

uCosminexus Application Server

Application and Resource Definition Reference Guide

3020-3-Y17-10(E)

■ Relevant program products

See the *uCosminexus Application Server Overview*.

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■ Microsoft product name abbreviations

This manual uses the following abbreviations for Microsoft product names.

Abbreviation		Full name or meaning
SQL Server	SQL Server 2005	Microsoft(R) SQL Server 2005
	SQL Server 2008	Microsoft(R) SQL Server 2008
		Microsoft(R) SQL Server 2008 R2
SQL Server 2012	Microsoft(R) SQL Server 2012	
JDBC driver of SQL Server	SQL Server JDBC Driver	Microsoft(R) SQL Server JDBC Driver 3.0
		Microsoft(R) JDBC Driver 4.0 for SQL Server
Windows	Windows Server 2008	Windows Server 2008 x86
		Microsoft(R) Windows Server(R) 2008 Standard 32-bit
	Microsoft(R) Windows Server(R) 2008 Enterprise 32-bit	
	Windows Server 2008 x64	Microsoft(R) Windows Server(R) 2008 Standard
		Microsoft(R) Windows Server(R) 2008 Enterprise
	Windows Server 2008 R2	Microsoft(R) Windows Server(R) 2008 R2 Standard
Microsoft(R) Windows Server(R) 2008 R2 Enterprise		
Microsoft(R) Windows Server(R) 2008 R2 Datacenter		

Abbreviation		Full name or meaning	
Windows	Windows Server 2012	Windows Server 2012 Standard	Microsoft(R) Windows Server(R) 2012 Standard
		Windows Server 2012 Datacenter	Microsoft(R) Windows Server(R) 2012 Datacenter
	Windows XP		Microsoft(R) Windows(R) XP Professional Operating System
	Windows Vista	Windows Vista Business	Microsoft(R) Windows Vista(R) Business 32-bit
		Windows Vista Enterprise	Microsoft(R) Windows Vista(R) Enterprise 32-bit
		Windows Vista Ultimate	Microsoft(R) Windows Vista(R) Ultimate 32-bit
	Windows 7	Windows 7 x86	Microsoft(R) Windows(R) 7 Professional 32-bit
			Microsoft(R) Windows(R) 7 Enterprise 32-bit
			Microsoft(R) Windows(R) 7 Ultimate 32-bit
		Windows 7 x64	Microsoft(R) Windows(R) 7 Professional 64-bit
			Microsoft(R) Windows(R) 7 Enterprise 64-bit
			Microsoft(R) Windows(R) 7 Ultimate 64-bit
	Windows 8	Windows 8 x86	Windows(R) 8 Pro 32-bit
			Windows(R) 8 Enterprise 32-bit
Windows 8 x64		Windows(R) 8 Pro 64-bit	
		Windows(R) 8 Enterprise 64-bit	

Note that Windows 32 bit and Windows 64 bit are sometimes respectively referred to as Windows x86 and Windows x64.

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Summary of amendments

The following table lists changes in the manual 3020-3-Y17-10(E) for uCosminexus Application Server 09-50, uCosminexus Application Server(64) 09-50, uCosminexus Client 09-50, uCosminexus Developer 09-50, uCosminexus Service Architect 09-50, uCosminexus Service Platform 09-50, uCosminexus Service Platform(64) 09-50 and product changes related to the manual:

Changes	Location
Windows Server 2012 and Windows 8 are now supported.	--
The version of the DTD file of <code>cosminexus.xml</code> (application property file) is changed from 9.0 to 9.5.	<i>1.2, 2.1</i>
A description is added for WAR applications in the <code><module-name></code> tag of the WAR property.	<i>2.1, 2.2.6</i>
The tags are added below <code><eadssfo></code> that defines the parameters of EADs session failover functionality.	<i>2.1, 2.2.6</i>
The tags are added below <code><session-config></code> that defines the session parameters of Web applications.	<i>2.1, 2.2.6</i>
A description is added for the values specifiable in the following tags: <ul style="list-style-type: none"> <code><lookup-name></code> <code><optional-name></code> 	<i>2.1, 2.2.3, 2.2.4</i>
The description is changed for the values specifiable in the <code><config-property-name></code> tag:	<i>4.1.1, 4.1.4, 4.1.5, 4.1.7</i>
A description is added for the <code><adminobject></code> tag.	<i>4.1.1, 4.1.7</i>
SQL Server 2012 is added.	<i>4.1.10</i>
The RAR file of DB Connector is changed to the shared <code>DBConnector_SQLServer_CP.rar</code> of SQL Server. Accordingly, the template file name is changed to <code>DBConnector_SQLServer_CP_cfg.xml</code> .	<i>4.1.10, 4.1.14</i>
<code>applicationIntent</code> and <code>multiSubnetFailover</code> are added to the specifiable properties, when using <code>DBConnector_SQLServer_CP.rar</code> in SQL Server 2012.	<i>4.1.10</i>
<code>appendZero</code> and <code>forceFixedString</code> are added to the specifiable properties, when using <code>DBConnector_Oracle_CP.rar</code> and <code>DBConnector_Oracle_XA.rar</code> .	<i>4.1.10</i>
The description of notes has been moved from Release Notes.	<i>2.1, 2.2.3, 2.2.4, 4.1.10</i>

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

Preface

For details on the prerequisites before reading this manual, see *uCosminexus Application Server Overview*.

■ Non-supported functionality

Some functionality described in this manual is not supported. Non-supported functionality includes:

- Audit log functionality
- Compatibility functionality
- Cosminexus Component Transaction Monitor
- Cosminexus DABroker Library
- Cosminexus Reliable Messaging
- Cosminexus TPBroker and VisiBroker
- Cosminexus Web Service - Security
- Cosminexus XML Security - Core functionality
- JP1 linkage functionality
- Management portal functionality
- Migration functionality
- SOAP applications complying with specifications other than JAX-WS 2.1
- uCosminexus OpenTP1 linkage functionality
- Virtualized system functionality
- XML Processor high-speed parse support functionality

■ Non-supported compatibility functionality

"Compatibility functionality" in the above list refers to the following functionality:

- Basic mode
- Check of JSP source compliance (cjsp2java) with JSP1.1 and JSP1.2 specifications
- Database connection using Cosminexus DABroker Library
- EJB client application log subdirectory exclusive mode
- J2EE application test functionality
- Memory session failover functionality
- Servlet engine mode
- Simple Web server functionality
- Switching multiple existing execution environments
- Using EJB 2.1 and Servlet 2.4 annotation

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1

Overview of Files

This chapter describes the types of files, coding rules, and format for describing the syntax of files used in the Application Server.

Note that among all the files used with the Application Server, this manual describes the files that are to be used for setting the property information, when you set up J2EE applications and resources.

Among the files used in the Application server, for details on the files used for describing the definition information of servers, see *1. Overview of Files* in the manual *uCosminexus Application Server Definition Reference Guide*.

1.1 Types of files

You use property files for setting J2EE applications. Note that you can specify any name for property files.

In this manual, the files are classified into the following two types:

- Files included in applications and used
- Files specified in arguments when executing the server management commands

This section describes each type of property file.

(1) Files included in applications and used

Among the files used in the Application Server, the following files are included in applications and used:

Type of the file

Cosminexus application property file (`cosminexus.xml`)

Overview

This file defines the information that is unique to the Application server for applications, EJB-JARs, Session Beans, Entity Beans, Message-driven Beans, WAR, Filters, servlets or JSPs, and resource adapters.

For details on the Cosminexus application property file (`cosminexus.xml`), see *2.Cosminexus Application Property File (cosminexus.xml)*.

(2) Files specified in arguments when executing the server management commands

Among all the files used with Application Server, the files specified in arguments when executing the server management commands are described in the following table.

Table 1-1: Files specified in arguments when executing the server management commands

Type of file	Overview	References	Section
HITACHI Application Integrated Property file	This file is used for acquiring and editing properties of applications, EJB-JAR, Session Bean, Entity Bean, Message-driven Bean, WAR, Filter, Servlet or JSP, and resource adapters, in a batch.	This manual	3.1
HITACHI Application Property file	This file is used for acquiring and editing properties of applications.		3.2
HITACHI EJB-JAR Property file	This file is used for acquiring and editing properties of EJB-JAR.		3.3
HITACHI Session Bean Property file	This file is used for acquiring and editing properties of Session Beans.		3.4
HITACHI Entity Bean Property file	This file is used for acquiring and editing properties of Entity Beans.		3.5
HITACHI MessageDrivenBean Property file	This file is used for acquiring and editing properties of MessageDrivenBeans.		3.6
HITACHI WAR Property file	This file is used for acquiring and editing properties of WAR files.		3.7
HITACHI Filter Property file	This file is used for acquiring and editing properties of filter.		3.8
HITACHI Servlet Property file	This file is used for acquiring and editing properties of servlets and JSPs.		3.9
HITACHI Connector Property file	This file is used for acquiring and editing properties of resource adapters.	4.1	

Type of file	Overview	References	Section
HITACHI JavaBeans Resource Property file	This file is used for acquiring and editing properties of JavaBeans.	This manual	4.2
HITACHI Data Source Configuration File	This file is used for setting the information that is used to operate data sources.	Compatibility Guide	2.11.3
HITACHI Data Source Property file	This file is used for acquiring and editing properties of data sources.		2.11.4
Pool management information settings file	This file is used for setting the connection pool functionality of the Web container.		3.11.6
HITACHI Mail Property file	This file is used for acquiring and editing properties of mail configuration.	This manual	4.3

Note 1: *uCosminexus Application Server* has been omitted from the names of the manuals shown in *References*.

Note 2: For systems that execute batch applications; you can only use the HITACHI Connector Property file, among all property files described in the above table.

1.2 Storage destination of DTD files corresponding to property files

This section describes the storage location of DTD files corresponding to property files. The following table describes the storage location of DTD files corresponding to property files for each OS (Windows and UNIX):

Table 1-2: Storage destination of DTD files corresponding to property files (In Windows)

Property file	Storage location of the DTD file
cosminexus.xml (Cosminexus Application Property file)	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\cosminexus_9_5.dtd
HITACHI Application Integrated Property file	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-application-all-property_9_0.dtd
HITACHI Application Property file	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-application-property_8_0.dtd
HITACHI EJB-JAR Property file	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-ejb-jar-property_9_0.dtd
HITACHI Session Bean Property file	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-session-bean-property_9_0.dtd
HITACHI Entity Bean Property file	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-entity-bean-property_7_6.dtd
HITACHI MessageDrivenBean Property file	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-message-bean-property_7_6.dtd
HITACHI WAR Property file	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-war-property_9_0.dtd
HITACHI Filter Property file	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-filter-property_7_0.dtd
HITACHI Servlet Property file	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-servlet-property_7_0.dtd
HITACHI Connector Property file	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-connector-property_7_6.dtd
HITACHI JavaBeans Resource Property file	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-javabeans-resource-property_7_0.dtd
HITACHI Data Source Configuration File	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-datasource-configuration_6_0.dtd
HITACHI Data Source Property file	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-datasource-property_6_0.dtd
Pool management information settings file	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-webconpool-configuration_6_0.dtd
HITACHI Mail Property file	<i>Cosminexus-installation-directory</i> \CC\admin\dtlds\hitachi-mail-property_7_1.dtd

Table 1-3: Storage destination of DTD files corresponding to property files (In UNIX)

Property file	Storage destination of the DTD file
cosminexus.xml (Cosminexus Application Property File)	/opt/Cosminexus/CC/admin/dtds/cosminexus9_5.dtd
HITACHI Application Integrated Property file	/opt/Cosminexus/CC/admin/dtds/hitachi-application-all-property_9_0.dtd
HITACHI Application Property file	/opt/Cosminexus/CC/admin/dtds/hitachi-application-property_8_0.dtd
HITACHI EJB-JAR Property file	/opt/Cosminexus/CC/admin/dtds/hitachi-ejb-jar-property_9_0.dtd
HITACHI Session Bean Property file	/opt/Cosminexus/CC/admin/dtds/hitachi-session-bean-property_9_0.dtd
HITACHI Entity Bean Property file	/opt/Cosminexus/CC/admin/dtds/hitachi-entity-bean-property_7_6.dtd
HITACHI MessageDrivenBean Property file	/opt/Cosminexus/CC/admin/dtds/hitachi-message-bean-property_7_6.dtd
HITACHI WAR Property File	/opt/Cosminexus/CC/admin/dtds/hitachi-war-property_9_0.dtd
HITACHI Filter Property file	/opt/Cosminexus/CC/admin/dtds/hitachi-filter-property_7_0.dtd
HITACHI Servlet Property file	/opt/Cosminexus/CC/admin/dtds/hitachi-servlet-property_7_0.dtd
HITACHI Connector Property file	/opt/Cosminexus/CC/admin/dtds/hitachi-connector-property_7_6.dtd
HITACHI JavaBeans Resource Property file	/opt/Cosminexus/CC/admin/dtds/hitachi-javabeans-resource-property_7_0.dtd
HITACHI Data Source Configuration file	/opt/Cosminexus/CC/admin/dtds/hitachi-datasource-configuration_6_0.dtd
HITACHI Data Source Property file	/opt/Cosminexus/CC/admin/dtds/hitachi-datasource-property_6_0.dtd
Pool management information settings file	/opt/Cosminexus/CC/admin/dtds/hitachi-webconpool-configuration_6_0.dtd
HITACHI Mail Property file	/opt/Cosminexus/CC/admin/dtds/hitachi-mail-property_7_1.dtd

Note the following when using DTD files:

- Do not change the contents of DTD files.
- Do not copy and use DTD files.
- When you want to use a property file in an XML editor in an environment other than the machine on which the server management commands are executed, rewrite the URI specification of the property file according to the environment in use.

1.3 Format for describing the files

This chapter describes the format for describing the files and symbols used in the syntax.

(1) Description

Chapter 2 and subsequent chapters use the following format for describing files:

- Specifications
Indicates the configuration of a property file.
- Details of each property
Describes the details of the tags defined in the property file.
- Template file
Indicate the template file of a property file.
- Mapping with a DD
Indicates the property file and corresponding DD.
- Mapping with `cosminexus.xml`
Indicates the corresponding DD and `cosminexus.xml`. Use the above mentioned information as reference in the following cases:
 - When changing to `cosminexus.xml` from an existing property file
 - When obtaining the contents set in `cosminexus.xml` as a Property file with the server management command

Reference note

Some of the items mentioned above are not described in all files. Also, besides the items mentioned above, the information specific to each file might also be described.

(2) Symbols used in syntax

The syntax is described by using the symbols and syntax elements shown in the following table.

Table 1-4: Symbols used in the syntax

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, 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 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, ... indicate that a description is omitted. ABC... means that there is a description after ABC, and this description is omitted. Alternatively, in syntax explanations, an ellipsis indicates that the immediately preceding item can be repeated as many times as necessary. For example: <Property>... means that you can specify as many properties as necessary.
< >	In syntax explanations, angle brackets indicate a variable. For example: <Property> means that the user enters a property name or a property name is displayed.

Symbol	Convention
< >	<File name> means that the user enters a file name.

Table 1-5: Permitted characters used in the syntax

Type	Definition
Upper-case alphabetic characters	A to Z
Lower-case alphabetic characters	a to z
Alphabetic characters	A to Z, a to z
Numeric characters	0 to 9
Alphanumeric characters	A to Z, a to z, 0 to 9
Symbols	! " # \$ % & ' () + , _ . / : ; < = > @ [] ^ - { } ~ tab space

Note: Use single-byte characters for all the symbols.

1.4 Notes on editing the files

This section describes the notes on editing files in Windows Server 2012, Windows Server 2008, Windows 8, Windows 7, or Windows Vista. Note that the description assumes that the system drive is the C drive.

For updating a definition file

You must update the definition files provided by the Application Server with administrator privileges. If a user who does not have administrator privileges updates the definition files, the definition files in the directory under `C:\Program Files` are not updated. The files updated by the user who does not have administrator privileges are saved in the following directory:

```
C:\Users\user-name\AppData\Local\VirtualStore
```

Note that the Application Server is started with administrator privileges and therefore the contents of the definition files updated by a user who does not have administrator privileges are ignored.

For using Unicode supplementary characters

The characters added in Windows Server 2012, Windows Server 2008, Windows 8, Windows 7, or Windows Vista include the Unicode supplementary characters. You cannot use Unicode supplementary characters in the definition files used with the Application Server.

The following are the examples of definitions in which Unicode supplementary characters cannot be used:

- Names of EAR, WAR, JAR, EJB-JAR, Servlets, JSP, class, method, argument, and variables
- Various definitions in DD
- Apart from the above, set up values of various definition files

Also, when characters that cannot be converted to the character encoding during the execution are output to a log file, the characters are not output correctly.

2

Cosminexus Application Property File (cosminexus.xml)

This chapter describes the Cosminexus application property file (`cosminexus.xml`).

The Cosminexus application property file (`cosminexus.xml`) is used to set up the definition information that is unique to Application Server for EJB-JARs, Session Beans, Entity Beans, Message-driven Beans, WAR, filters, servlets and JSPs, and resource adapters.

2.1 Specifications of the Cosminexus application property file (cosminexus.xml)

The Cosminexus application property file (`cosminexus.xml`) is used for acquiring and editing the information that is unique to Application Server. The Cosminexus application property file (`cosminexus.xml`) only describes the locations at which the set value was changed. If you set up the default values using commands such as the server management commands, the relevant tags are deleted from this file.

The following properties are defined in the Cosminexus application property file (`cosminexus.xml`):

- Application property
- EJB-JAR property
- Session Bean property
- Entity Bean property
- Message-driven Bean property
- WAR property
- Filter property
- Servlet and JSP property
- Resource adapter property

Note that you can use the Cosminexus application property file (`cosminexus.xml`) only when the Application Server version is 08-00 or a later version.

The format and storage location of the Cosminexus application property file (`cosminexus.xml`) are as follows:

Format

This is an xml file.

Storage location

`EAR-root/META-INF/cosminexus.xml`

The following table lists and describes the items defined in the tables of the Cosminexus application property file (`cosminexus.xml`):

Item name	Explanation
Tag name	Displays the tag to be set.
Occurrence pattern	Indicates the frequency of occurrence of the tag.
Contents	Indicates the contents to be defined in the tag.
Specifiable value	Indicates the value that can be specified in the tag.
Default	Indicates the value that is enabled when the tag or the contents to be specified in the tag are omitted. If no default value exists, "None" is specified.
Identification key	Indicates if the specified tag is a key used for identifying the DD and module. The legend is as follows: D: Key to identify the elements of a DD. K: Key to identify modules. --: Key not used for identification.

For details on the tags, the omission of the keys and values, and the dependency on other tags, see 2.2 *Details of each property specified in the Cosminexus application property file (cosminexus.xml)*.

The Cosminexus application property file (`cosminexus.xml`) has the following DOCTYPE declaration. Note that you need not edit the DOCTYPE declaration.

```
<!DOCTYPE cosminexus-app PUBLIC "-//Hitachi, Ltd.//DTD Cosminexus 9.5//EN" 'file:///Cosminexus-
installation-directory/CC/admin/dtds/cosminexus_9_5.dtd'>
```

The configuration and specifications of `cosminexus.xml` are as follows.

The tag names described in the *Tag name* column are also cross-reference links to the preceding sections describing information related to the tags. *uCosminexus Application Server* is omitted from the manual names.

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<code><cosminexus-app></code>	Zero or once	This is the root tag.	--	None	--
<code><security-prop></code>	Zero or once	Specifies the management method for the security of <code>cosminexus-app</code>	--	None	--
<code><security-method></code>	Once	Specifies whether to enable the security settings.	You can specify the following character strings: <ul style="list-style-type: none"> <code>disable_methods_without_roles</code> <code>map_methods_without_roles</code> <code>no_security_for_methods_without_roles</code> <code>no_security_for_all_methods</code> 	<code>no_security_for_methods_without_roles</code>	--
<code><default-security-role></code>	Zero or once	Specifies the default security role when <code>map_methods_without_roles</code> is specified in <code><security-method></code> .	There are no limitations for the input value.	None	--
<code><start-order></code>	Zero or once	Specifies the order of starting and stopping the J2EE applications. When starting an application, the start processing is executed in the ascending order and when terminating an application, the stop processing is executed in the descending order.	Specify an integer value from 0 to 2147483647.	10	--
<code><scheduling-unit></code>	Zero or once	Specifies the deployment model of the queue.	You can specify the following character strings: <ul style="list-style-type: none"> Application Bean 	Application	--
<code><scheduling></code>	Zero or once	Sets up the information related to CTM integration.	--	None	--

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Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<queue-name>	Zero or once	Specifies the queue name for which scheduling is to be performed.	You can specify 1 to 63 alphanumeric characters and underscores (_).	<i>Application-name</i> #	--
<parallel-count>	Zero or once	Specifies the number of threads provided by the CTM scheduler to invoke an application.	Specify an integer value from 1 to 127.	1	--
<queue-length>	Zero or once	Specifies the length of a queue.	Specify an integer value from 1 to 32767.	<i>Length-during-generation-of-the-CTM-queue-maintained-in-the-CTM-daemon</i> (length specified in the <code>-CTMMaxRequestCount</code> option)	--
<managed-by-ctm>	Zero or once	Specifies whether to integrate CTM.	You can specify the following character strings: <ul style="list-style-type: none"> • true • false 	false	--
<ref-libraries>	Zero or once	Specifies the library JAR to be referenced.	--	None	--
<classpath>	One or more times	Specifies the class path of the referenced library.	There are no limitations for the input value.	None	--
<method-observation-recovery-mode>	Zero or once	Specifies the recovery mode of the method time monitoring functionality.	You can specify the following character string: <ul style="list-style-type: none"> • thread 	None	--
<ejb-async-props>	Zero or once	Sets up the information for invoking the Session Bean asynchronously.	--	None	--
<min-thread-pool-size>	Zero or once	Specifies the minimum number of threads executed concurrently in a thread pool.	Specify an integer value from 1 to 2147483647.	16	--
<max-thread-pool-size>	Zero or once	Specifies the maximum number of threads executed concurrently in a thread pool.	Specify an integer value from 1 to 2147483647.	32	--
<thread-pool-keep-alive>	Zero or once	Specifies the timeout value (unit: seconds) until the	Specify an integer value from 1 to 2147483647.	60	--

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<thread-pool-keep-alive>	Zero or once	threads in the thread pool are released.	Specify an integer value from 1 to 2147483647.	60	--
<result-timeout-value>	Zero or once	Specifies the time (unit: minutes) at which the results of asynchronous invocation will be stored. If 0 is specified, the results of asynchronous invocation are not released and are stored until the application is terminated.	Specify an integer value from 0 to 2147483647.	30	--
<ejb-jar>	Zero or more times	Defines the EJB-JAR.	--	None	--
<module-name>	Once	Specifies the module name from which you can identify the EJB-JAR.	There are no limitations for the input value.	None	K
<security-role>	Zero or more times	Defines the security role.	--	None	--
<role-name>	Once	Role name.	There are no limitations for the input value.	None	D
<linked-to>	Once	Specifies the role name defined by the <code>cjaddsec</code> command.	--	The link is not resolved.	--
<session>	Zero or more times	Defines SessionBean.	--	None	--
<ejb-name>	Once	Specifies the name of the ejb. Note that this key is used for identifying the SessionBean. Specifies the setup value of <ejb-jar>-<enterprise-beans>-<session>-<ejb-name> in the <code>ejb-jar.xml</code> . For an application that does not include <code>ejb-jar.xml</code> , the setup value of <code>name</code> of <code>@Stateless</code> , <code>@Stateful</code> , or <code>@Singleton</code> is specified. If <code>name</code> is not specified, the class name obtained by removing the package name of the EJB implementation class name is specified.	--	None	D
<security-identity>	Zero or once	Defines the security identity of the SessionBean.	--	None	--
<run-as>	Once	Defines the runtime identity.	--	None	--

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Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<user-name>	Once	Specifies the user name.	--	None	--
<resource-ref>	Zero or more times	Defines the resource to be referenced from SessionBean.	--	None	--
<res-ref-name>	Once	Specifies the name of the resource reference.	--	None	D
<linked-to>	Once	Specifies the corresponding resource adapter display name and mail display name. The member resource adapters of the cluster connection pool cannot be specified.	There are no limitations for the input value.	The link is not resolved.	--
<resource-env-ref>	Zero or more times	Defines the resource environment variables to be referenced from SessionBean.	--	None	--
<resource-env-ref-name>	Once	Specifies the name of the resource environment variable reference.	--	None	D
<linked-queue>	Once	Specifies the queue name.	--	None	--
<resource-adapter>	Once	Specifies the display name of the resource adapter.	There are no limitations for the input value.	None	--
<queue>	Once	Specifies the queue name.	There are no limitations for the input value.	None	--
<linked-adminobject>	Once	Specifies the administered object.	--	None	--
<resourceadapter-name>	Once	Specifies the display name of the resource adapter.	There are no limitations for the input value.	None	--
<adminobject-name>	Once	Specifies the administered object name.	You can specify alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters: Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percentage sign (%), ampersand (&), single quotation mark ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal to sign (=), greater-than sign (>), question mark (?), at mark (@), square	None	--

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<adminobject-name>	Once	Specifies the administered object name.	brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({}), vertical bar (), and tilde (~) You cannot, however, specify the following names: <ul style="list-style-type: none"> • A name containing a period (.) at the beginning or at the end • A name containing a period (.) only • A name containing continuous underscores (_) 	None	--
<linked-to>	Once	Specifies the display name of the JavaBeans resource. This tag is enabled only when <i>JavaBeans-resource-class-name</i> is specified in the DD element <resource-env-ref-type>.	--	The link is not resolved.	--
<lookup-name>	Zero or once	Specifies the name used when looking up the EJB from the client. This tag corresponds to <i>EJB-lookup-name</i> in <i>HITACHI_EJB/SERVERS/server-name/EJB/application-lookup-name/EJB-lookup-name</i> . If this tag is omitted, the resource name is used as the default value, however, all the characters other than the alphanumeric characters and underscores (_) included in the default value are converted into underscores.	You can specify the alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters: Space (), double quotation mark ("), dollar sign (\$), percentage sign (%), ampersand (&), single quotation mark ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal to sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({}), vertical bar (), and tilde (~). However, you cannot specify the following names:	<i>Resource-name</i>	--

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Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key	
	<lookup-name>	Zero or once	<p>Specifies the name used when looking up the EJB from the client. This tag corresponds to <i>EJB-lookup-name</i> in <i>HITACHI_EJB/SERVERS/server-name/EJB/application-lookup-name/EJB-lookup-name</i>.</p> <p>If this tag is omitted, the resource name is used as the default value, however, all the characters other than the alphanumeric characters and underscores () included in the default value are converted into underscores.</p>	<ul style="list-style-type: none"> A name that includes a period (.) in the beginning or at the end A name that only includes a period (.) <p>If there is a single byte space or a linefeed in the beginning or at the end of a character string, such a single byte space or a linefeed is removed, and then the name is input. Also, if there is a linefeed in between a character string, an error occurs.</p> <p>You can specify 1 to 255 characters.</p>	<i>Resource-name</i>	--
	<optional-name>	Zero or once	Specifies the optional name of the remote interface.	<p>You can specify alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:</p> <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), forward slash (/), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~).</p> <p>However, the following names cannot be specified:</p> <ul style="list-style-type: none"> A name that starts with the keyword <i>HITACHI_EJB</i> (case sensitive) A name that includes a slash (/) or a period (.) in the 	The optional name is not added.	--

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<optional-name>	Zero or once	Specifies the optional name of the remote interface.	beginning or at the end <ul style="list-style-type: none"> A name that only includes a slash (/) or a period (.) A name that includes a continuous slash (/) <p>If there is a single byte space or a linefeed in the beginning or at the end of a character string, such a single byte space or a linefeed is removed, and then the name is input. Also, if there is a linefeed in between a character string, an error occurs.</p> <p>You can specify 1 to 255 characters.</p>	The optional name is not added.	--
<local-optional-name>	Zero or once	Specifies the optional name of the local interface.	There are no limitations for the specifiable characters. You can specify 1 to 255 characters.	The optional name is not added.	--
<maximum-sessions>	Zero or once	Specifies the maximum number of sessions or Bean instances. For a Stateless Session Bean, this set value is disabled.	An integer value of 0 (infinite) or $1 \leq \text{maximum-sessions} \leq 2147483647$.	0	--
<stateless>	Zero or once	This tag is specified when the Session Bean type is Stateless. Either <stateless> or <stateful>, or neither of these is specified.	--	None	--
<pooled-instance>	Zero or once	Defines the instances within a pool.	--	None	--
<minimum>	Zero or once	Specifies the minimum number of instances within a pool. However, the value set in this tag is ignored because you can specify a maximum number to customize the pooling operations.	An integer value of 0 or $1 \leq \text{minimum} \leq \text{maximum}$.	0	--
<maximum>	Zero or once	Specifies the maximum number of instances within a pool.	An integer value of 0 (infinite) or $1 \leq \text{maximum} \leq 2147483647$.	0	--

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<maximum>	Zero or once	Specifies the maximum number of instances within a pool.	<p>Furthermore, when the value of <enable-scheduling> is true and the value of the application property <managed-by-ctm> is true, the specifiable range will differ.</p> <p>When the specified value of the application property <scheduling-unit> is Bean:</p> <p>An integer value of 0, or equal to or more than the <scheduling>-<parallel-count> tag.</p> <p>When the specified value of the application property <scheduling-unit> is Application:</p> <p>An integer value of 0, or equal to or more than the application property <scheduling>-<parallel-count>.</p>	0	--
<instance-timeout>	Zero or once	<p>Specifies the instance acquisition timeout value (seconds).</p> <p>When you specify 0, a timeout does not occur.</p>	An integer value from 0 to 86400.	0	--
<stateful>	Zero or once	<p>This tag is specified when the Session Bean type is Stateful.</p> <p>Either <stateless> or <stateful>, or neither of these is specified.</p>	--	None	--
<maximum-active-sessions>	Zero or once	Specifies the maximum number of active sessions.	<p>When maximum-sessions is 0 (infinite), an integer value of $0 \leq \text{maximum-active-sessions} \leq 2147483647$.</p> <p>When maximum-sessions is other than 0 (infinite), an integer value of $1 \leq \text{maximum-active-sessions} \leq \text{maximum-sessions}$.</p>	0	--
<inactivity-timeout>	Zero or once	Specifies the time period (minutes) for which the	An integer value of 0 (infinite) or $1 \leq$	0	--

Tag name		Occurrence pattern	Contents	Specifiable value	Default	Identification key
	<inactivity-timeout>	Zero or once	inactive status is retained until the session is activated again.	inactivity-timeout \leq 2147483647.	0	--
	<removal-timeout>	Zero or once	Specifies the time period (minutes) for which the inactive status is retained until the session is removed.	An integer value of 0 (infinite) or $1 \leq$ removal-timeout \leq 2147483647.	0	--
	<enable-scheduling>	Zero or once	Specifies whether to use the corresponding Bean as the scheduler Gate.	You can specify the following character strings: <ul style="list-style-type: none"> • true • false 	false	--
	<pass-by-reference>	Zero or once	Specifies whether to invoke the EJB with a pass-by-reference.	You can specify the following character strings: <ul style="list-style-type: none"> • true • false 	false	--
	<scheduling>	Zero or once	Sets up the information related to CTM integration.	--	None	--
	<queue-name>	Zero or once	Specifies the queue name for which scheduling is to be performed.	You can use 1 to 63 alphanumeric characters and underscores (_).	<i>ejb-name</i>	--
	<parallel-count>	Zero or once	Specifies the number of threads provided by the CTM scheduler to invoke an application.	Specify an integer value from 1 to 127.	1	--
	<queue-length>	Zero or once	Specifies the length of a queue.	An integer value from 1 to 32767.	<i>Length-during-generation-of-the-CTM-queue-maintained-in-the-CTM-daemon</i> (length specified in the <code>-CTMMaxRequestCount</code> option)	--
	<front-ejb>	Zero or once	Specifies whether the specified EJB is a front EJB (an EJB invoked directly by the client).	You can specify the following character strings: <ul style="list-style-type: none"> • true • false 	false	--

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Tag name				Occurrence pattern	Contents	Specifiable value	Default	Identification key
			<start-order>	Zero or once	Specifies the order of starting or stopping the J2EE applications. When starting an application, the start processing is executed in the ascending order, and when terminating the application, the stop processing is executed in the descending order.	Specify an integer value from 0 to 2147483647.	10	--
			<ejb-method-observation-timeout> <i>Chapter 5 in the Operation, Monitoring, and Linkage Guide</i>	Zero or more times	This tag is specified when you set up a timeout value for monitoring the in-process methods, in an EJB method. When multiple <ejb-method-observation-timeout> tags are specified and the values set under the <method> tags (excluding the <description> tag) are the same, the tags are merged into one. In such cases, a warning message (KDJE42377-W) is output, and the value of <method-observation-timeout> of the <ejb-method-observation-timeout> tag defined first is enabled.	--	None	--
			<method>	One or more times	Defines the method.	--	None	--
			<method-intf>	Zero or once	This tag is specified when identifying the interface type to which the method belongs to.	You can specify the following character strings: <ul style="list-style-type: none">• Home• Remote• LocalHome• Local	All the values including Home, Remote, LocalHome, and Local.	--
			<method-name>	Once	Specifies the target method name. An asterisk (*) indicates that all the methods are the target.	There are no limitations for the input value.	None	--
			<method-params>	Zero or once	This tag is specified to identify a method when multiple methods are defined.	--	None	--

Tag name		Occurrence pattern	Contents	Specifiable value	Default	Identification key
	<method-param>	Zero or more times	Specifies the data type of argument.	Specify a value other than a white space delimiter, row delimiter, and paragraph delimiter.	None	--
	<method-observation-timeout>	Once	Specifies the timeout value (seconds) used for monitoring the in-process methods. When you specify 0, a timeout does not occur.	An integer value from 0 to 86400.	0	--
	<ejb-transaction-timeout> <i>3.15.8 in the Common Container Functionality Guide</i>	Zero or more times	This tag is specified when you set up a transaction timeout value for the EJB (CMT) method. When multiple <ejb-transaction-timeout> tags are specified and the values set under the <method> tags are the same, the tags are merged into one. In such cases, a warning message (KDJE42377-W) is output, and the value of <transaction-timeout> of the <ejb-transaction-timeout> tag defined first is enabled.	--	None	--
	<method>	One or more times	Defines the method.	--	None	--
	<method-intf>	Zero or once	This tag is specified when identifying the interface type to which the method belongs.	You can specify the following character strings: <ul style="list-style-type: none"> • Home • Remote • LocalHome • Local 	All the values including Home, Remote, LocalHome, and Local.	--
	<method-name>	Once	Specifies the target method name. An asterisk (*) indicates that all the methods are targets.	--	None	--
	<method-params>	Zero or once	This tag is specified to identify a method when multiple methods are defined.	--	None	--
	<method-param>	Zero or more times	Specifies the data type of the argument.	--	None	--
	<transaction-timeout>	Once	Specifies the transaction timeout value (seconds).	Specify an integer value from 0 to 2147483647.	0	--

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Tag name				Occurrence pattern	Contents	Specifiable value	Default	Identification key
			<transaction-timeout>	Once	When 0 (zero) is specified, the operation is performed using the default timeout value set in the J2EE server.	Specify an integer value from 0 to 2147483647.	0	--
			<entity>	Zero or more times	Defines the EntityBean.	--	None	--
			<ejb-name>	Once	Specifies the name of the ejb. Note that this key is used for identifying the EntityBean. Specifies the value set for <ejb-jar>-<enterprise-beans>-<entity>-<ejb-name> in the ejb-jar.xml file.	There are no limitations for the input value.	None	D
			<security-identity>	Zero or once	Defines the security identity of the EntityBean.	--	None	--
			<run-as>	Once	Defines the runtime identity.	--	None	--
			<user-name>	Once	Specifies the user name.	There are no limitations for the input value.	None	--
			<resource-ref>	Zero or more times	Defines the resource to be referenced from EntityBean.	--	None	--
			<res-ref-name>	Once	Specifies the name of the resource reference.	There are no limitations for the input value.	None	D
			<linked-to>	Once	Specifies the corresponding resource adapter display name and mail display name. The member resource adapters of the cluster connection pool cannot be specified.	There are no limitations for the input value.	The link is not resolved.	--
			<resource-env-ref>	Zero or more times	Defines the resource environment variable to be referenced from EntityBean.	--	None	--
			<resource-env-ref-name>	Once	Specifies the name of resource-env-ref.	There are no limitations for the input value.	None	D
			<linked-queue>	Once	Specifies the queue name. This tag is enabled only when javax.jms.Queue is specified in the DD element <resource-env-ref-type>.	--	None	--
			<resource-adapter>	Once	Specifies the display name of the resource adapter.	There are no limitations for the input value.	None	--
			<queue>	Once	Specifies the queue name.	There are no limitations for the input value.	None	--

Tag name		Occurrence pattern	Contents	Specifiable value	Default	Identification key
	<linked-adminobject>	Once	Specifies the administered object.	--	None	--
	<resourceadapter-name>	Once	Specifies the display name of the resource adapter.	There are no limitations for the input value.	None	--
	<adminobject-name>	Once	Specifies the administered object name.	<p>You can use the alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:</p> <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percentage sign (%), ampersand (&), single quotation mark ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal to sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~)</p> <p>You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> • A name containing a period (.) at the beginning or at the end • A name containing only a period (.) • A name containing continuous underscores (_) 	None	--
	<linked-to>	Once	<p>Specifies the display name of the JavaBeans resource.</p> <p>This tag is enabled only when <i>JavaBeans-resource-class-name</i> is specified in the DD element <resource-env-ref-type>.</p>	There are no limitations for the input value.	The link is not resolved.	--
	<lookup-name>	Zero or once	Specifies the name used when looking up the EJB from the client. This tag corresponds to <i>EJB-lookup-</i>	You can specify the alphanumeric characters (0 to 9, A to Z, and a to	<i>Resource-name</i>	--

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Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<lookup-name>	Zero or once	<p><i>name</i> in HITACHI_EJB/SERVERS/<i>server-name</i>/EJB/<i>application-lookup-name</i>/<i>EJB-lookup-name</i>.</p> <p>If this tag is omitted, the resource name is used as the default value; however, all the characters other than alphanumeric characters and underscores (_) included in the default value are converted into underscores.</p>	<p>z) and the following special characters:</p> <p>Space (), double quotation mark ("), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~).</p> <p>You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> • A name containing a period (.) at the beginning or at the end • A name containing only a period (.) <p>If there is a single byte space or a linefeed in the beginning or at the end of a character string, such a single byte space or a linefeed is removed, and then the name is input. Also, if there is a linefeed in between a character string, an error occurs.</p> <p>You can specify 1 to 255 characters.</p>	<i>Resource-name</i>	--
<optional-name>	Zero or once	Specifies the optional name of the remote interface.	<p>You can specify the alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:</p> <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right</p>	The optional name is not added.	--

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<optional-name>	Zero or once	Specifies the optional name of the remote interface.	<p>parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), forward slash (/), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~).</p> <p>However, the following names cannot be specified:</p> <ul style="list-style-type: none"> • A name that starts with the keyword HITACHI_EJB (case sensitive) • A name that includes slash (/) or a period (.) in the beginning or at the end • A name that only includes a slash (/) or a period (.) • A name that includes continuous slash (/) <p>If there is a single byte space or a linefeed in the beginning or at the end of a character string, such a single byte space or a linefeed is removed, and then the name is input. Also, if there is a linefeed in between a character string, an error occurs.</p> <p>You can specify 1 to 255 characters.</p>	The optional name is not added.	--
<local-optional-name>	Zero or once	Specifies the optional name of the local interface.	<p>There are no limitations for the specifiable characters.</p> <p>You can specify 1 to 255 characters.</p>	The optional name is not added.	--
<maximum-instances>	Zero or once	Specifies the maximum number of Enterprise Bean instances.	An integer value of 0 (infinite) or $1 \leq \text{maximum-}$	0	--

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Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<maximum-instances>	Zero or once	Specifies the maximum number of Enterprise Bean instances.	instances \leq 2147483647.	0	--
<pooled-instance>	Zero or once	Specifies the properties of an instance pool.	--	None	--
<minimum>	Zero or once	Specifies the minimum number of instances within a pool.	0 (infinite) or 1 \leq minimum \leq maximum.	0	--
<maximum>	Zero or once	Specifies the maximum number of instances within a pool.	[When maximum-instances is 0 (infinite)] An integer value of 0 (infinite) \leq maximum \leq 2147483647. [When maximum-instances is other than 0 (infinite)] An integer value of 1 \leq maximum \leq maximum-instances.	0	--
<caching-model>	Zero or once	Specifies the caching model.	You can specify the following character strings: <ul style="list-style-type: none">• full-caching• caching• no-caching	caching	--
<entity-timeout>	Zero or once	Specifies the existence time (seconds) of the EJB object. When you specify 0, a timeout does not occur.	Specify an integer value from 0 to 2147483647.	0	--
<pass-by-reference>	Zero or once	Specifies whether to invoke the EJB with pass-by-reference.	You can specify the following character strings: <ul style="list-style-type: none">• true• false	false	--
<instance-timeout>	Zero or once	Specifies the instance acquisition timeout value (seconds). When you specify 0, a timeout does not occur.	An integer value from 0 to 86400.	0	--
<front-ejb>	Zero or once	Specifies whether the specified EJB is a front EJB (an EJB invoked directly by the client).	You can specify the following character strings: <ul style="list-style-type: none">• true• false	false	--
<cmp-map>	Zero or once	Maps the Entity Bean field on the database.	--	None	--

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<datasource-name>	Once	Specifies the display name of the resource adapter started as the mapping destination of the Enterprise Bean field.	There are no limitations for the input value.	The link is not resolved.	--
<catalog-name>	Zero or once	Specifies the database catalog name as the mapping destination of the Enterprise Bean field.	There are no limitations for the input value.	None	--
<schema-name>	Zero or once	Specifies the database schema name as the mapping destination of the Enterprise Bean field.	There are no limitations for the input value.	None	--
<table-name>	Once	Specifies the database table name as the mapping destination of the Enterprise Bean field.	There are no limitations for the input value.	None	--
<read-only-access>	Once	Specifies whether to prohibit writing from an application to the database. However, even if specified, this tag is disabled in Application Server.	You can specify the following character strings: <ul style="list-style-type: none"> • true • false 	None	--
<transaction-isolation>	Zero or once	Specifies the transaction isolation level. If omitted, the default transaction isolation level is used (differs depending on the database and JDBC driver in use).	You can specify the following character strings: <ul style="list-style-type: none"> • none • read_committed • read_uncommitted • repeatable_read • serializable 	None	--
<concurrency-protection>	Zero or once	Specifies the data and record comparison method to be written in the database.	You can specify the following character string: <ul style="list-style-type: none"> • primary-key 	primary-key	--
<field-impl>	Zero or more times	Specifies the mapping between the Entity Bean field and the table column.	--	None	--
<field-name>	Once	Specifies the field name of the Entity Bean.	There are no limitations for the input value.	None	--
<column-name>	Once	Specifies the column name of the table.	There are no limitations for the input value.	None	--
<finder-impl>	Zero or more times	Specifies search conditions for the Finder method other than <code>ejbFindByPrimaryKey</code> .	--	None	--

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Tag name				Occurrence pattern	Contents	Specifiable value	Default	Identification key
			<method-name>	Once	Specifies the method name of the <code>Finder</code> method.	There are no limitations for the input value.	None	--
			<where-clause>	Once	Specifies the search conditions for the table.	You can specify values other than the hash mark (#).	None	--
			<start-order>	Zero or once	Specifies the order of starting or stopping J2EE applications. When starting an application, the start processing is executed in the ascending order, and when terminating the application, the stop processing is executed in the descending order.	Specify an integer value from 0 to 2147483647.	10	--
			<ejb-method-observation-timeout> <i>Chapter 5 in the Operation, Monitoring, and Linkage Guide</i>	Zero or more times	This tag is specified when you set up a timeout value for monitoring the in-process methods, in an EJB method. When multiple <ejb-method-observation-timeout> tags are specified and the values set under the <method> tags are the same, the tags are merged into one. In such cases, a warning message (KDJE42377-W) is output, and the value of <method-observation-timeout> of the <ejb-method-observation-timeout> tag defined first is enabled.	--	None	--
			<method>	One or more times	Defines the method.	--	None	--
			<method-intf>	Zero or once	This tag is specified when identifying the interface type to which the method belongs.	You can specify the following character strings: <ul style="list-style-type: none"> • Home • Remote • LocalHome • Local 	All the values including Home, Remote, LocalHome, and Local.	--
			<method-name>	Once	Specifies the target method name. An asterisk (*) indicates that all methods are the target.	There are no limitations for the input value.	None	--
			<method-params>	Zero or once	This tag is specified to identify a method when	--	None	--

Tag name		Occurrence pattern	Contents	Specifiable value	Default	Identification key
	<method-params>	Zero or once	multiple methods are defined.	--	None	--
	<method-param>	Zero or more times	Specifies the data type of the argument.	There are no limitations for the input value.	None	--
	<method-observation-timeout>	Once	Specifies the timeout value (seconds) used for monitoring the in-process methods. When you specify 0, a timeout does not occur.	An integer value from 0 to 86400.	0	--
	<ejb-transaction-timeout> <i>3.15.8 in the Common Container Functionality Guide</i>	Zero or more times	This tag is specified when you set up a transaction timeout value for the EJB (CMT) method. When multiple <ejb-transaction-timeout> tags are specified and the values set under the <method> tags are the same, the tags are merged into one. In such cases, a warning message (KDJE42377-W) is output, and the value of <transaction-timeout> of the <ejb-transaction-timeout> tag defined first is enabled.	--	None	--
	<method>	One or more times	Defines the method.	--	None	--
	<method-intf>	Zero or once	This tag is specified when identifying the interface type to which the method belongs.	You can specify the following character strings: <ul style="list-style-type: none"> • Home • Remote • LocalHome • Local 	All the values including Home, Remote, LocalHome, and Local.	--
	<method-name>	Once	Specifies the target method name. An asterisk (*) indicates that all the methods are targets.	There are no limitations for the input value.	None	--
	<method-params>	Zero or once	This tag is specified to identify a method when multiple methods are defined.	--	None	--
	<method-param>	Zero or more times	Specifies the data type of the argument.	There are no limitations for the input value.	None	--

2. Cosminexus Application Property File (cosminexus.xml)

Tag name				Occurrence pattern	Contents	Specifiable value	Default	Identification key
			<transaction-timeout>	Once	Specifies the transaction timeout value (seconds). When 0 (zero) is specified, the operation is performed using the default timeout value set in the J2EE server.	Specify an integer value from 0 to 2147483647.	0	--
			<message>	Zero or more times	Defines the Message-driven Bean.	--	None	--
			<ejb-name>	Once	Specifies the name of the ejb. Note that this key is used for identifying the Message-driven Bean. Specifies the value set for <ejb-jar>-<enterprise-beans>-<message-driven>-<ejb-name> in the ejb-jar.xml file.	There are no limitations for the input value.	None	D
			<security-identity>	Zero or once	Defines the security identity of the Message-driven Bean.	--	None	--
			<run-as>	Once	Defines the runtime identity.	--	None	--
			<user-name>	Once	Specifies the user name.	There are no limitations for the input value.	None	--
			<message-ref>	Zero or once	Specifies the resource adapter.	--	None	--
			<connection-factory>	Zero or once	Specifies the display name of the resource adapter.	There are no limitations for the input value.	None	--
			<connection-destination>	Once	Defines the resource adapter.	--	None	--
			<resource-adapter>	Once	Specifies the display name of the resource adapter.	There are no limitations for the input value.	None	--
			<queue>	Zero or once	Specifies the queue name.	There are no limitations for the input value.	None	--
			<resource-ref>	Zero or more times	Defines the resource to be referenced from the Message-driven Bean.	--	None	--
			<res-ref-name>	Once	Specifies the name of the resource reference.	There are no limitations for the input value.	None	D
			<linked-to>	Once	Specifies the corresponding resource adapter display name and mail display name. The member resource adapters of the cluster connection pool cannot be specified.	There are no limitations for the input value.	The link is not resolved.	--

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<resource-env-ref>	Zero or more times	Defines the resource environment variable to be referenced from the Message-driven Bean.	--	None	--
<resource-env-ref-name>	Once	Specifies the name of resource-env-ref.	There are no limitations for the input value.	None	D
<linked-queue>	Once	Specifies the queue name. This tag is enabled only when javax.jms.Queue is specified in the DD element <resource-env-ref-type>.	--	None	--
<resource-adapter>	Once	Specifies the display name of the resource adapter.	There are no limitations for the input value.	None	--
<queue>	Once	Specifies the queue name.	There are no limitations for the input value.	None	--
<linked-adminobject>	Once	Specifies the administered object.	--	None	--
<resourceadapter-name>	Once	Specifies the display name of the resource adapter.	There are no limitations for the input value.	None	--
<adminobject-name>	Once	Specifies the administered object name.	<p>You can use the alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:</p> <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~)</p> <p>You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> • A name containing a period (.) at the 	None	--

2. Cosminexus Application Property File (cosminexus.xml)

Tag name		Occurrence pattern	Contents	Specifiable value	Default	Identification key
	<adminobject-name>	Once	Specifies the administered object name.	beginning or at the end <ul style="list-style-type: none"> A name containing only a period (.) A name containing continuous underscores (_) 	None	--
	<linked-to>	Once	Specifies the display name of the JavaBeans resource. This tag is enabled only when <i>JavaBeans-resource-class-name</i> is specified in the DD element <resource-env-ref-type>.	There are no limitations for the input value.	The link is not resolved.	--
	<pooled-instance>	Zero or once	Defines the instances within a pool.	--	None	--
	<minimum>	Zero or once	Specifies the minimum number of instances within a pool.	There are no limitations for the input value.	1	--
	<maximum>	Zero or once	Specifies the maximum number of instances within a pool.	Specify an integer value from 1 to 2147483647. If 0 is specified, the value is assumed as 1.	1	--
	<front-ejb>	Zero or once	Specifies whether the specified EJB is a front EJB (an EJB invoked directly by the client).	You can specify the following character strings: <ul style="list-style-type: none"> true false 	false	--
	<start-order>	Zero or once	Specifies the order of starting or stopping the J2EE applications. When starting an application, the start processing is executed in the ascending order, and when terminating the application, the stop processing is executed in the descending order.	Specify an integer value from 0 to 2147483647.	10	--
	<ejb-method-observation-timeout> <i>Chapter 5 in the Operation, Monitoring, and Linkage Guide</i>	Zero or more times	This tag is specified when you set up a timeout value for monitoring the in-process methods, in an EJB method. When multiple <ejb-method-observation-timeout> tags are specified and the values set under the <method> tags are the same, the tags are merged into one. In such	--	None	--

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<ejb-method-observation-timeout> <i>Chapter 5 in the Operation, Monitoring, and Linkage Guide</i>	Zero or more times	cases, a warning message (KDJE42377-W) is output, and the value of <method-observation-timeout> of the <ejb-method-observation-timeout> tag defined first is enabled.	--	None	--
<method>	One or more times	Defines the method.	--	None	--
<method-intf>	Zero or once	This tag is specified when identifying the interface type to which the method belongs. You cannot specify a value for this tag in the Message-driven Bean property settings.	--	None	--
<method-name>	Once	Specifies the target method name. An asterisk (*) indicates that all the methods are targets.	There are no limitations for the input value.	None	--
<method-params>	Zero or once	This tag is specified to identify a method when multiple methods are defined.	--	None	--
<method-param>	Zero or more times	Specifies the data type of the argument.	There are no limitations for the input value.	None	--
<method-observation-timeout>	Once	Specifies the timeout value (seconds) used for monitoring the in-process methods. When you specify 0, a timeout does not occur.	An integer value from 0 to 86400.	0	--
<ejb-transaction-timeout> <i>3.15.8 in the Common Container Functionality Guide</i>	Zero or more times	This tag is specified when you set up a transaction timeout value for the EJB (CMT) method. When multiple <ejb-transaction-timeout> tags are specified and the values set under the <method> tags are the same, the tags are merged into one. In such cases, a warning message (KDJE42377-W) is output, and the value for <transaction-timeout> of the <ejb-transaction-	--	None	--

