\openssl.bat" x509 -in "%UCNP_HOME%\PP\uC
PSB\httpsd\conf\ssl\server\httpsd.pem" -noout -text
```

4.10.4 Procedure to encrypt unencrypted private server keys

This section describes the procedure to encrypt unencrypted private server keys.

(1) Procedure to encrypt unencrypted private server keys using RSA encryption

Execute the following command to create an encrypted private server key (PKCS#1 format).

Format

```
"Navigation-Platform-installation-directory\PP\uCPSB\httpsd\sbin\openssl.b
at" rsa private-key-encryption-type -in path-of-the-pre-encryption-private
-server-key-file -out output-path-of-post-encryption-private-server-key-fi
le
```

Parameter

- *type-of-encryption-used-for-private-key*: `-des` or `-des3`

  If `-des` is specified, DES (Data Encryption Standard) will be selected as the encryption type.

  If `-des3` is specified, Triple DES will be selected as the encryption type.

  This parameter is irrelevant to the type of encryption for communication between the web server and web browsers.

- *path-of-the-pre-encryption-private-server-key-file*:

  Specify the path of the pre-encryption private server key file.

- *output-path-of-post-encryption-private-server-key-file*:

  Specify the path to output the post-encryption private server key file.

Cautionary note:

Users will be prompted to enter the pass phrase twice when the command is executed. Enter the same pass phrase twice, from 4 to 64 characters in length. Note that an error will not occur even if a pass phrase of 65 characters or longer is entered.

Take a note of the pass phrase entered as this will be used again when executing other commands.

Command execution example

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\openssl.bat" rsa -des -in httpsdkey-unen
crypted.pem -out C:\httpsdkey.pem
```

(2) Procedure to encrypt unencrypted private server keys using ECC (elliptic-curve cryptography)

Execute the following command to create an encrypted private server key (PKCS#8 format).

Format

```
"Navigation-Platform-installation-directory\PP\uCPSB\httpsd\sbin\openssl.b
at" pkcs8 -topk8 -in path-of-the-pre-encryption-private-server-key-file -o
ut output-path-of-post-encryption-private-server-key-file -v2 private-key-
encryption-algorithm
```

Parameter

- *path-of-the-pre-encryption-private-server-key-file*:

  Specify the path of the pre-encryption private server key file.

- *output-path-of-post-encryption-private-server-key-file*:

  Specify the path to output the post-encryption private server key file.

- *private-key-encryption-algorithm*: `des-cbc` or `des-ede3-cbc`

  Specify the algorithm used for private key encryption.

  This parameter is irrelevant to the type of encryption for communication between the web server and web browsers.

Cautionary note:

Users will be prompted to enter the pass phrase twice when the command is executed. Enter the same pass phrase twice, from 4 to 64 characters in length. Note that an error will not occur even if a pass phrase of 65 characters or longer is entered.

Take a note of the pass phrase entered as this will be used again when executing other commands.

Command execution example

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\openssl.bat" pkcs8 -topk8 -in httpsdkey-ecc-unencrypted.pem -out httpsdkey-ecc.pem -v2 des-cbc
```

4.10.5 Procedure to remove the encryption on encrypted private server keys

This section describes the procedure to remove the encryption on encrypted private server keys.

(1) Procedure to remove the encryption on private server keys encrypted using RSA encryption

Execute the following command to create an unencrypted private server key.

Users will be prompted to enter the pass phrase when the command is executed. Enter the pass phrase that was set when creating the private server key.

Format

```
"Navigation-Platform-installation-directory\PP\uCPSB\httpsd\sbin\openssl.bat" rsa -in encrypted-private-server-key-file-path -out unencrypted-private-server-key-file-output-path
```

Parameter

- *encrypted-private-server-key-file-path*:

  Specify the encrypted private server key file path.

- *unencrypted-private-server-key-file-output-path*:

  Specify the output path for the unencrypted private server key file.

Command execution example

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\openssl.bat" rsa -in httpsdkey.pem -out httpsdkey-unencrypted.pem
```

(2) Procedure to remove the encryption on private server keys encrypted using ECC (elliptic-curve cryptography)

Execute the following command to create an unencrypted private server key.

Users will be prompted to enter the pass phrase when the command is executed. Enter the pass phrase that was set when creating the private server key.

Format

```
"Navigation-Platform-installation-directory\PP\uCPSB\httpsd\sbin\openssl.b
at" ec -in encrypted-private-server-key-file-path -out unencrypted-private
-server-key-file-output-path
```

Parameter

- *encrypted-private-server-key-file-path*:

  Specify the encrypted private server key file path.

- *unencrypted-private-server-key-file-output-path*:

  Specify the output path for the unencrypted private server key file.

Command execution example

```
"%UCNP_HOME%\PP\uCPSB\httpsd\sbin\openssl.bat" ec -in httpsdkey-ecc.pem -o
ut httpsdkey-ecc-unencrypted.pem
```

5

Running Navigation Platform

This chapter explains the tasks involved in daily operation of Navigation Platform and making changes to the system.

For details about the tasks involved in applying developed and repaired plugins and custom windows, see *6.6 Applying the files created in the development environment*.

5.1 Starting and stopping the system

This section explains how to start and stop the system in the development environment, the editing environment, and the execution environment. There are two ways to start and stop the system. One is by using commands and the other is by using Windows services.

To use commands, the user who will be starting or stopping the system must have Windows administrator privileges. Select the **Run as administrator** menu to run commands. For details about how to use individual commands used for starting and stopping the system, see *Chapter 9. Commands*.

> 📄 **Note**
>
> If you use a directory server, start and stop the directory server according to the system start and stop as needed. Start the directory server before you start the system and stop the directory server after the system has stopped.
>
> For details about how to start and stop your directory server, see the directory server documentation.

5.1.1 Using commands to start Navigation Platform (system)

When you restart a system that has been stopped by using the npstop command (stop), follow the procedure described below to start the system manually.

> ❗ **Important**
>
> When you start the system, note the following:
>
> - If you use JP1/Base user authentication, start all instances of JP1/Base before you start the Navigation Platform system. For details about how to start JP1/Base, see the *JP1/Base User's Guide*.
>
> - If you use a directory server, start the directory server before you start the Navigation Platform system. For details about how to start your directory server, see the directory server documentation.

1. Execute the npstart command (start).

   Command path:

   Navigation-Platform-installation-directory\bin\npstart

2. If an error message is displayed, take the following action:

   If the KDCZ50859-E message is displayed:

   Eliminate the cause of the error, and then use the npstop command to stop the system. After that, re-execute the npstart command.

   If any other message is displayed:

   Resolve the problem according to the information provided in the message, and then re-execute the npstart command.

For details about how to use the command, see *9.17 npstart command (start)*.

> **📄 Note**
>
> If you add the `npstart` command to Windows tasks, you can start Navigation Platform automatically when the machine starts. However, if you will be executing other programs, for example, by using a batch file after Navigation Platform has started, use the command method to start Navigation Platform.

5.1.2 Using commands to stop Navigation Platform (system)

Stop the system before you execute commands or shut down the server machine.

To stop Navigation Platform:

1. Execute the `npstop` command (stop).

   Command path:

   Navigation-Platform-installation-directory`\bin\npstop`

2. If an error message is displayed, take the following action:

   If the `KDCZ50860-E` message is displayed:

   Resolve the problem according to the information provided in the message, and then re-execute the `npstop` command.

   If the `KDCZ68170-E` message is displayed:

   Use a Windows service, not the `npstop` command, to stop the Navigation Platform Start Service.

   If any other message is displayed:

   Resolve the problem according to the information provided in the message, and then re-execute the `npstop` command.

For details about how to use the command, see *9.18 npstop command (stop)*.

> **⊘ Important**
>
> If you shut down the server machine without first stopping the system, the system might not stop normally. Therefore, before you start the server machine again to execute commands, take the following action:
>
> - Execute the `npstop` command before you execute any command that must be executed after the system has stopped.
> - Execute the `npstart` command before you execute any command that must be executed while the system is running.

5.1.3 Windows service for starting and stopping Navigation Platform (system)

The following shows the name of the Windows service that controls start and stop of Navigation Platform and the service name that is displayed:

Service name:

```
NavigationPlatformStartService
```

Service name that is displayed:

```
Navigation Platform Start Service
```

When the status of the Navigation Platform Start Service is set to `start`, Navigation Platform starts. When the status of the Navigation Platform Start Service is set to `stop`, Navigation Platform stops.

The startup type of the Navigation Platform Start Service is set to **Manual** by default. If you want to start Navigation Platform automatically when the machine starts, change the startup type to **Automatic**. Do not set the startup type of the Navigation Platform Start Service to **Disabled**. If it is set to **Disabled**, Navigation Platform operation is not guaranteed.

> 📄 **Note**
>
> If you will be executing other programs, for example, by using batch files, after Navigation Platform has started, you need to use the command, not the service, to start Navigation Platform.

> ❗ **Important**
>
> If the service is used to start Navigation Platform, Navigation Platform cannot be stopped by using commands. Use the service to stop Navigation Platform. If you need to use commands to stop Navigation Platform, use `net stop "Navigation Platform Start Service"`.
>
> For convenience sake, we recommend creating `net stop "Navigation Platform Start Service"` as a batch file.

(1) Linked Windows services

The following services are linked to the Navigation Platform Start Service. Parentheses enclose the service name that is displayed:

- `NavigationPlatformWebService` (Navigation Platform Web Service)
- `NavigationPlatformJ2EEServer` (Navigation Platform J2EE Server)

When the Navigation Platform Start Service is started or stopped, these services are also started or stopped. There is no need to start or stop these linked services individually.

Make sure that their startup type is set to **Manual**. If the startup type is changed, their operation is not guaranteed.

(2) Corrective action in the event the Navigation Platform Start Service does not start

The Navigation Platform Start Service might not start due to a timeout or for some other reason. If the cause is a timeout, the Navigation Platform Start Service's status will become `start` after you wait a while, in which case no action will be needed.

If the Navigation Platform Start Service's status does not become `start` even after you wait a while, an error other than a timeout has occurred. Check the application's Windows log and take the corrective action according to the information provided in the displayed message.

(3) Corrective action in the event of an error during Navigation Platform Start Service termination processing

An error might occur while the Navigation Platform Start Service is under termination processing due to a timeout or for some other reason. If the cause is a timeout, the Navigation Platform Start Service's status will become `stop` after you wait a while, in which case no action will be needed.

If the Navigation Platform Start Service's status does not become `stop` even after you wait a while, an error other than a timeout has occurred. Check the application's Windows log and take the corrective action according to the information provided in the displayed message.

5.2 Necessity of backup and restoration

This section explains the data to be backed up and the timing of restoring the data. If data is corrupted due to a failure, restore the backup data that has been acquired.

Data backup and restoration are required in all environments (development environment, editing environment, and execution environment).

5.2.1 Backup frequency and the data to be backed up

As a guideline, we recommend that you back up the data described below once a month. Evaluate the frequency of acquiring backups according to your operations.

1. Data related to system settings (such as property files)

2. Data for Operational Contents

3. Static files used for Operational Contents

You can acquire all data 1 through 3 by executing the `npdatabackup` command (back up the environment). You can acquire only data 2 by executing the `npexport` command (export Operational Contents).

Our guideline is that you acquire backups once a month. Evaluate the frequency of acquiring backups according to your operations. If you use user authentication, back up user information for the authentication server as needed.

> 💡 **Tip**
>
> Determine whether the `npdatabackup` command or the `npexport` command is to be used by taking into account the restoration operation.
>
> - To restore data that has been backed up by the `npdatabackup` command, use the `npdatarestore` command (restore environment). Careful planning is required in terms of when to execute these commands because the system must be stopped in order to execute the `npdatabackup` and `npdatarestore` commands.
>
> - The `npdatarestore` command can be used if the data version is the same between backup and restoration. Note that this command cannot be used during version upgrade processing.
>
> - To restore Operational Content data that has been backed up by the `npexport` command, use the `npimport` command (import Operational Contents). The `npexport` and `npimport` commands are easier to use than the `npdatabackup` and `npdatarestore` commands because the former can be executed while the system is running.
>
> - You can also make all backups by using the `npdatabackup` command and then use the `npimport` command to restore only the Operational Contents later. For details, see *5.2.8 Restoring only Operational Contents*.

5.2.2 Backing up the entire system

To make backups with the `npdatabackup` command:

1. Use the `npstop` command (stop) to stop the system.

   Command path:

   > *Navigation-Platform-installation-directory*`\bin\npstop`

2. Allocate at least 30 MB of free space on the disk at the backup destination.

   The required amount of free space depends on the number and contents of the Operational Contents. If static files and User Plugins are used in the Operational Contents, add the sizes of the following directories to determine the total size of the free space to be allocated:

   Navigation-Platform-installation-directory`\PP\uCPSB\httpsd\htdocs`

   Navigation-Platform-installation-directory`\plugin_files`

   If you will be backing up the operation log and audit log, also add the sizes of these files to the amount of space to be allocated.

   If there is not enough disk space at the backup destination or there is not enough free space for temporary directories that are needed during command execution, the command will terminate abnormally. Allocate sufficient free space before you execute the command.

3. Execute the `npdatabackup` command.

   Command path:

   > *Navigation-Platform-installation-directory*`\bin\npdatabackup`

4. Make a backup of the operation log.

   If you are using the operation log function, copy all the files under the folder specified in `ucnp.base.server.operationlog.path` in the user property file (`ucnp_user.properties`) to the disk at the backup destination.

5. Make a backup of the audit log.

   If you are using the audit log function, copy all the files under the folder specified in `ucnp.base.server.auditlog.path` in the user property file (`ucnp_user.properties`) to the disk at the backup destination.

6. Make a backup of the dashboard server's memory settings.

   If you are using the dash board function, copy all the files under the following folder to the disk at the backup destination.

   Navigation-Platform-installation-directory`\PP\OpenSearch\opensearch\config`

7. Make a backup of tasks.

   If you have created tasks that execute commands provided by Navigation Platform, save the settings of the tasks to the disk at the backup destination.

8. Use the `npstart` command (start) to start the system.

   Command path:

   > *Navigation-Platform-installation-directory*`\bin\npstart`

5.2.3 Backing up only Operational Contents

To back up only Operational Contents with the `npexport` command:

1. Use the `npexport` command to export Operational Content data.

   Command path:

   > *Navigation-Platform-installation-directory*`\bin\npexport`

   The data for all Operational Contents or for the Operational Contents specified in the option is output together to a single file.

2. If static files, such as images and PDF files, are used in the Operational Contents, copy those files manually.

   Storage location for static files:

   > *Navigation-Platform-installation-directory*`\PP\uCPSB\httpsd\htdocs`

5.2.4 Restoration timing and the data to be restored

If data is corrupted due to a system failure or a hardware problem, restore the data acquired in *5.2.1 Backup frequency and the data to be backed up* by using the `npdatarestore` command (restore environment).

Note that if you just want to restore Operational Contents that have been deleted, it is easier to use the `npimport` command (import Operational Contents). This subsection explains both methods. For details about how to use these commands, see *9.7 npdatarestore command (restore environment)* and *9.10 npimport command (import Operational Contents)*.

5.2.5 Restoring the entire system (reconfiguring the system on another machine)

If backup data cannot be restored on the same machine, such as, for example, in the event of a hard disk failure, restore the backup data to a new machine.

To restore the entire system on a new machine:

1. Install Navigation Platform on the target machine.
   Navigation Platform must be installed in the same directory as when the backup data was acquired. Check the `installpath.txt` file in the backup data to determine the installation directory when the backup data was acquired.

2. Copy the data that was backed up by the `npdatabackup` command (back up the environment) to any location on the target machine with the attributes maintained.

3. Copy the user setup property file (`ucnp_setup_user.properties`) contained in the data that was copied in step 2 to the following directory:

   Source file:

   > *backup-data-storage-directory*`\HNP\conf\ucnp_setup_user.properties`

   Target directory:

   > *Navigation-Platform-installation-directory*`\conf`

This step is not necessary if you set up Navigation Platform by using the default settings without copying the setup property file to the destination directory.

4. If you have changed the authenticator password for Active Directory after the backup processing, edit the user setup property file to set the new password in the `ucnp.setup.server.ldap.java.naming.security.credentials` property.

5. Import any CA certificate that was imported when LDAPS was used.

   For details about the import procedure, see "*4. Importing a new CA certificate*" in *5.15.1 Procedure for registering or updating a CA certificate in the keystore*.

6. Execute the `npsetup` command (setup) to set up Navigation Platform.

   Command path:

   > *Navigation-Platform-installation-directory*`\bin\npsetup`

7. If the database size had been extended in the environment during backup processing, execute the `npextendrdarea` command (extend the database) to extend the database size.

   Command path:

   > *Navigation-Platform-installation-directory*`\bin\npextendrdarea`

8. Execute the `npstop` command (stop) to stop the system.

   Command path:

   > *Navigation-Platform-installation-directory*`\bin\npstop`

9. If backups of operation log and audit log have been acquired, place the acquired files in the appropriate log folders.

10. If a backup of the dashboard server's memory settings has been acquired, restore the dashboard server's memory settings based on the contents of the acquired file.

    For details about how to change the dashboard server's memory settings, see *5.4.4(7) Changing the memory capacity required for the storage service of the dashboard server*.

    > 💡 **Tip**
    >
    > For details about the values specified for the commands, check the `jvm.options.npsettings.txt` file in the following folder obtained during backup processing.
    >
    > *Navigation-Platform-installation-directory*`\PP\OpenSearch\opensearch\config`

11. If a backup of tasks that execute commands provided by Navigation Platform has been acquired, restore the task settings based on the acquired backup.

12. Use the `npdatarestore` command (restore environment) to restore the data for Navigation Platform.

    Command path:

    > *Navigation-Platform-installation-directory*`\bin\npdatarestore`

13. Restore the backup User Plugins by referencing the procedure described in *6.6 Applying the files created in the development environment*.

    When you reference the procedure described in *6.6 Applying the files created in the development environment*, change *files created in the development environment* to *data that was backed up*. At the same time and if necessary, also restore the configuration files required by the User Plugins and the linked systems, such as databases.

> ### 💡 Tip
>
> If the User Plugins' source files are managed by a system other than Navigation Platform, copy the source files from that system.

14. If the search function is enabled, execute the `npupdatesearchdata` command (update search data) to apply the most recent Operational Content information to the search data.

    Command path:

    Navigation-Platform-installation-directory`\bin\npupdatesearchdata`

5.2.6 Restoring the data that was backed up (reconfiguring on the same machine when User Plugins are not used)

To restore on the same machine the data that was backed up in an environment in which no User Plugins were used:

1. Copy the data that was backed up by the `npdatabackup` command (back up the environment) to any location on the local disk with the attributes maintained.

2. Execute the `npstop` command (stop) or stop the Navigation Platform Start Service to stop the system.

3. If backups of the operation log and audit log have been acquired, place the acquired files in the appropriate log storage folders.

4. If a backup of the dashboard server's memory settings has been acquired, restore the dashboard server's memory settings based on the contents of the acquired file.

    For details about how to change the dashboard server's memory settings, see *5.4.4(7) Changing the memory capacity required for the storage service of the dashboard server*.

   > ### 💡 Tip
   >
   > For details about the values specified for the commands, check the `jvm.options.npsettings.txt` file in the following folder obtained during backup processing.
   >
   > *Navigation-Platform-installation-directory*`\PP\OpenSearch\opensearch\config`

5. If a backup of tasks that execute commands provided by Navigation Platform has been acquired, restore the task settings based on the acquired backup.

6. Use the `npdatarestore` command (restore environment) to restore the data for Navigation Platform.

    Command path:

    Navigation-Platform-installation-directory`\bin\npdatarestore`

7. If the search function is enabled, execute the `npupdatesearchdata` command (update search data) to apply the most recent Operational Content information to the search data.

    Command path:

    Navigation-Platform-installation-directory`\bin\npupdatesearchdata`

5.2.7 Restoring the data that was backed up (reconfiguring on the same machine when User Plugins are used)

To restore on the same machine the data that was backed up in an environment in which User Plugins were used:

1. Copy the data that was backed up by the `npdatabackup` command (back up the environment) to any location on the local disk with the attributes maintained.

2. Execute the `npstop` command (stop) or stop the Navigation Platform Start Service to stop the system.

3. If backups of the operation log and audit log have been acquired, place the acquired files in the appropriate log storage folders.

4. If a backup of the dashboard server's memory settings has been acquired, restore the dashboard server's memory settings based on the contents of the acquired file.

   For details about how to change the dashboard server's memory settings, see *5.4.4(7) Changing the memory capacity required for the storage service of the dashboard server*.

   > **💡 Tip**
   >
   > For details about the values specified for the commands, check the `jvm.options.npsettings.txt` file in the following folder obtained during backup processing.
   >
   > *Navigation-Platform-installation-directory*`\PP\OpenSearch\opensearch\config`

5. If a backup of tasks that execute commands provided by Navigation Platform has been acquired, restore the task settings based on the acquired backup.

6. Use the `npdatarestore` command (restore environment) to restore the data for Navigation Platform.

   Command path:

   Navigation-Platform-installation-directory`\bin\npdatarestore`

7. Restore the backup User Plugins by referencing the procedure described in *6.6 Applying the files created in the development environment*.

   When you reference the procedure described in *6.6 Applying the files created in the development environment*, change *files created in the development environment* to *data that was backed up*. At the same time and if necessary, also restore the configuration files required by the User Plugins and the linked systems, such as databases.

   > **💡 Tip**
   >
   > If the User Plugins' source files are managed by a system other than Navigation Platform, copy the source files from that system.

8. If the search function is enabled, execute the `npupdatesearchdata` command (update search data) to apply the most recent Operational Content information to the search data.

   Command path:

   Navigation-Platform-installation-directory`\bin\npupdatesearchdata`

5.2.8 Restoring only Operational Contents

To restore only Operational Contents:

1. Use the `npimport` command to import the most recent Operational Contents.

   Command path:

   Navigation-Platform-installation-directory`\bin\npimport`

2. If static files, such as images and PDF files, are used in the Operational Contents, copy those files manually.

   Storage location for static files:

   Navigation-Platform-installation-directory`\PP\uCPSB\httpsd\htdocs`

5.2.9 Restoring the dashboard function to the state at the time of setup

If you want to restore the dashboard function to the state at the time of setup because of a reason such as an erroneous operation, you can restore the dashboard function on the same machine by using the following procedure:

1. Perform the unsetup procedure for Navigation Platform.
   For details about the unsetup procedure, see *4.7 Unsetup procedure*.

2. Copy the data that was backed up by the `npdatabackup` command (back up the environment) to any location on the local disk with the attributes maintained.

3. Copy the user setup property file (`ucnp_setup_user.properties`) contained in the data that was copied in step 2 to the following directory:

   Source file:

   backup-data-storage-directory`\HNP\conf\ucnp_setup_user.properties`

   Target directory:

   Navigation-Platform-installation-directory`\conf`

   This step is not necessary if you set up Navigation Platform by using the default settings without copying the setup property file to the destination directory.

4. If you have changed the authenticator password for Active Directory after the backup processing, edit the user setup property file to set the new password in the `ucnp.setup.server.ldap.java.naming.security.credentials` property.

5. Execute the `npsetup` command (setup) to set up Navigation Platform.

   Command path:

   Navigation-Platform-installation-directory`\bin\npsetup`

6. If the database size had been extended in the environment during backup processing, execute the `npextendrdarea` command (extend the database) to extend the database size.

   Command path:

   Navigation-Platform-installation-directory`\bin\npextendrdarea`

7. Execute the `npstop` command (stop) to stop the system.

Command path:

> *Navigation-Platform-installation-directory*`\bin\npstop`

8. If backups of operation log and audit log have been acquired, place the acquired files in the appropriate log folders.

9. If a backup of the dashboard server's memory settings has been acquired, restore the dashboard server's memory settings based on the contents of the acquired file.

   For details about how to change the dashboard server's memory settings, see *5.4.4(7) Changing the memory capacity required for the storage service of the dashboard server*.

   > 💡 **Tip**
   >
   > For details about the values specified for the commands, check the `jvm.options.npsettings.txt` file in the following folder obtained during backup processing.
   >
   > *Navigation-Platform-installation-directory*`\PP\OpenSearch\opensearch\config`

10. If a backup of tasks that execute commands provided by Navigation Platform has been acquired, restore the task settings based on the acquired backup.

11. Use the `npdatarestore` command (restore environment) to restore the data for Navigation Platform.

    Command path:

    > *Navigation-Platform-installation-directory*`\bin\npdatarestore`

12. Restore the backup User Plugins by referencing the procedure described in *6.6 Applying the files created in the development environment*.

    When you reference the procedure described in *6.6 Applying the files created in the development environment*, change *files created in the development environment* to *data that was backed up*. At the same time and if necessary, also restore the configuration files required by the User Plugins and the linked systems, such as databases.

    > 💡 **Tip**
    >
    > If the User Plugins' source files are managed by a system other than Navigation Platform, copy the source files from that system.

13. If the search function is enabled, execute the `npupdatesearchdata` command (update search data) to apply the most recent Operational Content information to the search data.

    Command path:

    Navigation-Platform-installation-directory`\bin\npupdatesearchdata`

5.3 Running the database

If the number of Operational Contents increases and the number of nodes per Operational Content is greater than planned, the database size specified during the setup stage might no longer be adequate. You can solve this problem by periodically checking the database usage status and re-evaluating the database size that is needed.

The database size specified during setup assumes that Operational Contents are created under the following conditions.

Table 5–1: Operational Contents that can be created with the database size specified at setup

No.	Item	Expected value
1	Number of Operational Contents	500
2	Average number of nodes per Operational Content	20
3	Average number of items that are placed in a flow area	30
4	Average number of items that are placed in a Guide area	35
5	Average number of plugin items associated with an Operational Content[#]	20

\#

Sum of System Plugins and User Plugins.

The following figure shows the general procedure for running a database.

Figure 5–1: General procedure for running a database
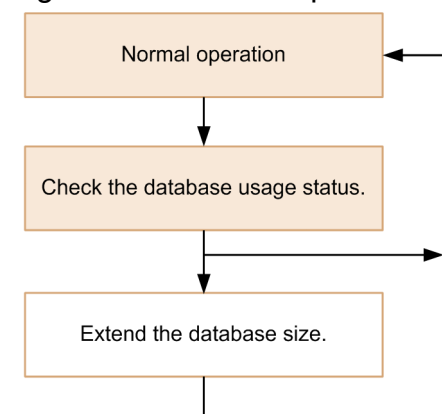
Legend:

◻ : Required task   ◻ : Optional task

Even if you have created Operational Contents within the limits of the database size specified at setup, periodically check the database's usage status and extend the database's size before all available space is depleted.

You use Navigation Platform commands to check the database usage status and extend the database size.

5.3.1 Checking the database usage status

A user with the Windows administrator privileges executes the `nppddbst` command (check database usage status) to check the database's status. If `KDCZ10371-W` is output in the command execution results, you need to extend the database's size.

For details about the command, see *9.11 nppddbst command (check database usage status)*.

5.3.2 Extending a database

Each time a user with the Windows administrator privileges executes the `npextendrdarea` command (extend the database), the database's size increases by about 10 GB. This is equivalent to the capacity needed for about 500 Operational Contents.

For details about the command, see *9.9 npextendrdarea command (extend the database)*.

5.3.3 Re-organizing a database

If addition and deletion of Operational Contents are repeated, the database's access efficiency and storage efficiency might decline. You can ameliorate this problem by periodically executing the `npreorg` command (reorganize the database). We recommend that you execute the `npreorg` once every six months. For details about how to use the command, see *9.14 npreorg command (reorganize the database)*.

To reorganize a database:

1. Execute the `npstop` command (stop) or set the status of the Navigation Platform Start Service to `stop` to stop the system.

   Command path:

   > *Navigation-Platform-installation-directory*`\bin\npstop`

2. Verify that there is at least 3.0 GB of free space available for the Navigation Platform installation directory.

   If there is not enough free space, the command will terminate abnormally. Make sure that you check the available space beforehand. If there is not enough free space, take appropriate corrective action, such as, for example, by re-arranging data to increase the amount of available space.

3. Use the `npreorg` command (database re-organization) to reorganize the database.

   Command path:

   > *Navigation-Platform-installation-directory*`\bin\npreorg`

4. Execute the `npstart` command (start) or set the status of the Navigation Platform Start Service to `start` to start the system.

   Command path:

   > *Navigation-Platform-installation-directory*`\bin\npstart`

> **❗ Important**
>
> If the `npreorg` command (database re-organization) terminates abnormally, re-execute it before you perform any other operation. If any other operation is performed before you re-execute the `npreorg` command, the database's status might become invalid. The following provides the details.
>
> - Do not forcibly terminate the `npreorg` command (database re-organization) while the `KDCZ70004-I` message is being displayed.
> - If the `KDCZ78001-E`, `KDCZ78002-E`, or `KDCZ78003-E` message is displayed when the `npreorg` command (database re-organization) terminates, re-execute the `npreorg` command (database re-organization) before you perform any other operation.

> **💡 Tip**
>
> When you run a database, consider the following:
>
> - It is important to reorganize your database periodically. It is most convenient to set a group of commands to reorganize the database automatically by, for example, using Windows Task Scheduler.
>
> - It might take some time to reorganize a database. Shut down the system when the demand on Operational Content usage is low, and notify the users of the Operational Contents in advance that the system is going to be shut down.

5.4 Handling of operation logs from Operational Contents

An *operation log* is an operation history that is output each time a node changes in Operational Contents.

> **❗ Important**
>
> No operation log is output when executing Operational Contents that are configured to allow offline execution. For details about the offline execution of Operational Contents, see the manual *JP1/Navigation Platform Content Editing Guide*.

Navigation Platform enables you to check operation log analysis results in the following windows:

- Reporting window
- Dashboard window

For details about the Reporting window and the Dashboard window, see the manual *JP1/Navigation Platform Content Editing Guide*.

For details about setting the timing for operation log analysis, see *8.4 Specifying settings in the service property file (ucnp_service.ini)*.

> **💡 Tip**
>
> The operation logs that are to be analyzed are sent to the analysis server at the time that has been set in the service property file. If you perform an operation that involves output of operation log data while an operation log is being updated, the operation might take some time to complete. For this reason, we recommend that you update operation logs when traffic to Navigation Platform is light.

If the information provided in the analysis results displayed in the Reporting window is not adequate, you can view the operation log file and perform user-specific analyses. The operation log can be used as analysis data to determine improvements to Operational Contents.

For example, the following procedure enables you to use the operation log:

1. Use a spreadsheet program to process and analyze the operation log that is output as a text file.
2. If any of the nodes requires a considerably longer time to change to the next node, ask the user why that is.
3. Based on the information provided by the user, improve the description in the Guide.

The operation log is set to be output by default. This file's character encoding is UTF-8. If you want to suppress output of the operation log or customize the storage location and contents of the operation log, evaluate the values of the related properties in the user property file (`ucnp_user.properties`). For details about the user property file (`ucnp_user.properties`), see *8.5 Specifying settings in the user property file (ucnp_user.properties)*.

> **❗ Important**
>
> - Do not edit the operation log file, because it is used for analysis by Navigation Platform. If you want to perform user-specific analyses, make a copy of the operation log file and then use the copy for performing analyses.

- If you copy the operation log file while Navigation Platform is running, you might no longer be able to change the settings that control whether the operation log file is to be output and the number of files to be output. Therefore, copy the operation log file while Navigation Platform is stopped.

- The Reporting window does not support analysis of the operation logs of multiple execution environments in the batch mode. To analyze the operation logs of multiple execution environments in the batch mode, you need to perform user-specific analyses without using the Reporting window. We recommend that you use Operational Content execution IDs as the key values when you perform user-specific analyses on the operation log. This method enables you to analyze the operation log for each operation even when the same user is using multiple execution environments.

> 📄 **Note**
>
> Separate from the operation log, there is the audit log. For details about how to obtain the audit log and its items, see *5.5 Audit log*.

5.4.1 Contents of the operation log

(1) Items output to the operation log

The items listed below are output to the operation log. You can change the items to be output by editing the user property file (`ucnp_user.properties`).

Table 5–2: Items output to the operation log

Item	Description	Whether output setting can be changed
Date and time	Date and time the operation log was output. The time zone depends on the Navigation Platform's server settings.	Y
Absolute time in milliseconds	Absolute time in milliseconds at which the operation log was output. This is the difference in milliseconds between the output time and 1970-01-01 at 00:00 in Coordinated Universal Time (UTC).	N
Session ID	Session ID of the user who switched the node.	Y
Operational Content execution ID	ID assigned to the operation that was performed during execution of an Operational Content. When execution of an Operational Content is suspended, the Operational Content execution ID is also the same before the execution was suspended and after the execution was resumed. The Operational Content execution ID can also be acquired from the parameters passed to I/O Plugins. If you want to see the correspondence between the values entered by the user during execution of an Operational Content and the values in the operation log, output the contents of input items for I/O Plugins and Operational Content execution IDs to, for example, a file.	N
User ID	User ID or JP1 user name of the user that switched the node.	N
Group ID	• When using Active Directory for user authentication: ID of the group to which the user that switched the node belongs. If the user belongs to multiple groups or groups are in hierarchies, multiple group IDs are output in CSV file format. • In other cases:	Y

Item	Description	Whether output setting can be changed
Group ID	An empty character string is output.	Y
Operational Content ID	ID of the Operational Content whose node was switched.	N
Operational Content name	Name of the Operational Content whose node was switched.	Y
Operational Content version ID	Version ID of the Operational Content whose node was switched.	N
Transition type	Type of node transition. There are eight transition types: • `start`: Start of an Operational Flow. • `show_next_page`: Transition to the next node by a method such as clicking the **Next** button. If this is the last Process Node in the Operational Flow (in which case the **Back** button is not displayed), the transition type is `show_complete_page` when the **Next** button is clicked. • `show_previous_page`: Transition to the previous node by a method such as clicking the **Back** button. • `show_complete_page`: Transition to the end point (Process Node[#1] or Terminal Node) of the Operational Flow by a method such as clicking the **Next** or **Done** button. • `back_jump`: Direct transition to the previous node in the Operational Flow.[#2] • `forward_jump`: Direct transition to the next node in the Operational Flow. • `save`: Suspension of task by clicking the **Suspend** button. • `load`: Resumption of a task using suspend information after the task was suspended.	N
Source node ID	Information about the source node.	N
Source node name	An empty character string is output in the following cases: • An Operational Flow in which no Terminal Node is placed at the start point is started. • Direct node transition is permitted and a transition is made from the status in which an Operational Flow is completed.	Y
Actual target node ID	Information about the actual target node. The specified target node differs from the information that is output for this item in the following cases:	N
Actual target node name	• An error occurred in the I/O Plugin and the actual target node differs from the specified target node. • The **Cancel** button was clicked in the I/O Plugin execution confirmation dialog box. If an error occurs in the I/O Plugin on the first Process Node that is not connected to the start Process Node or the start Terminal Node at the start of the Operational Flow, an empty character string is output.	Y
Specified target node ID	Information about the target node specified by the user.	N
Specified target node name	Information about the actual target node differs from the information that is output for this item in the following cases: • An error occurred in the I/O Plugin and the actual target node differs from the specified target node. • The **Cancel** button was clicked in the I/O Plugin execution confirmation dialog box.	Y
Error flag	Flag indicating the results of I/O Plugins (User Plugins). The following explains the values: • `OK`:[#3] The result of the I/O Plugin was successful or the I/O Plugin did not exist. • `WARNING`:[#3] The result of the I/O Plugin was a warning. The `WARNING` error flag is output if the `ucnp.error.message` key is set in the `Map` return value by the `inputFromNode` method or the `outputToNode` method in the `IIoPluginController` interface of the I/O Plugin, `WARNING` is set in the `ucnp.error.type` key, and the result of the I/O Plugin is successful. • `NG`: The result of the I/O Plugin was a failure (`IIoPluginController` interface).	N

Item	Description	Whether output setting can be changed
Error flag	The `NG` error flag is output if the `ucnp.error.message` key is set in the `Map` return value by the `inputFromNode` method or the `outputToNode` method and `NG` is set in the `ucnp.error.type` key or the `inputFromNode` or the `outputToNode` method throws an unexpected exception. • `CANCEL`: **Cancel** was selected in the I/O Plugin execution confirmation dialog box (the plugin was not run).	N
Input value check errors count	The number of times an error occurred in the Guide Part's input value check until node transition succeeded. If execution of an Operational Content was suspended, the number of times an error occurred in the Guide Part's input value check before suspension occurred is output to the operation log that is output when execution is suspended.	N
Plugin errors count	The number of times an error occurred in the I/O Plugin until node transition succeeded. If execution of an Operational Content was suspended, the number of times an error occurred in the I/O Plugin before suspension occurred is output to the operation log that is output when execution is suspended.	N
`ucnpOptions` parameter	Value specified in the `ucnpOptions` parameter. If the `ucnpOptions` parameter is not specified, an empty character string is output.	Y

Legend:

Y: Whether the item is to be output to the operation log can be changed by editing the `ucnp.base.server.operationlog.user.analyze.info` property setting (item for easy analysis when user-specific analyses are performed on the operation log).

N: Always output to the operation log (item that is output even when the `ucnp.base.server.operationlog.user.analyze.info` property is set to `false`).

#1

If you want to analyze accurately the time of the completion of an operation on an Operational Content in which a Process Node is placed at the end point of the Operational Flow, the **Back** button for the Process Node at the end point must be set to be hidden.

If you will be placing a Process Node at the end point, instruct the Content Manager, the Content Creator (when JP1/Base is used for user authentication) or the Content Editor to hide the **Back** button. For details about how to set the **Back** button to be hidden, see the manual *JP1/ Navigation Platform Content Editing Guide*.

#2

If the `ucnp.base.client.directjump.enable` property is `all`, the type of direct transition is always `back_jump`.

#3

In the case of direct transition, the `OK` and `WARNING` I/O Plugin results might be intermixed. When there is a mixture of these two results, `WARNING` is output to the operation log.

(2) Output timing

The operation log is output when an Operational Flow is started in the Operational Content Execution Window and when a node transition occurs. If a direct transition occurs due to clicking of a Process Node, the operation log is output, but information about the nodes existing between the source node and the target node is not output.

(3) Output format

The operation log is output in tab-delimited format. This subsection provides an example of operation log output when a node transition is made by clicking the **Next** button.

Table 5–3: Output items in the operation log and values in the example output

Output item	Value in the example output
Date and time	2012-09-19 at 17:19:41:109 milliseconds

Output item	Value in the example output
User's user ID	`user1`
ID of the group to which the user belongs	`group`
Operational Content	• ID: `268e3592-0133-1000-8002-00000ad23cbb-0` • Name: `Content 1`
Source Process Node	• ID: `P001` • Name: `Process Node A`
Actual target Process Node	• ID: `P002` • Name: `Process Node B`
Specified target Process Node	• ID: `P003` • Name: `Process Node C`
Operation during transition	Transition by clicking the **Next** button
Error flag	The plugin result was successful
Input value check errors count on the source node	2
Plugin errors count on the source node	0
`ucnpOptions` parameter value	`OptionA`

Example output of operation log

```
2012/09/19
Δ17:19:41.109<tab>1348042781109<tab>00946E257CB395F59C9519BB77C3FF28CsR8JWB_2<
tab>eb749199-0146-1000-8001-00000ac47c1d1<tab>user1<tab>group<tab>268e3592-0133-
1000-8002-00000ad23cbb-0<tab>Content
1<tab>eb736f61-0146-1000-8000-00000ac47c1d<tab>show_next_page<tab>P001<tab>Proce
ss Node A<tab>P002<tab>Process Node B<tab>P003<tab>Process Node
C<tab>OK<tab>2<tab>0<tab>OptionA
```

Legend:

Δ: Single-byte space

<tab>: Tab

5.4.2 Output destination, number of files, and file size of the operation log

This subsection explains the output destination, the number of files, and the file size of the operation log.

Output destination

The default output destination is as follows:

Navigation-Platform-installation-directory\operationlogs\operation*N*.log (*N*: file number)

Number of files

The operation log is a sequential log. The file number begins at 1. When the operation log file reaches a specified size, a new file is created to output the operation log with the file number incremented by 1. If a file with the same name already exists, that file is deleted and a new file is created. If the file number exceeds the maximum value (40 by default), the file number is reset to 1.

The following shows an example:

When `operation1.log` reaches a specified size, `operation2.log` is created and new operation log is output to that file. This operation is continued until `operation40.log` is created. When `operation40.log` reaches the specified size, `operation1.log` is deleted. A new `operation1.log` is then created and the operation log is output to this file.

File size

The default file size is 40,960 KB.

You can change these values in the user property file (`ucnp_user.properties`).

Properties when settings are changed

If you want to change the output destination, file number, and file size from their default values, change the following property values:

- Operation log output destination (`ucnp.base.server.operationlog.path`)

- Maximum number of files for the operation log
  (`ucnp.base.server.operationlog.backup.number`)

- Maximum size of the operation log file (`ucnp.base.server.operationlog.size`)

For details about the property values, see *8.5 Specifying settings in the user property file (ucnp_user.properties)*.

If you have changed the size of the operation log file from its default value

Estimate the size of the operation log file according to *3.4.2 Estimating the size of the operation log file* and determine whether the estimated value exceeds the default file size (1.6 GB).

If the estimated value is greater than the default file size, evaluate the property settings so that the number of operation log files and file size satisfy the following condition:

Operation log file size required for the environment being set up (value obtained from the estimation in *3.4.2 Estimating the size of the operation log file*) ≤ *number of files × file size*

5.4.3 Displaying operation log analysis results of multiple execution environments together

Even when there are multiple Navigation Platform execution environments, the Reporting window shows the operation log analysis results only for the local execution environment.

If you bring individual analysis results to the editing environment, you can check the analysis results of multiple execution environments in one view.

This subsection explains how to display the operation logs of multiple execution environments together in the editing environment and provides notes.

Notes:

- Only the operation log analysis results of the Operational Contents in the editing environment are displayed in the Reporting window. Therefore, we recommend that you make sure that the Operational Contents existing in the execution environment are the same as those existing in the editing environment.

- When there are multiple execution environments, analysis in the Reporting window might take some time.

To check multiple operation log analysis results together:

1. Perform steps 2 to 4 below as many times as there are execution environments.

2. Copy the following directory for the execution environment to a desired location:

```
Navigation-Platform-installation-directory-for-the-execution-environment\s
etup\work\npanalyzeoplog
```

3. Rename the copy of the directory as follows:

NP_MERGE_*unique-string-of-up-to-3-single-byte-alphanumeric-characters-for-each-execution-environment*

Example:
```
NP_MERGE_001
```

4. Copy the directory of step 2 by overwriting the following directory in the editing environment:

Target:

Navigation-Platform-installation-directory-in-the-editing-environment\setup\work\npanalyzeoplog

5. Display the Reporting window in the editing environment and check the operation log analysis results.

5.4.4 Using the dashboard function for analyzing operation logs

The dashboard function enables you to analyze operation logs that have been output pursuant to execution of users' Operational Contents. You can check the analysis results of operation logs from Operational Contents in the Dashboard window.

> **💡 Tip**
>
> - Using the dashboard function, you can analyze operation logs from a period of no more than six months.
> - The web browsers that you can use to access the Dashboard window from a machine are Microsoft Edge and Google Chrome.
> - No more than two people can access the Dashboard window at the same time.

For details about how to use the dashboard function to analyze operation logs from Operational Contents, see the manual *JP1/Navigation Platform Content Editing Guide.*

This subsection explains the following items that are required in order to use the dashboard function:

- Settings required for using the dashboard function
- Estimating the memory capacity when using the dashboard function
- Managing the users who use the dashboard function
- Starting and stopping the dashboard server
- Uploading operation logs
- Deleting operation log analysis information periodically
- Changing the memory capacity required for the storage service of the dashboard server

(1) Settings required for using the dashboard function

If you will be using the dashboard function, specify required values for the properties related to the dashboard function in Navigation Platform's user property file (ucnp_user.properties). The following are the applicable properties:

- Display conditions for dashboard display links for the operation logs
  (`ucnp.base.server.dashboard.link.display`)
- Setting the operation log output items (`ucnp.base.server.operationlog.user.analyze.info`)
- List of user IDs of users who are allowed access to the Dashboard window for the operation log
  (`ucnp.base.server.dashboard.auth.userids`)

For details about property values, see *8.5 Specifying settings in the user property file (ucnp_user.properties)*.

You can use the following property in the service property file (`ucnp_service.ini`) to change the timing for the dashboard function's analysis of operation logs:

- Timing for operation log analysis by the dashboard function (`NPDASHBOARDANLTIME`)

For details about this property, see *8.4 Specifying settings in the service property file (ucnp_service.ini)*.

(2) Estimating the memory capacity when using the dashboard function

Use the following formula to estimate the required memory capacity when you will be using the dashboard function:

Formula

Memory capacity required for the storage service of the dashboard server[1]

+ memory capacity required for the Web server of the dashboard server[2]

= memory capacity required for the entire dashboard function (GB)

[1]

The memory capacity required for the storage service of the dashboard server is one and a half times the size of the operation logs subject to analysis. If the size of the operation logs subject to analysis increases, you must change the memory capacity required for the storage service. For details about how to change the memory capacity, see *(7) Changing the memory capacity required for the storage service of the dashboard server*.

[2]

The maximum memory capacity required for the Web server of the dashboard server is 1 GB.

(3) Managing the users who use the dashboard function

When you use the dashboard function, you have to specify a list of user IDs of users who are allowed access to the Dashboard window for the operation log in the `ucnp.base.server.dashboard.auth.userids` property in the user property file (`ucnp_user.properties`).

For details about the `ucnp.base.server.dashboard.auth.userids` property, see *8.5.3(83) List of user IDs of users who are allowed access to the Dashboard window for the operation log*.

> 📄 **Note**
>
> For details about how to migrate the user settings for the dashboard function when you upgrade Navigation Platform from JP1/Navigation Platform version 12-00 or earlier, see *3.6.5(11) Restore the data from the upgrade target*.

(4) Starting and stopping the dashboard server

To use the dashboard function, you must start the dashboard server separately from Navigation Platform.

This subsection explains how to start and stop the dashboard server.

(a) Starting the dashboard server

There are two ways to start the dashboard server:

- Using a Windows service
- Using commands

• Using a Windows service to start the dashboard server

The following Windows services are linked to the dashboard server (the service name that is displayed is shown within the parentheses):

- `NavigationPlatformDashboardStorageService` (Navigation Platform Dashboard Storage Service)
- `NavigationPlatformDashboardWebService` (Navigation Platform Dashboard Web Service)

If you set **Automatic** for the startup type of these two services, the dashboard server will be started automatically when the OS starts.

• Using commands to start the dashboard server

To start the dashboard server, open the command prompt with **Run as administrator** and then execute the following commands:

```
net start "Navigation Platform Dashboard Storage Service"
net start "Navigation Platform Dashboard Web Service"
```

(b) Stopping the dashboard server

You use commands to stop the dashboard server.

To stop the dashboard server, open the command prompt with **Run as administrator** and then execute the following commands:

```
net stop "Navigation Platform Dashboard Web Service"
net stop "Navigation Platform Dashboard Storage Service"
```

(c) Notes about starting and stopping the dashboard server

- Navigation Platform must be running in order to use the dashboard function. Therefore, you need to start Navigation Platform after you have started the dashboard server.
- If the OS shuts down before the dashboard server is stopped, operation is not guaranteed. Stop the dashboard server before you shut down the OS.

(5) Uploading operation logs

You use the `npuploadoplog` (upload operation logs) command to upload operation logs. To upload operation logs, execute the `npuploadoplog` (upload operation logs) command by using, for example, a task scheduler.

You can download uploaded operation logs from the dashboard server's Operation Log Viewer.

For details about the commands to use and how to use them, see *Chapter 9. Commands*.

For details about the Operation Log Viewer, see the manual *JP1/Navigation Platform Content Editing Guide*.

> ## 💡 Tip
>
> We recommend that you perform uploading of operation logs when none of the following processes is running, because these processes use machine resources:
>
> - Analysis of operation logs using the Reporting window
> - Analysis of operation logs using the dashboard function
> - Deletion of old analysis information that has accumulated in the dashboard server

(6) Deleting operation log analysis information periodically

Because operation log analysis information is not deleted automatically, you need to delete old analysis information when such information has accumulated for an extended period of time or when there is a shortage of disk capacity.

(a) Timing of deleting analysis information

The dashboard function analyzes operation logs that have been created over the past six months in the following folder and then registers the analysis information into the dashboard server:

- *Navigation-Platform-installation-directory*\operationlogs

Because the analysis information that has been registered into the dashboard server is not deleted automatically, it is advisable to execute daily the command for deleting old analysis information, using, for example, a task scheduler.