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Tag name		Occurrence pattern	Contents	Specifiable value	Default	Identification key
	<ejb-transaction-timeout> <i>3.15.8 in the Common Container Functionality Guide</i>	Zero or more times	timeout> tag defined first is enabled.	--	None	--
	<method>	One or more times	Defines the method.	--	None	--
	<method-intf>	Zero or once	This tag is specified when identifying the interface type to which the method belongs. You cannot specify a value for this tag in the Message-driven Bean property settings.	--	None	--
	<method-name>	Once	Specifies the target method name. An asterisk (*) indicates that all the methods are the target.	There are no limitations for the input value.	None	--
	<method-params>	Zero or once	This tag is specified to identify a method when multiple methods are defined.	--	None	--
	<method-param>	Zero or more times	Specifies the data type of the argument.	There are no limitations for the input value.	None	--
	<transaction-timeout>	Once	Specifies the transaction timeout value (seconds). When 0 (zero) is specified, the operation is performed using the default timeout value set in the J2EE server.	Specify an integer value from 0 to 2147483647.	0	--
	<war>	Zero or more times	Defines the WAR.	--	None	--
	<module-name>	Zero or Once	This is a key for identifying the WAR. However, in the case of WAR applications, the WAR property for <code>cosminexus.xml</code> is the same, therefore you are not required to specify this tag. Even if you specify, this setting is ignored. The setup value is specified according to the following conditions: For an application that includes application.xml	There are no limitations for the input value.	None	K

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<module-name>	Zero or Once	<ul style="list-style-type: none"> Common to the archive format and exploded archive format Specifies the character string specified in <application>-<module>-<web>-<web-uri> in application.xml. <p>For an application that does not include application.xml</p> <ul style="list-style-type: none"> Archive format (cimportapp command (-f/-d)) Specifies the location of the WAR file within the J2EE application using the relative path from the EAR root. Exploded archive format (cimportapp command (-a)) Specifies the value of the WAR directory acquired by replacing the <code>_war</code> at the end of the relative path from the application directory, with <code>.war</code>. 	There are no limitations for the input value.	None	K
<security-role>	Zero or more times	Defines the security role.	--	None	--
<role-name>	Once	Specifies the security role name.	There are no limitations for the input value.	None	D
<linked-to>	Once	Specifies the access control list (role name defined by the <code>cjaddsec</code> command).	There are no limitations for the input value.	None	--
<resource-ref>	Zero or more times	Defines the resource to be referenced from the Servlet.	--	None	--
<res-ref-name>	Once	Specifies the name of the resource reference.	There are no limitations for the input value.	None	D
<linked-to>	Once	Specifies the corresponding resource adapter display name and the mail display name. The member resource adapters of the cluster connection pool cannot be specified.	There are no limitations for the input value.	None	--

2. Cosminexus Application Property File (cosminexus.xml)

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<resource-env-ref>	Zero or more times	Defines the resource environment variable to be referenced from the Servlet.	--	None	--
<resource-env-ref-name>	Once	Specifies the name of the resource environment variable reference.	There are no limitations for the input value.	None	D
<linked-queue>	Once	Specifies the queue name. This tag is enabled only when javax.jms.Queue is specified in the DD element <resource-env-ref-type>.	--	None	--
<resource-adapter>	Once	Specifies the display name of the resource adapter.	There are no limitations for the input value.	None	--
<queue>	Once	Specifies the queue name.	There are no limitations for the input value.	None	--
<linked-adminobject>	Once	Specifies the administered object.	--	None	--
<resourceadapter-name>	Once	Specifies the display name of the resource adapter.	There are no limitations for the input value.	None	--
<adminobject-name>	Once	Specifies the administered object name.	<p>You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:</p> <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~)</p> <p>You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> A name containing a period (.) at the beginning or at the end 	None	--

Tag name		Occurrence pattern	Contents	Specifiable value	Default	Identification key
	<adminobject-name>	Once	Specifies the administered object name.	<ul style="list-style-type: none"> A name containing a period (.) only A name containing continuous underscores (_) 	None	--
	<linked-to>	Once	Specifies the display name of the JavaBeans resource. This tag is enabled only when <i>JavaBeans-resource-class-name</i> is specified in the DD element <resource-env-ref-type>.	There are no limitations for the input value.	The link is not resolved.	--
	<thread-control> <i>2.17 in the Web Container Functionality Guide</i>	Zero or once	Specifies the settings for controlling the Web application threads.	--	None	--
	<thread-control-max-threads>	Once	Specifies the maximum number of concurrently executed threads of Web applications. Specify a value equal to or more than the number of dedicated threads.	An integer value from 1 to 1024.	None	--
	<thread-control-exclusive-threads>	Once	Specifies the number of dedicated threads. You specify a value equal to or not more than the maximum number of concurrently executed threads of Web applications.	An integer value from 1 to 1024.	0	--
	<thread-control-queue-size>	Once	Specifies the pending queue size of Web applications.	Specify an integer value from 0 to 2147483647.	None	--
	<thread-control-stats-monitor>	Once	Specifies the settings for monitoring the operation statistics. When this tag is omitted or when <enabled>, <high-threshold>, or <low-threshold> tags are omitted, the default value and threshold value events are enabled.	--	None	--
	<whole-waiting-request-count>	Once	Monitors the entire pending request count of the Web applications.	--	None	--
	<enabled>	Once	Specifies whether to enable the threshold value event for monitoring the entire pending request count of Web applications.	You can specify the following character strings: <ul style="list-style-type: none"> true false 	true	--

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Tag name					Occurrence pattern	Contents	Specifiable value	Default	Identification key
				<high-threshold>	Once	Specifies the high threshold value (unit: %) for the output of the threshold value event.	An integer value from 1 to 100. However, the value must be equal to or greater than the value specified in the <low-threshold> tag.	80	--
				<low-threshold>	Once	Specifies the low threshold value (unit: %) for the output of the threshold value event.	An integer value from 0 to 99. However, the value must be equal to or not more than the value specified in the <high-threshold> tag.	0	--
				<waiting-request-count>	Once	Monitors the number of pending requests of the Web applications.	--	None	--
				<enabled>	Once	Specifies whether to enable the threshold value event for monitoring the number of pending requests of the Web applications.	You can specify the following character strings: <ul style="list-style-type: none"> • true • false 	true	--
				<high-threshold>	Once	Specifies the high threshold value (unit: %) for the output of the threshold value event.	An integer value from 1 to 100. However, the value must be equal to or more than the value specified in the <low-threshold> tag.	80	--
				<low-threshold>	Once	Specifies the low threshold value (unit: %) for the output of the threshold value event.	An integer value from 0 to 99. However, the value must be equal to or not more than the value specified in the <high-threshold> tag.	0	--
				<resource-watcher>	Zero or once	Specifies the properties related to the monitoring of the number of saved request pending queues of the Web applications.	--	None	--
				<watcher-threshold>	Zero or once	Specifies the threshold value to output an alert message.	An integer value from 1 to 100.	80	--
				<watcher-interval>	Zero or once	Specifies the monitoring interval.	Specify an integer value from 1 to 2147483647.	30	--
				<watcher-enabled>	Zero or once	Specifies whether to enable the monitoring of the number of saved request pending queues of the Web applications.	You can specify the following character strings: <ul style="list-style-type: none"> • true • false 	true	--
				<watcher-writefile-enabled>	Zero or once	Specifies whether to output the resource usage status to a file.	You can specify the following character strings:	true	--

Tag name		Occurrence pattern	Contents	Specifiable value	Default	Identification key
	<watcher-writefile-enabled>	Zero or once	Specifies whether to output the resource usage status to a file.	<ul style="list-style-type: none"> • true • false 	true	--
	<urlgroup-thread-control> <i>2.18 in the Web Container Functionality Guide</i>	Zero or more times	Specifies the settings for controlling the number of concurrently executing threads of the URL groups.	--	None	--
	<urlgroup-thread-control-name>	Once	Specifies the definition name for controlling the number of concurrently executing threads of the URL groups. Specify a name that is unique in the Web application as the definition name for controlling the number of concurrently executed threads of the URL groups.	You can use alphanumeric characters, hyphens (-), and underscores (_). Specify the length of the character string in 1 to 64 characters.	None	--
	<urlgroup-thread-control-max-threads>	Once	Specifies the maximum number of concurrently executed threads of the URL groups.	An integer value from 1 to thread-control-max-threads.	None	--
	<urlgroup-thread-control-exclusive-threads>	Zero or once	Specifies the number of dedicated threads of the URL groups.	An integer value from 0 to urlgroup-thread-control-max-threads and equal to or not more than thread-control-exclusive-threads.	0	--
	<urlgroup-thread-control-queue-size>	Zero or once	Specifies the pending queue size of the URL group.	Specify an integer value from 0 to 2147483647.	None	--
	<urlgroup-thread-control-mapping>	Zero or more times	Sets up the mapping information of the URL to be controlled.	--	None	--
	<url-pattern>	Once	Specifies the URL pattern to be controlled. You cannot specify the same URL pattern in single Web application. Some examples of specification are as follows: /soda/grape/* /foo/* /contents *.foo	There are no limitations for the input value.	None	--
	<stats-monitor>	Zero or once	Specifies the settings for monitoring the operation statistics.	--	None	--

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Tag name		Occurrence pattern	Contents	Specifiable value	Default	Identification key
	<waiting-request-count>	Zero or once	Monitors the number of pending requests of the URL groups.	--	None	--
	<enabled>	Zero or once	Specifies whether to enable the threshold value event for monitoring the number of pending requests of the URL groups.	You can specify the following character strings: <ul style="list-style-type: none"> • true • false 	true	--
	<high-threshold>	Zero or once	Specifies the high threshold value (unit: %) for the output of the threshold value event.	An integer value from 1 to 100. The value must be equal to or more than low-threshold.	80	--
	<low-threshold>	Zero or once	Specifies the low threshold value (unit: %) for the output of the threshold value event.	An integer value from 0 to 99. The value must be equal to or not more than high-threshold.	0	--
	<http-request>	Zero or once	Specifies various settings concerning an HTTP request.	--	None	--
	<encoding>	Once	Specifies the default encoding used for decoding a request body and query. However, if the settings conform to the servlet specifications (ServletAPI and web.xml), this tag will be disabled. Specify a character encoding supported by JVM.	There are no limitations for the input value.	None	--
	<http-response>	Zero or once	Specifies various settings concerning an HTTP response.	--	None	--
	<encoding>	Once	Specifies the default encoding used for encoding a response body. However, if the settings conform to the servlet specifications (ServletAPI and web.xml), this tag will be disabled. Specify a character encoding supported by JVM.	There are no limitations for the input value.	None	--
	<jsp>	Zero or once	Specifies various settings concerning a JSP.	--	None	--
	<page-encoding>	Once	Specifies the default encoding used to read a JSP file.	There are no limitations for the input value.	None	--

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<page-encoding>	Once	However, if the settings conform to the servlet specifications (ServletAPI and web.xml), this tag will be disabled. Specify a character encoding supported by JavaVM.	There are no limitations for the input value.	None	--
<http-session>	Zero or once	Sets up the information related to the monitoring of the number of HttpSessions of the Web applications.	--	None	--
<http-session-max-number>	Zero or once	Specifies the maximum number of usable HttpSessions. When -1 is specified, the number of usable HttpSessions is infinite.	An integer value from -1 to 2147483647.	-1	--
<resource-watcher>	Zero or once	Sets up the properties concerning the monitoring of the number of HttpSessions.	--	None	--
<watcher-threshold>	Zero or once	Specifies the threshold value to output an alert message.	An integer value from 1 to 100.	80	--
<watcher-interval>	Zero or once	Specifies the monitoring interval.	Specify an integer value from 1 to 2147483647.	30	--
<watcher-enabled>	Zero or once	Specifies whether to enable the monitoring of the number of HttpSessions. However, if 0 is specified in <http-session-max-number>, monitoring will be disabled irrespective of the value specified.	You can specify the following character strings: <ul style="list-style-type: none"> • true • false 	true	--
<watcher-writefile-enabled>	Zero or once	Specifies whether to output the resource usage status to a file.	You can specify the following character strings: <ul style="list-style-type: none"> • true • false 	true	--
<dbsfo> <i>Chapter 6 in the Expansion Guide</i>	Zero or once	Sets up the database session failover functionality.	--	None	--
<enabled>	Zero or once	Specifies whether to enable the database session failover functionality.	You can specify the following character strings: <ul style="list-style-type: none"> • true • false 	Property value of the J2EE server (webserver.dbsfo.enabled)	--
<application-id>	Zero or once	Sets up the application identifier.	You can specify up to 16 alphanumeric	Created from the	--

2. Cosminexus Application Property File (cosminexus.xml)

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<application-id>	Zero or once	Sets up the application identifier.	characters and underscores (_).	context root name of the application.	--
<attribute-data-size-max>	Zero or once	Sets up the maximum size for the property information of an HTTP session that can be included in the global session information.	An integer value from 128 to 10485760.	Property value of the J2EE server (webserver.dbso.attribute_data_size.max)	--
<exclude-extensions>	Zero or once	Sets up an extension to control the database session failover functionality. When specifying multiple extensions, demarcate with commas (,).	Specify up to 512 characters using the following: <ul style="list-style-type: none"> • Alphanumeric characters • Parentheses (()) • Exclamation mark (!) • Percent sign (%) • Dollar sign (\$) • Ampersand (&) • Single quotation mark (') • Plus sign (+) • Hyphen (-) • Equal sign (=) • At mark (@) • Underscore (_) • Tilde (~) • Period (.) • Comma (,) 	Property value of the J2EE server (webserver.dbso.exclude.extensions)	--
<eadssfo> <i>Chapter 7 in the Expansion Guide</i>	Zero or once	Sets up the EADs session failover functionality.	--	None	--
<enabled>	Zero or once	Specifies whether to enable the EADs session failover functionality.	You can specify the following character strings: <ul style="list-style-type: none"> • true • false 	Property value of the J2EE server (webserver.eadssfo.enabled)	--
<application-id>	Zero or once	Sets up the application identifier.	You can use the alphanumeric characters and underscores (_).	Create from the context root name	--

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<application-id>	Zero or once	Sets up the application identifier.	You can specify up to 128 characters.	of applications.	--
<exclude-url-patterns>	Zero or once	Specifies a URL pattern (specifies for a complete match, prefix match, and identifier match) for controlling the EADs session failover functionality. If the specified URL pattern and the request URL are in conformity, the EADs session failover functionality is disabled with the corresponding request. Note that for requesting multiple URL patterns, use a semicolon (;) as a demarcator, and then specify.	<ul style="list-style-type: none"> For specifying a complete match and prefix match, specify the normalized URI that starts with a slash (/). For specifying an identifier match, specify an identifier that starts with (*). 	Property value of the J2EE server (webserver.eadssofo.exclude.url.patterns)	--
<session-read-only-url-patterns>	Zero or once	Specifies a URL pattern for read-only requests for HTTP sessions of the EADs session failover functionality. If the specified URL pattern and request URL are in conformity, the corresponding request becomes the read-only request for HTTP sessions. Note that for requesting multiple URL patterns, use a semicolon (;) as a demarcator, and then specify.	<ul style="list-style-type: none"> For specifying complete match and prefix match, specify the normalized URI that starts from a slash (/). For specifying identifier match, specify an identifier that starts from (*). 	Property value of the J2EE server (webserver.eadssofo.session_read_only.url.patterns)	--
<start-notify-error>	Zero or once	Specifies whether to interrupt the start processing of a J2EE application after reporting the error, when an error occurs during the initialization of a Servlet or JSP in which the startup load is specified when the J2EE application is started, and during the parsing of taglib. When a new J2EE application is created in Application Server 06-00 or later versions, the default display value is true, and for other J2EE applications, the default value is false.	You can specify the following character strings: <ul style="list-style-type: none"> true false 	true	--
<start-order>	Zero or once	Specifies the order of starting and stopping the J2EE applications.	Specify an integer value from 0 to 2147483647.	10	--

2. Cosminexus Application Property File (cosminexus.xml)

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<start-order>	Zero or once	When starting an application, the start processing is executed in the ascending order, and when terminating an application, the stop processing is executed in the descending order.	Specify an integer value from 0 to 2147483647.	10	--
<session-config>	Zero or once	Defines the session parameters of Web applications.	--	None	--
<cookie-config>	Zero or once	Specifies HTTP Cookie that shows the session ID of the HTTP session created with Web applications.	--	None	--
<name>	Zero or once	Specifies the name of HTTP Cookie that shows the session ID of the HTTP session created with Web applications.	You can use the alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters: Exclamation mark (!), dollar sign (\$), percentage sign (%), ampersand (&), single quotation mark ('), asterisk (*), plus sign (+), hyphen (-), period (.), caret (^), underscore (_), grave accent mark (`), vertical bar (), and tilde (~) However, you cannot specify dollar sign (\$) at the beginning of the name.	JSESSIONID	--
<http-only>	Zero or once	Specifies whether the HttpOnly attribute is to be added or not in an HTTP Cookie that shows the session ID of the HTTP session created with Web applications.	You can specify the following characters: <ul style="list-style-type: none">truefalse	false	--
<tracking-mode>	Zero or more	Specifies the tracking mode.	You can specify the following characters: <ul style="list-style-type: none">COOKIEURL	None	--
<filter>	Zero or more times	Defines the Filter. You cannot specify this tag when web.xml is not included.	--	None	--
<filter-name>	Once	Key for identifying the Filter.	There are no limitations for the input value.	None	D

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<filter-name>	Once	Specifies the value set for <web-app>-<filter>-<filter-name> in the web.xml file.	There are no limitations for the input value.	None	D
<method-observation-timeout>	Once	Specifies the timeout value (seconds) for monitoring the doFilter method of the filter invoked by extending a request. When you specify 0, a timeout does not occur.	An integer value from 0 to 86400.	0	--
<servlet>	Zero or more times	Defines the Servlet. You cannot specify this tag, when web.xml is not included.	--	None	--
<servlet-name>	Once	Key for identifying the Servlet. Specifies the value set for <web-app>-<servlet>-<servlet-name> in the web.xml file.	There are no limitations for the input value.	None	D
<run-as>	Zero or once	Defines the runtime identity.	--	None	--
<user-name>	Once	Specifies the user name.	There are no limitations for the input value.	None	--
<method-observation-timeout>	Zero or once	Specifies the timeout value (seconds) for monitoring the service method of the servlet or the _jspService method of the JSP invoked by extending a request. When you specify 0, a timeout does not occur.	An integer value from 0 to 86400.	0	--
<rar>	Zero or more times	Defines the information concerning rar.	--	None	--
<module-name>	Once	Key for identifying the resource adapter. The set value is specified according to the following conditions: For an application that includes application.xml <ul style="list-style-type: none"> Common to the archive format and exploded archive format Specifies the character string specified in <application>-<module>-	There are no limitations for the input value.	None	K

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<module-name>	Once	<p><connector> in the application.xml.</p> <p>For an application that does not include application.xml</p> <ul style="list-style-type: none"> • Archive format (cjimportapp command (-f/-d)) Specifies the location of the RAR file within the J2EE application using the relative path from the EAR root. • Exploded archive format (cjimportapp command (-a)) Specifies the location of the RAR file within the application directory using the relative path from the application directory. 	There are no limitations for the input value.	None	K
<resourceadapter>	Zero or once	Defines the information about the resource adapter.	--	None	--
<outbound-resourceadapter>	Zero or once	Defines the resource adapter in the outbound direction.	--	None	--
<connection-definition>	One or more times	<p>Defines the connection interface class.</p> <p>Supplement</p> <ul style="list-style-type: none"> • Lower tag <connector-property> <property-value> is mentioned in each property because the range of the set value is different for each <property-name>. When multiple <property> tags are specified, and when the set value of <property-name> is the same, the tags are merged into one. In such cases, a warning message (KDJE42377-W) is output, and the value of <property-value> of the <property> tag defined first is enabled. 	--	None	--

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<connectionfactory-interface>	Once	Specifies the class name of the <code>ConnectionFactory</code> interface supported by the resource.	There are no limitations for the input value.	None	D
<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
<property-name>	Once	Specifies the <code>MaxPoolSize</code> property.	You can specify the following character string: <ul style="list-style-type: none"> • <code>MaxPoolSize</code> 	None	--
<property-value>	Once	Specifies the maximum value of the pool as the property value.	An integer value of -1 (infinite) or from 0 to 2147483647.	10	--
<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
<property-name>	Once	Specifies the <code>MinPoolSize</code> property.	You can specify the following character string: <ul style="list-style-type: none"> • <code>MinPoolSize</code> 	None	--
<property-value>	Once	Specifies the minimum value of the pool as the property value.	Specify an integer value from 0 to 2147483647.	10	--
<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
<property-name>	Once	Specifies the <code>LogEnabled</code> property.	You can specify the following character string: <ul style="list-style-type: none"> • <code>LogEnabled</code> 	None	--
<property-value>	Once	Specifies the requirements for the log output by <code>LogWriter</code> , as the property value.	You can specify the following character strings: <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	<code>true</code>	--
<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
<property-name>	Once	Specifies the <code>User</code> property.	You can specify the following character string: <ul style="list-style-type: none"> • <code>User</code> 	None	--
<property-value>	Once	Specifies the user name as the property value.	There are no limitations for the input value.	None	--

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Tag name					Occurrence pattern	Contents	Specifiable value	Default	Identification key
				<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
				<property-name>	Once	Specifies the Password property.	You can specify the following character string: <ul style="list-style-type: none"> • Password 	None	--
				<property-value>	Once	Specifies the password as the property value.	There are no limitations for the input value.	None	--
				<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
				<property-name>	Once	Specifies the ValidationType property.	You can specify the following character string: <ul style="list-style-type: none"> • ValidationType 	None	--
				<property-value>	Once	Specifies the connection check trigger as the property value.	You can specify the following values: <ul style="list-style-type: none"> • 0: Connection check functionality OFF • 1: Connection is checked when the connection is acquired • 2: Connection is checked at a fixed interval 	1	--
				<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
				<property-name>	Once	Specifies the ValidationInterval property.	You can specify the following character string: <ul style="list-style-type: none"> • ValidationInterval 	None	--
				<property-value>	Once	Specifies the connection check interval (seconds) as the property value.	Specify an integer value from 1 to 2147483647.	3600	--
				<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
				<property-name>	Once	Specifies the RetryCount property.	You can specify the following character string: <ul style="list-style-type: none"> • RetryCount 	None	--

Tag name		Occurrence pattern	Contents	Specifiable value	Default	Identification key
	<property-value>	Once	Specifies the connection retry count as the property value.	Specify an integer value from 0 to 2147483647.	0	--
	<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
	<property-name>	Once	Specifies the <code>RetryInterval</code> property.	You can specify the following character string: <ul style="list-style-type: none"> • <code>RetryInterval</code> 	None	--
	<property-value>	Once	Specifies the connection retry interval (seconds) as the property value.	Specify an integer value from 1 to 2147483647.	10	--
	<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
	<property-name>	Once	Specifies the <code>ConnectionTimeout</code> property.	You can specify the following character string: <ul style="list-style-type: none"> • <code>ConnectionTimeout</code> 	None	--
	<property-value>	Once	Specifies the timeout value (seconds) until the release of a connection, as the property value.	Specify an integer value from 0 to 2147483647.	0	--
	<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
	<property-name>	Once	Specifies the <code>ConnectionPoolAdjustmentInterval</code> property.	You can specify the following character string: <ul style="list-style-type: none"> • <code>ConnectionPoolAdjustmentInterval</code> 	None	--
	<property-value>	Once	Specifies the soft landing operation adjustment interval (seconds) of the connection count, as the property value.	Specify an integer value from 0 to 2147483647.	600	--
	<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
	<property-name>	Once	Specifies the <code>SweeperInterval</code> property.	You can specify the following character string: <ul style="list-style-type: none"> • <code>SweeperInterval</code> 	None	--
	<property-value>	Once	Specifies the connection sweeper operation time	Specify an integer value from 0 to 2147483647.	0	--

2. Cosminexus Application Property File (cosminexus.xml)

Tag name					Occurrence pattern	Contents	Specifiable value	Default	Identification key
				<property-value>	Once	interval (seconds) as the property value.	Specify an integer value from 0 to 2147483647.	0	--
				<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
				<property-name>	Once	Specifies the RequestQueueEnable property.	You can specify the following character string: <ul style="list-style-type: none"> RequestQueueEnable 	None	--
				<property-value>	Once	Specifies the requirement of a connection pending queue for connection depletion, as the property value.	You can specify the following character strings: <ul style="list-style-type: none"> true false 	true	--
				<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
				<property-name>	Once	Specifies the RequestQueueTimeout property.	You can specify the following character string: <ul style="list-style-type: none"> RequestQueueTimeout 	None	--
				<property-value>	Once	Specifies the maximum value (seconds) for which the connection pending queue can be retained during connection depletion, as the property value.	Specify an integer value from 0 to 2147483647.	30	--
				<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
				<property-name>	Once	Specifies the WatchEnabled property.	You can specify the following character string: <ul style="list-style-type: none"> WatchEnabled 	None	--
				<property-value>	Once	Specifies whether to enable the output of an alert for connection pool monitoring, as the property value.	You can specify the following character strings: <ul style="list-style-type: none"> true false 	true	--
				<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
				<property-name>	Once	Specifies the WatchInterval property.	You can specify the following character string:	None	--

Tag name		Occurrence pattern	Contents	Specifiable value	Default	Identification key
	<property-name>	Once	Specifies the WatchInterval property.	<ul style="list-style-type: none"> WatchInterval 	None	--
	<property-value>	Once	Specifies the connection pool monitoring interval (seconds) as the property value.	Specify an integer value from 1 to 2147483647.	30	--
	<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
	<property-name>	Once	Specifies the WatchThreshold property.	<p>You can specify the following character string:</p> <ul style="list-style-type: none"> WatchThreshold 	None	--
	<property-value>	Once	Specifies the threshold value (%) used for monitoring the connection pool usage status, as the property value.	An integer value from 1 to 100.	80	--
	<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
	<property-name>	Once	Specifies the WatchWriteFileEnabled property.	<p>You can specify the following character string:</p> <ul style="list-style-type: none"> WatchWriteFileEnabled 	None	--
	<property-value>	Once	Specifies whether to output the connection pool monitoring results to a file, as the property value.	<p>You can specify the following character strings:</p> <ul style="list-style-type: none"> true false 	true	--
	<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--
	<property-name>	Once	Specifies the Warmup property.	<p>You can specify the following character string:</p> <ul style="list-style-type: none"> Warmup 	None	--
	<property-value>	Once	Specifies whether to enable the warming up functionality of the connection pool, as the property value.	<p>You can specify the following character strings:</p> <ul style="list-style-type: none"> true false 	true	--
	<connector-property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	--

2. Cosminexus Application Property File (cosminexus.xml)

Tag name						Occurrence pattern	Contents	Specifiable value	Default	Identification key
					<property-name>	Once	Specifies the NetworkFailureTimeout property.	You can specify the following character string: <ul style="list-style-type: none"> • NetworkFailureTimeout 	None	--
					<property-value>	Once	Specifies whether to enable the timeout of the network failure detection functionality, as the property value.	You can specify the following character strings: <ul style="list-style-type: none"> • true • false 	true	--
					<resource-external-property>	Zero or more times	Defines the resource.	--	None	--
					<optional-name>	Once	Specifies the optional name of the resource.	You can specify alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters: <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~).</p> <p>However, the following names cannot be specified:</p> <ul style="list-style-type: none"> • A name that starts with the keyword HITACHI_EJB (case sensitive) • A name that includes a slash (/) or a period (.) in the beginning or at the end 	None	--

Tag name					Occurrence pattern	Contents	Specifiable value	Default	Identification key
				<optional-name>	Once	Specifies the optional name of the resource.	<ul style="list-style-type: none"> A name that only includes a slash (/) or a period (.) <p>If there is a single byte space or a linefeed in the beginning or at the end of a character string, such a single byte space or a linefeed is removed, and then the name is input. Also, if there is a linefeed in between a character string, an error occurs.</p> <p>You can specify 1 to 255 characters.</p>	None	--
				<res-auth>	Zero or once	Specifies whether to perform authentication for using a resource in the application or to entrust authentication to the container.	<p>You can specify the following character strings:</p> <ul style="list-style-type: none"> Application Container 	Container	--
				<res-sharing-scope>	Zero or once	Specifies whether to enable the sharing of a resource connection.	<p>You can specify the following character strings:</p> <ul style="list-style-type: none"> Shareable Unshareable 	Shareable	--
				<adminobject>	Zero or more times	<p>Defines the administered objects provided by the resource adapter.</p> <p>You must set up as many tags as the number of <adminobject> tags in the DD and in the same order (if the same number of tags is not set up, you specify an empty tag <adminobject/>).</p> <p>If it is not required to set up <adminobject-name> in all the <adminobject> tags, you can omit the tag.</p>	--	None	--
				<adminobject-name>	Once	Specifies the administered object name. This name must be unique within a resource adapter.	<p>You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:</p> <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right</p>	None	--

2. Cosminexus Application Property File (cosminexus.xml)

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Identification key
<adminobject-name>	Once	Specifies the administered object name. This name must be unique within a resource adapter.	<p>parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~)</p> <p>You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> • A name containing a period (.) at the beginning or at the end • A name containing only a period (.) • A name containing continuous underscores (_) 	None	--
<resourceadapter-property>	Zero or more times	Defines a resource adapter corresponding to the Connector 1.5 specifications.	--	None	--
<property-name>	Once	Specifies the MaxThreadPoolSize property.	<p>You can specify the following character string:</p> <ul style="list-style-type: none"> • MaxThreadPoolSize 	None	--
<property-value>	Once	Specifies the maximum number of threads executed concurrently in a thread pool, as the property value.	Specify an integer value from 1 to 2147483647.	10	--
<resourceadapter-property>	Zero or more times	Defines a resource adapter corresponding to the Connector 1.5 specifications.	--	None	--
<property-name>	Once	Specifies the MinThreadPoolSize property.	<p>You can specify the following character string:</p> <ul style="list-style-type: none"> • MinThreadPoolSize 	None	--
<property-value>	Once	Specifies the minimum number of threads that exist in the thread pool, as the property value.	An integer value from 0 to 1024.	0	--
<resourceadapter-property>	Zero or more times	Defines a resource adapter corresponding to the Connector 1.5 specifications.	--	None	--

Tag name		Occurrence pattern	Contents	Specifiable value	Default	Identification key
	<property-name>	Once	Specifies the TpoolKeepalive property.	You can specify the following character string: <ul style="list-style-type: none"> • TPoolKeepalive 	None	--
	<property-value>	Once	Specifies the timeout value (seconds) until the release of threads of the thread pool, as the property value.	Specify an integer value from 1 to 2147483647.	300	--

Legend:

--: Not applicable.

#

If a string other than the allowed value is used, specify the queue name.

2.2 Details of each property specified in the Cosminexus application property file (cosminexus.xml)

This section describes the details of the contents to be specified in the Cosminexus application property file (cosminexus.xml) for each property.

The following table describes the items to be defined in the Cosminexus application property file (cosminexus.xml):

Item name	Explanation
Tag name	Displays the tag to be set.
Description	Indicates the contents to be defined in the tag.
Dependency on other tags	Indicates dependency on other tags.
Tag omission	Indicates whether the tag can be omitted.
Value omission	Indicates whether the tag value can be omitted.

2.2.1 Details of the HITACHI Application Integrated property

This subsection describes the details of the HITACHI Application Integrated property of cosminexus.xml with reference to each tag.

Note that the tag details are described in the order mentioned in *2.1 Specifications of the Cosminexus application property file (cosminexus.xml)*.

(1) <security-prop>

Description

This tag specifies the management method for the security of cosminexus-app.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) <security-method>

Description

This tag specifies whether to enable the security settings.

Specifiable value

- `disable_methods_without_roles`
You cannot execute a method to which no security role is assigned.
- `map_methods_without_roles`
The default security role specified in `default-security-role` is assigned to the method to which no security role is assigned.
- `no_security_for_methods_without_roles`
Any user can execute a method to which no security role is assigned.

The execution of methods to which a security role is assigned is restricted depending on the security role.

- `no_security_for_all_methods`

Any user can execute all the methods, including the methods to which a security role is assigned and the methods to which no security role is assigned.

Dependency on other tags

None.

Tag omission

You cannot omit the value of this tag.

Value omission

You cannot omit the value of this tag.

(3) `<default-security-role>`

Description

This tag specifies the default security role when `map_methods_without_roles` is specified in `<security-method>`.

The set value of this tag is ignored when a value other than `map_methods_without_roles` is specified in `<security-method>`.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(4) `<start-order>`

Description

This tag specifies the order of starting and stopping the J2EE applications.

When starting an application, the start processing is executed in the ascending order and when terminating the application, the stop processing is executed in the descending order.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(5) `<scheduling-unit>`

Description

This tag specifies the deployment model of the queue.

Specifiable value

You can specify the following character strings:

- `Application`

This value is specified when the queue is to be deployed for each application.

- Bean

This value is specified when the queue is to be deployed for each Bean.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(6) <scheduling>

Description

This tag sets up the information related to CTM integration.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit this tag.

(7) <queue-name>

Description

This tag specifies the queue name for which scheduling is to be executed.

Specifiable value

You can specify 1 to 63 alphanumeric characters and underscores (_).

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(8) <parallel-count>

Description

This tag specifies the number of threads prepared by the CTM scheduler to invoke an application.

Specifiable value

Specify an integer value from 1 to 127.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(9) <queue-length>

Description

This tag specifies the length of a queue.

Specifiable value

Specify an integer value from 1 to 32767.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(10) <managed-by-ctm>

Description

This tag specifies whether to integrate CTM.

Specifiable value

- `true`
Integrate CTM.
- `false`
Do not integrate CTM.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(11) <ref-libraries>

Description

This tag specifies the library JAR to be referenced.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit this tag.

(12) <classpath>

Description

This tag specifies the class path of the referenced library.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

`<max-thread-pool-size>`

Tag omission

You cannot omit the value of this tag.

Value omission

You cannot omit the value of this tag.

(13) `<method-observation-recovery-mode>`

Description

This tag specifies the recovery mode of the method cancellation functionality.

Specifiable value

You can specify the following character strings:

- `thread`

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(14) `<ejb-async-props>`

Description

This tag sets up the information for invoking the Session Bean asynchronously.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit this tag.

(15) `<min-thread-pool-size>`

Description

This tag specifies the minimum number of threads executed concurrently in a thread pool.

Specifiable value

Specify an integer value from 1 to 2147483647.

Dependency on other tags

This tag depends on the `<max-thread-pool-size>` tag.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(16) <max-thread-pool-size>

Description

This tag specifies the maximum number of threads executed concurrently in a thread pool.

Specifiable value

Specify an integer value from 1 to 2147483647.

Dependency on other tags

This tag depends on the <min-thread-pool-size> tag.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(17) <thread-pool-keep-alive>

Description

This tag specifies the timeout value until the threads in the thread pool are released (unit: seconds).

Specifiable value

Specify an integer value from 1 to 2147483647.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(18) <result-timeout-value>

Description

Specifies the time (unit: minutes) for which the results of asynchronous invocation are stored. If 0 is specified, the results of asynchronous invocation are not released and are stored until the application terminates.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

2.2.2 Details of the EJB-JAR property

This subsection describes the details of the EJB-JAR property of `cosminexus.xml` with reference to each tag.

Note that the tag details are described in the order mentioned in *2.1 Specifications of the Cosminexus application property file (cosminexus.xml)*.

(1) <ejb-jar>

Description

This tag defines the EJB-JAR.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) <module-name>

Description

Key for identifying the EJB-JAR.

The set value is specified according to the following conditions:

For an application that includes application.xml

- Common to the archive format and exploded archive format
This tag specifies the character string specified in <application>-<module>-<ejb> in the application.xml.

For an application that does not include application.xml

- Archive format (cjimportapp command (-f/-d))
This tag specifies the location of an EJB-JAR file within the J2EE application using the relative path from the EAR root.
- Exploded archive format (cjimportapp command (-a))
This tag specifies the value of an EJB-JAR directory obtained by replacing the _jar at the end of the relative path from the application directory with .jar.

Precautions when using the relative path

- Use a forward slash (/) as the path delimiter.
- You cannot specify a forward slash (/) at the beginning of the path string.
- You cannot specify ".", "..", and "/" in the path string.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit the value of this tag.

Value omission

You cannot omit the value of this tag.

(3) <security-role>

Description

This tag defines the security role.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(4) <role-name>**Description**

This tag specifies the role name.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit the value of this tag.

Value omission

You cannot omit the value of this tag.

(5) <linked-to>**Description**

This tag specifies the role name defined by the `cjaddsec` command.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

2.2.3 Details of the Session Bean property

This subsection describes the details of the Session Bean property of `cosminexus.xml` with reference to each tag.

Note that the tag details are described in the order mentioned in *2.1 Specifications of the Cosminexus application property file (cosminexus.xml)*.

(1) <session>**Description**

This tag defines the Session Bean.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) <ejb-name>

Description

This tag specifies the name of the ejb.

Note that this key is used for identifying the Session Bean.

Specifies the value set for <ejb-jar>-<enterprise-beans>-<session>-<ejb-name> in the ejb-jar.xml.

For an application that does not include ejb-jar.xml, the value set for name in @Stateless, @Stateful, or @Singleton is specified.

If name is not specified, the class name obtained by removing the package name of the EJB implementation class name is specified.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit the value of this tag.

Value omission

You cannot omit the value of this tag.

(3) <security-identity>

Description

This tag defines the security identity of the Session Bean.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(4) <run-as>

Description

This tag defines the runtime identity.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit the value of this tag.

Value omission

You cannot omit the value of this tag.

(5) <user-name>

Description

This tag specifies the user name.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit the value of this tag.

Value omission

You cannot omit the value of this tag.

(6) <resource-ref>**Description**

This tag defines the resource to be referenced from the Session Bean.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(7) <res-ref-name>**Description**

This tag specifies the name of the resource reference.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit the value of this tag.

Value omission

You cannot omit the value of this tag.

(8) <linked-to>**Description**

This tag specifies the corresponding resource adapter display name and the mail display name.
 You cannot specify the member resource adapters of the cluster connection pool.

- Connector 1.0 or earlier versions
Resource-adapter-display-name
- Outbound resource adapter conforming to Connector 1.5 or later versions
Resource-adapter-display-name!Connection-definition-identifier

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit the value of this tag.

Value omission

You can omit this tag.

(9) `<resource-env-ref>`

Description

This tag defines the resource environment variable to be referenced from the Session Bean.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(10) `<resource-env-ref-name>`

Description

This tag specifies the name of the resource environment variable reference.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(11) `<linked-queue>`

Description

This tag specifies the queue name.

This tag is enabled only when `javax.jms.Queue` is specified in the `<resource-env-ref-type>` tag of the DD.

Note that any one of the `<linked-to>` tag, `<linked-queue>` tag, or the `<linked-adminobject>` tag is specified.

Specifiable value

None.

Dependency on other tags

This tag depends on the `<resource-env-ref-type>` tag of the DD.

Tag omission

You cannot omit this tag.

Value omission

You can omit the value of this tag.

(12) <resource-adapter>

Description

This tag specifies the display name of the resource adapter.

You cannot specify a resource adapter conforming to Connector 1.5 or later versions.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(13) <queue>

Description

This tag specifies the queue name.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(14) <linked-adminobject>

Description

This tag specifies the administered object.

Note that any one of the <linked-to> tag, <linked-queue> tag, or the <linked-adminobject> tag is specified.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(15) <resourceadapter-name>

Description

This tag specifies the display name of the resource adapter.

You cannot specify a resource adapter conforming to Connector 1.0 or earlier versions.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(16) <adminobject-name>

Description

This tag specifies the administered object name.

Specifiable value

You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:

Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation mark ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (|), and tilde (~)

You cannot, however, specify the following names:

- Name containing a period (.) at the beginning or at the end
- Name containing a period (.) only
- Name containing continuous underscores (_)

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(17) <linked-to>

Description

This tag specifies the display name of the JavaBeans resource.

This tag is enabled only when *JavaBeans-resource-class-name* is specified in the <resource-env-ref-type> tag of the DD.

Note that any one of the <linked-to> tag, <linked-queue> tag, or the <linked-adminobject> tag is specified.

Specifiable value

None.

Dependency on other tags

This tag depends on the <resource-env-ref-type> tag of the DD.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(18) <lookup-name>

Description

This tag specifies the name used when looking up the EJB from the client. This tag corresponds to *EJB-lookup-name* in HITACHI_EJB/SERVERS/server-name/EJB/application-lookup-name/EJB-lookup-name.

If this tag is omitted, the resource name is used as the default value; however, all the characters other than alphanumeric characters and underscores (_) included in the default value are converted into underscores.

Specifiable value

You can specify alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:

Space (), double quotation mark ("), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (|), and tilde (~).

You cannot, however, specify the following names:

- A name containing a period (.) at the beginning or at the end
- A name containing a period (.) only

If there is a single byte space or a linefeed in the beginning or at the end of a character string, such a single byte space or a linefeed is removed, and then the name is input. Also, if there is a linefeed in between a character string, an error occurs.

You can specify 1 to 255 characters.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(19) <optional-name>

Description

This tag specifies the optional name of the remote interface.

Specifiable value

You can specify alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:

Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), forward slash (/), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (|), and tilde (~).

However, the following names cannot be specified:

- A name that starts with the keyword HITACHI_EJB (case sensitive)
- A name that includes a slash (/) or a period in the beginning or at the end
- A name that includes a continuous slash (/)

If there is a single byte space or a linefeed in the beginning or at the end of a character string, such a single byte space or a linefeed is removed, and then the name is input. Also, if there is a linefeed in between a character string, an error occurs.

You can specify 1 to 255 characters.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(20) <local-optional-name>

Description

This tag specifies the optional name of the local interface.

Specifiable value

There are no limitations for the specifiable characters.

You can specify 1 to 255 characters.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(21) <maximum-sessions>

Description

This tag specifies the maximum number of sessions or Bean instances.

For a Stateless Session Bean or Singleton Session Bean, this set value is disabled.

Specifiable value

Specify an integer value of 0 (infinite) or $1 \leq \text{maximum-sessions} \leq 2147483647$.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(22) <stateless>

Description

This tag is specified when the Session Bean type is Stateless.

Either <stateless> or <stateful>, or neither of these is specified.

Specifiable value

None.

Dependency on other tags

This tag depends on the <session-type> tag of the DD.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(23) <pooled-instance>

Description

This tag defines the instances within a pool.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(24) <minimum>**Description**

This tag specifies the minimum number of instances within a pool.

Specifiable value

Specify an integer value of 0 or $1 \leq \text{minimum} \leq \text{maximum}$.

Dependency on other tags

This tag depends on the <maximum> tag.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(25) <maximum>**Description**

This tag specifies the maximum number of instances within a pool.

Specifiable value

Specify an integer value of 0 (infinite) or $1 \leq \text{maximum} \leq 2147483647$.

Furthermore, when the value of the <enable-scheduling> tag is true and the value of the <managed-by-ctm> tag of the application property is true, the specifiable range will differ.

- When the specified value of the <scheduling-unit> tag of the application property is Bean
Specify an integer value of 0, or equal to or more than <scheduling>-<parallel-count>.
- When the specified value of the <scheduling-unit> tag of the application property is Application
Specify an integer value of 0, or equal to or more than the <scheduling>-<parallel-count> tag of the application property.

Dependency on other tags

This tag depends on the <enable-scheduling> tag, <managed-by-ctm> tag of the application property, <scheduling-unit> tag of the application property, <scheduling>-<parallel-count> tag, and the <scheduling>-<parallel-count> tag of the application property.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(26) <instance-timeout>**Description**

This tag specifies the instance acquisition timeout value (seconds).

When you specify 0, a timeout does not occur.

Specifiable value

Specify an integer value from 0 to 86400.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(27) `<stateful>`

Description

This tag is specified when the Session Bean type is Stateful.

Either `<stateless>` or `<stateful>` is specified or neither of these is specified.

Specifiable value

None.

Dependency on other tags

This tag depends on the `<session-type>` tag of the DD.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(28) `<maximum-active-sessions>`

Description

This tag specifies the maximum number of active sessions.

Specifiable value

When `maximum-sessions` is 0 (infinite)

Specify an integer value of $0 \text{ (infinite)} \leq \text{maximum-active-sessions} \leq 2147483647$.

When `maximum-sessions` is not 0 (infinite)

Specify an integer value of $1 \leq \text{maximum-active-sessions} \leq \text{maximum-sessions}$.

Dependency on other tags

This tag depends on the `<maximum-sessions>` tag of the DD.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(29) `<inactivity-timeout>`

Description

This tag specifies the time period (minutes) for which the inactive status is retained until the session is activated again.

Specifiable value

Specify an integer value of 0 (infinite) or $1 \leq \text{inactivity-timeout} \leq 2147483647$.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(30) <removal-timeout>

Description

This tag specifies the time period (minutes) for which the inactive status is retained until the session is removed.

Specifiable value

Specify an integer value of 0 (infinite) or $1 \leq \text{removal-timeout} \leq 2147483647$.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(31) <enable-scheduling>

Description

This tag specifies whether to use the corresponding Bean as the scheduler Gate.

Specifiable value

- `true`
The corresponding Bean will be used as the scheduler Gate.
- `false`
The corresponding Bean will not be used as the scheduler Gate.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(32) <pass-by-reference>

Description

This tag specifies whether to invoke the EJB with pass-by-reference.

Specifiable value

- `true`
The EJB will be invoked with pass-by-reference.
- `false`
The EJB will not be invoked with pass-by-reference.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(33) <scheduling>

Description

This tag sets up the information related to CTM integration.

Specifiable value

None.

Dependency on other tags

This tag depends on the `<session-type>` tag, `<scheduling-unit>` tag, and the `<enable-scheduling>` tag of the DD.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(34) `<queue-name>`

Description

This tag specifies the queue name for which scheduling is to be executed.

Specifiable value

You can use alphanumeric characters and underscores (`_`).

You can specify 1 to 63 characters.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(35) `<parallel-count>`

Description

This tag specifies the number of threads prepared by the CTM scheduler to invoke an application.

Specifiable value

Specify an integer value from 1 to 127.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(36) `<queue-length>`

Description

This tag specifies the length of a queue.

Specifiable value

Specify an integer value from 1 to 32767.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(37) <front-ejb>**Description**

This tag specifies whether the specified EJB is a front EJB (an EJB invoked directly by the client).

Specifiable value

- `true`
The EJB is a front EJB.
- `false`
The EJB is not a front EJB.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(38) <start-order>**Description**

This tag specifies the order of starting and stopping the J2EE applications. When starting an application, the start processing is executed in the ascending order, and when terminating an application, the stop processing is executed in the descending order.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(39) <ejb-method-observation-timeout>**Description**

This tag is specified when you set up a method timeout value in the EJB method for the functionality used for monitoring the J2EE application run time. When multiple `<ejb-method-observation-timeout>` tags are specified and the values set (excluding the `<description>` tag) under the `<method>` tags are the same, the tags are merged into one. In such cases, a warning message (KDJE42377-W) is output, and the value of the `<method-observation-timeout>` tag of the `<ejb-method-observation-timeout>` tag defined first is enabled.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(40) <method>

Description

This tag defines the method.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(41) <method-intf>

Description

This tag is specified when identifying the interface type to which the method belongs.

Specifiable value

- Home
- Remote
- LocalHome
- Local

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(42) <method-name>

Description

This tag specifies the target method name.
An asterisk (*) indicates that all the methods are targets.

Specifiable value

None.

Dependency on other tags

This tag depends on the <method-params> tag of the DD.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(43) <method-params>

Description

This tag is specified to identify a method when multiple methods are defined.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(44) <method-param>**Description**

This tag specifies the data type of the argument.

Specifiable value

Specify a value other than a white space delimiter, row delimiter, and paragraph delimiter.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(45) <method-observation-timeout>**Description**

This tag specifies the method timeout value (seconds) for the functionality used for monitoring the J2EE application run time. When you specify 0, a timeout does not occur.

Specifiable value

Specify an integer value from 0 to 86400.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(46) <ejb-transaction-timeout>**Description**

This tag is specified when you set up a transaction timeout value for the EJB (CMT) method.

When multiple `<ejb-transaction-timeout>` tags are specified and the values set under the `<method>` tags are the same, the tags are merged into one. In such cases, a warning message (KDJE42377-W) is output, and the value of the `<transaction-timeout>` tag of the `<ejb-transaction-timeout>` tag defined first is enabled.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(47) <method>

Description

This tag defines the method.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(48) <method-intf>

Description

This tag is specified when identifying the interface type to which the method belongs.

Specifiable value

- Home
- Remote
- LocalHome
- Local

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(49) <method-name>

Description

This tag specifies the target method name.
An asterisk (*) indicates that all the methods are targets.

Specifiable value

None.

Dependency on other tags

This tag depends on the <method-params> tag of DD.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(50) <method-params>

Description

This tag is specified to identify a method when multiple methods are defined.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(51) <method-param>

Description

This tag specifies the data type of the argument.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(52) <transaction-timeout>

Description

This tag specifies the transaction timeout value (seconds).

When you specify 0, the operation is executed using the default timeout value set in the J2EE server.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

2.2.4 Details of the Entity Bean property

This subsection describes the details of the Entity Bean property of `cosminexus.xml` with reference to each tag.

Note that the tag details are described in the order mentioned in *2.1 Specifications of the Cosminexus application property file (cosminexus.xml)*.

(1) <entity>

Description

This tag defines the Entity Bean.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) <ejb-name>

Description

This tag specifies the name of ejb.

Note that this key is used for identifying the Entity Bean.

Specifies the value set for <ejb-jar>-<enterprise-beans>-<entity>-<ejb-name> in the ejb-jar.xml file.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(3) <security-identity>

Description

This tag defines the security identity of the Entity Bean.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(4) <run-as>

Description

This tag defines the runtime identity.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(5) <user-name>

Description

This tag specifies the user name.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(6) <resource-ref>

Description

This tag defines the resource to be referenced from the Entity Bean.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(7) <res-ref-name>

Description

This tag specifies the name of the resource reference.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(8) <linked-to>

Description

This tag specifies the corresponding resource adapter display name and the mail display name. You cannot specify the member resource adapters of the cluster connection pool.

- Connector 1.0 or earlier versions
Resource-adapter-display-name
- Outbound resource adapter conforming to Connector 1.5 or later versions
Resource-adapter-display-name!Connection-definition-identifier

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You can omit the value of this tag.

(9) `<resource-env-ref>`

Description

This tag defines the resource environment variable to be referenced from the Entity Bean.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(10) `<resource-env-ref-name>`

Description

This tag specifies the name of `resource-env-ref`.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(11) `<linked-queue>`

Description

This tag specifies the queue name.

This tag is enabled only when `javax.jms.Queue` is specified in the `<resource-env-ref-type>` tag of the DD.

Note that any one of the `<linked-to>` tag, `<linked-queue>` tag, or the `<linked-adminobject>` tag is specified.

Specifiable value

None.

Dependency on other tags

This tag depends on the `<resource-env-ref-type>` tag of the DD.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(12) <resource-adapter>

Description

This tag specifies the display name of the resource adapter.

You cannot specify a resource adapter conforming to Connector 1.5 or later versions.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(13) <queue>

Description

This tag specifies the queue name.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(14) <linked-adminobject>

Description

This tag specifies the administered object.

Note that any one of the <linked-to> tag, <linked-queue> tag, or the <linked-adminobject> tag is specified.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(15) <resourceadapter-name>

Description

This tag specifies the display name of the resource adapter.

You cannot specify a resource adapter conforming to Connector 1.0 or earlier versions.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(16) <adminobject-name>

Description

This tag specifies the administered object name.

Specifiable value

You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:

Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (|), and tilde (~)

You cannot, however, specify the following names:

- Name containing a period (.) at the beginning or at the end
- Name containing a period (.) only
- Name containing continuous underscores (_)

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(17) <linked-to>

Description

This tag specifies the display name of the JavaBeans resource.

This tag is enabled only when *JavaBeans-resource-class-name* is specified in the DD element <resource-env-ref-type>.

Note that any one of the <linked-to> tag, <linked-queue> tag, or the <linked-adminobject> tag is specified.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

This tag depends on the <resource-env-ref-type> tag of the DD.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(18) <lookup-name>

Description

This tag specifies the name used when looking up the EJB from the client. This tag corresponds to *EJB-lookup-name* in HITACHI_EJB/SERVERS/*server-name*/EJB/*application-lookup-name*/*EJB-lookup-name*.

If this tag is omitted, the resource name is used as the default value; however, all the characters other than alphanumeric characters and underscores (_) included in the default value are converted into underscores.

Specifiable value

You can specify alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:

Space (), double quotation mark ("), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (|), and tilde (~).

You cannot, however, specify the following names:

- A name containing a period (.) at the beginning or at the end
- A name containing only a period (.)

If there is a single byte space or a linefeed in the beginning or at the end of a character string, such a single byte space or a linefeed is removed, and then the name is input. Also, if there is a linefeed in between a character string, an error occurs.

You can specify 1 to 255 characters.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(19) <optional-name>

Description

This tag specifies the optional name of the remote interface.

Specifiable value

You can specify alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:

Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), forward slash (/), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (|), and tilde (~).

However, the following names cannot be specified:

- A name that starts with the keyword HITACHI_EJB (case sensitive)
- A name that includes a slash (/) or a period (.) in the beginning or at the end
- A name that includes a continuous slash (/)

If there is a single byte space or a linefeed in the beginning or at the end of a character string, such a single byte space or a linefeed is removed, and then the name is input. Also, if there is a linefeed in between a character string, an error occurs.

You can specify 1 to 255 characters.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(20) <local-optional-name>

Description

This tag specifies the optional name of the local interface.

Specifiable value

There are no limitations for the specifiable characters.

You can specify 1 to 255 characters.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(21) <maximum-instances>

Description

This tag specifies the maximum number of Enterprise Bean instances.

Specifiable value

Specify an integer value of 0 (infinite) or $1 \leq \text{maximum-instances} \leq 2147483647$.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(22) <pooled-instance>

Description

This tag specifies the properties of an instance pool.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(23) <minimum>

Description

This tag specifies the minimum number of instances within a pool.

Specifiable value

Specify an integer value of 0 or $1 \leq \text{minimum} \leq \text{maximum}$.

Dependency on other tags

This tag depends on the <maximum> tag of the DD.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(24) <maximum>**Description**

This tag specifies the maximum number of instances within a pool.

Specifiable value

When `maximum-instances` is 0 (infinite)

Specify an integer value of 0 (infinite) \leq `maximum` \leq 2147483647.

When `maximum-instances` is not 0 (infinite)

Specify an integer value of $1 \leq$ `maximum` \leq `maximum-instances`.

Dependency on other tags

This tag depends on the `<maximum-instances>` tag.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(25) <caching-model>**Description**

This tag specifies the caching model.

Specifiable value

- `full-caching`
The entire status information when the method is running is cached.
- `caching`
The status information used most frequently when the method is running is cached.
- `no-caching`
Status information is not cached.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(26) <entity-timeout>**Description**

This tag specifies the existence time (seconds) of the EJB object.

When you specify 0, a timeout does not occur.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(27) <pass-by-reference>

Description

This tag specifies whether to invoke the EJB with pass-by-reference.

Specifiable value

- `true`
The EJB will be invoked with pass-by-reference.
- `false`
The EJB will not be invoked with pass-by-reference.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(28) <instance-timeout>

Description

This tag specifies the instance acquisition timeout value (seconds). When you specify 0, a timeout does not occur.

Specifiable value

Specify an integer value from 0 to 86400.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(29) <front-ejb>

Description

This tag specifies whether the specified EJB is a front EJB (an EJB invoked directly by the client).

Specifiable value

- `true`
The EJB is a front EJB.
- `false`
The EJB is not a front EJB.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(30) <cmp-map>

Description

This tag maps the Entity Bean field on the database.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(31) <datasource-name>

Description

This tag specifies the display name of the resource adapter started as the mapping destination of the Enterprise Bean field.

- Connector 1.0 or earlier versions
Resource-adapter-display-name
- Outbound resource adapter conforming to Connector 1.5 or later versions
Resource-adapter-display-name ! Connection-definition-identifier

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(32) <catalog-name>

Description

This tag specifies the catalog name of the database as the mapping destination of the Enterprise Bean field.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(33) <schema-name>

Description

This tag specifies the schema name of the database as the mapping destination of the Enterprise Bean field.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(34) <table-name>

Description

This tag specifies the table name of the database as the mapping destination of the Enterprise Bean field.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(35) <read-only-access>

Description

This tag specifies whether to prohibit writing from an application to the database. However, even if specified, this tag is disabled in Application Server.

Specifiable value

- `true`
Writing will be prohibited.
- `false`
Writing will be allowed.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(36) <transaction-isolation>

Description

This tag specifies the transaction isolation level.

If this tag is omitted, the default transaction isolation level is used (differs depending on the database and the JDBC driver being used).

Specifiable value

- `none`
The transaction is not supported.
- `read_committed`
Uncommitted read is prevented.
- `read_uncommitted`

Uncommitted reads, non-repeatable reads, and phantom reads occur.

- `repeatable_read`

Uncommitted reads and non-repeatable reads are prevented.

- `serializable`

Uncommitted reads, non-repeatable reads, and phantom reads are prevented.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(37) `<concurrency-protection>`

Description

Specifies the concurrency protection to be written in the database.

Specifiable value

- `primary-key`

Compares with the primary key and updates the data.

- `modified-data`

Compares with the primary key and checks if the value of the data to be changed is changed after the last read operation.

- `whole-row`

Compares with the primary key and checks if all the values in the row, including the value to be changed, are changed after the last read operation.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(38) `<field-impl>`

Description

This tag specifies the mapping between the Entity Bean field and the table column.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(39) `<field-name>`

Description

This tag specifies the field name of the Entity Bean.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(40) <column-name>

Description

This tag specifies the column name of the table.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(41) <finder-impl>

Description

This tag specifies the search conditions for the `Finder` method other than `ejbFindByPrimaryKey`.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(42) <method-name>

Description

This tag specifies the method name of the `Finder` method.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(43) <where-clause>

Description

This tag specifies the search conditions for the table.

The following table describes the operators that you can specify in the search conditions.

Note that you use entities such as round brackets "(" as described in the table when editing a property file with the text editor because the use of angle brackets "<>" for values in XML syntaxes is not permitted.

Operator	Description	Remarks
IS NULL	NULL	--
IS NOT NULL	Not NULL	--
=	Equal	You can use this operator when the number of parameters of the Finder method is one or more.
!=	Not equal	
< (<)	Less than ...	
> (>)	Greater than ...	
<= (<=)	Less than or equal to ...	
>= (>=)	Greater than or equal to ...	
LIKE	Matches the search pattern	
NOT LIKE	Does not match the search pattern	
BETWEEN	Within the range	You can use this operator when the number of parameters of the Finder method is two or more.
NOT BETWEEN	Not within the range	

Legend:

--: Not applicable.

The syntaxes of the search conditions are as follows:

- When using IS NULL and IS NOT NULL operators
Field name Operator
- When using BETWEEN and NOT BETWEEN operators
Field name Operator ?number AND ?number
- When using other operators
Field name Operator ?number

The rules concerning the search conditions are as follows:

- You can join the search conditions with AND or OR.
- Search conditions, AND, OR, and field names are case sensitive.
- ?number specifies the location (1, 2, ...from the left) of the arguments of the Finder method.
For example: id <= ?1 AND value IS NOT NULL OR name BETWEEN ?3 AND ?4
- Insert a space of one or more characters between the search conditions, AND, OR, field names, and ?number.
- For a blank character string, all the rows of the table are assumed to match the search pattern.
- You cannot use this method from the application when DISABLE is specified.

Specifiable value

You can specify values other than hash mark (#).

Dependency on other tags

None.

Tag omission

You cannot omit the value of this tag.

Value omission

You can omit this tag.

(44) <start-order>

Description

This tag specifies the order of starting and stopping the J2EE applications. When starting an application, the start processing is executed in the ascending order and when terminating the application, the stop processing is executed in the descending order.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(45) <ejb-method-observation-timeout>

Description

This tag is specified when you set up a method timeout value in the EJB method for the functionality used for monitoring the J2EE application run time. When multiple <ejb-method-observation-timeout> tags are specified and the values set under the <method> tags are the same, the tags are merged into one. In such cases, a warning message (KDJE42377-W) is output, and the value of <method-observation-timeout> tag of the <ejb-method-observation-timeout> tag defined first is enabled.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(46) <method>

Description

This tag defines the method.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(47) <method-intf>

Description

This tag is specified when identifying the interface type to which the method belongs.

Specifiable value

- Home
- Remote
- LocalHome
- Local

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(48) <method-name>

Description

This tag specifies the target method name.

An asterisk (*) indicates that all the methods are targets.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

This tag depends on the <method-params> tag.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(49) <method-params>

Description

This tag is specified to identify a method when multiple methods are defined.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(50) <method-param>

Description

This tag specifies the data type of the argument.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(51) <method-observation-timeout>

Description

This tag specifies the method timeout value (seconds) for the functionality used for monitoring the J2EE application run time. When you specify 0, a timeout does not occur.

Specifiable value

Specify an integer value from 0 to 86400.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(52) <ejb-transaction-timeout>

Description

This tag is specified when you set up a transaction timeout value for the EJB (CMT) method.

When multiple <ejb-transaction-timeout> tags are specified and the values set under the <method> tags are the same, the tags are merged into one. In such cases, a warning message (KDJE42377-W) is output, and the value of the <transaction-timeout> tag of the <ejb-transaction-timeout> tag defined first is enabled.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(53) <method>

Description

This tag defines the method.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(54) <method-intf>

Description

This tag is specified when identifying the interface type to which the method belongs.

Specifiable value

- Home
- Remote
- LocalHome
- Local

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(55) <method-name>

Description

This tag specifies the target method name.

An asterisk (*) indicates that all the methods are targets.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

This tag depends on the <method-params> tag.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(56) <method-params>

Description

This tag is specified to identify a method when multiple methods are defined.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(57) <method-param>

Description

This tag specifies the data type of the argument.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(58) <transaction-timeout>

Description

This tag specifies the transaction timeout value (seconds).

When you specify 0, the operation is performed using the default timeout value set in the J2EE server.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

2.2.5 Details of the Message-driven Bean property

This subsection describes the details of the Message-driven Bean property of `cosminexus.xml` with reference to each tag.

Note that the tag details are described in the order mentioned in *2.1 Specifications of the Cosminexus application property file (cosminexus.xml)*.

(1) <message>

Description

This tag defines the Message-driven Bean.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) <ejb-name>

Description

Specifies the name of an ejb.

Note that this key is used for identifying the Message-driven Bean.

This tag specifies the set value of <ejb-jar>-<enterprise-beans>-<message-driven>-<ejb-name> in the `ejb-jar.xml` file.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(3) <security-identity>

Description

This tag defines the security identity of the Message-driven Bean.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(4) <run-as>

Description

This tag defines the runtime identity.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(5) <user-name>

Description

This tag specifies the user name.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(6) <message-ref>

Description

This tag specifies the resource adapter.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(7) <connection-factory>

Description

This tag specifies the display name of the resource adapter.

You cannot specify a resource adapter conforming to Connector 1.5 or later versions.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(8) <connection-destination>

Description

This tag defines the resource adapter.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(9) <resource-adapter>

Description

This tag specifies the display name of the resource adapter.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(10) <queue>

Description

This tag specifies the queue name.

You cannot specify a resource adapter conforming to Connector 1.5 or later versions.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(11) <resource-ref>

Description

This tag defines the resource to be referenced from the Message-driven Bean.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(12) <res-ref-name>

Description

This tag specifies the name of the resource reference.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(13) <linked-to>

Description

This tag specifies the corresponding resource adapter display name and the mail display name.

You cannot specify the member resource adapters of the cluster connection pool.

- Connector 1.0 or earlier versions
Resource-adapter-display-name
- Outbound resource adapter conforming to Connector 1.5 or later versions
Resource-adapter-display-name ! Connection-definition-identifier

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(14) `<resource-env-ref>`

Description

This tag defines the resource environment variable to be referenced from the Message-driven Bean.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(15) `<resource-env-ref-name>`

Description

This tag defines the name of `resource-env-ref`.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(16) `<linked-queue>`

Description

This tag specifies the queue name. This tag is enabled only when `javax.jms.Queue` is specified in the `<resource-env-ref-type>` tag of the DD.

Note that any one of the `<linked-to>` tag, `<linked-queue>` tag, or the `<linked-adminobject>` tag is specified.

Specifiable value

None.

Dependency on other tags

This tag depends on the `<resource-env-ref-type>` tag of the DD.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(17) <resource-adapter>**Description**

This tag specifies the display name of the resource adapter.

You cannot specify a resource adapter conforming to Connector 1.5 or later versions.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(18) <queue>**Description**

This tag specifies the queue name.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(19) <linked-adminobject>**Description**

This tag specifies the administered object.

Note that any one of the <linked-to> tag, <linked-queue> tag, or the <linked-adminobject> tag is specified.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(20) <resourceadapter-name>**Description**

This tag specifies the display name of the resource adapter.

You cannot specify a resource adapter conforming to Connector 1.0 or earlier versions.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(21) <adminobject-name>

Description

This tag specifies the administered object name.

Specifiable value

You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:

Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (|), and tilde (~)

You cannot, however, specify the following names:

- Name containing a period (.) at the beginning or at the end
- Name containing a period (.) only
- Name containing continuous underscores (_)

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(22) <linked-to>

Description

This tag specifies the display name of the JavaBeans resource.

This tag is enabled only when *JavaBeans-resource-class-name* is specified in the DD element <resource-env-ref-type>.

Note that any one of the <linked-to> tag, <linked-queue> tag, or the <linked-adminobject> tag is specified.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

This tag depends on the <resource-env-ref-type> tag of the DD.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(23) <pooled-instance>

Description

The tag defines the instances within a pool.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(24) <minimum>

Description

This tag specifies the minimum number of instances within a pool.

However, the value set in this tag is ignored because you can specify a maximum number to customize the pooling operations.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(25) <maximum>

Description

This tag specifies the maximum number of instances within a pool.

Specifiable value

Specify an integer value from 1 to 2147483647.

If 0 is specified, the value is assumed as 1.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(26) <front-ejb>

Description

This tag specifies whether the specified EJB is a front EJB (an EJB invoked directly by the client).

Specifiable value

- true
The EJB is a front EJB.
- false

The EJB is not a front EJB.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(27) `<start-order>`

Description

This tag specifies the order of starting and stopping the J2EE applications.

When starting an application, the start processing is executed in the ascending order and when terminating the application, the stop processing is executed in the descending order.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(28) `<ejb-method-observation-timeout>`

Description

This tag is specified when you set up a method timeout value in the EJB method for the functionality used for monitoring the J2EE application run time. When multiple `<ejb-method-observation-timeout>` tags are specified and the values set under the `<method>` tags are the same, the tags are merged into one. In such cases, a warning message (KDJE42377-W) is output, and the value of `<method-observation-timeout>` tag of the `<ejb-method-observation-timeout>` tag defined first is enabled.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(29) `<method>`

Description

This tag defines the method.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(30) <method-intf>**Description**

This tag is specified when identifying the interface type to which the method belongs.
You cannot specify a value for this tag in the Message-driven Bean property settings.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(31) <method-name>**Description**

This tag specifies the target method name.
An asterisk (*) indicates that all the methods are targets.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

This tag depends on the <method-params> tag.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(32) <method-params>**Description**

This tag is specified to identify a method when multiple methods are defined.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(33) <method-param>**Description**

This tag specifies the data type of the argument.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(34) <method-observation-timeout>

Description

This tag specifies the method timeout value (seconds) for the functionality used for monitoring the J2EE application run time. When you specify 0, a timeout does not occur.

Specifiable value

Specify an integer value from 0 to 86400.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(35) <ejb-transaction-timeout>

Description

This tag is specified when you set up a transaction timeout value for the EJB (CMT) method.

When multiple <ejb-transaction-timeout> tags are specified and the values set under the <method> tags are the same, the tags are merged into one. In such cases, a warning message (KDJE42377-W) is output, and the value of the <transaction-timeout> tag of the <ejb-transaction-timeout> tag defined first is enabled.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(36) <method>

Description

This tag defines the method.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(37) <method-intf>

Description

This tag is specified when identifying the interface type to which the method belongs.
You cannot specify a value for this tag in the Message-driven Bean property settings.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(38) <method-name>

Description

This tag specifies the target method name.
An asterisk (*) indicates that all the methods are targets.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

This tag depends on the <method-params> tag.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(39) <method-params>

Description

This tag is specified to identify a method when multiple methods are defined.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(40) <method-param>

Description

This tag specifies the data type of the argument.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(41) <transaction-timeout>

Description

This tag specifies the transaction timeout value (seconds).

When you specify 0, the operation is performed using the default timeout value set in the J2EE server.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

2.2.6 Details of the WAR property

This subsection describes the details of the War property of `cosminexus.xml` with reference to each tag.

Note that the tag details are described in the order mentioned in *2.1 Specifications of the Cosminexus application property file (cosminexus.xml)*.

(1) <war>

Description

This tag defines the WAR.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) <module-name>

Description

This is a key for identifying the WAR. However, in the case of WAR applications, the WAR property for `cosminexus.xml` becomes one, therefore you are not required to specify this tag. Even if you specify, this setting is ignored.

The set value is specified according to the following conditions:

For an application that includes application.xml

- Common to the archive format and exploded archive format

This tag specifies the character string specified in `<application>-<module>-<web>-<web-uri>` in the `application.xml`.

For an application that does not include application.xml

- Archive format (`cjimportapp` command `(-f/-d)`)
This tag specifies the location of the WAR file within the J2EE application using the relative path from the EAR root.
- Exploded archive format (`cjimportapp` command `(-a)`)
This tag specifies the value of the WAR directory acquired by replacing the `_war` at the end of the relative path from the application directory, with `.war`.

Notes when using the relative path

- Use a forward slash (`/`) as the path delimiter.
- You cannot specify a forward slash (`/`) at the beginning of the path string.
- You cannot specify `"/`, `"/.`, and `"/./` in the path string.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(3) <security-role>**Description**

This tag defines the security role.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(4) <role-name>**Description**

This tag specifies the security role name.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(5) <linked-to>

Description

This tag specifies the access control list (role name defined with the `cjaddsec` command).

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You can omit the value of this tag.

(6) <resource-ref>

Description

This tag defines the resource to be referenced from the Servlet.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(7) <res-ref-name>

Description

This tag specifies the name of the resource reference.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(8) <linked-to>

Description

This tag specifies the corresponding resource adapter display name and the mail display name.

- Connector 1.0 or earlier versions
Resource-adapter-display-name
- Outbound resource adapter conforming to Connector 1.5 or later versions
Resource-adapter-display-name!Connection-definition-identifier

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(9) <resource-env-ref>**Description**

This tag defines the resource environment variable to be referenced from the Servlet.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(10) <resource-env-ref-name>**Description**

This tag specifies the name of the resource environment variable reference.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(11) <linked-queue>**Description**

This tag specifies the queue name. This tag is enabled only when `javax.jms.Queue` is specified in the `<resource-env-ref-type>` tag of the DD element.

Note that any one of the `<linked-to>` tag, `<linked-queue>` tag, or the `<linked-adminobject>` tag is specified.

Specifiable value

None.

Dependency on other tags

This tag depends on the `<resource-env-ref-type>` tag of the DD.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(12) <resource-adapter>

Description

This tag specifies the display name of the resource adapter.

You cannot specify a resource adapter conforming to Connector 1.5 or later versions.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(13) <queue>

Description

This tag specifies the queue name.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(14) <linked-adminobject>

Description

This tag specifies the administered object.

Note that any one of the <linked-to> tag, <linked-queue> tag, or the <linked-adminobject> tag is specified.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(15) <resourceadapter-name>

Description

This tag specifies the display name of the resource adapter.

You cannot specify a resource adapter conforming to Connector 1.0 or earlier versions.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(16) <adminobject-name>**Description**

This tag specifies the administered object name.

Specifiable value

You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:

Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation mark ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (|), and tilde (~)

You cannot, however, specify the following names:

- Name containing a period (.) at the beginning or at the end
- Name containing a period (.) only
- Name containing continuous underscores (_)

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(17) <linked-to>**Description**

This tag specifies the display name of the JavaBeans resource.

This tag is enabled only when *JavaBeans-resource-class-name* is specified in the `<resource-env-ref-type>` tag of the DD element.

Note that any one of the `<linked-to>` tag, `<linked-queue>` tag, or the `<linked-adminobject>` tag is specified.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

This tag depends on the `<resource-env-ref-type>` tag of the DD.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(18) <thread-control>**Description**

This tag specifies the settings for controlling the Web application threads.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(19) `<thread-control-max-threads>`

Description

This tag specifies the maximum number of threads of the Web applications.
Specify a value equal to or more than the number of dedicated threads.

Specifiable value

Specify an integer value from 1 to 1024.

Dependency on other tags

This tag depends on the `<thread-control-exclusive-threads>` tag.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(20) `<thread-control-exclusive-threads>`

Description

This tag specifies the number of dedicated threads.
Specify a value equal to or not more than the maximum number of concurrently executed threads of the Web applications.

Specifiable value

Specify an integer value from 1 to 1024.

Dependency on other tags

This tag depends on the `<thread-control-max-threads>` tag and the `<urlgroup-thread-control-exclusive-threads>` tag.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(21) `<thread-control-queue-size>`

Description

This tag specifies the pending queue size of the Web applications.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(22) <thread-control-stats-monitor>**Description**

This tag specifies the settings for monitoring the operation statistics. When this tag is omitted or when `<enabled>`, `<high-threshold>`, or `<low-threshold>` tags are omitted, the default value and threshold value events are enabled.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(23) <whole-waiting-request-count>**Description**

This tag monitors the entire pending request count of the Web applications.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(24) <enabled>**Description**

Specifies whether to enable the threshold value event for monitoring the entire pending request count of the Web applications.

Specifiable value

- `true`
The threshold value event will be enabled.
- `false`
The threshold value event will be disabled.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(25) <high-threshold>

Description

This tag specifies the high threshold value (unit: %) for the output of the threshold value event.

Specifiable value

Specify an integer value from 1 to 100. However, the value must be equal to or greater than the value specified in the <low-threshold> tag.

Dependency on other tags

This tag depends on the <low-threshold> tag.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(26) <low-threshold>

Description

The tag specifies the low threshold value (unit: %) for the output of the threshold value event.

Specifiable value

Specify an integer value from 0 to 99. However, the value must be equal to or not more than the value specified in the <high-threshold> tag.

Dependency on other tags

This tag depends on the <high-threshold> tag.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(27) <waiting-request-count>

Description

This tag monitors the number of pending requests of the Web applications.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(28) <enabled>

Description

This tag specifies whether to enable the threshold value event for monitoring the number of pending requests of the Web applications.

Specifiable value

- true
The threshold value event will be enabled.
- false

The threshold value event will be disabled.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(29) `<high-threshold>`

Description

This tag specifies the high threshold value (unit: %) for the output of the threshold value event.

Specifiable value

Specify an integer value from 1 to 100. However, the value must be equal to or greater than the value specified in the `<low-threshold>` tag.

Dependency on other tags

This tag depends on the `<low-threshold>` tag.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(30) `<low-threshold>`

Description

Specifies the low threshold value (unit: %) for the output of the threshold value event.

Specifiable value

An integer value from 0 to 99. However, the value must be equal to or not more than the value specified in the `<high-threshold>` tag.

Dependency on other tags

This tag depends on the `<high-threshold>` tag.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(31) `<resource-watcher>`

Description

This tag specifies the properties related to the monitoring of the number of saved request pending queues of the Web applications.

When this tag is omitted or when `<watcher-threshold>`, `<watcher-interval>`, `<watcher-enabled>`, or `<watcher-writefile-enabled>` tags are omitted, the default value and monitoring events are enabled.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(32) <watcher-threshold>

Description

This tag specifies the threshold value to output an alert message.

Specifiable value

Specify an integer value from 1 to 100.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(33) <watcher-interval>

Description

This tag specifies the monitoring interval.

Specifiable value

Specify an integer value from 1 to 2147483647.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(34) <watcher-enabled>

Description

This tag specifies whether to enable the monitoring of the number of saved request pending queues of the Web applications.

Specifiable value

- `true`
Monitoring will be enabled.
- `false`
Monitoring will be disabled.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(35) <watcher-writefile-enabled>

Description

This tag specifies whether to output the resource usage status to a file.

Specifiable value

- `true`
The resource usage status will be output to a file.
- `false`
The resource usage status will not be output to a file.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(36) <urlgroup-thread-control>**Description**

This tag specifies the settings for controlling the number of concurrently executed threads of the URL groups.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(37) <urlgroup-thread-control-name>**Description**

This tag specifies the definition name for controlling the number of concurrently executed threads of the URL groups.

Specify a unique name in the Web application for the definition name for controlling the number of concurrently executed threads of the URL groups.

Specifiable value

You can use alphanumeric characters, hyphens (-), and underscores (_).

Specify the number of characters as $1 \leq \textit{Length-of-the-character-string} \leq 64$.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(38) <urlgroup-thread-control-max-threads>**Description**

This tag specifies an integer value for the maximum number of concurrently executed threads of the URL groups.

Specifiable value

Specify an integer value from 1 to `thread-control-max-threads`.

Dependency on other tags

This tag depends on the `<thread-control-max-threads>` tag and the `<urlgroup-thread-control-exclusive-threads>` tag.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(39) `<urlgroup-thread-control-exclusive-threads>`

Description

This tag specifies the number of dedicated threads of the URL groups.

Specifiable value

Specify an integer value from 0 to `urlgroup-thread-control-max-threads` and equal to or not more than `thread-control-exclusive-threads`.

Dependency on other tags

This tag depends on the `<thread-control-max-threads>` tag, `<thread-control-exclusive-threads>` tag, and the `<urlgroup-thread-control-max-threads>` tag.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(40) `<urlgroup-thread-control-queue-size>`

Description

This tag specifies the pending queue size of the URL groups.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(41) `<urlgroup-thread-control-mapping>`

Description

This tag sets up the mapping information of the URL to be controlled.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(42) <url-pattern>**Description**

This tag specifies the URL pattern to be controlled.
 You cannot specify the same URL pattern in one Web application.
 Some examples of specification are as follows:

```
/soda/grape/*
/foo/*
/contents
*.foo
```

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(43) <stats-monitor>**Description**

This tag specifies the settings for monitoring the operation statistics.
 When this tag is omitted or when `<enabled>`, `<high-threshold>`, or `<low-threshold>` tags are omitted, the default value and threshold value events are enabled.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(44) <waiting-request-count>**Description**

This tag monitors the pending requests of the URL groups.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(45) `<enabled>`

Description

This tag specifies whether to enable the threshold value event for monitoring the pending requests of the URL groups.

Specifiable value

- `true`
The threshold value event will be enabled.
- `false`
The threshold value event will be disabled.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(46) `<high-threshold>`

Description

This tag specifies the high threshold value (unit: %) for the output of the threshold value event.

Specifiable value

Specify an integer value from 1 to 100.
The value must be equal to or more than `low-threshold`.

Dependency on other tags

This tag depends on the `<low-threshold>` tag.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(47) `<low-threshold>`

Description

This tag specifies the low threshold value (unit: %) for the output of the threshold value event.

Specifiable value

Specify an integer value from 0 to 99.
The value must be equal to or not more than `high-threshold`.

Dependency on other tags

This tag depends on `<high-threshold>` tag.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(48) `<http-request>`

Description

This tag specifies various settings concerning an HTTP request.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(49) <encoding>**Description**

This tag specifies the default encoding used to decode a request body and query.

However, if the settings conform to the Servlet specifications (ServletAPI and `web.xml`), this tag is disabled.

Specify character encoding supported by JavaVM.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(50) <http-response>**Description**

This tag specifies various settings related to an HTTP response.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(51) <encoding>**Description**

This tag specifies the default encoding used to encode a response body.

However, if the settings conform to the Servlet specifications (ServletAPI and `web.xml`), this tag is disabled.

Specify character encoding supported by JavaVM.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(52) <jsp>

Description

This tag specifies various settings related to a JSP.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(53) <page-encoding>

Description

This tag specifies the default encoding used to read a JSP file.

However, if the settings conform to the Servlet specifications (ServletAPI and web.xml), this tag will be disabled.

Specify character encoding supported by JavaVM.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(54) <http-session>

Description

This tag sets up the information related to the monitoring of the number of HttpSessions of the Web applications.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(55) <http-session-max-number>

Description

This tag specifies the maximum number of usable HttpSessions.

When -1 is specified, the number of usable HttpSessions is infinite.

Specifiable value

-Specify an integer value from -1 to 2147483647.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(56) <resource-watcher>**Description**

This tag sets up the properties related to the monitoring of the number of HttpSessions.

When this tag is omitted or when <watcher-threshold>, <watcher-interval>, <watcher-enabled>, or <watcher-writefile-enabled> tags are omitted, the default value and monitoring events are enabled.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(57) <watcher-threshold>**Description**

This tag specifies the threshold value to output an alert message.

Specifiable value

Specify an integer value from 1 to 100.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(58) <watcher-interval>**Description**

This tag specifies the monitoring interval.

Specifiable value

Specify an integer value from 1 to 2147483647.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(59) <watcher-enabled>

Description

This tag specifies whether to enable the monitoring of the number of HttpSessions.

However, if 0 is specified in <http-session-max-number>, monitoring will be disabled irrespective of the value specified.

Specifiable value

- `true`
Monitoring will be enabled.
- `false`
Monitoring will be disabled.

Dependency on other tags

This tag depends on the <http-session-max-number> tag.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(60) <watcher-writefile-enabled>

Description

This tag specifies whether to output the resource usage status to a file.

Specifiable value

- `true`
The resource usage status will be output to a file.
- `false`
The resource usage status will not be output to a file.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(61) <dbsfo>

Description

This tag sets up the database session failover functionality.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(62) <enabled>

Description

This tag specifies whether to enable the database session failover functionality.

Specifiable value

- `true`
The database session failover functionality will be enabled.
- `false`
The database session failover functionality will be disabled.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(63) <application-id>

Description

This tag sets up the application identifier.

Specifiable value

You can specify up to 16 alphanumeric characters and underscores (_).

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(64) <attribute-data-size-max>

Description

This tag sets up the maximum size for the property information of an HTTP session that can be included in the global session information.

Specifiable value

Specify an integer value from 128 to 10485760.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(65) <exclude-extensions>

Description

This tag sets up an extension to control the database session failover functionality.

If the URL path is the same as the specified extension, the database session failover functionality will be disabled in the corresponding request. The comparison of the specified extension and URL is not case sensitive. If you do

not want to set up the extension that controls the database session failover functionality, specify a blank character string.

Specifiable value

Specify up to 512 characters using the following:

- Alphanumeric characters
- Parentheses (())
- Exclamation mark (!)
- Percent sign (%)
- Dollar sign (\$)
- Ampersand (&)
- Single quotation mark (')
- Plus sign (+)
- Hyphen (-)
- Equal sign (=)
- At mark (@)
- Underscore (_)
- Tilde (~)
- Period (.)
- Comma (,)

When specifying multiple extensions, you demarcate with a comma (,).

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(66) <eadssfo>

Description

Specifies the EADs session failover functionality.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(67) <enabled>

Description

Specifies whether to enable the EADs session failover functionality.

Specifiable value

- true
Enable.

- `false`
Disable.

Dependency on other tags

None.

Tag omission

You can omit the tag.

Value omission

You cannot omit the value of this tag.

(68) <application-id>**Description**

Sets up the application identifier.

Specifiable value

You can use alphanumeric characters and underscores (`_`).

You can specify up to 128 characters.

Dependency on other tags

None.

Tag omission

You can omit the tag.

Value omission

You cannot omit the value of this tag.

(69) <exclude-url-patterns>**Description**

Specifies a URL pattern (specifies for a complete match, prefix match, and identifier match) for controlling the EADs session failover functionality.

If the specified URL pattern and the request URL are in conformity, the EADs session failover functionality is disabled with the corresponding request.

Note that for requesting multiple URL patterns, use a semicolon (`;`) as a demarcator, and then specify.

The comparison of the complete match specification and prefix match specification is case sensitive. The comparison of an identifier match is not case sensitive.

For not controlling the EADs session failover functionality, specify a blank character string.

Specifiable value

For specifying a complete match and prefix match, specify the normalized URI that starts with a slash (`/`).

For specifying an identifier match, specify an identifier that starts with (`*`).

Dependency on other tags

None.

Tag omission

You can omit the tag.

Value omission

You can omit the value of this tag.

(70) <session-read-only-url-patterns>**Description**

Specifies a URL pattern for read-only requests for HTTP sessions of the EADs session failover functionality.

If the specified URL pattern and the request URL are in conformity, the corresponding request becomes the read-only request for HTTP sessions.

Note that for requesting multiple URL patterns, use a semicolon (`;`) as a demarcator, and then specify.

The comparison of the complete match specification and the prefix match specification is case sensitive. The comparison of identifier match is not case sensitive.

For not controlling the EADs session failover functionality, specify a blank character string.

Specifiable value

For specifying a complete match and prefix match, specify the normalized URI that starts with a slash (/).

For specifying identifier match, specify an identifier that starts from (*).

Dependency with other tags

None.

Tag omission

You can omit the tag.

Value omission

You can omit the value of this tag.

(71) <start-notify-error>

Description

This tag specifies whether to interrupt the start processing of a J2EE application after reporting an error, when error occurs during the initialization of a Servlet or a JSP in which the startup load is specified when the application is started, and during the analysis of `taglib`.

When a new J2EE application is created in Application Server 06-00 or later versions, the default display value is `true` and for other J2EE applications, the default value is `false`.

Specifiable value

- `true`
The error will be reported.
- `false`
The error will not be reported.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(72) <start-order>

Description

Specifies the order of starting and stopping the J2EE applications. When starting an application, the start processing is executed in the ascending order and when terminating the application, the stop processing is executed in the descending order.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(73) <session-config>

Description

Defines the session parameters of Web applications

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit the tag.

Value omission

You can omit the value of this tag.

(74) <cookie-config>

Description

Specifies HTTP Cookie that shows the session ID of the HTTP session created with Web applications.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit the tag.

Value omission

You can omit the value of this tag.

(75) <name>

Description

Specifies the name of HTTP Cookie that shows the session ID of the HTTP session created with Web applications.

Specifiable value

You can use the alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:

Exclamation mark (!), dollar sign (\$), percentage sign (%), ampersand (&), single quotation mark ('), asterisk (*), plus sign (+), hyphen (-), period (.), caret (^), underscore (_), grave accent mark (`), vertical bar (|), and tilde (~)

However, you cannot specify the dollar sign (\$) at the beginning of the name.

Dependency on other tags

None.

Tag omission

You can omit the tag.

Value omission

You cannot omit the value of this tag.

(76) <http-only>

Description

Specifies whether the HttpOnly attribute is to be added or not in an HTTP Cookie that shows the session ID of the HTTP session created with Web applications.

Specifiable value

- true

The `HttpOnly` attribute is added to HTTP Cookie.

- `false`

The `HttpOnly` attribute is not added to HTTP Cookie.

Dependency on other tags

None.

Tag omission

You can omit the tag.

Value omission

You cannot omit the value of this tag.

(77) `<tracking-mode>`

Description

Specifies the tracking mode.

Specifiable value

- `COOKIE`
- `URL`

Dependency on other tags

None.

Tag omission

You can omit the tag. If omitting this tag, the same operations are executed as in the case when a `COOKIE` and `URL` are specified.

Value omission

You cannot omit the value of this tag.

2.2.7 Details of the Filter property

This subsection describes the details of the Filter property of `cosminexus.xml` with reference to each tag.

Note that the tag details are described in the order mentioned in *2.1 Specifications of the Cosminexus application property file (cosminexus.xml)*.

(1) `<filter>`

Description

This tag defines the Filter.

You cannot specify this tag when `web.xml` is not included.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) `<filter-name>`

Description

This is a key for identifying the Filter.

This tag specifies the value set for `<web-app>-<filter>-<filter-name>` in the `web.xml` file.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(3) `<method-observation-timeout>`

Description

This tag specifies the timeout value (seconds) for monitoring the `doFilter` method of the filter invoked by extending a request.

When you specify 0, a timeout does not occur.

Specifiable value

Specify an integer value from 0 to 86400.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

2.2.8 Details of the Servlet property

This subsection describes the details of the Servlet property of `cosminexus.xml` with reference to each tag.

Note that the tag details are described in the order mentioned in *2.1 Specifications of the Cosminexus application property file (cosminexus.xml)*.

(1) `<servlet>`

Description

This tag defines the Servlet.

You cannot specify this tag when `web.xml` is not included.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) `<servlet-name>`

Description

This is a key for identifying the Servlet.

This tag specifies the set value of `<web-app>-<servlet>-<servlet-name>` in the `web.xml` file.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(3) `<run-as>`

Description

This tag defines the runtime identity.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(4) `<user-name>`

Description

This tag specifies the user name.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(5) `<method-observation-timeout>`

Description

This tag specifies the timeout value (seconds) for monitoring the `service` method of a servlet or the `_jspService` method of the JSP invoked by extending a request.

When you specify 0, a timeout does not occur.

Specifiable value

Specify an integer value from 0 to 86400.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

2.2.9 Details of the Connector property

This subsection describes the details of the Connector property of `cosminexus.xml` with reference to each tag. The values specified in the `<property-value>` tag and the `<property-name>` tag are described for each specifiable range.

Note that the tag details are described in the order mentioned in *2.1 Specifications of the Cosminexus application property file (cosminexus.xml)*.

(1) `<rar>`

Description

This tag defines the information concerning `rar`.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) `<module-name>`

Description

This is a key for identifying the resource adapter.

The set value is specified according to the following conditions:

For an application that includes `application.xml`

- Common to the archive format and exploded archive format

This tag specifies the character string specified in `<application>-<module>-<connector>` in `application.xml`.

For an application that does not include `application.xml`

- Archive format (`cjimportapp` command (`-f/-d`))

This tag specifies the location of the RAR file within the J2EE application using the relative path from the EAR root.

- Exploded archive format (`cjimportapp` command (`-a`))

This tag specifies the location of the RAR file within an application directory using the relative path from the application directory.

Precautions when using a relative path

- Use a forward slash (`/`) as the path delimiter.
- You cannot specify a forward slash (`/`) at the beginning of the path string.
- You cannot specify `"/`, `"/`, and `"/` in the path string.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(3) <resourceadapter>

Description

This tag defines the information about the resource adapter.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(4) <outbound-resourceadapter>

Description

This tag defines the resource adapter in the outbound direction.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(5) <connection-definition>

Description

This tag defines the connection interface class.

Supplement

About the lower tag <connector-property>

The <property-value> tag is mentioned in each property because the range of the set value is different for each <property-name> tag.

When multiple <property> tags are specified, and the set values of the <property-name> tags are the same, the tags are merged into one. In such cases, a warning message (KDJE42377-W) is output, and the value of the <property-value> tag of the <property> tag defined first is enabled.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(6) <connectionfactory-interface>**Description**

This tag specifies the class name of the `ConnectionFactory` interface supported by the resource.

For a resource adapter conforming to Connector 1.5 or later versions, the value of this tag is the connection definition identifier.

Specify this tag from the package when the package is defined.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(7) <connector-property>**Description**

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(8) <property-name>**Description**

This tag specifies the `MaxPoolSize` property.

Specifiable value

You can specify the following character strings:

- `MaxPoolSize`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(9) <property-value>**Description**

This tag specifies the maximum value of the pool as the property value.

Specifiable value

Specify an integer value of -1 (infinite) or from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(10) <connector-property>

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(11) <property-name>

Description

This tag specifies the `MinPoolSize` property.

Specifiable value

You can specify the following character strings:

- `MinPoolSize`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(12) <property-value>

Description

This tag specifies the minimum value of the pool as the property value.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(13) <connector-property>

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(14) <property-name>

Description

This tag specifies the `LogEnabled` property.

Specifiable value

You can specify the following character strings:

- `LogEnabled`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(15) <property-value>

Description

This tag specifies the requirement of the log output by `LogWriter`, as the property value.

Specifiable value

- `true`
The log will be output.
- `false`
The log will not be output.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(16) <connector-property>

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(17) <property-name>

Description

This tag specifies the `User` property.

Specifiable value

You can specify the following character strings:

- `User`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(18) <property-value>

Description

This tag specifies the user name as the property value.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You can omit the value of this tag.

(19) <connector-property>

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(20) <property-name>

Description

This tag specifies the `Password` property.

Specifiable value

You can specify the following character strings:

- `Password`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(21) <property-value>

Description

This tag specifies the password as the property value.

Specifiable value

There are no limitations for the input value.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You can omit the value of this tag.

(22) <connector-property>

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(23) <property-name>

Description

This tag specifies the `ValidationType` property.

Specifiable value

You can specify the following character strings:

- `ValidationType`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(24) <property-value>

Description

Specifies the property value of the connection check trigger.

Specifiable value

- 0: Connection check functionality OFF
- 1: Connection is checked when the connection is acquired
- 2: Connection is checked at a fixed interval

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(25) <connector-property>

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(26) <property-name>

Description

This tag specifies the `ValidationInterval` property.

Specifiable value

You can specify the following character strings:

- `ValidationInterval`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(27) <property-value>

Description

This tag specifies the connection check interval (seconds) as the property value.

Specifiable value

Specify an integer value from 1 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(28) <connector-property>

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(29) <property-name>

Description

This tag specifies the `RetryCount` property.

Specifiable value

You can specify the following character strings:

- `RetryCount`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(30) <property-value>

Description

This tag specifies the connection retry count as the property value.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(31) <connector-property>

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(32) <property-name>

Description

This tag specifies the `RetryInterval` property.

Specifiable value

You can specify the following character strings:

- `RetryInterval`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(33) <property-value>

Description

This tag specifies the connection retry interval (seconds) as the property value.

Specifiable value

Specify an integer value from 1 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(34) <connector-property>

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(35) <property-name>**Description**

This tag specifies the `ConnectionTimeout` property.

Specifiable value

You can specify the following character strings:

- `ConnectionTimeout`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(36) <property-value>**Description**

This tag specifies the timeout value (seconds) until the release of a connection, as the property value.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(37) <connector-property>**Description**

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(38) <property-name>

Description

This tag specifies the `ConnectionPoolAdjustmentInterval` property.

Specifiable value

You can specify the following character strings:

- `ConnectionPoolAdjustmentInterval`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(39) <property-value>

Description

This tag specifies the soft landing operation adjustment interval (seconds) of the connection count as the property value.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(40) <connector-property>

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(41) <property-name>

Description

This tag specifies the `SweeperInterval` property.

Specifiable value

You can specify the following character strings:

- `SweeperInterval`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(42) <property-value>**Description**

This tag specifies the connection sweeper operation time interval (seconds) as the property value.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(43) <connector-property>**Description**

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(44) <property-name>**Description**

This tag specifies the `RequestQueueEnable` property.

Specifiable value

You can specify the following character strings:

- `RequestQueueEnable`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(45) <property-value>

Description

This tag specifies the requirement of a connection pending queue for connection depletion, as the property value.

Specifiable value

- `true`
The connection pending queue functionality during connection depletion will be enabled.
- `false`
The connection pending queue functionality during connection depletion will be disabled.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(46) <connector-property>

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(47) <property-name>

Description

This tag specifies the `RequestQueueTimeout` property.

Specifiable value

You can specify the following character strings:

- `RequestQueueTimeout`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(48) <property-value>

Description

This tag specifies the maximum value (seconds) for which the connection pending queue for connection depletion can be retained, as the property value.

Specifiable value

Specify an integer value from 0 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(49) <connector-property>**Description**

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(50) <property-name>**Description**

This tag specifies the `WatchEnabled` property.

Specifiable value

You can specify the following character strings:

- `WatchEnabled`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(51) <property-value>**Description**

This tag specifies whether to enable the output of an alert for connection pool monitoring, as the property value.

Specifiable value

- `true`
Alert output will be enabled.
- `false`
Alert output will be disabled.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(52) <connector-property>

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(53) <property-name>

Description

This tag specifies the `WatchInterval` property.

Specifiable value

You can specify the following character strings:

- `WatchInterval`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(54) <property-value>

Description

This tag specifies the connection pool monitoring interval (seconds) as the property value.

Specifiable value

Specify an integer value from 1 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(55) <connector-property>

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(56) <property-name>**Description**

This tag specifies the `WatchThreshold` property.

Specifiable value

You can specify the following character strings:

- `WatchThreshold`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(57) <property-value>**Description**

This tag specifies the threshold value (%) for monitoring the connection pool usage status, as the property value.

Specifiable value

Specify an integer value from 1 to 100.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(58) <connector-property>**Description**

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(59) <property-name>

Description

This tag specifies the `WatchWriteFileEnabled` property.

Specifiable value

You can specify the following character strings:

- `WatchWriteFileEnabled`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(60) <property-value>

Description

This tag specifies whether to output the connection pool monitoring results to a file, as the property value.

Specifiable value

- `true`
The monitoring results will be output to a file.
- `false`
The monitoring results will not be output to a file.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(61) <connector-property>

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(62) <property-name>

Description

This tag specifies the `Warmup` property.

Specifiable value

You can specify the following character strings:

- Warmup

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(63) <property-value>**Description**

This tag specifies whether to enable the warming up functionality of the connection pool, as the property value.

Specifiable value

- `true`
The warming up functionality of the connection pool will be enabled.
- `false`
The warming up functionality of the connection pool will be disabled.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(64) <connector-property>**Description**

This tag sets up the information unique to the connection interface class.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(65) <property-name>**Description**

This tag specifies the `NetworkFailureTimeout` property.

Specifiable value

You can specify the following character strings:

- `NetworkFailureTimeout`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(66) <property-value>

Description

This tag specifies whether to enable the timeout of the network failure detection functionality, as the property value.

Specifiable value

- `true`

The timeout of the network failure detection functionality will be enabled.

- `false`

The timeout of the network failure detection functionality will be disabled.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(67) <resource-external-property>

Description

This tag defines the resource.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(68) <optional-name>

Description

This tag specifies the optional name of the resource.

Specifiable value

You can specify alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:

Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), Forward slash (/), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (|), and tilde (~).

You can specify 1 to 255 characters.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(69) <res-auth>**Description**

This tag specifies whether to perform authentication for using a resource in the application or to entrust authentication to the container.

Specifiable value

You can specify the following character strings:

- Application
- Container

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(70) <res-sharing-scope>**Description**

This tag specifies whether to enable the sharing of a resource connection.

Specifiable value

You can specify the following character strings:

- Shareable
- Unshareable

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(71) <adminobject>**Description**

This tag defines the administered objects provided by the resource adapter.

You must set up as many tags as the number of `<adminobject>` tags in the DD and in the same order (if the same number of tags is not set up, you specify the empty tag `<adminobject/>`).

If it is not required to set up `<adminobject-name>` in all the `<adminobject>` tags, you can omit this tag.

Specifiable value

None.

Dependency on other tags

This tag depends on the `<adminobject>` tag of DD.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(72) <adminobject-name>

Description

This tag specifies the administered object name. This name must be unique within a resource adapter.

Specifiable value

You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:

Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (|), and tilde (~)

You cannot, however, specify the following names:

- Name containing a period (.) at the beginning or at the end
- Name containing a period (.) only
- Name containing continuous underscores (_)

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You can omit the value of this tag.

(73) <resourceadapter-property>

Description

This tag defines a resource adapter corresponding to the Connector 1.5 specifications.

Note that tags lower than this tag can be specified only for a resource adapter conforming to Connector 1.5 or later versions.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(74) <property-name>

Description

This tag specifies the `MaxTPoolSize` property.

Specifiable value

You can specify the following character strings:

- `MaxTPoolSize`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(75) <property-value>

Description

This tag specifies the maximum number of threads executed concurrently in a thread pool, as the property value.

Specifiable value

Specify an integer value from 1 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(76) <resourceadapter-property>

Description

This tag defines a resource adapter corresponding to the Connector 1.5 specifications.

Note that tags lower than this tag can be specified only for a resource adapter conforming to Connector 1.5 or later versions.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(77) <property-name>

Description

This tag specifies the `MinThreadPoolSize` property.

Specifiable value

You can specify the following character strings:

- `MinThreadPoolSize`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(78) <property-value>

Description

This tag specifies the minimum number of threads that exist in the thread pool, as the property value.

Specifiable value

Specify an integer value from 0 to 1024.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(79) <resourceadapter-property>

Description

This tag defines a resource adapter corresponding to the Connector 1.5 specifications.

Note that tags lower than this tag can be specified only for a resource adapter conforming to Connector 1.5 or later versions.

Specifiable value

None.

Dependency on other tags

None.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(80) <property-name>

Description

This tag specifies the `TpoolKeepalive` property.

Specifiable value

You can specify the following character strings:

- `TPoolKeepalive`

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(81) <property-value>

Description

This tag specifies the timeout value (seconds) until the release of threads of the thread pool, as the property value.

Specifiable value

Specify an integer value from 1 to 2147483647.

Dependency on other tags

None.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

3

Property Files Used for Setting J2EE Applications

This chapter describes the *property files* that are used for setting J2EE applications.

3.1 HITACHI Application Integrated Property file

The HITACHI Application Integrated Property file is used to collectively acquire and edit the properties of applications, EJB-JARs, Session Beans, Entity Beans, Message-driven Beans, WAR files, filters, servlets, JSPs, and resource adapters.

3.1.1 Specifications of the HITACHI Application Integrated Property file

The HITACHI Application Integrated Property file has the following DOCTYPE declaration:

```
<!DOCTYPE hitachi-application-all-property PUBLIC "-//Hitachi, Ltd.//DTD Application All
Property 9.0//EN" 'file:///Cosminexus-installation-directory/
CC/admin/dtds/hitachi-application-all-property_9_0.dtd'>
```

The HITACHI Application Integrated Property file is an xml file containing the following tags. Note that you can also use earlier versions of the property file.

Tag name	Occurrence pattern	Explanation
<hitachi-application-all-property>	Once	Specifies the root tag.
<hitachi-application-property>	Zero or once ^{#1}	Specifies the application properties. For details, see 3.2 <i>HITACHI Application Property file</i> . ^{#2}
<ejb-jar>	Zero or more times ^{#1}	Contains information related to the EJB-JAR file. The tag will be output only for the number of EJB-JAR files included in the root application.
<hitachi-ejb-jar-property>	Once	Specifies the EJB-JAR properties. For details, see 3.3 <i>HITACHI EJB-JAR Property file</i> . ^{#2#3}
<hitachi-session-bean-property>	Zero or more times ^{#1}	Specifies the Session Bean properties. The tag will be output only for the number of Session Beans included in an EJB-JAR. For details, see 3.4 <i>HITACHI Session Bean Property file</i> . ^{#2#3}
<hitachi-entity-bean-property>	Zero or more times ^{#1}	Specifies the Entity Bean properties. The tag will be output only for the number of Entity Beans included in an EJB-JAR. For details, see 3.5 <i>HITACHI Entity Bean Property file</i> . ^{#2#3}
<hitachi-message-bean-property>	Zero or more times ^{#1}	Specifies the MessageDrivenBean properties. The tag will be output only for the number of MessageDrivenBeans included in an EJB-JAR. For details, see 3.6 <i>HITACHI MessageDrivenBean Property file</i> . ^{#2#3}
<war>	Zero or more times ^{#1}	Specifies WAR file related information. The tag will be output only for the number of WAR files included in the root application.
<hitachi-war-property>	Once	Specifies the WAR file properties. For details, see 3.7 <i>HITACHI WAR Property file</i> . ^{#2#3}
<hitachi-filter-property>	Zero or more times ^{#1}	Specifies the filter properties. The tag will be output only for the number of filters included in the WAR file.