> ## 💡 Tip
>
> Be sure to execute the command for deleting analysis information only after the dashboard function has finished analyzing the operation logs. The dashboard function requires about one hour to analyze 1 GB of operation log data. Set the timing so that analysis information will not be deleted until after it has been analyzed. Also, when specifying the command for deleting analysis information by using a task scheduler, be sure to specify the -y option so that the processing is not stopped by execution confirmation.

(b) Deleting old analysis information

Use the following procedure to delete old analysis information. This example deletes analysis information when it becomes six months old.

1. Start the dashboard server.

2. Open the command prompt with **Run as administrator** and then execute the npdashboardremoveolddata command (delete analysis information).

   Command path

   Navigation-Platform-installation-directory\bin\npdashboardremoveolddata

   For details about the command to use and how to use it, see *Chapter 9. Commands*.

(7) Changing the memory capacity required for the storage service of the dashboard server

As the amount of analysis information increases, the memory capacity required by the storage service of the dashboard server increases. The following is the procedure to use if you will be changing the memory capacity required for the storage service:

1. Stop the dashboard server.

2. Open the command prompt with **Run as administrator** and then execute the `npdashboardsetstoragememory` command (modify storage memory settings).

   Command path

   > *Navigation-Platform-installation-directory*`\bin\npdashboardsetstoragememory` *minimum-size[MB] maximum-size[MB]*

   For details about the command to use and how to use it, see *Chapter 9. Commands*.

3. Start the dashboard server.

5.5 Audit log

The *audit log* records such information as when operations occurred, who performed the operations, the targets of operations, and the details of operations for security purposes. In the audit log, unlike the operation log, messages indicating whether operation results were normal or abnormal and whether the functions were successful are also important.

> **! Important**
>
> No audit log is output when executing Operational Contents that are configured to allow offline execution. For details about the offline execution of Operational Contents, see the manual *JP1/Navigation Platform Content Editing Guide*.

You can use JP1/Audit Management - Manager to view the audit log. JP1/Audit Management - Manager is supported only in a Japanese-language environment.

5.5.1 Settings for obtaining the audit log

To obtain the audit log, specify values in the properties related to the audit log in Navigation Platform's user property file (`ucnp_user.properties`). The following properties are related to the audit log:

- Whether the audit log is to be used (`ucnp.base.client.auditlog.enable`)
- The audit log output destination (`ucnp.base.server.auditlog.path`)
- The maximum number of audit log files (`ucnp.base.server.auditlog.backup.number`)
- The maximum file size for the audit log (`ucnp.base.server.auditlog.size`)

For details about the property values, see *8.5 Specifying settings in the user property file (ucnp_user.properties)*.

Note:

- In the audit log, a log indicating the end of an Operational Content is output only when a transition was made to the last Terminal Node in the Operational Flow. Note that in the operation log, a log indicating the end of an Operational Content is output even when the last node is a Process Node.

  To obtain accurate audit logs, we recommend that you place a Terminal Node at the end of the Operational Flow for each Operational Content subject to audit logging.

- If `all` is set in the `ucnp.base.client.directjump.enable` property in the user property file (`ucnp_user.properties`), a transition can be made to a Process Node from the status where the Operational Flow is completed. Therefore, a *node transition* audit log is output after an *end of an Operational Content* audit log has been output. When the Operational Flow is completed, empty character strings are output for the source node ID and the source node name. If you will be auditing Operational Content execution using the audit log, we recommend that you set a value other than `all` in the `ucnp.base.client.directjump.enable` property.

5.5.2 Items that are output to the audit log

The following items are output to the audit log:

No.	Name of output item	Meaning of output	Description
1	--	Common specification identifier	Common specification identifier `CALFHM` is always output.
2	--	Common specification revision number	Common specification revision number `1.0` is output.
3	`seqnum`	Sequence number	Sequence number of the audit log is output.
4	`msgid`	Message ID	The message ID of the audit log is output in the following format: `KDCZnnnnn-y` • `KDCZ` Message prefix • *nnnnn* Message sequence number for each component • *y* Severity. The severity can be `E` (error information), `W` (warning information), or `I` (notification information).
5	`date`	Occurrence date and time	The date and time the message was output is displayed in the following format: *YYYY-MM-DD*T*hh:mm:ss.sssTZD* • *YYYY*: Year • *MM*: Month • *DD*: Date • `T`: Delimiter between date and time • *hh*: Hour • *mm*: Minute • *ss*: Second • *sss*: Microsecond • *TZD*: Time zone The time zone is indicated by the difference from UTC. The display format is as follows: • *+hh:mm*: Ahead of UTC by *hh* hours and *mm* minutes • *−hh:mm*: Behind UTC by *hh* hours and *mm* minutes • `Z`: Same as UTC Example: Japanese time: `+09:00` The time zone depends on the Navigation Platform's server settings.
6	`progid`	Program name	Name of the program in which the audit event occurred. Always `HNP` is output.
7	`compid`	Component name	Name of the component in which the audit event occurred. Always `Server` is output.
8	`pid`	Process ID	Process ID of the process in which the audit event occurred
9	`ocp:host`	Location	Host identification information (host name) of the host on which the audit event occurred. If the location cannot be identified, `localhost` is output.
10	`ctgry`	Audit event type	Type of the audit event. One of the following audit event types is output: • `Authentication`: Identification and authentication • `ContentAccess`: Important information access
11	`result`	Audit event result	Result of the audit event. One of the following audit event results is output: • `Success`: • `Failure`:

No.	Name of output item	Meaning of output	Description
12	`subj:uid`	Subject information	Source of the audit event. The following value is output: • User ID of the user who performed node transition • If JP1/Base user authentication was selected as the authentication method: ID of a JP1 user who is registered in JP1/Base If login fails, `[NULL]` is output.

13	`op`	Action information	Type of operation that caused the audit event. One of the following is output:
			• If the audit event type is `Authentication`
			  `Login`: Login
			  `Logout`: Logout
			• If the audit event type is `ContentAccess`
			  `Refer`: Reference

14	`logtype`	Log type information	Log type. `BasicLog` is always output.
15	`msg`	Free description	Any message indicating the nature of the audit event. The message is output in the following format: • A double quotation mark (`"`) in the message is replaced with two consecutive double quotation marks (`""`). • A double quotation mark (`"`) is added at the beginning and at the end of the message. If the information cannot be acquired, `[NULL]` is output.

Legend: --: Not applicable

5.5.3 Audit log output timing

Audit logs are output for the following operations:

• Successful login

• Failed login

• Successful logout

• Failed logout

• Start of an Operational Content

• End of an Operational Content

• Node transition in an Operational Content

• Suspension of an Operational Content

• Resumption of an Operational Content

5.5.4 Output format and example output of an audit log

The following shows the output format of an audit log:

```
CALFHM 1.0, output-item-1=value-1,output-item-2=value-2,...,output-item-n=va
lue-n
```

The following shows an example of output of an audit log:

```
CALFHM 1.0, seqnum=1, msgid=KDCZ30002-I, date=2013-06-06T13:40:58.037+09:00,
 progid=HNP, compid=Server, pid=4028, ocp:host=hostA, ctgry=Authentication,
result=Success, subj:uid=Administrator, op=Login, logtype=BasicLog, msg="Suc
cessfully logged in."
```

5.5.5 Output destination, number of files, and file size of the audit log

This subsection explains the audit log output destination, number of files, and file size.

Output destination

The default output destination is as follows:

Navigation-Platform-installation-directory`\\auditlog\\ucnp_audit`*N*`.log` (*N*: file number)

Number of files

The audit log is a sequential log. The file number begins at 1. When the audit log file reaches a specified size, a new file is created with the file number incremented by 1 to output the audit log. If a file with the same name already exists, that file is deleted and a new file is created. If the file number exceeds the maximum value (16 by default), the file number is reset to 1.

The following shows an example:

When `ucnp_audit1.log` reaches the specified size, `ucnp_audit2.log` is created and new audit log is output to that file. This operation is continued until `ucnp_audit16.log` is created. When `ucnp_audit16.log` reaches the specified size, `ucnp_audit1.log` is deleted. A new `ucnp_audit1.log` is then created and the audit log is output to this file.

File size

The default file size is 10,240 KB.

You can change these items in the user property file (`ucnp_user.properties`).

Properties when settings are changed

- Audit log output destination (`ucnp.base.server.auditlog.path`)

- Maximum number of audit log files (`ucnp.base.server.auditlog.backup.number`)

- Maximum file size for the audit log (`ucnp.base.server.auditlog.size`)

For details about these property values, see *8.5 Specifying settings in the user property file (ucnp_user.properties)*.

5.5.6 Estimating the audit log

Estimate the audit log size that will be needed. The formula is shown below. The sum of (1) and (2) is the size required for the audit log. If you will be suspending Operational Contents by the Suspend/Resume Plugin and outputting the resumption of Operational Contents to the audit log, also add (3).

(1) Audit log size required for login and logout operations (per day)

{*Audit log size required for login operations* = $A \times B \times C \times (250 + D)$} + {*audit log size required for logout operations* = $A \times E \times C \times (255 + D)$} (unit: bytes)

Legend:

     A: Number of users

     B: Logins count

     C: Actual work hours (hours)

     D: Length of a user ID in bytes

     E: Logouts count

(2) Audit log size required for Operational Content operations (per day)

{*Audit log size required for starting and ending Operational Contents* = $A \times 2 \times B \times C \times (465 + D)$} + {*audit log size required for node transitions in Operational Contents* = $A \times E \times B \times C \times (465 + (F \times 3) + (G \times 3))$} (unit: bytes)

Legend:

     A: Number of users

     B: Actual work hours (hours)

     C: Number of Operational Content executions per hour

     D: Length of an Operational Content name in bytes

     E: Process Node transitions count

     F: Length of a Process Node name in bytes

     G: Length of a Process Node ID in bytes

(3) Audit log size required for suspending Operational Contents and resuming Operational Contents (per day)

$455 + A + B$ (unit: bytes)

Legend:

     A: Length of user ID in bytes

     B: Length of Operational Content name in bytes

(4) Example estimation of audit log capacity

This subsection shows an example estimation of audit log size based on the following conditions:

No.	Information required for estimation	Value in this example
1	Number of users: Number of execution environments per day	10
2	Length of a user ID in bytes	10
3	Logins count Number of times one user logs in	1
4	Logouts count Number of times one user logs out	1

No.	Information required for estimation	Value in this example
5	Number of Operational Content executions per hour Number of times one user executes Operational Contents per hour	6 (one Operational Content per 10 minutes)
6	Length of an Operational Content name in bytes	30
7	Process Node transitions count Number of Process Nodes that are switched per Operational Content	10
8	Length of a Process Node name in bytes	20
9	Length of a Process Node ID in bytes	10
10	Actual work hours Number of work hours per day	8

Example estimation of the audit log size required for login and logout operations (per day):

$$\{10 \times 1 \times 8 \times (250 + 10)\} + \{10 \times 1 \times 8 \times (255 + 10)\} = 42{,}000 \text{ bytes}$$

Example estimation of the audit log size required for Operational Content operations (per day):

$$\{10 \times 2 \times 8 \times 6 \times (380 + 30)\} + \{10 \times 10 \times 8 \times 6 \times (380 + (20 \times 3) + (10 \times 3))\} = 2{,}649{,}600 \text{ bytes}$$

Example estimation of size required for audit log:

$$42{,}000 + 2{,}649{,}600 = 2{,}691{,}600 \text{ bytes}$$

5.5.7 List of messages that are output to the audit log

The following messages are output to the audit log:

Message ID	Message
KDCZ30001-I	The login succeeded.
KDCZ30002-E	The login failed.
KDCZ30003-I	The logout succeeded.
KDCZ30004-W	The logout failed.
KDCZ30005-I	The Operational Content was started. (Operational Content name = *Operational-Content-name*, Operational Content ID = *Operational-Content-ID*, Operational Content version ID = *Operational-Content-version-ID*)
KDCZ30006-I	The Operational Content was closed. (Operational Content name = *Operational-Content-name*, Operational Content ID = *Operational-Content-ID*, Operational Content version ID = *Operational-Content-version-ID*)
KDCZ30007-I[#1]	The Operational Content was transferred to another node. (source node name = *source-node-name*, Source node ID = *Source-node-ID*, specified destination node name = *specified-destination-node-name*, specified destination node ID = *specified-destination-node-ID*, actual destination node name = *actual-destination-node-name*, actual destination node ID = *actual-destination-node-ID*)
KDCZ30008-I	The Operational Content was suspend. (Operational Content name = *Operational-Content-name*, Operational Content ID = *Operational-Content-ID*, Operational Content version ID = *Operational-Content-version-ID*, suspend ID = *suspend-ID*[#2])
KDCZ30009-E	Failed to suspend the Operational Content. (Operational Content name = *Operational-Content-name*, Operational Content ID = *Operational-Content-ID*, Operational Content version ID = *Operational-Content-version-ID*)

Message ID	Message
KDCZ30010-I	The Operational Content was resumed. (Operational Content name = *Operational-Content-name,* Operational Content ID = *Operational-Content-ID,* Operational Content version ID = *Operational-Content-version-ID,* suspend ID = *suspend-ID*[#2, #3])
KDCZ30011-E	Failed to resume the Operational Content. (Operational Content name = *Operational-Content-name,* Operational Content ID = *Operational-Content-ID,* Operational Content version ID = *Operational-Content-version-ID*)

#1

If an error occurs in the I/O Plugin or the **Cancel** button is clicked in the execution confirmation dialog box, information about the target node that is displayed in the message differs from the actual target node.

#2

This ID is assigned when operation is suspended. The *suspend-ID* is acquired by the server.

#3

For the suspended information for an older version, [NULL] might be output for *suspend-ID*.

5.6 Handling suspend information

When the Suspend/Resume Plugin is used, the information entered by the user in the Operational Content Execution Window is saved as suspend information. With respect to suspend information, take the following actions as needed:

- Re-estimate the size of the suspend information.

- Delete suspend information.

These actions are required depending on the tasks performed by the system administrators and the users who create Operational Contents. The following table describes the operations that require actions on suspend information and the actions to be taken.

Table 5–4: Operations that require actions on suspend information and the actions to be taken

No.	Classification	Nature of operation	Section on required action
1	Creation of Operational Contents	Adding Operational Contents	*5.6.1 Re-estimating suspend information*
2		Updating Operational Contents	No action is needed.
3		Deleting Operational Contents	No action is needed.
4	Navigation Platform operation	Adding Operational Contents by import operation	*5.6.1 Re-estimating suspend information*
5		Updating Operational Contents by import operation	*5.6.2(1) Deleting suspend information related to Operational Contents*
6		Deleting Operational Contents by import operation	*5.6.2(1) Deleting suspend information related to Operational Contents*
7		Adding users	*5.6.1 Re-estimating suspend information*
8		Deleting users	*5.6.2(2) Deleting suspend information related to users*
9	Operational Content operation	Setting access permission groups	No action is needed.
10		Deleting access permission groups	*5.6.2(3) Deleting suspend information related to Operational Contents and users*

5.6.1 Re-estimating suspend information

You need to re-calculate the size estimate. If a shortage of space occurs on the external storage device on which the suspend information is stored, you must either delete unneeded suspend information or extend the size of the storage.

For details about how to estimate the size of suspend information, see *3.4.3 Estimating the size when using a Suspend/ Resume Plugin*.

5.6.2 Deleting suspend information

This subsection explains deletion of suspend information.

(1) Deleting suspend information related to Operational Contents

You need to delete suspend information that is related to Operational Contents that have been updated or deleted by import operations. Delete the suspend information for Operational Contents that were output with the `-l` option specified during the import operation and with the result type of `modified` or `deleted`.

The Suspend/Resume Plugin calls deletion processing only at the time indicated in *3.4.3(1) Suspend information management units*. Therefore, a command for deleting suspend information by the system administrator must be created by the user who developed the Suspend/Resume Plugin or by the system administrator.

(2) Deleting suspend information related to users

You need to delete suspend information that is related to deleted users.

(3) Deleting suspend information related to Operational Contents and users

You need to delete suspend information that is related to Operational Contents in which access permissions were deleted and to the users whose access permissions were deleted.

5.7 Renaming hosts after the setup

To change settings when the server machine's host has been renamed after setup:

1. Execute the `npstop` command (stop) or stop the Navigation Platform Start Service to stop Navigation Platform.

2. Change the value of `ServerName` in the web server's settings file to the new host name.

   Storage location of the settings file:

   Navigation-Platform-installation-directory`\PP\uCPSB\httpsd\conf\httpsd.conf`

3. Execute the `npstart` command (start) or start the Navigation Platform Start Service to start Navigation Platform.

5.8 Procedure for changing IP addresses

To change the IP address after Navigation Platform has been set up:

1. Execute the `npstop` command (stop) or stop the Navigation Platform Start Service to stop Navigation Platform.

2. Change the IP address.

3. Execute the `npstart` command (start) or start the Navigation Platform Start Service.

5.9 General procedure for changing settings when Active Directory connection passwords are changed

If you change the user password for directory server connection, you need to specify the settings for Cosminexus and uCosminexus Portal Framework again. This section explains how to specify the settings again. There are two ways to change the settings for uCosminexus Portal Framework. In an English-language environment, perform the procedure described in *5.9.3 Procedure for changing the uCosminexus Portal Framework settings (using settings files)*.

5.9.1 Procedure for editing the integrated user management configuration file (ua.conf)

Edit the integrated user management configuration file (`ua.conf`). The `ua.conf` file is stored in the following directory:

Storage directory:

   Navigation-Platform-installation-directory`\PP\uCPSB\manager\config\ua.conf`

To edit the integrated user management configuration file (`ua.conf`):

1. In `java.naming.security.credentials.0`, specify the user password for directory server connection.
   Example: `java.naming.security.credentials.0=`*value-specified-as-user-password-for-directory-server-connection*

2. Restart Navigation Platform to apply the changed settings to the system.

5.9.2 Procedure for changing uCosminexus Portal Framework settings (using Portal Manager)

(1) Starting Portal Manager

1. From the Windows **Start** menu, click **Programs**, **Navigation Platform - Server**, **uCosminexus Portal Framework**, and then **Start Portal Manager**.
   Portal Manager starts.

2. Access Portal Manager.
   On the web browser, specify the following URL:
   `http://`*host-name*`:`*port-number*`/PortalSetup/admin/portalsetup/index.jsp`

   host-name

      This is the host name or the IP address of the machine on which Portal Manager is installed. In an environment in which Navigation Platform is set up exactly as described in this manual, `127.0.0.1` is the host name used for connecting from the machine on which Navigation Platform is installed.

   port-number

      This is the port number that Portal Manager uses. It is the value of the `ucnp.setup.server.portal.manager.http.port` property specified in the user setup property file (`ucnp_setup_user.properties`). The default value is `24710`.

(2) Changing the Portal Manager settings

To change the Portal Manager settings:

1. From Portal Manager's menu, select **Select a Portal Project**.
   The Select a Portable Project window is displayed.

2. From Portal Manager's menu, select **Set Repository**, **Connection Information**, and then **Modify**.
   The Select Connection Information window is displayed.

3. In the Select Connection Information window, enter the following items.

   Table 5–5: Item names and settings in the Select Connection Information window

Item name	Setting
Connection target type	Select the type of target repository from the drop-down list. Example: `LDAP`
Connection target name	Select the name of the target directory server on which repository information is to be stored. Example: `LDAP-1`

4. Click the **Search** button.
   The Set Connection Information window is displayed.

5. In the Set Connection Information window, enter the following items.

   Table 5–6: Item names and settings in the Set Connection Information window

Item name	Setting
Target URL	Specify the port number of *protocol*`://`*directory-server's-address*`:`*directory-server*. For *protocol*, specify `ldap` or `ldaps`. Example: `ldap://localhost:389`
Target user name	Specify the DN of the user for directory server connection. Example: `CN=user1,CN=Users,DC=hitachi,DC=jp`
Target password	Specify the user password for directory server connection. Example: `UCNPPASS`

6. Click the **Add** button.
   The connection information is added.

7. Restart Navigation Platform to apply the changed settings.

5.9.3 Procedure for changing the uCosminexus Portal Framework settings (using settings files)

To change the uCosminexus Portal Framework settings (using settings files):

1. In the settings file shown below, edit the information shown in boldface type. Note that the contents of the `<url>` tag and `<username>` tag might vary depending on the protocol being used, connection destination, port number, and user.

Path of the settings file:

Navigation-Platform-installation-directory`\PP\uCPF\conf\Repository.xml`

Information to be edited:

```
<connection-info name="LDAP-1" type="ldap" ldap="Active Directory">
    <url>ldap://localhost:389</url>
    <username>cn=user1, cn=Users, dc=hitachi, dc=jp</username>
    <password scramble="false">password</password>
    <waittime>0</waittime>
</connection-info>
```

2. In the `<password>` tag, specify `false` as the `scramble` attribute value. If this attribute does not exist, add it.

3. Value of the `<password>` tag

Edit the user password for directory server connection. In addition, sanitize characters as shown in the following table.

Table 5–7: List of characters to be sanitized

No.	Before change	After change
1	&	&
2	<	<
3	>	>
4	"	"
5	'	'
6	\n	\
7	\r	\
8	\r\n	\

To convert `\r\n`, first convert `\r\n`, and then change `\r` or `\n`.

5.10 Procedure for changing system administrators

The procedure for adding, deleting, and changing the system administrators of Navigation Platform after Navigation Platform operation has started depends on the type of user authentication being used. This section explains two procedures, one for when a directory server is used for user authentication and the other for when JP1/Base is used for user authentication.

When no user authentication is used or when a directory server is used for user authentication

Perform the following procedure:

1. Stop Navigation Platform.

2. Edit the user property file (`ucnp_user.properties`).
   Change the `ucnp.base.server.system.admin.userids` property value.

3. Start Navigation Platform.

When JP1/Base is used for user authentication

Perform the following procedure:

1. For a JP1 user that you want to add as a system administrator, set the JP1 resource group for system administrators with JP1 permission level `HNP_Admin` to that JP1 user.
   You can determine the JP1 resource group for system administrators by checking the `ucnp.base.server.jp1auth.system.resource.group` property value in the user property file (`ucnp_user.properties`).

2. If you want to delete a user who has already been added as a system administrator, change the JP1 resource group or JP1 permission level of that JP1 user.

3. Notify the user whose settings have been changed to re-log in to Navigation Platform.
   If the settings are changed while the target user is logged in to Navigation Platform, the user must first log out and then re-log in to apply the change.

5.11 Procedure for increasing the maximum number of Operational Contents

If you have set up Navigation Platform with the default values, you can create a maximum of 500 Operational Contents in Navigation Platform. If you need to create more than 500 Operational Contents, use the procedure explained below to change the maximum number of Operational Contents that can be created.

To increase the maximum number of Operational Contents:

1. Check the available space on the hard disk and evaluate the maximum number of Operational Contents.
   You can increase the maximum value in units of 500. About 10 GB of free space is needed per 500 Operational Contents.

2. Execute the `npextendrdarea` command to extend the database.

3. Specify the new maximum value in the `ucnp.base.client.menu.maxnum` property in the user property file (`ucnp_user.properties`).

4. Restart Navigation Platform.
   Execute the `npstart` command (start) after you have executed the `npstop` command (stop).

5.12 Procedure for editing property files

This section explains how to edit the property files of Navigation Platform. For details about the property files that can be edited and notes about editing property files, see *Chapter 8. Properties*.

To edit a property file:

1. Start the editor with **Run as administrator** and open the property file.
   When you copy sample files, you also need to copy them as administrator.

2. Edit the property file and then save it.

3. Restart Navigation Platform.
   Execute the `npstart` command (start) after you have executed the `npstop` command (stop).

5.13 Settings for linking to other JP1 products

Before you can link your Navigation Platform with other JP1 products by using a JP1 Link Plugin, you must complete the following preparations:

- Employ a system configuration that uses JP1/Base for user authentication.
- Use the same user authentication block as for JP1/Base, a JP1 product to be linked.
- Set the JP1 permission level needed to operate the linked JP1 products for the JP1 users who will be running Operational Contents using the JP1 Link Plugin.
  For details about the JP1 permission level needed to use other JP1 products, see each product's documentation.
- Specify settings, including environment variables and JP1/Base settings, for the JP1 products that will be linked.
- In Navigation Platform's user property file (`ucnp_user.properties`), specify required values for the properties that are related to the JP1 Link Plugin.

> 📄 **Note**
>
> You can link to the following JP1 products:
>
> - JP1/IM 10-10 or later
> - JP1/IM-SS 10-10 or later
> - JP1/AO 10-52 or later

5.13.1 Configuration requirements for JP1/IM

The following explains the configuration requirements for JP1/IM to use the JP1 Event Status Change Plugin.

- Use JP1/Base 10-50 or later.
  You must set up JP1/Base 10-50 or later on the machine where JP1/IM-M has been set up.
- Use the same user authentication block.
  For JP1/Base that has been set up on the JP1/IM machine, use the same user authentication block as for Navigation Platform.
- Specify the path of the `jcochstat` command storage directory in the `PATH` system environment variable on the machine where JP1/IM has been set up.
  For details about the `jcochstat` command, see the manual *JP1/Integrated Management - Manager Command and Definition File Reference* or the manual *JP1/Integrated Management 2 - Manager Command and Definition File Reference*.
- Map JP1 users and OS users in JP1/Base on the machine where JP1/IM has been set up.
  You need to map the OS accounts with Windows administrator privileges for all JP1 users who will be operating Operational Contents that use JP1 Link Plugins.
  Note that there is no problem if the host OS of JP1/IM differs from that of Navigation Platform.
- Set Navigation Platform reference permissions.
  Grant the permissions (JP1 permission level) that allow Navigation Platform to be referenced to only those JP1/IM users who are permitted to manipulate JP1/IM JP1 events. For details about the JP1/IM operation permissions, see the manual *JP1/Integrated Management - Manager Overview and System Design Guide* or the manual *JP1/Integrated Management 2 - Manager Overview and System Design Guide*.

Before you use the JP1 Event Status Change Plugin, verify that these settings have been completed.

5.13.2 Configuration requirements for JP1/AO

The following explains the configuration requirements for JP1/AO to use the Automatic Operation Service Execution Plugin.

- Use JP1/Base for user authentication.
  You must set up JP1/Base 10-50 or later on the machine where JP1/AO has been set up. In addition, for JP1/Base, use the same user authentication block as for Navigation Platform.

Before you use the Automatic Operation Service Execution Plugin, contact the JP1/AO system administrator to verify that these settings have been completed.

5.13.3 Specifying settings in the user property file to use JP1 Link Plugins

If you will be using JP1 Link Plugins, check the user property file (`ucnp_user.properties`) and change the following property values, as necessary:

- `ucnp.base.client.jp1imss.hostname`
- `ucnp.base.client.jp1imss.portnum`
- `ucnp.base.client.jp1ao.hostname`
- `ucnp.base.client.jp1ao.portnum`
- `ucnp.base.client.jp1ao.https.enable`
- `ucnp.base.client.jp1ev.association.enable`
- `ucnp.base.client.editor.jp1plugin.toolpalette.display`

For details about the values for the individual properties, see *8.5.3 Details about the properties in the user property file*.

5.13.4 Associating JP1 event information with Operational Contents

To directly display specified Operational Contents that correspond to specific JP1 event information, you must associate the JP1 event information with the Operational Contents.

To associate JP1 event information with Operational Contents:

1. Verify that the `ucnp.base.client.jp1ev.association.enable` property value is `true` in the user property file (`ucnp_user.properties`).

2. Create a JP1 event association file (`ucnp_jp1event_mapping.txt`) and save it in the following directory:
   Navigation-Platform-installation-directory`\conf`
   For details about the contents of the JP1 event association file, see *5.13.5 Items and format for JP1 event information association files*.

> 📄 **Note**
>
> The settings in the JP1 event association file take effect only when Operational Contents are called from JP1/IM or JP1/IM-SS.

3. Restart Navigation Platform and then import the JP1 event association file.

  For details about how to start and stop Navigation Platform, see *5.1 Starting and stopping the system*.

5.13.5 Items and format for JP1 event information association files

This subsection explains the items to be specified in the JP1 event information association file (`ucnp_jp1event_mapping.txt`) and the specification format.

(1) Items in the JP1 event information association file

Specify the following items in the JP1 event information association file:

- Event ID
- Source event server name (registered host name)
- Product name
- Message
- Operational Content ID

For details about the items other than the Operational Content ID, see the description about the items displayed in the event list in the manual *JP1/Integrated Management - Manager Administration Guide* or the manual *JP1/Integrated Management 2 - Manager Administration Guide*, or the documentation of the product that output JP1 events.

(2) Format of the JP1 event information association file

Specify the JP1 event information association file in the following format:

event-ID<tab>*source-event-server-name*<tab>*product-name*<tab>*message*<tab>*Operational-Content-ID*<linefeed>

Legend:

  <tab>: Tab

  <linefeed>: Linefeed code

Define one association per line. Delimit the items with a tab. You can specify a maximum of 1,000 lines. The only supported character encoding is UTF-8.

The following shows an example of a JP1 event information association file:

```
00003FA3    SERVER1    /HITACHI/JP1/IM/JCOCMD    KAVB2402-W [SERVER1] Comman
d execution time exceeded 10200 seconds.    ce16c98a-0132-1000-8000-00000ad2
3cbb-0
00004724    SERVER2    /HITACHI/JP1/BASE/SPMD    KAVB3664-I JP1/Base for SER
VER2 has started    2173450f-0133-1000-8003-00000ad23cbb-0
00005F00    SERVER1    /HITACHI/JP1/IM/SS    KNAB15069-I Item status was add
ed as closed    2173450f-0133-1000-8003-00000ad23cbb-0
```

```
00000001    SERVER1     /APP1/SAMPLE_PRODUCT     SAMPLE application error.
c7c0725a-0132-1000-8003-00000ad23cbb-0
00000002    SERVER2     /APP1/SAMPLE_PRODUCT     SAMPLE application warning.
  c7c0725a-0132-1000-8003-00000ad23cbb-0
```

(3) Checking whether JP1 event information matches

Navigation Platform compares the two data items listed below and determines whether they match. Note that Navigation Platform does not check the JP1 event information that is associated with an Operational Content for which there is no access permission.

- JP1 event information received from the other JP1 product (JP1 event information indicated in *(1) Items in the JP1 event information association file*)
- JP1 event information specified in the JP1 event information association file

If the JP1 event information received from the other JP1 product is an empty character string, Navigation Platform assumes that it matches the JP1 event information specified in the JP1 event information association file. If the JP1 event information specified in the JP1 event information association file is an empty character string, Navigation Platform assumes that it matches the JP1 event information received from other JP1 products.

The items in the JP1 event information received from other JP1 products are checked based on leading match. If multiple rows match based on leading match, only the definition on the first row takes effect.

Example in which JP1 event information is determined to match

- JP1 event information received from another JP1 product: `/HITACHI/JP1/IM`
- JP1 event information specified in the JP1 event information association file: `/HITACHI/JP1`

Example in which JP1 event information is determined to not match

- JP1 event information received from another JP1 product: `/HITACHI/JP1`
- JP1 event information specified in the JP1 event information association file: `/HITACHI/JP1/IM`

5.13.6 URL used for calling Navigation Platform from other JP1 products

Use the following URL to call Navigation Platform from other JP1 products:

```
http(s)://host-name:port-number/ucnpBase/portal/screen/Home/action/PLoginUse
r
```

If you specify this URL in the source JP1 product beforehand and click the URL specified in the source JP1 product's window, a Navigation Platform window with no Operational Content selected is displayed. If you want to display the Navigation Platform window with a specific Operational Content displayed, specify the URL in the following format:

```
http(s)://host-name:port-number/ucnpBase/portal/screen/Home/action/PLoginUse
r?contentId=Operational-Content-ID
```

> **❗ Important**
>
> When you specify the URL used for directly displaying a specific Operational Content, the settings in the JP1 event information association file (`ucnp_jp1event_mapping.txt`) are ignored.

5.14 Checking the number of users logged in concurrently

You can determine the number of users logged in at the present time by checking the message (`KDCZ10004-I`) that is output to the J2EE server's trace file for Navigation Platform.

Navigation-Platform-installation-directory`\logs\ucnp_trace`*N*`.log` (*N*: file number)

> **! Important**
>
> If any of the following operations are performed, the displayed count might be greater than the actual number of users logged in:
>
> - A Navigation Platform window was closed by clicking the **X** button on the browser.

5.15 Setup procedure when using LDAPS

5.15.1 Procedure for registering or updating a CA certificate in the keystore

The following describes the procedure for registering a CA certificate in the keystore for the first time or updating the CA certificate registered in the keystore.

> **❗ Important**
>
> Note the following points when performing the procedure to register or update CA certificates in the keystore:
>
> - Back up the keystore file (`"%UCNP_HOME%\PP\uCPSB\jdk\lib\security\cacerts"`), if necessary.
> - We recommend that you record the keystore password, which might be used in subsequent operations.
> - If the message `"Enter the keystore password"` appears during the following procedure, enter the keystore password.

1. If necessary, change the keystore password.

   Execute the following command to change the password:

   ```
   "%UCNP_HOME%\PP\uCPSB\jdk\bin\keytool" -storepasswd -cacerts
   ```

   The following messages appear.

   Display

   ```
   Enter the keystore password:
   New keystore password:
   Enter the new keystore password again:
   ```

   For the keystore password, enter the password that was set before the change. The initial value is `changeit`.

   For `New keystore password`, enter the password you want to use.

   Hereafter, the password entered for `New keystore password` will be used as the keystore password.

2. Checking the entry registered in the keystore

   Execute the following command to check the entry registered in the keystore:

   ```
   "%UCNP_HOME%\PP\uCPSB\jdk\bin\keytool" -list -v -cacerts
   ```

   If `"alias: cakey"` appears, a CA certificate with the same alias name has already been registered. To delete the registered information, go to "*3. Deleting the CA certificate registered in the keystore*".

   If `"Keystore contains no entry"` appears, a CA certificate has not been registered yet. Go to "*4. Importing a new CA certificate*".

3. Deleting the CA certificate registered in the keystore

   Execute the following command to delete the registered CA certificate from the keystore:

   ```
   "%UCNP_HOME%\PP\uCPSB\jdk\bin\keytool" -delete -alias cakey -cacerts
   ```

4. Importing a new CA certificate

Execute the following command to register the CA certificate in the keystore:

```
"%UCNP_HOME%\PP\uCPSB\jdk\bin\keytool" -noprompt -importcert -alias cakey
-file CA-certificate-file-path -trustcacerts -cacerts
```

5.15.2 LDAPS setup procedure for a new installation

The following describes the setup procedure for using LDAPS for user authentication when setting up Navigation Platform.

To use LDAPS, you must prepare the CA certificate before starting the following procedure.

> ❗ **Important**
>
> Note the following points when performing the procedure to set up LDAPS for a new installation:
>
> - Back up the keystore file ("`%UCNP_HOME%\PP\uCPSB\jdk\lib\security\cacerts`"), if necessary.
> - We recommend that you record the keystore password, which might be used in subsequent operations.
> - If the message "`Enter the keystore password`" appears during the following procedure, enter the keystore password.
> - For details about the keystore password, see *5.15.1 Procedure for registering or updating a CA certificate in the keystore*.

1. Registering or updating a CA certificate in the keystore

   See *5.15.1 Procedure for registering or updating a CA certificate in the keystore*, and then register or update the CA certificate in the keystore.

2. Edit the settings file.

   Copy the "`%UCNP_HOME%\sample\conf\ucnp_setup_user.properties`" file to the "`%UCNP_HOME%\conf`" folder.

   Open the "`%UCNP_HOME%\conf\ucnp_setup_user.properties`" file, and then edit the values of the following items.

   - Required items: These items must be set if you want to use LDAPS.

   - `ucnp.setup.server.ldap.directory.kind`

     For LDAPS, specify AD.

   - `ucnp.setup.server.ldap.protocol`

     For LDAPS, specify ldaps.

   - `ucnp.setup.server.ldap.hostname`

     Specify the host name including the domain name of the connection destination LDAPS server.

   - `ucnp.setup.server.ldap.port`

     For LDAPS, specify the LDAPS wait port (default: 636) for AD.

   - Optional items: Set these items if the values in the file differ from the default values.

   - `ucnp.setup.server.ldap.java.naming.security.principal`

- `ucnp.setup.server.ldap.java.naming.security.credentials`
- `ucnp.setup.server.ldap.com.cosminexus.admin.auth.ldap.basedn`
- `ucnp.setup.server.ldap.com.cosminexus.admin.auth.ldap.attr.userid`
- `ucnp.setup.server.ldap.com.cosminexus.admin.auth.ldap.attr.password`
- `ucnp.setup.server.ldap.group.basedn`

For details about each property, see *8.3 Specifying settings in the user setup property file (ucnp_setup_user.properties)*.

3. Execute the `npsetup` command (setup) to set up Navigation Platform.

Command path

Navigation-Platform-installation-directory`\bin\npsetup`

5.15.3 Procedure for changing an LDAP environment to an LDAPS environment

The following describes the procedure for changing the settings of Navigation Platform so that LDAPS is used for user authentication instead of LDAP.

To use LDAPS, you must prepare a CA certificate before starting the following procedure.

> **! Important**
>
> Note the following points when performing the procedure to change an LDAP environment to an LDAPS environment:
>
> - Back up the keystore file (`"%UCNP_HOME%\PP\uCPSB\jdk\lib\security\cacerts"`), if necessary.
> - If the message `"Enter the keystore password"` appears during the following procedure, enter the keystore password.
> - For details about the keystore password, see *5.15.1 Procedure for registering or updating a CA certificate in the keystore*.

1. Registering or updating a CA certificate in the keystore

   Refer *5.15.1 Procedure for registering or updating a CA certificate in the keystore*, and register or update the CA certificate in the keystore.

2. Edit the settings file.

   Open the `"%UCNP_HOME%\conf\ucnp_setup_user.properties"` file, and then edit the values of the following items.

   - Required items: These items must be set if you want to use LDAPS.

   - `ucnp.setup.server.ldap.directory.kind`

     For LDAPS, specify AD.

   - `ucnp.setup.server.ldap.protocol`

     For LDAPS, specify ldaps.

- `ucnp.setup.server.ldap.hostname`

  Specify the host name including the domain name of the connection destination LDAPS server.

- `ucnp.setup.server.ldap.port`

  For LDAPS, specify the LDAPS wait port (default: 636) for AD.

- Optional items: Set these items if the values in the file differ from the default values.

- `ucnp.setup.server.ldap.java.naming.security.principal`

- `ucnp.setup.server.ldap.java.naming.security.credentials`

- `ucnp.setup.server.ldap.com.cosminexus.admin.auth.ldap.basedn`

- `ucnp.setup.server.ldap.com.cosminexus.admin.auth.ldap.attr.userid`

- `ucnp.setup.server.ldap.com.cosminexus.admin.auth.ldap.attr.password`

- `ucnp.setup.server.ldap.group.basedn`

  For details about each property, see *8.3 Specifying settings in the user setup property file (ucnp_setup_user.properties)*.

3. Use the `npunsetup` command (unsetup) to perform unsetup of Navigation Platform.

   Command path

   Navigation-Platform-installation-directory`\bin\npunsetup`

4. Execute the `npsetup` command (setup) to set up Navigation Platform.

   Command path

   Navigation-Platform-installation-directory`\bin\npsetup`

5.15.4 Procedure for updating the CA certificate being used

The following describes the procedure for updating the CA certificate registered in the keystore.

> **! Important**
>
> Note the following points when performing the procedure to update CA certificates that are already registered with the keystore:
>
> - Back up the keystore file (`"%UCNP_HOME%\PP\uCPSB\jdk\lib\security\cacerts"`), if necessary.
>
> - If the message `"Enter the keystore password"` appears during the following procedure, enter the keystore password.
>
> - For details about the keystore password, see *5.15.1 Procedure for registering or updating a CA certificate in the keystore*.

1. Registering or updating a CA certificate in the keystore

   See *5.15.1 Procedure for registering or updating a CA certificate in the keystore*, and then register or update the CA certificate in the keystore.

2. Restart Navigation Platform.

   For details about how to restart the system, see *5.1 Starting and stopping the system*.

6

Operation of Operational Contents

This chapter explains the procedure from creation of Operational Contents up to the start of operation of Operational Contents and the individual tasks involved. The tasks required for operation of Operational Contents might differ depending on your system configuration.

Perform the tasks described in this chapter before you start running Navigation Platform and during operation, as appropriate.

6.1 Tasks required from creation to use of Operational Contents

The following explains the tasks that the system administrator must perform to use Operational Contents:

- Evaluating the handling of Operational Content access permissions

    If you will be using a directory server for user authentication, create access permission groups and then add the users who will be creating Operational Contents and the users who will be using the Operational Contents. If you will be using JP1/Base for user authentication, set JP1 permission levels and JP1 resource groups in JP1/Base. Because these tasks are performed in JP1/Base, consult with the JP1/Base administrator to determine appropriate settings.

- Exporting and importing Operational Contents (when the editing environment differs from the execution environment)

    There might be multiple versions of Operational Contents. The commands to be used depend on whether all versions or only the Published Versions are to be exported and imported.

- Applying files created in the development environment to the system

- Managing static files that are used in Operational Contents

- Updating search data (when the **Search** tab is displayed)

    There are two methods, one that updates search data automatically on a schedule and one used to update search data manually at any time.

To perform these tasks, the Navigation Platform system must be running. For details about how to start the system, see *5.1 Starting and stopping the system*.

You can acquire a history of Operational Content operations by the users as logs. For details about operation logs, see *5.4 Handling of operation logs from Operational Contents*.

The subsections below explain the procedures for creating and using Operational Contents both when plugins and custom windows developed in the development environment are used and when plugins and custom windows are not used.

6.1.1 Tasks required when plugins and custom windows are not used

The following figure shows the general procedure for starting operation after setup of Navigation Platform has been completed when plugins and custom windows developed in the development environment are not used.

Figure 6–1: Tasks required for starting operation after setup has been completed (when not using plugins and custom windows)
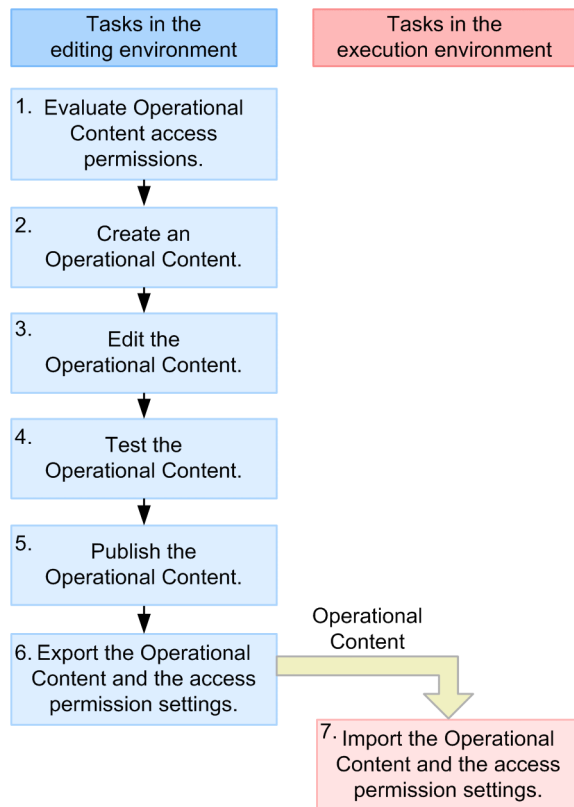
The access permission settings depend on the access permission group or the JP1 resource group set in the Operational Content.

Who is to perform each task indicated in the figure is explained below. For details about the tasks that are to be performed by Content Managers, Content Creators (when JP1/Base is used for user authentication), and Content Editors, see the manual *JP1/Navigation Platform Content Editing Guide*.

1. System administrator: Evaluate the handling of Operational Content access permissions, such as the users who will be creating Operational Contents and the publishing range of Operational Contents.

   For each Operational Content, evaluate which users will be creating, editing, and using the Operational Content.

   • When using a directory server for user authentication

     Create access permission groups, if necessary.

     If only the default standard access permissions are used, only the system administrator can create and edit Operational Contents. The completed Operational Contents can be used by all users who log in to Navigation Platform.

     If you want to perform operations that cannot be achieved only with the default standard access permissions (for example, if you want to publish some Operational Contents only to specific users, if users other than the system administrator will be creating and editing Operational Contents, or if you want to protect Operational Contents from being edited by Content Editors when testing the Operational Contents), you will have to create access permission groups in the editing environment.

     For details about the access permissions, see *6.2 Setting access permissions for Operational Contents (when using a directory server for user authentication)*. For details about how to set access permissions for users, see *6.4.1 Procedure for creating access permission groups*.

   • When using JP1/Base for user authentication

     Make sure that you set JP1 resource groups for Navigation Platform for the JP1 users who will be logging in to Navigation Platform. In addition, if you set a JP1 permission level for each JP1 user as needed, you can perform

more specific operations, such as allowing only specific users to edit Operational Contents, creating Operational Contents that are to be published only to specific users, and protecting Operational Contents from being edited by Content Editors when the Operational Contents are tested.

Because you will be setting JP1 resource groups and JP1 permission levels in JP1/Base, consult with the JP1/Base administrator to determine appropriate settings, if necessary.

For details about the access permissions, see *6.3 Setting access permissions for Operational Contents (when using JP1/Base for user authentication)*.

2. Content Manager or Content Creator: Create and add Operational Contents in the editing environment and set access permission groups or JP1 resource groups.

3. Content Creator or Content Editor: In the editing environment, edit the Operational Contents that have been added.

4. Content Manager, Content Creator, and Content Editor: In the editing environment, test the operation of Operational Contents.

   To protect an Operational Content from being edited by the Content Editor until the operation of the Operational Content has been tested and then published, the Content Manager or the Content Creator can take the following action:

   - Change the Operational Content's current access permission group or JP1 resource group to a different group so that the Content Editor cannot edit the Operational Content.

5. Content Manager: Publish the Operational Contents.

   If an Operational Content's access permission group was changed in step 4:

   The Content Manager or the Content Creator must change the access permission group or the JP1 resource group back to the original group so that the Content Editor can edit the Operational Content.

6. System administrator: Export the Operational Contents created in the editing environment and the settings for the Operational Contents and access permissions.

   For details about the export method, see *6.5.1 Exporting Operational Contents*.

   Note that if you are using a directory server for user authentication, you can also export only the access permission groups. For details, see *6.4.4(1) How to export and import only access permission groups*.

7. System administrator: Import the settings for Operational Contents and access permissions to the execution environment.

   For details about the import method, see *6.5.2 Importing Operational Contents*.

   Note that if you are using a directory server for user authentication, you can also import only the access permission groups. For details, see *6.4.4(1) How to export and import only access permission groups*.

After you have completed the tasks explained here, notify the users of the URL and start the operation of the Operational Contents. For details about the URL to be provided to the users, see *2.1.3 URLs used to access Navigation Platform windows*.

If the Search tab is displayed

If you have added, edited, or deleted Operational Contents, you will have to update the search data. If you have published Operational Contents or made Operational Contents private, also update the search data. For details about how to update search data, see *6.8 Updating search data*.

6.1.2 Tasks required when plugins and custom windows are used

The following figure shows the general procedure for starting operation after setup of Navigation Platform has been completed when plugins and custom windows developed in the development environment are used.

Figure 6–2: Tasks required for starting operation after setup has been completed (when using plugins and custom windows)
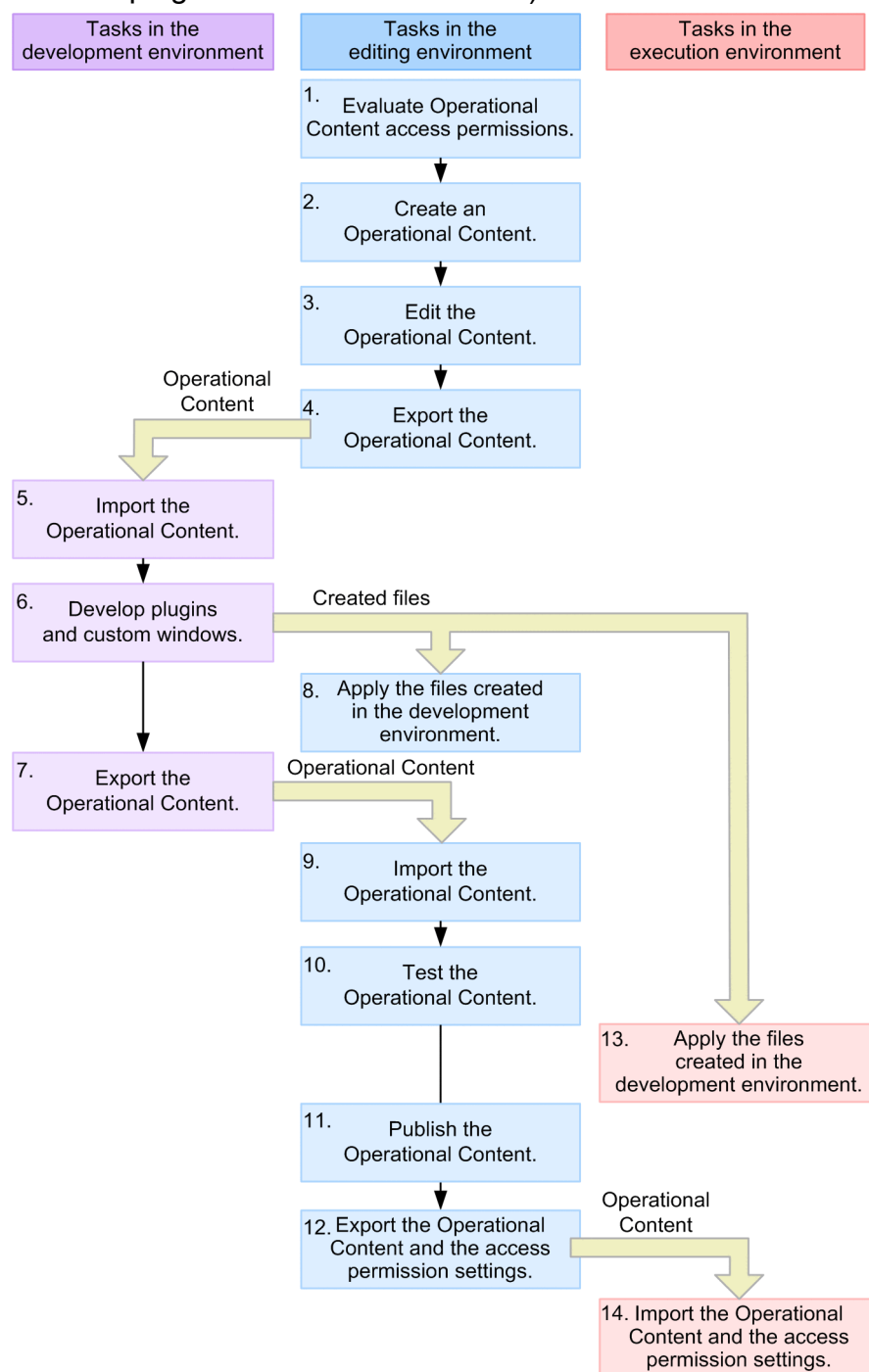
The access permission settings depend on the access permission group or the JP1 resource group set in the Operational Content.

Who is to perform each task indicated in the figure is explained below. For details about the tasks that are to be performed by Content Managers, Content Creators (when JP1/Base is used for user authentication), and Content Editors, see the manual *JP1/Navigation Platform Content Editing Guide*. For details about the tasks that are to be performed by developers, see the manual *JP1/Navigation Platform Development Guide*.

1. System administrator: Evaluate the handling of Operational Content access permissions, such as the users who will be creating Operational Contents and the publishing range of the Operational Contents.

   For each Operational Content, evaluate which users will be creating, editing, and using the Operational Content.

- When using a directory server for user authentication

  Create access permission groups, if necessary.

  If only the default standard access permissions are used, only the system administrator can create and edit Operational Contents. The completed Operational Contents can be used by all users who log in to Navigation Platform.

  If you want to perform operations that cannot be achieved only with the default standard access permissions (for example, if you want to publish some Operational Contents only to specific users, if users other than the system administrator will be creating and editing Operational Contents, or if you want to protect Operational Contents from being edited by Content Editors when testing the Operational Contents), you will have to create access permission groups in the editing environment.

  For details about the access permissions, see *6.2 Setting access permissions for Operational Contents (when using a directory server for user authentication)*. For details about how to set access permissions for users, see *6.4.1 Procedure for creating access permission groups*.

- When using JP1/Base for user authentication

  Make sure that you set JP1 resource groups for Navigation Platform for the JP1 users who will be logging in to Navigation Platform. In addition, if you set a JP1 permission level for each JP1 user as needed, you can perform more specific operations, such as allowing only specific users to edit Operational Contents, creating Operational Contents that are to be published only to specific users, and protecting Operational Contents from being edited by Content Editors when the Operational Contents are tested.

  Because you will be setting JP1 resource groups and JP1 permission levels in JP1/Base, consult with the JP1/Base administrator to determine appropriate settings, if necessary.

  For details about the access permissions, see *6.3 Setting access permissions for Operational Contents (when using JP1/Base for user authentication)*.

2. Content Manager or Content Creator: Create and add Operational Contents in the editing environment and set access permission groups or JP1 resource groups.

3. Content Creator or Content Editor: In the editing environment, edit the Operational Contents that have been added.

4. System administrator: Export the Operational Contents created in the editing environment.

   For details about the export method, see *6.5.1 Exporting Operational Contents*.

5. System administrator (developer): Import the Operational Contents to the development environment.

   For details about the import method, see *6.5.2 Importing Operational Contents*.

6. System administrator (developer): In the development environment, develop plugins and custom windows.

7. System administrator (developer): Export the Operational Contents that were updated in the development environment.

8. System administrator: Apply the files created in the development environment to the editing environment.

   For details about how to apply files that have been created in the development environment, see *6.6 Applying the files created in the development environment*.

9. System administrator: Import the Operational Contents that were updated in the development environment to the editing environment.

   Check and, if necessary, revise the access permission settings for the imported Operational Contents.

10. Content Manager, Content Creator, and Content Editor: In the editing environment, test the operation of the Operational Contents.

    To protect an Operational Content from being edited by the Content Editor until the operation of the Operational Content has been tested and then published, the Content Manager or the Content Creator can take the following action:

    - Change the Operational Content's current access permission group or JP1 resource group to a different group so that the Content Editor cannot edit the Operational Content.

11. Content Manager: Publish the Operational Contents.

If an Operational Content's access permission group was changed in step 10:

The Content Manager or the Content Creator must change the access permission group or the JP1 resource group back to the original group so that the Content Editor can edit the Operational Content.

12. System administrator: Export the Operational Contents that have been tested in the editing environment.

If you are using access permission groups, also export the access permission groups that have been set for the Operational Contents. There is no need to export JP1 resource groups.

13. System administrator: Apply the files created in the development environment to the execution environment.

For details about how to apply files that have been created in the development environment, see *6.6 Applying the files created in the development environment*.

14. System administrator: Import the settings for the Operational Contents and access permissions that have been tested in the editing environment to the execution environment.

After you have completed the tasks explained here, notify the users of the URL and start the operation. For details about the URL to be provided to the users, see *2.1.3 URLs used to access Navigation Platform windows*.

If there is no editing environment

You can use Operational Contents in a system configuration that consists of only a development environment and an execution environment. In such a case, you must perform in the development environment the tasks that are normally performed in the editing environment.

If the development environment is also used as the editing environment, there is no need to migrate (such as import) data between the editing environment and the development environment. Therefore, make the following changes to the tasks explained in this subsection:

- Perform in the development environment the tasks that are performed in the editing environment.

- Skip steps 4, 5, and 7 to 9.

If the Search tab is displayed

If you have added, edited, or deleted Operational Contents, you will have to update the search data. If you have published Operational Contents or made Operational Contents private, also update the search data. For details about how to update search data, see *6.8 Updating search data*.

6.2 Setting access permissions for Operational Contents (when using a directory server for user authentication)

Navigation Platform enables you to set access permissions for each Operational Content. Create access permission groups, if necessary, in the following cases:

- Some Operational Contents must be published only to specific users.

- You want to allow users other than the system administrators to create and manage Operational Contents.

- You need users whose only role is to edit the existing Operational Contents.

You need access permission groups to set access permissions for Operational Contents. Either use the provided default access permission group called **Standard access permissions** or create access permission groups. Only a user with Navigation Platform's system administrator permissions can create access permission groups.

> 💡 **Tip**
>
> If the access permission group setting is left at the default **Standard access permissions**, the only users who will be able to reference Operational Contents will be users with system administrator permissions. If you want to allow other uses to create and edit Operational Contents, take one of the following steps to grant the privileges of administrators or editors to the other users who are not system administrators:
>
> - Change the definition of **Standard access permissions**.
> - Create new access permission groups.

To set access permissions for Operational Contents:

1. The system administrator creates access permission groups.

   In the editing environment, create access permission groups with administrator, editor, or user permissions defined for other users.

2. The Content Manager (user with administrator permissions granted) adds new Operational Contents and sets access permission groups.

   If there is no Content Manager, the system administrator must also perform this task. For details about how to set access permission groups for Operational Contents, see the manual *JP1/Navigation Platform Content Editing Guide*.

6.2.1 Access permission types and setting ranges (when using a directory server for user authentication

You can set access permissions for Operational Contents for a group or for a user. For example, you can define different access permissions for the same Operational Content for different groups or users, such as the users belonging to group A can only reference the Operational Content, while the users belonging to group B and user C can not only reference the Operational Content but can also add Operational Contents. An access permission group set for a group or a user is called an *access permission group*.

There are three types (roles) of access permissions that can be defined for access permission groups:

- Administrator

  A user that has the role of administrator is called a *Content Manager*.

- Editor

  A user that has the role of editor is called a *Content Editor*.

- User

For the ranges (targets) of these roles, you can select any of the following three types:

- User

  Access permissions are set for each user who logs in to Navigation Platform.

- Group

  If Active Directory is used for user authentication, access permissions can be set for each member group for Active Directory.

- All

  Access permissions are set for all users who log in to Navigation Platform except for system administrators.

6.2.2 Access permission types and permitted operations (when using a directory server for user authentication)

The following table shows the correspondence between the access permission types (roles) that can be defined for access permission groups and the permitted operations.

Table 6–1: Correspondence between access permission types and permitted operations

No.	Operation	Access permission type (role)		
		Administrator	Editor	User
1	Adding Operational Contents	Y	N	N
2	Copying Operational Contents	Y	N	N
3	Deleting Operational Contents	Y	N	N
4	Editing Operational Contents[1]	Y	Y	N
5	Referencing Operational Contents[2]	Y	Y	Y
6	Unlocking Operational Contents	Y	N	N
7	Making Operational Contents public or private	Y	N	N
8	Checking detailed information for each version	Y	Y	N
9	Checking differences compared with previous versions	Y	Y	N
10	Renaming Operational Contents	Y	N	N
11	Changing Operational Contents' groups	Y	N	N
12	Setting access permission groups for Operational Contents (editing permissions)	Y	N	N
13	Checking the access permission groups set for Operational Contents	Y	Y	N
14	Setting related links	Y	Y	N

Legend:

Y: Operation is permitted.

N: Operation is not permitted.

#1

Editing refers to operations such as starting editing, finishing editing, discarding edits, and printing that can be performed on an Operational Content that is displayed in the Operational Content Editing Window.

#2

Referencing refers to operations such as printing and retrieving URLs that can be performed on an Operational Content that is displayed in the Operational Content Execution Window.

6.2.3 Standard access permissions

Standard access permissions is the default access permission group provided by Navigation Platform.

The following is the default definition for the standard access permissions:

- Role: User
- Target: All

You can change the default definition of the standard access permissions, except for the following:

- Renaming the access permission group called **Standard access permissions**
- Deleting the access permission group called **Standard access permissions**

> 💡 **Tip**
>
> If no new access permission group is created, the standard access permissions are always set because at least one access permission group must be set for Operational Contents.

6.2.4 Notes about setting access permissions (when using a directory server for user authentication)

This subsection provides notes about creating multiple access permission groups.

If you register a user into multiple different access permission groups and grant different access permission types (roles) to that user by means of these access permission groups, the highest role takes effect for that user. Therefore, special attention is required if you will be setting multiple access permission groups for the same Operational Content. The following shows an example:
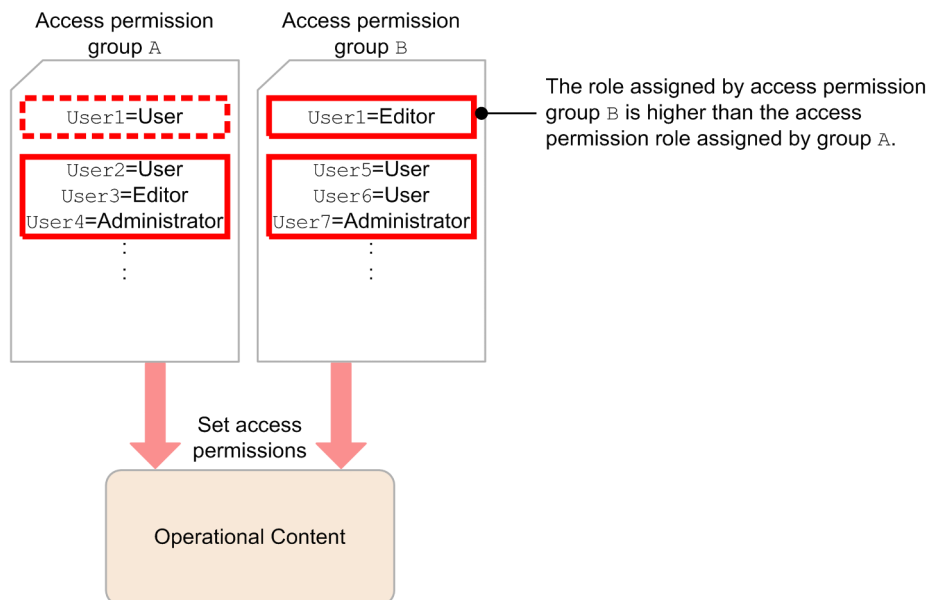
Legend:

☐ : Definition that takes effect

⬚ : Definition that is ignored

`User1` is assigned the role of user by access permission group `A` and the role of editor by access permission group `B`. If access permission groups `A` and `B` are both set for the same Operational Content, only the definition of access permission group `B` that contains the higher role takes effect. Therefore, `User1` can use the Operational Content as a Content Editor.

6.2.5 Compatibility of access permissions with older versions

The access permission types (permissions) supported by uCosminexus Navigation Platform versions earlier than 09-50 (hereafter called versions earlier than 09-50) correspond to the access permission types (roles) supported by Navigation Platform as shown in the table below.

Table 6–2: Correspondence to the permission types of older versions

No.	Type (permissions) supported by versions earlier than 09-50	Types (roles) supported by Navigation Platform
1	All	Administrator
2	Update	Editor
3	Reference	User

The following explains the actions to take if you have been using the following access permission settings in versions earlier than 09-50:

If you have set only the standard access permissions:

In versions earlier than 09-50, the **Update** permission enables you to rename Operational Contents and change groups. In Navigation Platform, **Editor** cannot perform these operations. To enable users with the **Update** permission

to also rename Operational Contents and change groups in Navigation Platform, evaluate the definition of access permission groups and change their role to **Administrator**.

If you have set an access permission group other than the standard access permissions:

In older versions, the **All** permission does not allow addition (creation) or copying of Operational Contents. In Navigation Platform, **Administrator** can perform these operations. To not permit addition and copying of Operational Contents also in Navigation Platform, evaluate the definition of access permission groups and change the role to **Editor**.

In versions earlier than 09-50, the **Update** permission enables you to rename Operational Contents and change groups. In Navigation Platform, **Editor** cannot perform these operations. To enable users with the **Update** permission to also rename Operational Contents and change groups in Navigation Platform, evaluate the definition of access permission groups and change their role to **Administrator**.

6.2.6 Items in the Access Permissions window (when using a directory server for user authentication)

The following shows the Access Permissions window that is displayed when an access permission group is selected.

Figure 6–3: Access Permissions window

The Access Permissions window consists of the **Access Permission Groups** area on the left and the **Edit Access Permission Groups** on the right. The following explains the items displayed in each of these areas.

(1) Add menu

When this menu is selected, the **Edit Access Permission Groups** area is displayed in the area on the right side of the Access Permissions window. If you specify the name of an access permission group and a user that you want to add and then click the **OK** button, the specified access permission group is displayed in the **Access Permission Groups** area.

(2) Delete menu

When this menu is selected, the access permission groups whose check boxes are selected are deleted. When no check box is selected, the **Delete** menu is disabled and cannot be selected.

(3) Close menu

When this menu is clicked, the Access Permissions window closes. Any change that has not been saved by clicking the **OK** button will be discarded.

(4) Access permission group name

The access permission group names that have been saved are displayed with check boxes. If you click the name part, the Edit Access Permission Groups window is displayed in the **Edit Access Permission Groups** area, so that you can change the access permission group settings.

The default access permission group **Standard access permissions** is always displayed even when no access permission group has been created.

(5) Access permission group name text box

This text box is used to enter or change access permission group names. An access permission group name cannot be omitted. Make sure that you enter a character string of up to 255 bytes. This character string cannot contain control characters (ASCII codes `0x00` to `0x1F` and `0x7F`). This cannot be the name of an existing access permission group.

(6) Role drop-down list

Select the access permission that you want to set. Select **Administrator**, **Editor**, or **User**. If you click the question mark (`?`) displayed to the right of the drop-down list, a list of operations that can be performed by each role and an example definition of the access permission group are displayed in separate windows.

(7) Target drop-down list

Select the target of the access permission. You can select **User**, **Group**, or **All**.

(8) ID text box

Enter the ID for which the access permission is to be set. If you have selected **User** or **Group** from the **Role** drop-down list, you cannot omit an ID.

(9) Add button

When this button is clicked, the specified access permission is added to **Users and Groups** and **Add User or Group** is reset to its default status.

(10) Users and Groups

The users and groups for which access permissions have been defined are displayed.

(11) Delete button

When this button is clicked, the user or group for which access permissions have been defined is deleted.

(12) OK button

When this button is clicked, the changes made in the **Edit Access Permission Groups** area are saved. If you changed the contents of the **Access permission group name** text box, the new name is displayed in the **Access Permission Groups** area.

(13) Cancel button

When this button is clicked, changes made in the **Edit Access Permission Groups** area are discarded and the information displayed in the area is erased.

6.3 Setting access permissions for Operational Contents (when using JP1/Base for user authentication)

You can set access permissions for Operational Contents by setting JP1 permission levels together with JP1 resource groups for JP1 users who have been registered in JP1/Base.

The following describes the general procedure for setting access permissions for Operational Contents:

1. Set JP1 permission levels and JP1 resource groups in JP1/Base.

   Because this task is performed in JP1/Base, consult with the JP1/Base administrator to determine appropriate settings.

2. The Content Manager (user with administrator permissions granted) or the Content Creator (user with creator permissions granted) adds Operational Contents and sets JP1 resource groups.

   For details about how to set JP1 resource groups for Operational Contents, see the manual *JP1/Navigation Platform Content Editing Guide*.

6.3.1 Access permission types and setting ranges (when using JP1/Base for user authentication)

When JP1/Base is used for user authentication, the access permission types to be set for Operational Contents are determined by the JP1 permission level and the access permission setting ranges by JP1 resource group.

For example, if you want to allow JP1 user A to only reference Operational Contents and JP1 users B and C to reference and add Operational Contents, set a JP1 permission level for user A and a different JP1 permission level for users B and C. Provide different usages for the JP1 resource groups depending on whether the JP1 permission levels are to be applied to all Operational Contents or only to specific Operational Contents.

For details about the JP1 permission levels and the JP1 resource groups that are used in Navigation Platform, see *4.3.1 JP1 resource groups supported by Navigation Platform* and *4.3.2 JP1 permission levels supported by Navigation Platform*.

6.3.2 Access permission types and permitted operations (when using JP1/Base for user authentication)

When JP1/Base is used for user authentication, the actual operations permitted for users depend on the combination of the JP1 resource group and the JP1 permission level. If the same JP1 permission level is set but the JP1 resource groups are different, the permitted operations might be different.

For example, the operations permitted for a user whose JP1 permission level is a Content Editor depend on the JP1 resource group to which this user belongs, as follows:

- JP1 resource group for the entire system

  The user can edit and reference all Operational Contents in the system.

- JP1 resource group for each Operational Content

  The user can edit and reference only those Operational Contents for which the corresponding JP1 resource group has been set.

For details about the operations that depend on the combination of JP1 resource group and JP1 permission level, see *4.3.3 Combinations of JP1 resource groups and JP1 permission levels*.

6.3.3 Notes about setting access permissions (when using JP1/Base for user authentication)

If you register a user into multiple different JP1 resource groups and assign different JP1 permission levels to that user by means of these JP1 resource groups, the highest JP1 permission level takes effect for that user. Therefore, special attention is required if you will be setting multiple JP1 resource groups for the same Operational Content. The following shows an example:
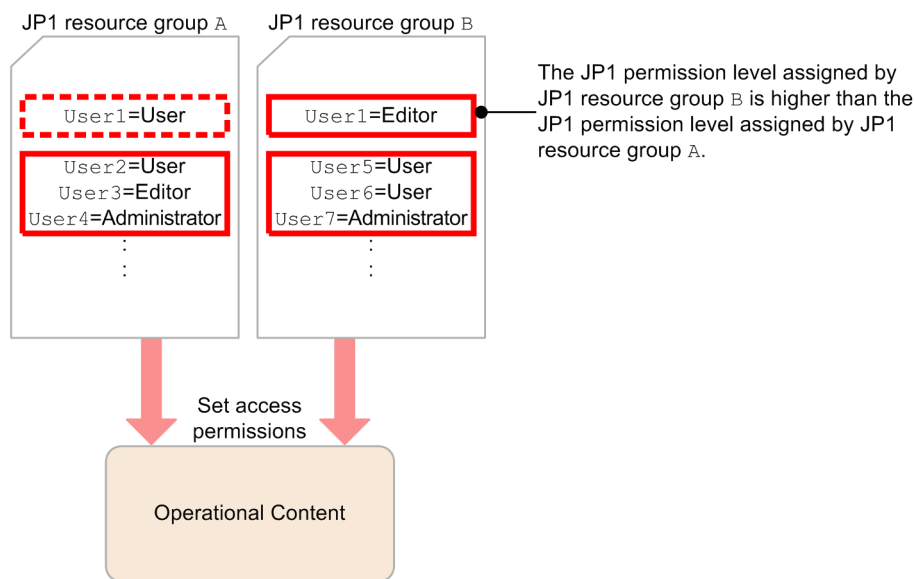
`User1` is assigned the JP1 permission level of user by JP1 resource group `A` and the JP1 permission level of editor by JP1 resource group `B`. If JP1 resource groups `A` and `B` are both set for the same Operational Content, only the definition of JP1 resource group `B` that contains the higher JP1 permission level takes effect. Therefore, `User1` can use the Operational Content as a Content Editor.

6.3.4 Notes about operations on JP1 resource groups

Operations including addition, change, and deletion of JP1 resource groups involve JP1/Base. When you evaluate the JP1 resource group names in the entire system, you must also evaluate the `ucnp.base.server.jp1auth.system.resource.group` property values in the user property file (`ucnp_user.properties`). For details about how to operate JP1/Base, see the *JP1/Base User's Guide*.

6.4 General procedure for managing accesses to Operational Contents (when using a directory server for user authentication)

When no user authentication is performed or when a directory server is used for user authentication, the following procedure is used to manage accesses to Operational Contents:

1. The system administrator creates access permission groups in the editing environment.

2. The Content Manager creates Operational Contents in the editing environment and sets access permission groups.

3. The system administrator exports the access permission groups from the editing environment to the execution environment.

6.4.1 Procedure for creating access permission groups

This subsection explains the procedure for creating access permission groups in the Access Permissions window. Note the following when you create access permission groups:

- A maximum of 100 access permission groups can be created.

- A maximum of 64 users and groups combined can be defined per access permission group. If you need to define many users in one access permission group, we recommend that you define those users as a group.

To create access permission groups:

1. In the web browser, specify the following URL to display the login window:

   ```
   http://host-name:port-number/ucnpBase/portal/screen/TitlePortlet/portlet/ucnp/
   pane/-44Ob44O844Og55S76Z2i/layout_id/default/tab_id/-44Ob44O844Og55S76Z2i?
   start_editor=true&open_editor=true
   ```

   - *host-name*
     This is the host name or IP address of the J2EE server machine for Navigation Platform.
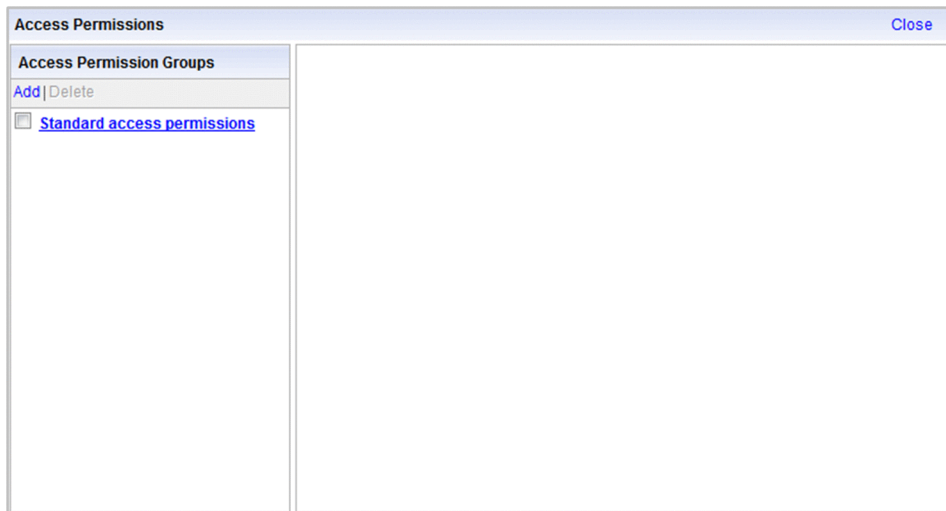
   - *port-number*
     This is the port number of the web server for Navigation Platform. It is the value of the `ucnp.setup.server.cosminexus.hws.http.port` property in the user setup property file (`ucnp_setup_user.properties`).

2. Enter your user ID and password, and then click the **Login** button.

Enter a user ID with Navigation Platform's system administrator permissions (the default is `user1`) and the password. The Operational Content Editing Window is displayed.

3. Select the **Access Permissions** menu located at the top (header area) of the Operational Content Editing Window. The Access Permissions window is displayed.

4. From the **Access Permission Groups** area, click the **Add** menu.

   The **Edit Access Permission Groups** area is displayed on the right side of the window.
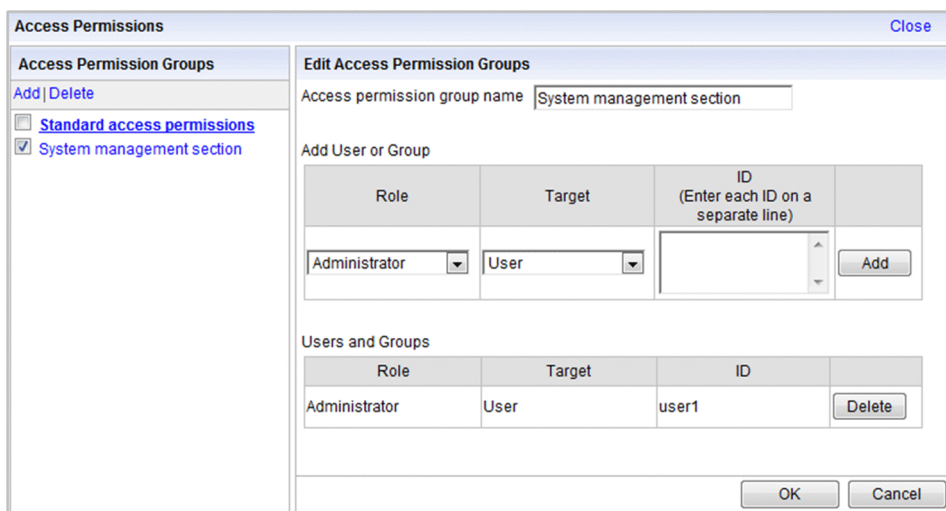
5. In the **Access permission group name** text box, enter the name of an access permission group.

   You can enter a maximum of 255 bytes of characters for an access permission group name. A character string containing control characters (ASCII codes `0x00` to `0x1F` and `0x7F`) is not permitted. Make sure that you enter the name of an access permission group.

6. From the **Role** drop-down list under **Add User or Group**, select an access permission type.

   For details about the operations permitted for each access permission type (role), see the window that is displayed by clicking the icon that is displayed next to the header of the drop-down list.

7. From the **Target** drop-down list, select the range for which the access permission is to be set.

   If you want to set access permission for a user
   > Select **User**.

   If you want to set access permission for a group
   > Select **Group**.

   If you want to set access permission for all users
   > Select **All**.

   User means a user who can log in to Navigation Platform.

Group means a group that has been registered in the directory server.

8. If the target is not **All**, enter in the **ID** text box the ID of the user or the group for which you want to set the access permission.

   You can enter a maximum of 254 bytes of characters as an ID. If the target is not **All**, entry of this item is mandatory. Note that a character string containing control characters (ASCII codes `0x00` to `0x1F` and `0x7F`) is not permitted.

9. Click the **Add** button.

   The definition of the access permission is displayed in **Users and Groups**.

   To set the access permission for another target, repeat steps 6 to 9.

10. Click the **OK** button.

   The information displayed in **Users and Groups** is saved and the access permission group name entered in step 5 is displayed in the **Access Permission Groups** area.

> 📄 **Note**
>
> If you click a menu in the **Access Permission Groups** area while you are editing an access permission group in the **Edit Access Permission Groups** area, a message is displayed asking whether the current access permission group that has not been saved is to be discarded. In such a case, handle this message as follows:
>
> - To not save the current access permission group that is being edited
>   Click the **OK** button in the dialog box.
>
> - To save the current access permission group that is being edited
>   Click the **Cancel** button in the dialog box.
>
>   After that, click the **OK** button in the Edit Access Permission Groups window to save the current access permission group that is being edited, and then click the **Add** menu or the **Delete** menu.

6.4.2 Procedure for changing the definitions of access permission groups

This subsection explains the procedure for changing the definitions of access permission groups in the Access Permissions window. When you change the definitions of access permission groups, note the following:

- If you delete a user defined as a Content Manager or change such a user to a Content Editor or a user, problems might occur in tasks because Operational Contents can no longer be renamed or groups can no longer be changed.

- If you rename an access permission group, the Content Manager might no longer be able to determine that the access permission group before the change is the same as the access permission group after the change. If you have changed the name, we recommend that you notify the Content Manager.

1. In the web browser, specify the following URL to display the login window:

   ```
   http://host-name:port-number/ucnpBase/portal/screen/TitlePortlet/portlet/ucnp/
   pane/-44Ob44O844Og55S76Z2i/layout_id/default/tab_id/-44Ob44O844Og55S76Z2i?
   start_editor=true&open_editor=true
   ```

   - *host-name*
     This is the host name or IP address of the J2EE server machine for Navigation Platform.

   - *port-number*

This is the port number of the web server for Navigation Platform. It is the value of the `ucnp.setup.server.cosminexus.hws.http.port` property in the user setup property file (`ucnp_setup_user.properties`).

2. Enter your user ID and password, and then click the **Login** button.

Enter a user ID with Navigation Platform's system administrator permissions (the default is `user1`) and the password. The Operational Content Editing Window is displayed.

3. Select the **Access Permissions** menu located at the top (header area) of the Operational Content Editing Window.

The Access Permissions window is displayed.

4. In the **Access Permission Groups** area, click the name of the access permission group whose definition is to be changed.

The definition of the access permission group is displayed in the Edit Access Permission Groups window.
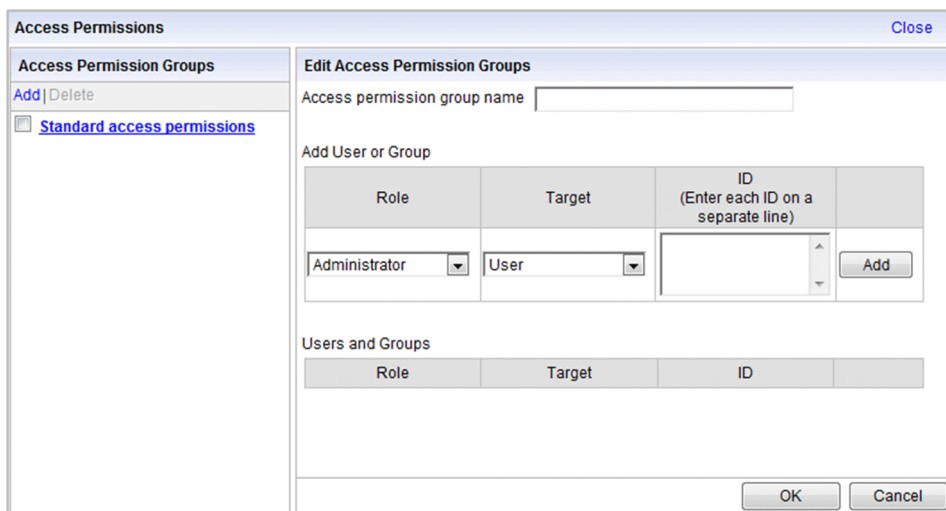
5. Change the access permission group name, role of user or group, target, or ID.

- When changing the access permission group name

  Change the contents of the **Access permission group name** text box.

- When changing or deleting the role of user or group, target, or ID

  If you want to change an existing user or group, first delete that user or group, and then add a new user or group.

First, in **Users and Groups**, click the **Delete** button for the user or group that you want to change. Next, in **Add User or Group**, set a new role, target, and ID, and then click the **Add** button.

6. Click the **OK** button.

The change to the definition of the access permission group is saved.

6.4.3 Procedure for deleting access permission groups

This section explains the procedure for deleting access permission groups in the Access Permissions window. Deletion of access permission groups must be performed in each environment. Note the following about deleting access permission groups:

- If you delete an access permission group, problems might occur in tasks because a user that had been defined as a Content Manager or a Content Editor in that access permission group can now only reference Operational Contents.

- The access permission group **Standard access permissions** cannot be deleted.

- If an access permission group to be deleted has been set as the only access permission group for any of the Operational Contents, that access permission group cannot be deleted.

1. In the web browser, specify the following URL to display the login window:

```
http://host-name:port-number/ucnpBase/portal/screen/TitlePortlet/portlet/ucnp/
pane/-44Ob44O844Og55S76Z2i/layout_id/default/tab_id/-44Ob44O844Og55S76Z2i?
start_editor=true&open_editor=true
```

- *host-name*

This is the host name or IP address of the J2EE server machine for Navigation Platform.

- *port-number*

This is the port number of the web server for Navigation Platform. It is the value of the `ucnp.setup.server.cosminexus.hws.http.port` property in the user setup property file (`ucnp_setup_user.properties`).

2. Enter your user ID and password, and then click the **Login** button.

Enter a user ID with Navigation Platform's system administrator permissions (the default is `user1`) and the password. The Operational Content Editing Window is displayed.

3. Select the **Access Permissions** menu located at the top (header area) of the Operational Content Editing Window to display the Access Permissions window.

4. In the **Access Permission Groups** area, select the check box for the access permission group that you want to delete.

To delete multiple access permission groups at once, select the check boxes of all the access permission groups that you want to delete.

5. In the **Access Permission Groups** area, click the **Delete** menu.

A dialog box confirming whether the access permission groups are to be deleted is displayed.

6. In the dialog box, click the **OK** button.

The access permission groups selected in step 4 are deleted.

6.4.4 Exporting and importing access permission groups

You can export to the execution environment access permission groups created in an editing environment or import them to another editing environment. There are two ways of exporting access permission groups, one that exports only access permission groups and one that exports access permission groups together with the Operational Contents. The following explains these two methods.

(1) How to export and import only access permission groups

To export and import only access permission groups:

1. Log in to the machine in the editing environment.

2. From the command prompt, execute the `npaclexport` command (export access permission groups).

Example:

Navigation-Platform-installation-directory`\bin\npaclexport C:\work\accessgroup.zip`

When this command is executed exactly as shown in the example, information about all access permission groups is exported to the `accessgroup.zip` file and stored in the `work` directory.

3. Log in to the machine in the import target execution environment or editing environment.

4. Store the file acquired by the `npaclexport` command in a desired directory.

5. From the command prompt, execute the `npimport` command (import Operational Contents).

Example:

Navigation-Platform-installation-directory`\bin\npimport -f C:\work\accessgroup.zip`

When this command is executed exactly as shown in the example, information about the access permission groups in the `accessgroup.zip` is imported. If an access permission group with the same name already exists at the import destination, its definition will be overwritten.

(2) Exporting and importing access permission groups together with Operational Contents

To export and import access permission groups together with Operational Contents:

1. Log in to the machine in the editing environment.

2. From the command prompt, execute the `npexport` command (export Operational Contents).

   Example:

   > *Navigation-Platform-installation-directory*`\bin\npexport C:\work\contents.zip`

   When this command is executed exactly as shown in the example, information about all Operational Contents and access permission groups is exported to the `contents.zip` file and stored in the `work` directory.

3. Log in to the machine in the import target execution environment or editing environment.

4. Store the file acquired by the `npexport` command in a desired directory.

5. From the command prompt, execute the `npimport` command (import Operational Contents).

   Example:

   > *Navigation-Platform-installation-directory*`\bin\npimport -f C:\work\contents.zip`

   When this command is executed exactly as shown in the example, information about the Operational Contents and access permission groups in the `contents.zip` is imported. If an Operational Content with the same ID or an access permission group with the same name already exists at the import destination, its contents will be overwritten.

6.4.5 Example of access permission group creation

This subsection explains an example of access permission group creation (example definition). For details about the operations corresponding to the access permission types (roles) that can be defined in access permission groups, see *6.2.2 Access permission types and permitted operations (when using a directory server for user authentication)*.

When allowing all users to add, edit, and reference Operational Contents

- Role: Administrator

  Target: All

  ID: Blank (not specified)

If an access permission group defined as shown above is created, all users who can access Navigation Platform become Content Managers.

When allowing only specific users to add and edit Operational Contents and all users to reference the Operational Contents

- Role: Administrator

  Target: User

  ID: `userA`

- Role: Editor

Target: User

ID: `userB`

- Role: User

    Target: All

    ID: Blank (not specified)

If access permission groups defined as shown above are created and a user logs in to Navigation Platform using ID `userA`, that user becomes a Content Manager. If this user logs in to Navigation Platform using ID `userB`, that user becomes a Content Editor. If a user logs in with an ID other than `userA` or `userB`, that user is treated as a user.

When setting access permissions for each group managed by Active Directory

- Role: Administrator

    Target: Group

    ID: `groupA`

- Role: User

    Target: Group

    ID: `groupB`

If access permission groups defined as shown above are created and a user logs in to Navigation Platform using the ID of a user who belongs to `groupA`, that user becomes a Content Manager. If this user logs in to Navigation Platform using the ID of a user who belongs to `groupB`, that user becomes a user. If there are many users and Active Directory is used to manage groups, you can reduce the frequency of re-evaluating the definitions by defining the access permission groups also in groups, thereby improving efficiency.

6.5 Exporting and importing Operational Contents

If the server machine on which the editing environment or the development environment is configured differs from the server machine on which the execution environment is configured, you will have to export the Operational Contents created in the editing environment or the development environment and import those same Operational Contents to the execution environment.

To export and import Operational Contents, use the commands provided by Navigation Platform. For details about the commands to be used and their usage, see *Chapter 9. Commands*.

The information that can be exported and imported is the data for Operational Contents and the access permission settings (access permission groups or JP1 resource groups). Note that any static files that are used in Operational Contents must be managed separately because static files cannot be exported or imported by the commands. For details, see *6.9 Managing the static files used in Operational Contents*.

> 💡 **Tip**
>
> - Depending on the command used, you can export and import only Published Versions.
> - Even when all environments are configured on one machine, you can use the export operation for backup purposes.

> ❗ **Important**
>
> Export and import operations use the folder specified in the `TMP` or `TEMP` environment variable as a work folder. Therefore, provide sufficient disk space for the folder specified in the `TMP` or `TEMP` environment variable when you perform export and import operations.

6.5.1 Exporting Operational Contents

To export only Operational Contents that have been saved in the editing environment or the development environment:

1. Log in to the machine in the editing environment or the development environment.

2. From the command prompt, execute the `npexport` command (export Operational Contents) command or the `nppubexport` command (export Published Versions of Operational Contents).

   Example:

   > *Navigation-Platform-installation-directory*`\bin\npexport -x C:\work\contents.zip`
   > *Navigation-Platform-installation-directory*`\bin\nppubexport -x C:\work\contents.zip`

   When the command is executed exactly as shown in the example, information about all applicable Operational Contents is exported to the `contents.zip` file and stored in the `work` directory.

   Note that this example assumes that a directory server is used for user authentication and it is not desirable to overwrite information about the access permission groups.

For details about the export command, see *9.8 npexport command (export Operational Contents)* and *9.12 nppubexport command (export Published Versions of Operational Contents)*.

6.5.2 Importing Operational Contents

This subsection explains how to import Operational Contents that have been exported by the `npexport` command (export Operational Contents). You can perform import operations in all environments.

To import Operational Contents:

1. Log in to the machine in the import target environment.

2. Export the Operational Contents in the import target environment for backup purposes.
   For details about the procedure, see *6.5.1 Exporting Operational Contents*.

3. Store in any directory the file that was acquired from the import-source environment by the `npexport` command.

4. From the command prompt, execute the `npimport` command (import Operational Contents) or the `nppubimport` command (import Published Versions of Operational Contents).

   Example:

   > *Navigation-Platform-installation-directory*`\bin\npimport -f -x C:\work\contents.zip`

   > *Navigation-Platform-installation-directory*`\bin\nppubimport -f -x C:\work\contents.zip`

   When the command is executed exactly as shown in the example, only information about the Operational Contents contained in the `contents.zip` file is imported. If an Operational Content with the same ID already exists at the import destination, its contents are overwritten.

   Note that this example assumes that a directory server is used for user authentication and it is not desirable to overwrite information about the access permission groups.

For details about the import command, see *9.10 npimport command (import Operational Contents)* and *9.13 nppubimport command (import Published Versions of Operational Contents)*.

6.6 Applying the files created in the development environment

In the development environment, plugins and custom windows are developed as J2EE applications. In the editing environment or the execution environment, files such as the EAR files of the J2EE application created in the development environment are received and then applied to the system.

> **❗ Important**
>
> When the files related to User Plugins are received from the development environment, the following property key values must be unique in the target editing environment or execution environment:
>
> - `userplugin.id`
> - `userplugin.name`
> - `userplugin.server.controller.ioaction.type` (applicable only to I/O Plugins)
>
> These property keys are specified when templates for User Plugins are created. If these property key values are duplicated in the same environment, operation is not guaranteed.

6.6.1 Files that are received from the development environment

Developed plugins and the files that are used in the plugins are received from the development environment. The following table lists and describes the files that are received from the development environment.

Table 6–3: List of files that are received from the development environment

No.	Storage location in the development environment	File name	Description
1	*Navigation-Platform-for-Developers-installation-directory*\pluginSDK\dest	*plugin-name*.ear	Check the plugin name with the developer.
2	*Navigation-Platform-for-Developers-installation-directory*\usrlib\sys	*library-name*.jar	This file exists only when a library is used in the plugin. Check the library name with the developer.
3	*Navigation-Platform-for-Developers-installation-directory*\PP\uCPSB\CC\server\usrconf\ejb\uCNP_J2EE	usrconf.properties	None.
4	*Navigation-Platform-for-Developers-installation-directory*\PP\uCPSB\CC\server\usrconf\ejb\uCNP_J2EE	usrconf.cfg	None.
5	Location specified when the resource adapter was added	*Connector-attribute-file-name*.xml	This file exists only when database connection processing is implemented in the plugin. Check the location specified in cjsetrarprop and the file name with the developer.

Store the files received from the development environment at the locations indicated below in the editing environment or the execution environment.

Table 6–4: Storage locations for the files that are received from the development environment

No.	File name	Storage location in the editing environment or the execution environment	Description
1	*plugin-name*.ear	*Navigation-Platform-installation-directory*\plugin_files\ear	None.
2	*library-name*.jar	*Navigation-Platform-installation-directory*\plugin_files\usrlib	None.
3	usrconf.properties	*Navigation-Platform-installation-directory*\plugin_files\j2ee_usrconf	If there are multiple plugins, consolidate the contents of all plugin files into one file.
4	usrconf.cfg	*Navigation-Platform-installation-directory*\plugin_files\j2ee_usrconf	
5	*Connector-attribute-file-name*.xml	*Navigation-Platform-installation-directory*\plugin_files\j2ee_connector	None.

> **💡 Tip**
>
> If you have already applied the files created in the development environment to the editing environment or the execution environment, we recommend that you make a backup of the applied files. For details about the backup target of a User Plugin settings file, see *9.6 npdatabackup command (back up environment)*.

6.6.2 Procedure for applying files received from the development environment for the first time

This subsection explains the procedure for applying the files received from the development environment to the editing environment or the execution environment.

Prerequisites:

In the editing environment or the execution environment to which the files are to be applied, the following conditions must be satisfied:

- Navigation Platform is running.
- There is no User Plugin that has the same name as any of the existing User Plugins.
- No user logs into Navigation Platform until this procedure is completed.

To apply the files received from the development environment:

1. Copy the required files to the specified locations as described in *6.6.1 Files that are received from the development environment*.

2. If the J2EE server settings have been changed in the development environment, apply the contents of the J2EE server settings files (usrconf.properties and usrconf.cfg).

3. If you have added a library file that takes effect on the entire J2EE server in the development environment, store the library file (*library-name*.jar) at the location indicated in *Table 6-3 List of files that are received from the development environment*.

4. If there is a User Plugin that is to be connected to the database, add a resource adapter on the basis of the `Connector` attribute file that has already been copied in step 1.

   For details about how to add resource adapters, see the manual *JP1/Navigation Platform Development Guide*. To determine whether the User Plugin contains database connection processing, check with the User Plugin developer.

5. If you have performed any of steps 2 to 4, restart Navigation Platform.

6. Execute the following command to add the User Plugin to the J2EE server:

```
Navigation-Platform-installation-directory\PP\uCPSB\CC\admin\bin\cjimporta
pp uCNP_J2EE -f "EAR-file-path-of-the-user-plugin"
```

   If there are multiple User Plugins, specify as many `-f` options as needed.

7. Execute the following command to start the User Plugin:

```
Navigation-Platform-installation-directory\PP\uCPSB\CC\admin\bin\cjstartap
p uCNP_J2EE -name user-plugin-name
```

   If the User Plugin name is unknown, check the `userplugin.name` property key value specified in the plugin information property file with the developer.

8. Edit the user property file (`ucnp_user.properties`), if necessary.

   The properties that need to be edited depend on the type of User Plugin. For details about the properties whose settings are required for each User Plugin, see the manual *JP1/Navigation Platform Development Guide*.

9. Restart Navigation Platform.

6.6.3 Procedure for updating files received from the development environment

This subsection explains the procedure for updating the contents of files that have been received from the development environment after they have been applied, based on updates to the User Plugins.

Prerequisites:

   In the editing environment or the execution environment to which the files are to be applied, the following conditions must be satisfied:

   - Navigation Platform is running.

   - No user logs into Navigation Platform until this procedure is completed.

To update the files received from the development environment:

1. Copy the required files to the specified locations as described in *6.6.1 Files that are received from the development environment*.

2. Execute the following command to check the status of the User Plugins to be updated:

```
Navigation-Platform-installation-directory\PP\uCPSB\CC\admin\bin\cjlistapp
 uCNP_J2EE
```

   The status of a User Plugin is displayed to the left of the J2EE application name (User Plugin name):

   - `running`: The User Plugin is running.

- `stopped`: The User Plugin is stopped.

3. If a User Plugin to be updated is running, execute the following command to stop the plugin:

```
Navigation-Platform-installation-directory\PP\uCPSB\CC\admin\bin\cjstopapp
 uCNP_J2EE -name user-plugin-name
```

4. Execute the following command to delete a User Plugin that is to be updated:

```
Navigation-Platform-installation-directory\PP\uCPSB\CC\admin\bin\cjdeletea
pp uCNP_J2EE -name user-plugin-name
```

5. Apply the User Plugin file whose contents have been updated as described in *6.6.2 Procedure for applying files received from the development environment for the first time*.

6. If an updated User Plugin is an I/O Plugin, update the Plugin Parts associated with Operational Contents, if necessary.

For details about the conditions under which the updating of Plugin Parts is required and how to update them, see *6.7 Updating User Plugins (I/O)*.