Tag name	Occurrence pattern	Explanation
<hitachi-filter-property>	Zero or more times ^{#1}	For details, see 3.8 <i>HITACHI Filter Property file</i> . ^{#2#3}
<hitachi-servlet-property>	Zero or more times ^{#1}	Specifies the servlet and JSP properties. The tag will be output only for the number of servlets and JSPs included in the WAR file. For details, see 3.9 <i>HITACHI Servlet Property file</i> . ^{#2#3}
<rar>	Zero or more times ^{#1}	Specifies RAR file related information. The tag will be output only for the number of RAR files included in the root application.
<hitachi-connector-property>	Once	Specifies the Connector properties. The tag will be output only for the number of Connectors included in the RAR file. For details, see 4.1 <i>HITACHI Connector Property file</i> . ^{#2#3}

#1

You can omit the tag. In such a case, the properties of the unspecified items are not changed.

#2

The contents of the property files, some of the tag names, or the display order of the tags differ in certain cases. The following table lists the differences in the tag names.

Table 3-1: Tag names output in the integrated property file

Property file name	Tag name	Tag name of integrated property file
HITACHI Session Bean Property file	<runtime>	<session-runtime>
HITACHI Entity Bean Property file	<runtime>	<entity-runtime>
HITACHI MessageDrivenBean Property file	<runtime>	<message-runtime>
	<security-identity>	<message-security-identity>
HITACHI WAR Property file	<runtime>	<war-runtime>

#3

You cannot change display-name.

3.2 HITACHI Application Property file

The HITACHI Application Property file is used to acquire and edit the properties of an application.

3.2.1 Specifications of the HITACHI Application Property file

The HITACHI Application Property file has the following DOCTYPE declaration:

```
<!DOCTYPE hitachi-application-property PUBLIC "-//Hitachi, Ltd.//DTD Application Property
8.0//EN" 'file:///Cosminexus-installation-directory/CC/admin/dtds/hitachi-application-
property_8_0.dtd'>
```

The HITACHI Application Property file is an xml file containing the following tags.

Note that you can also use the earlier versions of the property file.

Tag name	Occurrence pattern	Explanation
<hitachi-application-property>	Once	Specifies the root tag.
<description>	Zero or once	Describes the application.
<icon>	Zero or once	Defines the icons of the J2EE application displayed on the Deploy tool.
<small-icon>	Zero or once	Specifies the file name for small icons (16 × 16).
<large-icon>	Zero or once	Specifies the file name for large icons (32 × 32).
<lookup-name>	Once	Specifies the name to be used when performing an EJB lookup from the client using 255 characters or less. The name corresponds to <i>Application-lookup-name</i> in HITACHI_EJB/SERVERS/server-name/EJB/Application-lookup-name/ EJB-lookup-name. This tag is only for reference. The lookup name is created automatically based on the application name.#
<library-directory>	Zero or once	Displays the directory name in which the library JAR is saved. If a tag is not specified in the DD (application.xml) or if the DD (application.xml) is not included in the J2EE application, "lib" is displayed. For an empty tag, items immediately under the J2EE application root are assumed to be specified.#
<security-prop>	Once	Specifies the security management methods of the Enterprise Bean.
<security-method>	Once	Specifies the security management methods. Specify any one of the following: disable_methods_without_roles You cannot execute a method without a security role. map_methods_without_roles The default security role specified in default-security-role is assigned to the method without a security role. no_security_for_methods_without_roles <ul style="list-style-type: none"> Any user can execute a method to which a security role is not assigned. The execution of a method to which a security role is assigned is restricted, depending on the security role. no_security_for_all_methods Any user can execute a method to which a security role is assigned or a method to which a security role is not assigned.

Tag name	Occurrence pattern	Explanation
<default-security-role>	Zero or once	Specifies the default security role when <code>map_methods_without_roles</code> is specified in <code>security-method</code> . You can omit this tag when a <code>security-method</code> other than <code>map_methods_without_roles</code> is specified (This tag is ignored by <code>cjsetappprop</code> command even if set).
<start-order>	Zero or once	Specifies the order of starting and stopping the J2EE applications. The start process is executed in the ascending order when the applications are started and the stop process is executed in the descending order when the applications are terminated. $0 \leq \text{start-order} \leq 2147483647$
<scheduling-unit>	Zero or once	Specifies the deploy model for a queue. Specify any one of the following: Application Deploys the queue for each application. The default value is <u>Application</u> . Bean Deploys the queue for each Bean.
<scheduling>	Zero or once	Defines CTM integration. Note that this tag is enabled only in the products that include Cosminexus Component Transaction Monitor in the component software. An error occurs if you specify this tag in other cases. For the available products, see <i>2.2.1 Relationship of products and component software</i> in the manual <i>uCosminexus Application Server & BPM/ESB Platform Overview</i> .
<queue-name>	Once	Specifies the name of the queue to be scheduled using a maximum of 63 alphanumeric characters (0 to 9, A to Z, and a to z) and underscores (_). The default value for the queue name is the application name.
<parallel-count>	Once	Specifies the number of threads provided by CTM to invoke an application as a value from 1 to 127. The default value is <u>1</u> . An error will occur if the Bean is invoked through CTM and if the Maximum value is less than the <code>parallel-count</code> value.
<queue-length>	Zero or once	Specifies an integer value from 1 to 32767 for the length of the queue to be scheduled. When sharing a queue, if the settings differ between the applications that share the queue and the Beans that share the queue, the length of the generated queue becomes valid.
<managed-by-ctm>	Once	Specifies whether to perform CTM integration. Specify any one of the following: <code>true</code> Integrates with CTM. <code>false</code> Does not integrate with CTM. The default value is <u>false</u> .
<ref-libraries>	Zero or once	Specifies the libraries to be referenced.
<classpath>	One or more times	Specifies the class path. When <code>ref-libraries</code> is specified and the tag does not exist, an error will occur.

Tag name	Occurrence pattern	Explanation
<classpath>	One or more times	When you specify multiple tags, the tags will be set up in the runtime property in the specified order. For details on the class path specified in a class loader, see <i>Appendix B.3 Class path specified in the class loader</i> in the manual <i>uCosminexus Application Server Common Container Functionality Guide</i> .
<method-observation-recovery-mode>	Zero or once	Specifies the failure recovery mode of the J2EE application time monitoring functionality. You can only specify <code>thread</code> here. <code>thread</code> Stops the thread.

#

You must not change the tag name, add or delete the tag, or change the values of the tags output with the `cjgetappprop` command.

3.2.2 Mapping with DD

The following table describes the correspondence between the HITACHI Application Property File and the Deployment Descriptor:

HITACHI Application Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-application-property>	Once	<application>	Once
<description>	Zero or once	<description>	Zero or once
<icon>	Zero or more times	<icon>	Zero or more times
<small-icon>	Zero or once [#]	<small-icon>	Zero or once
<large-icon>	Zero or once [#]	<large-icon>	Zero or once
--	--	<display-name>	Once
<lookup-name>	Once	--	--
<library-directory>	Zero or once	<library-directory>	Zero or once

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

#

Specify either <small-icon> or <large-icon>.

3.2.3 Mapping with cosminexus.xml

The following table describes the correspondence between the HITACHI Application Property file and `cosminexus.xml`:

HITACHI Application Property file		cosminexus.xml	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-application-property>	Once	<cosminexus-app>	Once

HITACHI Application Property file		cosminexus.xml	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<security-prop>	Once	<security-prop>	Zero or once [#]
<security-method>	Once	<security-method>	Zero or more times
<default-security-role>	Zero or once	<default-security-role>	Zero or once
<start-order>	Zero or once	<start-order>	Zero or once
<scheduling-unit>	Zero or once	<scheduling-unit>	Zero or once
<scheduling>	Zero or once	<scheduling>	Zero or once
<queue-name>	Once	<queue-name>	Zero or once [#]
<parallel-count>	Once	<parallel-count>	Zero or once [#]
<queue-length>	Zero or once	<queue-length>	Zero or once
<managed-by-ctm>	Once	<managed-by-ctm>	Zero or once [#]
<ref-libraries>	Zero or once	<ref-libraries>	Zero or once
<classpath>	One or more times	<classpath>	One or more times
<method-observation-recovery-mode>	Zero or once	<method-observation-recovery-mode>	Zero or once

#

The occurrence pattern is different from the property file because only the elements to be customized are coded in cosminexus.xml.

3.3 HITACHI EJB-JAR Property file

The HITACHI EJB-JAR Property file is used to acquire and edit the EJB-JAR properties.

3.3.1 Specifications of the HITACHI EJB-JAR Property file

The HITACHI EJB-JAR Property file has the following DOCTYPE declaration:

```
<!DOCTYPE hitachi-ejb-jar-property PUBLIC "-//Hitachi, Ltd.//DTD Ejb Jar Property 9.0
//EN" 'file:///Cosminexus-installation-directory/CC/admin/dtds/
hitachi-ejb-jar-property_9_0.dtd'>
```

The HITACHI EJB-JAR Property file is an xml file containing the following tags.

You cannot change the tags of HITACHI EJB-JAR property file when the EJB-JAR to be set does not contain the DD (ejb-jar.xml). Note that you can also use earlier versions of the property file.

(1) When ejb-jar.xml is included

Tag name	Occurrence pattern	Explanation
<hitachi-ejb-jar-property>	Once	Specifies the root tag.
<description>#1	Zero or more times#2	Describes the EJB-JAR file.#3
<display-name>#1	One or more times#2	Displays the EJB-JAR name.#3 $1 \leq \text{character-string-length}$ To change the display name, you can use the alphanumeric characters (0 to 9, A to Z, a to z), and the following special characters: Plus sign (+), hyphen (-), period (.), caret (^), and underscore (_)
<icon>#1	Zero or more times#2	Defines the EJB-JAR icon displayed on the GUI tool.#3
<small-icon>	Zero or once	Specifies the file name for small icons (16 × 16). #3
<large-icon>	Zero or once	Specifies the file name for large icons (32 × 32). #3
<interceptors>	Zero or once	Specifies the interceptor settings.#4
<description>#1	Zero or more times#2	Describes Interceptors.#4
<interceptor>	One or more times	Specifies the Interceptor class settings.#4
<description>#1	Zero or more times#2	Describes interceptor-class.#4
<interceptor-class>	Once	Specifies the interceptor class name.#4
<around-invoke>	Zero or more times	Defines the aroundinvoke method of interceptors.#4
<class>	Zero or once	From the package name, displays the class in which the aroundinvoke method of interceptors exists. #4
<method-name>	Once	Specifies the name of the aroundinvoke method of interceptors.#4

Tag name		Occurrence pattern	Explanation
	<post-construct>	Zero or more times	Defines the <code>post-construct</code> method of interceptors. ^{#4}
	<lifecycle-callback-class>	Zero or once	From the package name, displays the class in which the <code>post-construct</code> method of interceptors exists. ^{#4}
	<lifecycle-callback-method>	Once	Displays the name of the <code>post-construct</code> method of interceptors. ^{#4}
	<pre-destroy>	Zero or more times	Defines the <code>pre-destroy</code> method of interceptors. ^{#4}
	<lifecycle-callback-class>	Zero or once	Specifies from the package name the class in which the <code>pre-destroy</code> method of interceptors exists. ^{#4}
	<lifecycle-callback-method>	Once	Displays the name of the <code>pre-destroy</code> method of interceptors. ^{#4}
	<post-activate>	Zero or more times	Defines the <code>post-activate</code> method of interceptors. ^{#4}
	<lifecycle-callback-class>	Zero or once	From the package name, displays the class in which the <code>post-activate</code> method of interceptors exists. ^{#4}
	<lifecycle-callback-method>	Once	Displays the name of the <code>post-activate</code> method of interceptors. ^{#4}
	<pre-passivate>	Zero or more times	Defines the <code>pre-passivate</code> method of interceptors. ^{#4}
	<lifecycle-callback-class>	Zero or once	From the package name, displays the class in which the <code>pre-passivate</code> method of interceptors exists. ^{#4}
	<lifecycle-callback-method>	Once	Displays the name of the <code>pre-passivate</code> method of interceptors. ^{#4}
	<relationships>	Zero or once	Defines a relationship. ^{#3} You can set up this tag in EJB 2.1 or earlier versions. You cannot set up this tag in EJB 3.0 or later versions. ^{#3}
	<description> ^{#1}	Zero or more times ^{#2}	Describes the relationships. ^{#3}
	<ejb-relation>	One or more times	Defines the relationship between two CMP EntityBeans. ^{#3}
	<description> ^{#1}	Zero or more times ^{#2}	Describes <code>ejb-relation</code> . ^{#3}
	<ejb-relation-name>	Zero or once	Specifies the relationship name. ^{#3}
	<ejb1>	Once	Specifies the information of <code>ejb1</code> in relation to <code>ejb2</code> . ^{#3}
	<description> ^{#1}	Zero or more times ^{#2}	Describes <code>ejb1</code> . ^{#3}
	<ejb-relationship-role-name>	Zero or once	Specifies the relationship role name. ^{#3} When you define the relationship between two CMP EntityBeans, specify a unique name for each CMP EntityBean. You can also specify the same name for defining different relationships.
	<multiplicity>	Once	Specifies multiplicity of <code>ejb1</code> instances. ^{#3}

3. Property Files Used for Setting J2EE Applications

Tag name	Occurrence pattern	Explanation
<multiplicity>	Once	You can specify the following character strings: <ul style="list-style-type: none"> • One • Many
<cascade-delete>	Zero or once	Specifies whether ejb1 is to be deleted automatically when deleting ejb2. ^{#3} This tag is valid when multiplicity of ejb2 is one.
<ejb-name>	Once	Specifies the ejb1 name. ^{#3} The character string that you can specify is the EJB name (value of the <ejb-name>tag) of the CMP2.0 Entity Bean in an EJB-JAR.
<cmr-field-name>	Once	Specifies the CMR field that acquires the ejb2 instances. ^{#3} The value that you can specify is either No EJB Name or the CMR field of the EJB specified in <ejb name>.
<cmr-field-type>	Zero or once	Specifies the return value type of the CMR field method. ^{#3} The value displayed is the return value of the access method specified in <cmr-field-name>. The value is displayed as is in the case of java.util.Collection or java.util.Set. In all other cases, value is displayed as null.
<ejb2>	Once	Specifies the information of ejb2 in relation to ejb1. ^{#3}
<description> ^{#1}	Zero or more times ^{#2}	Describes ejb2. ^{#3}
<ejb-relationship-role-name>	Zero or once	Specifies the relationship role name. ^{#3} When defining the relationship between two CMP EntityBeans, you specify a unique name for each CMP EntityBean. You can also specify the same name for defining different relationships.
<multiplicity>	Once	Specifies the multiplicity of the ejb2 instances. ^{#3} You can specify the following character strings: <ul style="list-style-type: none"> • One • Many
<cascade-delete>	Zero or once	Specifies whether ejb2 is to be deleted automatically when deleting ejb1. ^{#3} This tag is valid when multiplicity of ejb1 is one.
<ejb-name>	Once	Specifies the ejb2 name. ^{#3} The character string that you can specify is the EJB name (value of the <ejb-name> tag) of the CMP2.0 Entity Bean in EJB-JAR.
<cmr-field-name>	Once	Specifies the CMR field that acquires the ejb2 instances. ^{#3}

Tag name	Occurrence pattern	Explanation
<cmr-field-name>	Once	The value that you can specify is either No EJB Name or the CMR field of the EJB specified in <ejb name>.
<cmr-field-type>	Zero or once	Specifies the return value type of the CMR field method. ^{#3} The value displayed is the return value of the access method specified in <cmr-field-name>. The value is displayed as is in java.util.Collection or java.util.Set. In all other cases, the value is displayed as null.
<security-role>	Zero or more times	Defines the security role. You can set up this tag in EJB 2.1 or earlier versions. You cannot set up this tag in EJB 3.0 or later versions. ^{#3}
<description> ^{#1}	Zero or more times ^{#2}	Describes the security-role. ^{#3}
<role-name>	Once	Specifies the role name. ^{#3}
<linked-to>	Zero or once	Specifies the role name defined with the cjaddsec command. This tag is ignored by the cjsetresprop command. You can change the tag even if the EJB-JAR to be set does not contain the DD (ejb-jar.xml).
<interceptor-binding> ^{#5}	Zero or more times	Specifies the settings related to the class level interceptor and method level interceptor. ^{#5} This tag is ignored in the cjsetresprop command. In the following cases, a warning message (KDJE37604-W) is output, and the value of <interceptor-class> of <interceptor-binding> set first is enabled: <ul style="list-style-type: none"> When you specify multiple <interceptor-binding> tags where a wild card is set in <ejb-name> When you specify multiple <interceptor-binding> tags where <ejb-name>, <named-method>, and all the elements under these tags are matching. Also, when the setting location is EJB 2.1 or earlier versions, a warning message (KDJE37613-W) is output and this setting is ignored.
<description> ^{#1}	Zero or more times ^{#2}	Describes interceptor-binding. ^{#5}
<ejb-name>	Once	Specifies <ejb-name> of the wild card (*) or Enterprise Bean. ^{#5} Specifies a wild card for defining the default interceptor.
<interceptor-class>	Zero or more times	Specifies the interceptor class name. Specify either <interceptor-class> or <interceptor-order>.
<interceptor-order>	Once	Specifies the interceptor order or level settings.

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Tag name	Occurrence pattern	Explanation
<interceptor-order>	Once	Specify either <interceptor-class> or <interceptor-order>.
<interceptor-class>	One or more times	Specifies the interceptor class name.
<exclude-default-interceptors>	Zero or once	Specifies whether to exclude the default interceptor. The following character strings are displayed: <ul style="list-style-type: none"> • <code>true</code> (when the default interceptor is excluded) • <code>false</code> (when the default interceptor is not excluded)
<exclude-class-interceptors>	Zero or once	Specifies whether to exclude the class interceptor. ^{#4} The following character strings are displayed: <ul style="list-style-type: none"> • <code>true</code> (when the class interceptor is excluded) • <code>false</code> (when the class interceptor is not excluded)
<named-method>	Zero or once	Defines the method.
<method-name>	Once	Specifies the EJB business method name. The specified asterisk (*) is not handled as a wild card If the specified method does not exist in the Enterprise Bean specified in the <ejb-name> tag, a warning message (KDJE37612-W) is output and the specified value is set up.
<method-params>	Zero or once	Specifies the method arguments.
<method-param>	Zero or more times	Specifies the method arguments.
<application-exception>	Zero or more times	Specifies the settings related to application exception. This tag is ignored in the <code>cjsetresprop</code> command. If there are multiple <application-exception> tags with the same <exception-class> value, a warning message (KDJE37604-W) is output and the value set first is enabled. Also, when the setting location is EJB 2.1 or earlier versions, a warning message (KDJE37613-W) is output and this setting is ignored.
<exception-class>	Once	Specifies the name of the exception class reported to the client.
<rollback>	Zero or once	Specifies whether rollback is to be performed before the occurrence of the specified exception is reported to the client. The following character strings are displayed: <ul style="list-style-type: none"> • <code>true</code> (rollback is performed) • <code>false</code> (rollback is not performed)
<inherited>	Zero or once	Specifies whether the sub-classes of the specified class will be handled as application exceptions. Specify <code>true</code> to handle the sub-classes as exceptions and <code>false</code> if the sub-classes are not to be handled as exceptions. The default value is <code>true</code> .
<ejb-client-jar>	Zero or once	Specifies the client JAR file name. ^{#3}

#1

You can specify the `xml:lang` property. If the `xml:lang` property is not specified, `en` (English) is assumed. Note that you cannot specify multiple tags with the same `xml:lang` property.

#2

You cannot specify this tag multiple times for EJB 2.0 or earlier versions.

#3

Do not change the values specified for annotations.

#4

Do not change the tag name, add or delete the tag, or change the value for the tags output with the `cjgetappprop` or `cjgetresprop` commands.

#5

You cannot update the annotation settings using a property file. Only the information defined in `ejb-jar.xml` can be updated using a property file.(2) When `ejb-jar.xml` is not included (EJB 3.0 or later versions)

Tag name	Occurrence pattern	Explanation
<code><hitachi-ejb-jar-property></code>	Once	Specifies the root tag.
<code><description>#1</code>	Zero or more times#2	Describes the EJB-JAR file.#3
<code><display-name>#1</code>	One or more times#2	Displays the EJB-JAR name.#3 $1 \leq \text{character-string-length}$ To change the display name, you can use the alphanumeric characters (0 to 9, A to Z, a to z), and the following special characters: Plus sign (+), hyphen (-), period (.), caret (^), and underscore (_)
<code><icon>#1</code>	Zero or more times#2	Defines the EJB-JAR icon displayed on the GUI tool.#3
<code><small-icon></code>	Zero or once	Specifies the file name for small icons (16 × 16).#3
<code><large-icon></code>	Zero or once	Specifies the file name for large icons (32 × 32).#3
<code><interceptors></code>	Zero or once	Specifies the interceptor settings.#4
<code><description>#1</code>	Zero or more times#2	Describes Interceptors.#4
<code><interceptor></code>	One or more times	Specifies the Interceptor class settings.#4
<code><description>#1</code>	Zero or more times#2	Describes <code>interceptor-class</code> .#4
<code><interceptor-class></code>	Once	Specifies the interceptor class name.#4
<code><around-invoke></code>	Zero or more times	Defines the <code>aroundinvoke</code> method of interceptors.#4
<code><class></code>	Zero or once	From the package name, displays the class in which the <code>aroundinvoke</code> method of interceptors exists. #4
<code><method-name></code>	Once	Specifies the name of the <code>aroundinvoke</code> method of interceptors.#4
<code><post-construct></code>	Zero or more times	Defines the <code>post-construct</code> method of interceptors. #4
<code><lifecycle-callback-class></code>	Zero or once	From the package name, displays the class in which the <code>post-construct</code> method of interceptors exists. #4

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Tag name	Occurrence pattern	Explanation
<lifecycle-callback-method>	Once	Displays the name of the post-construct method of interceptors. #4
<pre-destroy>	Zero or more times	Defines the pre-destroy method of interceptors. #4
<lifecycle-callback-class>	Zero or once	From the package name, displays the class in which the pre-destroy method of interceptors exists. #4
<lifecycle-callback-method>	Once	Displays the name of the pre-destroy method of interceptors. #4
<post-activate>	Zero or more times	Defines the post-activate method of interceptors. #4
<lifecycle-callback-class>	Zero or once	From the package name, displays the class in which the post-activate method of interceptors exists. #4
<lifecycle-callback-method>	Once	Displays the name of the post-activate method of interceptors. #4
<pre-passivate>	Zero or more times	Defines the pre-passivate method of interceptors. #4
<lifecycle-callback-class>	Zero or once	From the package name, displays the class in which the pre-passivate method of interceptors exists. #4
<lifecycle-callback-method>	Once	Displays the name of the pre-passivate method of interceptors. #4
<interceptor-binding>	Zero or more times	Specifies the settings related to the class level interceptor and method level interceptor. #5 This tag is ignored in the cjsetresprop command. #5 If multiple <interceptor-binding> tags are specified with a wild card (*) in <ejb-name>, the warning message (KDJE37604-W) is output and the value of <interceptor-class> within the <interceptor-binding> tag that is specified first is enabled.
<description>#1	Zero or more times	Displays the description of interceptor-binding. You describe the description of interceptor-binding when defining the default interceptor.
<ejb-name>	Once	Displays the wildcard (*) or <ejb-name> of the Enterprise Bean. You describe the wild card (*) when defining the default interceptor.
<interceptor-class>	Zero or more times	Displays the class name of the interceptor. You describe the class name of the interceptor class when defining the default interceptor. This tag is not required when <interceptor-order> is specified.
<interceptor-order>	Zero or more times	Displays the settings for the order and the level of the interceptor. This tag is not required when <interceptor-class> is specified. #4
<interceptor-class>	One or more times	Displays the class name of the interceptor. #4

Tag name	Occurrence pattern	Explanation
<exclude-default-interceptors>	Zero or once	Displays whether to exclude the default interceptor. If the default interceptor is to be excluded, you specify <code>true</code> , and if the default interceptor is not to be excluded, specify <code>false</code> . The default value is <code>false</code> . ^{#4}
<exclude-class-interceptors>	Zero or once	Displays whether to exclude a class interceptor. If the class interceptor is to be excluded, you specify <code>true</code> , and if the class interceptor is not to be excluded, specify <code>false</code> . The default value is <code>false</code> . ^{#4}
<named-method>	Zero or once	Displays the definition of a method.
<method-name>	Once	Displays the method name. ^{#4}
<method-params>	Zero or once	Displays the arguments of the method. ^{#4}
<method-param>	Zero or more times	Displays the argument of the method. ^{#4}
<application-exception>	Zero or more times	Displays settings regarding the application exception. ^{#4}
<exception-class>	Once	Displays the exception class name to be reported to the client. ^{#4}
<rollback>	Zero or once	Displays whether to execute a rollback before reporting the exception to the client, when a specified exception occurs. You specify <code>true</code> when a rollback is to be executed and <code>false</code> when a rollback is not to be executed. The default value is <code>false</code> . ^{#4}
<inherited>	Zero or once	Specifies whether the sub-classes of the specified class will be handled as application exception. Specify <code>true</code> to handle the sub-classes as exceptions and <code>false</code> if the sub-classes are not to be handled as exceptions. The default value is <code>true</code> . ^{#4}
<ejb-client-jar>	Zero or once	Displays the client JAR file name.

#1

You can specify the `xml:lang` property. If the `xml:lang` property is not specified, `en` (English) is assumed. Note that you cannot specify multiple tags with the same `xml:lang` property.

#2

You cannot specify this tag multiple times for EJB with EJB 2.0 or earlier versions.

#3

Do not change the values specified for annotations.

#4

Do not change the tag name, add or delete the tag, or change the value for the tags output with the `cjgetappprop` or `cjgetresprop` commands.

#5

You can add or change this tag only for the definition (when the value specified in the `<ejb-name>` tag is a wild card (*)) of the default interceptor.

3.3.2 Mapping with DD

The following table describes the correspondence between the HITACHI EJB-JAR Property file and the Deployment Descriptor.

(1) In EJB 2.0

HITACHI EJB-JAR property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-ejb-jar-property>	Once	<ejb-jar>	Once
<description>	Zero or once	<description>	Zero or once
<display-name>	Zero or once	<display-name>	Zero or once
<icon>	Zero or once	--	--
<small-icon>	Zero or once	<small-icon>	Zero or once
<large-icon>	Zero or once	<large-icon>	Zero or once
--	--	<enterprise-beans>	Once
--	--	(Omitted)	--
<relationships>	Zero or once	<relationships>	Zero or once
<description>	Zero or once	<description>	Zero or once
<ejb-relation>	One or more times	<ejb-relation>	One or more times
<description>	Zero or once	<description>	Zero or once
<ejb-relation-name>	Zero or once	<ejb-relation-name>	Zero or once
<ejb1>	Once	<ejb-relationship-role>	Once
<description>	Zero or once	<description>	Zero or once
<ejb-relationship-role-name>	Zero or once	<ejb-relationship-role-name>	Zero or once
<multiplicity>	Once	<multiplicity>	Once
<cascade-delete>	Zero or once	<cascade-delete>	Zero or once
--	--	<relationship-role-source>	Once
--	--	<description>	Zero or more times
<ejb-name>	Once	<ejb-name>	Once
--	--	<cmr-field>	Zero or once
--	--	<description>	Zero or more times
<cmr-field-name>	Once	<cmr-field-name>	Once
<cmr-field-type>	Zero or once	<cmr-field-type>	Zero or once
<ejb2>	Once	<ejb-relationship-role>	Once
<description>	Zero or once	<description>	Zero or once
<ejb-relationship-role-name>	Zero or once	<ejb-relationship-role-name>	Zero or once
<multiplicity>	Once	<multiplicity>	Once
<cascade-delete>	Zero or once	<cascade-delete>	Zero or once

HITACHI EJB-JAR property file				Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern		
	--	--		<relationship-role-source>	Once		
	--	--		<description>	Zero or more times		
	<ejb-name>	Once		<ejb-name>	Once		
	--	--		<cmr-field>	Zero or once		
	--	--		<description>	Zero or more times		
	<cmr-field-name>	Once		<cmr-field-name>	Once		
	<cmr-field-type>	Zero or once		<cmr-field-type>	Zero or once		
	--	--		<assembly-descriptor>	Zero or once		
	<security-role>	Zero or more times		<security-role>	Zero or more times		
	<description>	Zero or more times		<description>	Zero or more times		
	<role-name>	Once		<role-name>	Once		
	<linked-to>	Zero or once		--	--		
	--	--		(Omitted)	--		
	<ejb-client-jar>	Zero or once		<ejb-client-jar>	Zero or once		

Legend:

- : No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.
- (Omitted): The tag is omitted.

(2) In EJB 2.1

HITACHI EJB-JAR property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-ejb-jar-property>	Once	<ejb-jar>	Once
<description>	Zero or more times	<description>	Zero or more times
<display-name>	One or more times	<display-name>	Zero or more times
<icon>	Zero or more times	<icon>	Zero or more times
<small-icon>	Zero or once	<small-icon>	Zero or once
<large-icon>	Zero or once	<large-icon>	Zero or once
--	--	<enterprise-beans>	Once
--	--	(Omitted)	--

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HITACHI EJB-JAR property file				Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern		
<relationships>		Zero or once	<relationships>		Zero or once		
<description>		Zero or more times	<description>		Zero or more times		
<ejb-relation>		One or more times	<ejb-relation>		One or more times		
<description>		Zero or more times	<description>		Zero or more times		
<ejb-relation-name>		Zero or once	<ejb-relation-name>		Zero or once		
<ejb1>		Once	<ejb-relationship-role>		Once		
<description>		Zero or more times	<description>		Zero or more times		
<ejb-relationship-role-name>		Zero or once	<ejb-relationship-role-name>		Zero or once		
<multiplicity>		Once	<multiplicity>		Once		
<cascade-delete>		Zero or once	<cascade-delete>		Zero or once		
--		--	<relationship-role-source>		Once		
--		--	<description>		Zero or more times		
<ejb-name>		Once	<ejb-name>		Once		
--		--	<cmr-field>		Zero or once		
--		--	<description>		Zero or more times		
<cmr-field-name>		Once	<cmr-field-name>		Once		
<cmr-field-type>		Zero or once	<cmr-field-type>		Zero or once		
<ejb2>		Once	<ejb-relationship-role>		Once		
<description>		Zero or more times	<description>		Zero or more times		
<ejb-relationship-role-name>		Zero or once	<ejb-relationship-role-name>		Zero or once		
<multiplicity>		Once	<multiplicity>		Once		
<cascade-delete>		Zero or once	<cascade-delete>		Zero or once		
--		--	<relationship-role-source>		Once		
--		--	<description>		Zero or more times		
<ejb-name>		Once	<ejb-name>		Once		
--		--	<cmr-field>		Zero or once		
--		--	<description>		Zero or more times		

HITACHI EJB-JAR property file				Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern		
<cmr-field-name>		Once	<cmr-field-name>		Once		
<cmr-field-type>		Zero or once	<cmr-field-type>		Zero or once		
--		--	<assembly-descriptor>		Zero or once		
<security-role>		Zero or more times	<security-role>		Zero or more times		
<description>		Zero or more times	<description>		Zero or more times		
<role-name>		Once	<role-name>		Once		
<linked-to>		Zero or once	--		--		
--		--	(Omitted)		--		
<ejb-client-jar>		Zero or once	<ejb-client-jar>		Zero or once		

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

(3) In EJB 3.0

HITACHI EJB-JAR property file				Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern		
<hitachi-ejb-jar-property>		Once	<ejb-jar>		Once		
<description>		Zero or more times	--		--		
<display-name>		One or more times	<display-name>		--		
<icon>		Zero or more times	--		--		
<small-icon>		Zero or once	--		--		
<large-icon>		Zero or once	--		--		
--		--	<enterprise-beans>		Once		
--		--	(Omitted)		--		
<interceptors>		Zero or once	--		--		
<description>		Zero or more times	--		--		
<interceptor>		One or more times	--		--		
		Zero or more times	--		--		
		Once	--		--		

3. Property Files Used for Setting J2EE Applications

HITACHI EJB-JAR property file				Deployment Descriptor			
Tag name			Occurrence pattern	Tag name			Occurrence pattern
			Zero or more times		--		--
		<class>	Zero or once		--		--
		<method-name>	Once		--		--
		<post-construct>	Zero or more times		--		--
		<lifecycle-callback-class>	Zero or once		--		--
		<lifecycle-callback-method>	Once		--		--
		<pre-destroy>	Zero or more times		--		--
		<lifecycle-callback-class>	Zero or once		--		--
		<lifecycle-callback-method>	Once		--		--
		<post-activate>	Zero or more times		--		--
		<lifecycle-callback-class>	Zero or once		--		--
		<lifecycle-callback-method>	Once		--		--
		<pre-passivate>	Zero or more times		--		--
		<lifecycle-callback-class>	Zero or once		--		--
		<lifecycle-callback-method>	Once		--		--
		--	--		<assembly-descriptor>		Zero or once
		<interceptor-binding>	Zero or more times		<interceptor-binding>		Zero or more times
		<description>	Zero or more times		<description>		Zero or more times
		<ejb-name>	Once		<ejb-name>		Once
		<interceptor-class>#	Zero or more times		<interceptor-class>#		One or more times
		<interceptor-order>#	Once		<interceptor-order>		Once
		<interceptor-class>	One or more times		<interceptor-class>		One or more times
		<exclude-default-interceptors>	Zero or once		<exclude-default-interceptors>		Zero or once
		<exclude-class-interceptors>	Zero or once		<exclude-class-interceptors>		Zero or once

HITACHI EJB-JAR property file				Deployment Descriptor			
Tag name			Occurrence pattern	Tag name			Occurrence pattern
		<named-method>	Zero or once			<named-method>	Zero or once
		<method-name>	Once			<method-name>	Once
		<method-params>	Zero or once			<method-params>	Zero or once
		<method-param>	Zero or more times			<method-param>	Zero or more times
		<application-exception>	Zero or more times			<application-exception>	Zero or more times
		<exception-class>	Once			<exception-class>	Once
		<rollback>	Zero or once			<rollback>	Zero or once
		--	--			(Omitted)	--
		<ejb-client-jar>	Zero or once			<ejb-client-jar>	Zero or once
-			--	-			--
-				-			

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

#

Specify either <interceptor-class> or <interceptor-order>.

(4) In EJB 3.1

HITACHI EJB-JAR property file				Deployment Descriptor			
Tag name			Occurrence pattern	Tag name			Occurrence pattern
		<hitachi-ejb-jar-property>	Once			<ejb-jar>	Once
		<description>	Zero or more times			--	--
		<display-name>	One or more times			<display-name>	--
		<icon>	Zero or more times			--	--
		<small-icon>	Zero or once			--	--
		<large-icon>	Zero or once			--	--
		--	--			<enterprise-beans>	Once
		--	--			(Omitted)	--
		<interceptors>	Zero or once			--	--
		<description>	Zero or more times			--	--
		<interceptor>	One or more times			--	--

3. Property Files Used for Setting J2EE Applications

HITACHI EJB-JAR property file				Deployment Descriptor			
Tag name			Occurrence pattern	Tag name			Occurrence pattern
		<description>	Zero or more times			--	--
		<interceptor-class>	Once			--	--
		<around-invoke>	Zero or more times			--	--
		<class>	Zero or once			--	--
		<method-name>	Once			--	--
		<post-construct>	Zero or more times			--	--
		<lifecycle-callback-class>	Zero or once			--	--
		<lifecycle-callback-method>	Once			--	--
		<pre-destroy>	Zero or more times			--	--
		<lifecycle-callback-class>	Zero or once			--	--
		<lifecycle-callback-method>	Once			--	--
		<post-activate>	Zero or more times			--	--
		<lifecycle-callback-class>	Zero or once			--	--
		<lifecycle-callback-method>	Once			--	--
		<pre-passivate>	Zero or more times			--	--
		<lifecycle-callback-class>	Zero or once			--	--
		<lifecycle-callback-method>	Once			--	--
		--	--			<assembly-descriptor>	Zero or once
		<interceptor-binding>	Zero or more times			<interceptor-binding>	Zero or more times
		<description>	Zero or more times			<description>	Zero or more times
		<ejb-name>	Once			<ejb-name>	Once
		<interceptor-class>#	Zero or more times			<interceptor-class>#	One or more times
		<interceptor-order>#	Once			<interceptor-order>	Once
		<interceptor-class>	One or more times			<interceptor-class>	One or more times

HITACHI EJB-JAR property file				Deployment Descriptor			
Tag name		Occurrence pattern		Tag name		Occurrence pattern	
	<exclude-default-interceptors>	Zero or once			<exclude-default-interceptors>	Zero or once	
	<exclude-class-interceptors>	Zero or once			<exclude-class-interceptors>	Zero or once	
	<named-method>	Zero or once			<named-method>	Zero or once	
	<method-name>	Once			<method-name>	Once	
	<method-params>	Zero or once			<method-params>	Zero or once	
	<method-param>	Zero or more times			<method-param>	Zero or more times	
	<application-exception>	Zero or more times			<application-exception>	Zero or more times	
	<exception-class>	Once			<exception-class>	Once	
	<rollback>	Zero or once			<rollback>	Zero or once	
	<inherited>	Zero or once			<inherited>	Zero or once	
	--	--			(Omitted)	--	
	<ejb-client-jar>	Zero or once			<ejb-client-jar>	Zero or once	
-				-			
-				-			

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

#

Specify either <interceptor-class> or <interceptor-order>.

3.3.3 Mapping with cosminexus.xml

The following table describes the correspondence between the HITACHI EJB-JAR Property file and cosminexus.xml:

HITACHI EJB-JAR property file			cosminexus.xml			
Tag name		Occurrence pattern	Tag name		Occurrence pattern	
	--	--		<ejb-jar>	Zero or more times	
	--	--		<module-name>#1	Once	
	<security-role>	Zero or more times		<security-role>	Zero or more times	
	<description>	Zero or more times		--	--	
	<role-name>	Once		<role-name>	Once	
	<linked-to>	Zero or once		<linked-to>#2	Once	

3. Property Files Used for Setting J2EE Applications

HITACHI EJB-JAR property file		cosminexus.xml	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<interceptor-binding>	Zero or more times	--	--
<description>	Zero or more times	--	--
<ejb-name>	Once	--	--
<interceptor-class>	Zero or more times	--	--
(Omitted)	--	--	--

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

#1

This tag corresponds to <application>-<module>-<ejb> of the application.xml and does not exist in the property file. However, the tag is unique to cosminexus.xml. This tag is the key for identifying the EJB-JAR.

#2

The occurrence pattern is different from the property file because only the elements to be customized are coded in cosminexus.xml.

3.4 HITACHI Session Bean Property file

The HITACHI Session Bean Property file is used to acquire and edit the Session Bean properties.

3.4.1 Specifications of the HITACHI Session Bean Property file

The HITACHI Session Bean Property file has the following DOCTYPE declaration:

```
<!DOCTYPE hitachi-session-bean-property PUBLIC "-//Hitachi, Ltd.//
DTD Session Bean Property 9.0//EN" 'file:///Cosminexus-installation-directory/CC/admin/dtds/hitachi-
session-bean-property_9_0.dtd'>
```

The HITACHI Session Bean Property file is an xml file containing the following tags:

Note that you cannot change the tags of the HITACHI Session Bean property file when the EJB-JAR to be set does not contain a DD (ejb-jar.xml). You can also use the earlier versions of the property file.

The related information of a tag is described in the reference manuals mentioned in the *Tag name* column. *uCosminexus Application Server* is omitted from the manual names.

Tag name	Occurrence pattern	Explanation
<hitachi-session-bean-property>	Once	Specifies the root tag.
<description>#1	Zero or more times#2	Describes the Session Bean. #4, #8
<display-name>#1	One or more times#2	Specifies the Session Bean display name. #4 Make sure you specify <code>display-name</code> with <code>xml:lang</code> property as <code>en</code> . Even if the display name of the corresponding resource is specified using the command argument, specify <code>display-name</code> with <code>xml:lang</code> as <code>en</code> . $1 \leq \text{character-string-length}$ There is no restriction on the characters to be used. Any single-byte space or linefeed at the beginning or end of the character string is removed.
<icon>#1	Zero or more times#2	Defines the Session Bean icons displayed on the GUI tool. #4, #8
<small-icon>	Zero or once	Specifies the file name for small icons (16 × 16). #4, #8
<large-icon>	Zero or once	Specifies the file name for large icons (32 × 32). #4, #8
<mapped-name>	Zero or once	Specifies the optional name of the Enterprise Bean set in the <code>mappedName</code> attribute of <code>@Stateless</code> , <code>@Stateful</code> , or <code>@Singleton</code> . When an optional name is set in the <code><optional-name></code> tag or the <code><local-optional-name></code> tag, the value set in the <code><optional-name></code> tag or the <code><local-optional-name></code> tag is given priority. When an optional name is not set in the <code><optional-name></code> tag or the <code><local-optional-name></code> tag, the default optional name is used. #3, #8
<business-local>	Zero or more times	Specifies the local business interface. #3#4
<business-remote>	Zero or more times	Specifies the remote business interface. #3, #4, #8

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Tag name	Occurrence pattern	Explanation
<session-type>	Once	Specifies the Session Bean type. #3, #4, #8 You can specify the following character strings: <ul style="list-style-type: none"> • Stateful • Stateless • Singleton
<around-invoke>	Zero or more times	Defines the around-invoke method. #3, #4, #8
<class>	Zero or once	From the package name, displays the class in which the aroundinvoke method exists. #3, #4, #8
<method-name>	Once	Specifies the name of the around-invoke method. #3, #4, #8
<post-construct>	Zero or more times	Specifies the post-construct method settings. #3, #4, #8
<lifecycle-callback-class>	Zero or once	From the package name, displays the class in which the post-construct method exists. #3, #4, #8
<lifecycle-callback-method>	Once	Displays the name of the post-construct method. #3, #4, #8
<pre-destroy>	Zero or more times	Specifies the pre-destroy method settings. #3, #4, #8
<lifecycle-callback-class>	Zero or once	From the package name, displays the class in which the pre-destroy method exists. #3, #4
<lifecycle-callback-method>	Once	Displays the name of the pre-destroy method. #3, #4, #8
<post-activate>	Zero or more times	Specifies the post-activate method settings. #3, #4, #8 This tag is displayed only when the session-type is Stateful.
<lifecycle-callback-class>	Zero or once	From the package name, displays the class in which the post-activate method exists. #3, #4, #8
<lifecycle-callback-method>	Once	Displays the name of the post-activate method. #3, #4, #8
<pre-passivate>	Zero or more times	Specifies the pre-passivate method settings. #3, #4, #8 This tag is displayed only when the session-type is Stateful.
<lifecycle-callback-class>	Zero or once	From the package name, displays the class in which the pre-passivate method exists. #3, #4, #8
<lifecycle-callback-method>	Once	Displays the name of the pre-passivate method. #3, #4, #8
<timeout-method>	Zero or once	Specifies the timeout method settings. #3, #4, #8 This tag is displayed only when the session-type is Stateless or Singleton.
<method-name>	Once	Specifies the name of the timeout method. #3, #4, #8
<method-params>	Zero or once	Specifies the arguments of the timeout method. #3, #4, #8
<method-param>	Zero or more times	Specifies the argument of the timeout method. #3, #4, #8

Tag name	Occurrence pattern	Explanation
<init-method>	Zero or more times	Specifies the <code>init</code> method settings. #3, #4, #8 This tag is displayed only when the <code>session-type</code> is <code>Stateful</code> .
<create-method>	Once	Specifies the <code>create</code> method settings. #3, #4, #8
<method-name>	Once	Specifies the name of the <code>create</code> method. #3, #4, #8
<method-params>	Zero or once	Specifies the arguments of the <code>create</code> method. #3, #4, #8
<method-param>	Zero or more times	Specifies the argument of the <code>create</code> method. #3, #4, #8
<bean-method>	Once	Specifies the <code>bean</code> method settings. #3, #4, #8
<method-name>	Once	Specifies the name of the <code>bean</code> method. #3, #4, #8
<method-params>	Zero or once	Specifies the arguments of the <code>bean</code> method. #3, #4, #8
<method-param>	Zero or more times	Specifies the argument of the <code>bean</code> method. #3, #4, #8
<remove-method>	Zero or more times	Specifies the <code>remove</code> method settings. #3, #4, #8 This tag is displayed only when the <code>session-type</code> is <code>Stateful</code> .
<bean-method>	Once	Specifies the <code>bean</code> method settings. #3, #4, #8
<method-name>	Once	Specifies the name of the <code>bean</code> method. #3, #4, #8
<method-params>	Zero or once	Specifies the arguments of the <code>bean</code> method. #3, #4, #8
<method-param>	Zero or more times	Specifies the argument of the <code>bean</code> method. #3, #4, #8
<retain-if-exception>	Once	Specifies whether to remove the tags when an abnormal termination occurs due to an application exception. #3, #4, #8 The following character strings are displayed: <ul style="list-style-type: none"> • <code>true</code> (not removed) • <code>false</code> (removed)
<transaction-type>	Once	Specifies the transaction management type. #4, #8 You can specify the following character strings: <ul style="list-style-type: none"> • <code>Bean</code> • <code>Container</code>
<env-entry>	Zero or more times	Defines the environment entry. #4, #8
<description>#1	Zero or more times#2	Describes <code>env-entry</code> . #4, #8
<env-entry-name>	Once	Specifies the environment entry name. #4, #8
<env-entry-type>	Once	Specifies the environment entry data type. #4, #8 You can specify the following character strings: <ul style="list-style-type: none"> • <code>java.lang.Boolean</code> • <code>java.lang.Byte</code>

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Tag name	Occurrence pattern	Explanation
<env-entry-type>	Once	<ul style="list-style-type: none"> • java.lang.Short • java.lang.Integer • java.lang.Long • java.lang.Float • java.lang.Double • java.lang.String • java.lang.Character
<env-entry-value>	Once	Specifies the environment entry value. #4, #8 Specify a value conforming to the type specified in env-entry-type. If a value other than java.lang.String is specified in env-entry-type, you cannot specify a null character.
<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #3, #4, #8
<injection-target-class>	Once	Specifies the injection target class name. #3, #4, #8 Displayed from the package when the package is defined.
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #3, #4, #8
<ejb-ref>	Zero or more times	Defines the reference information for the Enterprise Bean having the remote interface. #4, #8
<description>#1	Zero or more times#2	Describes ejb-ref. #4, #8
<ejb-ref-name>	Once	Specifies the ejb-ref name. #4, #8
<ejb-ref-type>	Once	Specifies the EJB type to be linked to. #4, #8 You can specify the following character strings: <ul style="list-style-type: none"> • Entity • Session
<home>	Once	Specifies the name of the home interface class to be linked to. #4, #8
<remote>	Once	Specifies the name of the component interface class to be linked to. #4, #8
<ejb-link>	Zero or once	Specifies the ejb-name to be linked to. #4, #8 When setting the link destination with the naming service switching functionality, use the following format: <i>corbaname::Namespace-host-name: Namespace-port-number#JNDI-name-of-EJB-Home-object-reference</i>
<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #3, #4, #8
<injection-target-class>	Once	Specifies the injection target class name. #3, #4, #8 Displayed from the package when the package is defined.
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #3, #4, #8

Tag name	Occurrence pattern	Explanation
<ejb-local-ref>	Zero or more times	Specifies the EJB reference information settings. #4, #8
<description>#1	Zero or more times#2	Describes ejb-local-ref. #4, #8
<ejb-ref-name>	Once	Specifies the ejb-local-ref name. #4, #8
<ejb-ref-type>	Once	Specifies the EJB type to be linked to. #4, #8 You can specify the following character strings: <ul style="list-style-type: none"> • Session • Entity
<local-home>	Once	Specifies the name of the home interface class to be linked to. #4, #8
<local>	Once	Specifies the name of the component interface class to be linked to. #4, #8
<ejb-link>	Zero or once	Specifies the ejb-name to be linked to. #4, #8
<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #3, #4, #8
<injection-target-class>	Once	Specifies the injection target class name. #3, #4, #8 Displayed from the package when the package is defined.
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #3, #4, #8
<security-role-ref>	Zero or more times	Defines the security role. #4
<description>#1	Zero or more times#2	Describes security-role-ref. #4, #8
<role-name>	Once	Specifies the security-role-ref name. #4, #8
<role-link>	Zero or once	Specifies the name of the security role to be linked to. #4, #8
<security-identity>	Zero or once	Defines the security identity. #4, #8
<description>#1	Zero or more times#2	Describes security-identity. #4, #8
<use-caller-identity>	Once	Specifies whether to use runtime security-identity. #4, #8 Specify either <use-caller-identity> or <run-as>. Note that this tag does not have any value.
<run-as>	Once	Defines the information for runtime security-identity. #4, #8 Specify either <use-caller-identity> or <run-as>.
<description>#1	Zero or more times#2	Describes runtime security-identity. #4, #8 Active only when you specify <run-as>.
<role-name>	Once	Specifies the role name of runtime security-identity. #4, #8 Active only when you specify <run-as>.

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Tag name	Occurrence pattern	Explanation
<user-name>	Once	Specifies the principal name. #5
<resource-ref>	Zero or more times	Defines the resource reference. #4, #8
<description>#1	Zero or more times#2	Describes resource-ref. #4, #8
<res-ref-name>	Once	Specifies the resource-ref name. #4, #8
<res-type>	Once	<p>Specifies the resource type. #4, #8</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • javax.mail.Session • javax.sql.DataSource • javax.jms.QueueConnectionFactory • javax.jms.ConnectionFactory • javax.resource.cci.ConnectionFactory • org.omg.CORBA_2_3.ORB (a resource that can be looked up even if not defined in a DD) • javax.jms.TopicConnectionFactory <p>If the reference destination is a Connector 1.5 resource adapter, specify the connection definition identifier (value set in the <connectionfactory-interface> tag) of the reference destination resource adapter.</p>
<res-auth>	Once	<p>Specifies the authentication method. #4, #8</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • Application • Container
<res-sharing-scope>	Zero or once	<p>Specifies whether to share the referenced resource. #4, #8</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • Shareable • Unshareable
<mapped-name>	Zero or once	<p>The corresponding resource adapter display name or mail display name set in the mappedName property of @Resource. #3, #4, #8</p> <p>When you specify this tag at the same time as <linked-to> tag, the <linked-to> tag becomes valid.</p>
<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #3, #4, #8
<injection-target-class>	Once	<p>Specifies the injection target class name. #3, #4, #8</p> <p>Displayed from the package when the package is defined.</p>
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #3, #4, #8
<linked-to>	Zero or once	<p>Specifies the corresponding resource adapter display name, data source display name, or mail display name. #5</p> <p>How to specify the resource adapter display name differs depending on the resource adapter version.</p>

	Tag name	Occurrence pattern	Explanation
	<linked-to>	Zero or once	<p>Connector 1.0 or earlier versions <i>Resource-adapter-display-name</i></p> <p>Outbound resource adapter of Connector 1.5 or later versions <i>Resource-adapter-display-name! Connection-definition-identifier</i></p> <p>The <i>connection-definition-identifier</i> refers to the value specified in the <connectionfactory-interface> tag in ra.xml.</p> <p>You cannot specify a member resource adapter of the cluster connection pool.</p> <p>This tag is ignored in the cjsetresprop command.</p>
	<resource-env-ref>	Zero or more times	Defines the resource environment variable. #4, #8
	<description>#1	Zero or more times#2	Describes resource-env-ref. #4, #8
	<resource-env-ref-name>	Once	Specifies the resource-env-ref name. #4, #8
	<resource-env-ref-type>	Once	<p>Specifies the class type of the resource environment variable value. #4, #8</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • javax.jms.Queue • javax.jms.Topic • javax.transaction.UserTransaction • javax.ejb.TimerService • javax.ejb.EJBContext • javax.ejb.SessionContext • JavaBeans resource class name <p>The values of javax.transaction.UserTransaction, javax.ejb.TimerService, javax.ejb.EJBContext, and javax.ejb.SessionContext are output only when you use annotations. However, you cannot set this value.</p> <p>When you specify <linked-adminobject>, any class name is displayed.</p>
	<mapped-name>	Zero or once	<p>When <resource-env-ref-type> is javax.jms.Queue, the corresponding queues set in the mappedName attribute of @Resource is displayed in the following format:</p> <p><i>Resource-adapter-display-name#Queue-name</i></p> <p>When you specify this tag at the same time as <linked-Queue> tag, the <linked-Queue> tag becomes valid.</p> <p>When <resource-env-ref-type> is JavaBeans-resource-class-name, the display name of the corresponding JavaBeans resource set in the mappedName attribute of @Resource is displayed. When you specify this tag at the same time as the <linked-to> tag, the <linked-to> tag becomes valid. #3, #4, #8</p>
	<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #3, #4, #8

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Tag name	Occurrence pattern	Explanation
<injection-target-class>	Once	Specifies the injection target class name. #3, #4, #8 Displayed from the package when the package is defined.
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #3, #4, #8
<linked-queue>	Zero or once	Specifies the queue name. #5 This tag is ignored in the <code>cjsetresprop</code> command. This tag is valid only when <code><resource-env-ref-type></code> is <code>javax.jms.Queue</code> .
<resource-adapter>	Once	Specifies the resource adapter display name. #5 You cannot specify a Connector 1.5 resource adapter.
<queue>	Once	Specifies the display name of queue. #5
<linked-adminobject>	Zero or once	Specifies the administered object. This tag is ignored in <code>cjsetresprop</code> .
<resourceadapter-name>	Once	Specifies the resource adapter display name. You cannot specify the resource adapters conforming to Connector 1.0 or earlier versions.
<adminobject-name>	Once	Specifies the administered object name. You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters: Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semi-colon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~) You cannot, however, specify the following names: <ul style="list-style-type: none"> • Name containing a period (.) at the beginning or at the end • Name containing only a period (.) • Name containing continuous underscores (_) Any single-byte space or linefeed at the beginning or end of the character string is removed.
<linked-to>	Zero or once	Specifies the JavaBeans resource display name. #5 This tag is valid only when <code><resource-env-ref-type></code> is <code>JavaBeans-resource-class-name</code> . This tag is ignored in the <code>cjsetresprop</code> command.
<method-permission>	Zero or more times	Defines the method permission. #4, #8
<description>#1	Zero or more times#2	Describes method-permission. #4, #8
<role-name>	One or more times	Specifies the role name allocated to the method. #4, #8 Specify either <code><role-name></code> or <code><unchecked></code> .