6.6.4 Procedure for deleting the files received from the development environment

This subsection explains the procedure for deleting the files that have been received from the development environment and that have been applied.

Prerequisites:

In the editing environment or the execution environment to which the files are to be applied, the following conditions must be satisfied:

- Navigation Platform is running.

- No user logs into Navigation Platform until this procedure is completed.

- An I/O Plugin to be deleted is not associated with any Operational Content.

You can check the Operational Contents that are associated with plugins by displaying mapping list files in the Operational Content Editing Window. For details about how to output mapping list files, see the manual *JP1/ Navigation Platform Content Editing Guide*.

To delete the files received from the development environment:

1. Execute the following command to check the status of the User Plugins to be updated:

```
Navigation-Platform-installation-directory\PP\uCPSB\CC\admin\bin\cjlistapp
 uCNP_J2EE
```

The status of a User Plugin is displayed to the left of the J2EE application name (User Plugin name):

- `running`: The User Plugin is running.

- `stopped`: The User Plugin is stopped.

2. If a User Plugin that is to be deleted is running, execute the following command to stop the plugin:

```
Navigation-Platform-installation-directory\PP\uCPSB\CC\admin\bin\cjstopapp
 uCNP_J2EE -name user-plugin-name
```

3. Execute the following command to delete a User Plugin:

```
Navigation-Platform-installation-directory\PP\uCPSB\CC\admin\bin\cjdeletea
pp uCNP_J2EE -name user-plugin-name
```

4. If the J2EE server settings have been changed, apply to the execution environment the contents of the user property file (`usrconf.properties`) for the J2EE server and the option definition file (`usrconf.cfg`) for the J2EE server that have been received from the development environment.

5. If a deleted User Plugin had been using any library file and that library file will not be used by any other User Plugin, delete that library.

   Library files have the extension `.jar` and are stored in the following directory:

   Navigation-Platform-installation-directory\plugin_files\usrlib

6. If you have deleted a library file, verify that the `add.class.path` key specifying the deleted library file has been deleted from the `usrconf.cfg` file.

   `usrconf.cfg` file storage location:

   Navigation-Platform-installation-directory\plugin_files\j2ee_usrconf\usrconf.cfg

7. Delete unneeded resource adapters, if necessary.

   For details about how to delete resource adapters, see the manual *JP1/Navigation Platform Development Guide*.

8. Edit the user property file (`ucnp_user.properties`), if necessary.

   The properties that need to be edited depend on the type of User Plugin. For details about the properties whose settings are required for each User Plugin, see the manual *JP1/Navigation Platform Development Guide*.

9. Restart Navigation Platform.

6.7 Updating User Plugins (I/O)

If a User Plugin that is being used is an I/O Plugin and the `ioaction.xml` file is updated, you must perform such tasks as providing another environment to apply the updated contents and performing mapping again.

This section explains how to update User Plugins (I/O).

6.7.1 Updating User Plugins (I/O)

This subsection explains how to update User Plugins (I/O). The system administrator updates User Plugins (I/O). Update the User Plugins during a maintenance period (while operations are stopped).

For details about the items subject to updating and the processing that is performed during updating, see *6.7.5 Items subject to updating*.

To update User Plugins (I/O):

1. Create a work directory.

2. Execute the command shown below to export all Operational Contents. Also acquire an export list file of exported Operational Contents.

```
Navigation-Platform-installation-directory\bin\npexport -l list-file-outpu
t-target-work-directory\contents_before.zip
```

3. Open the export list file and count the number of Operational Content versions (number of rows excluding one header row and the list of access permission groups).

   Estimate the execution time based on the obtained number of rows. Use the following formula to determine the execution time:

   Execution time for updating Plugin Parts (seconds) = (number of Operational Content versions) × 2

   > 💡 **Tip**
   >
   > If the estimated execution time is longer than the period during which operations can be stopped, you can use the following method to reduce in the Updating Plugin Parts window the number of versions to be updated:
   >
   > - Change the target versions of Operational Contents to **Exclude old Published Versions of Operational Content**. When **Exclude old Published Versions of Operational Content** is selected, the number of versions to be updated is reduced, thereby reducing the execution time. Note that if you update Operational Contents that have been derived from old Published Versions, you will have to place all Plugin Parts again.
   >
   > - Change the setting for whether to include I/O Plugins of the target Operational Contents to **Operational content including the selected I/O Plugins**. This reduces the number of User Plugins (I/O) to be updated, thereby reducing the number of versions to be updated.

4. To enable the maintenance function, specify `true` in the `ucnp.base.server.maintenance.enable` property in the user property file (`ucnp_user.properties`).

5. Restart Navigation Platform.

6. Log in to Navigation Platform with the system administrator's ID and display the Updating Plugin Parts window

7. Perform Plugin Part update processing according to the instructions given in the window.

- Click the **Refresh** button periodically to check the progress of the processing.

- If you want to redo the processing because the number of versions subject to updating that is displayed in the window is more than expected or if you want to stop the processing because the processing cannot be completed within the expected time, click the **Cancel** button.

- If you have stopped the update processing by clicking the **Cancel** button, restart instance of Navigation Platform with `false` specified in the `ucnp.base.server.maintenance.enable` property in the user property file (`ucnp_user.properties`), and then re-import the `contents_before.zip` file that was exported to the work directory.

8. Specify `false` in the `ucnp.base.server.maintenance.enable` property in the user property file (`ucnp_user.properties`).

9. Restart Navigation Platform.

6.7.2 Items in the Updating Plugin Parts window (selecting the update target)

The following shows the Updating Plugin Parts window (selecting the update target).
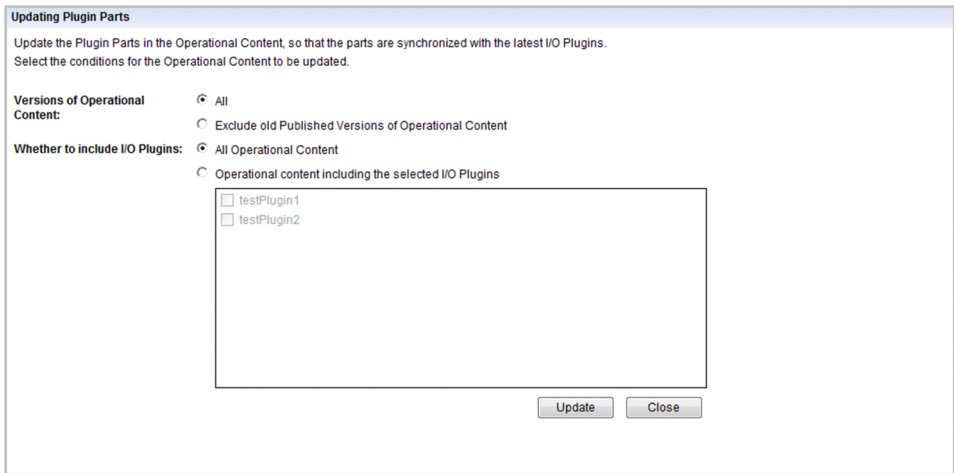
(1) Versions of Operational Content radio buttons

Select the target version. You can select either **All** or **Exclude old Published Versions of Operational Content**.

(2) Whether to include I/O Plugins radio buttons

Select the target plugins (I/O). You can select either **All** or **Operational content including the selected I/O Plugins**. If you select **Operational content including the selected I/O Plugins**, you can select the target plugins (I/O) by using the check boxes. The plugins (I/O) selected by using the check boxes become subject to updating.

(3) Update button

If you click this button, the plugin update processing is performed.

(4) Close button

If you click this button, the Updating Plugin Parts window closes.

When using Microsoft Edge or Google Chrome as your web browser, do not click this button. Click the **X** button in your web browser to close the Updating Plugin Parts window.

6.7.3 Items in the Updating Plugin Parts window (while updating)

The following shows the Updating Plugin Parts window (while updating).
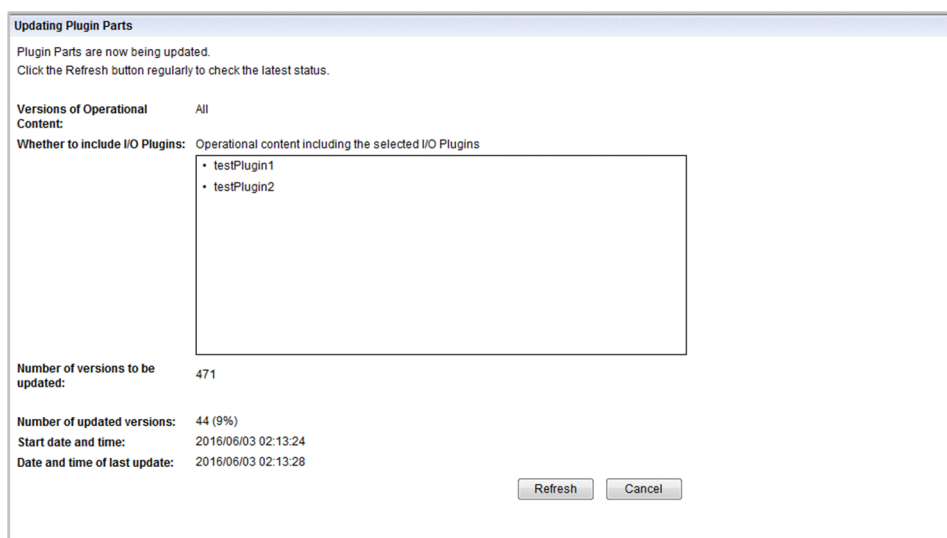
(1) Versions of Operational Content

The target selected in the Updating Plugin Parts window (selecting the update target) is displayed.

(2) Whether to include I/O Plugins

The targets selected in the Updating Plugin Parts window (selecting the update target) are displayed.

(3) Number of versions to be updated

Displays the number of versions to be updated. If the search processing on the versions to be updated has not been completed, this item is not displayed.

(4) Number of updated versions

Displays the number of updated versions and its ratio to the total number of versions. If the search processing on the versions to be updated has not been completed, this item is not displayed.

(5) Start date and time

Displays the date and time the Plugin Parts update processing started.

(6) Date and time of last update

Displays the date and time the Updating Plugin Parts window was updated.

(7) Refresh button

If this button is clicked, the Updating Plugin Parts window is refreshed. Click this button to refresh the progress of the Plugin Parts update processing.

(8) Cancel button

If this button is clicked, a dialog box asking whether the update processing is to be stopped is displayed. If you want to stop the update processing, click the **OK** button in the dialog box.

6.7.4 Items in the Updating Plugin Parts window (completion of update processing)

The following shows the Updating Plugin Parts window (completion of update processing).

(1) Versions of Operational Content

The target selected in the Updating Plugin Parts window (selecting the update target) is displayed.

(2) Whether to include I/O Plugins

The targets selected in the Updating Plugin Parts window (selecting the update target) are displayed.

(3) Number of versions to be updated
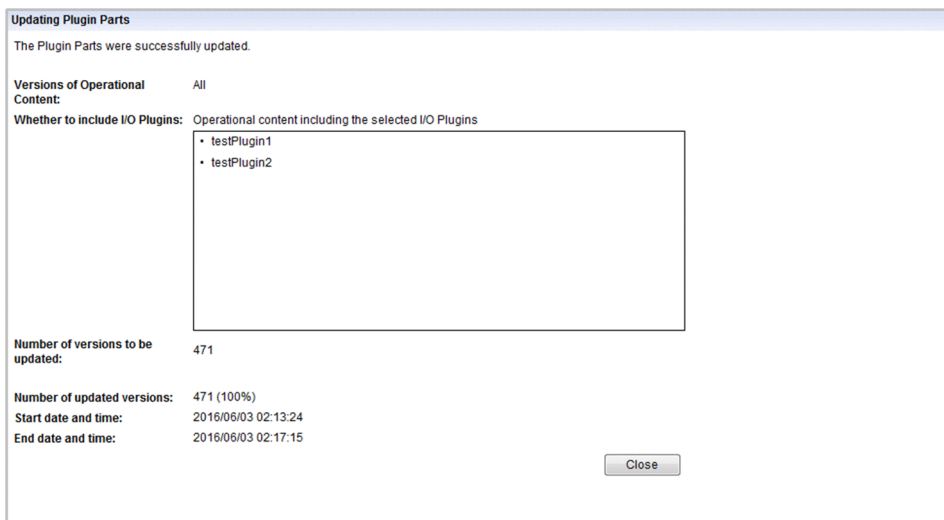
Displays the number of versions to be updated.

(4) Number of updated versions

Displays the number of updated versions and its ratio to the total number of versions.

(5) Start date and time

Displays the date and time the Plugin Parts update processing started.

(6) End date and time label

Displays the date and time the Plugin Parts update processing was completed.

(7) Close button

If this button is clicked, the Updating Plugin Parts window is closed.

When using Microsoft Edge or Google Chrome as your web browser, do not click this button. Click the **X** button in your web browser to close the Updating Plugin Parts window.

6.7.5 Items subject to updating

The following table explains the items to be updated and the update processing that is performed when plugins (I/O) are updated in the Updating Plugin Parts window.

Table 6–5: Items to be updated and the update processing that is performed in the Updating Plugin Parts window

No.	Item	Update processing that is performed
1	Adding parameters	Only parameters are added. No new mapping lines are drawn.
2	Deleting parameters	Mapping lines that have been associated with the deleted parameters are deleted.
3	Moving parameters (when an input parameter is replaced with another input parameter or when an output parameter is replaced with another output parameter)	Only the parameter position is changed while the mapping line is kept.
4	Moving parameters (when an input parameter is replaced with an output parameter, or vice versa)	The mapping line is deleted and the parameter position is changed.
5	Renaming parameters	The mapping line associated with the parameter before renaming is deleted.
6	Description of parameters	Updated to the description after change.
7	Description of I/O Plugins	Updated to the description after change.
8	I/O Plugin execution order	Updated to the order after change.
9	Execution confirmation dialog flag	Updated to the contents after changed.
10	Preview window execution flag	Updated to the contents after change.
11	Execution suppression by button type	Updated to the contents after change.
12	Compatibility option for execution suppression by button type	Updated to the contents after change.
13	Character string that qualifies the I/O action controller class	Updated to the character string after change.
14	Changing plugin icons for Plugin Parts	Updated to the plugin icon after change.

6.8 Updating search data

If you display the **Search** tab in the Operational Content Execution Window to enable terms used in the Operational Contents to be searched, you need to periodically update the search data that will be subject to search processing. You can use either of the following methods to update the search data:

- Execute the `npupdatesearchdata` command manually.
- Configure the property file in such a manner that the `npupdatesearchdata` command will execute automatically.

For details about the settings for automatic execution of the `npupdatesearchdata` command, see *8.4 Specifying settings in the service property file (ucnp_service.ini)*.

If you do not set the `npupdatesearchdata` command to execute automatically, execute it manually at the following times:

- When a new Operational Content has been published.
- When a published Operational Content has been edited.
- When a published Operational Content has been deleted or made private.
- When the `npimport` command or the `nppubimport` command has been used to update Operational Contents.

> ### 💡 Tip
>
> If you have updated many Operational Contents in the batch mode by using the `npimport` command or the `nppubimport` command, we recommend that you execute the `npupdatesearchdata` command manually to update the search data even when the `npupdatesearchdata` command has been set to be executed automatically.

6.9 Managing the static files used in Operational Contents

This section provides important information about managing the static files (such as image files and HTML files) that are used in Operational Contents and custom windows.

> 📄 **Note**
>
> To store static files from the Operational Content Editing Window, use the **File Management/Registration** menu. If the **File Management/Registration** menu is not displayed in the Operational Content Editing Window, check and, if necessary, revise the value of the `ucnp.base.server.fileupload.link.display` property in the user property file (`ucnp_user.properties`).

6.9.1 File management when storing static files from the Operational Content Editing Window

When the Operational Content Editing Window is used, any static files are stored in the following directory:

Navigation-Platform-installation-directory`\PP\uCPSB\httpsd\htdocs\ucnpuserstaticfiles`

This subsection explains the operations on and the handling of this directory.

(1) Managing the disk space

Use the file server resource manager's quota function to prevent a shortage of disk space on the server. Use the quota function to set size quotas for the `ucnpuserstaticfiles` directory that is used to store static files from the Operational Content Editing Window. Set in `ucnpuserstaticfiles` a limit value for the amount of data that can be stored, taking into account the server's disk size. By setting the function to send a warning notification before the limit value is reached, you can prevent a shortage of disk space from occurring.

Note that when you delete Operational Contents, the static files that have been used in those Operational Contents still remain. Check periodically the static file storage directory and delete unneeded files.

(2) Managing file accesses

Static files stored from the Operational Content Editing Window can be referenced and deleted by all users who use the Operational Content Editing Window. If you want to manage file accesses for some of the static files, such as by limiting accesses to them, directly store those static files in another directory without storing them from the Operational Content Editing Window.

(3) Notes about operations

- If an operation is performed on a static file on the server while the same file is being used in the Operational Content Editing Window, the operation is not guaranteed. Also, if you close the window by using the **X** button on the web browser while upload or deletion processing is underway, the processing might fail.

- Close the File Management/Registration window before you close the Navigation Platform window. If you have closed the Navigation Platform window by mistake while the File Management/Registration window is open, also close the File Management/Registration window.

6.9.2 Managing files when storing static files directly in the web server's directory

When the **File Management/Registration** menu is not displayed in the Operational Content Editing Window, you will have to store static files directly in a directory on the web server. The **File Management/Registration** menu in the Operational Content Editing Window can store only one static file at a time; therefore, if you want to store multiple static files on the web server in the batch mode, it is easier to store them directly in the web server's directory.

The following subsections provide notes on storing static files directly in the web server's directory.

(1) How to select a storage directory

When you place in an Operational Content a static file that has been stored in a directory on Navigation Platform's web server, you specify the relative path of the static file. This path is relative to *Navigation-Platform-installation-directory* \PP\uCPSB\httpsd\htdocs. Therefore, we recommend that you store image files in a directory that is close to the htdocs directory.

Once you have stored static files, notify the Content Manager, the Content Creator (when JP1/Base is used for user authentication), and the Content Editor of their paths relative to the contents storage directory.

(2) Limitations to file names and directory names

Do not create any file or a directory with a name beginning with ucnp other than the ucnpuserstaticfiles directory directly under the *Navigation-Platform-installation-directory*\PP\uCPSB\httpsd\htdocs contents storage directory on Navigation Platform's web server. The name ucnp is reserved by the Navigation Platform system. If a file or a directory is created with this name, the operation is not guaranteed.

In addition, do not edit any directory or file that is located in a directory whose name begins with ucnp other than the ucnpuserstaticfiles directory. If such a file or a directory is edited, the operation is not guaranteed.

6.9.3 Notes about exporting or importing Operational Contents

The static files used in Operational Contents cannot be exported or imported automatically by commands. Check whether the static files used in Operational Contents are stored and then ensure that you move the static files by copying them manually.

7

Customizing Navigation Platform windows

This chapter explains how to customize Navigation Platform windows.

7.1 Customizing windows by using property settings

You can customize the appearance and functions of Navigation Platform windows by changing settings in the user property file (`ucnp_user.properties`). The following are items that can be customized:

- Button sizes in the Operational Content Execution Window

- Widths of menu area, Operational Flow area, and Guide area

- Menus and buttons displayed in the header area

- Process Node designs

- Colors for relation lines

- Images and character strings in the login window

For details about the names and values of the properties that are used for customization, see *8.5 Specifying settings in the user property file (ucnp_user.properties)*.

> **📄 Note**
>
> If you want to display a window other than the Operational Content Execution Window or the Operational Content Editing Window immediately after you log in to Navigation Platform, you will have to develop a Custom Window Plugin. For details about the development of Custom Window Plugins, see the manual *JP1/Navigation Platform Development Guide*.

8

Properties

This chapter explains the property files of Navigation Platform. The property files are created during setup.

8.1 Property files whose settings need to be specified

The following table lists and describes the property files whose settings need to be specified when the system is configured.

Table 8–1: List of property files

Type	File name	Usage	Section
User setup property file	`ucnp_setup_user.prope rties`	Specifies the setup information that is applied when the `npsetup` command (set up) is executed. • Information about the directory server • Information such as port numbers	*8.3*
Service property file	`ucnp_service.ini`	Specifies the search data update interval and the operation log analysis time.	*8.4*
User property file	`ucnp_user.properties`	Specifies the Navigation Platform operating environment. • Displaying windows • Information such as trace information	*8.5*
User message properties file	• `ucnp_message_user. properties` • `ucnp_message_user_ ja.properties`	Customizes messages that are displayed in the Guide area of the Operational Content Execution Window. • Messages that are displayed when operations are completed • Other messages, such as the message that is displayed when a required check box is not selected	*8.6*
User label property file	• `ucnp_label_user.pr operties` • `ucnp_style_user_ja .properties`	Customizes the character strings that constitute links and are displayed in the header area of the Operational Content Execution Window.	*8.7*
User style property file	• `ucnp_style_user.pr operties` • `ucnp_style_user_ja .properties`	Customizes the set of font options for the **Character font** drop-down list on the **Size Settings** tab in the **Operational Content Settings** window of the Operational Content Editing Window.	*8.8*

Notes:

- Of the properties specified in the property files listed in the table above, do not edit any properties other than those explained in the subsequent sections.

- When you configure environments, copy the property files as an administrator. Otherwise, the property files cannot be copied correctly because they will be redirected to user folders. When you change settings, start the editor with **Run as administrator**, and then edit the property files.

- When you have edited any of the property files, except for the user setup property file, you must restart Navigation Platform to apply the edited settings to Navigation Platform. Execute the `npstart` command (start) after you have executed the `npstop` command (stop).

- To change or apply the settings specified in the user setup property file, you have to set up Navigation Platform again. To set up Navigation Platform again, follow the procedure described in *4.8 Procedure for implementing user authentication after setting up Navigation Platform* except for step 4, which must be substituted by editing the settings specified in the user setup property file.

8.2 Format of property file explanations

This section explains the format used to explain property files. The format for the service property file differs from that for the other property files.

8.2.1 Notes about specifying property files (applicable to the service property file)

The following notes apply to specifying service property files:

- Specify an equal sign (=) between a property key and a value.

- The only characters permitted as values are single-byte alphanumeric characters. If a character other than a single-byte alphanumeric character is specified in a value, operation is not guaranteed.

- Each line specifies one property. One property consists through the last character on the line or the end of the file.

- If a line begins with a semicolon (;), the entire line is treated as a comment.

- The supported character encoding is UTF-8.

8.2.2 Notes about specifying property files (applicable to all property files except the service property file)

The following notes apply to specifying all property files except the service property file, where the term *space character* means a single-byte space, a tab, or a linefeed code:

- The property file format is that for Java Platform or Standard Edition.

- Specify a colon (:) or an equal sign (=) between a property key and a value.

- The supported character encoding is UTF-8.

- If the character immediately following a property key (excluding space characters) is a colon (:) or an equal sign (=), the characters immediately following the : or = through the last character of the line are treated as the value.

- If the character immediately following a property key (excluding space characters) is neither a colon (:) nor an equal sign (=), that character through the last character of the line are treated as the value.

- If a space character is added immediately following a value, that space character is treated as part of the value.

- If a value contains a colon (:), equal sign (=), hash mark (#), or exclamation mark (!), these symbols are treated as part of the value.

- None of the Windows reserved device names (CON, AUX, COM*n* (*n*: 1 to 9), LPT*n* (*n*: 1 to 9), PRN, NUL, and CLOCK $) can be used.

- If a line begins with a hash mark (#) or an exclamation mark (!), the entire line is treated as a comment.

- Consecutive space characters at the beginning of a line are ignored.

- When you specify directories, use \\ or / as delimiters.

```
Example: ucnp.base.server.auditlog.path = C:\\Program Files\\Hitachi\\HNP\
\auditlog\\ucnp_audit
```

- All specified values are case sensitive.

8.2.3 Specifying escape sequences

The following table lists and explains the escape sequences that are permitted in any property file except the service property file.

Table 8–2: List of escape sequences

Escape sequence	Description
\t	Tab
\n	Linefeed (newline code)
\f	Form feed (page break)
\r	Carriage return
\"	Double quotation mark (")
\'	Single quotation mark (')
\\	Backslash

The following notes apply to escape sequences:

- Unicode escape sequences in octal are not recognized. Specifying an invalid Unicode escape sequence results in an error.
- If an invalid escape sequence is specified, \ is deleted and then the subsequent character is treated as a normal character. For example, if escape sequence \v is specified, v is assumed.

If a key specifies a distinguished name (DN), escape the attribute value that makes up the distinguished name. The following table lists the characters to be escaped and the escape sequences.

Table 8–3: List of escape sequences

Character to be escaped	Escape sequence
Single-byte space ( )	\20
Single-byte number symbol (#)	\23
Single-byte double quotation mark (")	\22
Single-byte backslash (\)	\5C
Single-byte forward slash (/)	\2F
Single-byte comma (,)	\2C
Single-byte plus sign (+)	\2B
Single-byte less than sign (<)	\3C
Single-byte greater than sign (>)	\3E
Single-byte semicolon (;)	\3B
Single-byte equal sign (=)	\3D

These escape sequences apply to the following properties:

- ucnp.setup.server.ldap.java.naming.security.principal property in the user setup property file (ucnp_setup_user.properties)

- `ucnp.setup.server.ldap.com.cosminexus.admin.auth.ldap.basedn` property in the user setup property file (`ucnp_setup_user.properties`)

- `ucnp.setup.server.ldap.group.basedn` property in the user setup property file (`ucnp_setup_user.properties`)

8.3 Specifying settings in the user setup property file (ucnp_setup_user.properties)

This section explains how to specify the settings in the user setup property file.

You can create a user setup property file easily by copying the sample file to the appropriate directory.

8.3.1 List of properties in the user setup property file (ucnp_setup_user.properties)

The following table lists and describes the properties in the user setup property file.

Table 8–4: Settings in the user setup property file (ucnp_setup_user.properties)

No.	Property key	Setting	Default value
1	`ucnp.setup.server.ldap.directory.kind`	User authentication type	`PasswordSkip`
2	`ucnp.setup.server.ldap.protocol`	Communication protocol of the directory server	`ldap`
3	`ucnp.setup.server.jp1auth.virtual.hostname`	Logical host name for user authentication	`JP1_DEFAULT`
4	`ucnp.setup.server.cosminexus.debug.enable`	Whether settings for remote debugging by Eclipse are to be added	`false`
5	`ucnp.setup.server.cosminexus.debug.jdwp.port`	Wait port number for remote debugging by Eclipse in the development environment	`8000`
6	`ucnp.setup.server.system.admin.userids`	System administrator ID	`user1`
7	`ucnp.setup.server.ldap.hostname`	Host name of the directory server	`localhost`
8	`ucnp.setup.server.ldap.port`	Port number of the directory server	`389`
9	`ucnp.setup.server.ldap.java.naming.security.principal`	Authenticator IDs when accessing the directory server	`cn=user1, cn=Users, dc=hitachi, dc=jp`
10	`ucnp.setup.server.ldap.java.naming.security.credentials`	Password for the authenticator IDs when accessing the directory server	`password`
11	`ucnp.setup.server.ldap.com.cosminexus.admin.auth.ldap.basedn`	Base DN of the repository for JAAS-compliant user management	`cn=Users, dc=hitachi, dc=jp`
12	`ucnp.setup.server.ldap.com.cosminexus.admin.auth.ldap.attr.userid`	Attribute name indicating the user's login ID	`sAMAccountName`
13	`ucnp.setup.server.ldap.com.cosminexus.admin.auth.ldap.attr.password`	Attribute name indicating the user's password	`unicodePwd`
14	`ucnp.setup.server.ldap.group.basedn`	Base DN of member group information	`dc=hitachi,dc=jp`
15	`ucnp.setup.server.db.port`	Port number of the database server	`24704`

No.	Property key	Setting	Default value
16	`ucnp.setup.server.cosminexus.ejbserver.http.port`	Port number of the basic web server	`24701`
17	`ucnp.setup.server.cosminexus.ejbserver.rmi.naming.port`	RMI registry port number used by the J2EE server	`24702`
18	`ucnp.setup.server.cosminexus.webserver.connector.ajp13.port`	Port number used for communication with the web server	`24703`
19	`ucnp.setup.server.cosminexus.hws.http.port`	Port number at which Cosminexus HTTP Server accepts requests	`80`
20	`ucnp.setup.server.cosminexus.hws.http.protocol`	Web server protocol	`http`
21	`ucnp.setup.server.cosminexus.hws.http.cacert.enable`	Application of web server CA certificate settings	`false`
22	`ucnp.setup.server.cosminexus.hws.http.ssl.privatekey.type`	Encryption method used for the private server key for the web serve	`rsa`
23	`ucnp.setup.server.portal.manager.http.port`	Port number of the basic web server for Portal Manager	`24710`
24	`ucnp.setup.server.portal.manager.ajp13.port`	Port number used for communication with Portal Manager's web container	`24711`
25	`ucnp.setup.server.portal.manager.rmi.naming.port`	RMI registry port number used by Portal Manager	`24712`
26	`ucnp.setup.server.portal.manager.naming.port`	Port number of the CORBA naming service that is used as a naming service by Portal Manager	`24713`
27	`ucnp.setup.server.portal.user.displayname`	User display name type in Active Directory	`displayName`
28	`ucnp.setup.server.dashboard.storage.http.port`	HTTP port number of the dashboard storage service	`24705`
29	`ucnp.setup.server.dashboard.storage.transport.tcp.port`	Inter-node communication port of the dashboard storage service	`24706`
30	`ucnp.setup.server.dashboard.web.server.port`	HTTP port number of the dashboard web service	`24707`
31	`ucnp.setup.server.cosminexus.ejbserver.session.timeout`	Default session timeout interval (in minutes)	`30`

Make sure that no port number specified in the user setup property file is already in use. If a port number that is already in use is specified, operation is not guaranteed.

8.3.2 Storage location of the user setup property file

The storage location of the user setup property file is as follows:

Property file storage location:

Navigation-Platform-installation-directory`\conf\ucnp_setup_user.properties`

For an example of the user setup property file, see the sample file. The sample file is stored in the following directory:

Sample file storage location:

Navigation-Platform-installation-directory`\sample\conf\ucnp_setup_user.properties`

8.3.3 Details about the properties in the user setup property file

This subsection explains each property in the user setup property file.

The default values explained here are set automatically by the system after setup. A value is specified in the file only when the value in the sample file differs from the default value.

Note about port numbers that are specified in properties

In the properties in the user setup property file, you cannot specify a port number that is already in use or that has been allocated by another application. You must either change the port number used by the other application or change the property in the user setup property file.

(1) User authentication type (ucnp.setup.server.ldap.directory.kind)

This property specifies the user authentication type.

Permitted values

- `PasswordSkip`: Does not use user authentication (a password is not required).

- `AD`: Uses user authentication by Active Directory.

- `JP1Auth`: Uses user authentication by JP1/Base.

Default value: `PasswordSkip`

When you specify `AD`, there are other property values that need to be checked or changed. For details about the properties that need to be checked when `AD` is specified, see *4.2 Setup preparations when using Active Directory for user authentication*.

(2) Communication protocol of the directory server (ucnp.setup.server.ldap.protocol)

This property specifies the communication protocol of the directory server. If a directory server is not used, leave the value in the file as is.

Permitted values:

- `ldap`: The LDAP protocol is used.

- `ldaps`: The LDAPS protocol is used.

Default value: `ldap`

If you specify ldaps, you must import the CA certificate, and then check or change the values of some properties. For details about the properties that must be checked if ldaps is specified, see *5.15 Setup procedure when using LDAPS*.

(3) Logical host name for user authentication (ucnp.setup.server.jp1auth.virtual.hostname)

If the JP1/Base on the same machine as for Navigation Platform is in a logical host environment, specify the logical host name. If the JP1/Base is not in a logical host environment or you will not be using user authentication, there is no need to change this property value from its default value.

If the `ucnp.setup.server.ldap.directory.kind` property value is `JP1Auth`, this value is set automatically as the value of the `ucnp.base.server.jp1auth.virtual.hostname` property in the user property file during setup. If you want to change the value after setup, change the value of the `ucnp.base.server.jp1auth.virtual.hostname` property in the user property file.

Permitted values

If you are changing the value from its default, specify 1 to 196 single-byte alphanumeric characters and single-byte hyphens. We recommend that you specify a name consisting of a maximum of 63 characters.

Default value: `JP1_DEFAULT`

(4) Whether settings for remote debugging by Eclipse are to be added (ucnp.setup.server.cosminexus.debug.enable)

This property specifies whether the settings for remote debugging by Eclipse are to be added. In the development environment, specify `true`. In the execution environment, specify `false`.

Permitted values

- `true`: Performs remote debugging.
- `false`: Does not perform remote debugging.

Default value: `false`

Supplemental notes

- Operation is not guaranteed if `true` is specified in the execution environment.
- The specified characters are not case sensitive.

(5) Wait port number for remote debugging by Eclipse in the development environment (ucnp.setup.server.cosminexus.debug.jdwp.port)

This property specifies the wait port number for remote debugging by Eclipse in the development environment. If the `ucnp.setup.server.cosminexus.debug.enable` property value is `false`, this property is ignored. When you perform remote debugging, connect to the port number specified in this property.

Permitted values: Integers in the range from `1` to `65535`

Default value: `8000`

(6) System administrator ID (ucnp.setup.server.system.admin.userids)

This property specifies the system administrator of Navigation Platform. Specify a user ID that can log in to Navigation Platform.

To specify multiple system administrators, specify them in CSV format with the user IDs delimited by the comma (`,`). You can specify a maximum of 20 user IDs. Do not place space characters before or after a user ID.

Permitted values

- A string of single-byte alphanumeric characters excluding double quotation marks (`"`)
- A string of a maximum of 31 single-byte alphanumeric characters per user ID

An empty character string cannot be specified.

Default value: `user1`

Supplemental notes

- This property value is set in the `ucnp.base.server.system.admin.userids` property during setup.
- This property takes effect only when a value other than `JP1Auth` is specified in the `ucnp.setup.server.ldap.directory.kind` property.

(7) Host name of the directory server (ucnp.setup.server.ldap.hostname)

This property specifies the host name of the directory server. If a directory server is not used, leave the value in the file as is.

Permitted values: Single-byte alphanumeric characters and single-byte hyphens (`-`)

Default value: `localhost`

(8) Port number of the directory server (ucnp.setup.server.ldap.port)

This property specifies the port number of the directory server. If a directory server is not used, leave the value in the file as is. You cannot specify a port number that is already in use or that has been allocated by another application.

Permitted values: Integers in the range from `1` to `65535`

Default value: `389`

(9) Authenticator IDs when accessing the directory server (ucnp.setup.server.ldap.java.naming.security.principal)

This property specifies the authenticator IDs for accessing the directory server. You can also specify JIS level 1 Japanese-language characters. Escape values if necessary. For details, see *8.2.3 Specifying escape sequences*. If a directory server is not used, leave the value in the file as is.

Permitted values: Character strings

Default value: `cn=user1, cn=Users, dc=hitachi, dc=jp`

(10) Password for the authenticator IDs when accessing the directory server (ucnp.setup.server.ldap.java.naming.security.credentials)

This property specifies the password for the authenticator IDs (`ucnp.setup.server.ldap.java.naming.security.principal`) when accessing the directory server. If a directory server is not used, leave the value in the file as is.

Permitted values: Character strings

Default value: `password`

(11) Base DN of the repository for JAAS-compliant user management (ucnp.setup.server.ldap.com.cosminexus.admin.auth.ldap.basedn)

This property specifies the base DN of the repository for JAAS-compliant user management. You can also specify JIS level 1 Japanese-language characters. Escape values if necessary. For details, see *8.2.3 Specifying escape sequences*. If a directory server is not used, leave the value in the file as is.

Permitted values: Character strings

Default value: `cn=Users, dc=hitachi, dc=jp`

(12) Attribute name indicating the user's login ID (ucnp.setup.server.ldap.com.cosminexus.admin.auth.ldap.attr.userid)

This property specifies the attribute name indicating the user's login ID. If a directory server is not used, leave the value in the file as is.

Permitted values: Character strings

Default value: `sAMAccountName`

(13) Attribute name indicating the user's password (ucnp.setup.server.ldap.com.cosminexus.admin.auth.ldap.attr.password)

This property specifies the attribute name indicating the user's password. If a directory server is not used, leave the value in the file as is.

Permitted values: Character strings

Default value: `unicodePwd`

(14) Base DN of member group information (ucnp.setup.server.ldap.group.basedn)

This property specifies the base DN of member group information. You can also specify JIS level 1 Japanese-language characters. If a directory server is not used, leave the value in the file as is. Escape values if necessary. For details, see *8.2.3 Specifying escape sequences*.

Permitted values: Character strings

Default value: `dc=hitachi,dc=jp`

(15) Port number of the database server (ucnp.setup.server.db.port)

This property specifies the port number of the database server.

Permitted values: Integers in the range from `5001` to `65535`

Default value: `24704`

(16) Port number of the basic web server (ucnp.setup.server.cosminexus.ejbserver.http.port)

This property specifies the port number for the basic web server. You cannot specify a port number that is already in use or that has been allocated by another application.

Permitted values: Integers in the range from `1` to `65535`

Default value: `24701`

(17) RMI registry port number used by the J2EE server (ucnp.setup.server.cosminexus.ejbserver.rmi.naming.port)

This property specifies the RMI registry port number used by the J2EE server. You cannot specify a port number that is already in use or that has been allocated by another application.

Permitted values: Integers in the range from `1` to `65535`

Default value: `24702`

(18) Port number used for communication with the web server (ucnp.setup.server.cosminexus.webserver.connector.ajp13.port)

This property specifies the port number used for communication with the web server. You cannot specify a port number that is already in use or that has been allocated by another application.

Permitted values: Integers in the range from `1` to `65535`

Default value: `24703`

For details, see the description about `usrconf.properties` (user property file for J2EE) in the manual *uCosminexus Application Server Definition Reference Guide*.

(19) Port number at which Cosminexus HTTP Server accepts requests (ucnp.setup.server.cosminexus.hws.http.port)

This property specifies the port number at which Cosminexus HTTP Server (web server) accepts requests. You cannot specify a port number that is already in use or that has been allocated by another application.

Permitted values: Integers in the range from `1` to `65535`

Default value: `80`

(20) Web server protocol(ucnp.setup.server.cosminexus.hws.http.protocol)

This property specifies the web server protocol.

Permitted values:

- `http`: http protocol
- `https`: https protocol

Default value: `http`

(21) Application of web server CA certificate settings (ucnp.setup.server.cosminexus.hws.http.cacert.enable)

This property specifies whether to enable CA certificate settings when `https` is used as the web server protocol.

Permitted values:

- `true`: Enables CA certificate settings.
- `false`: Disables CA certificate settings.

Default value: `false`

(22) Encryption method used for the private server key for the web server (ucnp.setup.server.cosminexus.hws.http.ssl.privatekey.type)

This property specifies the encryption method for the private server key paired with the SSL certificate when `https` is used as the web server protocol.

If `rsa` or `ecc` is specified, the SSL certificate, private server key, and password file in the encryption method used are each placed.

If `rsa_ecc` is specified, the SSL certificate, private server key, and password file in both the RSA encryption and ECC (elliptic-curve cryptography) methods are placed for both.

Permitted values:

- `rsa`: RSA encryption method
- `ecc`: ECC (elliptic-curve cryptography) method
- `rsa_ecc`: Both RSA encryption and ECC (elliptic-curve cryptography) methods

Default value: `rsa`

(23) Port number of the basic web server for Portal Manager (ucnp.setup.server.portal.manager.http.port)

This property specifies the port number of the basic web server for Portal Manager. You cannot specify a port number that is already in use or that has been allocated by another application.

Permitted values: Integers in the range from `1` to `65535`

Default value: `24710`

(24) Port number used for communication with Portal Manager's web container (ucnp.setup.server.portal.manager.ajp13.port)

This property specifies the port number used for communication with Portal Manager's web container. You cannot specify a port number that is already in use or that has been allocated by another application.

Permitted values: Integers in the range from `1` to `65535`

Default value: `24711`

(25) RMI registry port number used by Portal Manager (ucnp.setup.server.portal.manager.rmi.naming.port)

This property specifies the RMI registry port number used by Portal Manager. You cannot specify a port number that is already in use or that has been allocated by another application.

Permitted values: Integers in the range from `1` to `65535`

Default value: `24712`

(26) Port number of the CORBA naming service that is used as a naming service by Portal Manager (ucnp.setup.server.portal.manager.naming.port)

This property specifies the port number of the CORBA naming service that is used as a naming service by Portal Manager. You cannot specify a port number that is already in use or that has been allocated by another application.

Permitted values: Integers in the range from `1` to `65535`

Default value: `24713`

(27) User display name type in Active Directory (ucnp.setup.server.portal.user.displayname)

This property specifies the user display name type in Active Directory.

Permitted values: Character strings

Default value: `displayName`

Supplemental note

- An empty character string cannot be specified.

(28) HTTP port number of the dashboard storage service (ucnp.setup.server.dashboard.storage.http.port)

This property specifies the HTTP port number of the dashboard storage service. You cannot specify a port number that is already in use or that has been allocated by another application.

Permitted values: Integers in the range from `1` to `65535`

Default value: `24705`

(29) Inter-node communication port of the dashboard storage service (ucnp.setup.server.dashboard.storage.transport.tcp.port)

This property specifies the inter-node communication port of the dashboard storage service. You cannot specify a port number that is already in use or that has been allocated by another application.

Permitted values: Integers in the range from `1` to `65535`

Default value: `24706`

(30) HTTP port number of the dashboard web service (ucnp.setup.server.dashboard.web.server.port)

This property specifies the HTTP port number of the dashboard web service. You cannot specify a port number that is already in use or that has been allocated by another application.

Permitted values: Integers in the range from `1` to `65535`

Default value: `24707`

(31) Default session timeout interval (ucnp.setup.server.cosminexus.ejbserver.session.timeout)

This property specifies the default time until a session timeout occurs.

Permitted values:

- Integers in the range from `1` to `35791394` (in minutes): A timeout occurs when the specified time elapses.
- `0` or `-1`: No timeout occurs.

Default value: 30

8.4 Specifying settings in the service property file (ucnp_service.ini)

This section explains how to specify the settings in the service property file.

8.4.1 List of properties in the service property file (ucnp_service.ini)

The following table lists and describes the properties in the service property file.

Table 8–5: Settings in the service property file (ucnp_service.ini)

No.	Property key	Setting	Default value
1	NPUPDIVAL	Search data update interval	0
2	NPANLTIME	Operation log analysis time	0000
3	NPDASHBOARDANLTIME	Time at which operation logs are to be analyzed by the dashboard function	0400

8.4.2 Storage location of the service property file

The service property file is created automatically during setup. The storage location of the service property file is as follows:

Property file storage location:

Navigation-Platform-installation-directory\conf\ucnp_service.ini

8.4.3 Details of the service property file

(1) Search data update interval (NPUPDIVAL)

This property specifies the interval at which the search data is to be updated.

When 0 is specified, the search data is not updated. In such a case, use the npupdatesearchdata command (update search data) to update the search data.

Permitted values: 0 or integers in the range from 300 to 86400 (seconds)

Default value: 0 (seconds)

Supplemental notes

- The performance of window operations is degraded while search data is being updated. Therefore, specify a value that is appropriate to the operation.
- If you will not be using the search function, specify 0.

(2) Operation log analysis time (NPANLTIME)

This property specifies the time at which the operation log is to be analyzed, in the 24-hour format.

This property takes effect only when the following conditions are satisfied:

- `true` is set in the `ucnp.base.client.operationlog.enable` property.
- Not `all` is set in the `ucnp.base.client.directjump.enable` property.

Permitted values: Four-digit integers with the first two digits in the range from `00` to `23` and the last two digits in the range from `00` to `59`

Default value: `0000`

Example

To perform log analysis at 01:30, enter `0130`.

Supplemental notes

- This property assumes the time zone of the server's OS.
- It takes time to analyze operation logs. If operations are performed on Operational Contents while analysis processing is underway, those operations might require some time. Therefore, we recommend that you perform analysis processing at a time when traffic with Navigation Platform is light.

(3) Time operation logs are analyzed by the dashboard function (NPDASHBOARDANLTIME)

This property specifies the time, in 24-hour format, at which operation logs are to be analyzed by the dashboard function.

This property takes effect only when the following condition is satisfied:

- `true` is set in the `ucnp.base.client.operationlog.enable` property.

Permitted values: Four-digit integers where the first two digits are in the range from `00` to `23` and the last two digits in the range from `00` to `59`

Default value: `0400`

Example

To perform log analysis at 01:30, enter `0130`.

Supplemental notes

- This property assumes the time zone of the server's OS.
- It takes time to analyze operation logs. If operations are performed on Operational Contents while analysis processing is underway, those operations might require some time. Therefore, we recommend that you perform analysis processing at a time when traffic with Navigation Platform is light.

8.5 Specifying settings in the user property file (ucnp_user.properties)

This section explains how to specify the settings in the user property file.

8.5.1 List of properties in the user property file (ucnp_user.properties)

The following table lists and describes the properties in the user property file.

Table 8–6: Settings in the user property file (ucnp_user.properties)

No.	Property key	Setting	Default value
1	`ucnp.base.server.system.admin.userids`	System administrator's ID	`user1`
2	`ucnp.base.server.jp1auth.system.resource.group`	JP1 resource group name for the entire system	`HNP`
3	`ucnp.base.server.jp1auth.virtual.hostname`	Logical host name of JP1/Base	`JP1_DEFAULT`
4	`ucnp.base.server.acl.defaultacl.name.japaneseonly`	Compatibility setting for the name of the standard access permissions with Hitachi Navigation Platform 10-00 or earlier	`false`
5	`ucnp.base.server.command.import.delete.confirm.enable`	Whether to display a delete confirmation message when the `-d` option is specified in the import command	`false`
6	`ucnp.base.server.trace.size`	Maximum size of a trace file	`51200`
7	`ucnp.base.server.trace.backup.number`	Maximum number of trace files	`16`
8	`ucnp.base.server.keepsession.interval`	Request issuing interval	`240`
9	`ucnp.base.client.frame.resize.target`	Area whose width is to be changed when the web browser's window size is changed and when the menu area is folded	`flow`
10	`ucnp.base.client.menu.frame.width`	Width of the menu area (pixels)	`250`
11	`ucnp.base.client.flow.frame.width`	Width of the Operational Flow area (pixels)	`450`
12	`ucnp.base.client.guide.frame.width`	Width of the Guide area (pixels)	`540`
13	`ucnp.base.client.editingarea.width`	Maximum width of the Operational Flow area and the Guide area (pixels)	`1500`
14	`ucnp.base.client.editingarea.height`	Maximum height of the Operational Flow area and the Guide area (pixels)	`1500`
15	`ucnp.base.server.logoutbutton.display`	Whether to display the **Logout** button in the header area	`true`
16	`ucnp.base.server.print.link.display`	Whether the print function is to be used	`all`
17	`ucnp.base.server.custom.head.logo`	Path of the logo image in the header area	None
18	`ucnp.base.server.custom.login.main`	Path of the main image in the login window	`/ucnpBase/images/login.jpg`

No.	Property key	Setting	Default value
19	`ucnp.base.server.custom.login.background`	Path of the background image in the login window	None
20	`ucnp.base.server.custom.login.string`	Character string to be displayed in the login window	`Navigation Platform`
21	`ucnp.base.server.custom.browser.title`	Character string for the web browser's title bar and tab name	`Navigation Platform`
22	`ucnp.base.server.custom.help`	Path of the HTML manual	None
23	`ucnp.base.server.custom.link.N` Where *N* is a single-byte numeric value from 1 to 9.	Paths of the links to be displayed in the **Link1** through **Link9** menus	None
24	`ucnp.base.server.search.enable`	Whether to use the search function	`false`
25	`ucnp.base.server.search.word.nearstr.num`	Maximum number of search keyword hits to be displayed	`3`
26	`ucnp.base.server.search.word.nearstr.length`	Number of characters to be displayed before and after a search keyword hit	`20`
27	`ucnp.base.server.search.abort.count`	Maximum search hit count	`10`
28	`ucnp.base.client.timezone`	Time zone for date and time items that are displayed, for example in windows	None
29	`ucnp.base.client.timezone.display`	Whether to display the time zone in the header area	`none`
30	`ucnp.base.client.dateformat`	Date format for date and time items that are displayed, for example in windows	`yyyy/MM/dd`
31	`ucnp.base.client.timeformat.hms`	Time format for date and time items that are displayed, for example in windows (without milliseconds)	`HH:mm:ss`
32	`ucnp.base.client.timeformat.hmsm`	Time format for date and time items that are displayed, for example in windows (with milliseconds)	`HH:mm:ss.SSS`
33	`ucnp.base.client.parts.fontsize`	System setting for the text size used in the Operational Content Execution Window (pixels)	`12`
34	`ucnp.base.server.maintenance.enable`	Whether to enable the maintenance function	`false`
35	`ucnp.base.client.confirm.page.unload.enable`	Whether to display a confirmation dialog box when a window is changed or closed	`true`
36	`ucnp.base.client.menu.group.default`	Default group name	Empty character string
37	`ucnp.base.client.menu.frame.visible`	Whether to display the menu area in the Operational Content Execution Window	`true`
38	`ucnp.base.client.flow.frame.visible`	Whether to display the Operational Flow area in the Operational Content Execution Window	`true`
39	`ucnp.base.server.htmlpart.css`	Path of CSS files that are used in HTML parts	None
40	`ucnp.base.client.terminal.display`	Whether to display Terminal Nodes in the Operational Content Execution Window	`false`

No.	Property key	Setting	Default value
41	`ucnp.base.client.directjump.enable`	Whether to allow direct transition in an Operational Flow	`true`
42	`ucnp.base.client.currentnode.color`	Color to be used for the selected Process Node when it is displayed in the Operational Content Execution Window and for a Process Node that is displayed in the Guide area in the Operational Content Editing Window	`orange`
43	`ucnp.base.client.node.color`	Color of Process Nodes in unselected status or direct transition-enabled status	`gray`
44	`ucnp.base.client.directjump.design`	Design for Process Nodes that can transition directly	`gradation`
45	`ucnp.base.client.node.checkmark.position`	Location of check marks that are displayed in Process Nodes	`left`
46	`ucnp.base.client.flow.connector.color`	Color of relation lines in the Operational Flow area	`gray`
47	`ucnp.base.client.autoscroll`	Whether automatic scrolling is enabled in the Operational Flow area	`true`
48	`ucnp.base.client.viewer.confirm.discardinput.enable`	Whether to display a dialog box to confirm discarding of input information	`true`
49	`ucnp.base.client.suspend.enable`	Whether to use Suspend/Resume Plugins	`false`
50	`ucnp.base.client.erroritem.emphasis.border.color`	Color of frames that highlight erroneous parts	`red`
51	`ucnp.base.client.operationlog.enable`	Whether to use the operation log function	`true`
52	`ucnp.base.server.operationlog.path`	Operation log output destination	*Navigation-Platform-installation-directory*`\` `\operationlogs`
53	`ucnp.base.server.operationlog.backup.number`	Maximum number of operation log files	`40`
54	`ucnp.base.server.operationlog.size`	Maximum file size for the operation log	`40960`
55	`ucnp.base.server.operationlog.user.analyze.info`	Settings for operation log output items	`true`
56	`ucnp.base.server.operationlog.ranking.num`	Number of Operational Contents for which analysis results are to be displayed in the Reporting window	`0`
57	`ucnp.base.server.operationlog.ranking.user.num`	Number of users for whom analysis results are to be displayed in the Reporting window	`10`
58	`ucnp.base.client.auditlog.enable`	Whether the audit log is to be used	`false`

59	`ucnp.base.server.auditlog.path`	Audit log output destination	*Navigation-Platform-installation-directory*`\`
			`\auditlog\`
			`\ucnp_audit`

60	`ucnp.base.server.auditlog.backup.number`	Maximum number of audit log files	`16`

No.	Property key	Setting	Default value
61	`ucnp.base.server.auditlog.size`	Maximum file size for the audit log	`10240`
62	`ucnp.base.server.operationlog.report.target`	Analysis target in the Reporting window	`latest`
63	`ucnp.base.server.geturl.link.display`	Whether the **Get URL** menu is to be displayed in the header area in the Operational Content Execution Window	`true`
64	`ucnp.base.server.dashboard.link.display`	Conditions for displaying dashboard display links for operation logs	`false`
65	`ucnp.base.client.jp1imss.hostname`	Host name of the target JP1/IM-SS	`localhost`
66	`ucnp.base.client.jp1imss.portnum`	Port number of the target JP1/IM-SS	`24401`
67	`ucnp.base.client.jp1ao.hostname`	Host name of the target JP1/AO	`localhost`
68	`ucnp.base.client.jp1ao.portnum`	Port number of the target JP1/AO	`23015`
69	`ucnp.base.client.jp1ao.https.enable`	Whether the target JP1/AO is in an HTTPS environment	`false`
70	`ucnp.base.client.jp1ev.association.enable`	Whether JP1 event association files can be used	`false`
71	`ucnp.base.client.back.button.width`	Width of the **Back** button in the Operational Content Execution Window (pixels)	`100`
72	`ucnp.base.client.next.button.width`	Width of the **Next** button in the Operational Content Execution Window (pixels)	`130`
73	`ucnp.base.client.complete.button.width`	Width of the **Done** button in the Operational Content Execution Window (pixels)	`130`
74	`ucnp.base.client.branch.button.width`	Width of the button used to change to the next node via a Branch Node in the Operational Content Execution Window (pixels)	`130`
75	`ucnp.base.client.node.transition.button.height`	Button height in the Operational Content Execution Window	`22`
76	`ucnp.base.client.operation.editor.enable`	Whether to display the Operational Content Editing Window	`true`
77	`ucnp.base.client.grid.size`	Grid width in the Operational Content Editing Window (pixels)	`10`
78	`ucnp.base.client.undo.max.count`	Maximum number of operations that can be undone by the **Undo** button	`10`
79	`ucnp.base.server.fileupload.link.display`	Whether to display the **File Management/Registration** menu	`admin`
80	`ucnp.base.client.editor.jp1plugin.toolpalette.display`	Whether to display icons in the **Plugins** pallet	`false`
81	`ucnp.base.client.editor.name.display.type`	Whether to display the names of Content Editors	`userId`
82	`ucnp.base.client.menu.maxnum`	Maximum number of Operational Contents	`500`

No.	Property key	Setting	Default value
83	`ucnp.base.server.dashboard.auth.userids`	List of user IDs of users who are allowed access to the Dashboard window for the operation log	• When JP1 authentication is used for user authentication (user authentication through JP1/Base): `user1,jp1admin` • When an authentication scheme other than JP1 authentication is used: `user1`

8.5.2 Storage location of the user property file

The user property file is created automatically during setup. The storage location of the user property file is as follows:

Property file storage location:

Navigation-Platform-installation-directory`\conf\ucnp_user.properties`

8.5.3 Details about the properties in the user property file

This subsection explains each property in the user property file.

To change a property's value, uncomment the property in the user property file and specify the desired value. The default values explained here are set automatically by the system after setup. A value in the file means that the value in the user property file has been commented out and is provided only when the value in the file differs from the default value.

(1) System administrator's ID (ucnp.base.server.system.admin.userids)

This property specifies the system administrator of Navigation Platform. Specify a user ID that can log in to Navigation Platform. This property cannot be omitted.

If you are specifying multiple system administrators, specify them in CSV format using the comma (`,`) to delimit the user IDs. You can specify a maximum of 20 user IDs. Do not place unneeded spaces before or after a user ID.

Permitted values

- A string of single-byte alphanumeric characters excluding double quotation marks (`"`)
- A string of a maximum of 31 single-byte alphanumeric characters per user ID

An empty character string cannot be specified.

Default value: `user1`

Supplemental notes

- The `ucnp.setup.server.system.admin.userids` property value specified during setup is set automatically in this property.

- This property takes effect only when a value other than `JP1Auth` is specified in the `ucnp.setup.server.ldap.directory.kind` property.

(2) JP1 resource group name for the entire system (ucnp.base.server.jp1auth.system.resource.group)

This property specifies the JP1 resource group name for the entire Navigation Platform system.

This property takes effect only when `JP1Auth` is specified in the `ucnp.setup.server.ldap.directory.kind` property.

By specifying a unique value in this property (for example, in a system in which the editing environment is separate from the execution environment and the same authentication server is used in both environments), you can set the users who are permitted to access all Operational Contents in the execution environment.

For details about JP1 resource groups, see *4.3.1 JP1 resource groups supported by Navigation Platform*.

Permitted values

- A character string consisting of a maximum of 64 single-byte alphanumeric characters and underscores (_)

Default value: `HNP`

(3) Logical host name of JP1/Base (ucnp.base.server.jp1auth.virtual.hostname)

This property specifies the logical host name of JP1/Base.

This property takes effect only when `JP1Auth` is specified in the `ucnp.setup.server.ldap.directory.kind` property.

If the `ucnp.setup.server.jp1auth.virtual.hostname` property was specified during setup, the value specified in this `ucnp.setup.server.jp1auth.virtual.hostname` property is set as the value of this property when setup is completed. Specify this property when you want to rename the logical host of JP1/Base after setup has been completed.

For details about the `ucnp.setup.server.ldap.directory.kind` property, see *8.3.3(1) User authentication type (ucnp.setup.server.ldap.directory.kind)*.

Default value: `JP1_DEFAULT`

(4) Compatibility setting for the name of Standard access permissions with Hitachi Navigation Platform 10-00 or earlier (ucnp.base.server.acl.defaultacl.name.japaneseonly)

This property is used to achieve compatibility for the name of the standard access permissions with Hitachi Navigation Platform 10-00 or earlier. This property is used during version upgrade processing.

Permitted values

- `true`: The English name `Standard access permissions` can be used as a name for other access permissions.

- **false**: The English name `Standard access permissions` cannot be used as a name for other access permissions.

Default value: `false`

(5) Whether to display a delete confirmation message when the -d option is specified in the import command (ucnp.base.server.command.import.delete.confirm.enable)

This property specifies whether to display a delete confirmation message (`KDCZ10156-Q`) when executing the `npimport` (import Operational Contents) or `nppubimport` (import Published Versions of Operational Contents) command with the `-d` option specified.

Permitted values

- `true`: Displays a message (`KDCZ10156-Q`).
- `false`: Does not display a message (`KDCZ10156-Q`).

Default value: `false`

(6) Maximum size of a trace file (ucnp.base.server.trace.size)

This property specifies the maximum size of a trace file.

For details about trace files, see *Chapter 10. Troubleshooting*.

Permitted values: Integers in the range from `4` to `2097151` (KB)

Default value: `51200`

(7) Maximum number of trace files (ucnp.base.server.trace.backup.number)

This property specifies the maximum number of trace files.

For details about trace files, see *Chapter 10. Troubleshooting*.

Permitted values: Integers in the range from `1` to `16`

Default value: `16`

(8) Request issuing interval (ucnp.base.server.keepsession.interval)

This property specifies the interval at which periodic requests are to be issued to maintain sessions.

If `0` is specified, requests for maintaining sessions are not issued.

Permitted values: `0` or `60` to `3600` (seconds)

Default value: `240` (seconds)

Supplemental note

Transmission of requests for maintaining sessions is applicable only to Navigation Platform windows. This feature is not supported for custom windows created by users.

(9) Area whose width is to be changed when the web browser's window size is changed and when the menu area is folded (ucnp.base.client.frame.resize.target)

This property specifies the area whose width is to be changed when the web browser's window size is changed and when the menu area is folded.

Permitted values

- `flow`: The width of the Operational Flow area is to be changed.

- `guide`: The width of the Guide area is to be changed.

Default value: `flow`

Supplemental note

If `false` is specified in the `ucnp.base.client.flow.frame.visible` property, this property setting takes effect only on the Operational Content Editing Window. If `flow` is specified in this property, the width of the Guide area is changed when the window size is changed because the Operational Flow area is not displayed in the Operational Content Execution Window.

(10) Width of the menu area (ucnp.base.client.menu.frame.width)

This property specifies in pixels the initial width of the menu area when it is not folded.

Note that if the value specified in this property is too large, the initial value for the width of the Operational Flow area or the Guide area might become `0` (pixels), in which case contents might not be displayed when the window is launched.

Permitted values: `190` to `600` (pixels)

Default value: `250` (pixels)

Supplemental note

If `false` is specified in the `ucnp.base.client.menu.frame.visible` property, this property setting takes effect only on the Operational Content Editing Window.

(11) Width of the Operational Flow area (ucnp.base.client.flow.frame.width)

This property specifies in pixels the initial value for the width of the Operational Flow area.

This property takes effect only when `guide` is specified in the `ucnp.base.client.frame.resize.target` property. If `flow` is specified in the `ucnp.base.client.frame.resize.target` property, the value specified in this property is ignored. In such a case, the initial value for the width of the Operational Flow area is calculated automatically from the following values:

- Window width of the web browser

- Widths of the menu area and the Guide area

Note that if the value specified in this property is too large, the initial value for the width of the Guide area might become `0` (pixels), in which case contents might not be displayed when the window is launched.

Permitted values: `100` to `4000` (pixels)

Default value: `450` (pixels)

Supplemental note

> If `false` is specified in the `ucnp.base.client.flow.frame.visible` property, this property setting takes effect only on the Operational Content Editing Window.

(12) Width of the Guide area (ucnp.base.client.guide.frame.width)

This property specifies in pixels the initial value for the width of the Guide area.

This property takes effect only when `flow` is specified in the `ucnp.base.client.frame.resize.target` property. If `guide` is specified in the `ucnp.base.client.frame.resize.target` property, the value specified in this property is ignored. In such a case, the initial value for the width of the Guide area is calculated automatically from the following values:

- Window width of the web browser
- Widths of the menu area and the Operational Flow area

Note that if the value specified in this property is too large, the initial value for the width of the Operational Flow area might become `0` (pixels), in which case contents might not be displayed when the window is launched.

Permitted values: `100` to `4000` (pixels)

Default value: `540` (pixels)

Supplemental note

> If `false` is specified in the `ucnp.base.client.flow.frame.visible` property, this property setting takes effect only on the Operational Content Editing Window.

(13) Maximum width of the Operational Flow area and the Guide area (ucnp.base.client.editingarea.width)

This property specifies in pixels the maximum width of the Operational Flow area and the Guide area. Change the value of this property when you create Operational Contents that have a large horizontal width.

The value specified in this property is applied to both the Operational Flow area and the Guide area. Different values cannot be set for the two areas.

Permitted values: `1500` to `10000` (pixels)

Default value: `1500` (pixels)

Supplemental notes

- The width of the Operational Flow area and the Guide area in the Operational Content Execution Window is determined by this property's value and the placement of parts.

- If you reduce this property's value, make sure that all parts will still fit in the Operational Flow area and the Guide area after the change. If any existing parts are placed outside the Operational Flow area or the Guide area

due to the change made to this value, that part will not be displayed in the window, in which case the part will no longer be editable.

(14) Maximum height of the Operational Flow area and the Guide area (ucnp.base.client.editingarea.height)

This property specifies in pixels the maximum height of the Operational Flow area and the Guide area. Change the value of this property when you create Operational Contents that have a large vertical height.

The value specified in this property is applied to both the Operational Flow area and the Guide area. Different values cannot be set for the two areas.

Permitted values: `1000` to `10000` (pixels)

Default value: `1500` (pixels)

Supplemental notes

- The height of the Operational Flow area and the Guide area in the Operational Content Execution Window is determined by this property's value and the placement of parts.

- If you reduce this property's value, make sure that all parts will still fit in the Operational Flow area and the Guide area after the change. If any existing parts are placed outside the Operational Flow area or the Guide area due to the change made to this value, that part will not be displayed in the window, in which case the part will no longer be editable.

(15) Whether to display the Logout button in the header area (ucnp.base.server.logoutbutton.display)

This property specifies whether the **Logout** button is to be displayed in the header area. When a Portal Framework template with a **Logout** button is implemented, this property prevents two **Logout** buttons from being displayed by hiding the **Logout** button.

Permitted values

- `true`: Displays the **Logout** button.

- `false`: Does not display the **Logout** button.

Default value: `true`

Supplemental notes

- If the **Logout** button is used while the menu area is not being displayed in the Operational Content Execution Window, the user will not be able to select an Operational Content when he or she logs in again. For this reason, we recommend that you specify `false` in this property when you have specified `false` in the `ucnp.base.client.menu.frame.visible` property.

- If the `ucnpCloseBtn` parameter is set in the URL for accessing Navigation Platform, the `ucnpCloseBtn` parameter's value takes effect. For details about URLs that contain the `ucnpCloseBtn` parameter, see *2.1.4 Parameters that can be specified in basic URLs*.

- If you intend to change this property while `true` is specified in the `ucnp.base.client.confirm.page.unload.enable` property, first check the contents of the `KDCZ00146-W` message in the user message properties file (`ucnp_message_user.properties`). For details, see *8.6 Specifying settings in the user message properties file (ucnp_message_user.properties)*.

(16) Whether the print function is to be used (ucnp.base.server.print.link.display)

This property specifies whether the **Print** menu is to be displayed in the header area of the Operational Content Execution Window and the **Print** button is to be displayed on the toolbar of the Operational Content Editing Window.

Permitted values

- `none`: Does not display the **Print** button or the **Print** menu.
- `all`: Displays the **Print** button in the Operational Content Editing Window and the **Print** menu in the Operational Content Execution Window.
- `editor`: Displays the **Print** button only in the Operational Content Editing Window.
- `viewer`: Displays the **Print** menu only in the Operational Content Execution Window.

Default value: `all`

Note:

This property is not supported in an execution environment in which Operational Contents for the iPad are published. For such an environment, make sure that you specify `none`.

(17) Path of the logo image in the header area (ucnp.base.server.custom.head.logo)

This property specifies the path of the logo image when the logo image in the header area is changed. Specify an image with a size of 30 pixels in height and 290 pixels in width in a file format that can be displayed by the web browser. If this property is omitted, the system's default image is displayed as the logo image in the header area.

The following shows the system's default logo image.

Figure 8–1: Logo image in the header area
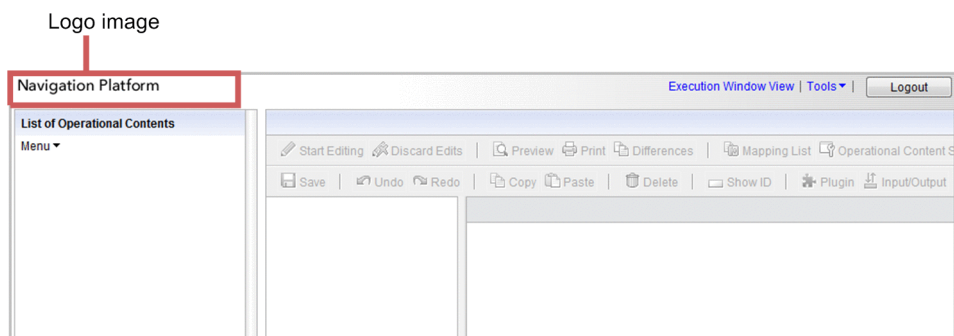
Figure 8–2: Details of the logo image's placement in the header area
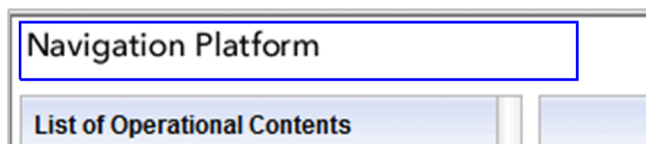
The image is placed within the blue frame.

Permitted path formats

The permitted path formats are shown below. The format for the path to be specified depends on whether the file to be used is stored on the web server of Navigation Platform or on another web server.

When specifying a file stored on the web server of Navigation Platform

Specify a path relative to the web server's contents storage directory (*Navigation-Platform-installation-directory* \PP\uCPSB\httpsd\htdocs).

The following example creates an images folder under the web server's default contents storage directory and then specifies ucnp.gif that has been stored in the images folder:

/images/ucnp.gif

When specifying a file stored on another web server

Specify in the format *protocol*://*host-name*:*port-number*/*file-path*.

• *protocol*: http or https

• *host-name*: Host name or IP address of the web server

• *port-number*: Port number of the web server

• *file-path*: Path of the file stored on the web server

The following example specifies the path of file image1.gif that is located in the images folder of the web server when the protocol is http, the host name is host1, and the port number is 55555:

http://host1:55555/images/image1.gif

Default value: None

Value in the file: /custom/images/head_logo.gif

Supplemental notes

- A path containing /ucnp is not permitted other than in host names. If such a path is specified, operation is not guaranteed.

- If, in a property value, you use a character that cannot be used in a URI, specify the corresponding URL-encoded value, if necessary.

(18) Path of the main image in the login window (ucnp.base.server.custom.login.main)

This property specifies the path of the login window's main image when the main image is to be changed. Specify an image with a size of 145 pixels in height and 570 pixels in width in a file format that can be displayed by the web browser. If this property is omitted, the system's default image is displayed as the login window's main image.

The following shows the system's default main image.

Figure 8–3: Main image in the login window
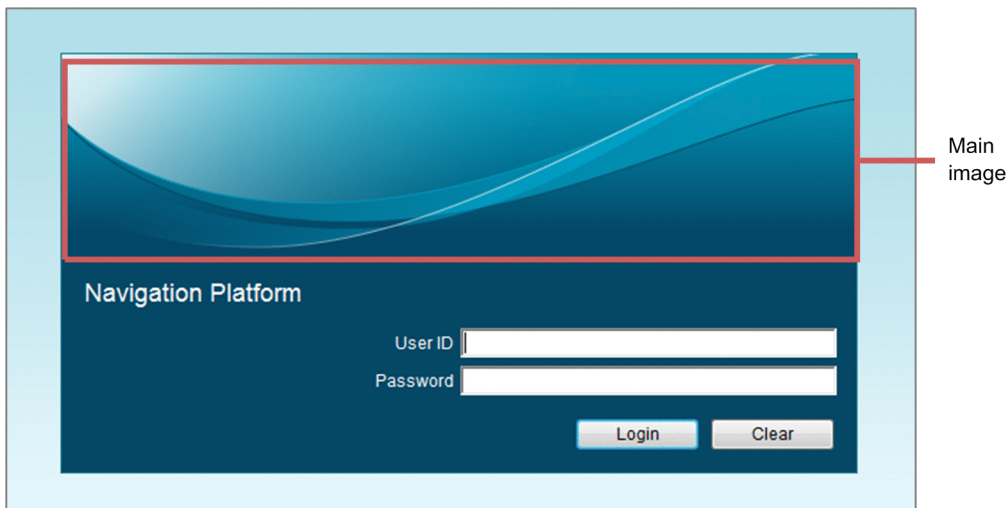
Permitted path formats

The permitted path formats are shown below. The format for a path to be specified depends on whether the file to be used is stored on the web server of Navigation Platform or on another web server.

When specifying a file stored on the web server of Navigation Platform

Specify a path relative to the web server's contents storage directory (*Navigation-Platform-installation-directory*`\PP\uCPSB\httpsd\htdocs`).

The following example creates an `images` folder under the web server's default contents storage directory and then specifies `ucnp.png` that has been stored in the `images` folder:

`/images/ucnp.png`

When specifying a file stored on another web server

Specify in the format *protocol*`://`*host-name*`:`*port-number*`/`*file-path*.

• *protocol*: `http` or `https`

• *host-name*: Host name or IP address of the web server

• *port-number*: Port number of the web server

• *file-path*: Path of the file stored on the web server

The following example specifies the path of file `image1.png` that is located in the `images` folder of the web server when the protocol is `http`, the host name is `host1`, and the port number is `55555`:

`http://host1:55555/images/image1.png`

Example

If the image file is stored in *web-server's-contents-storage-directory*`\custom\images\login.png`, specify one of the following values in this property:

• `http://`*host-name*`:`*port-number*`/custom/images/login.png`

• `https://`*host-name*`:`*port-number*`/custom/images/login.png`

• `/custom/images/login.png`

Default value: `/ucnpBase/images/login.jpg`

Supplemental notes

• A path containing `/ucnp` is not permitted other than in host names. If such a path is specified, operation is not guaranteed.

- If, in a property value, you use a character that cannot be used in a URI, specify the corresponding URL-encoded value, if necessary.

(19) Path of the background image in the login window (ucnp.base.server.custom.login.background)

This property specifies the path of the login window's background image when the background image is to be changed. If this property is not specified, the system's default image is displayed as the login window's background image.

The following shows the system's default background image.

Figure 8–4: Background image of the login window

Permitted path formats

The permitted path formats are shown below. The format for a path to be specified depends on whether the file to be used is stored on the web server of Navigation Platform or on another web server.

When specifying a file stored on the web server of Navigation Platform

Specify a path relative to the web server's contents storage directory (*Navigation-Platform-installation-directory* \PP\uCPSB\httpsd\htdocs).

The following example creates an images folder under the web server's default contents storage directory and then specifies ucnp.gif that has been stored in the images folder:

```
/images/ucnp.gif
```

When specifying a file stored on another web server

Specify in the format *protocol*://*host-name*:*port-number*/*file-path*.

- *protocol*: http or https
- *host-name*: Host name or IP address of the web server
- *port-number*: Port number of the web server
- *file-path*: Path of the file stored on the web server

The following example specifies the path of file image1.gif that is located in the images folder of the web server when the protocol is http, the host name is host1, and the port number is 55555:

```
http://host1:55555/images/image1.gif
```

Default value: None

Value in the file: /custom/images/background.gif

Supplemental notes

- A path containing `/ucnp` is not permitted other than in host names. If such a path is specified, operation is not guaranteed.

- If, in a property value, you use a character that cannot be used in a URI, specify the corresponding URL-encoded value, if necessary.

(20) Character string to be displayed in the login window (ucnp.base.server.custom.login.string)

This property specifies a character string that is to be displayed under the login image in the login window when the character string is to be changed. We recommend that you specify a character string consisting of a maximum of 50 characters. If a character string consisting of more than 50 characters is specified, the layout might be affected adversely.

Figure 8–5: Character string that is displayed under the login image in the login window
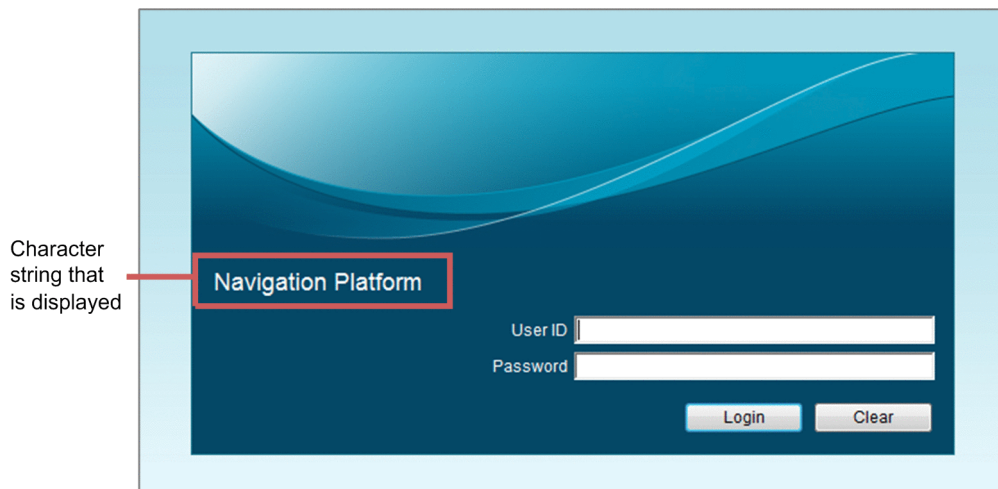
Default value: `Navigation Platform`

Supplemental notes

- The entered value is not checked.

- If an empty character string is specified in this property, no character string is displayed in the login window.

- If this property is omitted, the default value is assumed.

(21) Character string for the web browser's tab name (ucnp.base.server.custom.browser.title)

This property specifies a character string that is to be displayed for the web browser's tab name. There is no need to enclose the character string in double quotation marks (`"`). If the value of this property is an empty character string, the URL is displayed as the tab name in the web browser.

The following shows the default character string that is displayed as the tab name.

Figure 8–6: Character string for the web browser's tab name

Default value: `Navigation Platform`

(22) Path of the HTML manual (ucnp.base.server.custom.help)

If you want to add an HTML manual in the window, use this property to specify the path of the HTML manual that is to be displayed. When a path is specified, the **Help** menu is displayed in the window so that the HTML manual will be displayed in a separate window when that menu is clicked.

The following shows the window for adding an HTML manual.

Figure 8–7: Adding an HTML manual to the header area
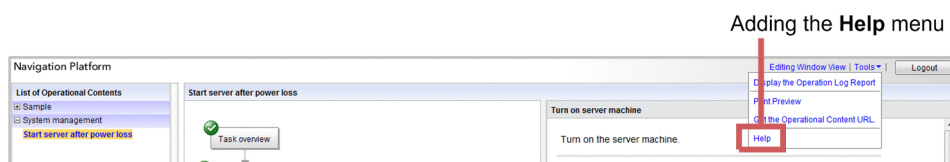
Permitted path formats

The format for a path to be specified depends on whether the HTML manual storage location is on the web server of Navigation Platform or on another web server.

When specifying an HTML manual stored on the web server of Navigation Platform

Specify a path relative to the web server's contents storage directory (the default is *Navigation-Platform-installation-directory*`\PP\uCPSB\httpsd\htdocs`).

The following example creates a `help` folder under the web server's default contents storage directory and then specifies file `index.html` that has been stored in the `help` folder:

`/help/index.html`

When specifying an HTML manual stored on another web server

Specify in the format *protocol*`://`*host-name*`:`*port-number*`/`*file-path*.

• *protocol*: `http` or `https`

• *host-name*: Host name or IP address of the web server

• *port-number*: Port number of the web server

• *file-path*: Path of the file stored on the web server

The following example specifies the path of file `index.html` that is located in the `help` folder of the web server when the protocol is `http`, the host name is `host1`, and the port number is `55555`:

`http://host1:55555/help/index.html`

Default value: None

Value in the file: `http://localhost/custom/help/index.html`

Supplemental notes

- A path containing `/ucnp` is not permitted other than in host names. If such a path is specified, operation is not guaranteed.

- If, in a property value, you use a character that cannot be used in a URI, specify the corresponding URL-encoded value, if necessary.

(23) Paths of the links to be displayed in the Link1 through Link9 menus (ucnp.base.server.custom.link.N) N: single-byte numeric character from 1 to 9

This property specifies the paths of the links to be displayed in the *Link1* through *Link9* menus that are displayed in the header area of the Operational Content Execution Window. When paths are set, the URL links set in the *Link1* through *Link9* menus are displayed. When any of these links is clicked, the contents of the corresponding URL are displayed in a separate window. You can specify a maximum of nine URLs. You can change the character strings for displaying links by changing the settings in the user label property file. For details about how to change the settings, see *8.7 Specifying settings in the user label property file (ucnp_label_user.properties)*.

The *Link1* through *Link9* menus are displayed at the following location.

Figure 8–8: Link1 through Link9 menus in the header area
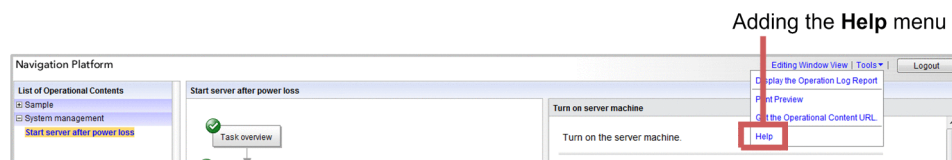
Permitted path formats

The format for a path to be specified depends on whether the URL to be referenced is on the web server of Navigation Platform or on another web server.

Web server of Navigation Platform

Specify a path relative to the web server's contents storage directory (the default is *Navigation-Platform-installation-directory*`\PP\uCPSB\httpsd\htdocs`).

The following example creates a `custom` folder under the web server's default contents storage directory and then specifies file `index.html` that has been stored in the `custom` folder:

`/ custom /index.html`

Other web server

Specify in the format *protocol*`://`*host-name*`:`*port-number*`/`*file-path*.

• *protocol*: `http` or `https`

• *host-name*: Host name or IP address of the web server

• *port-number*: Port number of the web server

• *file-path*: Path of the file stored on the web server

The following example specifies the path of file `index.html` that is located in the `custom` folder of the web server when the protocol is `http`, the host name is `host1`, and the port number is `55555`:

`http://host1:55555/ custom /index.html`

Default value: None

Value in the file: `http://localhost/custom/link/index.html`

Supplemental notes

- A path containing /ucnp is not permitted other than in host names. If such a path is specified, operation is not guaranteed.

- If, in a property value, you use a character that cannot be used in a URI, specify the corresponding URL-encoded value, if necessary.

(24) Whether to use the search function (ucnp.base.server.search.enable)

This property specifies whether the **Search** tab is to be displayed in the menu area in the Operational Content Execution Window.

Permitted values

- `true`: Uses the search function.

- `false`: Does not use the search function.

Default value: `false`

Supplemental notes

- If `true` is specified, periodic search data updating is performed automatically according to a setting in the service property file (`ucnp_service.ini`). Note that the default setting in the service property file for the search data update interval is set to `0` (not updated automatically). Therefore, re-evaluate the `NPUPDIVAL` property value according to your operations.

- If `true` is specified, we recommend that you increase the width of the menu area to improve the readability of search results. Use the `ucnp.base.client.menu.frame.width` property to change the width of the menu area.

- If `true` is specified, you need to reorganize the database used for search operations periodically. For details, see *Tip* under *Options* in *9.20 npupdatesearchdata command (update search data)*.

(25) Maximum number of search keyword hits to be displayed (ucnp.base.server.search.word.nearstr.num)

This property specifies the maximum number of character strings to be displayed before and after a search keyword when there are multiple hits in the same Operational Content.

Permitted values: Integers in the range from `1` to `10`

Default value: `3`

Note:

The information that is displayed as search results increases depending on the following items:

- Number of Operational Contents that satisfy the search criteria

- Number of character strings before and after a hit that matches the search keyword

- Length of the character strings before and after a hit that matches the search keyword

Therefore, if this property is set to a value greater than the default value, the web browser's operation might slow down.

(26) Number of characters to be displayed before and after a search keyword hit (ucnp.base.server.search.word.nearstr.length)

This property specifies the number of characters to be displayed before and after a hit that matches the search keyword within an Operational Content.

For example, if `20` is specified, the 20 characters preceding the search keyword and the 20 characters following the search keyword are displayed.

Permitted values: Integers in the range from `10` to `50`

Default value: `20`

Note:

The information that is displayed as search results increases depending on the following items:

- Number of Operational Contents in which there is a match for the search keyword
- Number of times character strings before and after a hit that matches the search keyword are displayed
- Number of characters to be displayed before and after a hit that matches the search keyword

Therefore, if this property is set to a value greater than the default value, the web browser's operation might slow down.

(27) Maximum search hit count (ucnp.base.server.search.abort.count)

This property specifies the maximum search hit count. Search processing will terminate when the number of hits in Operational Contents exceeds the value specified in this property.

If `0` is specified, search processing will not terminate.

Permitted values: Integers in the range from `0` to `2147483647`

Default value: `10`

Note:

The information that is displayed as search results increases depending on the following items:

- Number of Operational Contents in which there is a match for the search keyword
- Number of times character strings before and after a hit that matches the search keyword are displayed
- Length of the character strings before and after a hit that matches the search keyword

If this property is set to a large value, the search processing might become slow. Therefore, we recommend that you set this property to its default value `10`.

(28) Time zone for date and time items that are displayed, for example in windows (ucnp.base.client.timezone)

This property specifies the time zone for the date and time items that are output to windows and files. The time zone is specified as the difference from GMT. When this property is omitted, the server machine's time zone is set.

Permitted values: `GMT+`*HH*`:`*MM* or `GMT−`*HH*`:`*MM*

HH: Hours (`00` to `23`)

MM: Minutes (`00` to `59`)

Example

```
GMT+09:00
```

Default value: None

(29) Whether to display the time zone in the header area (ucnp.base.client.timezone.display)

This property specifies the conditions for displaying the time zone in the header area. The time zone that will be displayed is the value specified in the `ucnp.base.client.timezone` property. If the system spans multiple time zones, you can obtain the server machine's accurate date and time by displaying the valid time zone in the window.

Permitted values

- `none`: Does not display the time zone.
- `all`: Displays the time zone in both the Operational Content Execution Window and the Operational Content Editing Window.
- `editor`: Displays the time zone only in the Operational Content Editing Window.

Default value: None

(30) Date format for date and time items that are displayed, for example in windows (ucnp.base.client.dateformat)

This property specifies the date format for the date and time items that are output to windows and files. When this property is changed, the date format for the items that contain a time, such as the publication date in the Version Details window, is changed.

Permitted values

- Year: `yyyy`
- Month: `MM`
- Date: `dd`

You can change the order of year, month, and date. You can specify one single-byte symbol for a delimiter.

Example

Displaying `02-07-2012` (when the date is February 7, 2012):

```
MM-dd-yyyy
```

Default value: `yyyy/MM/dd`

Notes:

- To use a single quotation mark (`'`) as the delimiter, specify `''`.
- To use a backslash (\) as the delimiter, specify \\.
- If a character other than a single-byte symbol is specified, the window layout might be affected adversely.

(31) Time format for date and time items that are displayed, for example in windows (without milliseconds) (ucnp.base.client.timeformat.hms)

This property specifies the time format (without the milliseconds) for date and time items that are output to windows and files. If this property is changed, a time format that includes seconds, such as the update date and time in the print window, is changed.

Permitted values

- Hour: `HH`

- Minute: `mm`

- Second: `ss`

You can change the order of hour, minute, and second. You can specify one single-byte symbol for a delimiter.

Example

Displaying `11:25:36` (when the time is 11:25:36):

> `HH:mm:ss`

Default value: `HH:mm:ss`

Notes:

- To use a single quotation mark (`'`) as the delimiter, specify `''`.

- To use a backslash (\) as the delimiter, specify \\.

- If a character other than a single-byte symbol is specified, the window layout might be affected adversely.

(32) Time format for date and time items that are displayed, for example in windows (with milliseconds) (ucnp.base.client.timeformat.hmsm)

This property specifies the time format (with the milliseconds) for date and time items that are output to windows and files. If this property is changed, the time format that includes the milliseconds, such as the published date and time of an import list file that is output by the import command, is changed.

Permitted values

- Hour: `HH`

- Minute: `mm`

- Second: `ss`

- Millisecond: `SSS`

You can change the order of hour, minute, second, and millisecond. You can specify one single-byte symbol for a delimiter.

Example

Displaying `11:25:36.780` (when the time is 11:25:36.780):

> `HH:mm:ss.SSS`

Default value: `HH:mm:ss.SSS`

Notes:

- To use a single quotation mark (`'`) as the delimiter, specify `''`.

- To use a backslash (`\`) as the delimiter, specify `\\`.

- If a character other than a single-byte symbol is specified, the window layout might be affected adversely.

(33) System setting for the text size used in the Operational Content Execution Window (ucnp.base.client.parts.fontsize)

This property specifies the text size for parts when the **Follow the system settings** check box is selected in the **Operational Content Settings** screen in the Operational Content Editing Window.

Permitted values: `1` to `128` (pixels)

Default value: `12` (pixels)

(34) Whether to enable the maintenance function (ucnp.base.server.maintenance.enable)

This property specifies whether the maintenance function is to be enabled.

Enable the maintenance function temporarily when you update I/O Plugin parts. While the maintenance function is enabled, no users other than the system administrator can log in.

Permitted values

- `true`: Enables the maintenance function.

- `false`: Disabled the maintenance function.

Default value: `false`

(35) Whether to display a confirmation dialog box when a window is changed or closed (ucnp.base.client.confirm.page.unload.enable)

This property specifies whether a message (`KDCZ00146-W`) is to be displayed when an attempt is made to close the Operational Content Execution Window or the Operational Content Editing Window by using the **X** button on the web browser or an attempt is made to change to another page.

Permitted values

- `true`: Displays a message (`KDCZ00146-W`).

- `false`: Does not display a message (`KDCZ00146-W`).

Default value: `true`

Note:

This property is not supported in an execution environment in which Operational Contents for the iPad are published. In such an environment, make sure that you specify `false`.

Supplemental notes

Note the following about operations when you specify `false` in this property to not display the message:

- If the user presses the **Back space** key while the focus is not on a part in the web browser and the current page changes to the previously displayed page, any data that was being entered might be lost.

- When you close a Navigation Platform window, make sure that you click the **Logout** button or the **Close** button.

(36) Default group name (ucnp.base.client.menu.group.default)

This property specifies the name of the default group to which Operational Contents created or copied in the Operational Content Editing Window are to belong.

If an empty character string is specified in this property and an Operational Content is created or copied, its group will be as follows:

- When an Operational Content is created: Group without a name

- When an Operational Content is copied: Group to which the source Operational Content belongs

To add a hierarchical group, use a backslash (\\) to separate group levels. If you want to include a literal backslash (\\) in a group name, rather than as a separator, replace it with two consecutive backslashes (\\\\).

Permitted values: Character strings consisting of a maximum of 128 characters[#]

#

A single backslash (\\) in a group name is interpreted as a group level separator and counted as one character.

Two consecutive backslashes (\\\\) in a group name are interpreted as a literal backslash (\\), which causes a single backslash (\\) to appear in the group name, and is counted as one character.

Default value: Empty character string

(37) Whether to display the menu area in the Operational Content Execution Window (ucnp.base.client.menu.frame.visible)

This property specifies whether the menu area is to be displayed in the Operational Content Execution Window. When the menu area is hidden, the button for folding the menu area is also hidden.

When you specify `false` in this property, a user of the Operational Content Execution Window must log in using a URL in which the Operational Content ID is specified. For details about the URL, see *2.1.3 URLs used to access Navigation Platform windows*.

Permitted values

- `true`: Displays the menu area.

- `false`: Does not display the menu area.

Default value: `true`

(38) Whether to display the Operational Flow area in the Operational Content Execution Window (ucnp.base.client.flow.frame.visible)

This property specifies whether the Operational Flow area is to be displayed in the Operational Content Execution Window. If the Operational Flow area is hidden, the bars for adjusting the widths of the Operational Flow area and the Guide area are also hidden.

Permitted values

- `true`: Displays the Operational Flow area.
- `false`: Does not display the Operational Flow area.

Default value: `true`

Supplemental note

If `all` is specified in the `ucnp.base.client.directjump.enable` property, the user can no longer return to the previous node because the **Back** button is not displayed.

(39) Path of CSS files that are used in HTML parts (ucnp.base.server.htmlpart.css)

This property specifies the path of CSS files that are used in HTML parts.

Permitted path formats

The permitted path formats are shown below. The format for a path to be specified depends on whether the file to be used is stored on the web server of Navigation Platform or on another web server.

When specifying a file stored on the web server of Navigation Platform

Specify a path relative to the web server's contents storage directory (*Navigation-Platform-installation-directory* `\PP\uCPSB\httpsd\htdocs`).

When specifying a file stored on another web server

Specify in the format *protocol*`://`*host-name*`:`*port-number*`/`*file-path*.

• *protocol*: `http` or `https`

• *host-name*: Host name or IP address of the web server

• *port-number*: Port number of the web server

• *file-path*: Path of the file stored on the web server

The following example specifies the path of file `htmlpart.css` that is located in the `css` folder of the web server when the protocol is `http`, the host name is `host1`, and the port number is `55555`:

`http://host1:55555/css/htmlpart.css`

Default value: None

Value in the file: `/css/htmlpart.css`

Supplemental notes

- If there are no CSS files at the specified path, user-defined CSS files will not be applied. In addition, `404` will be output to the web server's access log.
- A path containing `/ucnp` is not permitted other than in host names. If such a path is specified, operation is not guaranteed.
- If, in a property value, you use a character that cannot be used in a URI, specify the corresponding URL-encoded value, if necessary.

(40) Whether to display Terminal Nodes in the Operational Content Execution Window (ucnp.base.client.terminal.display)

This property specifies whether Terminal Nodes are to be displayed in the Operational Content Execution Window. If `false` is specified in the `ucnp.base.client.flow.frame.visible` property, we recommend that you specify `false` in this property because `true` will be ignored if it is specified in this property. If `false` is specified in the `ucnp.base.client.flow.frame.visible` property, the processing speed will be better when `false` is specified in the `ucnp.base.client.terminal.display` property than it would be were `true` specified in the `ucnp.base.client.terminal.display` property.

Permitted values

- `true`: Display Terminal Nodes.

- `false`: Does not display Terminal Nodes.

Default value: `false`

(41) Whether to allow direct transition in an Operational Flow (ucnp.base.client.directjump.enable)

This property specifies whether to allow transition to a Process Node when that Process Node is clicked in the Operational Content Execution Window. This property also selects a permitted transition range.

If `false` is specified in the `ucnp.base.client.flow.frame.visible` property, we recommend that you specify `false` in this property because `true` and `all` will be ignored if specified in this property. The processing speed will be better when `false` is specified than it would be were `true` or `all` specified.

Permitted values

- `true`: Enables direct transition to a Process Node to which control has been moved before.

- `all`: Enables direct transition to all Process Nodes.

- `false`: Disables direct transition.

Default value: `true`

Supplemental notes

When true is specified in the property

- Once control has been moved to another branch earlier in the Operational Flow, control can no longer be moved to a Process Node at the original branch.

- Once control has been moved to the Terminal Node at the end point, control can no longer be moved to any Process Node.

- If control is moved to a Process Node whose **Back** button is set to be hidden, control can no longer be moved to any node that precedes that Process Node.

When all is specified in the property

- The **Back** button is not displayed in the Guide area.

- Even if control is moved to the Terminal Node at the end point, control can still be moved to any Process Node.

- A check is not performed as to whether check boxes in the Guide area must be specified.

- I/O Plugins and the input value check function will not be executed even if they are set.

- A Suspend/Resume Plugin cannot also be used. If `true` is specified in the `ucnp.base.client.suspend.enable` property, a message (`KDCZ10138-E`) is output and the system startup is stopped.
- The Reporting window for the operation log cannot be used.

(42) Color of the selected Process Node when it is displayed in the Operational Content Execution Window and of a process node that is displayed in the Guide area in the Operational Content Editing Window (ucnp.base.client.currentnode.color)

This property specifies the color to be used for displaying the selected Process Node when it is displayed in the Operational Content Execution Window and for displaying a Process Node that is displayed in the Guide area in the Operational Content Editing Window. We recommend that you specify a value that differs from the `ucnp.base.client.node.color` property value so that selected nodes can be identified easily.

Permitted values

- `orange`

- `pink`

- `green`
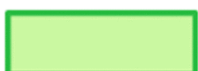
- `purple`

- `blue`
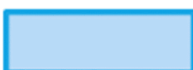
- `gray`

Default value: `orange`

(43) Color of Process Nodes in unselected status or direct transition-enabled status (ucnp.base.client.node.color)

This property specifies the color of Process Nodes that are displayed in the Operational Content Execution Window and the Operational Content Editing Window. We recommend that you specify a value that differs from the `ucnp.base.client.currentnode.color` property value so that selected nodes can be identified easily.

Permitted values

- `orange`

- `pink`

- `green`
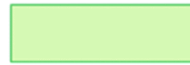
- `purple`

- `blue`
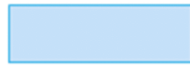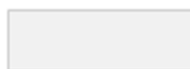
- `gray`

Default value: `gray`

(44) Design for Process Nodes that can transition directly (ucnp.base.client.directjump.design)

This property specifies a design for Process Nodes that can transition directly.

Permitted values

- `gradation`: The color of Process Nodes is to have gradation.

- `flat`: The color of Process Nodes is to have no gradation.

Default value: `gradation`

Supplemental notes

- A Process Node in which an image is placed has a `flat` design regardless of the value specified in this property, as shown below:

- If Process Nodes in which an image is placed are intermixed in an Operational Flow with Process Nodes in which no image is placed and you want the entire design to be consistent, specify `flat`.

- This property still takes effect even when Process Nodes in which an image is placed are intermixed in the Operational Flow with Process Nodes in which no image is placed.

- This property takes effect only when `true` is specified in the `ucnp.base.client.directjump.enable` property.

(45) Location of check marks that are displayed in Process Nodes (ucnp.base.client.node.checkmark.position)

This property specifies the location of check marks that are displayed in Process Nodes whose processing has finished.

Permitted values

- `left`: Displays a check mark at the upper left of the Process Node.
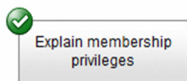
- `right`: Displays a check mark at the upper right of the Process Node.
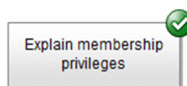
- `off`: Does not display check marks.

Default value: `left`

Supplemental note

- If `all` is specified in the `ucnp.base.client.directjump.enable` property, check marks are not displayed regardless of the value specified in this property. If you want to display check marks in such a case, specify `true` or `false` in the `ucnp.base.client.directjump.enable` property.

(46) Color of relation lines in the Operational Flow area (ucnp.base.client.flow.connector.color)

This property specifies the color of relation lines in the Operational Flow area.