Tag name	Occurrence pattern	Explanation
<unchecked>	Once	Specifies the authentication check for executing the method. #4, #8 If you use this tag, authentication check is not performed. Note that this tag does not have a value. Specify either <role-name> or <unchecked>.
<method>	One or more times	Defines the method. #4, #8
<description>#1	Zero or more times#2	Describes the method. #4, #8
<method-intf>	Zero or once	Specifies the interface type to which the method belongs. #4, #8 You can specify the following character strings: <ul style="list-style-type: none"> • Home • Remote • LocalHome • Local When this tag is omitted, all the interface types are assumed to be specified.
<method-name>	Once	Specifies the method name. #4, #8 When you specify "*", all the methods are assumed to be specified.
<method-params>	Zero or once	This tag is valid when method-name is not a wild card (*). #4, #8 When method-params is specified Specifies the method-name method existing in the interface specified in method-intf and containing the parameters specified in method-params. When method-params is not specified Specifies all the method-name methods existing in the interface specified in method-intf.
<method-param>	Zero or more times	Specifies the parameter data type. #4, #8 Specify the primitive type or class name. For an array, specify square brackets ([]) after the name (ensure that there is no space between "name" and "[", and "[" and "]"). For a multidimensional array, specify square brackets ([]) one after the other (there must be no space between "]" and "["). You cannot specify the internal format name of the array ([I for int [], and [Ljava.lang.String; for java.lang.String []). For example: <ul style="list-style-type: none"> • int • short[][] • java.lang.String[]
<container-transaction>	Zero or more times	Defines the container transaction. #4, #8

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Tag name	Occurrence pattern	Explanation
<description>#1	Zero or more times#2	Describes container-transaction. #4, #8
<method>	One or more times	Defines the method. #4, #8
<description>#1	Zero or more times#2	Describes the method. #4, #8
<method-intf>	Zero or once	<p>Specifies the interface type to which the method belongs. #4, #8</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • Home • Remote • LocalHome • Local <p>When this tag is omitted, all the interface types are assumed to be specified.</p>
<method-name>	Once	<p>Specifies the method name. #4, #7, #8</p> <p>When you specify "*", all the methods are assumed to be specified.</p>
<method-params>	Zero or once	<p>This tag is valid when method-name is not a wild card (*). #4, #8</p> <p>When method-params is specified Specifies the method-name method existing in the interface specified in method-intf and containing the parameters specified in method-params.</p> <p>When method-params is not specified Specifies all the method-name methods existing in the interface specified in method-intf.</p>
<method-param>	Zero or more times	<p>Specifies the parameter data type. #4, #8</p> <p>Specify the primitive type or class name.</p> <p>For an array, specify square brackets ([]) after the name (ensure that there is no space between "name" and "[", and "[" and "]").</p> <p>For a multidimensional array, specify square brackets ([]) one after the other (there must be no space between "]" and "[").</p> <p>You cannot specify the internal format name of the array ([I for int[], and [Ljava.lang.String; for java.lang.String[]).</p> <p>For example:</p> <ul style="list-style-type: none"> • int • short[][] • java.lang.String[]
<trans-attribute>	Once	<p>Specifies the transaction attribute allocated to the method. #4, #8</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • Mandatory • Never

Tag name	Occurrence pattern	Explanation
<trans-attribute>	Once	<ul style="list-style-type: none"> • NotSupported • Required • RequiresNew • Supports
<exclude-list>	Zero or once	Defines the list of methods that are not to be invoked. #4, #8
<description>#1	Zero or more times#2	Describes exclude-list. #4, #8
<method>	One or more times	Specifies the methods that are not to be invoked. #4, #8
<description>#1	Zero or more times#2	Describes the methods that are not to be invoked. #4, #8
<method-intf>	Zero or once	<p>Specifies the interface type to which the method belongs. #4, #8</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • Home • Remote • LocalHome • Local <p>When this tag is omitted, all the interface types are assumed to be specified.</p>
<method-name>	Once	Specifies the method names that are not to be invoked. #4, #8
<method-params>	Zero or once	<p>This tag is valid when method-name is other than "*". #4</p> <p>When method-params is specified Specifies the method-name method existing in the interface specified in method-intf and containing the parameters specified in method-params.</p> <p>When method-params is not specified Specifies all the method-name methods existing in the interface specified in method-intf.</p>
<method-param>	Zero or more times	<p>Specifies the parameter data type. #4, #8</p> <p>Specify the primitive type or class name.</p> <p>For an array, specify square brackets ([]) after the name (ensure that there is no space between "name" and "[", and "[" and "]").</p> <p>For a multidimensional array, specify square brackets ([]) one after the other (there must be no space between "]" and "[").</p> <p>You cannot specify the internal format name of the array ([I for int [], and [Ljava.lang.String; for java.lang.String []).</p> <p>For example:</p> <ul style="list-style-type: none"> • int • short[][] • java.lang.String[]
<runtime>#5	Zero or once	<p>When this tag is used in the cjssetappprop command This tag is mandatory.</p>

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Tag name	Occurrence pattern	Explanation
<runtime> ^{#5}	Zero or once	When this tag is used in the <code>cjsetresprop</code> command This tag is ignored.
<lookup-name>	Once	<p>Specifies the name used when looking up the EJB from the client. ^{#5}</p> <p>This tag corresponds to <i>EJB-lookup-name</i> in <code>HITACHI_EJB/SERVERS/server-name/EJB/application-lookup-name/EJB-lookup-name</code>.</p> <p>You can specify alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters in the lookup name:</p> <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semi-colon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({}), vertical bar (), and tilde (~).</p> <p>You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> • Name containing a period (.) at the beginning or at the end • Name containing only a period (.) <p>Any single-byte space or linefeed at the beginning or end of the character string is removed. If a linefeed appears in the middle of the character string, an error occurs.</p> <p>You can specify 1 to 255 characters. If there are 0 characters, the tag is assumed to be omitted.</p>
<optional-name>	Zero or once	<p>Specifies the optional name of the remote interface. ^{#5}</p> <p>You can use alphanumeric characters (0 to 9, A to Z, a to z) and the following special characters in the value:</p> <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), forward slash (/), colon (:), semi-colon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({}), vertical bar (), and tilde (~).</p> <p>You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> • Names beginning with the reserved word <code>HITACHI_EJB</code> (case sensitive) • Names in which forward slash (/) or period (.) is specified at the beginning or end • Names containing only forward slash (/) or period (.) • Names containing continuous forward slashes (/) <p>Any single-byte space or linefeed at the beginning or end of the character string is removed. If a linefeed appears in the middle of the character string, an error occurs.</p> <p>You can specify 1 to 255 characters.</p>
<local-optional-name>	Zero or once	<p>Specifies the optional name of the local interface.</p> <p>Any single-byte space or linefeed at the beginning or end of the character string is removed.</p>

Tag name	Occurrence pattern	Explanation
<maximum-sessions>	Once	Specifies the maximum number of sessions. #5 0 (infinite) or $1 \leq \text{maximum-sessions} \leq 2147483647$ This setting is not applied in Stateless Session Bean.
<stateless>#6	Either one once or neither	This tag is specified when session-type is Stateless. #5 Either <stateless> or <stateful>, or neither of these is specified.
<pooled-instance>	Once	Defines the instances in the pool. #5
<minimum>	Once	Specifies the minimum number of instances in the pool. #5 $0 \text{ or } 1 \leq \text{minimum} \leq \text{maximum}$ If you specify an upper limit for maximum, you must also specify an upper limit for minimum.
<maximum>	Once	Specifies the maximum number of instances in the pool. #5 $0 \text{ (infinite) or } 1 \leq \text{maximum} \leq \text{maximum-sessions}$ If you specify an upper limit for maximum-sessions, you must also specify an upper limit for maximum.
<instance-timeout>	Zero or once	Specifies a value from 0 to 86400 (unit: seconds) as the timeout period for acquiring an instance. #5 If you specify 0, a timeout will not occur. The default value is 0.
<stateful>#6	Either one once or neither	This tag is specified when session-type is Stateful. #5 Either <stateless> or <stateful>, or neither of these is specified.
<maximum-active-sessions>	Once	Specifies the maximum number of active sessions. #5 $0 \text{ (infinite) or } 1 \leq \text{maximum-active-sessions} \leq \text{maximum-sessions}$ If you specify an upper limit for maximum-sessions, you must also specify an upper limit for maximum-active-sessions.
<inactivity-timeout>	Once	Specifies the time period (minutes) for which the inactive status is retained until the session is activated again. #5 $0 \text{ (infinite) or } 1 \leq \text{inactivity-timeout} \leq 2147483647$
<removal-timeout>	Once	Specifies the time period (minutes) for which the inactive status is retained until the session is removed. #5 $0 \text{ (infinite) or } 1 \leq \text{removal-timeout} \leq 2147483647$
<enable-scheduling>	Zero or once	Specifies whether to enable scheduling (whether to use as the Gate of the scheduler) for the applicable Bean. #5 In the case of a Bean invoked through CTM, when the Maximum value of stateless is less than the value of parallel-count, an error occurs. Note that this tag is enabled only in products that include the Cosminexus Component Transaction Monitor in the component software. If you specify this tag in any other case, an error occurs. For the available products, see 2.2.1

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Tag name	Occurrence pattern	Explanation
<enable-scheduling>	Zero or once	<i>Relationship of products and component software</i> in the manual <i>uCosminexus Application Server & BPM/ESB Platform Overview</i> . Furthermore, you cannot specify this tag for the EJB (provided in component local interface or business interface) that does not provide a remote component interface. If you specify this tag in such a case, the tag will be ignored.
<pass-by-reference>	Zero or once	Specifies a pass by reference for the data of each Bean. #5
<scheduling>	Zero or once	Specifies the CTM integration related information. #5 Necessary when deploying a scheduler for each Bean.
<queue-name>	Once	Specifies the name of the queue to be scheduled. #5 You can use alphanumeric characters (0 to 9, A to Z, a to z) and underscore (_). The default value is <code>ejb_name</code> (value of the <ejb-name> tag).
<parallel-count>	Once	Specifies a value from 1 to 127 as the number of threads used by CTM for invoking an application. #5 The default value is <code>1</code> . In the case of a Bean invoked through CTM, if the <code>Maximum</code> value is less than the value of <code>parallel-count</code> , an error occurs.
<queue-length>	Zero or once	Specifies an integer value from 1 to 32767 as the length of the queue to be scheduled. #5 When sharing a queue, if the settings differ between the applications sharing the queue and the Beans sharing the queue, the length of the generated queue becomes valid.
<front-ejb>	Zero or once	Specifies whether the specified EJB is a front EJB (an EJB invoked directly by the client). #5 Specify <code>true</code> if the EJB is a front EJB and <code>false</code> if it is not. The default value is <code>false</code> .
<start-order>	Zero or once	Specifies the order of starting or stopping the J2EE applications. #5 The start process is executed in the ascending order when the applications are started and the stop process is executed in the descending order when the applications are terminated. $0 \leq \text{start-order} \leq 2147483647$
<ejb-method-observation-timeout> <i>Chapter 5 in the Operation, Monitoring, and Linkage Guide</i>	Zero or more times	This tag is specified when you set up a timeout value for monitoring the in-process methods, in an EJB method. #5 When multiple <ejb-method-observation-timeout> tags are specified and the values set under the <method> tags (excluding the <description> tag) are the same, the tags are merged into one. In this case, a warning message (KDJE37601-W) is output, and the value of <method-observation-timeout> of the <ejb-method-observation-timeout> tag defined first is enabled.
<method>	One or more times	..#5
<description>	Zero or once	Describes the method. #5
<method-intf>	Zero or once	This tag is specified when identifying the interface type to which the method belongs. #5 You can specify the following values:

Tag name	Occurrence pattern	Explanation
<method-intf>	Zero or once	<ul style="list-style-type: none"> • Home • Remote • LocalHome • Local <p>When this tag is omitted, all the interface types are assumed to be specified.</p>
<method-name>	Once	<p>Specifies the target method name. #5, #7</p> <p>If you specify "*", all the methods are assumed to be specified.</p>
<method-params>	Zero or once	Specified for identifying the method, when multiple methods are defined. #5
<method-param>	Zero or more times	Specifies the argument data type. #5
<method-observation-timeout>	Once	<p>Specifies a value from 0 to 86400 (unit: seconds) as the timeout value (seconds) used for monitoring the in-process methods. #5</p> <p>When you specify 0, a timeout does not occur. The default value is 0.</p>
<ejb-transaction-timeout> 3.15.8 in the <i>Common Container Functionality Guide</i>	Zero or more times	<p>This tag is specified when you set up a transaction timeout value for the EJB (CMT) method. #5</p> <p>When multiple <ejb-transaction-timeout> tags are specified and the values set under the <method> tags (excluding the <description> tag) are the same, the tags are merged into one. In this case, a warning message (KDJE37601-W) is output, and the value of <transaction-timeout> of the <ejb-transaction-timeout> tag defined first is enabled.</p>
<method>	One or more times	..#5
<description>	Zero or once	Describes the method. #5
<method-intf>	Zero or once	<p>This tag is specified when identifying the interface type to which the method belongs. #5</p> <p>You can specify the following values:</p> <ul style="list-style-type: none"> • Home • Remote • LocalHome • Local <p>When this tag is omitted, all the interface types are assumed to be specified.</p>
<method-name>	Once	<p>Specifies the target method name. #5, #7</p> <p>If you specify "*", all the methods are assumed to be specified.</p>
<method-params>	Zero or once	Specified for identifying a method when multiple methods are defined. #5
<method-param>	Zero or more times	Specifies the argument data type. #5

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Tag name	Occurrence pattern	Explanation
<transaction-timeout>	Once	Specifies the transaction timeout period from 0 to 2147483647 (unit: seconds). #5 The default value is 0. If you specify 0 or if there is no tag, the operation is performed using the default timeout value set in the J2EE server.

#1

You can specify the `xml:lang` property. If the `xml:lang` property is not specified, `en` (English) is assumed. Note that you cannot specify multiple tags with the same `xml:lang` property.

#2

You cannot specify this tag multiple times for EJB 2.0 or earlier versions.

#3

Do not change the tag name, add or delete the tag, or change the value for the tags output with the `cjgetappprop` or `cjgetresprop` commands.

#4

Do not change the set up annotation values.

#5

You can change the value even if the EJB-JAR containing the Session Bean of setup destination does not store DDs (`ejb-jar.xml`).

#6

In version 08-70 or earlier versions, specify either `stateless` or `stateful`.

#7

If `false` is specified in the `ejbserver.cui.checkmethod.compatible` key in the `usrconf.properties` file for server management commands and the method specified with this tag does not exist, an error occurs when you set up the property. For details on the `ejbserver.cui.checkmethod.compatible` key of the `usrconf.properties` file, see *5.4 usrconf.properties (System property file for server management commands)* in the manual *uCosminexus Application Server Definition Reference Guide*.

#8

You cannot change the value if the setup destination is EJB 3.0 or a later version.

3.4.2 Mapping with DD

The following table describes the correspondence between the HITACHI Session Bean Property file and the Deployment Descriptor:

HITACHI Session Bean Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-session-bean-property>	Once	<ejb-jar>	Once
--	--	<description>	Zero or once
--	--	<display-name>	Zero or once
--	--	<icon>	Zero or more times
--	--	<small-icon>	Zero or once
--	--	<large-icon>	Zero or once
--	--	<enterprise-beans>	Once
--	--	<session>	One or more times

HITACHI Session Bean Property file			Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern	
<description>		Zero or more times		<description>	Zero or more times	
<display-name>		One or more times		<display-name>	Zero or more times	
<icon>		Zero or more times		<icon>	Zero or more times	
	<small-icon>	Zero or once		<small-icon>	Zero or once	
	<large-icon>	Zero or once		<large-icon>	Zero or once	
	--	--		<ejb-name>	Once	
<mapped-name>		Zero or once		--	--	
	--	--		<home>	Zero or once	
	--	--		<remote>	Zero or once	
<business-local>		Zero or more times		--	--	
<business-remote>		Zero or more times		--	--	
	--	--		<ejb-class>	Once	
<session-type>		Once		<session-type>	Zero or once	
<around-invoke>		Zero or more times		--	--	
	<class>	Zero or once		--	--	
	<method-name>	Once		--	--	
<post-construct>		Zero or more times		--	--	
	<lifecycle-callback-class>	Zero or once		--	--	
	<lifecycle-callback-method>	Once		--	--	
<pre-destroy>		Zero or more times		--	--	
	<lifecycle-callback-class>	Zero or once		--	--	
	<lifecycle-callback-method>	Once		--	--	
<post-activate>		Zero or more times		--	--	
	<lifecycle-callback-class>	Zero or once		--	--	
	<lifecycle-callback-method>	Once		--	--	
<pre-passivate>		Zero or more times			--	

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HITACHI Session Bean Property file			Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern	
	<lifecycle-callback-class>	Zero or once			--	
	<lifecycle-callback-method>	Once			--	
	<timeout-method>	Zero or once			--	
	<method-name>	Once			--	
	<method-params>	Zero or once			--	
	<method-param>	Zero or more times			--	
	<init-method>	Zero or more times			--	
	<create-method>	Once			--	
	<method-name>	Once			--	
	<method-params>	Zero or once			--	
	<method-param>	Zero or more times			--	
	<bean-method>	Once			--	
	<method-name>	Once			--	
	<method-params>	Zero or once			--	
	<method-param>	Zero or more times			--	
	<remove-method>	Zero or more times			--	
	<bean-method>	Once			--	
	<method-name>	Once			--	
	<method-params>	Zero or once			--	
	<method-param>	Zero or more times			--	
	<retain-if-exception>	Zero or once			--	
	<transaction-type>	Once		<transaction-type>	Once	
	<env-entry>	Zero or more times		<env-entry>	Zero or more times	
	<description>	Zero or more times		<description>	Zero or more times	
	<env-entry-name>	Once		<env-entry-name>	Once	
	<env-entry-type>	Once		<env-entry-type>	Once	
	<env-entry-value>	Once		<env-entry-value>	Zero or once	
	<injection-target>	Zero or more times		--	--	

HITACHI Session Bean Property file				Deployment Descriptor			
Tag name		Occurrence pattern		Tag name		Occurrence pattern	
	<injection-target-class>	Once			--	--	
	<injection-target-name>	Once			--	--	
	<ejb-ref>	Zero or more times			<ejb-ref>	Zero or more times	
	<description>	Zero or more times			<description>	Zero or more times	
	<ejb-ref-name>	Once			<ejb-ref-name>	Once	
	<ejb-ref-type>	Once			<ejb-ref-type>	Once	
	<home>	Once			<home>	Once	
	<remote>	Once			<remote>	Once	
	<ejb-link>	Zero or once			<ejb-link>	Zero or once	
	<injection-target>	Zero or more times			--	--	
	<injection-target-class>	Once			--	--	
	<injection-target-name>	Once			--	--	
	<ejb-local-ref>	Zero or more times			<ejb-local-ref>	Zero or more times	
	<description>	Zero or more times			<description>	Zero or more times	
	<ejb-ref-name>	Once			<ejb-ref-name>	Once	
	<ejb-ref-type>	Once			<ejb-ref-type>	Once	
	<local-home>	Once			<local-home>	Once	
	<local>	Once			<local>	Once	
	<ejb-link>	Zero or once			<ejb-link>	Zero or once	
	<injection-target>	Zero or more times			--	--	
	<injection-target-class>	Once			--	--	
	<injection-target-name>	Once			--	--	
	<security-role-ref>	Zero or more times			<security-role-ref>	Zero or more times	
	<description>	Zero or more times			<description>	Zero or more times	
	<role-name>	Once			<role-name>	Once	
	<role-link>	Zero or once			<role-link>	Zero or once	
	<security-identity>	Zero or once			<security-identity>	Zero or once	

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HITACHI Session Bean Property file			Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern	
	<description>	Zero or more times		<description>	Zero or more times	
	<use-caller-identity>	Once ^{#1}		<use-caller-identity>	Once ^{#1}	
	<run-as>	Once ^{#1}		<run-as>	Once ^{#1}	
	<description>	Zero or more times		<description>	Zero or more times	
	<role-name>	Once		<role-name>	Once	
	<user-name>	Once		--	--	
	<resource-ref>	Zero or more times		<resource-ref>	Zero or more times	
	<description>	Zero or more times		<description>	Zero or more times	
	<res-ref-name>	Once		<res-ref-name>	Once	
	<res-type>	Once		<res-type>	Once	
	<res-auth>	Once		<res-auth>	Once	
	<res-sharing-scope>	Zero or once		<res-sharing-scope>	Zero or once	
	<mapped-name>	Zero or once		--	--	
	<injection-target>	Zero or more times		--	--	
	<injection-target-class>	Once		--	--	
	<injection-target-name>	Once		--	--	
	<linked-to>	Zero or once		--	--	
	<resource-env-ref>	Zero or more times		<resource-env-ref>	Zero or more times	
	<description>	Zero or more times		<description>	Zero or more times	
	<resource-env-ref-name>	Once		<resource-env-ref-name>	Once	
	<resource-env-ref-type>	Once		<resource-env-ref-type>	Once	
	<mapped-name>	Zero or once		--	--	
	<injection-target>	Zero or more times		--	--	
	<injection-target-class>	Once		--	--	
	<injection-target-name>	Once		--	--	
	<linked-queue>	Zero or once		--	--	
	<resource-adapter>	Once		--	--	

HITACHI Session Bean Property file				Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern		
	<queue>	Once		--	--		
	<linked-adminobject>	Zero or once		--	--		
	<resourceadapter-name>	Once		--	--		
	<adminobject-name>	Once		--	--		
	(Omitted)	--		(Omitted)	--		
	--	--		<assembly-descriptor>	Zero or once		
	--	--		<security-role>	Zero or more times		
	--	--		<description>	Zero or more times		
	--	--		<role-name>	Once		
	<method-permission>	Zero or more times		<method-permission>	Zero or more times		
	<description>	Zero or more times		<description>	Zero or more times		
	<role-name>#2	One or more times		<role-name>#2	One or more times		
	<unchecked>#2	Once		<unchecked>#2	Once		
	<method>	One or more times		<method>	One or more times		
	<description>	Zero or more times		<description>	Zero or more times		
	--	--		<ejb-name>	Once		
	<method-intf>	Zero or once		<method-intf>	Zero or once		
	<method-name>	Once		<method-name>	Once		
	<method-params>	Zero or once		<method-params>	Zero or once		
	<method-param>	Zero or more times		<method-param>	Zero or more times		
	<container-transaction>	Zero or more times		<container-transaction>	Zero or more times		
	<description>	Zero or more times		<description>	Zero or more times		
	<method>	One or more times		<method>	One or more times		
	<description>	Zero or more times		<description>	Zero or more times		
	--	--		<ejb-name>	Once		
	<method-intf>	Zero or once		<method-intf>	Zero or once		
	<method-name>	Once		<method-name>	Once		

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HITACHI Session Bean Property file				Deployment Descriptor			
Tag name		Occurrence pattern		Tag name		Occurrence pattern	
	<method-params>	Zero or once			<method-params>	Zero or once	
	<method-param>	Zero or more times			<method-param>	Zero or more times	
	<trans-attribute>	Once			<trans-attribute>	Once	
	<exclude-list>	Zero or once			<exclude-list>	Zero or once	
	<description>	Zero or more times			<description>	Zero or more times	
	<method>	One or more times			<method>	One or more times	
	<description>	Zero or more times			<description>	Zero or more times	
	--	--			<ejb-name>	Once	
	<method-intf>	Zero or once			<method-intf>	Zero or once	
	<method-name>	Once			<method-name>	Once	
	<method-params>	Zero or once			<method-params>	Zero or once	
	<method-param>	Zero or more times			<method-param>	Zero or more times	
	--	--			<ejb-client-jar>	Zero or once	
	<runtime>	Zero or once			--	--	
	(Omitted)	--			--	--	

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

#1

Specify either <use-caller-identity> or <run-as>.

#2

Specify either <role-name> or <unchecked>.

3.4.3 Mapping with cosminexus.xml

The following table describes the correspondence between the HITACHI Session Bean Property file and cosminexus.xml:

HITACHI Session Bean Property file			cosminexus.xml		
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	<hitachi-session-bean-property>	Once		<session>	Zero or more times
	--	--		<ejb-name>#1	Once
	<security-identity>	Zero or once		<security-identity>	Zero or once

HITACHI Session Bean Property file		cosminexus.xml			
Tag name	Occurrence pattern	Tag name	Occurrence pattern		
<run-as>	Once	<run-as>	Once		
<description>	Zero or more times	--	--		
<role-name>	Once	--	--		
<user-name>	Once	<user-name>	Once		
<ejb-ref>	Zero or more times	--	--		
<description>	Zero or more times	--	--		
<ejb-ref-name>	Once	--	--		
<ejb-ref-type>	Once	--	--		
<home>	Once	--	--		
<remote>	Once	--	--		
<ejb-link>	Zero or once	--	--		
<resource-ref>	Zero or more times	<resource-ref>	Zero or more times		
<description>	Zero or more times	--	--		
<res-ref-name>	Once	<res-ref-name>	Once		
<res-type>	Zero or once	--	--		
<res-auth>	Zero or once	--	--		
<res-sharing-scope>	Zero or once	--	--		
<linked-to>	Zero or once	<linked-to>#2	Once		
<resource-env-ref>	Zero or more times	<resource-env-ref>	Zero or more times		
<description>	Zero or more times	--	--		
<resource-env-ref-name>	Once	<resource-env-ref-name>	Once		
<resource-env-ref-type>	Zero or once	--	--		
<linked-queue>	Zero or once	<linked-queue>#2	Once		
<resource-adapter>#3	Once	<resource-adapter>	Once		
<queue>#3	Once	<queue>	Once		
<linked-adminobject>	Zero or once	<linked-adminobject>#2	Once		
<resourceadapter-name>#4	Once	<resourceadapter-name>	Once		
<adminobject-name>#4	Once	<adminobject-name>	Once		
<linked-to>	Zero or once	<linked-to>#2	Once		
<runtime>	Zero or once	--	--		
<lookup-name>	Once	<lookup-name>#2	Zero or once		

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HITACHI Session Bean Property file			cosminexus.xml		
Tag name	Occurrence pattern		Tag name	Occurrence pattern	
<optional-name>	Zero or once		<optional-name>	Zero or once	
<local-optional-name>	Zero or once		<local-optional-name>	Zero or once	
<maximum-sessions>	Once		<maximum-sessions>#2	Zero or once	
<stateless>#5	Either one once or neither		<stateless>#2	Zero or once	
<pooled-instance>	Once		<pooled-instance>#2	Zero or once	
<minimum>	Once		<minimum>#2	Zero or once	
<maximum>	Once		<maximum>#2	Zero or once	
<instance-timeout>	Zero or once		<instance-timeout>	Zero or once	
<stateful>#5	Either one once or neither		<stateful>#2	Zero or once	
<maximum-active-sessions>	Once		<maximum-active-sessions>#2	Zero or once	
<inactivity-timeout>	Once		<inactivity-timeout>#2	Zero or once	
<removal-timeout>	Once		<removal-timeout>#2	Zero or once	
<enable-scheduling>	Zero or once		<enable-scheduling>	Zero or once	
<pass-by-reference>	Zero or once		<pass-by-reference>	Zero or once	
<scheduling>	Zero or once		<scheduling>	Zero or once	
<queue-name>	Once		<queue-name>#2	Zero or once	
<parallel-count>	Once		<parallel-count>#2	Zero or once	
<queue-length>	Zero or once		<queue-length>	Zero or once	
<front-ejb>	Zero or once		<front-ejb>	Zero or once	
<start-order>	Zero or once		<start-order>	Zero or once	
<ejb-method-observation-timeout>	Zero or more times		<ejb-method-observation-timeout>	Zero or more times	
<method>	One or more times		<method>	One or more times	
<description>	Zero or once		--	--	
<method-intf>	Zero or once		<method-intf>	Zero or once	
<method-name>	Once		<method-name>	Once	
<method-params>	Zero or once		<method-params>	Zero or once	
<method-param>	Zero or more times		<method-param>	Zero or more times	
<method-observation-timeout>	Once		<method-observation-timeout>	Once	

HITACHI Session Bean Property file			cosminexus.xml			
Tag name		Occurrence pattern	Tag name		Occurrence pattern	
<ejb-transaction-timeout>		Zero or more times	<ejb-transaction-timeout>		Zero or more times	
<method>		One or more times	<method>		One or more times	
<description>		Zero or once	--		--	
<method-intf>		Zero or once	<method-intf>		Zero or once	
<method-name>		Once	<method-name>		Once	
<method-params>		Zero or once	<method-params>		Zero or once	
<method-param>		Zero or more times	<method-param>		Zero or more times	
<transaction-timeout>		Once	<transaction-timeout>		Once	

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

#1

This tag corresponds to <ejb-jar>-<enterprise-beans>-<session>-<ejb-name> of ejb-jar.xml and does not exist in the property file. This tag is the key for identifying SessionBeans.

#2

The occurrence pattern is different from the property file because only the elements to be customized are coded in cosminexus.xml.

#3

Enter the resource adapter display name in resource-adapter and the QUEUE name in <queue>.

#4

Enter the resource adapter display name in <resourceadapter-name> and the administered object name in <adminobject-name>.

#5

In 08-70 or earlier versions, specify either stateless or stateful.

3.5 HITACHI Entity Bean Property file

The HITACHI Entity Bean Property file is used to acquire and edit the Entity Bean properties.

3.5.1 Specifications of the HITACHI Entity Bean Property file

The HITACHI Entity Bean Property file has the following DOCTYPE declaration:

```
<!DOCTYPE hitachi-entity-bean-property PUBLIC "-//Hitachi, Ltd.//DTD Entity Bean Property
7.6//EN" 'file:///Cosminexus-installation-directory/CC/admin/dtds/hitachi-entity-bean-
property_7_6.dtd'>
```

The HITACHI Entity Bean Property file is an xml file containing the following tags. Note that you can also use the earlier versions of the property file.

The related information of a tag is described in the reference manuals mentioned in the *Tag name* column. *uCosminexus Application Server* is omitted from the manual names.

Tag name	Occurrence pattern	Explanation
<hitachi-entity-bean-property>	Once	Specifies the root tag.
<description>#1	Zero or more times#2	Describes the Entity Bean.
<display-name>#1	One or more times#2	Specifies the Entity Bean display name. Make sure you specify display-name with the xml:lang property as en. Even if the display name of the corresponding resource is specified in the command argument, you specify display-name with the xml:lang property as en. $1 \leq \text{character-string-length}$ There is no restriction on the characters to be used. However, any single-byte space or linefeed at the beginning or end of the character string is removed.
<icon>#1	Zero or more times#2	Defines the icons of Entity Bean displayed on the GUI tool.
<small-icon>	Zero or once	Specifies the file name for small icons (16 × 16).
<large-icon>	Zero or once	Specifies the file name for large icons (32 × 32).
<persistence-type>	Once	Specifies the persistence management type. #3 You can specify the following character strings: <ul style="list-style-type: none"> • Bean • Container
<prim-key-class>	Once	Specifies the primary key class. You can specify the class, interface, or primitive type that can be specified as a single primary key and compound primary key. If the persistence management type is <i>Bean</i> , you can specify a concrete class, abstract class, and interface. If the persistence management type is <i>Container</i> , you can specify only a concrete class. The classes handled as a single primary key are as follows:

Tag name	Occurrence pattern	Explanation
<prim-key-class>	Once	<ul style="list-style-type: none"> • java.lang.Boolean • java.lang.Byte • java.lang.Character • java.lang.Short • java.lang.Integer • java.lang.Long • java.lang.Float • java.lang.Double • java.lang.String <p>The classes and the interfaces handled as a compound primary key are as follows:</p> <p>For a class</p> <ul style="list-style-type: none"> • java.lang.Object • Class in which java.io.Serializable is implemented and boolean equals(Object obj) and int hashCode() are overridden (possible even if java.io.Serializable is implemented in the parent class). <p>For an interface</p> <p>An interface implemented in the class in which java.io.Serializable is implemented and boolean equals(Object obj) and int hashCode() are overridden (possible even if java.io.Serializable is implemented in the parent class).</p>
<reentrant>	Once	<p>Specifies whether recursive invocation can be executed in the same transaction.</p> <p>You can specify the following values:</p> <p>true Recursive invocation can be executed.</p> <p>false Recursive invocation cannot be executed.</p>
<abstract-schema-name>	Zero or once	<p>Specifies the abstract schema name of an EntityBean.</p> <p>If there are multiple schema names, set a unique value for each schema name.</p>
<cmp-field>	Zero or more times	<p>If Container is specified for persistence-type This tag is mandatory.</p> <p>If Bean is specified for persistence-type This tag is ignored by the cjsetapprop and the cjsetresprop commands.</p>
<description>#1	Zero or more times#2	Describes the cmp-field.
<field-name>	Once	Specifies the field name of the Bean that manages persistence.
<primkey-field>	Zero or once	<p>Specifies the field name of the Entity Bean acting as the primary key.</p> <p>This tag is mandatory when Container is specified for persistence-type and a class acting as a</p>

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Tag name	Occurrence pattern	Explanation
<primkey-field>	Zero or once	single primary key is specified for <code>prim-key-class</code> . In all other cases, this tag is ignored by the <code>cjsetapprop</code> and the <code>cjsetresprop</code> commands. The value that you can specify is the character string specified for the <code>field-name</code> of <code>cmp-field</code> . The data type of the field specified for <code>primkey-field</code> must match with the character string of <code>prim-key-class</code> .
<env-entry>	Zero or more times	Defines the environment entry.
<description>#1	Zero or more times#2	Describes the environment entry.
<env-entry-name>	Once	Specifies the environment entry name.
<env-entry-type>	Once	Specifies the environment entry data type. You can specify the following character strings: <ul style="list-style-type: none"> • <code>java.lang.Boolean</code> • <code>java.lang.Byte</code> • <code>java.lang.Short</code> • <code>java.lang.Integer</code> • <code>java.lang.Long</code> • <code>java.lang.Float</code> • <code>java.lang.Double</code> • <code>java.lang.String</code> • <code>java.lang.Character</code>
<env-entry-value>	Once	Specifies the environment entry value. Specify a value suitable to the type specified in <code>env-entry-type</code> . If a value other than <code>java.lang.String</code> is specified in <code>env-entry-type</code> , you cannot specify a null character.
<ejb-ref>	Zero or more times	Defines the reference information of the Enterprise Bean with a remote interface.
<description>#1	Zero or more times#2	Describes <code>ejb-ref</code> .
<ejb-ref-name>	Once	Specifies the <code>ejb-ref</code> name.
<ejb-ref-type>	Once	Specifies the type of Enterprise Bean to be linked to. You can specify the following character strings: <ul style="list-style-type: none"> • <code>Entity</code> • <code>Session</code>
<home>	Once	Specifies the Remote Home interface name of the Enterprise Bean to be linked to.
<remote>	Once	Specifies the Remote Component interface name of the Enterprise Bean to be linked to.
<ejb-link>	Zero or once	Specifies the <code>ejb-name</code> to be linked to.

Tag name	Occurrence pattern	Explanation
<ejb-local-ref>	Zero or more times	Defines the reference information of the Enterprise Bean with a local interface.
<description>#1	Zero or more times#2	Describes ejb-local-ref.
<ejb-ref-name>	Once	Specifies the ejb-local-ref name.
<ejb-ref-type>	Once	Specifies the type of Enterprise Bean to be linked to. You can specify the following character strings: <ul style="list-style-type: none"> • Session • Entity
<local-home>	Once	Specifies the Local Home interface name of the Enterprise Bean to be linked to.
<local>	Once	Specifies the Local Component interface name of the Enterprise Bean to be linked to.
<ejb-link>	Zero or once	Specifies ejb-name to be linked to.
<security-role-ref>	Zero or more times	Defines the security role.
<description>#1	Zero or more times#2	Describes security-role-ref.
<role-name>	Once	Specifies the security-role-ref name.
<role-link>	Zero or once	Specifies the role name to be linked to.
<security-identity>	Zero or once	Defines the security identity.
<description>#1	Zero or more times#2	Describes security-identity.
<use-caller-identity>	Once	Specifies whether to use the runtime security-identity. Note that this tag does not have a value. Specify either <use-caller-identity> or <run-as>.
<run-as>	Once	Defines the information of the runtime security-identity. Specify either <use-caller-identity> or <run-as>.
<description>#1	Zero or more times#2	Describes the runtime security-identity.
<role-name>	Once	Specifies the role name of the runtime security-identity.
<user-name>	Zero or once	Specifies the principal name.
<resource-ref>	Zero or more times	Defines the reference information for the resource.
<description>#1	Zero or more times#2	Describes resource-ref.
<res-ref-name>	Once	Specifies the resource-ref name.
<res-type>	Once	Specifies the resource type. You can specify the following character strings:

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Tag name	Occurrence pattern	Explanation
<res-type>	Once	<ul style="list-style-type: none"> • javax.mail.Session • javax.sql.DataSource • javax.jms.QueueConnectionFactory • javax.jms.ConnectionFactory • javax.resource.cci.ConnectionFactory • org.omg.CORBA_2_3.ORB (a resource that can be looked up even if not defined in a DD) • javax.jms.TopicConnectionFactory <p>If the reference destination is a Connector 1.5 resource adapter, specify the connection definition identifier (value set in the <connectionfactory-interface> tag) of the reference destination resource adapter.</p>
<res-auth>	Once	<p>Specifies the authentication method.</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • Application • Container
<res-sharing-scope>	Zero or once	<p>Specifies whether to share the referenced resources.</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • Shareable • Unshareable
<mapped-name>	Zero or once	<p>Specifies the corresponding resource adapter display name or mail display name. #3</p> <p>When you specify this tag at the same time as the <linked-to> tag, the <linked-to> tag becomes valid.</p>
<linked-to>	Zero or once	<p>Specifies the corresponding resource adapter display name, data source display name, or mail display name.</p> <p>How to specify the resource adapter display name differs depending on the resource adapter version.</p> <p>Connector 1.0 or earlier versions <i>Resource-adapter-display-name</i></p> <p>Outbound resource adapter of Connector 1.5 or later versions <i>Resource-adapter-display-name!Connection-definition-identifier</i></p> <p>The <i>Connection-definition-identifier</i> is the value specified in the <connectionfactory-interface> tag in the ra.xml.</p> <p>You cannot specify a member resource adapter of the cluster connection pool.</p> <p>This tag is ignored by the <code>cjsetresprop</code> command.</p>
<resource-env-ref>	Zero or more times	<p>Defines the reference information for the resource environment variable.</p>
<description>#1	Zero or more times#2	<p>Describes resource-env-ref.</p>
<resource-env-ref-name>	Once	<p>Specifies the resource-env-ref name.</p>

	Tag name	Occurrence pattern	Explanation
	<resource-env-ref-type>	Once	<p>Specifies the class type of the resource environment variable value.</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • <code>javax.jms.Queue</code> • <code>javax.jms.Topic</code> • Class name of the JavaBeans resource <p>When you specify <linked-adminobject>, any class name is displayed.</p>
	<mapped-name>	Zero or once	<p>Displays the corresponding queue^{#3} in the following format when <resource-env-ref-type> is <code>javax.jms.Queue</code>.</p> <p><i>Resource-adapter-display-name#Queue-name</i></p> <p>When you specify this tag at the same time as <linked-Queue>, the <linked-Queue> tag becomes valid.</p> <p>Displays the display name of the corresponding JavaBeans resource when <resource-env-ref-type> is <i>JavaBeans-resource-class-name</i>. When you specify this tag at the same time as <linked-to>, the <linked-to> tag becomes valid.</p>
	<linked-queue>	Zero or once	<p>Specifies the queue name.</p> <p>This tag is ignored in the <code>cjsetresprop</code> command.</p> <p>This tag is valid only when <resource-env-ref-type> is <code>javax.jms.Queue</code>.</p>
	<resource-adapter>	Once	<p>Specifies the resource adapter display name.</p> <p>You cannot specify the resource adapters conforming to Connector1.5 specifications.</p>
	<queue>	Once	<p>Specifies the display name of the queue.</p>
	<linked-adminobject>	Zero or once	<p>Specifies the administered object.</p> <p>This tag is ignored in the <code>cjsetresprop</code> command.</p>
	<resourceadapter-name>	Once	<p>Specifies the resource adapter display name.</p> <p>You cannot specify the resource adapters conforming to Connector1.0 or earlier versions.</p>
	<adminobject-name>	Once	<p>Specifies the administered object name.</p> <p>You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:</p> <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semi-colon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~)</p> <p>You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> • Name containing a period (.) at the beginning or at the end • Name containing only a period (.)

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Tag name	Occurrence pattern	Explanation
<adminobject-name>	Once	<ul style="list-style-type: none"> Name containing continuous underscores (_) Any single-byte space or linefeed at the beginning or end of the character string is removed.
<linked-to>	Zero or once	Specifies the JavaBeans resource display name. This tag is valid only when <resource-env-ref-type> is <i>JavaBeans-resource-class-name</i> . This tag is ignored in the <code>cjsetresprop</code> command.
<query>	Zero or more times	Defines the EJB QL.
<description>	Zero or once	Describes the query.
<query-method>	Once	Defines the query method.
<method-name>	Once	Specifies the query method (<i>finder</i> or <i>select</i> method).
<method-params>	Once	Specifies the query method arguments.
<method-param>	Zero or more times	Specifies the Java type of the <i>finder</i> or <i>select</i> method arguments.
<result-type-mapping>	Zero or once	Specifies the object type when the <i>Entity</i> object is returned by the <i>select</i> method. Specify either <i>Remote</i> or <i>Local</i> . The default value is <u>Local</u> .
<ejb-ql>	Once	Specifies the EJB QL query statement.
<method-permission>	Zero or more times	Defines the method permission.
<description>#1	Zero or more times#2	Describes <i>method-permission</i> .
<role-name>	One or more times	Specifies the role name allocated to the method. Specify either <role-name> or <unchecked>.
<unchecked>	Once	Specifies the authentication check for executing the method. If you use this tag, the authentication check is not performed. Specifies the role name allocated to the method. Specify either <role-name> or <unchecked>. Note that this tag does not have a value.
<method>	One or more times	Defines the method.
<description>	Zero or more times#2	Describes the method.
<method-intf>	Zero or once	Specifies the type of interface to which the method belongs. You can specify the following character strings: <ul style="list-style-type: none"> Home Remote LocalHome

Tag name		Occurrence pattern	Explanation
	<method-intf>	Zero or once	<ul style="list-style-type: none"> Local <p>When this tag is omitted, all the interface types are assumed to be specified.</p>
	<method-name>	Once	<p>Specifies the method name.</p> <p>When you specify "*", all the methods are assumed to be specified.</p>
	<method-params>	Zero or once	<p>This tag is valid when method-name is not "*".</p> <p>When method-params is specified</p> <p>Specifies the method-name method existing in the interface specified in method-intf and containing the parameters specified in method-params.</p> <p>When method-params is not specified</p> <p>Specifies all the method-name methods existing in the interface specified in method-intf.</p>
	<method-param>	Zero or more times	<p>Specifies the parameter data type.</p> <p>Specify the primitive type or class name.</p> <p>For an array, specify square brackets ([]) after the name (ensure that there is no space between "name" and "[", and "[" and "]").</p> <p>For a multidimensional array, specify square brackets ([]) one after the other (there must be no space between "]" and "[").</p> <p>You cannot specify the internal format name of the array ([I for int[], and [Ljava.lang.String; for java.lang.String[]).</p> <p>For example:</p> <ul style="list-style-type: none"> int short[][] java.lang.String[]
	<container-transaction>	Zero or more times	Defines the container transaction
	<description>#1	Zero or more times#2	Describes container-transaction.
	<method>	One or more times	Defines the method
	<description>#1	Zero or more times#2	Describes the method
	<method-intf>	Zero or once	<p>Specifies the interface type to which the method belongs.</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> Home Remote LocalHome Local <p>When this tag is omitted, all the interface types are assumed to be specified.</p>

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Tag name	Occurrence pattern	Explanation
<method-name>	Once	Specifies the method name. When you specify "*", all the methods are assumed to be specified. #4
<method-params>	Zero or once	This tag is valid when method-name is not a wild card (*). When method-params is specified Specifies the method-name method existing in the interface specified in method-intf and containing the parameters specified in method-params. When method-params is not specified Specifies all the method-name methods existing in the interface specified in method-intf.
<method-param>	Zero or more times	Specifies the parameter data type. Specify the primitive type or class name. For an array, specify square brackets ([]) after the name (ensure that there is no space between "name" and "[", and "[" and "]"). For a multidimensional array, specify square brackets ([]) one after the other (there must be no space between "]" and "["). You cannot specify the internal format name of the array ([I for int[], and [Ljava.lang.String; for java.lang.String[]). For example: <ul style="list-style-type: none"> • int • short[][] • java.lang.String[]
<trans-attribute>	Once	Specifies the transaction attribute allocated to the method. You can specify the following character strings: <ul style="list-style-type: none"> • Mandatory • Never • NotSupported • Required • RequiresNew • Supports
<exclude-list>	Zero or once	Defines the list of methods that are not to be invoked.
<description>#1	Zero or more times#2	Describes exclude-list
<method>	One or more times	Defines the methods that are not to be invoked.
<description>#1	Zero or more times#2	Describes the methods that are not to be invoked
<method-intf>	Zero or once	Specifies the interface type to which the method belongs. You can specify the following character strings:

Tag name	Occurrence pattern	Explanation
<method-intf>	Zero or once	<ul style="list-style-type: none"> • Home • Remote • LocalHome • Local <p>When this tag is omitted, all the interface types are assumed to be specified.</p>
<method-name>	Zero or once	<p>Specifies the method name.</p> <p>When you specify "*", all the methods are assumed to be specified.</p>
<method-params>	Zero or once	<p>This tag is valid when method-name is not "*".</p> <p>When method-params is specified</p> <p>Specifies the method-name method existing in the interface specified in method-intf and containing the parameters specified in method-params.</p> <p>When method-params is not specified</p> <p>Specifies all the method-name methods existing in the interface specified in method-intf.</p>
<method-param>	Zero or more times	<p>Specifies the parameter data type.</p> <p>Specify the primitive type or class name.</p> <p>For an array, specify square brackets ([]) after the name (ensure that there is no space between "name" and "[", and "[" and "]").</p> <p>For a multidimensional array, specify square brackets ([]) one after the other (there must be no space between "]" and "[").</p> <p>You cannot specify the internal format name of the array ([I for int[], and [Ljava.lang.String; for java.lang.String[]).</p> <p>For example:</p> <ul style="list-style-type: none"> • int • short[][] • java.lang.String[]
<runtime>	Zero or once	<p>When this tag is used in the cjsetappprop command</p> <p>This tag is mandatory.</p> <p>When this tag is used in the cjsetresprop command</p> <p>This tag is ignored.</p>
<lookup-name>	Once	<p>Specifies the name used when looking up the EJB from the client.</p> <p>This tag corresponds to <i>EJB-lookup-name</i> in <i>HITACHI_EJB/SERVERS/server-name/EJB/application-lookup-name/EJB-lookup-name</i>.</p> <p>You can specify alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters in the lookup name:</p> <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and</p>

Tag name	Occurrence pattern	Explanation
<lookup-name>	Once	<p>right parenthesis () (), asterisk (*), plus sign (+), hyphen (-), period (.), colon (:), semi-colon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~).</p> <p>You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> • Name containing a period (.) at the beginning or at the end • Name containing only a period (.) <p>Any single-byte space or linefeed at the beginning or end of the character string is removed. If a linefeed appears in the middle of the character string, an error occurs.</p> <p>$1 \leq \text{character-string-length} \leq 255$</p>
<optional-name>	Zero or once	<p>Specifies the optional name of the remote interface.</p> <p>You can use alphanumeric characters (0 to 9, A to Z, a to z) and the following special characters in the value:</p> <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation mark ('), left parenthesis ((), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), forward slash (/), colon (:), semi-colon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~).</p> <p>You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> • Names beginning with the reserved word HITACHI_EJB (case sensitive) • Names in which forward slash (/) or period (.) is specified at the beginning or end • Names containing only forward slash (/) or period (.) • Names containing continuous forward slashes (/) <p>Any single-byte space or linefeed at the beginning or end of the character string is removed. If a linefeed appears in the middle of the character string, an error occurs.</p> <p>$1 \leq \text{character-string-length} \leq 255$</p> <p>If no character is specified, the tag is assumed to be omitted.</p>
<local-optional-name>	Zero or once	<p>Specifies the optional name of the local interface.</p> <p>There is no restriction on the value to be set up.</p> <p>Any single-byte space or linefeed at the beginning or end of the character string is removed.</p>
<maximum-instances>	Once	<p>Specifies the maximum number of the Enterprise Bean instances.</p> <p>$0 \text{ (infinite) or } 1 \leq \text{maximum-instances} \leq 2147483647$</p>

Tag name	Occurrence pattern	Explanation
<pooled-instance>	Once	Specifies the instance pool properties.
<minimum>	Once	Specifies the minimum number of instances in the pool. 0 (infinite) or $1 \leq \text{minimum} \leq \text{maximum}$ If you specify an upper limit for <code>maximum</code> , you must also specify an upper limit for <code>minimum</code> .
<maximum>	Once	Specifies the maximum number of instances in the pool. 0 (infinite) or $1 \leq \text{maximum} \leq \text{maximum-instances}$ If you specify an upper limit for <code>maximum-instances</code> , you must also specify an upper limit for <code>maximum</code> .
<caching-model>	Once	Specifies the data caching method. Specify any one of the following values: <code>full-caching</code> The entire status information when the method is running is cached. <code>caching</code> The status information used most frequently when the method is running is cached. <code>no-caching</code> Status information is not cached.
<entity-timeout>	Zero or once	Specifies the existence period (seconds) of the EJBObject. 0: No timeout. $1 \leq \text{set-value} \leq 2147483647$
<pass-by-reference>	Zero or once	Specifies a pass by reference for the data of each Bean.
<instance-timeout>	Zero or once	Specifies a value from 0 to 86400 (unit: seconds) as the timeout period for acquiring an instance. If you specify 0, a timeout will not occur. The default value is 0.
<front-ejb>	Zero or once	Specifies whether the specified EJB is a front EJB (an EJB invoked directly by the client). Specify <code>true</code> if the EJB is a front EJB and <code>false</code> if it is not. The default value is <code>false</code> .
<ejb20-cmp>	Zero or once	Specifies the setting for CMP of EntityBeans in EJB 1.1 and EJB 2.0. ^{#3} This tag is ignored in the <code>cjsetappprop</code> command.
<sql-statement>	Zero or more times	Relates the method with an SQL statement. ^{#3} The methods are <code>finder</code> and <code>ejbSelect</code> .
<method>	Once	Defines the method. ^{#3} Specify either <code><method></code> or <code><operation></code> .
<method-intf>	Zero or once	Specifies the type of interface to which the method belongs. ^{#3} You can specify the following character strings: <ul style="list-style-type: none"> • Home • Remote