Permitted values

- `gray`:

- `black`:

- `orange`:

- `pink`:

- `green`:

- purple: ➡
- blue: ➡

Default value: `gray`

Supplemental note

    This property value has no effect on the mapping lines in the Guide area.

(47) Whether automatic scrolling is enabled in the Operational Flow area (ucnp.base.client.autoscroll)

This property specifies whether the Operational Flow area is to scroll automatically. If `false` is specified in the `ucnp.base.client.flow.frame.visible` property, we recommend that you specify `false` in this property, because `true` will be ignored if it is specified in this property. Processing speed is better when `false` is specified than when `true` is specified.

If `true` is specified in this property, the Operational Flow area scrolls automatically so that the current process is always displayed.

Permitted values

- `true`: Enables automatic scrolling.
- `false`: Disables automatic scrolling.

Default value: `true`

(48) Whether to display a dialog box to confirm discarding of input information (ucnp.base.client.viewer.confirm.discardinput.enable)

This property specifies whether a confirmation dialog box is to be displayed when input information is to be discarded.

If you specify `true` in this property, a confirmation dialog box asking whether the information being entered is to be discarded is displayed when another window is displayed during operation. If there is no need to display a confirmation dialog box, specify `false` in this property.

Permitted values

- `true`: Displays a dialog box for confirming discarding of input information.
- `false`: Does not display a dialog box for confirming discarding of input information.

Default value: `true`

Supplemental notes

- If `false` is specified in the `ucnp.base.client.viewer.confirm.discardinput.enable` property, placement of a Terminal Node at the end is optional.
- If `all` is specified in the `ucnp.base.client.directjump.enable` property, no dialog box for confirming discarding of input information will be displayed and this property's setting will be ignored.

(49) Whether to use Suspend/Resume Plugins (ucnp.base.client.suspend.enable)

This property specifies whether Suspend/Resume Plugins are to be used.

If it is to be possible for entry of information during execution of an Operational Content to be suspended and then the same Operational Content to be executed the next time, specify `true` in this property to use the function that restores saved information and resumes the Operational Content.

If this property is set to `true` and no Suspend/Resume Plugin has been added when the user logs in to Navigation Platform, a message (`KDCZ10082-E`) is output and a system error window is displayed.

Note that to use Suspend/Resume Plugins, you need to perform a required procedure in addition to specifying this property. For details about the required procedure, see *3.4.3 Estimating the size when using a Suspend/Resume Plugin*.

Permitted values

- `true`: Uses Suspend/Resume Plugins.
- `false`: Does not use Suspend/Resume Plugins.

Default value: `false`

Supplemental note

If `true` is specified in this property and `all` is specified in the `ucnp.base.client.directjump.enable` property, a message (`KDCZ10138-E`) is output and the system startup is stopped.

(50) Color of frames that highlight erroneous parts (ucnp.base.client.erroritem.emphasis.border.color)

An error will occur if an attempt is made to perform the next operation without first entering a required part. This property specifies the color of the frame that highlights such an error.

Permitted values

Specify a color as a six-digit hexadecimal value or the color's English name. The permitted characters include single-byte alphanumeric characters and hash marks (`#`).

- Hexadecimal value

  Specify a hash mark (`#`) at the beginning and a six-digit hexadecimal number following the hash mark.

- English name for a color

  Specify a name for a color that can be used in style sheets.

Default value: `red`

(51) Whether to use the operation log function (ucnp.base.client.operationlog.enable)

This property specifies whether the operation log function is to be used.

Permitted values

- `true`: Uses the operation log function.
- `false`: Does not use the operation log function.

Default value: `true`

(52) Operation log output destination (ucnp.base.server.operationlog.path)

This property specifies the absolute path of the operation log storage location. Use `\\` for the path delimiter.

Default value: *Navigation-Platform-installation-directory*`\\operationlogs`

Value in the file: `C:\\Program Files\\Hitachi\\HNP\\operationlogs`

Supplemental notes

If the specified output destination does not satisfy the following conditions, operation is not guaranteed:

- If you specify a location under *Navigation-Platform-installation-directory* as the output destination, specify the `operationlogs` directory.
- If you specify a location other than *Navigation-Platform-installation-directory* as the output destination, specify an existing directory.
- Do not use a locked process to reference the operation log. If the operation log is referenced in such a case, it might become impossible to output the operation log or to switch operation log files.
- In addition to the operation log, the file `operation.lck` is created at the time of system startup. This file is deleted when the system is stopped.
- If this property is omitted, the default value is applied.

(53) Maximum number of operation log files (ucnp.base.server.operationlog.backup.number)

This property specifies the maximum number of operation log files. The specified value is assigned as the maximum value for the names of the operation log files. For example, if the default value of `40` is used, `operation1.log` to `operation40.log` are used as the names for operation log files and a total of 40 operation log files are output.

Permitted values: Integers in the range from `1` to `128`

Default value: `40`

Supplemental notes

- Do not use a locked process to reference the operation log. If the operation log is referenced in such a case, it might become impossible to output the operation log or to switch operation log files.
- Adjust this property's value according to the number of records to be output per day and the operation log storage period.
  Adjust this property's value together with the following property's value:

Maximum file size for the operation log:
  `ucnp.base.server.operationlog.size` property

(54) Maximum file size for the operation log (ucnp.base.server.operationlog.size)

This property specifies the maximum file size for the operation log.

Permitted values: Integers in the range from `1024` to `2097151` (KB)

Default value: `40960` (KB)

(55) Settings for operation log output items (ucnp.base.server.operationlog.user.analyze.info)

This property specifies whether items that facilitate analyses are to be output to the operation log when user-specific analyses are performed. If you will be using the dashboard function, specify `true`.

When `true` is specified in this property, the following items are output:

- Date and time
- Session ID
- User ID or JP1 user ID (output only when the Operational Content begins; this information is not output otherwise)
- Group ID
- Operational Content name
- Source node name
- Actual target node name
- Specified target node name
- `ucnpOptions` parameter value

Permitted values

- `true`: Outputs to the operation log the items that facilitate analyses when user-specific analyses are performed.
- `false`: Does not output to the operation log the items that facilitate analyses when user-specific analyses are performed.

Default value: `true`

Supplemental notes

- If `false` is specified, the items that facilitate analyses are not output to the operation log even though user-specific analyses are performed. In such a case, only the information needed for displaying the Reporting window is output to the operation log.
- Specifying `false` greatly reduces the size of the operation log. If you will not be performing user-specific analyses or if you will not be using the dashboard function, we recommend that you specify `false`.

(56) Number of Operational Contents for which analysis results are to be displayed in the Reporting window (ucnp.base.server.operationlog.ranking.num)

This property specifies the number of Operational Contents for which analysis results are to be displayed in the Reporting window for the operation log.

As many Operational Contents as the value specified in this property are displayed in the Reporting window for the operation log. When `0` is specified, all Operational Contents are displayed.

Permitted values: Integers in the range from `0` to `2000`

Default value: 0

(57) Number of users for which analysis results are to be displayed in the Reporting window (ucnp.base.server.operationlog.ranking.user.num)

This property specifies the number of users (per Operational Content and per node) for which analysis results are to be displayed in the Reporting window for the operation log.

As many users as the value specified in this property are displayed in the Reporting window for the operation log. When 0 is specified, all users are displayed.

Permitted values: Integers in the range from 0 to 300

Default value: 10

(58) Whether the audit log is to be used (ucnp.base.client.auditlog.enable)

This property specifies whether the audit log is to be used.

Permitted values

- true: Uses the audit log.

- false: Does not use the audit log.

Default value: false

(59) Audit log output destination (ucnp.base.server.auditlog.path)

This property specifies the absolute path of the audit log file. Use \\ for the path delimiter. If you want to rename the audit log file, change ucnp_audit to the desired character string.

Default value: *Navigation-Platform-installation-directory*\\auditlog\\ucnp_audit

Value in the file: C:\\Program Files\\Hitachi\\HNP\\auditlog\\ucnp_audit

Supplemental notes

- The audit log is output in the format ucnp_audit*file-number*.log.

- If this property is omitted, *Navigation-Platform-installation-directory*\\auditlog\\ucnp_audit*file-number*.log is output.

- In addition to the audit log file, the file ucnp_audit.lck is created at the time of system startup.

- If you specify a location under *Navigation-Platform-installation-directory* as the output destination, specify auditlog. If any other directory is specified, operation is not guaranteed.

- If you have specified a location under auditlog as the output destination, specify a path that does not contain the file or the directory shown below. Otherwise, the audit log might be overwritten by the file or a directory. If ucnp_audit has been changed to a different character string, do not specify the file name after the change.

  File other than the audit log that begins with ucnp_audit*file-number*.log

  Directory that begins with ucnp_audit*file-number*.log

- If the specified file path does not satisfy the conditions, operation is not guaranteed. If an error occurs, a message (`KDCZ10304-E`) is output to the trace file and system startup is stopped.

(60) Maximum number of audit log files (ucnp.base.server.auditlog.backup.number)

This property specifies the maximum number of audit log files. The specified value is assigned as the maximum value for the names of audit log files. For example, if the default value of `16` is used, *audit-log-file-name*`1.log` to *audit-log-file-name*`16.log` are used as the names for audit log files.

Permitted values: Integers in the range from `1` to `32`

Default value: `16`

(61) Maximum file size for the audit log (ucnp.base.server.auditlog.size)

This property specifies the maximum file size for the audit log.

Permitted values: Integers in the range from `1024` to `2097151` (KB)

Default value: `10240` (KB)

(62) Analysis target in the Reporting window (ucnp.base.server.operationlog.report.target)

This property specifies the analysis target in the Reporting window for the operation log. Specify the analysis target according to the usage and purpose of the Reporting window.

Permitted values

- `latest`

  The analysis target is to be the Operational Content that is displayed in the Operational Content Execution Window. Use this value when you want to check the usage status of only the Published Version of an Operational Content. If you save the usage status of Operational Contents before they are published, you can check the changes in the usage status before and after an Operational Content was published.

- `all`

  The analysis target is to include older versions of the Operational Content that is being displayed in the Operational Content Execution Window. Use this value when you want to check the usage status of the Operational Content regardless of its versions. You can obtain the changes in usage status of Operational Contents by continuously accumulating the analysis results in the Reporting window. This also enables you to improve Operational Contents by identifying the reasons for changes.

Default value: `latest`

(63) Whether the Get URL menu is to be displayed in the header area in the Operational Content Execution Window (ucnp.base.server.geturl.link.display)

This property specifies whether the **Get URL** menu is to be displayed in the header area in the Operational Content Execution Window.

Permitted values

- `true`: Displays the **Get URL** menu.
- `false`: Does not display the **Get URL** menu.

Default value: `true`

Note:

> This property is not supported in an execution environment in which Operational Contents for the iPad are published. In such an environment, make sure that you specify `false`.

Supplemental note

> URLs that can be obtained from the **Get URL** menu do not include any parameters other than the Operational Content ID. Neither a URL for displaying the Operational Content Editing Window nor a URL for specifying the end button can be obtained. If you will be using other parameters in URLs, we recommend that you specify `false` in this property to hide the **Get URL** menu.
>
> For details about these URLs, see *2.1.3 URLs used to access Navigation Platform windows*.

(64) Display condition for dashboard display links for operation logs (ucnp.base.server.dashboard.link.display)

This property specifies the display condition for dashboard display links for operation logs.

Permitted values:

- `true`: Displays links.
- `false`: Does not display links.

Default value: `false`

(65) Host name of the target JP1/IM-SS (ucnp.base.client.jp1imss.hostname)

This property specifies the host name of the target JP1/IM-SS.

Permitted values: Character strings

Default value: `localhost`

Supplemental notes

- If you will be using a Service Support Window URL Plugin, make sure that you specify the name of the physical host or the logical host at which JP1/IM-SS is to be run.
- An empty character string cannot be specified.

(66) Port number of the target JP1/IM-SS (ucnp.base.client.jp1imss.portnum)

This property specifies the port number of the target JP1/IM-SS.

Permitted values: Integers in the range from `1` to `65535`

Default value: `24401`

Supplemental notes

- If you will be using a Service Support Window URL Creation Plugin, make sure that you specify this property.

(67) Host name of the target JP1/AO (ucnp.base.client.jp1ao.hostname)

This property specifies the host name of the target JP1/AO.

Permitted values: Character strings

Default value: `localhost`

Supplemental notes

- If you will be using either of the following System Plugins, make sure that you specify the name of the physical host or the logical host on which JP1/AO is to be run:

  Automatic Operation Window URL Creation Plugin

  Automatic Operation Service Execution Plugin

  Automatic Operation Property Output Plugin

- An empty character string cannot be specified.

(68) Port number of the target JP1/AO (ucnp.base.client.jp1ao.portnum)

This property specifies the port number of the target JP1/AO.

Permitted values: Integers in the range from `1` to `65535`

Default value: `22015`

Supplemental note

- You must specify this property if you are using the following System Plugins:

  Automatic Operation Window URL Creation Plugin

  Automatic Operation Service Execution Plugin

  Automatic Operation Property Output Plugin

- Review the value specified for this property when linking with version 10 of JP1/AO, or when changing the JP1/AO port numbers from the default.

(69) Whether the target JP1/AO is in an HTTPS environment (ucnp.base.client.jp1ao.https.enable)

This property specifies whether the target JP1/AO is in an HTTPS environment.

Permitted values

- `true`: JP1/AO is in an HTTPS environment.

- `false`: JP1/AO is not in an HTTPS environment.

Default value: `false`

Supplemental note

- You must specify this property if you are using the following System Plugins in a system where JP1/AO operates in an HTTPS environment:

Automatic Operation Window URL Creation Plugin

Automatic Operation Service Execution Plugin

Automatic Operation Property Output Plugin

(70) Whether JP1 event association files can be used (ucnp.base.client.jp1ev.association.enable)

This property specifies whether a specific Operational Content associated with JP1 event information is to be opened when it is called from JP1/IM or JP1/IM-SS.

For details about the association of Operational Contents with JP1 event information, see *5.13.4 Associating JP1 event information with Operational Contents*.

Permitted values

- `true`: The JP1 event association file is enabled.

- `false`: The JP1 event association file is disabled.

Default value: `false`

(71) Width of the Back button in the Operational Content Execution Window (ucnp.base.client.back.button.width)

This property specifies the width in pixels of the **Back** button in the Operational Content Execution Window.

Permitted values: `30` to `260` (pixels)

Default value: `100` (pixels)

Supplemental notes

- The **Back** button is not displayed when `all` is specified in the `ucnp.base.client.directjump.enable` property. In such a case, this property's setting is ignored.

- You can change the button's name by changing a node attribute setting. If the width of the button name will be greater than the value specified in this property, the button name will be truncated.

(72) Width of the Next button in the Operational Content Execution Window (ucnp.base.client.next.button.width)

This property specifies the width in pixels of the **Next** button in the Operational Content Execution Window.

Permitted values: `30` to `260` (pixels)

Default value: `130` (pixels)

Supplemental note

You can change the button name by changing a node attribute setting. If the width of the button name will be greater than the value specified in this property, the button name will be truncated.

(73) Width of the Done button in the Operational Content Execution Window (ucnp.base.client.complete.button.width)

This property specifies the width in pixels of the **Done** button in the Operational Content Execution Window.

Permitted values: 30 to 260 (pixels)

Default value: 130 (pixels)

Supplemental note

> You can change the button name by changing a node attribute setting. If the width of the button name will be greater than the value specified in this property, the button name will be truncated.

(74) Width of the button used to change to the next node via a Branch Node in the Operational Content Execution Window (ucnp.base.client.branch.button.width)

This property specifies the width in pixels of the button for changing to the next node. This button is displayed when a Process Node preceding a Branch Node is selected in the Operational Content Execution Window. Note that this property is not applied to a Process Node that has only one branch target.

Permitted values: 30 to 260 (pixels)

Default value: 130 (pixels)

Supplemental note

> You can change the button name by changing a node attribute setting. If the width of the button name will be greater than the value specified in this property, the button name will be truncated.

(75) Button height in the Operational Content Execution Window (ucnp.base.client.node.transition.button.height)

This property specifies the height of buttons that are displayed in the Operational Content Execution Window. This property applies to the following buttons:

- **Back** button
- **Next** button
- **Done** button
- Buttons indicating branching conditions

Permitted values: 22 to 130 (pixels)

Default value: 22 (pixels)

(76) Whether to display the Operational Content Editing Window (ucnp.base.client.operation.editor.enable)

This property specifies whether display of the Operational Content Editing Window is to be permitted. If false is specified in this property, it will no longer be possible to open the Operational Content Editing Window regardless of URL parameters or the user's access permissions. In addition, the **Editing Window View** menu will no longer be

displayed in the Operational Content Execution Window. For details about the URL, see *2.1.3 URLs used to access Navigation Platform windows*.

By using a system configuration in which the editing environment and the execution environment are located on separate servers and specifying `false` in this property in the execution environment, you can prevent users from editing Operational Contents by mistake.

Permitted values

- `true`: Permits display of the Operational Content Editing Window to be displayed.
- `false`: Does not permit the Operational Content Editing Window to be displayed.

Default value: `true`

(77) Grid width in the Operational Content Editing Window (ucnp.base.client.grid.size)

This property specifies the grid width in the Operational Content Editing Window. Parts placed in the Operational Content Editing Window will snap to the grids placed at this grid interval.

Parts are placed along (snapped to) the grid.
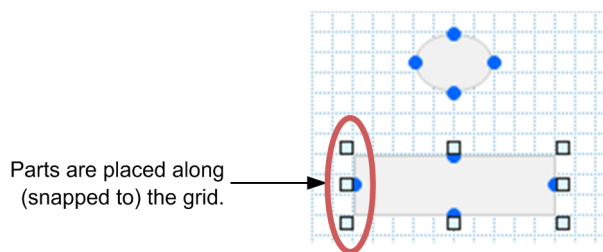
Permitted values

- `0`: Snap processing is not to be performed.
- `5`: 5 pixels
- `10`: 10 pixels
- `20`: 20 pixels

Default value: `10`

(78) Maximum number of operations that can be undone by the Undo button (ucnp.base.client.undo.max.count)

This property specifies the maximum number of operations that can be undone by the **Undo** button. The value specified in this property is the maximum number of operations subject to the **Undo** button's operation.

Permitted values: `1` to `100`

Default value: `10`

(79) Whether to display the File Management/Registration menu (ucnp.base.server.fileupload.link.display)

This property specifies whether the **File Management/Registration** menu is to be displayed in the header area in the Operational Content Editing Window.

Permitted values

- `all`: Displays the **File Management/Registration** menu for all users.
- `admin`: Displays the **File Management/Registration** menu for the system administrator only.
- `none`: Does not display the **File Management/Registration** menu.

Default value: `admin`

(80) Whether to display icons in the Plugins pallet (ucnp.base.client.editor.jp1plugin.toolpalette.display)

This property specifies whether icons for JP1 Link Plugins are to be displayed in the **Plugins** pallet.

Permitted values

- `true`: Displays icons for JP1 Link Plugins.
- `false`: Does not display icons for JP1 Link Plugins.

Default value: `false`

Supplemental note

This property controls only whether icons for the JP1 Link Plugins are to be displayed. Even when `false` is specified, you can still operate Operational Contents in which JP1 Link Plugins are already placed and change the settings for the JP1 Link Plugins that have been placed.

(81) Whether to display the names of Content Editors (ucnp.base.client.editor.name.display.type)

This property specifies the method for displaying the users who have edited Operational Contents.

Permitted values

- `userId`: Displays the user IDs as the user names.
- `displayName`: Displays the **Display name** in Active Directory as the user names.

Default value: `userId`

Supplemental notes

- Consider the setting for this property when you specify `AD` as the user authentication type in the `ucnp.setup.server.ldap.directory.kind` property.
- If `displayName` is specified in this property and the information for **Display name** in Active Directory cannot be acquired, a hyphen (-) is displayed for the user name.
- If `displayName` is specified in this property when the `ucnp.setup.server.ldap.directory.kind` property value is not `AD`, a hyphen (-) is displayed for the user name.
- If `displayName` is specified in this property, the **Display name** in effect when data is acquired from Active Directory is displayed for the user name. If the information for **Display name** is updated after Navigation Platform has already acquired the data, the acquired **Display name** is not updated.

(82) Maximum number of Operational Contents (ucnp.base.client.menu.maxnum)

This property specifies the maximum number of Operational Contents.

Permitted values: Integers in the range from `1` to `2000`

Default value: `500`

Notes:

- Evaluate the server's disk capacity before you increase the default value for the maximum number of Operational Contents. For details, see *5.11 Procedure for increasing the maximum number of Operational Contents*.

- Do not specify a value that is less than the number of Operational Contents that have already been created. If you want to specify a value that is less than the number of Operational Contents that have already been created, first delete Operational Contents and then specify an appropriate value.

- If you have specified by mistake a value that is less than the number of Operational Contents that have already been created, change the value to at least the number of Operational Contents that have already been created.

- If many Operational Contents are displayed in the menu area, it takes time to display all Operational Contents. The amount of time depends on the client machine's specifications and the web browser's version.

(83) List of user IDs of users who are allowed access to the Dashboard window for the operation log (ucnp.base.server.dashboard.auth.userids)

This property specifies a list of user IDs of users who are allowed access to the Dashboard window for the operation log. Specify user IDs of users who are allowed to log in to Navigation Platform.

To specify multiple user IDs, use the CSV format, in which user IDs are separated with commas (`,`). You can specify a maximum of 100 user IDs. When you specify user IDs, do not enter unnecessary spaces before or after each user ID.

Permitted values:

- When no user ID is specified
  Empty character string

- When only one user ID is specified
  A string of single-byte alphanumeric characters

- When multiple user IDs are specified
  - A string of a maximum of 31 single-byte alphanumeric characters per user ID
  - A comma (`,`) to separate one user ID from another[#]
  #: You cannot specify an empty character string between commas.

Default value:

`user1`[#]

#

Immediately after setup, the following values are set.

- When JP1 authentication is used for user authentication (user authentication through JP1/Base)
  `user1,jp1admin`

- When an authentication scheme other than JP1 authentication is used

```
user1
```

8.6 Specifying settings in the user message properties file (ucnp_message_user.properties)

You can change the contents of the following messages by editing the user message properties file:

- Message (KDCZ00146-W) that is displayed when an attempt is made to close the Operational Content Execution Window or the Operational Content Editing Window by using the **X** button on the web browser or by changing to another page

- Message (KDCZ10060-I) that is displayed when an operation is completed in the Operational Content Execution Window

- Message (KDCZ00307-E) that is displayed when a required check box is not selected

- Message (KDCZ00223-Q) that is displayed when the **File Management/Registration** menu is selected while the File Management/Registration window is open

There are user message properties files for Japanese language and for English language. These files need to be customized according to the environment in which they are to be used. In this manual, the file name for English language is used hereafter. Replace it with the file name for Japanese language, if necessary.

The names of the user message properties files are as follows:

Japanese language: `ucnp_message_user_ja.properties`

English language: `ucnp_message_user.properties`

> 📄 **Note**
>
> - If `false` is set in the `ucnp.base.client.confirm.page.unload.enable` property in the user property file (`ucnp_user.properties`), the message (KDCZ00146-W) that is set in the user message properties file is not displayed. Instead, the web browser is closed upon termination of the Operational Content.

8.6.1 Storage location of the user message properties file

The storage location of the user message properties file is as follows:

Property file storage location:
   Navigation-Platform-installation-directory`\conf\ucnp_message_user.properties`

8.6.2 Example of user message properties file

The following shows an example specification of the user message properties file:

`KDCZ10060-I =` <u>`Completed.`</u>

You can change the message by editing the underlined part. Make sure that the text is encoded in UTF-8.

Note that the permitted message IDs are `KDCZ00146-W`, `KDCZ10060-I`, `KDCZ00307-E`, and `KDCZ00223-Q`. Do not specify any other message ID.

For `KDCZ00307-E`, a character string encoded in UTF-8 is set by default so that the message `Check the unchecked items` is displayed in the user message properties file that is created automatically during setup.

(1) Example of the KDCZ00146-W message

The `KDCZ00146-W` message is output if an attempt is made to close the window by using the **X** button on the web browser or an attempt is made to change to another page by using the **F5** key or the **Backspace** key. The table below explains the buttons that are displayed in the header area of the window and shows examples of the `KDCZ00146-W` message that depend on whether plugins are used. These examples assume that the user of the Operational Content Execution Window attempts to close the window by using the **X** button on the web browser.

Table 8–7: Examples of the KDCZ00146-W message

No.	Button[1]	Whether plugins are used	Example of message
1	**Logout** button	No	To close the window, first log out by using **Logout**, and then exit.[2]
2		Yes	The items being entered are not saved.\\nTo close the window, first log out by using **Logout**, and then exit.
3	**Close** button	No	To close the window, exit by using the **Close** button.
4		Yes	The items being entered are not saved.\\nTo close the window, exit by using the **Close** button.
5	No button (the window is to be closed only when an Operational Flow is completed)	No	--
6		Yes	The items being entered are not saved.\\nComplete the Operational Content.

Legend:

--: There is no message.

Note:

\\n indicates a newline.

#1

There are two ways to set the applicable button. One is by specifying the `ucnpCloseBtn` parameter in the URL, and the other is by specifying one the following properties in the user property file (`ucnp_user.properties`):

`ucnp.base.server.logoutbutton.display` property

#2

This message is output by default.

8.7 Specifying settings in the user label property file (ucnp_label_user.properties)

You can edit the user label property file to change the character strings that constitute links for the *Link1* through *Link9* menus in the header area in the Operational Content Execution Window.

You can change the following link display character strings:

Label ID

`label_custom_link_`*N* (*N*: Number from 1 to 9)

Default character string that is displayed

`Link`*N* (*N*: Number from 1 to 9)

The number *N* at the end of the label ID corresponds to the number in the `ucnp.base.server.custom.link.`*N* property.

For example, the character string that is displayed for link 1 in the *Link1* through *Link9* menus is the value specified for `label_custom_link_1`, and the URL is the value specified in the `ucnp.base.server.custom.link.1` property.

There are user label property files for Japanese language and for English language. These files need to be customized according to the environment in which they are to be used. In this manual, the file name for English language is used hereafter. Replace it with the file name for Japanese language, if necessary.

The names of the user label property files are as follows:

Japanese language: `ucnp_label_user_ja.properties`

English language: `ucnp_label_user.properties`

8.7.1 Storage location of the user label property file

The storage location of the user label property file is as follows:

Property file storage location:

Navigation-Platform-installation-directory`\conf\ucnp_label_user.properties`

8.7.2 Example specification of the user label property file

`label_custom_link_1=`link1

You can change the character string that constitutes a link by editing the underlined part. Make sure that the text is encoded in UTF-8.

> 💡 **Tip**
>
> If the character string constituting a link is too long, the character string will be truncated. Therefore, our guideline recommendation is that you specify a maximum of about 25 single-byte alphanumeric characters.

8.8 Specifying settings in the user style property file (ucnp_style_user.properties)

You can edit the user style property file to add non-system default font families to the set of font options for the **Character font** drop-down list on the **Size Settings** tab in the **Operational Content Settings** window of the Operational Content Editing Window.

There are user style property files for Japanese language and for English language. You can specify a style appropriate to the locale setting of the web browser to be used. In this manual, the file name for English language is used hereafter. Replace it with the file name for Japanese language, if necessary.

The names of the user style property files are as follows:

Japanese language: `ucnp_style_user_ja.properties`

English language: `ucnp_style_user.properties`

8.8.1 List of properties in the user style property file (ucnp_style_user.properties)

The following table lists and describes the properties in the user style property file.

Table 8–8: Settings in the user style property file (ucnp_style_user.properties)

No.	Property key	Setting	Default value
1	`ucnp.style.contents.font.family.list`	A list of font families that can be applied to resources in Operational Contents	None

8.8.2 Storage location of the user style property file

The user style property file is created automatically during setup. The storage location of the user style property file is as follows:

Property file storage location:
  Navigation-Platform-installation-directory`\conf\localize\style\ucnp_style_user.properties`

8.8.3 Details about the properties in the user style property file

This subsection explains each property in the user style property file.

(1) List of font family names (ucnp.style.contents.font.family.list)

This property is to add non-system default font families to the set of font options for the **Character font** drop-down list on the **Size Settings** tab in the **Operational Content Settings** window of the Operational Content Editing Window.

You can specify a comma-separated list of font families that can be applied to resources in Operational Contents. If this property is not specified, the default settings of the system are applied.

Notes:

- A font family name must be enclosed in single quotation marks (`'`) when the name contains a space.

- The following characters are not acceptable:
  Control characters (ASCII codes `0x00` to `0x1F` and `0x7F`)
  `" ; { } ( )`

The **Character font** drop-down list displays the following options in the order they are listed here:

1. The **Follow the system font setting.** option

2. The list of font families that is specified with this property

   The drop-down list sorts the font families from top to down in the order in which they are listed, separated by commas, in this property from left to right.

   The drop-down list displays font family names without single quotation marks (`'`) even when the names are enclosed in the quotation marks.

3. The current font of the Operational Content

System default style properties

Here is a list of the system's default fonts that can be applied to resources in Operational Contents.

For Japanese:

- MS PGothic
- Hiragino Kaku Gothic ProN W3

For English:

- Arial
- Helvetica
- MS PGothic
- Hiragino Kaku Gothic ProN W3

9

Commands

This chapter explains the commands provided by Navigation Platform.

9.1 Overview of the commands

This section presents a list of the commands provided by Navigation Platform. The section also explains notes about executing the commands.

9.1.1 List of commands

The following table lists and describes the commands provided by Navigation Platform.

Table 9–1: List of commands provided by Navigation Platform

No.	Command name	Overview of function
1	npaclexport command	Exports information about the saved access permission groups.
2	npconvertoplog command	Renames operation log files according to the numbering method for the Navigation Platform version.
3	npdashboardremoveolddata command	Deletes accumulated old operation log analysis information.
4	npdashboardsetstoragememory command	Modifies settings for the memory capacity required by the storage service of the dashboard server.
5	npdatabackup command	Backs up environments for Navigation Platform.
6	npdatarestore command	Restores environments for Navigation Platform using the data that was backed up by the npdatabackup command (back up environment).
7	npexport command	Exports the Operational Contents and the access permission settings that have been saved.
8	npextendrdarea command	Extends the database capacity.
9	npimport command	Imports one or both of the following: • The Operational Contents and access permission settings that have been exported by the npexport command • Information about access permission groups that have been exported by the npaclexport command
10	nppddbst command	Checks the database's usage status.
11	nppubexport command	Exports the most recent Published Versions of Operational Contents that are now being published and the access permission settings.
12	nppubimport command	Imports files that were exported by the nppubexport command (export Published Versions of Operational Contents) and updates the Operational Contents that are now being published.
13	npreorg command	Reorganizes the database.
14	npsetup command	Sets up Navigation Platform.
15	npsnapshotlog command	Acquires logs and environment settings files that are related to Navigation Platform.
16	npstart command	Starts Navigation Platform.
17	npstop command	Stops Navigation Platform.
18	npunsetup command	Deletes data (excluding static files) for all Operational Contents and unsets up Navigation Platform.

No.	Command name	Overview of function
19	`npupdatesearchdata` command	Applies to search data the contents of Operational Contents at the time of the command's execution.
20	`npuploadoplog` command	Compresses Navigation Platform operation logs into zipped files and then stores the zipped files in a static contents storage folder.

9.1.2 Notes common to all commands

This subsection provides notes common to all commands. If any of the following is not observed, operation is not guaranteed even when no error occurs.

- Execute the commands as a user with the Windows administrator privileges that were used for performing Navigation Platform installation processing. To do this, you must open the command prompt with **Run as administrator** selected and then execute commands.

- Do not execute more than one command at a time, except for the `npsnapshotlog` command (collect troubleshooting information). Multiple `npsnapshotlog` commands cannot be executed concurrently.

- Do not perform any other operation while a command is executing.

- During command execution, do not terminate the command prompt that is displayed, and do not terminate commands forcibly.

- Do not assign a name beginning with `UCNP` to any environment variable other than those environment variables that were specified when Navigation Platform was set up.

- Host names (a maximum of 15 bytes) can consist of only single-byte alphanumeric characters (`A` to `Z`, `a` to `z`, and `0` to `9`) and single-byte hyphens (`-`).

- If a path specified in a command option contains a single-byte space, enclose the entire path in double quotation marks (`"`).

- Do not change or delete any of the directories or files under the installation directory, unless instructed otherwise.

9.2 npaclexport command (export access permission groups)

Description

This command exports information about the saved access permission groups.

Use this command to export only the information about access permission groups. For example, the `npaclexport` command is useful if you want to change only the access permission groups when you add users who can reference Operational Contents.

If you want to export information about Operational Contents, see *9.8 npexport command (export Operational Contents)*.

Note that this command must be executed while the system is running after setup has been completed. Open the command prompt as an administrator.

Format

```
npaclexportΔ[-iΔpath-of-access-permission-group-name-input-file]Δ[-lΔpath-of
-access-permission-group-export-list-file]Δpath-of-export-destination-file
```

For the path of the export file, specify an absolute path or a relative path consisting of a maximum of 200 characters. The file is output in ZIP format.

Use backslashes (\) for the delimiters. If a path contains a single-byte space, enclose the entire path in double quotation marks (`"`). In addition to these symbols, the only other symbols permitted in directory paths are single-byte colons (`:`) and single-byte periods (`.`) that indicate relative paths.

Options

`-i` *path-of-access-permission-group-name-input-file*

    Specifies the absolute path or the relative path of the access permission group name input file.

    When this option is specified, only the access permission groups whose names are listed in the specified file are exported. If this option is omitted, all access permission groups are exported.

`-l` *path-of-access-permission-group-export-list-file*

    Specifies the absolute path or the relative path of the access permission group export list file.

    When this option is specified, a list of exported access permission groups is output as a text file.

Format of an access permission group name input file

Specify the access permission group names delimited by the end-of-line code. Create the access permission group name input file as a text file. If it is not a text file, an error message (`KDCZ10147-E`) will be displayed during command execution.

To specify the standard access permissions, specify either the Japanese name or the English name for the standard access permissions.

A character string without any spaces (single-byte or double-byte spaces) before and after each line is imported as an access permission group name. If an access permission group name becomes an empty character string as a result of deleting spaces before and after the line, that line is not imported.

If an `EOF` code is detected on a line, the character string up to the `EOF` code is imported as an access permission group name.

Note that comment lines cannot be added (by, for example, using hash marks (`#`)).

Format of an access permission group export list file

Header information is output at the beginning of the file and then messages are output in the following format:

```
[result-type]<T>[access-permission-group-name] <T>[access-permission-group-I
D]<CR><LF>
```

`<T>`: Tab character

`<CR><LF>`: Termination character (`0x0D`, `0x0A`)

The following table provides the details of the messages.

Table 9–2: Details of the messages that are output to access permission group export list files

Item	Description
`Result`	Outputs the execution result of the `npaclexport` command: `exported` Access permission groups have been exported.
`Access Permission Group Name`	Outputs the names of the exported access permission groups.
`Access Permission Group ID`	Outputs the IDs of the exported access permission groups.

The following shows an output example of an access permission group export list file:

```
Result     Access Permission Group Name    Access Permission Group ID
Exported   Standard access permissions     ID_ACL_DEF_ID
Exported   AccessA                         fa078688-0145-1000-8000-0000ac11510b
Exported   AccessB                         fb588688-0145-1000-8000-0000ac11350d
Exported   AccessC                         ad488688-0145-1000-8000-0000ac11510b
```

Notes:

- If a file with the same name as the file specified as the output destination already exists in the same directory, an error occurs, in which case the file cannot be exported. Specify a nonexistent file.

- Do not specify a network drive in a file path.

- If the amount of disk space available at the export destination is not sufficient for the Operational Contents to be exported, this command terminates abnormally.

  Note also that the command uses the folder specified in the `TMP` or `TEMP` environment variable as the work folder during execution. Therefore, before you execute the command, make sure that there is enough free disk space for the folder specified in the `TMP` or `TEMP` environment variable.

- Do not use this command when you are using JP1/Base for user authentication, because there are no access permission groups.

Return value

Return value	Description
0	The command terminated normally or terminated with a warning.
1	The command terminated abnormally.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Notes

The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

Example 1

This example exports access permission groups under the following conditions:

- The path of the export file is `C:\work\repository.zip`.

- All access permission groups are to be exported.

```
> Navigation-Platform-installation-directory\bin\npaclexport C:\work\repos
itory.zip
```

Example 2

This example exports access permission groups under the following conditions:

- The path of the export file is `C:\work\repository.zip`.

- The path of the access permission group name input file is `C:\work\accessName.txt`.

- The access permission groups specified in the access permission group name input file are to be exported.

```
> Navigation-Platform-installation-directory\bin\npaclexport -i C:\work\ac
cessName.txt C:\work\repository.zip
```

Example 3

This example exports access permission groups under the following conditions:

- The path of the export file is `C:\work\repository.zip`.

- The path of the access permission group export list file is `C:\work\list.csv`.

- All access permission groups are to be exported.

```
> Navigation-Platform-installation-directory\bin\npaclexport -l C:\work\li
st.csv C:\work\repository.zip
```

9.3 npconvertoplog command (rename operation log files)

Description

This command renames operation log files according to the numbering method for the Navigation Platform version.

The numbering method for operation log files is either of the following:

1. Method of numbering in chronological order of the update dates/times of the operation log files

   The following example renames operation log files with this numbering method:

   The names of operation log files before change are as follows:
   >   operation3.log (update date/time: 2015/6/18:15:00)
   >   operation2.log (update date/time: 2015/6/19:14:00)
   >   operation1.log (update date/time: 2015/6/22:13:00)

   When these operation log files are renamed by this numbering method, their new names are as follows:
   >   operation1.log (update date/time: 2015/6/18:15:00)
   >   operation2.log (update date/time: 2015/6/19:14:00)
   >   operation3.log (update date/time: 2015/6/22:13:00)

   The operation log files are renamed by this numbering method during version upgrade processing. For details, see *3.6 Upgrading Navigation Platform*.

2. Method of numbering sequentially starting with the most recent update date/time of the operation log files

   The following example renames operation log files with this numbering method:

   The names of operation log files before change are as follows:
   >   operation1.log (update date/time: 2015/6/18:15:00)
   >   operation2.log (update date/time: 2015/6/19:14:00)
   >   operation3.log (update date/time: 2015/6/22:13:00)

   When these operation log files are renamed by this numbering method, their new names are as follows:
   >   operation3.log (update date/time: 2015/6/18:15:00)
   >   operation2.log (update date/time: 2015/6/19:14:00)
   >   operation1.log (update date/time: 2015/6/22:13:00)

   Use this method if you have been using operation logs with Hitachi Navigation Platform 10-00 and JP1/Integrated Management - Navigation Platform 10-50 or earlier and you want to continue to perform user-specific analyses on the operation logs with JP1/Navigation Platform 11-00 or later.

Format

```
npconvertoplogΔ[-r]Δpath-of-operation-log-storage-directory
```

Specify the path of the directory that stores the operation logs to be renamed. This cannot be the directory path specified in the `ucnp.base.server.operationlog.path` property.

Options

`-r`

Renames the operation log files using the method of numbering sequentially starting with the most recent update date/time of the operation log files. If this option is omitted, the operation log files are renamed using the method of numbering in chronological order of the update date/time of the operation log files.

Notes:

- Specify the path of an existing directory for the path of the operation log storage directory.

- Make sure that the specified path of the operation log storage directory does not contain any character that is not permitted for Windows file names and directory names.

- Do not specify the path of a network drive in the path of the operation log storage directory.

- Do not specify a short name for the path of the operation log storage directory.

- If single-byte double quotation marks (") are used in the path of the operation log storage directory, use them correctly.

- Do not include any single-byte character other than those listed below in the path of the operation log storage directory:

  - Single-byte space ( )

  - Single-byte yen sign (\)

  - Single-byte colon (:)

  - Single-byte period (.)

- Do not access the operation logs while this command is executing.

- Do not change the date/time of the most recent updating of the operation log files.

- If this command terminates abnormally, re-execute it before performing any other operation.

Return value

Return value	Description
0	Renaming of operation log files was successful.
1	Renaming of operation log files failed.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Note:

The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

This example assumes that the operation log storage directory is C:\temp\oplog:

```
> Navigation-Platform-installation-directory\bin\npconvertoplog C:\temp\oplo
g
```

9.4 npdashboardremoveolddata command (delete analysis information)

Description

This command deletes any accumulated analysis information that is more than six months old from the time at which the command is executed. You can use an argument to specify a different period that is to be the basis for deletion.

> 📄 **Note**
>
> After it has executed, the command displays a confirmation message (`KDCZ50847-Q`) asking whether processing is to be continued. To continue, enter `Y`. To cancel, enter any value other than `Y`. If processing is canceled, the command terminates with return value `0`.

Execute this command as a user with the Windows administrator privileges while the dashboard server is running.

Format 1

```
npdashboardremoveolddataΔ[-y]
```

Use this format to delete analysis information that is more than six months old from the time at which the command is executed.

Format 2

```
npdashboardremoveolddataΔ{period|--all}Δ[-y]
```

Use this format to delete analysis information that is at least as old as the specified period or to delete all analysis information.

Options

period`|--all`

- *period*

  Specifies a period of time (in months) that is to be the basis for deletion, as an integer from `1` to `6`.

- `--all`

  Specifies that all analysis information is to be deleted.

`-y`

  Specifies that the confirmation message that asks whether processing is to be continued is to be omitted.

Return value

Return value	Description
0	The command terminated normally.
1	The command terminated abnormally.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Note

  The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

This example deletes analysis information that is more than three months old from the time at which the command is executed.

```
> Navigation-Platform-installation-directory\bin\npdashboardremoveolddata 3
```

9.5 npdashboardsetstoragememory command (modify storage memory settings)

Description

This command modifies settings for the memory capacity required by the storage service of the dashboard server.

> 📄 **Note**
>
> After you have executed this command, you need to restart the dashboard server to apply the modifications.

Execute this command as a user with the Windows administrator privileges while the dashboard server is running.

Before you execute this command, use the file listed in the following to check the settings in effect before modification:

- **Target directory**

  ```
  Navigation-Platform-installation-directory\PP\OpenSearch\opensearch\config
  ```

- **File name**

  ```
  jvm.options.npsettings.txt
  ```

- **File contents**

  ```
  Minimum heap memory size m (MB) for -XmsJavaVM
  Maximum heap memory size m (MB) for -XmxJavaVM
  ```

  For example, if JavaVM's minimum heap memory size is 1,024 MB and maximum heap memory size is 1,024 MB, the file contents are as follows:

  Example
  ```
  -Xms1024m
  -Xmx1024m
  ```

Format

```
npdashboardsetstoragememoryΔminimum-sizeΔmaximum-size
```

For the minimum size, specify JavaVM's minimum heap memory size as an integer in the range from `512` to `2048`.

For the maximum size, specify JavaVM's maximum heap memory size as an integer in the range from `1024` to `2048`.

Return value

Return value	Description
0	The command terminated normally.
1	The command terminated abnormally.
9	An execution permission error occurred.

Note

The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

In this example, JavaVM's minimum heap memory size is 1,024 MB and the maximum heap memory size is 2,048 MB.

```
> Navigation-Platform-installation-directory\bin\npdashboardsetstoragememory
  1024 2048
```

9.6 npdatabackup command (back up environment)

Description

This command backs up environments for Navigation Platform.

This command can be executed only in the execution environment and the editing environment. Do not execute this command in the development environment.

This command must be executed while the system is stopped.

The following table lists and describes the data that can be backed up by this command.

Table 9–3: Data that is backed up

No.	Data	Storage location
1	Data for Operational Contents	*backup-directory*\contents.zip
2	List of data for Operational Contents	*backup-directory*\contentslist.txt
3	Static files used in Operational Contents	*backup-directory*\HNP\PP\uCPSB\httpsd\htdocs
4	Settings files related to Navigation Platform (such as property files)	*backup-directory*\HNP\conf
	Dashboard function access user management file	
5	Information about the Navigation Platform installation directory path	*backup-directory*\installpath.txt
6	Navigation Platform version information	*backup-directory*\HNP\sysconf\ucnpversion.properties
7	User Plugins and settings files[#]	*backup-directory*\plugin_files
8	User authentication settings files	*backup-directory*\auth_conf\PP\uCPF\conf\Repository.xml
		backup-directory\auth_conf\PP\uCPSB\manager\conf\ua.conf

Notes:

- Directories and files other than those listed in the table above are also created in the backup directory. Do not edit these files.

- A backup of files and directories inherits the attributes of the source data (such as the read attribute). However, the archive attributes for files and the non-indexed attributes for files and directories are not inherited.

#
  The npdatabackup command cannot acquire files required for User Plugins and the data such as databases in the system that are linked with user programs. We recommend that you acquire such data individually when you make backups.

Format

```
npdatabackupΔbackup-directory-path
```

You can specify an absolute path or a relative path for the directory. We recommend that you specify a path that is shorter than the Navigation Platform installation directory because if a specified path is too long, processing might fail.

Use backslashes (\) for the delimiters. If a path contains a single-byte space, enclose the entire path in double quotation marks ("). In addition to these symbols, the only other symbols permitted in directory paths are single-byte colons (:) and single-byte periods (.) that indicate relative paths.

Notes:

- You must specify for the backup destination an empty directory with at least 30 MB of free space. If you use the following files, also include the sizes of those files when you allocate the space:
  - If static files are used in Operational Contents
    Space for the files under *Navigation-Platform-installation-directory*\PP\uCPSB\httpsd\htdocs
  - If User Plugins are used
    Space for the files under *Navigation-Platform-installation-directory*\plugin_files
- This command uses the folder specified in the `TMP` environment variable as the work folder during execution. Allocate for the folder specified in the `TMP` environment variable at least 550 MB of free space.
- Specify a drive other than a network drive in the backup directory path.
- A short name cannot be used for a backup directory path.
- When the command terminates normally (return code is `0`), Navigation Platform remains stopped. You must execute the `npstart` command (start) to start Navigation Platform.
- After the backup processing has been completed, do not change the contents or attributes of the directories and files in the backup directory. If any are changed, environment restoration processing cannot be guaranteed.
- Before you move backup data, compress it by using a tool that can retain attributes and empty directories.

Return value

Return value	Description
0	Navigation Platform environment backup processing was successful.
1	Navigation Platform environment backup processing failed.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Note:
The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

This example assumes that the backup directory is `C:\temp\backupdata`:

```
> Navigation-Platform-installation-directory\bin\npdatabackup C:\temp\backup
data
```

9.7 npdatarestore command (restore environment)

Description

This command restores environments for Navigation Platform using the data that was backed up by the `npdatabackup` command (back up environment). Execute this command while the system is stopped.

This command can be executed only in the execution environment and the editing environment. Do not execute this command in the development environment.

The Navigation Platform version used during restoration must be the same as the Navigation Platform version used during backup.

When this command is executed, existing data is deleted or overwritten and replaced with the data that was backed up by the `npdatabackup` command. For details about the data that is backed up by the `npdatabackup` command, see *Table 9-3 Data that is backed up*.

Data that is not restored by the npdatarestore command

The settings files for User Plugins and user authentication are not restored by this command because they need to be synchronized with other systems.

In addition, the files required by User Plugins that have been acquired separately and the data such as databases in the system that are linked with user programs cannot be restored by this command. If necessary, restore the data synchronously with the User Plugins.

Format

```
npdatarestoreΔbackup-data-storage-directory-path
```

We recommend that you use the backup directory specified during execution of the `npdatabackup` command as is as the backup data storage directory (restoration source directory).

You can specify for the directory an absolute path or a relative path. We recommend that you specify a path that is shorter than the Navigation Platform installation directory because if the specified path is too long, processing might fail.

Use backslashes (`\`) for the delimiters. If a path contains a single-byte space, enclose the entire path in double quotation marks (`"`). In addition to these symbols, the only other symbols permitted in directory paths are single-byte colons (`:`) and single-byte periods (`.`) that indicate relative paths.

Notes:

- The required amount of free space in the restoration environment depends on the number and contents of Operational Contents. If static files are used in the Operational Contents, you will have to allocate an amount of free space that is equal to or greater than the sizes of the directories under *Navigation-Platform-installation-directory*`\PP\uCPSB` `\httpsd\htdocs`.

- Do not specify a network drive in the restoration source directory path.

- A short name cannot be used for the restoration source directory path.

- An error will occur if the directory specified as the restoration source contains data that has not been acquired by the `npdatabackup` command.

- The version, revision, and restricted code of Navigation Platform must be the same for the restoration processing as they were for the backup processing.

  You can determine the version information during backup processing by checking *backup-directory*`\HNP` `\sysconf\ucnpversion.properties`.

- The Navigation Platform installation directory during backup processing must be the same as during restoration processing.

  You can determine the installation directory when the backup data was acquired by checking *backup-directory* `\installpath.txt`.

- Navigation Platform starts automatically when this command terminates normally (return code is `0`), so there is no need to execute the `npstart` command (start).

- If the Navigation Platform version has been upgraded, the `npdatarestore` command cannot be used to restore from the backup data that was acquired before the Navigation Platform version was upgraded because the version used to acquire the backup differs from the version of the restoration destination. In such a case, see *3.6.5 Upgrade procedure* and then restore the backup data.

- Navigation Platform starts when this command is executed. For details, see the notes in *5.1.1 Using commands to start Navigation Platform (system)*.

Return value

Return value	Description
0	Navigation Platform environment restoration processing was successful.
1	Navigation Platform environment restoration processing failed.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Note:

The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

This example assumes that the restoration source directory is `C:\temp\backupdata`:

> *Navigation-Platform-installation-directory*`\bin\npdatarestore C:\temp\backupdata`

9.8 npexport command (export Operational Contents)

Description

This command exports the Operational Contents and access permission settings (access permission groups or JP1 resource groups) that have been saved.

This command exports all versions of Operational Contents, including versions that were published in the past. If you want to export only the current Published Versions, use the `nppubexport` command (export Published Versions of Operational Contents). For details, see *9.12 nppubexport command (export Published Versions of Operational Contents)*.

This command must be executed while the system is running after setup has been completed. Open the command prompt as an administrator.

If this command is executed before any Operational Contents have been created, it exports a file that contains no Operational Content.

> 📄 **Note**
>
> If you are using a directory server for user authentication, the access permissions for Operational Contents are determined by access permission groups and standard access permissions. On the other hand, if you are using JP1/Base for user authentication, the access permissions for Operational Contents are determine by JP1 resource group settings. Note that the only JP1 resource group information that can be exported by this command is the JP1 resource group names. The information needed for changing the JP1 resource group settings during import processing is not exported.

Format

```
npexportΔ[-cΔOperational-Content-ID-to-be-exported|-iΔpath-of-Operational-Co
ntent-IDs-list-file]Δ[-x]Δ[-lΔpath-of-export-list-file]Δpath-of-export-desti
nation-file
```

For the path of the export file, specify an absolute path or a relative path consisting of a maximum of 200 characters. The file is output in ZIP format.

Use backslashes (\) for the delimiters. If a path contains a single-byte space, enclose the entire path in double quotation marks ("). In addition to these symbols, the only other symbols permitted in directory paths are single-byte colons (:) and single-byte periods (.) that indicate relative paths.

> 💡 **Tip**
>
> If this command is executed before any Operational Content have been added, a file that contains no Operational Contents is created. If such a file is then imported by the `npimport` command (import Operational Contents) with the `-d` option specified, all Operational Contents that have been added will be deleted. This method is useful when you want to delete many Operational Contents in the batch mode.

Options

`-c` *Operational-Content-ID-to-be-exported*
  Specifies the Operational Content ID of a specific Operational Content that you want to export.

`-i` *path-of-Operational-Content-IDs-list-file*

> Specifies the absolute path or the relative path of the Operational Content IDs list file.
>
> If the `-c` option and the `-i` option are both omitted, all Operational Contents are exported.
>
> If the Operational Content IDs list file specified in the `-i` option contains a nonexistent Operational Content ID, only the existing Operational Contents and access permission settings are exported. In such a case, a warning message indicating that the corresponding Operational Content was not found is output.

`-x`

> Specifies that only the Operational Contents are to be output.
>
> Note that if you are using JP1/Base for user authentication, this option is ignored, if specified.

`-l` *path-of-export-list-file*

> Specifies the absolute path or the relative path of the export list file.
>
> When this option is specified, a list of exported Operational Contents is output as a text file.

Format of an Operational Content IDs list file

Specify Operational Content IDs delimited by the end-of-line code. Create the Operational Content IDs list file as a text file. If it is not a text file, an error message (`KDCZ10147-E`) will be displayed during command execution.

A character string without any spaces (single-byte or double-byte spaces) before and after each line is imported as the Operational Content IDs. If an Operational Content ID becomes an empty character string as a result of deleting the spaces before and after the line, that line is not imported.

When an `EOF` code is detected on a line, the character string up to the `EOF` code is imported as an Operational Content ID.

Note that comment lines cannot be added (by, for example, using hash marks (`#`)).

Format of an export list file

Header information is output at the beginning of the file and then messages are output in the following format:

```
[result-type]<T>[Operational-Content-ID]<T>[Operational-Content-version-ID]<
T>[update-date-and-time([time-zone])]<T>[published-date-and-time([time-zone]
)]<T>[publish-status]<T>[Operational-Content-name]<T>[group-name]<T>[access-
permission-group-name-1-or-JP1-resource-group-name-1]<T>
...
[access-permission-group-name-10-or-JP1-resource-group-name-10]<CR><LF>
[result-type]<T>[access-permission-group-name-1]<T>[access-permission-group-
ID-1]<CR><LF>
...
[result-type]<T>[access-permission-group-name-10]<T>[access-permission-group
-ID-10]<CR><LF>
```

`<T>`: Tab character

`<CR><LF>`: Termination character (`0x0D`, `0x0A`)

The following table provides the details of the messages.

Table 9–4: Details of the messages that are output to export list files

Item	Description
result-type	Displays the execution result of the `npexport` command (export Operational Contents):

Item	Description
result-type	`exported` Operational Contents or access permission groups have been exported.
Operational-Content-ID	Displays the ID of an Operational Content that was exported.
Operational-Content-version-ID	Displays the version ID of the Operational Content that was exported.
update-date-and-time	Displays the most recent date and time the exported Operational Content version was updated. Format: *YYYY/MM/DD hh:mm:ss.SSS* This is the date and time the Operational Content was saved or editing was finished in the Operational Content Editing Window.
published-date-and-time	Displays the most recent date and time the exported Operational Content version was published. Format: *YYYY/MM/DD hh:mm:ss.SSS* Note that even if the Operational Content was made private during export processing, the most recent date and time the Operational Content was published is still displayed. If the Operational Content has never been published, `----/--/--Δ--:--:--.---` is displayed.

publish-status	Displays the publication status of the exported Operational Content. The following are the two publication statuses:
	Now being published
	    The most recent Published Version of the Operational Content that is now being published
	Empty character string
	    Operational Content that does not satisfy the conditions for currently being published

Operational-Content-name	Displays the name of the exported Operational Content.
group-name	Displays the group name of the exported Operational Content.
access-permission-group-name	Displays the access permission group name set for the exported Operational Content on the same line as the Operational Content name. The exported access permission group names are displayed on subsequent lines. Standard access permissions are displayed first and then the access permission group names are displayed in ascending order of their names.
JP1-resource-group-name	Displays the JP1 resource group name set for the exported Operational Content on the same line as the Operational Content name.
access-permission-group-ID	Displays the exported access permission group ID.

The following shows an output example of an export list file:

```
Result     Operational Content ID     Operational Content Version ID     Dat
e Modified (JST)     Date published (JST)     Status     Operational Content
 Name     Group Name
exported     268e3592-0133-1000-8002-00000ad23cbb-0     fe6dcb35-0145-1000-8
000-0000ac11510b     2014/05/15 14:49:39.524     ----/--/-- --:--:--.---
     [sample01] Upgrading web application version     Sample contents
exported     268e3592-0133-1000-8002-00000ad23cbb-0     fe6db084-0145-1000-8
000-0000ac11510b     2014/05/15 14:49:37.793     ----/--/-- --:--:--.---
     [sample01] Upgrading web application version     Sample contents
exported     268e3592-0133-1000-8002-00000ad23cbb-0     fe6cfabc-0145-1000-8
000-0000ac11510b     2014/05/15 14:48:48.979     2014/05/15 14:49:26.935
 Now being published     [sample01] Upgrading web application version     Sa
mple contents
```

```
exported        268e3592-0133-1000-8002-00000ad23cbb-0       fa07860b-0145-1000-8
000-0000ac11510b     2012/08/21 14:15:56.940      2014/05/14 18:19:28.283
        [sample01] Upgrading web application version       Sample contents
exported        357a2f3a-0133-1000-8001-00000ad23cbb-0       fe6cbed5-0145-1000-8
000-0000ac11510b     2014/05/15 14:48:36.094      ----/--/-- --:--:--.---
        [Description of sample01] Upgrading web application version       Sample
  contents
exported        357a2f3a-0133-1000-8001-00000ad23cbb-0       fa078688-0145-1000-8
000-0000ac11510b     2012/08/21 14:16:02.550      2014/05/14 18:19:28.408
 Now being published      [Description of sample01] Upgrading web application
  version       Sample contents
exported        fe6eb084-0145-1000-8000-0000ac11510b-0       fe6eb0c2-0145-1000-8
000-0000ac11510b     2014/05/15 14:50:38.227      ----/--/-- --:--:--.---
        Newly joined      New procedure
```

Notes:

- Static files used in Operational Contents, such as images and HTML files, are not exported by this command. You must copy static files manually and move them separately. For details about how to handle static files, see *6.9 Managing the static files used in Operational Contents*.

- If a file with the same name as the file specified as the output destination already exists in the same directory, an error occurs, in which case the file cannot be exported. Specify a nonexistent file.

- Do not specify a network drive in a file path.

- This command terminates abnormally if the amount of disk space available at the export destination is not sufficient for the size of the Operational Contents to be exported.

  Note also that the command uses the folder specified in the TMP or TEMP environment variable as the work folder during execution. Therefore, before you execute the command, make sure that there is sufficient free disk space for the folder specified in the TMP or TEMP environment variable.

- Do not change the contents of the output file. If the output file is changed before being imported, operation is not guaranteed.

Return value

Return value	Description
0	The command terminated normally or terminated with a warning.
1	The command terminated abnormally.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Note:

The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

Example 1

This example exports Operational Contents under the following conditions:

- The path of the export file is C:\work\repository.zip.

- All Operational Contents and access permission settings are to be exported.

```
> Navigation-Platform-installation-directory\bin\npexport C:\work\reposito
ry.zip
```

Example 2

This example exports Operational Contents under the following conditions:

- The path of the export file is `C:\work\repository.zip`.

- The path of the export list file that will be output after the export processing is `C:\work\list.csv`.

- All Operational Contents and access permission settings are to be exported.

```
> Navigation-Platform-installation-directory\bin\npexport -l C:\work\list.
csv C:\work\repository.zip
```

Example 3

This example exports an Operational Content under the following conditions:

- The path of the export file is `C:\work\repository.zip`.

- The Operational Content with the specified Operational Content ID (`85D412B4-BB5D-4a14-A331-B0D31B7E1297-1`) and the access permission settings are to be exported.

- JP1/Base is not used for user authentication.

```
> Navigation-Platform-installation-directory\bin\npexport -c 85D412B4-BB5D
-4a14-A331-B0D31B7E1297-1 C:\work\repository.zip
```

Example 4

This example exports Operational Contents under the following conditions:

- The path of the export file is `C:\work\repository.zip`.

- The path of the Operational Content IDs list file is `C:\work\contentsId.txt`.

- All Operational Contents and access permission settings are to be exported.

```
> Navigation-Platform-installation-directory\bin\npexport -i C:\work\conte
ntsId.txt C:\work\repository.zip
```

Example 5

This example exports Operational Contents under the following conditions:

- The path of the export file is `C:\work\repository.zip`.

- All Operational Contents only are to be exported.

```
> Navigation-Platform-installation-directory\bin\npexport -x C:\work\repos
itory.zip
```

9.9 npextendrdarea command (extend the database)

Description

This command extends the size of the database.

Determine whether database expansion is needed by checking the database's usage status. When this command is executed, the database is expanded by a size that is equivalent to 500 Operational Contents (about 10 GB).

This command must be executed while Navigation Platform is running. Open the command prompt as an administrator.

Format

```
npextendrdarea
```

Options

None.

Notes:

Because this command is executed while Navigation Platform is running, Navigation Platform operations might slow down. For this reason, we recommend that you execute this command when Navigation Platform traffic is light.

Return value

Return value	Description
0	The command terminated normally.
1	The command terminated abnormally.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Note:

> The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

This example extends the size of the database:

```
> Navigation-Platform-installation-directory\bin\npextendrdarea
```

9.10 npimport command (import Operational Contents)

Description

This command imports Operational Contents and access permission settings (access permission groups or JP1 resource groups) that have been exported by a Navigation Platform command.

This command must be executed while the system is running after setup has been completed. Open the command prompt as an administrator.

When the `npupdatesearchdata` command is executed, the most recent Operational Contents that have been imported become subject to search processing. For details about the `pupdatesearchdata` command, see *9.20 npupdatesearchdata command (update search data)*.

If you use the `npimport` command to update Operational Contents, all versions of the Operational Contents, including versions that were published in the past, are updated. If you want to update only the contents of the Operational Content that are currently published, use the `nppubimport` command (import Published Versions of Operational Contents). For details about the `nppubimport` command, see *9.13 nppubimport command (import Published Versions of Operational Contents)*.

If the **Search** tab is set to be displayed in the Operational Content Execution Window, we recommend that you execute the `npupdatesearchdata` command (update search data) after you have executed this command (the `npimport` command).

> **Note**
>
> If you are using a directory server for user authentication, the access permissions for Operational Contents are determined by access permission groups and standard access permissions. On the other hand, if you are using JP1/Base for user authentication, the access permissions for Operational Contents are determine by JP1 resource group settings. Note that this command does not change JP1 resource group settings. To change JP1 resource group settings, use the Operational Content Editing Window.

Operational Contents to be imported will be added to existing Operational Contents by default. An error will occur if the Operational Contents being added has the same name as existing Operational Contents within the same group.

If you want to replace the existing data with the imported data, rather than adding imported data to the existing data, specify the `-d` option. To forcibly overwrite the existing data, specify the `-f` option. If there is no need to import access permission groups, you can import only the Operational Contents by specifying the `-x` option.

If you have exported all Operational Contents in an environment in which JP1/Base is not used for user authentication (executed the `npexport` command with the `-c` option omitted), ensure that you specify the `-d`, `-f`, or `-x` option during the import operation.

If you are using a directory server for user authentication, the standard access permissions are set for the imported Operational Contents if either of the conditions listed below is satisfied. Note that if Operational Contents with the same IDs are to be overwritten (with the `-f` option specified), the access permission settings for the existing Operational Contents take effect.

- Access permission groups are not imported and only Operational Contents are subject to the import operation (the `npimport` command is executed with the `-x` option specified).

- Files to which only specific Operational Contents were exported (the `npexport` command was executed with the `-c` option specified) are subject to the import operation.

If you want to import Operational Contents that are waiting for publishing to start as being in published status, specify the `-o` option. You can use this option, for example, when you want to import Operational Contents waiting for publishing to start into a test environment (execution environment) to check the contents of the Operational Contents.

Format

```
npimportΔ[-d|--delete-force]Δ[-f]Δ[-x]Δ[-o]Δ[-lΔpath-of-import-list-file]Δpa
th-of-file-to-be-imported
```

For the path of the file to be imported, specify an absolute path or a relative path. Specify a file that has been acquired by a Navigation Platform command; no other files can be specified.

Options

`-d|--delete-force`

Specifies that all Operational Contents and access permission settings are to be deleted before the import operation starts.

Specify this option when you want to replace the existing Operational Contents with the imported Operational Contents. When this option is not specified, the command adds the imported data to the existing data.

If the `-d` option is specified, the `ucnp.base.server.command.import.delete.confirm.enable` property setting in the user property file (`ucnp_user.properties`) will determine whether the delete confirmation message (`KDCZ10156-Q`) appears.

- If `false` is specified:

The confirmation message will not appear.

- If `true` is specified:

The confirmation message will appear. Answer either `Y` (Continue) or `N` (Cancel).

To prevent the confirmation message from being shown regardless of the `ucnp.base.server.command.import.delete.confirm.enable` property setting, specify the `--delete-force` option instead of the `-d` option.

> 💡 **Tip**
>
> - If the file exported by the `npexport` command (export Operational Contents) with the `-x` option specified is imported by the command with this option specified, the standard access permissions are set to the added Operational Contents. The access permission settings for the Operational Contents that are overwritten remain unchanged.
>
> - If a file containing no Operational Content is imported by the command with this option specified, all registered Operational Contents are deleted. This is useful when you want to delete many Operational Contents in the batch mode.

`-f`

This option must be specified if the import destination contains an access permission group with the same name as one at the import source or contains an Operational Content with the same ID as one at the import source. This option specifies that the import destination is to be overridden by the access permission groups and Operational Contents from the import source (forced registration).

If you want to set access permission groups for the Operational Contents, specify the `-d` or the `-f` option.

An error occurs if the `-f` option is omitted when the import destination contains an access permission group that has the same name as one at the import source or contains an Operational Content that has the same ID as one at the import source; in such a case, the import operation will fail. Note that if the `-d` option is specified together with the `-f` option, the specification of `-f` (forced registration) is ignored.

If the -f option is specified together with the -x option, the access permission groups at the import destination are set for the Operational Contents. If the import destination contains no access permission group to be set for Operational Contents, the standard access permissions are set.

> **💡 Tip**
>
> To execute the npimport command, you need to know not only the names of the Operational Contents but the IDs of the Operational Contents. You can use either of the following methods to check the IDs of Operational Contents:
>
> - Execute the npexport command with the -l option specified and check the output list file.
>
> - In the Operational Content Editing Window, select an Operational Content whose ID you want to check, and then click the **Get ID** menu in the menu area.

-x

Specifies that only Operational Contents are to be imported, without importing access permission groups. Specify this option when no access permission group is to be set for the Operational Contents.

For Operational Contents that have been imported with this option specified, the standard access permissions are set at the import destination regardless of the access permission group settings used at the import source. However, if the -f option is also specified to overwrite Operational Contents with the same IDs as at the import source, the access permission groups at the import destination will take effect.

If Operational Contents that have been exported by the npexport command with the -x option specified are imported, only the Operational Contents are imported regardless of whether the -x option is specified.

If the -d option is specified together with the -x option, the standard access permissions are set for all Operational Contents. In addition, all access permission groups are deleted and the definition for the standard access permissions is reset to the status at the time of setup.

If the -f option is specified together with the -x option, the access permission groups at the import destination are set for the Operational Contents. If the import destination contains no access permission group to be set for Operational Contents, the standard access permissions are set.

If the -x option is specified together with the -l option, access permission groups are not output to the import list file.

Note that if you are using JP1/Base for user authentication, this option is ignored, if specified.

-o

Specifies that Operational Contents waiting for publishing to start are to be imported as being in published status. This option is used, for example, when Operational Contents waiting for publishing to start are imported into a test environment (execution environment) to check the contents of the Operational Contents.

-l *path-of-import-list-file*

Specifies output of a list of added, updated, or deleted Operational Contents as a text file.

Specify an absolute path or a relative path for the path of the import list file.

Format of an import list file

Header information is output at the beginning of the file and then messages are output in the following format:

```
[result-type]<T>[Operational-Content-ID]<T>[Operational-Content-version-ID]<
T>[update-date-and-time([time-zone])]<T>[published-date-and-time([time-zone]
)]<T>[publication-status]<T>[publishing-reservation-status]<T>[publishing-st
art-date-and-time([time-zone])]<T>[publishing-end-date-and-time([time-zone])
]<T>[Operational-Content-name]<T>[group-name]<T>[access-permission-group-nam
e-1-or-JP1-resource-group-name-1]<T>
...
```

```
[access-permission-group-name-10-or-JP1-resource-group-name-10]<CR><LF>
[result-type][access-permission-group-name-1]<T>[access-permission-group-ID-
1]<CR><LF>
...
[result-type][access-permission-group-name-10]<T>[access-permission-group-ID
-10]<CR><LF>
```

<T>: Tab character

<CR><LF>: Termination character (0x0D, 0x0A)

The following table provides the details of the messages.

Table 9–5: Details of the messages that are output to import list files

Item	Description

result-type	Displays the execution result of the npimport command (import Operational Contents):
	• added
	  New Operational Contents or access permission groups were added.
	• modified
	  The contents of Operational Contents now being published were changed.[#]
	  Access permission groups with the same name were overwritten or deleted due to the specification of the -d option, and then were imported.
	• merged
	  The contents of all Operational Contents other than those now being published were changed.[#]
	  Access permission groups with the same name were overwritten or deleted due to the specification of the -d option, and then were imported.
	• deleted
	  Operational Contents or access permission groups were deleted.

Operational-Content-ID	Displays the ID of the Operational Content that was imported.
Operational-Content-version-ID	Displays the version ID of the Operational Content that was imported.
update-date-and-time	Displays the most recent date and time the imported Operational Content version was updated. The date format depends on the following user property settings: • ucnp.base.client.dateformat • ucnp.base.client.timeformat.hmsm This is the date and time the Operational Content was saved or editing was finished in the Operational Content Editing Window.
published-date-and-time	Displays the most recent date and time the imported Operational Content version was published. The date format depends on the following user property settings: • ucnp.base.client.dateformat • ucnp.base.client.timeformat.hmsm Note that even when the Operational Content was made private during import processing, the most recent date and time the Operational Content was published is still displayed. If the Operational Content has never been published, a single-byte hyphen (-) is displayed.
publication-status	Displays the publication status of the imported Operational Content. The two publication statuses are as follows: Now being published The most recent Published Version of the Operational Content that is now being published

Item	Description
publication-status	Empty character string Operational Content that does not satisfy the conditions for being published currently
publishing-reservation-status	Displays the publishing reservation status of Operational Contents. `Reserved` The Operational Content is waiting for publishing to start or waiting for publication to end. Empty character string The Operational Content is not reserved to be published.
publishing-start-date-and-time	Displays the date and time the imported Operational Content is to be published. The date format depends on the following user property settings: • `ucnp.base.client.dateformat` • `ucnp.base.client.timeformat.hmsm` If no publishing start date and time have been set, a single-byte hyphen (-) is displayed.
publishing-end-date-and-time	Displays the date and time publication of the imported Operational Contents is to end. The date format depends on the following user property settings: • `ucnp.base.client.dateformat` • `ucnp.base.client.timeformat.hmsm` If no publishing start date and time have been set, a single-byte hyphen (-) is displayed.
Operational-Content-name	Displays the name of the imported Operational Content.
group-name	Displays the group name of the imported Operational Content.
access-permission-group-name	Displays the access permission group name set for the imported Operational Content on the same line as the Operational Content name. The imported access permission group names are displayed on subsequent lines. For the access permission groups, the standard access permissions are displayed first and then the access permission group names are displayed in ascending order of their names.
JP1-resource-group-name	Displays the JP1 resource group name set for the imported Operational Content on the same line as the Operational Content name.
access-permission-group-ID	Displays the imported access permission group ID.

#

- If the `-d` option is specified, an Operational Content is deleted once and then imported, in which case the result type is `modified` or `merged`. Neither `deleted` nor `added` is displayed.

- If only the following items are changed, the result type for an Operational Content is neither `modified` nor `merged`:

  Name of Operational Content

  Group name of Operational Contents

  Access permission groups (or JP1 resource groups) that are set for an Operational Content

- The abbreviation of the time zone specified in the `ucnp.base.client.timezone` property in the user property file (`ucnp_user.properties`) is displayed for the time zone.

The following shows an output example of an import list file:

```
Result     Operational Content ID     Operational Content Version ID     Dat
e Modified (JST)     Date published (JST)     Status     Publishing Reservat
ion Status     Publishing Start Date and Time(JST)     Publishing End Date a
nd Time(JST)     Operational Content Name     Group Name
```

```
modified      268e3592-0133-1000-8002-00000ad23cbb-0      fe6dcb35-0145-1000-8
000-0000ac11510b    2014/05/15 14:49:39.524      -         Reserved     201
6/04/01 08:00:00.000    2016/9/30 18:00:00.000    [sample01] Upgrading web
 application version      Sample contents
modified      268e3592-0133-1000-8002-00000ad23cbb-0      fe6db084-0145-1000-8
000-0000ac11510b    2014/05/15 14:49:37.793      -         Reserved     201
6/04/01 08:00:00.000    2016/9/30 18:00:00.000    [sample01] Upgrading web
 application version      Sample contents
modified      268e3592-0133-1000-8002-00000ad23cbb-0      fe6cfabc-0145-1000-8
000-0000ac11510b    2014/05/15 14:48:48.979    2014/05/15 14:49:26.935
 Now being published         -      -      [sample01] Upgrading web applicati
on version      Sample contents
modified      268e3592-0133-1000-8002-00000ad23cbb-0      fa07860b-0145-1000-8
000-0000ac11510b    2012/08/21 14:15:56.940    2014/05/14 18:19:28.283
           -      -      [sample01] Upgrading web application version     Samp
le contents
merged     357a2f3a-0133-1000-8001-00000ad23cbb-0      fe6cbed5-0145-1000-800
0-0000ac11510b     2014/05/15 14:48:36.094      -         -      -      [
Description of sample01] Upgrading web application version     Sample conten
ts
merged     357a2f3a-0133-1000-8001-00000ad23cbb-0      fa078688-0145-1000-800
0-0000ac11510b     2012/08/21 14:16:02.550    2014/05/14 18:19:28.408     N
ow being published    [Description of sample01] Upgrading web application v
ersion      Sample contents
deleted     fe6eb084-0145-1000-8000-0000ac11510b-0      fe6eb0c2-0145-1000-80
00-0000ac11510b    2014/05/15 14:50:38.227      -         -      -
Newly joined      New procedure
```

Notes:

- Before you execute this command, we recommend that you use the npexport command (export Operational Contents) in the local environment to make a backup of the Operational Contents.

- Static files used in Operational Contents, such as images and HTML files, are not imported by this command. Copy static files manually and move them separately. For details about how to handle static files, see *6.9 Managing the static files used in Operational Contents*.

- Do not specify a network drive in a file path.

- If the amount of disk space available at the import destination is not sufficient for the size of the Operational Contents to be imported, this command will terminate abnormally.

  Note also that the command uses the folder specified in the TMP or TEMP environment variable as the work folder during execution. Therefore, before you execute the command, make sure that there is enough free disk space for the folder specified in the TMP or TEMP environment variable.

- If this command is executed while the server is running, performance will be affected adversely because the command's data processing will block the server's data processing.

- If an error occurs during command execution, import processing will have been applied partially. Eliminate the cause of the error and then re-execute the command.

  If you executed the command with the -d or the -f option specified, re-execute it with the same option specified. If you specified neither the -d nor the -f option, re-execute the command with the -f option specified.

- If an error resulted when the command was executed with the -l option specified, use the contents of the following files as the import list file:

  - Import list file that was output when the error occurred

  - Import list file that was output when the command was re-executed after eliminating the cause of the error

- An error will occur if a unique name within the same group is not used for the Operational Contents.

- If a file exported by the `npexport` command (export Operational Contents) with the `-x` option specified is imported, the standard access permissions will be set for the added Operational Contents. The access permissions for the Operational Contents that are overwritten will remain unchanged.

- Operational Contents created in an environment that is earlier than Hitachi Navigation Platform 10-10 or JP1/Navigation Platform 11-10 cannot be imported to an environment that is JP1/Navigation Platform 12-10 or later.

- When you import an Operational Content that was exported from a JP1/Navigation Platform version earlier than 12-50, a backslash (\) in the name of the group to which the Operational Content belongs is replaced with two consecutive backslashes (\\). (This replacement causes no change in the displayed name.)

Return value

Return value	Description
0	The command terminated normally or terminated with a warning.
1	The command terminated abnormally.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Note:

The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

Example 1

This example imports Operational Contents under the following conditions:

- The path of the file to be imported is `C:\work\repository.zip`.

- If access permission groups with the same name or Operational Contents with the same ID are stored at the import destination, forced registration is not to be performed.

```
> Navigation-Platform-installation-directory\bin\npimport C:\work\repository.zip
```

Example 2

This example imports Operational Contents under the following conditions:

- The path of the file to be imported is `C:\work\repository.zip`.

- If access permission groups with the same name or Operational Contents with the same ID are stored at the import destination, forced registration is to be performed.

```
> Navigation-Platform-installation-directory\bin\npimport -f C:\work\repository.zip
```

Example 3

This example imports Operational Contents under the following conditions:

- The path of the file to be imported is `C:\work\repository.zip`.

- All access permission groups and Operational Contents are to be deleted first and then imported.

- Output a message confirming whether the Operational Contents can be deleted. In addition, if the `ucnp.base.server.command.import.delete.confirm.enable` property setting in the user property file (`ucnp_user.properties`) is set to `true`, the message will be output.

```
> Navigation-Platform-installation-directory\bin\npimport -d C:\work\repos
itory.zip
```

Example 4

This example imports Operational Contents under the following conditions:

- The path of the file to be imported is `C:\work\repository.zip`.

- All access permission groups and Operational Contents are to be deleted first and then imported.

- Do not output a message confirming whether the Operational Contents can be deleted.

```
> Navigation-Platform-installation-directory\bin\npimport --delete-force C
:\work\repository.zip
```

Example 5

This example imports Operational Contents under the following conditions:

- The path of the file to be imported is `C:\work\repository.zip`.

- The path of the import list file that is to be output after the import operation is `C:\work\list.txt`.

```
> Navigation-Platform-installation-directory\bin\npimport -l C:\work\list.
txt C:\work\repository.zip
```

Example 6

This example imports Operational Contents under the following conditions:

- The path of the file to be imported is `C:\work\repository.zip`.

- Access permission groups are not to be imported.

- If Operational Contents with the same ID are stored at the import destination, forced registration is not to be performed.

```
> Navigation-Platform-installation-directory\bin\npimport -x C:\work\repos
itory.zip
```

9.11 nppddbst command (check database usage status)

Function

This command checks the database's usage status.

Check this command's execution result to determine the database's usage status, and then extend the size of the database if necessary.

This command must be executed while the system is running. Open the command prompt as an administrator.

Format

```
nppddbst
```

Options

None.

Output format for database usage status

The database's usage status is output in the following format:

```
number-of-Operational-ContentsΔ[content-usage]%([number-of-contents]/[maximu
m-number-of-contents])
number-of-versionsΔ[version-usage]%([total-number-of-versions]/[maximum-valu
e-for-the-total-number-of-versions])
usageΔ[usage-of-total-database-size]%
[message]
----------
```

Legend: Δ: Single-byte space

The following table provides the details of the items that are output.

Table 9–6: Details of the database usage status that is output by the command

Item	Description
content-usage	Result obtained from the following formula, expressed as a percentage: *Number of contents ÷ maximum number of contents*
number-of-contents	Number of Operational Contents in existence at the time of command execution
maximum-number-of-contents	Maximum number of Operational Contents that can be created
version-usage	This is the result obtained from the following formula, expressed as a percentage: *Total number of versions ÷ maximum value for the total number of versions*
total-number-of-versions	Total number of Operational Content versions in existence at the time of command execution
maximum-value-for-the-total-number-of-versions	*Maximum number of Operational Contents that can be created × number of versions that can be created per Operational Content[#]*
usage-of-total-database-size	Usage of the database's total size expressed as a percentage

Item	Description
message	Whether database extension is needed.
	If database extension is needed:
	The following message is output:
	`KDCZ10371-W Database extension is recommended.`
	If database extension is not needed:
	No message is output.

\#

The maximum number of versions that can be created per Operational Content is 7. The breakdown is as follows:

Number of Published Versions: 5

Version Being Edited (editing has started or finished): 1

Version Being Edited (editing is currently underway): 1

Return value

Return value	Description
0	The command terminated normally.
1	The command terminated abnormally.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Notes

The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

This example outputs the database's usage status:

```
> Navigation-Platform-installation-directory\bin\nppddbst
```

9.12 nppubexport command (export Published Versions of Operational Contents)

Description

This command exports the contents of Operational Contents that are now being published and that are waiting for publishing to start, as well as the access permission settings.

If you want to export all versions of Operational Contents, use the `npexport` command (export Operational Contents). For details, see *9.8 npexport command (export Operational Contents)*.

Format

```
nppubexportΔ[-cΔOperational-Content-ID-to-be-exported|-iΔpath-of-Operational
-Content-IDs-list-file]Δ[-x]Δ[-lΔpath-of-export-list-file]Δpath-of-export-de
stination-file
```

For details including options and notes, see *9.8 npexport command (export Operational Contents)*. In Section 9.8, replace the command name with `nppubexport`.

9.13 nppubimport command (import Published Versions of Operational Contents)

Description

This command imports files that were exported by the `nppubexport` command (export Published Versions of Operational Contents) and updates the Operational Contents that are now being published and that are waiting for publishing to start.

Format

```
nppubimportΔ[-d|--delete-force]Δ[-f]Δ[-x]Δ[-o]Δ[-lΔpath-of-import-list-file
]Δpath-of-file-to-be-imported
```

For details including options and return values, see *9.10 npimport command (import Operational Contents)*. In Section 9.10, replace the command name with `nppubimport`.

Notes:

The notes below apply only to the `nppubimport` command. For the notes common to the `npimport` command, see the notes in *9.10 npimport command (import Operational Contents)*.

- If the `-f` option is specified and an Operational Content with the same Operational Content ID as one at the import source exists in the import target environment, the existing version is not updated. The imported Operational Content is added as the most recent Published Version. If the number of Published Versions exceeds the maximum value (5) due to addition of the version that was imported, the oldest Published Version is deleted.

  If the Operational Content to be imported is waiting for publishing to start, the existing version of the Operational Content that is being edited at the import destination is deleted and unlocked, and then the imported data is added as a version waiting for publishing to start.

  If the Operational Content to be imported is private and has no Version Being Edited, the imported data is added to the Operational Contents at the import destination as a Version Being Edited. Therefore, the following two sets of data will not match:

  - Data that was exported by the `nppubexport` command at the export source

  - Data exported by the `nppubexport` command at the import destination after the data has been imported

- If the command is executed under either of the following conditions, Operational Contents are replaced with the Operational Contents that are exported by the `nppubexport` command:

  - There is no Operational Content in the import target environment that has the same Operational Content ID as the import source.

  - There are Operational Contents in the import target environment that have the same Operational Content IDs as the import source, and the `-d` option is specified.

9.14 npreorg command (reorganize the database)

Description

This command reorganizes the Navigation Platform database. You must perform the following tasks before you execute this command:

- Execute the `npstop` command (stop) or stop the Navigation Platform Start Service in order to stop Navigation Platform.
- Allocate at least 3.0 GB of free space on the drive where the Navigation Platform installation directory is located.

Format

```
npreorg
```

Options

None.

Notes:

- If the command terminates abnormally (return value is not `0`), execute the `npreorg` command again before you perform any other operation. If any other operation is performed before you re-execute the `npreorg` command, the database's status might become invalid.
- If this command's execution does not terminate within 180 minutes, a timeout error occurs.
- Execute this command while no other application is running.

Return value

Return value	Description
0	Reorganization of the Navigation Platform database was successful.
1	Reorganization of the Navigation Platform database failed.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Note:
> The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

This example reorganizes the Navigation Platform database:

```
> Navigation-Platform-installation-directory\bin\npreorg
```

9.15 npsetup command (setup)

Description

This command sets up Navigation Platform. If you are setting up Navigation Platform that has already been set up, stop Navigation Platform then, before you execute this command, use the `npunsetup` command to unsetup Navigation Platform. Once the setup is completed, Navigation Platform starts automatically.

Perform the following tasks before you execute this command:

- If you will be using user authentication or will be changing any port numbers, edit the user setup property file (`ucnp_setup_user.properties`).

  For details, see *8.3 Specifying settings in the user setup property file (ucnp_setup_user.properties)*.

- Make sure that the port numbers used during setup are not being used by any other programs.

  You can determine the port numbers that are used during setup by checking the user setup property file.

- Make sure that the installation directory and files of the Navigation Platform subject to setup have not been moved, edited, or deleted since installation.

Format

```
npsetup
```

Options

None.

Notes:

- When this command is executed, setup is performed for the default user property file (`ucnp_user.properties`) and user message properties file (`ucnp_message_user.properties`). Edit these property files only after this command's execution has been completed. If this is a re-setup, we recommend that you make a backup of these existing property files.

  For details about the property files, see *Chapter 8. Properties*.

- If setup fails, execute the `npunsetup` command (unsetup), eliminate the cause of the error, and then re-execute this command.

Return value

Return value	Description
0	Setup of Navigation Platform was successful.
1	Setup of Navigation Platform failed.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Note:

The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

This example sets up Navigation Platform:

```
> Navigation-Platform-installation-directory\bin\npsetup
```

9.16 npsnapshotlog command (collect troubleshooting information)

Description

This command collects as a ZIP file the information needed for troubleshooting (such as log files and environment setting files). Note that this command does not collect information that is not mentioned here.

Troubleshooting information is classified into primary materials and secondary materials. The primary materials and the secondary materials are output to separate files.

Primary materials file

npsnapshotlog_*yyyyMMddhhmmssSSS*_1.zip

Secondary materials file

npsnapshotlog_*yyyyMMddhhmmssSSS*_2.zip

The following table lists and describes the troubleshooting information that is collected by this command by default as the primary materials.

Table 9–7: Troubleshooting information (primary materials)

No.	Troubleshooting information	Description
1	OS's event log	Event logs for the system, applications, and security
2	Machine's host names	*OS-installation-directory*\system32\drivers\etc\hosts
3	Machine's services and ports	*OS-installation-directory*\system32\drivers\etc\services
4	List of processes	Execution results of tasklist /V
5	Machine's system information	Execution results of systeminfo
6	Bind status	Execution results of netstat -ao
7	NIC implementation status	Execution results of ipconfig /all
8	List of services that are running	Execution results of net start
9	List of environment variables	Execution results of set
10	Various settings files	Files in the directories under the Navigation Platform installation directory are collected. The following are the target files: • Files under the conf directory • Files under the sysconf directory • Files under the setup\conf directory • ucnpbaseversion.properties file under the lib directory • ucnpsdkversion.properties file under the lib directory • Files directly under the pluginSDK directory • cosminexus.xml file under the pluginSDK\plugin*plugin-name*\dd\META-INF directory • build.xml file under the pluginSDK\plugin*plugin-name* directory • ioaction.xml file under the pluginSDK\plugin*plugin-name*\WEB-INF\conf directory • Files under the *Navigation-Platform-installation-directory*\PP\uCPF\conf directory

No.	Troubleshooting information	Description
10	Various settings files	- Files under the *Navigation-Platform-installation-directory*\PP\DB\CONF directory - Files under the *Navigation-Platform-installation-directory*\PP\DB\plugin_phdxml\conf directory - Files under the *Navigation-Platform-installation-directory*\PP\DB\plugin_phjxml\conf directory - PSBVRSMNG.INI file under *Navigation-Platform-installation-directory*\PP\uCPSB - Files under the *Navigation-Platform-installation-directory*\PP\OpenSearch\opensearch\config directory - Files under the *Navigation-Platform-installation-directory*\PP\OpenSearch\opensearch-dashboards\config directory - Files under the *Navigation-Platform-installation-directory*\PP\OpenSearch\opensearch-dashboards\data directory
11	Various log files	Files in the directories under the Navigation Platform installation directory are collected. The target files are as follows: - Files under the logs directory - Files under the *Navigation-Platform-installation-directory*\PP\uCPF\log directory# - PATCHLOG.TXT file under *Navigation-Platform-installation-directory*\PP\DB - install.log file under *Navigation-Platform-installation-directory*\PP\uCPSB - SPKMANAGE.LOG file under *Navigation-Platform-installation-directory*\PP\uCPSB - Files under the *Navigation-Platform-installation-directory*\PP\OpenSearch\opensearch\logs directory - Files under the *Navigation-Platform-installation-directory*\PP\OpenSearch\opensearch-dashboards\logs directory
12	Navigation Platform status	Files under *Navigation-Platform-installation-directory*\spool
13	Model name and version information of Navigation Platform	Version.txt file under *Navigation-Platform-installation-directory*
14	License type and expiration date of Navigation Platform	ProductInfo.txt file under *Navigation-Platform-installation-directory*

#

This is the default directory. The actual directory might be different depending on the value of the ucnp.setup.server.portal.trace.dir property specified in the user setup property file (ucnp_setup_user.properties).

The following table lists and describes the troubleshooting information that is collected by this command by default as the secondary materials.

Table 9–8: Troubleshooting information (secondary materials)

No.	Troubleshooting information	Description
1	List of registry entries	Execution results of reg query HKEY_LOCAL_MACHINE\SOFTWARE\HITACHI /s. This command also collects a list of the dashboard server's registry entries. The following shows the contents to be collected:

No.	Troubleshooting information	Description
1	List of registry entries	• Execution results of `reg query HKEY_LOCAL_MACHINE \SOFTWARE\Wow6432Node\Apache Software Foundation /s`
2	Various settings files	Various settings file information under *Navigation-Platform-installation-directory*`\PP\uCPSB`
3	Various log files	Files in the directories under the Navigation Platform installation directory are collected. The target files are as follows: • Files under the *Navigation-Platform-installation-directory*`\PP\DB\SPOOL` directory • Files under the *Navigation-Platform-installation-directory*`\PP\DB\plugin\_phdxml\spool` directory • Files under the *Navigation-Platform-installation-directory*`\PP\DB\plugin\_phdxml\tmp` directory • Files under the *Navigation-Platform-installation-directory*`\PP\DB\plugin\_phjxml\spool` directory • Files under the *Navigation-Platform-installation-directory*`\PP\DB\plugin\_phjxml\tmp` directory

Format

```
npsnapshotlogΔdirectory-to-which-troubleshooting-information-is-output
```

You can specify for the directory an absolute path or a relative path. We recommend that you specify a path with a length of 200 characters or less so that the path will not become too long.

Use backslashes (`\`) for the delimiters. If a path contains a single-byte space, enclose the entire path in double quotation marks (`"`). In addition to these symbols, the only other symbols permitted in directory paths are single-byte colons (`:`) and single-byte periods (`.`) that indicate relative paths.

Notes:

- The directory to which troubleshooting information is to be output must satisfy the following conditions:
  - There is at least 500 MB of free space.
  - The directory is not a network drive.

  If you have increased from their default values the maximum size and number of output files for various log files that are collected as troubleshooting information, a free space of more than 500 MB might be required.

- If you are using support services, you need to collect the troubleshooting information explained in *Table 9-7* and *Table 9-8* to investigate the cause of the error. This troubleshooting information will not be used for any purpose other than determining the causes of errors.

Return value

Return value	Description
0	Collection of troubleshooting information was successful, or the command terminated normally with a warning-level error.
1	Collection of troubleshooting information failed.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Note:

The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

This example assumes that the troubleshooting information output directory is `C:\work\npsnapshotlog`:

```
> Navigation-Platform-installation-directory\bin\npsnapshotlog C:\work\npsna
pshotlog
```

9.17 npstart command (start)

Description

This command starts Navigation Platform. You can execute this command in an environment that has been configured by the `npsetup` command.

Note that the `npstart` command does not start the Navigation Platform Start Service.

Format

```
npstart
```

Options

None.

Return value

Return value	Description
0	The start processing was successful.
1	The start processing failed.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Note:

The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

```
> Navigation-Platform-installation-directory\bin\npstart
```

9.18 npstop command (stop)

Description

This command stops Navigation Platform. Make sure that you execute this command before you shut down the OS. This command must be executed while the Navigation Platform Start Service is stopped. While the Navigation Platform Start Service is stopped, you can use this command even in the status in which the Navigation Platform start or stop processing has failed.

Note that the `npstop` command does not stop the Navigation Platform Start Service.

Format

```
npstop
```

Options

None.

Return value

Return value	Description
0	The stop processing was successful.
1	The stop processing failed.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Note:

The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

```
> Navigation-Platform-installation-directory\bin\npstop
```

9.19 npunsetup command (unsetup)

Description

This command deletes data (excluding static files) for all Operational Contents and unsets up Navigation Platform. You can execute this command in an environment that has been configured by the `npsetup` command.

Format

```
npunsetup
```

Options

None.

Return value

Return value	Description
0	The Navigation Platform unsetup processing was successful.
1	The Navigation Platform unsetup processing failed.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Note:

The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

```
> Navigation-Platform-installation-directory\bin\npunsetup
```

9.20 npupdatesearchdata command (update search data)

Description

This command applies to search data the contents of Operational Contents at the time of the command's execution. Use this command in an environment in which the **Search** tab is displayed in the Operational Content Execution Window.

This command is used in the following cases:

- New Operational Contents have been published.
- Published Versions of Operational Contents have been edited.
- Published Versions of Operational Contents have been deleted or made private.
- Operational Contents have been updated by the `npimport` or `nppubimport` command.

If you have set this command to be executed automatically in the service property file (`ucnp_service.ini`), there is no need to execute it manually. We recommend that you execute the `npupdatesearchdata` command after you have executed the `npimport` and `nppubimport` commands because a large number of Operational Contents can be expected to have been updated.

Navigation Platform must be running when this command is executed.

Note that this command cannot be executed while the `npstop` command (stop) is executing. This command can be executed while search processing in Navigation Platform is underway.

Format

```
npupdatesearchdataΔ[-r]
```

Options

`-r`

Reorganizes the search database after search data has been updated.

> 💡 **Tip**
>
> You need to reorganize the search database periodically. We recommend that you add this command as a Windows task, and our guideline is that you execute the command once a day. Because it might take time to reorganize the search database, we recommend that you execute this command when traffic to Navigation Platform is light.
>
> If you have set the search data to be updated automatically, a command lock error might occur depending on the timing of automatic updating and the timing of reorganization processing set in the Windows task. If reorganization processing has not been performed, perform reorganization processing again.

Trace files

When this command is executed, the following trace files are output:

Output directory

Navigation-Platform-installation-directory\logs

File name

`ucnp_search_trace`*N*`.log` (*N*: number of files)

Size

Size specified in the `ucnp.base.server.trace.size` property in the user property file (`ucnp_user.properties`)

Number of files

Value specified in the `ucnp.base.server.trace.backup.number` property in the user property file (`ucnp_user.properties`)

Contents

- Messages issued by commands

- Information about the start and end of processing

- Error information for errors that have occurred

If an error occurs before the trace is initialized, the error is output to the standard error output, in which case no trace is output.

Notes

- Do not execute this command while the `npimport` command (import Operational Contents) or the `nppubimport` command (import Published Versions of Operational Contents) is executing. If this command is executed in such a case, consistency might be lost between the Operational Contents and the search data. If this has occurred, execute this command again after the import command has terminated.

- If an Operational Content containing search data subject to update processing is deleted or made private while this command is executing, a message indicating that the search data for the corresponding Operational Content could not be updated might be displayed. If this happens, execute this command again after the Operational Content has been updated.

- If there are many search data items to be updated, execution of this command might take several minutes.

Return value

Return value	Description
0	The command terminated normally.
1	The command terminated abnormally.
2	A lock error occurred on the command.
9	A command execution permission error occurred.

Note:

The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

This example updates search data:

```
> Navigation-Platform-installation-directory\bin\npupdatesearchdata
```

9.21 npuploadoplog command (upload operation logs)

Description

This command compresses Navigation Platform operation logs into zipped files and then stores the zipped files in a static contents storage folder.

Because this command might slow down Navigation Platform operations, we recommend that you execute it when Navigation Platform traffic is light.

Before you execute this command, perform the following:

- Allocate for the static contents storage folder a free space equivalent in size to the total capacity of the current operation logs.

- Also allocate for a temporary directory a free space of the same size as the static contents storage folder.

Format

```
npuploadoplogΔ[-c]Δ[target-zipped-file-path]
```

Options

-c

Sorts operation log files by update date and then concatenates them into a single zipped file.

If this option is omitted, the command zips multiple operation log files into a zip file without concatenating the files.

target-zipped-file-path

Specifies the destination of the zipped files.

Specify a local disk path. If the specified path does not belong to the local disk, operation is not guaranteed.

If this option is omitted, the command assumes the following path:

```
Navigation-Platform-installation-directory\PP\uCPSB\httpsd\htdocs\ucnpoper
ationlogs\operationlogs.zip
```

You can specify an absolute path or a relative path.

If the file path contains a single-byte space, enclose the entire path in single-byte double quotation marks (").

Characters that are not permitted for Windows path names are not allowed.

A path containing a reserved device name cannot be specified as this file path.

If the specified file path exceeds the OS's maximum path length, the operation might fail.

Return value

Return value	Description
0	The command terminated normally or terminated with a warning.
1	The command terminated abnormally.
2	A lock error occurred on the command.
9	An execution permission error occurred.

Note

The return value is undefined if the command is terminated by a cause beyond the command's control (such as when the command is terminated forcibly by pressing the **Ctrl** key and the **C** key at the same time).