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Tag name	Occurrence pattern	Explanation
<method-intf>	Zero or once	<ul style="list-style-type: none"> LocalHome Local <p>When this tag is omitted, all the interface types are assumed to be specified.</p>
<method-name>	Once	<p>Specifies the method name. #3</p> <p>When you specify "*", all the methods are assumed to be specified.</p>
<method-params>	Zero or once	<p>This tag is valid when method-name is not "*". #3</p> <p>When method-params is specified</p> <p>Specifies the method-name method existing in the interface specified in method-intf and containing the parameters specified in method-params.</p> <p>When method-params is not specified</p> <p>Specifies all the method-name methods existing in the interface specified in method-intf.</p>
<method-param>	Zero or more times	<p>Specifies the parameter data type. #3</p> <p>Specify the primitive type or class name.</p> <p>For an array, specify square brackets ([]) after the name (ensure that there is no space between "name" and "[", and "[" and "]").</p> <p>For a multidimensional array, specify square brackets ([]) one after the other (there must be no space between "]" and "[").</p> <p>You cannot specify the internal format name of the array ([I for int[], and [Ljava.lang.String; for java.lang.String[]).</p> <p>For example:</p> <ul style="list-style-type: none"> int short[][] java.lang.String[]
<operation>	Once	<p>Specifies the CMP operation name. #3</p> <p>Specify either <method> or <operation>.</p>
<sql>	Once	<p>Specifies the SQL statement. #3</p>
<cmp-map>	Zero or once	<p>When persistence-type is Bean</p> <p>This tag is ignored in the cjsetapprop command.</p> <p>When persistence-type is Container</p> <p>This tag is mandatory.</p>
<datasource-name>	Once	<p>Specifies the display name of the data source for mapping the Enterprise Bean fields or the display name of the running resource adapter.</p> <p>How to specify the resource adapter display name differs depending on the resource adapter version.</p> <p>Connector 1.0 or earlier versions</p> <p><i>Resource-adapter-display-name</i></p>

	Tag name	Occurrence pattern	Explanation
	<datasource-name>	Once	Outbound resource adapter of Connector 1.5 or later versions <i>Resource-adapter-display-name! Connection-definition-identifier</i> The <i>connection-definition-identifier</i> refers to the value specified in the <connectionfactory-interface> tag in ra.xml. You cannot specify a member resource adapter of the cluster connection pool.
	<catalog-name>	Zero or once	Specifies the catalog name of the database for mapping the Enterprise Bean field.
	<schema-name>	Zero or once	Specifies the schema name of the database for mapping the Enterprise Bean field.
	<table-name>	Once	Specifies the table name of the database for mapping the Enterprise Bean field.
	<read-only-access>	Once	Allows or denies the permission for writing to the database from the application. Specify one of the following values: true Writing will be prohibited. false Writing will be permitted.
	<available-transaction-isolations>	Once	Defines the transactions that you can specify.
	<transaction-isolation>	Zero or more times	Describes the specifiable transaction isolation level. #3 Specify one of the following values (auto-generated by accessing the database when the property file is created with the <code>cjgetappprop</code> command): none Transaction is not supported. read committed Dirty read is controlled. read uncommitted Dirty read, non-repeatable read, and phantom read occur. repeatable_read Dirty read and non-repeatable read are controlled. serializable Dirty read, non-repeatable read, and phantom read are controlled.
	<transaction-isolation>	Zero or once	Specifies the transaction isolation level. Specify one of the transactions included in <code>available-transaction-isolations</code> . When this tag is omitted, the default transaction isolation level is used (differs on the basis of the database and the JDBC drivers used).
	<concurrency-protection>	Zero or once	Specifies the data and record comparison method to be written in the database. You can specify the following values:

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Tag name	Occurrence pattern	Explanation
<code><concurrency-protection></code>	Zero or once	<p><code>primary-key</code> Compares with the primary key and updates the data.</p> <p><code>modified-data</code> Compares with the primary key and checks if the value of the data to be changed is changed after the last read operation.</p> <p><code>whole-row</code> Compares with the primary key and checks if all the values in the row, including the value to be changed, are changed after the last read operation.</p> <p>You can omit this tag when <code>read-only-access</code> is true. The tag is ignored even if a value is set.</p>
<code><field-impl></code>	Zero or more times	Defines the mapping of the Entity Bean field and table column. #3
<code><field-name></code>	Once	Specifies the Entity Bean field name. #3
<code><column-name></code>	Once	Specifies the column name of the table.
<code><finder-impl></code>	Zero or more times	Specifies the search conditions of the Finder method other than <code>ejbFindByPrimaryKey</code> . #3
<code><method-name></code>	Once	Specifies the Finder method name. #3
<code><where-clause></code>	Once	<p>Specifies the search conditions of the table. You can specify values other than hash mark (#).</p> <ul style="list-style-type: none"> The operators that you can specify for the search conditions are as follows. Note that you use entities such as round brackets "(") as described in the table when editing a property file with the text editor because the use of angle brackets "<>" for values in XML syntaxes is not permitted. <p>IS NULL NULL.</p> <p>IS NOT NULL Not NULL.</p> <p>= Equal (You can use this operator when the Finder method has one or more parameters).</p> <p>!= Not equal (You can use this operator when the Finder method has one or more parameters).</p> <p>< (&lt; ;) Less than ... (You can use this operator when the Finder method has one or more parameters).</p> <p>> (&gt; ;) Greater than ... (You can use this operator when the Finder method has one or more parameters).</p> <p><= (&lt; ; =) Less than or equal to ... (You can use this operator when the Finder method has one or more parameters).</p>

Tag name	Occurrence pattern	Explanation
<p><where-clause></p>	<p>Once</p>	<p>>= (&gt;=)</p> <p>More than or equal to ... (You can use this operator when the <code>Finder</code> method has one or more parameters).</p> <p>LIKE</p> <p>Matches with the search pattern (You can use this operator when the <code>Finder</code> method has one or more parameters).</p> <p>NOT LIKE</p> <p>Does not match with the search pattern (You can use this operator when the <code>Finder</code> method has one or more parameters).</p> <p>BETWEEN</p> <p>Within the range (You can use this operator when the <code>Finder</code> method has two or more parameters).</p> <p>NOT BETWEEN</p> <p>Not within the range (You can use this operator when the <code>Finder</code> method has two or more parameters).</p> <ul style="list-style-type: none"> The syntax of the search condition is as follows: <p>When using <code>IS NULL</code> or <code>IS NOT NULL</code> operators Field name Operator</p> <p>When using <code>BETWEEN</code> or <code>NOT BETWEEN</code> operators Field name Operator ?number AND ? number</p> <p>When using other operators Field name Operator ?number</p> <ul style="list-style-type: none"> You can join the search conditions with <code>AND</code> or <code>OR</code>. Search conditions, <code>AND</code>, <code>OR</code>, and field names are case sensitive. ?number specifies the location of the arguments of the <code>Finder</code> method (1, 2, ... from the left). <p>For example:</p> <pre>id &lt;= ?1 AND value IS NOT NULL OR name BETWEEN ?3 AND ?4</pre> <ul style="list-style-type: none"> Insert a space of one or more characters between the search conditions, <code>AND</code>, <code>OR</code>, field names, and ? number. In the case of a blank character string, all the rows of the table are assumed to match the search pattern. <p>You cannot use this method from the application when <code>DISABLE</code> is specified.</p>
<p><start-order></p>	<p>Zero or once</p>	<p>Specifies the order of starting and stopping the J2EE applications. The start process is executed in the ascending order when the applications are started and the stop process is executed in the descending order when the applications are terminated.</p> <p>$0 \leq \text{start-order} \leq 2147483647$</p>
<p><ejb-method-observation-timeout></p> <p>Chapter 5 in the <i>Operation, Monitoring, and Linkage Guide</i></p>	<p>Zero or more times</p>	<p>This tag is specified when you set up a timeout value for monitoring the in-process methods, in an EJB method.</p>

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Tag name	Occurrence pattern	Explanation
<ejb-method-observation-timeout> <i>Chapter 5 in the Operation, Monitoring, and Linkage Guide</i>	Zero or more times	When multiple <ejb-method-observation-timeout> tags are specified and the values set under the <method> tags (excluding the <description> tag) are the same, the tags are merged into one. In this case, a warning message (KDJE37601-W) is output, and the value of <method-observation-timeout> of the <ejb-method-observation-timeout> tag defined first is enabled.
<method>	One or more times	--
<description>	Zero or once	Describes the method. You cannot specify this tag multiple times.
<method-intf>	Zero or once	This tag is specified when identifying the interface type to which the method belongs. You can specify the following values: <ul style="list-style-type: none"> • Home • Remote • LocalHome • Local When this tag is omitted, all the interface types are assumed to be specified.
<method-name>	Once	Specifies the target method name. When you specify "*", all the methods are assumed to be specified. #4
<method-params>	Zero or once	Specified for identifying the method, when multiple methods are defined.
<method-param>	Zero or more times	Specifies the argument data type.
<method-observation-timeout>	Once	Specifies a value from 0 to 86400 (unit: seconds) as the timeout value (seconds) used for monitoring the in-process methods. When you specify 0, a timeout does not occur. The default value is 0.
<ejb-transaction-timeout> <i>3.15.8 in the Common Container Functionality Guide</i>	Zero or more times	This tag is specified when you set up a transaction timeout value for the EJB (CMT) method. When multiple <ejb-transaction-timeout> tags are specified and the values set under the <method> tags (excluding the <description> tag) are the same, the tags are merged into one. In this case, a warning message (KDJE37601-W) is output, and the value of <transaction-timeout> of the <ejb-transaction-timeout> tag defined first is enabled.
<method>	One or more times	Defines the method.
<description>	Zero or once	Describes the method. You cannot specify this tag multiple times.
<method-intf>	Zero or once	This tag is specified when identifying the interface type to which the method belongs. You can specify the following values: <ul style="list-style-type: none"> • Home

Tag name		Occurrence pattern	Explanation
	<method-intf>	Zero or once	<ul style="list-style-type: none"> • Remote • LocalHome • Local When this tag is omitted, all the interface types are assumed to be specified.
	<method-name>	Once	Specifies the target method name. When you specify "*", all the methods are assumed to be specified. #4
	<method-params>	Zero or once	Specified for identifying a method when multiple methods are defined.
	<method-param>	Zero or more times	Specifies the argument data type.
	<transaction-timeout>	Once	Specifies the transaction timeout period from 0 to 2147483647 (unit: seconds). #5 The default value is 0. If you specify 0 or if there is no tag, the operation is performed using the default timeout value set in the J2EE server.

#1

You can specify the `xml:lang` property. If the `xml:lang` property is not specified, `en` (English) is assumed. Note that you cannot specify multiple tags with the same `xml:lang` property.

#2

You cannot specify this tag multiple times for EJB 2.0 or earlier versions.

#3

Do not change the tag name, add or delete the tag, or change the value for the tags output with the `cjgetappprop` or `cjgetresprop` commands.

#4

If `false` is specified in the `ejbserver.cui.checkmethod.compatible` key in the `usrconf.properties` file for server management commands and the method specified with this tag does not exist, an error occurs when you set up the property. For details on the `ejbserver.cui.checkmethod.compatible` key of the `usrconf.properties` file, see 5.4 *usrconf.properties (System property file for server management commands)* in the manual *uCosminexus Application Server Definition Reference Guide*.

3.5.2 Mapping with DD

The following table describes the correspondence between the HITACHI Entity Bean Property file and the Deployment Descriptor:

HITACHI Entity Bean Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-entity-bean-property>	Once	<ejb-jar>	Once
--	--	<description>	Zero or once
--	--	<display-name>	Zero or once
--	--	<icon>	Zero or more times
--	--	<small-icon>	Zero or once
--	--	<large-icon>	Zero or once
--	--	<enterprise-beans>	Once

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HITACHI Entity Bean Property file			Deployment Descriptor		
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	--	--		<session>#1	One or more times
	--	--		(Omitted)	--
	--	--		<entity>#1	One or more times
	<description>	Zero or more times		<description>	Zero or more times
	<display-name>	One or more times		<display-name>	Zero or more times
	<icon>	Zero or more times		<icon>	Zero or more times
	<small-icon>	Zero or once		<small-icon>	Zero or once
	<large-icon>	Zero or once		<large-icon>	Zero or once
	--	--		<ejb-name>	Once
	--	--		<home>	Zero or once
	--	--		<remote>	Zero or once
	--	--		<ejb-class>	Once
	<persistence-type>	Zero or once		<persistence-type>	Zero or once
	<prim-key-class>	Once		<prim-key-class>	Once
	<reentrant>	Once		<reentrant>	Once
	<abstract-schema-name>	Zero or once		<abstract-schema-name>	Zero or once
	<cmp-field>	Zero or more times		<cmp-field>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<field-name>	Once		<field-name>	Once
	<primkey-field>	Zero or once		<primkey-field>	Zero or once
	<env-entry>	Zero or more times		<env-entry>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<env-entry-name>	Once		<env-entry-name>	Once
	<env-entry-type>	Once		<env-entry-type>	Once
	<env-entry-value>	Once		<env-entry-value>	Zero or once
	<ejb-ref>	Zero or more times		<ejb-ref>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<ejb-ref-name>	Once		<ejb-ref-name>	Once

HITACHI Entity Bean Property file				Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern		
<ejb-ref-type>		Once	<ejb-ref-type>		Once		
<home>		Once	<home>		Once		
<remote>		Once	<remote>		Once		
<ejb-link>		Zero or once	<ejb-link>		Zero or once		
<ejb-local-ref>		Zero or more times	<ejb-local-ref>		Zero or more times		
<description>		Zero or more times	<description>		Zero or more times		
<ejb-ref-name>		Once	<ejb-ref-name>		Once		
<ejb-ref-type>		Once	<ejb-ref-type>		Once		
<local-home>		Once	<local-home>		Once		
<local>		Once	<local>		Once		
<ejb-link>		Zero or once	<ejb-link>		Zero or once		
<security-role-ref>		Zero or more times	<security-role-ref>		Zero or more times		
<description>		Zero or more times	<description>		Zero or more times		
<role-name>		Once	<role-name>		Once		
<role-link>		Zero or once	<role-link>		Zero or once		
<security-identity>		Zero or once	<security-identity>		Zero or once		
<description>		Zero or more times	<description>		Zero or more times		
<use-caller-identity>#2		Once	<use-caller-identity>#2		Once		
<run-as>#2		Once	<run-as>#2		Once		
<description>		Zero or more times	<description>		Zero or more times		
<role-name>		Once	<role-name>		Once		
<user-name>		Zero or once	--		Once		
<resource-ref>		Zero or more times	<resource-ref>		Zero or more times		
<description>		Zero or more times	<description>		Zero or more times		
<res-ref-name>		Once	<res-ref-name>		Once		
<res-type>		Once	<res-type>		Once		
<res-auth>		Once	<res-auth>		Once		
<res-sharing-scope>		Zero or once	<res-sharing-scope>		Zero or once		
<mapped-name>		Zero or once	--		--		
<linked-to>		Zero or once	--		--		

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HITACHI Entity Bean Property file			Deployment Descriptor		
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	<resource-env-ref>	Zero or more times		<resource-env-ref>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<resource-env-ref-name>	Once		<resource-env-ref-name>	Once
	<resource-env-ref-type>	Once		<resource-env-ref-type>	Once
	<mapped-name>	Zero or once		--	--
	<linked-queue>	Zero or once		--	--
	<resource-adapter>	Once		--	--
	<queue>	Once		--	--
	<linked-adminobject>	Zero or once		--	--
	<resource-adapter-name>	Once		--	--
	<adminobject-name>	Once		--	--
	<query>	Zero or more times		<query>	Zero or more times
	<description>	Zero or once		<description>	Zero or once
	<query-method>	Once		<query-method>	Once
	<method-name>	Once		<method-name>	Once
	<method-params>	Once		<method-params>	Once
	<method-param>	Zero or more times		<method-param>	Zero or more times
	<result-type-mapping>	Zero or once		<result-type-mapping>	Zero or once
	<ejb-ql>	Once		<ejb-ql>	Once
	--	--		<assembly-descriptor>	Zero or once
	--	--		<security-role>	Zero or more times
	--	--		<description>	Zero or more times
	--	--		<role-name>	Once
	<method-permission>	Zero or more times		<method-permission>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<role-name>#3	One or more times		<role-name>#3	One or more times
	<unchecked>#3	Once		<unchecked>#3	Once

HITACHI Entity Bean Property file				Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern		
	<method>	One or more times		<method>	One or more times		
	<description>	Zero or more times		<description>	Zero or more times		
	--	--		<ejb-name>	Once		
	<method-intf>	Zero or once		<method-intf>	Zero or once		
	<method-name>	Once		<method-name>	Once		
	<method-params>	Zero or once		<method-params>	Zero or once		
	<method-param>	Zero or more times		<method-param>	Zero or more times		
	<container-transaction>	Zero or more times		<container-transaction>	Zero or more times		
	<description>	Zero or more times		<description>	Zero or more times		
	<method>	One or more times		<method>	One or more times		
	<description>	Zero or more times		<description>	Zero or more times		
	--	--		<ejb-name>	Once		
	<method-intf>	Zero or once		<method-intf>	Zero or once		
	<method-name>	Once		<method-name>	Once		
	<method-params>	Zero or once		<method-params>	Zero or once		
	<method-param>	Zero or more times		<method-param>	Zero or more times		
	<trans-attribute>	Once		<trans-attribute>	Once		
	<exclude-list>	Zero or once		<exclude-list>	Zero or once		
	<description>	Zero or more times		<description>	Zero or more times		
	<method>	One or more times		<method>	One or more times		
	<description>	Zero or more times		<description>	Zero or more times		
	--	--		<ejb-name>	Once		
	<method-intf>	Zero or once		<method-intf>	Zero or once		
	<method-name>	Once		<method-name>	Once		
	<method-params>	Zero or once		<method-params>	Zero or once		
	<method-param>	Zero or more times		<method-param>	Zero or more times		
	--	--		<ejb-client-jar>	Zero or once		
	<runtime>	Zero or once		--	--		

HITACHI Entity Bean Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
(Omitted)	--	--	--

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

#1

Specify either <session> or <entity>.

#2

Specify either <use-caller-identity> or <run-as>.

#3

Specify either <role-name> or <unchecked>.

3.5.3 Mapping with cosminexus.xml

The following table describes the correspondence between the HITACHI Entity Bean Property file and cosminexus.xml:

HITACHI Entity Bean Property file		cosminexus.xml	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-entity-bean-property>	Once	<entity>	Zero or more times
--	--	<ejb-name>#1	Once
<security-identity>	Zero or once	<security-identity>	Zero or once
<run-as>	Once	<run-as>	Once
<description>	Zero or more times	--	--
<role-name>	Once	--	--
<user-name>	Zero or once	<user-name>#2	Once
<ejb-ref>	Zero or more times	--	--
<description>	Zero or more times	--	--
<ejb-ref-name>	Once	--	--
<ejb-ref-type>	Once	--	--
<home>	Once	--	--
<remote>	Once	--	--
<ejb-link>	Zero or once	--	--
<resource-ref>	Zero or more times	<resource-ref>	Zero or more times
<description>	Zero or more times	--	--
<res-ref-name>	Once	<res-ref-name>	Once
<res-type>	Once	--	--

HITACHI Entity Bean Property file			cosminexus.xml			
Tag name		Occurrence pattern	Tag name		Occurrence pattern	
	<res-auth>	Once		--	--	
	<res-sharing-scope>	Zero or once		--	--	
	<mapped-name>	Zero or once		--	--	
	<linked-to>	Zero or once		<linked-to>#2	Once	
	<resource-env-ref>	Zero or more times		<resource-env-ref>	Zero or more times	
	<description>	Zero or more times		--	--	
	<resource-env-ref-name>	Once		<resource-env-ref-name>	Once	
	<resource-env-ref-type>	Once		--	--	
	<mapped-name>	Zero or once		--	--	
	<linked-queue>	Zero or once		<linked-queue>#2	Once	
	<resource-adapter>#3	Once		<resource-adapter>	Once	
	<queue>#3	Once		<queue>	Once	
	<linked-adminobject>	Zero or once		<linked-adminobject>#2	Once	
	<resourceadapter-name>#4	Once		<resourceadapter-name>	Once	
	<adminobject-name>#4	Once		<adminobject-name>	Once	
	<linked-to>	Zero or once		<linked-to>#2	Once	
	<runtime>	Zero or once		--	--	
	<lookup-name>	Once		<lookup-name>#2	Zero or once	
	<optional-name>	Zero or once		<optional-name>	Zero or once	
	<local-optional-name>	Zero or once		<local-optional-name>	Zero or once	
	<maximum-instances>	Once		<maximum-instances>#2	Zero or once	
	<pooled-instance>	Once		<pooled-instance>#2	Zero or once	
	<minimum>	Once		<minimum>#2	Zero or once	
	<maximum>	Once		<maximum>#2	Zero or once	
	<caching-model>	Once		<caching-model>#2	Zero or once	
	<entity-timeout>	Zero or once		<entity-timeout>	Zero or once	
	<pass-by-reference>	Zero or once		<pass-by-reference>	Zero or once	
	<instance-timeout>	Zero or once		<instance-timeout>	Zero or once	
	<front-ejb>	Zero or once		<front-ejb>	Zero or once	
	<ejb20-cmp>	Zero or once		--	--	

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HITACHI Entity Bean Property file				cosminexus.xml			
Tag name		Occurrence pattern		Tag name		Occurrence pattern	
	<sql-statement>		Zero or more times		--		--
	<method>		Once		--		--
	<method-intf>		Zero or once		--		--
	<method-name>		Once		--		--
	<method-params>		Zero or once		--		--
	<method-param>		Zero or more times		--		--
	<operation>		Once		--		--
	<sql>		Once		--		--
	<cmp-map>		Zero or once		<cmp-map>		Zero or once
	<datasource-name>		Once		<datasource-name>		Once
	<catalog-name>		Zero or once		<catalog-name>		Zero or once
	<schema-name>		Zero or once		<schema-name>		Zero or once
	<table-name>		Once		<table-name>		Once
	<read-only-access>		Once		<read-only-access>		Once
	<available-transaction-isolations>		Once		--		--
	<transaction-isolation>		Zero or more times		--		--
	<transaction-isolation>		Zero or once		<transaction-isolation>		Zero or once
	<concurrency-protection>		Zero or once		<concurrency-protection>		Zero or once
	<field-impl>		Zero or more times		<field-impl>		Zero or more times
	<field-name>		Once		<field-name>		Once
	<column-name>		Once		<column-name>		Once
	<finder-impl>		Zero or more times		<finder-impl>		Zero or more times
	<method-name>		Once		<method-name>		Once
	<where-clause>		Once		<where-clause>		Once
	<start-order>		Zero or once		<start-order>		Zero or once
	<ejb-method-observation-timeout>		Zero or more times		<ejb-method-observation-timeout>		Zero or more times
	<method>		One or more times		<method>		One or more times
	<description>		Zero or once		--		--
	<method-intf>		Zero or once		<method-intf>		Zero or once
	<method-name>		Once		<method-name>		Once

HITACHI Entity Bean Property file				cosminexus.xml			
Tag name		Occurrence pattern		Tag name		Occurrence pattern	
	<method-params>	Zero or once			<method-params>	Zero or once	
	<method-param>	Zero or more times			<method-param>	Zero or more times	
	<method-observation-timeout>	Once			<method-observation-timeout>	Once	
	<ejb-transaction-timeout>	Zero or more times			<ejb-transaction-timeout>	Zero or more times	
	<method>	One or more times			<method>	One or more times	
	<description>	Zero or once			--	--	
	<method-intf>	Zero or once			<method-intf>	Zero or once	
	<method-name>	Once			<method-name>	Once	
	<method-params>	Zero or once			<method-params>	Zero or once	
	<method-param>	Zero or more times			<method-param>	Zero or more times	
	<transaction-timeout>	Once			<transaction-timeout>	Once	
	-	--			-	--	
	-				-		

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

#1

This tag corresponds to <ejb-jar>-<enterprise-beans>-<entity>-<ejb-name> in the ejb-jar.xml and does not exist in the property file. This tag is the key for identifying EntityBeans.

#2

The occurrence pattern is different from the property file because only the elements to be customized are coded in cosminexus.xml.

#3

Enter the resource adapter display name in resource-adapter and the queue name in <queue>.

#4

Enter the resource adapter display name in <resourceadapter-name> and the administered object name in <adminobject-name>.

3.6 HITACHI MessageDrivenBean Property file

The HITACHI MessageDrivenBean Property file is used to acquire and edit the MessageDrivenBean properties.

3.6.1 Specifications of the HITACHI MessageDrivenBean Property file

The HITACHI MessageDrivenBean Property file has the following DOCTYPE declaration:

```
<!DOCTYPE hitachi-message-bean-property PUBLIC "-//Hitachi, Ltd.//DTD Message Bean Property
7.6//EN" 'file:///Cosminexus-installation-directory/CC/admin/dtds/hitachi-message-bean-
property_7_6.dtd'>
```

The HITACHI MessageDrivenBean Property file is an xml file containing the following tags. Note that you can also use earlier versions of the property file.

The related information of a tag is described in the reference manuals mentioned in the *Tag name* column. *uCosminexus Application Server* is omitted from the manual names.

Tag name	Occurrence pattern	Explanation
<hitachi-message-bean-property>	Once	Specifies the root tag.
<description>#1	Zero or more times#2	Describes the Message-driven Bean.
<display-name>#1	One or more times#2	Specifies the Message-driven Bean display name. Make sure you specify display-name with xml:lang property as en. Even if the display name of the corresponding resource is specified using the command argument, specify display-name with xml:lang as en. $1 \leq \text{character-string-length}$ There is no restriction on the characters to be used. Any single-byte space or linefeed at the beginning or end of the character string is removed and the character string is set up without an error.
<icon>#1	Zero or more times#2	Defines the Entity Bean icons displayed on the GUI tool.
<small-icon>	Zero or once	Specifies the file name for small icons (16 × 16).
<large-icon>	Zero or once	Specifies the file name for large icons (32 × 32).
<messaging-type>	Zero or once	Specifies the message listener interface of the Message-driven Bean. If you do not describe the message listener interface of the Message-driven Bean, javax.jms.MessageListener is assumed. You can specify this tag for Enterprise Beans of EJB 2.1 or later versions.
<transaction-type>	Once	Specifies the transaction management method. You can specify either Container or Bean.
<activation-config>	Zero or once	Specifies the operating environment of Message-driven Bean. You can specify the tags under this tag for Enterprise Beans of EJB 2.1 or later versions.

Tag name	Occurrence pattern	Explanation
<description>#1	Zero or more times	Describes the operating environment of the Message-driven Bean.
<activation-config-property>	One or more times	Specifies the property related to the operating environment of the Message-driven Bean.
<activation-config-property-name>	Once	Specifies the property name related to the operating environment of the Message-driven Bean.
<activation-config-property-value>	Once	Specifies the property value related to the operating environment of the Message-driven Bean.
<message-selector>	Zero or once	Specifies the JMS message selector for determining the messages received by the Message-driven bean. You can specify this tag for an Enterprise Bean earlier than EJB2.0. You can specify this tag for Enterprise Beans of EJB 2.0 or earlier versions.
<acknowledge-mode>	Zero or once	Specifies the notification semantics used in the onMessage message of the BMT Message-driven bean. Specify either <code>Auto-acknowledge</code> or <code>Dups-ok-acknowledge</code> . The default value is <code>Auto-acknowledge</code> . You can specify this tag for Enterprise Beans of EJB 2.0 or earlier versions.
<message-driven-destination>	Zero or once	Defines the JMS destination. You can specify the tags under this tag for Enterprise Beans of EJB 2.0 or earlier versions.
<destination-type>	Once	Specifies the JMS destination type. Specify either <code>javax.jms.Queue</code> or <code>javax.jms.Topic</code> .
<subscription-durability>	Zero or once	Specifies the subscription when JMS destination is <code>javax.jms.Topic</code> . Specify either <code>Durable</code> or <code>NonDurable</code> . The default value is <code>NonDurable</code> .
<env-entry>	Zero or more times	Defines the environment variables invoked from Message-driven Bean.
<description>#1	Zero or more times#2	Describes the environment variable.
<env-entry-name>	Once	Specifies the environment variable name.
<env-entry-type>	Once	Specifies the Java type of the environment variable value. You can specify the following values: <ul style="list-style-type: none"> <code>java.lang.Boolean</code> <code>java.lang.String</code> <code>java.lang.Character</code> <code>java.lang.Integer</code> <code>java.lang.Double</code> <code>java.lang.Byte</code> <code>java.lang.Short</code>

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Tag name	Occurrence pattern	Explanation
<env-entry-type>	Once	<ul style="list-style-type: none"> • java.lang.Long • java.lang.Float
<env-entry-value>	Once	Specifies the environment variable value.
<ejb-ref>	Zero or more times	Defines the information for referencing the Enterprise Bean with a remote interface from the Message-driven Bean.
<description>#1	Zero or more times#2	Describes the Enterprise Bean reference.
<ejb-ref-name>	Once	Specifies the Enterprise Bean name to be linked to.
<ejb-ref-type>	Once	Specifies the Enterprise Bean type to be linked to. You can specify the following values: <ul style="list-style-type: none"> • Session • Entity
<home>	Once	Specifies the Remote Home interface name of the Enterprise Bean to be linked to.
<remote>	Once	Specifies the Remote Component interface name of the Enterprise Bean to be linked to.
<ejb-link>	Zero or once	Specifies the Enterprise Bean name to be linked to. When setting the link destination with the naming service switching functionality, use the following format: <i>corbaname::Namespace-host-name: Namespace-port-number#JNDI-name-of-EJB-Home-object-reference</i>
<ejb-local-ref>	Zero or more times	Defines the information for referencing the Enterprise Bean with a local interface from the Message-driven Bean.
<description>#1	Zero or more times#2	Describes the ejb-local-ref.
<ejb-ref-name>	Once	Specifies the Enterprise Bean name to be linked to.
<ejb-ref-type>	Once	Specifies the Enterprise Bean type to be linked to. You can specify the following values: <ul style="list-style-type: none"> • Session • Entity
<local-home>	Once	Specifies the Local Home interface name of the Enterprise Bean to be linked to.
<local>	Once	Specifies the Local Component interface name of the Enterprise Bean to be linked to.
<ejb-link>	Zero or once	Specifies the name of Enterprise Bean to be linked to.
<message-ref>	Zero or once	When you specify a Connector 1.0 resource adapter, the combination of <resource-adapter> and <queue> must be unique between multiple applications.
<connection-factory>	Zero or once	Specifies the resource adapter display name.

Tag name	Occurrence pattern	Explanation
<connection-factory>	Zero or once	You cannot specify a resource adapter conforming to Connector 1.5 or later versions.
<connection-destination>	Once	This tag is ignored in the <code>cjsetresprop</code> command.
<resource-adapter>	Once	Specifies the resource adapter display name.
<queue>	Zero or once	Specifies the display name of the queue. You cannot specify a resource adapter conforming to Connector 1.5 or later versions.
<security-identity>	Zero or once	Defines the security identity.
<description>#1	Zero or more times#2	Describes <code>security-identity</code> .
<run-as>	Once	Defines the runtime identity.
<description>#1	Zero or more times#2	Describes <code>run-as</code> .
<role-name>	Once	Specifies the security role name.
<user-name>	Once	Specifies the principal name.
<resource-ref>	Zero or more times	Defines the resources referenced from Message-Driven Bean.
<description>#1	Zero or more times#2	Describes <code>resource-ref</code> .
<res-ref-name>	Once	Specifies the resource reference name.
<res-type>	Once	Specifies the resource type. You can specify the following character strings: <ul style="list-style-type: none"> <code>javax.mail.Session</code> <code>javax.sql.DataSource</code> <code>javax.jms.QueueConnectionFactory</code> <code>javax.jms.ConnectionFactory</code> <code>javax.resource.cci.ConnectionFactory</code> <code>org.omg.CORBA_2_3_ORB</code> (a resource that can be looked up even if not defined in a DD) <code>javax.jms.TopicConnectionFactory</code> If the reference destination is a Connector 1.5 resource adapter, specify the connection definition identifier (value specified for the <code><connectionfactory-interface></code> tag) of the reference destination resource adapter.
<res-auth>	Once	Specifies the method of registering to the resource manager. The value that you can specify is either <code>Container</code> or <code>Application</code> .
<res-sharing-scope>	Zero or once	Specifies whether to share the connection acquired from the resource manager factory reference. The value that you can set is either <code>Shareable</code> or <code>Unshareable</code> . The default value is <code>Shareable</code> .

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Tag name	Occurrence pattern	Explanation
<mapped-name>	Zero or once	Specifies the corresponding resource adapter display name or mail display name. ^{#3} When you specify this tag at the same time as the <linked-to> tag, the <linked-to> tag becomes valid.
<linked-to>	Zero or once	Specifies the corresponding resource adapter display name, data source display name, or mail display name. How to specify the resource adapter display name differs depending on the resource adapter version. Connector 1.0 or earlier versions <i>Resource-adapter-display-name</i> Outbound resource adapters of Connector 1.5 or later versions <i>Resource-adapter-display-name!connection-definition-identifier</i> The <i>connection-definition-identifier</i> is a value specified in the <connectionfactory-interface> tag in the ra.xml. You cannot specify the member resource adapters of the cluster connection pool. This tag is ignored in the cjsetresprop command.
<resource-env-ref>	Zero or more times	Defines the resource environment variables referenced from Message-driven Bean.
<description> ^{#1}	Zero or more times ^{#2}	Describes resource-env-ref.
<resource-env-ref-name>	Once	Specifies the name of the resource environment variable reference.
<resource-env-ref-type>	Once	Specifies the type of resource environment variable reference. Specify the following Java class or interface name: <ul style="list-style-type: none"> • javax.jms.Queue • javax.jms.Topic • JavaBeans resource class name When you specify <linked-adminobject>, any class name is displayed.
<mapped-name>	Zero or once	When <resource-env-ref-type> is javax.jms.Queue, the corresponding queue ^{#3} is displayed in the following format: <i>Resource-adapter-display-name#Queue-name</i> When you specify this tag at the same time as <linked-Queue> tag, the <linked-Queue> tag becomes valid. When <resource-env-ref-type> is JavaBeans-resource-class-name, the display name of the corresponding JavaBeans resource is displayed. When you specify this tag at the same time as the <linked-to> tag, the <linked-to> tag becomes valid.
<linked-queue>	Zero or once	Specifies the queue name. This tag is ignored in the cjsetresprop command.

Tag name	Occurrence pattern	Explanation
<linked-queue>	Zero or once	This tag is valid only when <resource-env-ref-type> is <code>javax.jms.Queue</code> .
<resource-adapter>	Once	Specifies the resource adapter display name. You cannot specify the resource adapters conforming to Connector 1.5 specifications.
<queue>	Once	Specifies the display name of the queue.
<linked-adminobject> 3.16 in the <i>Common Container Functionality Guide</i>	Zero or once	Specifies the administered object. This tag is ignored in the <code>cjsetresprop</code> command.
<resourceadapter-name>	Once	Specifies the resource adapter display name. You cannot specify the resource adapters conforming to Connector 1.0 or earlier versions.
<adminobject-name>	Once	Specifies the administered object name. You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters: Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semi-colon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~) You cannot, however, specify the following names: <ul style="list-style-type: none"> • Name containing a period (.) at the beginning or at the end • Name containing only a period (.) • Name containing continuous underscores (_) Any single-byte space or linefeed at the beginning or end of the character string is removed.
<linked-to>	Zero or once	Specifies the JavaBeans resource display name. This tag is valid only when <resource-env-ref-type> is <code>JavaBeans-resource-class-name</code> . This tag is ignored in the <code>cjsetresprop</code> command.
<container-transaction>	Zero or more times	Defines the container transaction.
<description>#1	Zero or more times#2	Describes <code>container-transaction</code> .
<method>	One or more times	Defines the method.
<description>#1	Zero or more times#2	Describes the method.
<method-intf>	Zero or once	Specifies the type of interface to which the method belongs. You cannot specify a value for this tag. However, you can specify <code>Bean</code> for EJBs where the setup destination is EJB 2.0 or an earlier version.
<method-name>	Once	Specifies the method name.

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Tag name	Occurrence pattern	Explanation
<method-name>	Once	When you specify "*", all methods are displayed. #4
<method-params>	Zero or once	<p>This tag is valid when method-name is not "*".</p> <p>When method-params is specified Specifies the method-name method existing in the interface specified in method-intf and containing the parameters specified in method-params.</p> <p>When method-params is not specified Specifies all the method-name methods existing in the interface specified in method-intf.</p>
<method-param>	Zero or more times	<p>Specifies the parameter data type.</p> <p>Specify the primitive type or class name.</p> <p>For an array, specify square brackets ([]) after the name (ensure that there is no space between "name" and "[", and "[" and "]").</p> <p>For a multidimensional array, specify square brackets ([]) one after the other (there must be no space between "]" and "[").</p> <p>You cannot specify the internal format name of the array ([I for int[], and [Ljava.lang.String; for java.lang.String[]).</p> <p>For example:</p> <ul style="list-style-type: none"> • int • short[][] • java.lang.String[]
<trans-attribute>	Once	<p>Specifies the transaction attribute allocated to method.</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • Mandatory • Never • NotSupported • Required • RequiresNew • Supports
<runtime>	Zero or once	<p>When this tag is used in the cjsetappprop command This tag is mandatory.</p> <p>When this tag is used in the cjsetresprop command This tag is ignored.</p>
<pooled-instance>	Once	Defines the instances in the pool.
<minimum>	Once	<p>Specifies the minimum number of instances in the pool. #3</p> <p>1 is displayed.</p>
<maximum>	Once	<p>Specifies the maximum number of instances in the pool.</p> <p>$1 \leq \text{maximum} \leq 2147483647$.</p> <p>If you specify 0, 1 is set up.</p>

Tag name	Occurrence pattern	Explanation
<front-ejb>	Zero or once	Specifies whether the specified EJB is a front EJB (an EJB invoked directly by the client). Specify <code>true</code> if the EJB is a front EJB and <code>false</code> if it is not. The default value is <code>false</code> .
<start-order>	Zero or once	Specifies the order of starting or stopping the J2EE applications. The start process is executed in the ascending order when the applications are started and the stop process is executed in the descending order when the applications are terminated. $0 \leq \text{start-order} \leq 2147483647$
<ejb-method-observation-timeout> <i>Chapter 5 in the Operation, Monitoring, and Linkage Guide</i>	Zero or more times	This tag is specified when you set up a timeout value for monitoring the in-process methods, in an EJB method. When multiple <ejb-method-observation-timeout> tags are specified and the values set under the <method> tags (excluding the <description> tag) are the same, the tags are merged into one. In this case, a warning message (KDJE37601-W) is output, and the value of <method-observation-timeout> of the <ejb-method-observation-timeout> tag defined first is enabled.
<method>	One or more times	--
<description>	Zero or once	Describes the method. You cannot specify this tag multiple times.
<method-intf>	Zero or once	Specifies the type of interface to which the method belongs. You cannot specify a value for this tag. However, you can specify <code>Bean</code> for EJBs where the setup destination is EJB 2.0 or an earlier version.
<method-name>	Once	Specifies the target method name. When you specify <code>"*"</code> , all the methods are displayed. #4
<method-params>	Zero or once	Specified for identifying the method when multiple methods are defined.
<method-param>	Zero or more times	Specifies the argument data type.
<method-observation-timeout>	Once	Specifies a value from 0 to 86400 (unit: seconds) as the timeout value (seconds) used for monitoring the in-process methods. When you specify 0, a timeout does not occur. The default value is 0.
<ejb-transaction-timeout> <i>3.15.8 in the Common Container Functionality Guide</i>	Zero or more times	This tag is specified when you set up a transaction timeout value for the EJB (CMT) method. When multiple <ejb-transaction-timeout> tags are specified and the values set under the <method> tags (excluding the <description> tag) are the same, the tags are merged into one. In this case, a warning message (KDJE37601-W) is output, and the value of <transaction-timeout> of the <ejb-transaction-timeout> tag defined first is enabled.
<method>	One or more times	--
<description>	Zero or once	Describes the method. You cannot specify this tag multiple times.

3. Property Files Used for Setting J2EE Applications

Tag name	Occurrence pattern	Explanation
<method- intf >	Zero or once	Specified for identifying the types of interface to which the method belongs. You cannot specify a value for this tag. However, you can specify Bean for EJBs where the setup destination is EJB 2.0 or an earlier version.
<method- name >	Once	Specifies the target method name. When you specify "*", all the methods are displayed. #4
<method- params >	Zero or once	Specified for identifying the method when multiple methods are defined.
<method- param >	Zero or more times	Specifies the argument data type.
<transaction- timeout >	Once	Specifies the transaction timeout period from 0 to 2147483647 (unit: seconds). If you specify 0, a timeout will not occur. The default value is 0.

#1

You can specify the `xml:lang` property. If the `xml:lang` property is not specified, `en` (English) is assumed. Note that you cannot specify multiple tags with the same `xml:lang` property.

#2

You cannot specify this tag multiple times for EJB 2.0 or earlier versions.

#3

Do not change the tag name, add or delete the tag, or change the value for the tags output with the `cjgetresprop` commands.

#4

If `false` is specified in the `ejbserver.cui.checkmethod.compatible` key in the `usrconf.properties` file for server management commands and the method specified with this tag does not exist, an error occurs when you set up the property. For details on the `ejbserver.cui.checkmethod.compatible` key of the `usrconf.properties` file, see 5.4 *usrconf.properties (System property file for server management commands)* in the manual *uCosminexus Application Server Definition Reference Guide*.

3.6.2 Mapping with DD

The following tables describe the correspondence between the HITACHI MessageDrivenBean Property file and the Deployment Descriptor.

(1) In EJB 2.0

HITACHI MessageDrivenBean Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-message-bean-property>	Once	<ejb-jar>	Once
--	--	<description>	Zero or once
--	--	<enterprise-beans>	Once
--	--	(Omitted)	--
--	--	<message-driven>	One or more times
<description>	Zero or more times	<description>	Zero or more times
<display-name>	One or more times	<display-name>	Zero or more times

HITACHI MessageDrivenBean Property file		Deployment Descriptor			
Tag name	Occurrence pattern			Tag name	Occurrence pattern
<icon>	Zero or more times			<icon>	Zero or more times
<small-icon>	Zero or once			<small-icon>	Zero or once
<large-icon>	Zero or once			<large-icon>	Zero or once
<transaction-type>	Once			<transaction-type>	Once
<message-selector>	Zero or once			<message-selector>	Zero or once
<acknowledge-mode>	Zero or once			<acknowledge-mode>	Zero or once
<message-driven-destination>	Zero or once			<message-driven-destination>	Zero or once
<destination-type>	Once			<destination-type>	Once
<subscription-durability>	Zero or once			<subscription-durability>	Zero or once
<env-entry>	Zero or more times			<env-entry>	Zero or more times
<description>	Zero or more times			<description>	Zero or more times
<env-entry-name>	Once			<env-entry-name>	Once
<env-entry-type>	Once			<env-entry-type>	Once
<env-entry-value>	Once			<env-entry-value>	Zero or once
<ejb-ref>	Zero or more times			<ejb-ref>	Zero or more times
<description>	Zero or more times			<description>	Zero or more times
<ejb-ref-name>	Once			<ejb-ref-name>	Once
<ejb-ref-type>	Once			<ejb-ref-type>	Once
<home>	Once			<home>	Once
<remote>	Once			<remote>	Once
<ejb-link>	Zero or once			<ejb-link>	Zero or once
<ejb-local-ref>	Zero or more times			<ejb-local-ref>	Zero or more times
<description>	Zero or more times			<description>	Zero or more times
<ejb-ref-name>	Once			<ejb-ref-name>	Once
<ejb-ref-type>	Once			<ejb-ref-type>	Once
<local-home>	Once			<local-home>	Once
<local>	Once			<local>	Once
<ejb-link>	Zero or once			<ejb-link>	Zero or once
<security-identity>	Zero or once			<security-identity>	Zero or once

3. Property Files Used for Setting J2EE Applications

HITACHI MessageDrivenBean Property file			Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern	
	<description>	Zero or more times		<description>	Zero or more times	
	--	--		<use-caller-identity>#	Once	
	<run-as>	Once		<run-as>#	Once	
	<description>	Zero or more times		<description>	Zero or more times	
	<role-name>	Once		<role-name>	Once	
	<user-name>	Once		--	--	
	<container-transaction>	Zero or more times		<container-transaction>	Zero or more times	
	<description>	Zero or more times		<description>	Zero or more times	
	<method>	One or more times		<method>	One or more times	
	<description>	Zero or more times		<description>	Zero or more times	
	<method-intf>	Zero or once		<method-intf>	Zero or once	
	<method-name>	Once		<method-name>	Once	
	<method-params>	Zero or once		<method-params>	Zero or once	
	<method-param>	Zero or more times		<method-param>	Zero or more times	
	<trans-attribute>	Once		<trans-attribute>	Once	
	<resource-ref>	Zero or more times		<resource-ref>	Zero or more times	
	<description>	Zero or more times		<description>	Zero or more times	
	<res-ref-name>	Once		<res-ref-name>	Once	
	<res-type>	Once		<res-type>	Once	
	<res-auth>	Once		<res-auth>	Once	
	<res-sharing-scope>	Zero or once		<res-sharing-scope>	Zero or once	
	<mapped-name>	Zero or once		--	--	
	<linked-to>	Zero or once		--	--	
	<resource-env-ref>	Zero or more times		<resource-env-ref>	Zero or more times	
	<description>	Zero or more times		<description>	Zero or more times	
	<resource-env-ref-name>	Once		<resource-env-ref-name>	Once	
	<resource-env-ref-type>	Once		<resource-env-ref-type>	Once	
	<mapped-name>	Zero or once		--	--	

HITACHI MessageDrivenBean Property file			Deployment Descriptor			
Tag name	Occurrence pattern		Tag name	Occurrence pattern		
<linked-queue>	Zero or once		--	--		
<resource-adapter>	Once		--	--		
<queue>	Once		--	--		
<runtime>	Zero or once		--	--		
(Omitted)	--		--	--		

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

#

Specify either <use-caller-identity> or <run-as>.

(2) In EJB 2.1 or later versions

HITACHI MessageDrivenBean Property file			Deployment Descriptor			
Tag name	Occurrence pattern		Tag name	Occurrence pattern		
<hitachi-message-bean-property>	Once		<ejb-jar>	Once		
--	--		<description>	Zero or once		
--	--		<enterprise-beans>	Once		
--	--		(Omitted)	--		
--	--		<message-driven>	One or more times		
<description>	Zero or more times		<description>	Zero or more times		
<display-name>	One or more times		<display-name>	Zero or more times		
<icon>	Zero or more times		<icon>	Zero or more times		
<small-icon>	Zero or once		<small-icon>	Zero or once		
<large-icon>	Zero or once		<large-icon>	Zero or once		
<messaging-type>	Zero or once		<messaging-type>	Zero or once		
<transaction-type>	Once		<transaction-type>	Once		
<activation-config>	Zero or once		<activation-config>	Zero or once		
<description>	Zero or more times		<description>	Zero or more times		
<activation-config-property>	One or more times		<activation-config-property>	One or more times		
<activation-config-property-name>	Once		<activation-config-property-name>	Once		

3. Property Files Used for Setting J2EE Applications

HITACHI MessageDrivenBean Property file				Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern		
	<activation-config-property-value>	Once		<activation-config-property-value>	Once		
	<env-entry>	Zero or more times		<env-entry>	Zero or more times		
	<description>	Zero or more times		<description>	Zero or more times		
	<env-entry-name>	Once		<env-entry-name>	Once		
	<env-entry-type>	Once		<env-entry-type>	Once		
	<env-entry-value>	Once		<env-entry-value>	Zero or once		
	<ejb-ref>	Zero or more times		<ejb-ref>	Zero or more times		
	<description>	Zero or more times		<description>	Zero or more times		
	<ejb-ref-name>	Once		<ejb-ref-name>	Once		
	<ejb-ref-type>	Once		<ejb-ref-type>	Once		
	<home>	Once		<home>	Once		
	<remote>	Once		<remote>	Once		
	<ejb-link>	Zero or once		<ejb-link>	Zero or once		
	<ejb-local-ref>	Zero or more times		<ejb-local-ref>	Zero or more times		
	<description>	Zero or more times		<description>	Zero or more times		
	<ejb-ref-name>	Once		<ejb-ref-name>	Once		
	<ejb-ref-type>	Once		<ejb-ref-type>	Once		
	<local-home>	Once		<local-home>	Once		
	<local>	Once		<local>	Once		
	<ejb-link>	Zero or once		<ejb-link>	Zero or once		
	<security-identity>	Zero or once		<security-identity>	Zero or once		
	<description>	Zero or more times		<description>	Zero or more times		
	--	--		<use-caller-identity>#	Once		
	<run-as>	Once		<run-as>#	Once		
	<description>	Zero or more times		<description>	Zero or more times		
	<role-name>	Once		<role-name>	Once		
	<user-name>	Once		--	--		
	<container-transaction>	Zero or more times		<container-transaction>	Zero or more times		

HITACHI MessageDrivenBean Property file			Deployment Descriptor			
Tag name		Occurrence pattern	Tag name			Occurrence pattern
	<description>	Zero or more times			<description>	Zero or more times
	<method>	One or more times			<method>	One or more times
	<description>	Zero or more times			<description>	Zero or more times
	<method-intf>	Zero or once			<method-intf>	Zero or once
	<method-name>	Once			<method-name>	Once
	<method-params>	Zero or once			<method-params>	Zero or once
	<method-param>	Zero or more times			<method-param>	Zero or more times
	<trans-attribute>	Once			<trans-attribute>	Once
	<resource-ref>	Zero or more times			<resource-ref>	Zero or more times
	<description>	Zero or more times			<description>	Zero or more times
	<res-ref-name>	Once			<res-ref-name>	Once
	<res-type>	Once			<res-type>	Once
	<res-auth>	Once			<res-auth>	Once
	<res-sharing-scope>	Zero or once			<res-sharing-scope>	Zero or once
	<mapped-name>	Zero or once			--	--
	<linked-to>	Zero or once			--	--
	<resource-env-ref>	Zero or more times			<resource-env-ref>	Zero or more times
	<description>	Zero or more times			<description>	Zero or more times
	<resource-env-ref-name>	Once			<resource-env-ref-name>	Once
	<resource-env-ref-type>	Once			<resource-env-ref-type>	Once
	<mapped-name>	Zero or once			--	--
	<linked-queue>	Zero or once			--	--
	<resource-adapter>	Once			--	--
	<queue>	Once			--	--
	<linked-adminobject>	Zero or once			--	--
	<resourceadapter-name>	Once			--	--
	<adminobject-name>	Once			--	--
	<runtime>	Zero or once			--	--
	(Omitted)	--			--	--

3. Property Files Used for Setting J2EE Applications

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

#

Specify either <use-caller-identity> or <run-as>.