Example

This example uploads the operation logs under the following conditions:

- The upload target is the default directory.

- The operation log files to be uploaded are not concatenated (multiple operation log files are zipped into a zip file).

```
>  Navigation-Platform-installation-directory\bin\npuploadoplog
```

10

Troubleshooting

This chapter explains problems that might occur while you are using Navigation Platform and the corrective actions to be taken. The chapter also explains the files to be acquired in the event of an error.

10.1 Problems that might occur during installation and setup

If a problem occurs during installation and setup of Navigation Platform, take the corrective action explained below.

10.1.1 Corrective action if a message indicating blocking by a firewall is displayed

During execution of the `npsetup` command (setup), the warning message `Windows Firewall has blocked some features of this program` might be displayed in a dialog box.

The following explains the cause of this problem and the corrective action.

Cause

In an environment in which the Windows firewall is enabled, you might not be able to use some software functions because access is blocked by the firewall.

Corrective action

Click the **Allow access** button to release blocking.

10.1.2 Corrective action if a startup error occurs after setup

When an attempt is made to start Navigation Platform, an error message might be output, resulting in a startup failure.

- When automatic startup was used
  - An attempt to access the Navigation Platform window results in display of a `404` error.
  - The `KEOS24124-E` error message is output to the trace file (`ucnp_setup_traceN.log`).
- When the `npstart` command (start) was executed to start Navigation Platform
  - The `KEOS24124-E` Management Server error message is output to the command prompt.
  - The `KEOS24124-E` error message is output to the trace file (`ucnp_setup_traceN.log`).

The following explains the cause of this problem and the corrective action.

Cause

If the `ucnp.setup.server.cosminexus.hws.http.port` property value has been set to the default value of `80`, the same port number might be in use by another program, such as a web server.

Corrective action

Either change the other web server's port number or change the port number of Navigation Platform from the default value.
The following explains the details of each corrective action.

To change another web server's port number

Use the following procedure to change another web server's port number if it duplicates the port number of Navigation Platform:

1. Execute the `npunsetup` command (unsetup).

2. Identify the process that is using the same port number (by, for example, using the `netstat` command).

3. Terminate the identified process and then change the port number of the other web server.

4. Re-execute the `npsetup` command (setup).

To change the port number of Navigation Platform

Use the following procedure to change the port number of Navigation Platform:

1. Execute the `npunsetup` command (unsetup).

2. Change the `ucnp.setup.server.cosminexus.hws.http.port` property value in the user setup property file (`ucnp_setup_user.properties`).

3. Re-execute the `npsetup` command (setup).

Note that when the port number is changed, the URL is also changed. For details about the URL, see *2.1.3 URLs used to access Navigation Platform windows*.

10.2 Problems that might occur after operation begins

If a problem occurs after you have started Navigation Platform operation, see the following information:

- Messages that have been output to the standard output, the standard error output, and trace files
- Trace files
- Information collected by the `npsnapshotlog` command (collect troubleshooting information)

The information collected by the `npsnapshotlog` command is classified into primary materials and secondary materials.

Primary materials
> This includes the log information used to obtain an overview of problems and the system's major settings files. The primary materials alone are sufficient to handle simple problems.
> The primary materials also include the following files that contain user information:
> - Machine's system information and system files
> - Navigation Platform's various settings files

Secondary materials
> This includes detailed system settings files, such as registry information that is not included in the primary materials. Use the secondary materials to troubleshoot difficult problems that cannot be resolved by using only the primary materials.

For details about message output destinations, causes, and corrective actions, see the manual *JP1/Navigation Platform Messages*.

For details about the output destinations of trace files, see *10.4 Output destinations of trace files*.

For details about how to use the `npsnapshotlog` command, see *9.16 npsnapshotlog command (collect troubleshooting information)*.

10.3 Problems that might occur while using the dashboard function

If a problem occurs while using the dashboard function, check the following information.

10.3.1 Corrective action if starting or stopping the dashboard server fails

(1) Navigation Platform Dashboard Web Service

If starting or stopping the Navigation Platform Dashboard Web Service fails, refer to the error message output to the event log (application) and take corrective action.

(2) Navigation Platform Dashboard Storage Service

- If starting the Navigation Platform Dashboard Storage Service fails, it is possible that the following ports specified in the user setup property file (`ucnp_setup_user.properties`) are already in use. Check the port usage status of these ports.

  - `ucnp.setup.server.dashboard.storage.http.port`

  - `ucnp.setup.server.dashboard.storage.transport.tcp.port`

  If there are no problems with the port usage status of these ports, the amount of memory usable by the OS might be smaller than the amount of memory specified by the npdashboardsetstoragememory command, which modifies the storage memory settings. Revise the setting for the memory capacity required for the storage service of the dashboard server (the value set by the npdashboardsetstoragememory command).

  For details about estimating the required memory capacity when using the dashboard function, see *5.4.4(2) Estimating the memory capacity when using the dashboard function*. For details about how to use the `npdashboardsetstoragememory` command, see *9.5 npdashboardsetstoragememory command (modify storage memory settings)*.

  If the problem is not resolved, collect troubleshooting information and contact the customer support center.

- If stopping the Navigation Platform Dashboard Storage Service fails, collect troubleshooting information and contact the customer support center.

10.3.2 Corrective action if collection of operation log analysis information fails

If the `KDCZ50689-E` message has been output to the log for the source `HNP` in the event log (application), collection of operation log analysis information might have failed.

The possible causes are explained in the following. Take corrective action appropriate to the cause.

Cause 1

The storage memory for the dashboard function is insufficient.

Corrective action

Change the size of the storage memory for the dashboard function.

For details about how to change the storage memory size, see *5.4.4(7) Changing the memory capacity required for the storage service of the dashboard server*.

Cause 2

An internal error occurred in the dashboard function.

Corrective action

Collect troubleshooting information and contact the customer support center.

10.4 Output destinations of trace files

This section provides the output destinations of trace files and the file names. *N* in the path of an output destination means the file number.

- Trace files of the J2EE server in Navigation Platform
  Navigation-Platform-installation-directory`\logs\ucnp_trace`*N*`.log`

- Trace files of the `npaclexport` command (export access permission groups), the `npexport` command (export Operational Contents), and the `npimport` command (import Operational Contents)
  Navigation-Platform-installation-directory`\logs\ucnp_cmd_trace`*N*`.log`

- Command trace files that are used at setup and unsetup
  Navigation-Platform-installation-directory`\logs\ucnp_setup_trace`*N*`.log`

  Execution results of the `npsetup` command (setup), the `npstart` command (start), the `npstop` command (stop), and the `npunsetup` command (unsetup) are output to these trace files. Trace information for the automatic system start operation after setup is also output to these trace files.

- Trace files of the `npsnapshotlog` command (collect troubleshooting information)
  troubleshooting-information-output-destination-directory(directory-specified-in-the-command)
  `\npsnapshotlog_`*yyyyMMddhhmmssSSS*`.log`

- Other trace files
  Navigation-Platform-installation-directory`\logs`

Appendixes

A. Items Subject to Search and Replacement

When you use the function for searching Operational Contents, you can search on the names of Operational Flows and on some of the items set in the Attribute Settings window in the Operational Content Editing Window. A search target is the item in the Published Versions of Operational Contents.

When you use the Operational Contents replacement function, you can simultaneously replace character strings for all the items within an Operational Content that are subject to replacement.

The following tables, which cover different areas of the Operational Content Editing Window, describe whether items set in the Operational Content Editing Window are subject to search or replacement.

Table A–1: List of items set in the Operational Content Editing Window (menu area)

No.	Menu name	Item name	Whether subject to search	Whether subject to replacement
1	Rename	Operational Content name	Y	N
2	Change Groups	Group name	N	N
3	Link Settings	Anchor String	Y	N
		URL	N	N

Legend:
 Y: Subject to search or replacement
 N: Not subject to search or replacement

Table A–2: List of items set in the Operational Content Editing Window (flow area)

No.	Part name	Item name	Whether subject to search	Whether subject to replacement
1	Terminal Node	Node name	Y[#1]	Y
2		Node ID	N	N
3		Done button name for the previous node	N	Y
4		Front/back order	N	N
5	Process Node	Node name	N[#2]	Y
6		Node ID	N	N
7		Back button name for this node	N	Y
8		Next button name for the previous node	N	Y
9		Image URL	N	Y
10		Front/back order	N	N
11	Branch Node	Node name	Y[#3]	Y
12		Node ID	N	N
13		Front/back order	N	N
14	Image	URL	N	Y
15		Tool tip	N	Y
16		Front/back order	N	N

No.	Part name	Item name	Whether subject to search	Whether subject to replacement
17	**Static text**	**Displayed string**	Y[#3]	Y
18		**String color**	N	N
19		**Text size (px)**	N	N
20		**Front/back order**	N	N

Legend:

    Y: Subject to search or replacement

    N: Not subject to search or replacement

#1

    A flow area that is not displayed due to settings is not subject to being searched. If a flow area is displayed, but the Terminal Node is not displayed due to settings, the flow area is not subject to being searched.

#2

    Process Node names are not subject to being searched, but Guide names in the Guide area are subject to being searched. For details, see Table A-3.

#3

    A flow area that is set to be hidden is not subject to being searched.

Table A–3: List of items set in the Operational Content Editing Window (Guide area)

No.	Part name	Item name	Whether subject to search	Whether subject to replacement
1	Guide name[#]	--	Y	Y
2	**Static text**	**Displayed string**	Y	Y
3		**String color**	N	N
4		**Text size (px)**	N	N
5	**Image**	**URL**	N	Y
6		**Tool tip**	N	Y
7	**Text box**	**Maximum string size**	N	N
8		**Default value**	Y	Y
9		**Input rule**	N	Y
10		**Error message**	N	Y
11	**Text area**	**Default value**	Y	Y
12		**Input rule**	N	Y
13		**Error message**	N	Y
14	**Check box**	**Displayed string**	Y	Y
15	**Radio button**	**Displayed string**	Y	Y
16		**Value**	N	Y
17		**Group name**	N	N
18	**Drop down**	**Guide Part ID**	N	N
19		**Parent Guide Part ID**	N	N
20		**Parent value**	N	Y

No.	Part name	Item name	Whether subject to search	Whether subject to replacement
21	**Drop down**	**Upper: Label** in the **Selections list** text box	Y	Y
22		**Lower: Value** in the **Selections list** text box	N	Y
23	**Hyperlink**	**Anchor String**	Y	Y
24		**URL**	N	Y
25		**Tool tip**	N	Y
26	**Inline frame**	**URL**	N	Y
27	**HTML part**	**HTML source string**	N	Y
28		**Search keyword**	Y	N
29		**Embed parameters in HTML source string**	N	N
30		**Parameter list**: **Parameter name**	N	Y
31		**Parameter list**: **Parameter value**	N	Y
32		**Parameter list**: **Parameter description**	N	Y

Legend:

Y: Subject to search or replacement

N: Not subject to search or replacement

--: Not applicable

#

A Guide name is a value set as the node name of a Process Node.

B. List of Port Numbers

This appendix explains the port numbers used in Navigation Platform.

B.1 Port numbers used in Navigation Platform

If Navigation Platform has been set up using the default values, port numbers `80`, `24701` to `24704`, and `24710` to `24713` are used.

The following table lists and describes the default port numbers used in Navigation Platform.

Table B–1: Port numbers used in Navigation Platform

No.	Port number	Description
1	`80` (TCP)	Port number used by Hitachi Web Server to accept requests
2	`24701` (TCP)	Port number of the basic web server
3	`24702` (TCP)	RMI registry port number used by the J2EE server
4	`24703` (TCP)	Port number used for communication with the web server
5	`24704` (TCP)	Port number of the database server
6	`24705` (TCP)	HTTP port number of the dashboard storage service
7	`24706` (TCP)	Port number used for inter-node communication of the dashboard storage service
8	`24707` (TCP)	HTTP port number of the dashboard web service
9	`24710` (TCP)	Port number of the basic web server for Portal Manager
10	`24711` (TCP)	Port number used for communication with Portal Manager's web container
11	`24712` (TCP)	RMI registry port number used by Portal Manager
12	`24713` (TCP)	Port number of the CORBA naming service that is used as a naming service by Portal Manager

If another application is using any of these port numbers, you must either change that application's port number setting or change Navigation Platform's port number from the default value during setup. For details about specifying port numbers in Navigation Platform, see *8.3.3 Details about the properties in the user setup property file*.

B.2 Direction in which data passes through the firewall

Table B–2: Direction in which data passes through the firewall

Service name	Port number	Firewall pass-through direction
http/https	Value of the `ucnp.setup.server.cosminexus.hws.http.port` property in the user setup property file (`ucnp_setup_user.properties`)/tcp	From the web browser to the HTTP server (one direction)
jp1bsplugin[#]	See the description about the direction in which data passes through the firewall in the *JP1/Base User's Guide*.	See the description about the direction in which data passes

Service name	Port number	Firewall pass-through direction
jp1bsplugin[#]	See the description about the direction in which data passes through the firewall in the *JP1/Base User's Guide*.	through the firewall in the *JP1/Base User's Guide*.
http/https	Value of the `ucnp.base.client.jp1ao.portnum` property in the user property (`ucnp_user.properties`)/tcp	From the HTTP server to the JP1/AO server (one direction)

\#
    Specify this setting if you will be using a JP1 Event Status Change Plugin.

C. List of Limit Values

This appendix explains limit values in Navigation Platform.

C.1 Limit values during installation of Navigation Platform

The following table describes the limit value that is applicable to installation of Navigation Platform.

Table C–1: Limit values during installation of Navigation Platform

No.	Item	Limit value
1	Maximum length of the path of the installation directory	40 characters

C.2 Limit values during Navigation Platform operation

The following table lists and describes the limit values that are applicable to operation of Navigation Platform.

Table C–2: Limit values during Navigation Platform operation

No.	Item	Limit value
1	Maximum number of users who can log in to Navigation Platform concurrently (maximum number of users per server)	300 users
2	Maximum number of users who can run Navigation Platform concurrently	10 users
3	Maximum number of Operational Contents that can be created	500[#1]
4	Maximum length of a user ID used to log in to Navigation Platform	31 bytes[#2]
5	Maximum length of a name for a group to which a user logging in to Navigation Platform belongs (when using a directory server for user authentication)	64 bytes
6	Maximum length of a display name for a user logging in to Navigation Platform (when using a directory server for user authentication)	255 bytes
7	Maximum number of links that can be displayed in the *link1* to *link9* menus in the header area in the Operational Content Execution Window	9

#1

You can use the `ucnp.base.client.menu.maxnum` property to change this value within the range from 1 to 2,000. For details, see *5.11 Procedure for increasing the maximum number of Operational Contents*.

#2

Only single-byte alphanumeric characters are permitted.

C.3 Limit values during Operational Content operation

This subsection explains the limit values that are applicable to each type of operation and part during operation of Operational Contents.

Table C–3: Limit values during creation or copying of Operational Contents

No.	Item	Limit value
1	Maximum length of the name of an Operational Content	128 bytes in UTF-8
2	Maximum length of the name for a group to which an Operational Content belongs	128 characters[#1]
3	Number of access permission groups that can be set per Operational Content	10
4	Number of JP1 resource groups that can be set per Operational Content	10
5	Number of parts that can be created in the Operational Flow area and the Guide area	100
6	Maximum number of operations that can be undone by the **Undo** button	10[#2]
7	Maximum length of a character string before and after replacement, which can be specified in the Replace window in the Operational Content Editing Window	256 characters

#1

Two consecutive backslashes (\\) are counted as one backslash (\).

#2

You can use the `ucnp.base.client.undo.max.count` property to change this value within the range from 1 to 100.

Table C–4: Limit values in the Attribute Settings window for Operational Contents

No.	Item	Limit value
1	Maximum length of **Anchor String** in related links settings	1,024 characters
2	Maximum length of **URL** in related links settings	1,024 characters
3	Maximum value of **Text size** in size settings	128 px
4	Maximum value of **Button height** in size settings	130 px
5	Maximum value of **Width of Back button** in size settings	260 px
6	Maximum value of **Width of Next button** in size settings	260 px
7	Maximum value of **Width of Finish button** in size settings	260 px
8	Maximum value of **Width of Conditional Branch button** in size settings	260 px

Table C–5: Limit values in the Attribute Settings window for flow parts

No.	Item	Limit value
1	Maximum value of **Front/back order** for flow parts	`100`
2	Maximum length of **Node ID** for Process Nodes, Terminal Nodes, and Branch Nodes	20 characters
3	Maximum length of **Node Name** for Process Nodes	128 bytes in UTF-8
4	Maximum length of **Image URL** for Process Nodes	1,024 bytes in UTF-8
5	Maximum length of **Next button name** for Process Nodes	40 characters
6	Maximum length of **Back button name** for Process Nodes	40 characters
7	Maximum length of **Node Name** for Terminal Nodes	128 bytes in UTF-8
8	Maximum length of **Finish button name** for Terminal Nodes	40 characters
9	Maximum length of **Node Name** for Branch Nodes	128 bytes in UTF-8
10	Maximum length of **Displayed string** for static text parts in the Operational Flow area	65,535 characters

No.	Item	Limit value
11	Maximum length of **String color** for static text parts in the Operational Flow area	128 bytes in UTF-8
12	Maximum length of **Text size (px)** for static text parts in the Operational Flow area	128 px
13	Maximum length of **URL** for image parts in the Operational Flow area	1,024 bytes in UTF-8
14	Maximum length of **Tool tip** for image parts in the Operational Flow area	128 bytes in UTF-8

Table C–6: Limit values in the Attribute Settings window for Guide Parts

No.	Item	Limit value
1	Maximum length of **Guide Part ID** for Guide Parts	20 characters
2	Maximum length of **Displayed string** for static text parts in the Guide area	65,535 characters
3	Maximum length of **String color** for static text parts in the Guide area	128 bytes in UTF-8
4	Maximum value of **Text size (px)** for static text parts in the Guide area	128 px
5	Maximum length of **URL** for image parts in the Guide area	1,024 bytes in UTF-8
6	Maximum length of **Tool tip** for image parts in the Guide area	128 bytes in UTF-8
7	Maximum value of **Maximum string size** for text box parts in the Guide area	`65535`
8	Maximum length of **Default value** for text box parts in the Guide area	Value entered for **Maximum string size** for text box parts in the Guide area
9	Maximum number of characters for **Input rule** for text box parts in the Guide area	1,024 characters
10	Maximum length of **Error message** for text box parts in the Guide area	200 characters
11	Maximum length of **Default value** for text area parts in the Guide area	65,535 characters
12	Maximum length of **Displayed string** for check box parts in the Guide area	1,024 bytes in UTF-8
13	Maximum length of **Displayed string** for radio button parts in the Guide area	1,024 bytes in UTF-8
14	Maximum length of **Value** for radio button parts in the Guide area	128 bytes in UTF-8
15	Maximum length of **Group name** for radio button parts in the Guide area	128 bytes in UTF-8
16	Maximum length of **Anchor String** for hyperlink parts in the Guide area	1,024 bytes in UTF-8
17	Maximum length of **URL** for hyperlink parts in the Guide	1,024 bytes in UTF-8
18	Maximum length of **Tool tip** for hyperlink parts in the Guide	128 bytes in UTF-8
19	Maximum length of **URL** for inline frame parts in the Guide area	1,024 bytes in UTF-8
20	Maximum length of **HTML source string** for HTML parts in the Guide area	65,535 characters
21	Maximum length of **Search keyword** for HTML parts in the Guide area	65,535 characters
22	Maximum length of **Parameter name** for HTML parts in the Guide area	1,024 characters
23	Maximum length of **Parameter value** for HTML parts in the Guide area	1,024 characters
24	Maximum length of **Parameter description** for HTML parts in the Guide area	64 characters
25	Maximum number of entries in the list of parameters for HTML parts in the Guide area	50
26	Maximum length of **Parent part ID** for drop down parts in the Guide area	20 characters
27	Maximum length of **Parent value** for drop down parts in the Guide area	300 characters

No.	Item	Limit value
28	Maximum length of **Label** for drop down parts in the Guide area	20,299 characters
29	Maximum length of **Value** for drop down parts in the Guide area	60,299 characters

Table C–7: Limit values when checking input values for Guide Parts

No.	Item	Limit value
1	Maximum number of text box parts that can be highlighted concurrently to indicate errors in the Guide area	$10^{\#}$
2	Maximum number of text box parts for which error messages can be output concurrently	10
3	Maximum number of check box parts that can be highlighted concurrently to indicate errors in the Guide area	$10^{\#}$

\#
   The 11th and subsequent errors are not highlighted.

Table C–8: Limit values for static files

No.	Item	Limit value
1	Maximum length of a name for a static file or folder	The following two values are compared and whichever is smaller is applied as the limit value: • 250 minus the number of characters in the path name of the static file storage folder minus the number of characters in the folder name[1] of the current directory • 250 minus the number of characters in the path[2] of the temporary folder when the static file was added
2	Maximum size of one file	10 MB
3	Total number of static files and folders that can be added to each directory in the Management/Registration window	200

#1
   This includes delimiters that follow the `ucnpuserstaticfiles` folder.

#2
   Navigation-Platform-installation-directory`\spool\upload\`*10-character-random-string*
   (This includes delimiters that follow the random string.)

Table C–9: Limit values for Operational Content versions

No.	Item	Limit value
1	Maximum number of Published Versions that can be displayed as history	Five versions per Operational Content
2	Maximum length of a comment that can be set for a version	256 characters

Table C–10: Limit values when Navigation Platform is linked with other JP1 products

No.	Item	Limit value
1	Maximum length of a JP1 resource group name	64 characters
2	Maximum length of a JP1 user name	31 characters
3	Maximum length of a password for a JP1 user name	32 characters
4	Maximum length of an item in a JP1 event association file	• Event ID: 8 bytes

No.	Item	Limit value
4	Maximum length of an item in a JP1 event association file	• Source event server name: 255 bytes • Product name: 255 bytes • Message: 1,023 bytes • Operational Content ID: 255 bytes
5	Number of lines that can be entered in a JP1 event association file	1,000 lines
6	Length of a URL# that can be created by an Automatic Operation Window URL Creation Plugin	1,024 bytes

\#

This is a URL character string encoded in UTF-8.

Table C–11: Limit values when specifying access permissions

No.	Item	Limit value
1	Maximum number of access permission groups that can be created	100
2	Maximum number of users or groups that can be set per access permission group	64
3	Maximum number of access permission groups that can be set per Operational Content	10
4	Maximum number of JP1 resource groups that can be set per Operational Content	10

D. Properties That Need to Be Checked When a Version Upgrade is Performed

This appendix explains the properties that need to be checked when versions of the following products are upgraded:

- Hitachi Navigation Platform
- Hitachi Navigation Platform for Developers

How to use the tables:

1. Check the rows that contain the following in the *Supported version* column:

   -- (two consecutive hyphens)

   Same version as the product version before upgrading the version

   Earlier version than the product version before upgrading the version

2. Check the property name and the change details on a row that satisfies the following condition in the *Updated version* column:

   Later version than the product version before updating the version

Table D–1: User setup properties that are different before and after a version upgrade (Hitachi Navigation Platform)

No.	Supported version	Updated version	Property name	Details of change
1	10-10	10-11	`ucnp.base.client.jp1ao.portnum`	Default value was changed: Before change: `23015` After change: `22015`
2	--	10-50	`ucnp.base.server.dashboard.link.display`	Added

Legend:

--: Not applicable because the property was added in the updated version.

E. Version Changes

This appendix provides the revision history of this manual for each version.

E.1 Changes in version 12-60

- The following operating system is now supported:
  - Microsoft(R) Windows Server(R) 2022
  - Windows(R) 11
- The following web browser is now supported:
  - Microsoft Edge

  The following web browser was removed from the supported web browsers:
  - Windows(R) Internet Explorer(R) 11

  As a result, the following description was added or changed:
  - Notes on the web browsers used
  - The web browsers that can be used to access the Dashboard window from a machine
  - Character string for the web browser's tab name
- The limits on the functions of the following web browser were removed:
  - Google Chrome

  As a result, the following description was changed:
  - System configuration examples
  - Notes on the web browsers used
- The following parameter values were deleted:
  - The `close_only` and `logout_close` values in the `ucnpCloseBtn` parameter
- The following properties were removed from the user property file (`ucnp_user.properties`):
  - `ucnp.base.server.close.button.setting`
  - `ucnp.base.client.complete.button.window.close`

  As a result, the following description was changed:
  - The user message properties file (`ucnp_message_user.properties`)
  - The number of users logged in concurrently
  - The description of the **Close** button in the Updating Plugin Parts window
- The same name can now be used for Operational Content between different groups.
  As a result, the following description was changed:
  - `npimport` command (import Operational Contents)
- HTTPS is now supported.
  As a result, the following description was added or changed:
  - URLs used to access Navigation Platform windows
  - What to check before setup

- Setup preparations when enabling HTTPS communications

- Setup procedure

- Configuration procedure when using HTTPS

- URL used for calling Navigation Platform from other JP1 products

- Service name and port number in the direction in which data passes through the firewall

- The following property was added to the user setup property file (`ucnp_setup_user.properties`):

  - `ucnp.setup.server.cosminexus.hws.http.protocol`

  - `ucnp.setup.server.cosminexus.hws.http.cacert.enable`

  - `ucnp.setup.server.cosminexus.hws.http.ssl.privatekey.type`

- The delete confirmation message can now be displayed with the following commands. A `--delete-force` option for not displaying the delete confirmation message was also added.

  - `npimport` command (import Operational Contents)

  - `nppubimport` command (import Published Versions of Operational Contents)

- The following property was added to the user property file (`ucnp_user.properties`):

  - `ucnp.base.server.command.import.delete.confirm.enable`

- The directory configuration of Navigation Platform was changed.

E.2 Changes in version 12-50

- For cases where JP1/Base is used for user authentication, Content Creator, a user who has permission to access an Operational Content as a creator (with the JP1 permission level `HNP_Creator`), was added.

  Following this change, the following information was added or modified:

  - Procedure for adding the JP1 permission level `HNP_Creator` for Content Creators when a JP1/Base version earlier than 12-50 continues to be used without upgrading.

  - Operations that users with the JP1 permission level `HNP_Creator` can perform

  - Tasks required depending on whether plugins and custom windows are used

  - Setting access permissions for Operational Contents

  - Destinations of notifications when static files used in Operational Contents are stored in a directory on the web server

- Users can now create Operational Contents for offline execution and configure them so that they can be executed in an offline environment. Additionally, JavaScript Plugins can now contain client-side JavaScript.

  Following these changes, the following information was added:

  - Offline Plugin and Online Plugin

  - JavaScript Plugins that contain client-side JavaScript

  - Configuring Operational Contents to allow or disallow offline execution

  - Operation log and audit log for Operational Contents that are configured to allow offline execution

  - The `ucnp.setup.server.cosminexus.ejbserver.session.timeout` property (the default session timeout interval) in the user setup property file (`ucnp_setup_user.properties`)

- Users can now add non-system default font families to the set of fonts that can be applied to resources in Operational Contents.
  Following this change, the following information was added:
  - User style property file (`ucnp_style_user.properties`)
- A note was added about the operation log of data within the scope of the upgrade.
- The character encoding of the property files, except for the service property file, was changed to UTF-8.
  Following this change, the following information was added:
  - Procedure for converting the character encoding of existing property files to UTF-8 when JP1/Navigation Platform is upgraded from a version earlier than 12-50 to 12-50 or later
- Operational Contents can now belong to a hierarchical group.
  Following this change, the following information was added:
  - A note about cases where JP1/Navigation Platform is upgraded from a version earlier than 12-50 to version 12-50 or later, and the names of groups to which Operational Contents belong include a backslash (`\`)
  - Specifying a hierarchical group with the `ucnp.base.client.menu.group.default` property (the default group name) in the user property file (`ucnp_user.properties`)
  - A note about importing Operational Contents that were exported from a JP1/Navigation Platform version earlier than 12-50
  - A note about the maximum name length of a group to which Operational Contents belong
- For cases where a directory server (Active Directory) is used for user authentication, LDAPS is now supported as a server communication protocol.
  Following this change, the following information was added or modified:
  - The `ucnp.setup.server.ldap.protocol` property (the communication protocol of the directory server) in the user setup property file (`ucnp_setup_user.properties`)
  - Unsetup procedure when using LDAPS
  - Procedure for restoring the entire system when using LDAPS
  - Procedure for changing uCosminexus Portal Framework settings
  - Setup procedure when using LDAPS
- Google Chrome was added to the web browsers that can be used to access the Dashboard window from a machine. A note was added about support for Windows(R) Internet Explorer(R) 11.
- The maximum length of the installation directory path of Navigation Platform was changed from 60 characters to 40 characters.

E.3 Changes in version 12-10

- The following operating system is now supported:
  - Microsoft(R) Windows Server(R) 2019
- The following operating systems are no longer supported:
  - Microsoft(R) Windows Server(R) 2012
  - Microsoft(R) Windows(R) 7
- Information regarding I/O Plugins, which are part of System Plugins, was added.

- The following web browser is now supported:
  - Google Chrome
- iPadOS, instead of iOS 12, is now the OS supported on iPads.
- Information regarding the estimation of the hard disk capacity required to use the dashboard function was modified.
- Information regarding the minimum JP1/Base version number required to use user authentication provided by JP1/Base was modified.

  The step that must be followed to use user authentication provided by JP1/Base was added to the setup procedure.
- Notes on operating Internet Explorer were added.
- Information regarding limited availability of functions when Mobile Safari is used was added.
- A note on using an OS user name to log in to a machine was added.
- A maximum of 60 characters can now be used to specify a path to the directory in which to install Navigation Platform.

  Following this change, a note on specifying a path to the directory in which to install upgrades was added.
- The following products were removed from the list of products to be upgraded:
  - uCosminexus Navigation Platform 09-00, 09-50, 09-60
  - uCosminexus Navigation Platform - User License 09-00, 09-50, 09-60
  - uCosminexus Navigation Platform - Authoring License 09-00, 09-50, 09-60
  - uCosminexus Navigation Developer 09-00, 09-50, 09-60
  - Hitachi Navigation Platform 10-00
  - Hitachi Navigation Platform for Developers 10-00
  - JP1/Integrated Management - Navigation Platform 10-01, 10-10, 10-50

  Following this change, the following information was modified:
  - Notes on the `npimport` command
  - Properties that need to be checked upon an upgrade (in the case of Hitachi Navigation Platform)
- The mode of management of users of the dashboard function was modified. Following this change, the following changes were made:
  - The following property was added to the settings specified in the user property file (`ucnp_user.properties`):

    - `ucnp.base.server.dashboard.auth.userids` (list of user IDs of users who are allowed access to the Dashboard window for the operation log)
  - The following properties were removed from the settings specified in the user setup property file (`ucnp_setup_user.properties`):

    - `ucnp.setup.server.dashboard.web.userid` (user ID of the user accessing the dashboard)
    - `ucnp.setup.server.dashboard.web.password` (password of the user accessing the dashboard)
  - The steps that must be followed to migrate settings related to the users of the Dashboard function were added to the part of the version upgrading procedure that describes how to restore the data to be upgraded.
- A note on changing or applying the settings specified in the user setup property file was added.
- It is now possible to replace all strings inside Operational Contents by using the Replace window in the Operational Content Editing Window.

  Following this change, the section that presents the list of items set in the Operational Content Editing Window now contains information regarding whether these items are subject to replacement.

- The following items were added as the items subject to search in the HTML parts of the Operational Content Editing Window (Guide area):
  - **Embed parameters in HTML source string**
  - **Parameter list**: **Parameter name**
  - **Parameter list**: **Parameter value**
  - **Parameter list**: **Parameter description**
- A limit value for the following item was added, which is applicable to the creation or copying of Operational Contents:
  - Maximum length of strings before and after replacement, which can be specified in the Replace window in the Operational Content Editing Window
- The limit values for the following items were added to the Attribute Settings window for Guide Parts:
  - Maximum length of **Parameter name** for HTML parts in the Guide area
  - Maximum length of **Parameter value** for HTML parts in the Guide area
  - Maximum length of **Parameter description** for HTML parts in the Guide area
  - Maximum number of entries of the list of parameters for HTML parts in the Guide area

E.4 Changes in version 12-00

- The following products are no longer available in JP1/Navigation Platform 12-00 and later versions:
  - Hitachi Navigation Platform
  - Hitachi Navigation Platform for Developers
- The following OS is no longer supported:
  - Microsoft(R) Windows Server(R) 2008 R2
  - Windows(R) 8
- JavaScript Plugins were added to System Plugins so that JavaScript written by the user can be executed on the server.
- The following Web browsers are no longer supported:
  - Windows(R) Internet Explorer(R) 8
  - Windows(R) Internet Explorer(R) 9
  - Windows(R) Internet Explorer(R) 10
- The supported version of iOS was changed from *10.3* to *12*
- The following files were added to the primary materials of troubleshooting information that can be acquired with the `npsnapshotlog` command:
  - Version.txt
  - ProductInfo.txt

E.5 Changes in version 11-50

- The machine specifications and settings that are recommended for running Navigation Platform were changed.
- Due to bundling of the Web browser with the OS, the OS version listed for Mobile Safari was changed.

- Notes related to Mobile Safari settings were changed.
- Notes on Mobile Safari operations were added.
- Elastic was added to the directory configuration of Navigation Platform.
- The status in which the dashboard server is stopped was added to the version upgrading conditions.
- The following data was added as targets of version upgrading:
    - Access user management file for the dashboard function
    - Memory capacity settings for the dashboard server
    - Tasks related to Navigation Platform
- The following information was added to the procedure for backing up the data from the upgrade target:
    - The method for backing up the dashboard server's memory capacity settings
    - The method for backing up tasks related to Navigation Platform
- The method for restoring the access user management file for the dashboard function was added to the procedure for restoring data subject to version upgrading.
- The method for reconfiguring the dashboard server's memory capacity settings was added to the version upgrading procedure.
- The method for restoring the settings for tasks related to Navigation Platform was added to the version upgrade procedure.
- The following information was added to the procedure for backing up the entire system:
    - The method for backing up the dashboard server's memory settings
    - The method for backing up tasks related to Navigation Platform
- The following information was added to the procedure for restoring the entire system:
    - The method for backing up the dashboard server's memory settings
    - The method for backing up tasks related to Navigation Platform
- The following information was added to the procedure for restoring the data that was backed up (reconfiguring on the same machine when User Plugins are not used):
    - The method for backing up the dashboard server's memory settings
    - The method for backing up tasks related to Navigation Platform
- The following information was added to the procedure for restoring the data that was backed up (reconfiguring on the same machine when User Plugins are used):
    - The method for backing up the dashboard server's memory settings
    - The method for backing up tasks related to Navigation Platform
- The procedure for restoring the dashboard function to the state at the time of setup was added.
- A description about using dashboard functions for analyzing operation logs was added.
- The following properties were added to the user setup property file (`ucnp_setup_user.properties`):
    - `ucnp.setup.server.dashboard.storage.http.port`
    - `ucnp.setup.server.dashboard.storage.transport.tcp.port`
    - `ucnp.setup.server.dashboard.web.server.port`
    - `ucnp.setup.server.dashboard.web.userid`
    - `ucnp.setup.server.dashboard.web.password`

- The following property was added to the service property file (`ucnp_service.ini`):
  - `NPDASHBOARDANLTIME`
- The following property was added to the user property file (`ucnp_user.properties`):
  - `ucnp.base.server.dashboard.link.display`
- The description of the number of characters for setting link display text was changed.
- The following commands were added:
  - `npdashboardremoveolddata` command (delete analysis information)
  - `npdashboardsetstoragememory` command (modify storage memory settings)
  - `npuploadoplog` command (upload operation logs)
- The access user management file for the dashboard functions was added to the data that is backed up by the `npdatabackup` command (environment backup).
- The following information was added to the information collected by default as the primary materials of troubleshooting information:
  - Dashboard server's settings file
  - Dashboard server's log file
- The following information was added to the information collected by default as secondary troubleshooting-information materials:
  - List of the dashboard server's registry entries
- The following port numbers were added to the port numbers used in Navigation Platform:
  - `24705` (TCP)

    HTTP port number of the dashboard storage service
  - `24706` (TCP)

    Port number used for inter-node communication of the dashboard storage service
  - `24707` (TCP)

    HTTP port number of the dashboard web service

F. Reference Material for This Manual

This appendix provides reference information, including various conventions, for this manual.

F.1 Related publications

This manual is part of a related set of manuals. The manuals in the set are listed below (with the manual numbers):

(1) Navigation Platform manuals

The manuals for Navigation Platform are listed below.
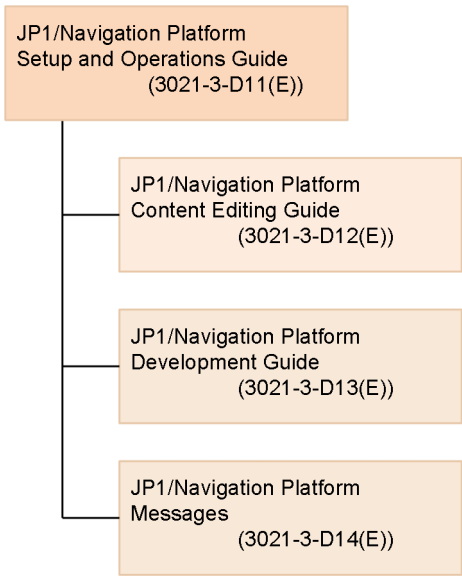
- *JP1/Navigation Platform Setup and Operations Guide* (3021-3-D11(E))

  The manual you are reading. This manual provides an overview of Navigation Platform and its functionality, and describes how to set up and operate a system that incorporates Navigation Platform.

  We recommend that users of Navigation Platform read this manual first.

- *JP1/Navigation Platform Content Editing Guide* (3021-3-D12(E))

  This manual describes how to create, modify, and delete Operational Content, and how to manage the permissions that govern access to this content.

- *JP1/Navigation Platform Development Guide* (3021-3-D13(E))

  This manual describes how to develop plugins and custom windows for Navigation Platform.

- *JP1/Navigation Platform Messages* (3021-3-D14(E))

  This manual explains the messages output when using Navigation Platform.

(2) Manuals for related software

Manuals for related software are listed below. When referring to these manuals in this document, *JP1 Version 10, JP1 Version 11*, and *JP1 Version 12* are usually omitted from the title.

- *Job Management Partner 1/Software Distribution Administrator's Guide Volume 1* (3020-3-S81(E)), for Windows systems

- *Job Management Partner 1 Version 10 Job Management Partner 1/Base User's Guide* (3021-3-301(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 Administration Guide* (3021-3-307(E))
- *Job Management Partner 1 Version 10 Job Management Partner 1/Integrated Management - Manager Command and Definition File Reference* (3021-3-309(E))
- *JP1 Version 11 JP1/Base User's Guide* (3021-3-A01(E))
- *JP1 Version 11 JP1/Integrated Management - Manager Overview and System Design Guide* (3021-3-A07(E))
- *JP1 Version 11 JP1/Integrated Management - Manager Administration Guide* (3021-3-A09(E))
- *JP1 Version 11 JP1/Integrated Management - Manager Command and Definition File Reference* (3021-3-A11(E))
- *JP1 Version 12 JP1/Base User's Guide* (3021-3-D65(E))
- *JP1 Version 12 JP1/Integrated Management 2 - Manager Overview and System Design Guide* (3021-3-D51(E))
- *JP1 Version 12 JP1/Integrated Management 2 - Manager Administration Guide* (3021-3-D53(E))
- *JP1 Version 12 JP1/Integrated Management 2 - Manager Command and Definition File Reference* (3021-3-D55(E))

F.2 Conventions: Abbreviations for product names

This manual uses the following abbreviations for product names:

Abbreviation		Full name or meaning
Cosminexus[#]		uCosminexus Primary Server Base
Embedded database		HiRDB Embedded Server Version 8
JP1/AO		JP1/Automatic Operation
JP1/IM	JP1/IM-M	JP1/Integrated Management - Manager
		JP1/Integrated Management 2 - Manager
	JP1/IM-V	JP1/Integrated Management - View
		JP1/Integrated Management 2 - View
JP1/IM-SS		JP1/Integrated Management - Service Support
		JP1/Service Support
Oracle Directory Server		Oracle Directory Server Enterprise Edition 11.0
Intel Core i5		Intel Core i5 processor

#

In description of uCosminexus Navigation Platform, *Cosminexus* is used as a generic term for uCosminexus Application Server and uCosminexus Developer.

F.3 Conventions: Acronyms

This manual also uses the following acronyms:

Acronym	Full name or meaning
ASCII	American Standard Code for Information Interchange
EAR	Enterprise ARchive
J2EE	Java 2 Platform, Enterprise Edition
JAAS	Java Authentication and Authorization Service
JAR	Java ARchive
JIS	Japanese Industrial Standards
JSP	Java Server Pages
LDAP	Lightweight Directory Access Protocol
RMI	Remote Method Invocation
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
UTC	Coordinated Universal Time
UTF	UCS Transformation Format

F.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.

G. Glossary

application server

A server for processing user operations from web browsers and applying the results to business systems such as database systems.

Automatic Operation Service Execution Plugin

A plugin provided by Navigation Platform that enables JP1/AO services to be executed directly from Operational Contents.

Automatic Operation Window URL Creation Plugin

A plugin provided by Navigation Platform to acquire the URL of JP1/AO and to access from Operational Contents JP1/AO's main window or the Service Execution dialog box.

Branch Node

A node used to branch a process during operations. Branch Nodes are displayed in Navigation Platform windows as diamond shapes.

Content Creator

For cases where JP1/Base is used for user authentication, a user who has the creator's access permissions for Operational Contents.

Content Editor

A user who has the editor's access permissions for Operational Contents.

Content Manager

A user who has the administrator's access permissions for Operational Contents.

Data Store Plugin

A plugin provided by Navigation Platform to perform data transfer between Guide Parts.

development environment

An environment in which plugins are developed. JP1/Navigation Platform for Developers is required.

directory server

A server that manages user information, such as user IDs and passwords, that is needed for LDAP authentication. Navigation Platform supports Active Directory.

editing environment

An environment in which Operational Contents are created and edited, and access permissions are set for Operational Contents. JP1/Navigation Platform is required.

embedded database

In this manual, the embedded database means the HiRDB Embedded Server Version 8 that is included in Navigation Platform.

execution environment

An environment that is accessed by users when operations are performd using Operational Contents. JP1/Navigation Platform is required.

export

Outputting of Operational Contents and access permission settings in ZIP format. Exported data can be imported into another environment.

flow part

A part used to create Operational Flows. A part is selected from the **Flow** pallet and placed in a flow area.

Guide

An explanation of an individual task that is performed in an Operational Content.

Guide Part

A part in which Guides are created. A Guide Part is selected from the **Guide** pallet and placed in the Guide area.

import

Loading of exported data into the local environment.

Navigation Platform enables Operational Contents and access permission settings to be imported.

I/O Plugin

A plugin used to process information that has been entered in Navigation Platform windows and to determine the information to be displayed in windows. I/O Plugins enable the user to check the integrity of the values entered in Guides, output them to external programs, and record them as logs.

JavaScript Plugin

A plugin provided by Navigation Platform so that server-side JavaScript can run on a server or client-side JavaScript can run on a web browser (on a client) by using the value entered into Operational Contents by the user as a parameter.

JP1/AO

JP1/AO is an abbreviation for the JP1 product JP1/Automatic Operation. This product automates system operations that continue to become more sophisticated and complex.

JP1/Base

A program that provides the event service. JP1/Base is used in Navigation Platform for user authentication.

JP1 Event information output plugin

A plugin provided by Navigation Platform to display JP1 event information managed by JP1/IM or JP1/IM-SS, such as event IDs and product names.

JP1 Event Status Change Plugin

A plugin provided by Navigation Platform to change the action statuses of JP1 events that are managed by JP1/IM.

JP1/IM-M

JP1/IM-M is an abbreviation for JP1/Integrated Management - Manager and JP1/Integrated Management 2 - Manager, a product in the JP1 family. It is a program that achieves integrated system management by providing integrated monitoring and operation over the entire system. In this manual, JP1/IM-M and JP1/IM-V are referred to collectively as JP1/IM.

JP1/IM-SS

JP1/IM-SS is an abbreviation for the JP1 products JP1/Service Support and JP1/Integrated Management - Service Support. These products are based on the concept of an information technology infrastructure library (ITIL), and they have been developed to reduce operation workloads and to improve efficiency throughout service support in service management.

JP1/IM-V

JP1/IM-V is an abbreviation for JP1/Integrated Management - View and JP1/Integrated Management 2 - View, a product in the JP1 family. This program provides a viewer function to achieve integrated system management in JP1/IM. JP1/IM-V connects to JP1/IM-M and monitors and manages systems.

JP1 Link Plugin

A plugin provided by Navigation Platform to mutually link Operational Contents and JP1 products, such as JP1/IM and JP1/AO which are external programs, by exchanging data with the JP1 products.

Navigation Platform

A generic name for JP1/Navigation Platform and JP1/Navigation Platform for Developers.

node

A part that indicates an operational process and is displayed in an Operational Flow. The three types of nodes are Terminal Nodes, Process Nodes, and Branch Nodes.

Offline Plugin

A plugin that does not communicate with a server. Offline Plugins include the following:

- Data Store Plugin

- JavaScript Plugin[#]

#

If using JavaScript Plugin offline, it is necessary to select the **Execute in the browser** check box in the **Attribute Settings** window of the JavaScript Plugin part in advance.

Online Plugin

A plugin that is not an Offline Plugin.

Operational Content

Information needed to perform operations. Operational Contents are created and displayed in Navigation Platform windows.

Operational Content Editing Window

A window used to perform the following Navigation Platform operations:

- Creating, editing, copying, and deleting Operational Contents

- Publishing Operational Contents and making Operational Contents private

- Associating I/O Plugins

- Setting access permissions for Operational Contents

Operational Content Execution Window

Window in which Operational Contents are used to perform operations.

Operational Flow

A flowchart of the operations in an Operational Content.

part

A component that is placed in Navigation Platform windows.

plugin

A user program used to link Navigation Platform and external programs and to use Navigation Platform's extended functions. Navigation Platform provides the interfaces needed for developing plugins.

Plugin Part

A part used to associate plugins with Operational Contents. A part is selected from the **Plugins** pallet and placed in a Guide area.

portal settings file

A uCosminexus Portal Framework file included in Navigation Platform. This file defines the information needed for linking Navigation Platform with directory servers and database servers.

Process Node

A node that indicates a process during operations. At least one Process Node must be provided between Terminal Nodes. Process Nodes are displayed in windows as rectangles.

Published Version

A version of an Operational Content that has been published even once.

Service Support Window URL Creation Plugin

A plugin provided by Navigation Platform to acquire URLs of JP1/IM-SS. This plugin enables the user to access the following windows from Operational Contents:

- Window for previewing JP1/IM-SS items

- Item edit window in JP1/IM-SS

setup

The setup that is performed using Navigation Platform commands. A simple procedure is provided for setting up Navigation Platform.

suspend information

Information that is saved temporarily when the user suspends window operations in an environment in which a Suspend/Resume Plugin is used. When the window operations are resumed, the suspend information is restored.

Suspend/Resume Plugin

A plugin that enables the user to suspend an operation in order to reference another operation or to log out, and then to resume the operation later from the suspended status.

System Plugin

A plugin provided by Navigation Platform that is required for linking external programs or Guide Parts.

Terminal Node

A node indicating the start or the end of an operation. Terminal Nodes are placed at the beginning and the end of an Operational Flow. Terminal Nodes are displayed as circles in Navigation Platform windows.

user label property file

A file used to define customization for the displayed strings of **Tools** menu links in the header area of the Operational Content Execution Window.

user message properties file

A file used to define messages that are displayed, for example, when Operational Contents are used in the Operational Content Execution Window and when operations are terminated.

User Plugin

A plugin developed by a developer using APIs provided by Navigation Platform.

user property file

A file used to define an operating environment for Navigation Platform. The definitions specified in this file includes the user IDs that have Navigation Platform's system administrator permissions, information about the appearance of windows, and trace information.

user setup property file

A file used to define setup information when Navigation Platform is set up. This file contains definitions needed for linking Navigation Platform with directory servers and port numbers.

user style property file

A file used to define customization for the font options of the **Character font** drop-down list on the **Size Settings** tab in the **Operational Content Settings** window of the Operational Content Editing Window.

Version Being Edited

The version of an Operational Content that is being edited or that has been edited by a Content Editor.

web server

A server that performs processing related to receiving requests from web browsers and sending data to web browsers.

Index

U

V

W