3.6.3 Mapping with cosminexus.xml

The following table describes the correspondence between the HITACHI MessageDrivenBean Property file and cosminexus.xml:

Message Driven Bean property file		cosminexus.xml			
Tag name	Occurrence pattern		Tag name	Occurrence pattern	
<hitachi-message-bean-property>	Once		<message>	Zero or more times	
--	--		<ejb-name>#1	Once	
<security-identity>	Zero or once		<security-identity>	Zero or once	
<run-as>	Once		<run-as>	Once	
<description>	Zero or more times		--	--	
<role-name>	Once		--	--	
<user-name>	Once		<user-name>	Once	
<ejb-ref>	Zero or more times		--	--	
<destination>	Zero or more times		--	--	
<ejb-ref-name>	Once		--	--	
<ejb-ref-type>	Once		--	--	
<home>	Once		--	--	
<remote>	Once		--	--	
<ejb-link>	Zero or once		--	--	
<message-ref>	Zero or once		<message-ref>	Zero or once	
For Connector 1.0			For Connector 1.0		
<connection-factory>	Zero or once		<connection-factory>	Zero or once	
<connection-destination>	Once		<connection-destination>#2	Zero or once	
<resource-adapter>#3	Once		<resource-adapter>	Once	
<queue>#3	Zero or once		<queue>#2	Zero or once	
For Connector 1.5			For Connector 1.5		
<connection-destination>	Once		<connection-destination>#2	Zero or once	
<resource-adapter>	Once		<resource-adapter>	Once	

Message Driven Bean property file			cosminexus.xml			
Tag name		Occurrence pattern	Tag name		Occurrence pattern	
<resource-ref>		Zero or more times	<resource-ref>		Zero or more times	
<description>		Zero or more times	--		--	
<res-ref-name>		Once	<res-ref-name>		Once	
<res-type>		Once	--		--	
<res-auth>		Once	--		--	
<res-sharing-scope>		Zero or once	--		--	
<mapped-name>		Zero or once	--		--	
<linked-to>		Zero or once	<linked-to>#2		Once	
<resource-env-ref>		Zero or more times	<resource-env-ref>		Zero or more times	
<description>		Zero or more times	--		--	
<resource-env-ref-name>		Once	<resource-env-ref-name>		Once	
<resource-env-ref-type>		Once	--		--	
<mapped-name>		Zero or once	--		--	
<linked-queue>		Zero or once	<linked-queue>#2		Once	
<resource-adapter>#3		Once	<resource-adapter>		Once	
<queue>#3		Once	<queue>		Once	
<linked-adminobject>		Zero or once	<linked-adminobject>#2		Once	
<resourceadapter-name>#4		Once	<resourceadapter-name>		Once	
<adminobject-name>#4		Once	<adminobject-name>		Once	
<linked-to>		Zero or once	<linked-to>#2		Once	
<runtime>		Zero or once	--		--	
<pooled-instance>		Once	<pooled-instance>#2		Zero or once	
<minimum>		Once	<minimum>#2		Zero or once	
<maximum>		Once	<maximum>#2		Zero or once	
<front-ejb>		Zero or once	<front-ejb>		Zero or once	
<start-order>		Zero or once	<start-order>		Zero or once	
<ejb-method-observation-timeout>		Zero or more times	<ejb-method-observation-timeout>		Zero or more times	
<method>		One or more times	<method>		One or more times	
<description>		Zero or once	--		--	
<method-intf>		Zero or once	<method-intf>		Zero or once	

3. Property Files Used for Setting J2EE Applications

Message Driven Bean property file				cosminexus.xml			
Tag name		Occurrence pattern	Tag name		Occurrence pattern		
	<method-name>	Once		<method-name>	Once		
	<method-params>	Zero or once		<method-params>	Zero or once		
	<method-param>	Zero or more times		<method-param>	Zero or more times		
	<method-observation-timeout>	Once		<method-observation-timeout>	Once		
	<ejb-transaction-timeout>	Zero or more times		<ejb-transaction-timeout>	Zero or more times		
	<method>	One or more times		<method>	One or more times		
	<description>	Zero or once		--	--		
	<method-intf>	Zero or once		<method-intf>	Zero or once		
	<method-name>	Once		<method-name>	Once		
	<method-params>	Zero or once		<method-params>	Zero or once		
	<method-param>	Zero or more times		<method-param>	Zero or more times		
	<transaction-timeout>	Once		<transaction-timeout>	Once		

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

#1

This tag corresponds to <ejb-jar><enterprise-beans><message-driven><ejb-name> in the ejb-jar.xml and does not exist in the property file. This tag is the key for identifying the Message-Driven Beans.

#2

The occurrence pattern is different from the property file because only the elements to be customized are coded in cosminexus.xml.

#3

Enter the resource adapter display name in resource-adapter and the queue name in <queue>.

#4

Enter the resource adapter display name in <resourceadapter-name> and the administered object name in <adminobject-name>.

3.7 HITACHI WAR Property file

The HITACHI WAR Property file is used to acquire and edit the WAR file properties.

3.7.1 Specifications of the HITACHI WAR Property file

The HITACHI WAR Property file has the following DOCTYPE declaration:

```
<!DOCTYPE hitachi-war-property PUBLIC "-//Hitachi, Ltd.//DTD War Property 9.0//EN" 'file:///Cosminexus-installation-directory/CC/admin/dtds/hitachi-war-property_9_0.dtd'
```

The HITACHI WAR Property file is an xml file containing the following tags. Note that you can also use earlier versions of the property file.

The related information of a tag is described in the reference manuals mentioned in the *Tag name* column. *uCosminexus Application Server* is omitted from the manual names.

(1) When web.xml is included

Tag name	Occurrence pattern	Explanation
<hitachi-war-property>	Once	Specifies the root tag.
<description>#1	Zero or more times#1	Describes the WAR.
<display-name>#1	One or more times#1	Specifies the WAR display name. Make sure you specify display-name with xml:lang property as en. Even if the display name of the corresponding resource is specified using the command argument, specify display-name with xml:lang as en. $1 \leq \text{character-string-length}$ For tags where xml:lang property is en, you can use alphanumeric characters (0 to 9, A to Z, a to z), and the following special characters: Plus sign (+),hyphen (-), period (.), caret (^), and underscore (_) For tags where xml:lang property is not en, the characters to be used are not restricted.
<icon>#1	Zero or more times#1	Defines the Web application icons displayed on the Deploy tool.
<small-icon>	Zero or once	Specifies the file name for small icons (16 X 16).
<large-icon>	Zero or once	Specifies the file name for large icons (32 X 32).
<distributable>	Zero or once	Specified when WAR is programmed so that it can be deployed on the distributed servlet container. Note that this tag does not have a value.
<context-param>	Zero or more times	Defines the context initialization parameter.
<description>#1	Zero or more times#1	Describes Context-param.
<param-name>	Once	Specifies the context initialization parameter name.
<param-value>	Once	Specifies the context initialization parameter value.

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Tag name	Occurrence pattern	Explanation
<filter-mapping>	Zero or more times	Defines the Web application filter mapping.
<filter-name>	Once	Specifies the name of the filter that performs the mapping.
<url-pattern> 2.9 in the <i>Web Container Functionality Guide</i>	One or more times	Specifies the URL of the servlet that performs the mapping. For a WAR of the Servlet 2.4 or earlier versions, you can specify this tag once. Specify either <url-pattern> or <servlet-name>. However, for a Servlet 2.5 WAR, you can specify both the <url-pattern> and <servlet-name>.
<servlet-name>	One or more times	Specifies the name of the servlet that performs the mapping. You can specify an asterisk (*) that implies all the servlets. For a WAR of the Servlet 2.4 or earlier versions, you can specify this tag once. Specify either <url-pattern> or <servlet-name>. However, for a Servlet 2.5 WAR, you can specify both the <url-pattern> and <servlet-name>.
<dispatcher>	Zero, or five times or less	Specifies the applicable conditions for the filter. Specify one of the following values: FORWARD Applies the filter only when processing <code>RequestDispatcher.forward ()</code> . INCLUDE Applies the filter only when processing <code>RequestDispatcher.include ()</code> . REQUEST Applies the filter only when accessing from a normal client. ASYNC Applies the filter only when the request is dispatched from <code>AsyncContext</code> . In 09-00, ASYNC is ignored even if specified. ERROR Applies the filter only in the case of exception handling. You cannot specify this tag for the WARs of Servlet 2.3 or earlier versions.
<listener>	Zero or more times	Defines the listener.
<description>#1	Zero or more times	Describes the Web application listener Bean. You cannot specify this tag for the WARs of Servlet 2.3 or earlier versions.
<display-name>#1	Zero or more times	Specifies the Web application listener Bean name displayed on the GUI tool. The specified character string need not be unique. You cannot specify this tag for the WARs of Servlet 2.3 or earlier versions.

Tag name	Occurrence pattern	Explanation
<code><icon>#1</code>	Zero or more times ^{#1}	Defines the Web application listener Bean icons displayed on the GUI tool. You cannot specify this tag for the WARs of Servlet 2.3 or earlier versions.
<code><small-icon></code>	Zero or once	Specifies the image file name for the small icons of the Web application listener Bean. Specify the location of the image file in the WAR file as a relative path from the root. The size of the image file is 16 × 16. The image file format is either a JPEG or GIF file.
<code><large-icon></code>	Zero or once	Specifies the image file name for the large icons of the Web application listener Bean. Specify the location of the image file in the WAR file as a relative path from the root. The size of the image file is 32 × 32. The image file format is either a JPEG or GIF file.
<code><listener-class></code>	Once	Specifies the listener class name that is set up.
<code><session-config></code>	Zero or more times	Defines the session. You cannot specify this tag multiple times.
<code><session-timeout></code>	Zero or once	Specifies the default session timeout interval (minutes). You can specify -1 (no timeout), 0 (equal to -1), or $1 \leq \text{session-timeout} \leq 35791394$. The default value is <u>30</u> .
<code><mime-mapping></code>	Zero or more times	Defines the MIME type mapping. ^{#3}
<code><extension></code>	Once	Specifies the file extension. ^{#3}
<code><mime-type></code>	Once	Specifies the MIME type. ^{#3}
<code><welcome-file-list></code>	Zero or more times ^{#1}	Defines the welcome file.
<code><welcome-file></code>	One or more times	Specifies the welcome file name.
<code><error-page></code>	Zero or more times	Defines the error page.
<code><error-code>#4</code>	Either one once or neither	Specifies the HTTP error code. This tag is specified when mapping an HTTP error code and error page resource. Specify a value so that $-2147483648 \leq \text{error-code} \leq 2147483647$. Specify either <code><error-code></code> or <code><exception-type></code> , or neither of them.
<code><exception-type>#4</code>	Either one once or neither	Specifies the exception class name (fully qualified name). This tag is specified when mapping an exception type and error page resource. Specify either <code><error-code></code> or <code><exception-type></code> , or neither of them.
<code><location></code>	Once	Specifies a value beginning with a forward slash (/).
<code><jsp-config></code>	Zero or more times	Defines the JSPs in the Web application.

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Tag name	Occurrence pattern	Explanation
<jsp-config>	Zero or more times	You cannot specify this tag multiple times. Also, you cannot specify this tag for the WARs of Servlet 2.3 or earlier versions.
<taglib>	Zero or more times	Defines the tag library in the Servlet 2.4 or later versions. In the Servlet 2.3 or earlier versions, you define the tag library in <taglib> in the <hitachi-war-property> tag.
<taglib-uri>	Once	Specifies the value set up in the uri property of the taglib directive of a JSP program.
<taglib-location>	Once	Specifies the deployment location of a tld file (relative path from the context root).
<jsp-property-group>	Zero or more times	Specifies the individual settings for JSP programs conforming to the specified URL pattern.
<description>#1	Zero or more times	Describes the Web application listener Bean.
<display-name>#1	Zero or more times	Specifies the JSP property group name displayed on the GUI tool. The specified character string need not be unique.
<icon>#1	Zero or more times	Defines the JSP property group icons displayed on the GUI tool.
<small-icon>	Zero or once	Specifies the image file name for the small icons of the JSP property group. Specify the location of the image file in the WAR file as a relative path from the root. The size of the image file is 16 × 16. The image file format is either a JPEG or GIF file.
<large-icon>	Zero or once	Specifies the image file name for the large icons of the JSP property group. Specify the location of the image file in the WAR file as a relative path from the root. The size of the image file is 32 × 32. The image file format is either a JPEG or GIF file.
<url-pattern>	One or more times	Specifies the URL pattern where parameters are applied.
<el-ignored>	Zero or once	Specifies whether to ignore EL (expression language). You can specify the following character strings: <ul style="list-style-type: none"> • true (when you want to ignore EL) • false (when you do not want to ignore EL)
<page-encoding>	Zero or once	Specifies the page-encoding name.
<scripting-invalid>	Zero or once	Specifies whether to invalidate the scripting element.
<is-xml>	Zero or once	Specifies whether the WAR is coded in the XML syntax.
<include-prelude>	Zero or more times	Specifies the file path to be included as the header of each page (relative path from the context root).
<include-coda>	Zero or more times	Specifies the file path to be included as the footer of each page (relative path from the context root).

Tag name	Occurrence pattern	Explanation
<code><deferred-syntax-allowed-as-literal></code>	Zero or once	Defines whether the existence of the string <code># {</code> will be considered as an error at locations where EL cannot be used. The default value is <code>false</code> . <code>true</code> The string will be used as literal. <code>false</code> The string will not be used as literal. You cannot specify this tag for WARs in Servlet 2.4 or earlier versions.
<code><trim-directive-whitespaces></code>	Zero or once	Defines whether extra spaces will be output from JSPs. The default value is <code>false</code> . <code>true</code> Extra spaces will be deleted. <code>false</code> Extra spaces will not be deleted. You cannot specify this tag for WARs in Servlet 2.4 or earlier versions.
<code><taglib></code>	Zero or more times	Defines the tag library in the Servlet 2.3 or earlier versions. In the Servlet 2.4 or later versions, you define the tag library in <code><taglib></code> under the <code><jsp-config></code> tag.
<code><taglib-uri></code>	Once	Specifies the tag library URI (relative URI for <code>web.xml</code>).
<code><taglib-location></code>	Once	Specifies the location of the tag library descriptor file (TLD) (relative position from the root of the Web application).
<code><security-constraint></code>	Zero or more times	Defines the security constraints.
<code><display-name>#1</code>	Zero or more times ^{#1}	Specifies the security constraint name.
<code><web-resource-collection></code>	One or more times	Defines the Web resource collection.
<code><description>#1</code>	Zero or more times ^{#1}	Describes <code>web-resource-collection</code> .
<code><web-resource-name></code>	Once	Specifies the Web resource collection name.
<code><url-pattern></code>	One or more times	Specifies the Web resource URL. For a WAR of the Servlet 2.3 or earlier versions, you can specify this tag zero or more times.
<code><http-method></code>	One or more times	Specifies the HTTP methods to which the security constraints will be applied. You can specify the following character strings in this tag for a WAR of the Servlet 2.4 or earlier versions: <ul style="list-style-type: none"> • DELETE • GET • HEAD • OPTIONS

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Tag name	Occurrence pattern	Explanation
<http-method>	One or more times	<ul style="list-style-type: none"> • POST • PUT • TRACE <p>For a WAR of the Servlet 2.5 or later versions, you can specify alphanumeric characters and special characters (!#\$%&'*+-.^_` ~) one or more times.</p>
<http-method-omission>	One or more times	<p>Specifies the HTTP methods to which the security constraints will not be applied.</p> <p>For a WAR of the Servlet 3.0 or later versions, you can specify alphanumeric characters and special characters (!#\$%&'*+-.^_` ~) one or more times.</p>
<auth-constraint>	Zero or once	Defines the role that will be allowed to access the Web resource collection.
<description>#1	Zero or more times#1	Describes auth-constraint.
<role-name>	Zero or more times	Specifies the role that will be allowed to access the Web resource collection.
<user-data-constraint>	Zero or once	Defines how to protect the data communication between the client and the container.
<description>#1	Zero or more times#1	Describes user-data-constraint.
<transport-guarantee>	Once	<p>Defines how to protect the data communication between the client and the container.</p> <p>You can specify the following character strings:</p> <p>NONE The application does not need transport guarantee.</p> <p>INTEGRAL The application requests for data communication using a method so that changes are not added while the communication data is being transmitted.</p> <p>CONFIDENTIAL The application requests for data communication using a method so that other entities cannot view the transmission contents.</p>
<original-name>	Once	<p>Saves and stores the display-name settings of security-constraint when properties are output. #5</p> <p>You cannot change the settings of this tag and delete the tag.</p>
<login-config>	Zero or more times	<p>Defines the login method.</p> <p>You cannot specify this tag multiple times.</p>
<auth-method>	Zero or once	<p>Specifies the authentication method.</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • BASIC • FORM

Tag name	Occurrence pattern	Explanation
<auth-method>	Zero or once	<ul style="list-style-type: none"> CLIENT-CERT <p>The default value is <u>BASIC</u> (DIGEST is not supported).</p>
<realm-name>	Zero or once	<p>Specifies the realm name.</p> <p>When BASIC is specified in auth-method This tag is mandatory.</p> <p>When a value other than BASIC is specified in auth-method This tag is ignored in the cjsetappprop and cjsetresprop commands.</p>
<form-login-config>	Zero or once	<p>When FORM is specified in auth-method This tag is mandatory.</p> <p>When a value other than FORM is specified in auth-method This tag is ignored in the cjsetappprop and cjsetresprop commands.</p>
<form-login-page>	Once	Specifies the page used for log in. The value that you specify must begin with a forward slash (/).
<form-error-page>	Once	Specifies the error page displayed when log in fails. The value that you specify must begin with a forward slash (/).
<security-role>	Zero or more times	Defines a security role. #6
<description>#1	Zero or more times#1	Describes security-role. #6
<role-name>	Once	Specifies the role name. #6
<linked-to>	Zero or once	<p>Specifies the role name defined with the cjaddsec command.</p> <p>This tag is ignored when used with the cjsetresprop command.</p>
<env-entry>	Zero or more times	Defines the environment entry. #5
<description>#1	Zero or more times#1	Describes the environment entry. #5
<env-entry-name>	Once	Specifies the environment entry name. #5
<env-entry-type>	Zero or once	<p>Specifies the environment entry data type. #6</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> java.lang.Boolean java.lang.Byte java.lang.Short java.lang.Integer java.lang.Long java.lang.Float java.lang.Double java.lang.String java.lang.Character

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Tag name	Occurrence pattern	Explanation
<env-entry-value>	Once	Specifies the environment entry value. #5 Specify a value appropriate to the type specified in <code>env-entry-type</code> . You cannot specify a null character when a value other than <code>java.lang.String</code> is specified in <code>env-entry-type</code> .
<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #6
<injection-target-class>	Once	Specifies the injection target class name. #5 Displayed from the package when the package is defined.
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #5
<ejb-ref>	Zero or more times	Defines the reference information for the Enterprise Bean with a remote interface. #6
<description>#1	Zero or more times#1	Describes <code>ejb-ref</code> . #6
<ejb-ref-name>	Once	Specifies the <code>ejb-ref</code> name. #6
<ejb-ref-type>	Zero or once	Specifies the Enterprise Bean to be linked to. #6 You can specify the following character strings: <ul style="list-style-type: none"> • Entity • Session
<home>	Zero or once	Specifies the name of the Home interface class to be linked to. #6
<remote>	Zero or once	Specifies the name of the Component interface class to be linked to. #6
<ejb-link>	Zero or once	Specifies the <code>ejb-name</code> to be linked to. #6 When setting the link destination with the naming service switching functionality, use the following format: <code>corbaname::Namespace-host-name:Namespace-port-number#JNDI-name-of-EJB-Home-object-reference</code>
<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #6
<injection-target-class>	Once	Specifies the injection target class name. #5 Displayed from the package when the package is defined.
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #5
<ejb-local-ref>	Zero or more times	Defines the reference information for the Enterprise Bean with a local interface. #6
<description>#1	Zero or more times#1	Describes <code>ejb-local-ref</code> . #6

Tag name	Occurrence pattern	Explanation
<ejb-ref-name>	Once	Specifies the <code>ejb-local-ref</code> name. #6
<ejb-ref-type>	Once	Specifies the Enterprise Bean type to be linked to. #6 You can specify the following character strings: <ul style="list-style-type: none"> • Entity • Session
<local-home>	Once	Specifies the Local Home interface name of the Enterprise Bean to be linked to. #6
<local>	Once	Specifies the Local Component interface name of the Enterprise Bean to be linked to. #6
<ejb-link>	Zero or once	Specifies the <code>ejb-name</code> to be linked to. #6
<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #6
<injection-target-class>	Once	Specifies the injection target class name. #5 Displayed from the package when the package is defined.
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #5
<resource-ref>	Zero or more times	Defines the resource reference.
<description>#1	Zero or more times#1	Describes <code>resource-ref</code> . #6
<res-ref-name>	Once	Specifies the <code>resource-ref</code> name. #6
<res-type>	Zero or once	Specifies the resource type. #6 You can specify the following character strings: <ul style="list-style-type: none"> • <code>javax.mail.Session</code> • <code>javax.sql.DataSource</code> • <code>javax.jms.QueueConnectionFactory</code> • <code>javax.jms.ConnectionFactory</code> • <code>javax.resource.cci.ConnectionFactory</code> • <code>org.omg.CORBA_2_3_ORB</code> (a resource that can be looked up even if not defined in a DD) • <code>javax.jms.TopicConnectionFactory</code> If the reference destination is a Connector 1.5 resource adapter, specify the connection definition identifier (value set in the <code><connectionfactory-interface></code> tag) of the reference destination resource adapter.
<res-auth>	Zero or once	Specifies the authentication method. #6 You can specify the following character strings: <ul style="list-style-type: none"> • Application • Container

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Tag name	Occurrence pattern	Explanation
<res-auth>	Zero or once	In the Servlet 2.5 or later versions, the default value is <code>Container</code> .
<res-sharing-scope>	Zero or once	Specifies whether to share the referenced resources. #6 You can specify the following character strings: <ul style="list-style-type: none"> • Shareable • Unshareable
<mapped-name>	Zero or once	Specifies the corresponding resource adapter display name or mail display name. #6 When you specify this tag at the same time as <linked-to> tag, the <linked-to> tag becomes valid.
<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #6
<injection-target-class>	Once	Specifies the injection target class name. #5 Displayed from the package when the package is defined.
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #5
<linked-to>	Zero or once	Specifies the corresponding resource adapter display name, data source display name, or mail display name. #6 How to specify the resource adapter display name differs depending on the resource adapter version. Connector 1.0 or earlier versions <i>Resource-adapter-display-name</i> Outbound resource adapters of Connector 1.5 or later versions <i>Resource-adapter-display-name!connection-definition-identifier</i> The <i>connection-definition-identifier</i> is a value specified in the <connectionfactory-interface> tag in the ra.xml. You cannot specify the member resource adapters of the cluster connection pool. This tag is ignored in the <code>cjsetresprop</code> command.
<resource-env-ref>	Zero or more times	Defines the resource environment variable. #6
<description>#1	Zero or more times#1	Describes <code>resource-env-ref</code> . #6
<resource-env-ref-name>	Once	Specifies the <code>resource-env-ref</code> name. #6
<resource-env-ref-type>	Zero or once	Specifies the class type of the resource environment variable value. #6 You can specify the following character strings: <ul style="list-style-type: none"> • <code>javax.jms.Queue</code> • <code>javax.jms.Topic</code> • <code>javax.transaction.UserTransaction</code>

Tag name	Occurrence pattern	Explanation
<resource-env-ref-type>	Zero or once	<ul style="list-style-type: none"> • javax.ejb.TimerService • javax.ejb.EJBContext • JavaBeans resource class name <p>The strings javax.transaction.UserTransaction, javax.ejb.TimerService, and javax.ejb.EJBContext are output only when annotations are used. However, you cannot set these values.</p> <p>When you specify <linked-adminobject>, any class name is displayed.</p>
<mapped-name>	Zero or once	<p>Displays the corresponding queue^{#6} in the following format when <resource-env-ref-type> is javax.jms.Queue.</p> <p><i>Resource-adapter-display-name#Queue-name</i></p> <p>When you specify this tag at the same time as <linked-Queue>, the <linked-Queue> tag becomes valid.</p> <p>Displays the display name of the corresponding JavaBeans resource when <resource-env-ref-type> is <i>JavaBeans-resource-class-name</i>. When you specify this tag at the same time as <linked-to>, the <linked-to> tag becomes valid.</p>
<injection-target>	Zero or more times	Specifies the Dependency Injection settings. ^{#6}
<injection-target-class>	Once	Specifies the injection target class name. ^{#5} Displayed from the package when the package is defined.
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. ^{#5}
<linked-queue>	Zero or once	Specifies the corresponding data source display name or mail display name. ^{#6} This tag is ignored when used in the cjsetresprop command. The tag is valid only when javax.jms.Queue is specified in <resource-env-ref-type>.
<resource-adapter>	Once	Specifies the resource adapter display name. ^{#6} You cannot specify the resource adapters conforming to Connector1.5 specifications.
<queue>	Once	Specifies the display name of the queue. ^{#6}
<linked-adminobject>	Zero or once	Specifies the administered object. This tag is ignored in the cjsetresprop command.
<resourceadapter-name>	Once	Specifies the resource adapter display name. You cannot specify the resource adapters conforming to Connector1.0 or earlier versions.
<adminobject-name>	Once	Specifies the administered object name.

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Tag name	Occurrence pattern	Explanation
<adminobject-name>	Once	<p>You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:</p> <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semi-colon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~)</p> <p>You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> • Name containing a period (.) at the beginning or at the end • Name containing only a period (.) • Name containing continuous underscores (_) <p>Any single-byte space or linefeed at the beginning or end of the character string is removed.</p>
<linked-to>	Zero or once	<p>Specifies the display name of JavaBeans resource. #6</p> <p>This tag is valid only when <i>JavaBeans-resource-class-name</i> is specified for <resource-env-ref-type>.</p> <p>This tag is ignored when used in the <code>cjsetresprop</code> command.</p>
<persistence-context-ref>	Zero or more times	Describes the settings of the persistence context.
<description>#1	Zero or more times#2	Describes the persistence context. #6
<persistence-context-ref-name>	Once	Sets up the name of the persistence context reference. The name is a JNDI name correlated to the <code>java:comp/env</code> context. #6
<persistence-unit-name>	Zero or once	Sets up the name of the persistence unit. #6
<persistence-context-type>	Zero or once	<p>Sets up the transactional nature of the persistence context reference. You can specify the following strings: #6</p> <ul style="list-style-type: none"> • Transaction • Extended
<persistence-property>	Zero or more times	Sets up properties of the container or persistence provider. #6
<name>	Once	Sets up the name of the property. #6
<value>	Once	Sets up the value of the property. #6
<injection-target>	Zero or more times	Describes the Dependency Injection settings. #6
<injection-target-class>	Once	Specifies the injection target class name. Specified from the package when the package is defined. #6
<injection-target-name>	Once	Specifies the injection target identifier of the specified class.

Tag name	Occurrence pattern	Explanation
<persistence-unit-ref>	Zero or more times	Describes the settings for the persistence unit reference. #6
<description>	Zero or more times	Describes the persistence unit reference. #6
<persistence-unit-ref-name>	Once	Sets up the name of the persistence unit reference. The name is a JNDI name correlated to the <code>java:comp/env</code> context. #6
<persistence-unit-name>	Zero or once	Sets up the name of the persistence unit. #6
<injection-target>	Zero or more times	Describes the Dependency Injection settings. #6
<injection-target-class>	Once	Specifies the injection target class name. Specified from the package when the package is defined. #6
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #6
<post-construct>	Zero or more times	Defines the <code>post-construct</code> method. #6
<lifecycle-callback-class>	Zero or once	Describes the name of the class that stores the <code>post-construct</code> method. If this tag is omitted, the specification of the <code><post-construct></code> tag is ignored. #6
<lifecycle-callback-method>	Once	Describes the <code>post-construct</code> method name. #6
<pre-destroy>	Zero or more times	Defines the <code>pre-destroy</code> method. #6
<lifecycle-callback-class>	Zero or once	Describes name of the class that stores the <code>pre-destroy</code> method. If this tag is omitted, the specification of the <code><pre-destroy></code> tag is ignored. #6
<lifecycle-callback-method>	Once	Describes the <code>pre-destroy</code> method name. #6
<locale-encoding-mapping-list>	Zero or more times ^{#1}	Specifies the settings for mapping the locale to the encoding method. You cannot specify this tag for the WARs of Servlet 2.3 or earlier versions.
<locale-encoding-mapping>	One or more times	Specifies the settings for mapping the locale to the encoding method.
<locale>	Once	Describes the locale.
<encoding>	Once	Describes the encoding method.
<runtime>	Zero or once	When used in the <code>cjsetapprop</code> command This tag is mandatory. When used in the <code>cjsetresprop</code> command This tag is ignored.
<context-root>	Once	Specifies the context root. The characters that you can specify are those that can be used in URI (RFC3986). When specifying the root, you specify either a blank character string or a forward slash (/).
<thread-control>	Zero or once	Specifies the settings for the thread control group.

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Tag name		Occurrence pattern	Explanation
2.17 in the <i>Web Container Functionality Guide</i>		Zero or once	This tag is ignored when used in the <code>cjsetresprop</code> command.
	<code><thread-control-max-threads></code>	Once	Specifies the maximum number of concurrently executed threads for the Web applications. Specify a value equal to at least the number of exclusive threads. 1 to 1024
	<code><thread-control-exclusive-threads></code>	Once	Specifies the number of exclusive threads. Specify a value not more than the maximum number of concurrently executed threads for the Web applications. 0 to 1024
	<code><thread-control-queue-size></code>	Once	Specifies the pending queue size of the Web applications. 0 to 2147483647
	<code><thread-control-stats-monitor></code>	Once	Specifies the settings for monitoring the operation statistics.
	<code><whole-waiting-request-count></code>	Once	Monitors the whole pending request count of the Web applications.
	<code><enabled></code>	Once	Specifies whether to enable the threshold value event for monitoring the whole pending request count of the Web applications. You can specify the following character strings: <ul style="list-style-type: none"> <code>true</code> (the threshold value event is enabled) <code>false</code> (the threshold value event is disabled) The default value is <code>true</code> .
	<code><high-threshold></code>	Once	Specifies an integer from 1 to 100 (unit: %) as the high threshold value for the output of the threshold value event. The default value is <code>80</code> . However, the value must be equal to or greater than the value specified in the <code><low-threshold></code> tag.
	<code><low-threshold></code>	Once	Specifies an integer from 0 to 99 (unit: %) as the low threshold value for the output of the threshold value event. The default value is <code>0</code> . However, the value must be equal to or less than the value specified in the <code><high-threshold></code> tag.
	<code><waiting-request-count></code>	Once	Monitors the number of pending requests of the Web applications.
	<code><enabled></code>	Once	Specifies whether to enable the threshold value event for monitoring the number of pending requests of the Web applications. You can specify the following character strings: <ul style="list-style-type: none"> <code>true</code> (the threshold value event is enabled) <code>false</code> (the threshold value event is disabled) The default value is <code>true</code> .

Tag name	Occurrence pattern	Explanation
<high-threshold>	Once	<p>Specifies an integer from 1 to 100 (unit: %) as the high threshold value for the output of the threshold value event. The default value is <u>80</u>.</p> <p>However, the value must be equal to or greater than the value specified in the <low-threshold> tag.</p>
<low-threshold>	Once	<p>Specifies an integer from 0 to 99 (unit: %) as the low threshold value for the output of the threshold value event.</p> <p>The default value is <u>0</u>.</p> <p>However, the value must be equal to or less than the value specified in the <high-threshold> tag.</p>
<resource-watcher>	Once	<p>Specifies the properties related to the monitoring of the number of saved request pending queues of the Web applications.</p>
<watcher-threshold>	Once	<p>Specifies the threshold value to output an alert message.</p> <p>Specify an integer value from 1 to 100 (unit: %). The default value is <u>80</u>.</p>
<watcher-interval>	Once	<p>Specifies the monitoring interval.</p> <p>Specify an integer value from 1 to 2147483647 (unit: seconds). Default is <u>30</u>.</p>
<watcher-enabled>	Once	<p>Specifies whether to enable the monitoring of the number of saved request pending queues of the Web applications.</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • true (Monitoring is enabled) • false (Monitoring is disabled) <p>The default value is <u>true</u>. However, monitoring is disabled when 0 is specified in <thread-control-queue-size>.</p>
<watcher-writefile-enabled>	Once	<p>Specifies whether to output the resource usage status to a file.</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • true (Output to a file) • false (Not output to a file) <p>The default value is <u>true</u>.</p>
<urlgroup-thread-control> 2.18 in the <i>Web Container Functionality Guide</i>	Zero or more times	<p>Specifies the control of the number of concurrently executed threads for the URL groups.</p>
<urlgroup-thread-control-name>	Once	<p>Specifies the definition name for controlling the concurrently executed thread count of the URL groups.</p> <p>Specify a character string unique in the Web application as the definition name for controlling the concurrently executed thread count of the URL groups. You can use alphanumeric characters (0 to 9, A to Z, a to z), hyphen (-), and underscore (_). Specify the length of the character string as $1 \leq \text{character-string-length} \leq 64$.</p>

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Tag name		Occurrence pattern	Explanation
	<urlgroup-thread-control-max-threads>	Once	Specifies the maximum number of concurrently executed threads for the URL groups. Specify an integer value from 1 to thread-control-max-threads.
	<urlgroup-thread-control-exclusive-threads>	Once	Specifies the number of exclusive threads for the URL groups. The value that you can specify ranges from 0 to urlgroup-thread-control-max-threads and thread-control-exclusive-threads value or less. Note that, when <urlgroup-thread-control> is defined, the following range of settings need to be fulfilled: <ul style="list-style-type: none"> • If thread-control-max-threads \neq thread-control-exclusive-threads, then thread-control-exclusive-threads \geq total urlgroup-thread-control-exclusive-threads. • If thread-control-max-threads = thread-control-exclusive-threads, then thread-control-exclusive-threads > total urlgroup-thread-control-exclusive-threads.
	<urlgroup-thread-control-queue-size>	Once	Specifies the pending queue size for the URL groups. You can specify an integer value from 0 to 2147483647.
	<urlgroup-thread-control-mapping>	Zero or more times	Specifies the mapping information of the URL to be controlled. When omitting, operate in the status in which no URL is to be controlled.
	<url-pattern>	Once	Specifies the URL pattern to be controlled. You cannot specify the same URL pattern in one Web application. Some examples of specification are as follows: <ul style="list-style-type: none"> • /soda/grape/* • /foo/* • /contents • *.foo
	<stats-monitor>	Once	Specifies the operation statistics settings.
	<waiting-request-count>	Once	Monitors the pending requests of the URL groups.
	<enabled>	Once	Specifies whether to enable the threshold value event for monitoring the pending requests of the URL groups. You can specify the following character strings: <ul style="list-style-type: none"> • true (the threshold value event is enabled) • false (the threshold value event is disabled)
	<high-threshold>	Once	Specifies an integer from 1 to 100 (unit: %) as the high threshold value for the output of the threshold value event. Make sure you specify a value that is equal to or greater than <low-threshold>.

Tag name	Occurrence pattern	Explanation
<low-threshold>	Once	Specifies an integer from 0 to 99 (unit: %) as the low threshold value for the output of the threshold value event. Make sure you specify a value that is equal to or less than <high-threshold>.
<http-request>	Zero or once	--
<encoding>	Zero or once	Specifies the default encoding used to decode a request body and query. Specify a character encoding that JavaVM supports. ^{#7} By default, this tag is not specified.
<http-response>	Zero or once	--
<encoding>	Zero or once	Specifies the default encoding used to encode a response body. Specify a character encoding that JavaVM supports. ^{#7} By default, this tag is not specified.
<jsp>	Zero or once	--
<page-encoding>	Zero or once	Specifies the default encoding used to read a JSP file. Specify a character encoding that JavaVM supports. ^{#7} By default, this tag is not specified.
<http-session>	Zero or once	--
<http-session-max-number>	Once	Specifies the maximum number of usable HttpSession. You can specify an integer value from -1 to 2147483647. When -1 is specified, the number of usable HttpSession is infinite. The default value is <u>-1</u> .
<resource-watcher>	Once	Specifies the properties related to the monitoring of the number of HttpSession.
<watcher-threshold>	Once	Specifies the threshold value to output an alert message. You can specify an integer value from 1 to 100 (unit: %). The default value is <u>80</u> .
<watcher-interval>	Once	Specifies the monitoring interval. You can specify an integer value from 1 to 2147483647 (unit: seconds). The default value is <u>30</u> .
<watcher-enabled>	Once	Specifies whether to enable the monitoring of the number of HttpSession. You can specify the following character strings: <ul style="list-style-type: none"> • true (Monitoring is enabled) • false (Monitoring is disabled) The default value is <u>true</u> . However, if you specify 0 in http-session-max-number, monitoring is disabled.

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Tag name	Occurrence pattern	Explanation
<code><watcher-writefile-enabled></code>	Once	<p>Specifies whether to output the resource usage status to a file. You can specify the following character strings:</p> <ul style="list-style-type: none"> • <code>true</code> (Output to a file) • <code>false</code> (Not output to a file) <p>The default value is <code>true</code>.</p>
<code><dbsfo></code> <i>Chapter 6 in the Expansion Guide</i>	Zero or once	Sets up the database session failover functionality.
<code><enabled></code>	Zero or once	<p>Specifies whether to enable the database session failover functionality.</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • <code>true</code> (Enable) • <code>false</code> (Disable)
<code><application-id></code>	Zero or once	Sets up the application identifier. You can use only alphanumeric characters (0 to 9, A to Z, a to z) and underscores (_). You can specify up to 16 characters.
<code><attribute-data-size-max></code>	Zero or once	Sets up the maximum size for the property information of an HTTP session that can be included in the global session information. The specifiable range is an integer value from 128 to 10485760 (unit: bytes).
<code><exclude-extensions></code>	Zero or once	<p>Sets up an extension to control the database session failover functionality.</p> <p>If the URL path is the same as the specified extension, the database session failover functionality is disabled in the corresponding request. The comparison of the specified extension and URL is not case sensitive.</p> <p>If you do not want to set up the extension that controls the database session failover functionality, specify a blank character string.</p> <p>Specify up to 512 of the following characters:</p> <ul style="list-style-type: none"> • Alphanumeric characters • Parentheses ((), ()) • Exclamation mark (!) • Percent sign (%) • Dollar sign (\$) • Ampersand (&) • Single quotation mark (') • Plus sign (+) • Hyphen (-) • Equal sign (=) • at mark (@) • Underscore (_) • Tilde (~) • Period (.) • Comma (,)

Tag name	Occurrence pattern	Explanation
<exclude-extensions>	Zero or once	When specifying multiple extensions, demarcate with commas (.).
<start-notify-error>	Zero or once	<p>Specifies whether to report an error when starting a J2EE application.</p> <p>You specify whether to report the error and suspend application startup when a J2EE application is being started and an error occurs during the initialization of the servlets and JSPs for which <code>load-on-startup</code> is specified and during the parsing of <code>taglib</code>.</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • <code>true</code> (Error is reported) • <code>false</code> (Error is not reported) <p>The default value is <code>true</code>.</p>
<start-order>	Zero or once	<p>Specifies the order used when starting and stopping the J2EE applications.</p> <p>The start process is executed in the ascending order when the applications are started and the stop process is executed in the descending order when the applications are terminated.</p> <p>$0 \leq \text{start-order} \leq 2147483647$</p>

#1

You can specify the `xml:lang` property. If the `xml:lang` property is not specified, `en` (English) is assumed. Note that you cannot specify multiple tags with the same `xml:lang` property.

#2

You cannot specify this tag multiple times for the WARs of Servlet 2.3 or earlier versions.

#3

For details on the default mapping values of the extensions specified in the `mime-mapping` tag and the MIME types, see *Appendix B.1 Mapping the extensions and MIME types* in the manual *uCosminexus Application Server Definition Reference Guide*.

#4

Specify either `error-code` or `exception-type`.

#5

Do not change the tag name, add or delete the tag, or change the value for the tags output with the `cjgetappprop` or `cjgetresprop` commands.

#6

Do not change the values for the annotation settings.

#7

The characters that you can specify as the default character encoding are the character encoding supported by JavaVM. For details on the character encoding that JavaVM supports, see the description related to the supported encoding in the JDK documentation. Also, the character strings that you can specify are the character encoding described in the canonical names for `java.nio` API and canonical names for `java.lang` API, and their optional names.

(2) When web.xml is not included (Servlet 2.5 or later versions)

Tag name	Occurrence pattern	Explanation
<hitachi-war-property>	Once	Specifies the root tag.
<description>#1	Zero or more times#1	Describes the WAR. #5

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Tag name	Occurrence pattern	Explanation
<display-name>#1	One or more times#1	Specifies the WAR display name. #5 Make sure you specify display-name with xml:lang property as en. Even if the display name of the corresponding resource is specified using the command argument, specify display-name with xml:lang as en. $1 \leq \text{character-string-length}$ For tags where xml:lang property is en, you can use alphanumeric characters (0 to 9, A to Z, a to z), and the following special characters: Plus sign (+), hyphen (-), period (.), caret (^), and underscore (_) For tags where xml:lang property is not en, the characters to be used are not restricted.
<icon>#1	Zero or more times#1	Defines the Web application icons displayed on the Deploy tool. #5
<small-icon>	Zero or once	Specifies the file name for small icons (16 × 16).
<large-icon>	Zero or once	Specifies the file name for large icons (32 × 32).
<security-role>	Zero or more times	Defines a security role.
<description>#1	Zero or more times#1	Describes security-role. #5
<role-name>	Once	Specifies the role name. #5
<linked-to>	Zero or once	Specifies the role name defined with the cjaddsec command. This tag is ignored when used in the cjsetresprop command.
<env-entry>	Zero or once	Defines the environment entry. #5
<description>#1	Zero or more times#1	Describes the environment entry. #5
<env-entry-name>	Once	Specifies the environment entry name. #5
<env-entry-type>	Once	Specifies the environment entry data type. #5 You can specify the following character strings: <ul style="list-style-type: none"> • java.lang.Boolean • java.lang.Byte • java.lang.Short • java.lang.Integer • java.lang.Long • java.lang.Float • java.lang.Double • java.lang.String • java.lang.Character
<env-entry-value>	Once	Specifies the environment entry value. #5

Tag name	Occurrence pattern	Explanation
<env-entry-value>	Once	Specify a value appropriate to the type specified in <code>env-entry-type</code> . You cannot specify a null character when a value other than <code>java.lang.String</code> is specified in <code>env-entry-type</code> .
<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #5
<injection-target-class>	Once	Specifies the injection target class name. #5 Displayed from the package when the package is defined.
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #5
<ejb-ref>	Zero or more times	Defines the reference information for the Enterprise Bean with a remote interface. #5
<description>#1	Zero or more times#1	Describes <code>ejb-ref</code> . #6
<ejb-ref-name>	Once	Specifies the <code>ejb-ref</code> name. #6
<ejb-ref-type>	Zero or once	Specifies the Enterprise Bean type to be linked to. #6 You can specify the following character strings: <ul style="list-style-type: none"> • Entity • Session
<home>	Zero or once	Specifies the name of the Home interface class to be linked to. #6
<remote>	Zero or once	Specifies the name of the Component interface class to be linked to. #6
<ejb-link>	Zero or once	Specifies the <code>ejb-name</code> to be linked to. #6 When setting the link destination with the naming service switching functionality, use the following format: <code>corbaname::Namespace-host-name:Namespace-port-number#JNDI-name-of-EJB-Home-object-reference</code>
<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #5
<injection-target-class>	Once	Specifies the injection target class name. #5 Displayed from the package when the package is defined.
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #5
<ejb-local-ref>	Zero or more times	Defines the reference information for the Enterprise Bean with a local interface. #6

3. Property Files Used for Setting J2EE Applications

Tag name	Occurrence pattern	Explanation
<description>#1	Zero or more times#1	Describes <code>ejb-local-ref</code> . #6
<ejb-ref-name>	Once	Specifies the <code>ejb-local-ref</code> name. #6
<ejb-ref-type>	Once	Specifies the Enterprise Bean type to be linked to. #6 You can specify the following character strings: <ul style="list-style-type: none"> • Entity • Session
<local-home>	Once	Specifies the Local Home interface name of the Enterprise Bean to be linked to. #6
<local>	Once	Specifies the Local Component interface name of the Enterprise Bean to be linked to. #6
<ejb-link>	Zero or once	Specifies the <code>ejb-name</code> to be linked to. #6
<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #5
<injection-target-class>	Once	Specifies the injection target class name. #5 Displayed from the package when the package is defined.
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #5
<resource-ref>	Zero or more times	Defines the resource reference. #5
<description>#1	Zero or more times#1	Describes <code>resource-ref</code> . #6
<res-ref-name>	Once	Specifies the <code>resource-ref</code> name. #6
<res-type>	Zero or once	Specifies the resource type. #6 You can specify the following character strings: <ul style="list-style-type: none"> • <code>javax.mail.Session</code> • <code>javax.sql.DataSource</code> • <code>javax.jms.QueueConnectionFactory</code> • <code>javax.jms.ConnectionFactory</code> • <code>javax.resource.cci.ConnectionFactory</code> • <code>org.omg.CORBA_2_3_ORB</code> (a resource that can be looked up even if not defined in a DD) • <code>javax.jms.TopicConnectionFactory</code> If the reference destination is a Connector 1.5 resource adapter, specify the connection definition identifier (value set in the <code><connectionfactory-interface></code>)

	Tag name	Occurrence pattern	Explanation
	<res-type>	Zero or once	tag) of the reference destination resource adapter.
	<res-auth>	Zero or once	<p>Specifies the authentication method. #6</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • Application • Container <p>In the Servlet 2.5 or later versions, the default value is <u>Container</u>.</p>
	<res-sharing-scope>	Zero or once	<p>Specifies whether to share the referenced resources. #6</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • Shareable • Unshareable
	<mapped-name>	Zero or once	<p>Specifies the corresponding resource adapter display name or mail display name. #5</p> <p>When you specify this tag at the same time as <linked-to> tag, the <linked-to> tag becomes valid.</p>
	<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #5
	<injection-target-class>	Once	<p>Specifies the injection target class name. #5</p> <p>Displayed from the package when the package is defined.</p>
	<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #5
	<linked-to>	Zero or once	<p>Specifies the corresponding resource adapter display name, data source display name, or mail display name. #6</p> <p>How to specify the resource adapter display name differs depending on the resource adapter version.</p> <p>Connector 1.0 or earlier versions <i>Resource-adapter-display-name</i></p> <p>Outbound resource adapters of Connector 1.5 or later versions <i>Resource-adapter-display-name!</i> <i>connection-definition-identifier</i></p> <p>The <i>connection-definition-identifier</i> is a value specified in the <connectionfactory-interface> tag in the ra.xml.</p> <p>You cannot specify the member resource adapters of the cluster connection pool.</p> <p>This tag is ignored in the cjsetresprop command.</p>

3. Property Files Used for Setting J2EE Applications

Tag name	Occurrence pattern	Explanation
<resource-env-ref>	Zero or more times	Defines the resource environment variable. #6
<description>#1	Zero or more times#1	Describes resource-env-ref. #6
<resource-env-ref-name>	Once	Specifies the resource-env-ref name. #6
<resource-env-ref-type>	Once	<p>Specifies the class type of the resource environment variable value. #6</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • javax.jms.Queue • javax.jms.Topic • javax.transaction.UserTransaction • javax.ejb.TimerService • javax.ejb.EJBContext • JavaBeans resource class name <p>The strings javax.transaction.UserTransaction, javax.ejb.TimerService, and javax.ejb.EJBContext are output only when annotations are used. However, you cannot set these values.</p> <p>When you specify <linked-adminobject>, any class name is displayed.</p>
<mapped-name>	Zero or once	<p>Displays the corresponding queue #5 in the following format when <resource-env-ref-type> is javax.jms.Queue.</p> <p><i>Resource-adapter-display-name#Queue-name</i></p> <p>When you specify this tag at the same time as <linked-Queue>, the <linked-Queue> tag becomes valid.</p> <p>Displays the display name of the corresponding JavaBeans resource when <resource-env-ref-type> is <i>JavaBeans-resource-class-name</i>. When you specify this tag at the same time as <linked-to>, the <linked-to> tag becomes valid.</p>
<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #5
<injection-target-class>	Once	<p>Specifies the injection target class name. #5</p> <p>Displayed from the package when the package is defined.</p>
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #5
<linked-queue>	Zero or once	<p>Specifies the corresponding data source display name or mail display name. #6</p> <p>This tag is ignored when used in the cjsetresprop command.</p>

Tag name	Occurrence pattern	Explanation
<linked-queue>	Zero or once	The tag is valid only when <code>javax.jms.Queue</code> is specified in <resource-env-ref-type>.
<resource-adapter>	Once	Specifies the resource adapter display name. #6 You cannot specify the resource adapters conforming to Connector 1.5 specifications.
<queue>	Once	Specifies the display name of the queue. #6
<linked-adminobject>	Zero or once	Specifies the administered object. This tag is ignored in the <code>cjsetresprop</code> command.
<resourceadapter-name>	Once	Specifies the resource adapter display name. You cannot specify the resource adapters conforming to Connector 1.0 or earlier versions.
<adminobject-name>	Once	Specifies the administered object name. You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters: Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semi-colon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~) You cannot, however, specify the following names: <ul style="list-style-type: none"> • Name containing a period (.) at the beginning or at the end • Name containing only a period (.) • Name containing continuous underscores (_) Any single-byte space or linefeed at the beginning or end of the character string is removed.
<linked-to>	Zero or once	Specifies the display name of JavaBeans resource. #6 This tag is valid only when <code>JavaBeans-resource-class-name</code> is specified for <resource-env-ref-type>. This tag is ignored when used in the <code>cjsetresprop</code> command.
<persistence-context-ref>	Zero or more times	Describes the settings of the persistence context. #5
<description>#1	Zero or more times	Describes the persistence context. #6

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Tag name	Occurrence pattern	Explanation
<persistence-context-ref-name>	Once	Sets up the name of the persistence context reference. The name is a JNDI name correlated to the <code>java:comp/env</code> context. #6
<persistence-unit-name>	Zero or once	Sets up the name of the persistence unit. #6
<persistence-context-type>	Zero or once	Sets up the transactional nature of the persistence context reference. You can specify the following strings: #6 <ul style="list-style-type: none"> • Transaction • Extended
<persistence-property>	Zero or more times	Sets up properties of the container or persistence provider. #6
<name>	Once	Sets up the name of the property. #6
<value>	Once	Sets up the value of the property. #6
<injection-target>	Zero or more times	Describes the Dependency Injection settings. #6
<injection-target-class>	Once	Specifies the injection target class name. Specified from the package when the package is defined. #6
<injection-target-name>	Once	Specifies the injection target identifier of the specified class.
<persistence-unit-ref>	Zero or more times	Describes the settings for the persistence unit reference #5
<description>#1	Zero or more times	Describes the persistence unit reference. #6
<persistence-unit-ref-name>	Once	Sets up the name of the persistence unit reference. The name is a JNDI name correlated to the <code>java:comp/env</code> context. #6
<persistence-unit-name>	Zero or once	Sets up the name of the persistence unit. #6
<injection-target>	Zero or more times	Specifies the Dependency Injection settings. #6
<injection-target-class>	Once	Specifies the injection target class name. Specified from the package when the package is defined. #6
<injection-target-name>	Once	Specifies the injection target identifier of the specified class. #6
<post-construct>	Zero or more times	Defines the <code>post-construct</code> method. #5
<lifecycle-callback-class>	Zero or once	Describes the name of the class that stores the <code>post-construct</code> method. If this tag is omitted, the specification of the <code><post-construct></code> tag is ignored. #6
<lifecycle-callback-method>	Once	Describes the <code>post-construct</code> method name. #6
<pre-destroy>	Zero or more times	Defines the <code>pre-destroy</code> method. #5

Tag name	Occurrence pattern	Explanation
<lifecycle-callback-class>	Zero or once	Describes name of the class that stores the <code>pre-destroy</code> method. If this tag is omitted, the specification of the <code><pre-destroy></code> tag is ignored. #6
<lifecycle-callback-method>	Once	Describes the <code>pre-destroy</code> method name. #6
<runtime>	Zero or once	When used in the <code>cjsetappprop</code> command This tag is mandatory. When used in the <code>cjsetresprop</code> command This tag is ignored.
<context-root>	Once	Specifies the context root. The characters that you can specify are those that can be used in URI (RFC3986). When specifying the root, you specify either a blank character string or a forward slash (/).
<thread-control> <i>2.17 in the Web Container Functionality Guide</i>	Zero or once	Specifies the settings for the thread control group. This tag is ignored when used in the <code>cjsetresprop</code> command.
<thread-control-max-threads>	Once	Specifies the maximum number of concurrently executed threads for the Web applications. Specify a value equal to at least the number of exclusive threads. 1 to 1024
<thread-control-exclusive-threads>	Once	Specifies the number of exclusive threads. Specify a value not more than the maximum number of concurrently executed threads for the Web applications. 0 to 1024
<thread-control-queue-size>	Once	Specifies the pending queue size of the Web applications. 0 to 2147483647
<thread-control-stats-monitor>	Once	Specifies the settings for monitoring the operation statistics.
<whole-waiting-request-count>	Once	Monitors the whole pending request count of the Web applications.
<enabled>	Once	Specifies whether to enable the threshold value event for monitoring the whole pending request count of the Web applications. You can specify the following character strings: <ul style="list-style-type: none"> • <code>true</code> (the threshold value event is enabled) • <code>false</code> (the threshold value event is disabled) The default value is <code>true</code> .
<high-threshold>	Once	Specifies an integer from 1 to 100 (unit: %) as the high threshold value for the output of the threshold value event. The default value is <code>80</code> .

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Tag name		Occurrence pattern	Explanation
	<high-threshold>	Once	However, the value must be equal to or greater than the value specified in the <low-threshold> tag.
	<low-threshold>	Once	Specifies an integer from 0 to 99 (unit: %) as the low threshold value for the output of the threshold value event. The default value is <u>0</u> . However, the value must be equal to or less than the value specified in the <high-threshold> tag.
	<waiting-request-count>	Once	Monitors the number of pending requests of the Web applications.
	<enabled>	Once	Specifies whether to enable the threshold value event for monitoring the number of pending requests of the Web applications. You can specify the following character strings: <ul style="list-style-type: none"> • <code>true</code> (the threshold value event is enabled) • <code>false</code> (the threshold value event is disabled) The default value is <code>true</code> .
	<high-threshold>	Once	Specifies an integer from 1 to 100 (unit: %) as the high threshold value for the output of the threshold value event. The default value is <u>80</u> . However, the value must be equal to or greater than the value specified in the <low-threshold> tag.
	<low-threshold>	Once	Specifies an integer from 0 to 99 (unit: %) as the low threshold value for the output of the threshold value event. The default value is <u>0</u> . However, the value must be equal to or less than the value specified in the <high-threshold> tag.
	<resource-watcher>	Once	Specifies the properties related to the monitoring of the number of saved request pending queues of the Web applications.
	<watcher-threshold>	Once	Specifies the threshold value to output an alert message. Specify an integer value from 1 to 100 (unit: %). The default value is <u>80</u> .
	<watcher-interval>	Once	Specifies the monitoring interval. Specify an integer value from 1 to 2147483647 (unit: seconds). The default value is <u>30</u> .
	<watcher-enabled>	Once	Specifies whether to enable the monitoring of the number of saved request pending queues of the Web applications. You can specify the following character strings:

Tag name	Occurrence pattern	Explanation
<code><watcher-enabled></code>	Once	<ul style="list-style-type: none"> • <code>true</code> (Monitoring is enabled) • <code>false</code> (Monitoring is disabled) <p>The default value is <code>true</code>. However, monitoring is disabled when 0 is specified in <code>thread-control-queue-size</code>.</p>
<code><watcher-writefile-enabled></code>	Once	<p>Specifies whether to output the resource usage status to a file.</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • <code>true</code> (Output to a file) • <code>false</code> (Not output to a file) <p>The default value is <code>true</code>.</p>
<code><urlgroup-thread-control></code> <i>2.18 in the Web Container Functionality Guide</i>	Zero or more times	Specifies the control of the number of concurrently executed threads for the URL groups.
<code><urlgroup-thread-control-name></code>	Once	<p>Specifies the definition name for controlling the concurrently executed thread count of the URL groups.</p> <p>Specify a character string unique in the Web application as the definition name for controlling the concurrently executed thread count of the URL groups. You can use alphanumeric characters (0 to 9, A to Z, a to z), hyphen (-), and underscore (_). Specify the length of the character string as $1 \leq \text{character-string-length} \leq 64$.</p>
<code><urlgroup-thread-control-max-threads></code>	Once	<p>Specifies the maximum number of concurrently executed threads for the URL groups.</p> <p>Specify an integer value from 1 to <code>thread-control-max-threads</code>.</p>
<code><urlgroup-thread-control-exclusive-threads></code>	Once	<p>Specifies the number of exclusive threads for the URL groups.</p> <p>The value that you can specify ranges from 0 to <code>urlgroup-thread-control-max-threads</code> and <code>thread-control-exclusive-threads</code> value or less. Note that, when <code><urlgroup-thread-control></code> is defined, the following range of settings need to be fulfilled:</p> <ul style="list-style-type: none"> • If <code>thread-control-max-threads</code> \neq <code>thread-control-exclusive-threads</code>, then <code>thread-control-exclusive-threads</code> \geq total <code>urlgroup-thread-control-exclusive-threads</code>. • If <code>thread-control-max-threads</code> = <code>thread-control-exclusive-threads</code>, then <code>thread-control-exclusive-threads</code> $>$ total <code>urlgroup-thread-control-exclusive-threads</code>.
<code><urlgroup-thread-control-queue-size></code>	Once	Specifies the pending queue size for the URL groups.

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Tag name		Occurrence pattern	Explanation
	<urlgroup-thread-control-queue-size>	Once	You can specify an integer value from 0 to 2147483647.
	<urlgroup-thread-control-mapping>	Zero or more times	Specifies the mapping information of the URL to be controlled.
	<url-pattern>	Once	Specifies the URL pattern to be controlled. You cannot specify the same URL pattern in one Web application. Some examples of specification are as follows: <ul style="list-style-type: none"> • /soda/grape/* • /foo/* • /contents • *.foo
	<stats-monitor>	Once	Specifies the operation statistics settings.
	<waiting-request-count>	Once	Monitors the pending requests of the URL groups.
	<enabled>	Once	Specifies whether to enable the threshold value event for monitoring the pending requests of the URL groups. You can specify the following character strings: <ul style="list-style-type: none"> • true (the threshold value event is enabled) • false (the threshold value event is disabled)
	<high-threshold>	Once	Specifies an integer from 1 to 100 (unit: %) as the high threshold value for the output of the threshold value event. Make sure you specify a value that is equal to or greater than low-threshold.
	<low-threshold>	Once	Specifies an integer from 0 to 99 (unit: %) as the low threshold value for the output of the threshold value event. Make sure you specify a value that is equal to or less than high-threshold.
	<http-request>	Zero or once	--
	<encoding>	Zero or once	Specifies the default encoding used to decode a request body and query. Specify a character encoding that JavaVM supports. ^{#7} By default, this tag is not specified.
	<http-response>	Zero or once	--
	<encoding>	Zero or once	Specifies the default encoding used to encode a response body. Specify a character encoding that JavaVM supports. ^{#7} By default, this tag is not specified.
	<jsp>	Zero or once	--

Tag name	Occurrence pattern	Explanation
<page-encoding>	Zero or once	Specifies the default encoding used to read a JSP file. Specify a character encoding that JavaVM supports.#7 By default, this tag is not specified.
<http-session>	Zero or once	--
<http-session-max-number>	Once	Specifies the maximum number of usable HttpSession. You can specify an integer value from -1 to 2147483647. When -1 is specified, the number of usable HttpSession is infinite. The default value is <u>-1</u> .
<resource-watcher>	Once	Specifies the properties related to the monitoring of the number of HttpSession.
<watcher-threshold>	Once	Specifies the threshold value to output an alert message. You can specify an integer value from 1 to 100 (unit: %). The default value is <u>80</u> .
<watcher-interval>	Once	Specifies the monitoring interval. You can specify an integer value from 1 to 2147483647 (unit: seconds). The default value is <u>30</u> .
<watcher-enabled>	Once	Specifies whether to enable the monitoring of the number of HttpSession. You can specify the following character strings: <ul style="list-style-type: none"> • true (Monitoring is enabled) • false (Monitoring is disabled) The default value is <u>true</u> . However, if you specify 0 in http-session-max-number, monitoring is disabled.
<watcher-writefile-enabled>	Once	Specifies whether to output the resource usage status to a file. You can specify the following character strings: <ul style="list-style-type: none"> • true (Output to a file) • false (Not output to a file) The default value is <u>true</u> .
<dbsfo> <i>Chapter 6 in the Expansion Guide</i>	Zero or once	Sets up the database session failover functionality.
<enabled>	Zero or once	Specifies whether to enable or disable the database session failover functionality. Specify true to enable the functionality and false to disable the functionality.
<application-id>	Zero or once	Sets up the application identifier. You can use only alphanumeric characters (0 to 9, A to Z, a to z) and underscores (_). You can specify up to 16 characters.

3. Property Files Used for Setting J2EE Applications

Tag name	Occurrence pattern	Explanation
<attribute-data-size-max>	Zero or once	Sets up the maximum size for the property information of an HTTP session that can be included in the global session information. The specifiable range is an integer value from 128 to 10485760 (unit: bytes).
<exclude-extensions>	Zero or once	<p>Sets up an extension to control the database session failover functionality.</p> <p>If the URL path is the same as the specified extension, the database session failover functionality is disabled in the corresponding request. The comparison of the specified extension and URL is not case sensitive.</p> <p>If you do not want to set up the extension that controls the database session failover functionality, specify a blank character string.</p> <p>Specify up to 512 of the following characters:</p> <ul style="list-style-type: none"> • Alphanumeric characters • Parentheses ((), ()) • Exclamation mark (!) • Percent sign (%) • Dollar sign (\$) • Ampersand (&) • Single quotation mark (') • Plus sign (+) • Hyphen (-) • Equal sign (=) • at mark (@) • Underscore (_) • Tilde (~) • Period (.) • Comma (,) <p>When specifying multiple extensions, demarcate with commas (,).</p>
<start-notify-error>	Zero or once	<p>Specifies whether to report an error when starting a J2EE application.</p> <p>You specify whether to report the error and suspend application startup when a J2EE application is being started and an error occurs during the initialization of the servlets and JSPs for which <code>load-on-startup</code> is specified and during the parsing of <code>taglib</code>.</p> <p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • <code>true</code> (Error is reported) • <code>false</code> (Error is not reported) <p>The default value is <code>true</code>.</p>
<start-order>	Zero or once	<p>Specifies the order used when starting and stopping the J2EE applications.</p> <p>The start process is executed in the ascending order when the applications are started and the</p>

Tag name	Occurrence pattern	Explanation
<start-order>	Zero or once	stop process is executed in the descending order when the applications are terminated. $0 \leq \text{start-order} \leq 2147483647$

#1

You can specify the `xml:lang` property. If the `xml:lang` property is not specified, `en` (English) is assumed. Note that you cannot specify multiple tags with the same `xml:lang` property.

#2

You cannot specify this tag multiple times for the WARs of Servlet 2.3 or earlier versions.

#3

For details on the default mapping values of the extensions specified in the `mime-mapping` tag and the MIME types, see *Appendix B.1 Mapping the extensions and MIME types* in the manual *uCosminexus Application Server Definition Reference Guide*.

#4

Specify either `error-code` or `exception-type`.

#5

Do not change the tag name, add or delete the tag, or change the value for the tags output with the `cjgetappprop` or `cjgetresprop` commands.

#6

Do not change the values for the annotation settings.

#7

The characters that you can specify as the default character encoding are the character encoding supported by JavaVM. For details on the character encoding that JavaVM supports, see the description related to the supported encoding in the JDK documentation. Also, the character strings that you can specify are the character encoding described in the canonical names for `java.nio` API and canonical names for `java.lang` API, and their optional names.

3.7.2 Mapping with DD

The following table describes the correspondence between the HITACHI WAR Property file and the Deployment Descriptor:

(1) In Servlet 2.3

HITACHI WAR Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-war-property>	Once	<web-app>	Once
<description>	Zero or once	<description>	Zero or once
<display-name>	Once	<display-name>	Zero or once
<icon>	Zero or once	<icon>	Zero or once
<small-icon>	Zero or once	<small-icon>	Zero or once
<large-icon>	Zero or once	<large-icon>	Zero or once
<distributable>	Zero or once	<distributable>	Zero or more times
<context-param>	Zero or more times	<context-param>	Zero or more times
<description>	Zero or once	<description>	Zero or once

3. Property Files Used for Setting J2EE Applications

HITACHI WAR Property file		Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	<param-name>	Once		<param-name>	Once
	<param-value>	Once		<param-value>	Once
	<filter-mapping>	Zero or more times		<filter-mapping>	Zero or more times
	<filter-name>	Once		<filter-name>	Once
	<url-pattern>#1	Once		<url-pattern>#1	Once
	<servlet-name>#1	Once		<servlet-name>#1	Once
	<listener>	Zero or more times		<listener>	Zero or more times
	<listener-class>	Once		<listener-class>	Once
	--	--		(Omitted)	--
	<session-config>	Zero or once		<session-config>	Zero or once
	<session-timeout>	Zero or once		<session-timeout>	Zero or once
	<mime-mapping>	Zero or more times		<mime-mapping>	Zero or more times
	<extension>	Once		<extension>	Once
	<mime-type>	Once		<mime-type>	Once
	<welcome-file-list>	Zero or once		<welcome-file-list>	Zero or once
	<welcome-file>	One or more times		<welcome-file>	One or more times
	<error-page>	Zero or more times		<error-page>	Zero or more times
	<error-code>#2	Once		<error-code>#2	Once
	<exception-type>#2	Once		<exception-type>#2	Once
	<location>	Once		<location>	Once
	<taglib>	Zero or more times		<taglib>	Zero or more times
	<taglib-uri>	Once		<taglib-uri>	Once
	<taglib-location>	Once		<taglib-location>	Once
	<security-constraint>	Zero or more times		<security-constraint>	Zero or more times
	<display-name>	Zero or once		<display-name>	Zero or once
	<web-resource-collection>	One or more times		<web-resource-collection>	One or more times
	<description>	Zero or once		<description>	Zero or once
	<web-resource-name>	Once		<web-resource-name>	Once
	<url-pattern>	Zero or more times		<url-pattern>	Zero or more times

HITACHI WAR Property file				Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern		
	<http-method>	Zero or more times		<http-method>	Zero or more times		
	<auth-constraint>	Zero or once		<auth-constraint>	Zero or once		
	<description>	Zero or once		<description>	Zero or once		
	<role-name>	Zero or more times		<role-name>	Zero or more times		
	<user-data-constraint>	Zero or once		<user-data-constraint>	Zero or once		
	<description>	Zero or once		<description>	Zero or once		
	<transport-guarantee>	Once		<transport-guarantee>	Once		
	<original-name>	Once		--	--		
	<login-config>	Zero or once		<login-config>	Zero or once		
	<auth-method>	Zero or once		<auth-method>	Zero or once		
	<realm-name>	Zero or once		<realm-name>	Zero or once		
	<form-login-config>	Zero or once		<form-login-config>	Zero or once		
	<form-login-page>	Once		<form-login-page>	Once		
	<form-error-page>	Once		<form-error-page>	Once		
	<security-role>	Zero or more times		<security-role>	Zero or more times		
	<description>	Zero or once		<description>	Zero or once		
	<role-name>	Once		<role-name>	Once		
	<linked-to>	Zero or once		--	--		
	<env-entry>	Zero or more times		<env-entry>	Zero or more times		
	<description>	Zero or once		<description>	Zero or once		
	<env-entry-name>	Once		<env-entry-name>	Once		
	<env-entry-type>	Once		<env-entry-type>	Once		
	<env-entry-value>	Once		<env-entry-value>	Zero or once		
	<ejb-ref>	Zero or more times		<ejb-ref>	Zero or more times		
	<description>	Zero or once		<description>	Zero or once		
	<ejb-ref-name>	Once		<ejb-ref-name>	Once		
	<ejb-ref-type>	Once		<ejb-ref-type>	Once		
	<home>	Once		<home>	Once		
	<remote>	Once		<remote>	Once		
	<ejb-link>	Zero or once		<ejb-link>	Zero or once		
	<ejb-local-ref>	Zero or more times		<ejb-local-ref>	Zero or more times		

3. Property Files Used for Setting J2EE Applications

HITACHI WAR Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<description>	Zero or once	<description>	Zero or once
<ejb-ref-name>	Once	<ejb-ref-name>	Once
<ejb-ref-type>	Once	<ejb-ref-type>	Once
<local-home>	Once	<local-home>	Once
<local>	Once	<local>	Once
<ejb-link>	Zero or once	<ejb-link>	Zero or once
<resource-ref>	Zero or more times	<resource-ref>	Zero or more times
<description>	Zero or once	<description>	Zero or once
<res-ref-name>	Once	<res-ref-name>	Once
<res-type>	Once	<res-type>	Once
<res-auth>	Once	<res-auth>	Once
<res-sharing-scope>	Zero or once	<res-sharing-scope>	Zero or once
<linked-to>	Zero or once	--	--
<resource-env-ref>	Zero or more times	<resource-env-ref>	Zero or more times
<description>	Zero or once	<description>	Zero or once
<resource-env-ref-name>	Once	<resource-env-ref-name>	Once
<resource-env-ref-type>	Once	<resource-env-ref-type>	Once
<linked-queue>	Zero or once	--	--
<resource-adapter>	Once	--	--
<queue>	Once	--	--
<linked-adminobject>	Zero or once	--	--
<resourceadapter-name>	Once	--	--
<adminobject-name>	Once	--	--
<runtime>	Zero or once	--	--
<context-root>	Once	--	--

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

#1

Specify either <url-pattern> or <servlet-name>.

#2

Specify either <error-code> or <exception-type>.

(2) In Servlet 2.4

HITACHI WAR Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-war-property>	Once	<web-app>	Once
<description>	Zero or more times	<description>	Zero or more times
<display-name>	One or more times	<display-name>	Zero or more times
<icon>	Zero or more times	<icon>	Zero or more times
<small-icon>	Zero or once	<small-icon>	Zero or once
<large-icon>	Zero or once	<large-icon>	Zero or once
<distributable>	Zero or once	<distributable>	Zero or more times
<context-param>	Zero or more times	<context-param>	Zero or more times
<description>	Zero or more times	<description>	Zero or more times
<param-name>	Once	<param-name>	Once
<param-value>	Once	<param-value>	Once
<filter-mapping>	Zero or more times	<filter-mapping>	Zero or more times
<filter-name>	Once	<filter-name>	Once
<url-pattern>#1	Once	<url-pattern>#1	Once
<servlet-name>#1	Once	<servlet-name>#1	Once
<dispatcher>	Zero, or four times or less	<dispatcher>	Zero, or four times or less
<listener>	Zero or more times	<listener>	Zero or more times
<description>	Zero or more times	<description>	Zero or more times
<display-name>	Zero or more times	<display-name>	Zero or more times
<icon>	Zero or more times	<icon>	Zero or more times
<small-icon>	Zero or once	<small-icon>	Zero or once
<large-icon>	Zero or once	<large-icon>	Zero or once
<listener-class>	Once	<listener-class>	Once
--	--	(Omitted)	--
<session-config>	Zero or more times	<session-config>	Zero or more times
<session-timeout>	Zero or once	<session-timeout>	Zero or once

3. Property Files Used for Setting J2EE Applications

HITACHI WAR Property file			Deployment Descriptor		
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	<mime-mapping>	Zero or more times		<mime-mapping>	Zero or more times
	<extension>	Once		<extension>	Once
	<mime-type>	Once		<mime-type>	Once
	<welcome-file-list>	Zero or more times		<welcome-file-list>	Zero or more times
	<welcome-file>	One or more times		<welcome-file>	One or more times
	<error-page>	Zero or more times		<error-page>	Zero or more times
	<error-code>#2	Once		<error-code>#2	Once
	<exception-type>#2	Once		<exception-type>#2	Once
	<location>	Once		<location>	Once
	<jsp-config>	Zero or more times		<jsp-config>	Zero or more times
	<taglib>	Zero or more times		<taglib>	Zero or more times
	<taglib-uri>	Once		<taglib-uri>	Once
	<taglib-location>	Once		<taglib-location>	Once
	<jsp-property-group>	Zero or more times		<jsp-property-group>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<display-name>	Zero or more times		<display-name>	Zero or more times
	<icon>	Zero or more times		<icon>	Zero or more times
	<small-icon>	Zero or once		<small-icon>	Zero or once
	<large-icon>	Zero or once		<large-icon>	Zero or once
	<url-pattern>	One or more times		<url-pattern>	One or more times
	<el-ignored>	Zero or once		<el-ignored>	Zero or once
	<page-encoding>	Zero or once		<page-encoding>	Zero or once
	<scripting-invalid>	Zero or once		<scripting-invalid>	Zero or once
	<is-xml>	Zero or once		<is-xml>	Zero or once
	<include-prelude>	Zero or more times		<include-prelude>	Zero or more times
	<include-coda>	Zero or more times		<include-coda>	Zero or more times

HITACHI WAR Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<security-constraint>	Zero or more times	<security-constraint>	Zero or more times
<display-name>	Zero or more times	<display-name>	Zero or more times
<web-resource-collection>	One or more times	<web-resource-collection>	One or more times
<description>	Zero or more times	<description>	Zero or more times
<web-resource-name>	Once	<web-resource-name>	Once
<url-pattern>	One or more times	<url-pattern>	One or more times
<http-method>	Zero or more times	<http-method>	Zero or more times
<auth-constraint>	Zero or once	<auth-constraint>	Zero or once
<description>	Zero or more times	<description>	Zero or more times
<role-name>	Zero or more times	<role-name>	Zero or more times
<user-data-constraint>	Zero or once	<user-data-constraint>	Zero or once
<description>	Zero or more times	<description>	Zero or more times
<transport-guarantee>	Once	<transport-guarantee>	Once
<original-name>	Once	--	--
<login-config>	Zero or more times	<login-config>	Zero or more times
<auth-method>	Zero or once	<auth-method>	Zero or once
<realm-name>	Zero or once	<realm-name>	Zero or once
<form-login-config>	Zero or once	<form-login-config>	Zero or once
<form-login-page>	Once	<form-login-page>	Once
<form-error-page>	Once	<form-error-page>	Once
<security-role>	Zero or more times	<security-role>	Zero or more times
<description>	Zero or more times	<description>	Zero or more times
<role-name>	Once	<role-name>	Once
<linked-to>	Zero or once	--	--
<env-entry>	Zero or more times	<env-entry>	Zero or more times
<description>	Zero or more times	<description>	Zero or more times
<env-entry-name>	Once	<env-entry-name>	Once

3. Property Files Used for Setting J2EE Applications

HITACHI WAR Property file			Deployment Descriptor		
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	<env-entry-type>	Once		<env-entry-type>	Once
	<env-entry-value>	Once		<env-entry-value>	Zero or once
	<injection-target>	Zero or more times		--	--
	<injection-target-class>	Once		--	--
	<injection-target-name>	Once		--	--
	<ejb-ref>	Zero or more times		<ejb-ref>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<ejb-ref-name>	Once		<ejb-ref-name>	Once
	<ejb-ref-type>	Once		<ejb-ref-type>	Once
	<home>	Once		<home>	Once
	<remote>	Once		<remote>	Once
	<ejb-link>	Zero or once		<ejb-link>	Zero or once
	<injection-target>	Zero or more times		--	--
	<injection-target-class>	Once		--	--
	<injection-target-name>	Once		--	--
	<ejb-local-ref>	Zero or more times		<ejb-local-ref>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<ejb-ref-name>	Once		<ejb-ref-name>	Once
	<ejb-ref-type>	Once		<ejb-ref-type>	Once
	<local-home>	Once		<local-home>	Once
	<local>	Once		<local>	Once
	<ejb-link>	Zero or once		<ejb-link>	Zero or once
	<injection-target>	Zero or more times		--	--
	<injection-target-class>	Once		--	--
	<injection-target-name>	Once		--	--
	<resource-ref>	Zero or more times		<resource-ref>	Zero or more times

HITACHI WAR Property file			Deployment Descriptor		
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	<description>	Zero or more times		<description>	Zero or more times
	<res-ref-name>	Once		<res-ref-name>	Once
	<res-type>	Once		<res-type>	Once
	<res-auth>	Once		<res-auth>	Once
	<res-sharing-scope>	Zero or once		<res-sharing-scope>	Zero or once
	<mapped-name>	Zero or once		--	--
	<injection-target>	Zero or more times		--	--
	<injection-target-class>	Once		--	--
	<injection-target-name>	Once		--	--
	<linked-to>	Zero or once		--	--
	<resource-env-ref>	Zero or more times		<resource-env-ref>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<resource-env-ref-name>	Once		<resource-env-ref-name>	Once
	<resource-env-ref-type>	Once		<resource-env-ref-type>	Once
	<mapped-name>	Zero or once		--	--
	<injection-target>	Zero or more times		--	--
	<injection-target-class>	Once		--	--
	<injection-target-name>	Once		--	--
	<linked-queue>	Zero or once		--	--
	<resource-adapter>	Once		--	--
	<queue>	Once		--	--
	<linked-adminobject>	Zero or once		--	--
	<resourceadapter-name>	Once		--	--
	<adminobject-name>	Once		--	--
	<locale-encoding-mapping-list>	Zero or more times		<locale-encoding-mapping-list>	Zero or more times
	<locale-encoding-mapping>	One or more times		<locale-encoding-mapping>	One or more times
	<locale>	Once		<locale>	Once
	<encoding>	Once		<encoding>	Once

3. Property Files Used for Setting J2EE Applications

HITACHI WAR Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<runtime>	Zero or once	--	--
<context-root>		--	--

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

#1

Specify either <url-pattern> or <servlet-name>.

#2

Specify either <error-code> or <exception-type>.

(3) In Servlet 2.5

HITACHI WAR Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-war-property>	Once	<web-app>	Once
<description>	Zero or more times	<description>	Zero or more times
<display-name>	One or more times	<display-name>	Zero or more times
<icon>	Zero or more times	<icon>	Zero or more times
<small-icon>	Zero or once	<small-icon>	Zero or once
<large-icon>	Zero or once	<large-icon>	Zero or once
<distributable>	Zero or once	<distributable>	Zero or more times
<context-param>	Zero or more times	<context-param>	Zero or more times
<description>	Zero or more times	<description>	Zero or more times
<param-name>	Once	<param-name>	Once
<param-value>	Once	<param-value>	Once
<filter-mapping>	Zero or more times	<filter-mapping>	Zero or more times
<filter-name>	Once	<filter-name>	Once
<url-pattern>#1	One or more times	<url-pattern>#1	One or more times
<servlet-name>#1	One or more times	<servlet-name>#1	One or more times
<dispatcher>	Zero, or four times or less	<dispatcher>	Zero, or four times or less

HITACHI WAR Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<listener>	Zero or more times	<listener>	Zero or more times
<description>	Zero or more times	<description>	Zero or more times
<display-name>	Zero or more times	<display-name>	Zero or more times
<icon>	Zero or more times	<icon>	Zero or more times
<small-icon>	Zero or once	<small-icon>	Zero or once
<large-icon>	Zero or once	<large-icon>	Zero or once
<listener-class>	Once	<listener-class>	Once
--	--	(Omitted)	--
<session-config>	Zero or more times	<session-config>	Zero or more times
<session-timeout>	Zero or once	<session-timeout>	Zero or once
<mime-mapping>	Zero or more times	<mime-mapping>	Zero or more times
<extension>	Once	<extension>	Once
<mime-type>	Once	<mime-type>	Once
<welcome-file-list>	Zero or more times	<welcome-file-list>	Zero or more times
<welcome-file>	One or more times	<welcome-file>	One or more times
<error-page>	Zero or more times	<error-page>	Zero or more times
<error-code>#2	Once	<error-code>#2	Either one once or neither
<exception-type>#2	Once	<exception-type>#2	Either one once or neither
<location>	Once	<location>	Once
<jsp-config>	Zero or more times	<jsp-config>	Zero or more times
<taglib>	Zero or more times	<taglib>	Zero or more times
<taglib-uri>	Once	<taglib-uri>	Once
<taglib-location>	Once	<taglib-location>	Once
<jsp-property-group>	Zero or more times	<jsp-property-group>	Zero or more times
<description>	Zero or more times	<description>	Zero or more times
<display-name>	Zero or more times	<display-name>	Zero or more times

3. Property Files Used for Setting J2EE Applications

HITACHI WAR Property file			Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern	
	<icon>	Zero or more times		<icon>	Zero or more times	
	<small-icon>	Zero or once		<small-icon>	Zero or once	
	<large-icon>	Zero or once		<large-icon>	Zero or once	
	<url-pattern>	One or more times		<url-pattern>	One or more times	
	<el-ignored>	Zero or once		<el-ignored>	Zero or once	
	<page-encoding>	Zero or once		<page-encoding>	Zero or once	
	<scripting-invalid>	Zero or once		<scripting-invalid>	Zero or once	
	<is-xml>	Zero or once		<is-xml>	Zero or once	
	<include-prelude>	Zero or more times		<include-prelude>	Zero or more times	
	<inclide-coda>	Zero or more times		<inclide-coda>	Zero or more times	
	<deferred-syntax-allowed-as-literal>	Zero or once		<deferred-syntax-allowed-as-literal>	Zero or once	
	<trim-directive-whitespaces>	Zero or once		<trim-directive-whitespaces>	Zero or once	
	<security-constraint>	Zero or more times		<security-constraint>	Zero or more times	
	<display-name>	Zero or more times		<display-name>	Zero or more times	
	<web-resource-collection>	One or more times		<web-resource-collection>	One or more times	
	<description>	Zero or more times		<description>	Zero or more times	
	<web-resource-name>	Once		<web-resource-name>	Once	
	<url-pattern>	Zero or more times		<url-pattern>	One or more times	
	<http-method>	One or more times		<http-method>	Zero or more times	
	<auth-constraint>	Zero or once		<auth-constraint>	Zero or once	
	<description>	Zero or more times		<description>	Zero or more times	
	<role-name>	Zero or more times		<role-name>	Zero or more times	
	<user-data-constraint>	Zero or once		<user-data-constraint>	Zero or once	
	<description>	Zero or more times		<description>	Zero or more times	
	<transport-guarantee>	Once		<transport-guarantee>	Once	
	<original-name>	Once		--	--	

HITACHI WAR Property file			Deployment Descriptor		
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	<login-config>	Zero or more times		<login-config>	Zero or more times
	<auth-method>	Zero or once		<auth-method>	Zero or once
	<realm-name>	Zero or once		<realm-name>	Zero or once
	<form-login-config>	Zero or once		<form-login-config>	Zero or once
	<form-login-page>	Once		<form-login-page>	Once
	<form-error-page>	Once		<form-error-page>	Once
	<security-role>	Zero or more times		<security-role>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<role-name>	Once		<role-name>	Once
	<linked-to>	Zero or once		--	--
	<env-entry>	Zero or more times		<env-entry>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<env-entry-name>	Once		<env-entry-name>	Once
	<env-entry-type>	Zero or once		<env-entry-type>	Zero or once
	<env-entry-value>	Once		<env-entry-value>	Zero or once
	--	--		<mapped-name>	Zero or once
	<injection-target>	Zero or more times		<injection-target>	Zero or more times
	<injection-target-class>	Once		<injection-target-class>	Once
	<injection-target-name>	Once		<injection-target-name>	Once
	<ejb-ref>	Zero or more times		<ejb-ref>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<ejb-ref-name>	Once		<ejb-ref-name>	Once
	<ejb-ref-type>	Zero or once		<ejb-ref-type>	Zero or once
	<home>	Zero or once		<home>	Zero or once
	<remote>	Zero or once		<remote>	Zero or once
	<ejb-link>	Zero or once		<ejb-link>	Zero or once
	--	--		<mapped-name>	Zero or once
	<injection-target>	Zero or more times		<injection-target>	Zero or more times

3. Property Files Used for Setting J2EE Applications

HITACHI WAR Property file			Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern	
	<injection-target-class>	Once		<injection-target-class>	Once	
	<injection-target-name>	Once		<injection-target-name>	Once	
	<ejb-local-ref>	Zero or more times		<ejb-local-ref>	Zero or more times	
	<description>	Zero or more times		<description>	Zero or more times	
	<ejb-ref-name>	Once		<ejb-ref-name>	Once	
	<ejb-ref-type>	Zero or once		<ejb-ref-type>	Zero or once	
	<local-home>	Zero or once		<local-home>	Zero or once	
	<local>	Zero or once		<local>	Zero or once	
	<ejb-link>	Zero or once		<ejb-link>	Zero or once	
	--			<mapped-name>	Zero or once	
	<injection-target>	Zero or more times		<injection-target>	Zero or more	
	<injection-target-class>	Once		<injection-target-class>	Once	
	<injection-target-name>	Once		<injection-target-name>	Once	
	<resource-ref>	Zero or more times		<resource-ref>	Zero or more times	
	<description>	Zero or more times		<description>	Zero or more times	
	<res-ref-name>	Once		<res-ref-name>	Once	
	<res-type>	Zero or once		<res-type>	Zero or once	
	<res-auth>	Zero or once		<res-auth>	Zero or once	
	<res-sharing-scope>	Zero or once		<res-sharing-scope>	Zero or once	
	<mapped-name>	Zero or once		<mapped-name>	Zero or once	
	<injection-target>	Zero or more times		<injection-target>	Once	
	<injection-target-class>	Once		<injection-target-class>	Once	
	<injection-target-name>	Once		<injection-target-name>	Once	
	<linked-to>	Zero or once		--	--	
	<resource-env-ref>	Zero or more times		<resource-env-ref>	Zero or more times	
	<description>	Zero or more times		<description>	Zero or more times	
	<resource-env-ref-name>	Once		<resource-env-ref-name>	Once	

HITACHI WAR Property file			Deployment Descriptor		
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	<resource-env-ref-type>	Zero or once		<resource-env-ref-type>	Zero or once
	<mapped-name>	Zero or once		<mapped-name>	Zero or once
	<injection-target>	Zero or more times		<injection-target>	Zero or once
	<injection-target-class>	Once		<injection-target-class>	Once
	<injection-target-name>	Once		<injection-target-name>	Once
	<linked-queue>	Zero or once		--	--
	<resource-adapter>	Once		--	--
	<queue>	Once		--	--
	<linked-adminobject>	Zero or once		--	--
	<resourceadapter-name>	Once		--	--
	<adminobject-name>	Once		--	--
	<persistence-context-ref>	Zero or more times		<persistence-context-ref>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<persistence-context-ref-name>	Once		<persistence-context-ref-name>	Once
	<persistence-unit-name>	Zero or once		<persistence-unit-name>	Zero or once
	<persistence-context-type>	Zero or once		<persistence-context-type>	Zero or once
	<persistence-property>	Zero or more times		<persistence-property>	Zero or more times
	<name>	Once		<name>	Once
	<value>	Once		<value>	Once
	--	--		<mapped-name>	Zero or once
	<injection-target>	Zero or more times		<injection-target>	Zero or more times
	<injection-target-class>	Once		<injection-target-class>	Once
	<injection-target-name>	Once		<injection-target-name>	Once
	<persistence-unit-ref>	Zero or more times		<persistence-unit-ref>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<persistence-unit-ref-name>	Once		<persistence-unit-ref-name>	Once

3. Property Files Used for Setting J2EE Applications

HITACHI WAR Property file			Deployment Descriptor		
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	<persistence-unit-name>	Zero or once		<persistence-unit-name>	Zero or once
	--	--		<mapped-name>	Zero or once
	<injection-target>	One or more times		<injection-target>	Zero or more times
	<injection-target-class>	Once		<injection-target-class>	Once
	<injection-target-name>	Once		<injection-target-name>	Once
	<post-construct>	Zero or more times		<post-construct>	Zero or more times
	<lifecycle-callback-class>	Zero or once		<lifecycle-callback-class>	Zero or once
	<lifecycle-callback-method>	Once		<lifecycle-callback-method>	Once
	<pre-destroy>	Zero or more times		<pre-destroy>	Zero or more times
	<lifecycle-callback-class>	Zero or once		<lifecycle-callback-class>	Zero or once
	<lifecycle-callback-method>	Once		<lifecycle-callback-method>	Once
	<locale-encoding-mapping-list>	Zero or more times		<locale-encoding-mapping-list>	Zero or more times
	<locale-encoding-mapping>	One or more times		<locale-encoding-mapping>	One or more times
	<locale>	Once		<locale>	Once
	<encoding>	Once		<encoding>	Once
	<runtime>	Zero or once		--	--
	<context-root>	Once		--	--

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

#1

Specify either <url-pattern> or <servlet-name>, or both the values.

#2

Specify either <error-code> or <exception-type>.

(4) In Servlet 3.0

HITACHI WAR Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-war-property>	Once	<web-app>	Once

HITACHI WAR Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<description>	Zero or more times	<description>	Zero or more times
<display-name>	One or more times	<display-name>	Zero or more times
<icon>	Zero or more times	<icon>	Zero or more times
<small-icon>	Zero or once	<small-icon>	Zero or once
<large-icon>	Zero or once	<large-icon>	Zero or once
<distributable>	Zero or once	<distributable>	Zero or more times
<context-param>	Zero or more times	<context-param>	Zero or more times
<description>	Zero or more times	<description>	Zero or more times
<param-name>	Once	<param-name>	Once
<param-value>	Once	<param-value>	Once
<filter-mapping>	Zero or more times	<filter-mapping>	Zero or more times
<filter-name>	Once	<filter-name>	Once
<url-pattern>#1	One or more times	<url-pattern>#1	One or more times
<servlet-name>#1	One or more times	<servlet-name>#1	One or more times
<dispatcher>	Zero, or four times or less	<dispatcher>	Zero, or four times or less
<listener>	Zero or more times	<listener>	Zero or more times
<description>	Zero or more times	<description>	Zero or more times
<display-name>	Zero or more times	<display-name>	Zero or more times
<icon>	Zero or more times	<icon>	Zero or more times
<small-icon>	Zero or once	<small-icon>	Zero or once
<large-icon>	Zero or once	<large-icon>	Zero or once
<listener-class>	Once	<listener-class>	Once
--	--	(Omitted)	--
<session-config>	Zero or more times	<session-config>	Zero or more times
<session-timeout>	Zero or once	<session-timeout>	Zero or once
<mime-mapping>	Zero or more times	<mime-mapping>	Zero or more times

3. Property Files Used for Setting J2EE Applications

HITACHI WAR Property file			Deployment Descriptor		
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	<extension>	Once		<extension>	Once
	<mime-type>	Once		<mime-type>	Once
	<welcome-file-list>	Zero or more times		<welcome-file-list>	Zero or more times
	<welcome-file>	One or more times		<welcome-file>	One or more times
	<error-page>	Zero or more times		<error-page>	Zero or more times
	<error-code>#2	Once		<error-code>#2	Once
	<exception-type>#2	Once		<exception-type>#2	Once
	<location>	Once		<location>	Once
	<jsp-config>	Zero or more times		<jsp-config>	Zero or more times
	<taglib>	Zero or more times		<taglib>	Zero or more times
	<taglib-uri>	Once		<taglib-uri>	Once
	<taglib-location>	Once		<taglib-location>	Once
	<jsp-property-group>	Zero or more times		<jsp-property-group>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<display-name>	Zero or more times		<display-name>	Zero or more times
	<icon>	Zero or more times		<icon>	Zero or more times
	<small-icon>	Zero or once		<small-icon>	Zero or once
	<large-icon>	Zero or once		<large-icon>	Zero or once
	<url-pattern>	One or more times		<url-pattern>	One or more times
	<el-ignored>	Zero or once		<el-ignored>	Zero or once
	<page-encoding>	Zero or once		<page-encoding>	Zero or once
	<scripting-invalid>	Zero or once		<scripting-invalid>	Zero or once
	<is-xml>	Zero or once		<is-xml>	Zero or once
	<include-prelude>	Zero or more times		<include-prelude>	Zero or more times
	<include-coda>	Zero or more times		<include-coda>	Zero or more times
	<deferred-syntax-allowed-as-literal>	Zero or once		<deferred-syntax-allowed-as-literal>	Zero or once

HITACHI WAR Property file				Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern		
	<trim-directive-whitespaces>	Zero or once		<trim-directive-whitespaces>	Zero or once		
	<security-constraint>	Zero or more times		<security-constraint>	Zero or more times		
	<display-name>	Zero or more times		<display-name>	Zero or more times		
	<web-resource-collection>	One or more times		<web-resource-collection>	One or more times		
	<description>	Zero or more times		<description>	Zero or more times		
	<web-resource-name>	Once		<web-resource-name>	Once		
	<url-pattern>	One or more times		<url-pattern>	One or more times		
	<http-method>#3	Zero or more times		<http-method>#3	Zero or more times		
	<http-method-omission>#3	Zero or more times		<http-method-omission>#3	Zero or more times		
	<auth-constraint>	Zero or once		<auth-constraint>	Zero or once		
	<description>	Zero or more times		<description>	Zero or more times		
	<role-name>	Zero or more times		<role-name>	Zero or more times		
	<user-data-constraint>	Zero or once		<user-data-constraint>	Zero or once		
	<description>	Zero or more times		<description>	Zero or more times		
	<transport-guarantee>	Once		<transport-guarantee>	Once		
	<original-name>	Once		--	--		
	<login-config>	Zero or more times		<login-config>	Zero or more times		
	<auth-method>	Zero or once		<auth-method>	Zero or once		
	<realm-name>	Zero or once		<realm-name>	Zero or once		
	<form-login-config>	Zero or once		<form-login-config>	Zero or once		
	<form-login-page>	Once		<form-login-page>	Once		
	<form-error-page>	Once		<form-error-page>	Once		
	<security-role>	Zero or more times		<security-role>	Zero or more times		
	<description>	Zero or more times		<description>	Zero or more times		
	<role-name>	Once		<role-name>	Once		
	<linked-to>	Zero or once		--	--		

3. Property Files Used for Setting J2EE Applications

HITACHI WAR Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<env-entry>	Zero or more times	<env-entry>	Zero or more times
<description>	Zero or more times	<description>	Zero or more times
<env-entry-name>	Once	<env-entry-name>	Once
<env-entry-type>	Zero or once	<env-entry-type>	Zero or once
<env-entry-value>	Once	<env-entry-value>	Zero or once
--	--	<mapped-name>	Zero or once
<injection-target>	Zero or more times	<injection-target>	Zero or more times
<injection-target-class>	Once	<injection-target-class>	Once
<injection-target-name>	Once	<injection-target-name>	Once
<ejb-ref>	Zero or more times	<ejb-ref>	Zero or more times
<description>	Zero or more times	<description>	Zero or more times
<ejb-ref-name>	Once	<ejb-ref-name>	Once
<ejb-ref-type>	Zero or once	<ejb-ref-type>	Zero or once
<home>	Zero or once	<home>	Zero or once
<remote>	Zero or once	<remote>	Zero or once
<ejb-link>	Zero or once	<ejb-link>	Zero or once
--	--	<mapped-name>	Zero or once
<injection-target>	Zero or more times	<injection-target>	Zero or once
<injection-target-class>	Once	<injection-target-class>	Once
<injection-target-name>	Once	<injection-target-name>	Once
<ejb-local-ref>	Zero or more times	<ejb-local-ref>	Zero or more times
<description>	Zero or more times	<description>	Zero or more times
<ejb-ref-name>	Once	<ejb-ref-name>	Once
<ejb-ref-type>	Zero or once	<ejb-ref-type>	Zero or once
<local-home>	Zero or once	<local-home>	Zero or once
<local>	Zero or once	<local>	Zero or once
<ejb-link>	Zero or once	<ejb-link>	Zero or once
--	--	<mapped-name>	Zero or once

HITACHI WAR Property file			Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern	
	<injection-target>	Zero or more times		<injection-target>	Zero or more	
	<injection-target-class>	Once		<injection-target-class>	Once	
	<injection-target-name>	Once		<injection-target-name>	Once	
	<resource-ref>	Zero or more times		<resource-ref>	Zero or more times	
	<description>	Zero or more times		<description>	Zero or more times	
	<res-ref-name>	Once		<res-ref-name>	Once	
	<res-type>	Zero or once		<res-type>	Zero or once	
	<res-auth>	Zero or once		<res-auth>	Zero or once	
	<res-sharing-scope>	Zero or once		<res-sharing-scope>	Zero or once	
	<mapped-name>	Zero or once		<mapped-name>	Zero or once	
	<injection-target>	Zero or more times		<injection-target>	Once	
	<injection-target-class>	Once		<injection-target-class>	Once	
	<injection-target-name>	Once		<injection-target-name>	Once	
	<linked-to>	Zero or once		--	--	
	<resource-env-ref>	Zero or more times		<resource-env-ref>	Zero or more times	
	<description>	Zero or more times		<description>	Zero or more times	
	<resource-env-ref-name>	Once		<resource-env-ref-name>	Once	
	<resource-env-ref-type>	Zero or once		<resource-env-ref-type>	Zero or once	
	<mapped-name>	Zero or once		<mapped-name>	Zero or once	
	<injection-target>	Zero or more times		<injection-target>	Zero or once	
	<injection-target-class>	Once		<injection-target-class>	Once	
	<injection-target-name>	Once		<injection-target-name>	Once	
	<linked-queue>	Zero or once		--	--	
	<resource-adapter>	Once		--	--	
	<queue>	Once		--	--	
	<linked-adminobject>	Zero or once		--	--	
	<resourceadapter-name>	Once		--	--	

3. Property Files Used for Setting J2EE Applications

HITACHI WAR Property file			Deployment Descriptor		
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	<adminobject-name>	Once		--	--
	<persistence-context-ref>	Zero or more times		<persistence-context-ref>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<persistence-context-ref-name>	Once		<persistence-context-ref-name>	Once
	<persistence-unit-name>	Zero or once		<persistence-unit-name>	Zero or once
	<persistence-context-type>	Zero or once		<persistence-context-type>	Zero or once
	<persistence-property>	Zero or more times		<persistence-property>	Zero or more times
	<name>	Once		<name>	Once
	<value>	Once		<value>	Once
	--	--		<mapped-name>	Zero or once
	<injection-target>	Zero or more times		<injection-target>	Zero or more times
	<injection-target-class>	Once		<injection-target-class>	Once
	<injection-target-name>	Once		<injection-target-name>	Once
	<persistence-unit-ref>	Zero or more times		<persistence-unit-ref>	Zero or more times
	<description>	Zero or more times		<description>	Zero or more times
	<persistence-unit-ref-name>	Once		<persistence-unit-ref-name>	Once
	<persistence-unit-name>	Zero or once		<persistence-unit-name>	Zero or once
	--	--		<mapped-name>	Zero or once
	<injection-target>	One or more times		<injection-target>	Zero or more times
	<injection-target-class>	Once		<injection-target-class>	Once
	<injection-target-name>	Once		<injection-target-name>	Once
	<post-construct>	Zero or more times		<post-construct>	Zero or more times
	<lifecycle-callback-class>	Zero or once		<lifecycle-callback-class>	Zero or once
	<lifecycle-callback-method>	Once		<lifecycle-callback-method>	Once
	<pre-destroy>	Zero or more times		<pre-destroy>	Zero or more times

HITACHI WAR Property file		Deployment Descriptor			
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	<lifecycle-callback-class>	Zero or once		<lifecycle-callback-class>	Zero or once
	<lifecycle-callback-method>	Once		<lifecycle-callback-method>	Once
	<locale-encoding-mapping-list>	Zero or more times		<locale-encoding-mapping-list>	Zero or more times
	<locale-encoding-mapping>	One or more times		<locale-encoding-mapping>	One or more times
	<locale>	Once		<locale>	Once
	<encoding>	Once		<encoding>	Once
	<runtime>	Zero or once		--	--
	<context-root>	Once		--	--

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

#1

Specify either <url-pattern> or <servlet-name>, or both.

#2

Specify either <error-code> or <exception-type>, or neither.

#3

Specify either <http-method> or <http-method-omission>. You can specify each tag zero or more times.

3.7.3 Mapping with cosminexus.xml

The following table describes the correspondence between the HITACHI WAR Property file and cosminexus.xml:

HITACHI WAR Property file		cosminexus.xml			
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	<hitachi-war-property>	Once		<war>	Zero or more times
	--	--		<module-name>#1	Once
	(Omitted)	--		(Omitted)	--
	<security-role>	Zero or more times		<security-role>	Zero or more times
	<description>	Zero or more times		--	--
	<role-name>	Once		<role-name>	Once
	<linked-to>	Zero or once		<linked-to>#2	Once
	(Omitted)	--		(Omitted)	--

3. Property Files Used for Setting J2EE Applications

HITACHI WAR Property file			cosminexus.xml		
Tag name		Occurrence pattern	Tag name		Occurrence pattern
<ejb-ref>		Zero or more times		--	--
<destination>		Zero or more times		--	--
<ejb-ref-name>		Once		--	--
<ejb-ref-type>		Once		--	--
<home>		Once		--	--
<remote>		Once		--	--
<ejb-link>		Zero or once		--	--
<resource-ref>		Zero or more times		<resource-ref>	Zero or more times
<description>		Zero or more times		--	--
<res-ref-name>		Once		<res-ref-name>	Once
<res-type>		Once		--	--
<res-auth>		Once		--	--
<linked-to>		Zero or once		<linked-to>#2	Once
<resource-env-ref>		Zero or more times		<resource-env-ref>	Zero or more times
<description>		Zero or once		--	--
<resource-env-ref-name>		Once		<resource-env-ref-name>	Once
<resource-env-ref-type>		Once		--	--
<linked-queue>		Zero or once		<linked-queue>#2	Once
<resource-adapter>#3		Once		<resource-adapter>	Once
<queue>#3		Once		<queue>	Once
<linked-adminobject>		Zero or once		<linked-adminobject>#2	Once
<resourceadapter-name>#4		Once		<resourceadapter-name>	Once
<adminobject-name>#4		Once		<adminobject-name>	Once
<linked-to>		Zero or once		<linked-to>#2	Once
<runtime>		Zero or once		--	--
<context-root>		Once		--	--
<thread-control>		Zero or once		<thread-control>	Zero or once
<thread-control-max-threads>		Once		<thread-control-max-threads>	Once

HITACHI WAR Property file			cosminexus.xml			
Tag name		Occurrence pattern	Tag name		Occurrence pattern	
	<thread-control-exclusive-threads>	Once		<thread-control-exclusive-threads>#2	Zero or once	
	<thread-control-queue-size>	Once		<thread-control-queue-size>	Once	
	<thread-control-stats-monitor>	Once		<thread-control-stats-monitor>	Zero or once	
	<whole-waiting-request-count>	Once		<whole-waiting-request-count>	Once	
	<enabled>	Once		<enabled>	Zero or once	
	<high-threshold>	Once		<high-threshold>	Zero or once	
	<low-threshold>	Once		<low-threshold>	Zero or once	
	<waiting-request-count>	Once		<waiting-request-count>	Once	
	<enabled>	Once		<enabled>	Zero or once	
	<high-threshold>	Once		<high-threshold>	Zero or once	
	<low-threshold>	Once		<low-threshold>	Zero or once	
	<resource-watcher>	Once		<resource-watcher>	Once	
	<watcher-threshold>	Once		<watcher-threshold>	Once	
	<watcher-interval>	Once		<watcher-interval>	Once	
	<watcher-enabled>	Once		<watcher-enabled>	Once	
	<watcher-writefile-enabled>	Once		<watcher-writefile-enabled>	Once	
	<urlgroup-thread-control>	Zero or more times		<urlgroup-thread-control>	Zero or more times	
	<urlgroup-thread-control-name>	Once		<urlgroup-thread-control-name>	Once	
	<urlgroup-thread-control-max-threads>	Once		<urlgroup-thread-control-max-threads>	Once	
	<urlgroup-thread-control-exclusive-threads>	Once		<urlgroup-thread-control-exclusive-threads>#2	Zero or once	
	<urlgroup-thread-control-queue-size>	Once		<urlgroup-thread-control-queue-size>	Once	
	<urlgroup-thread-control-mapping>	Zero or more times		<urlgroup-thread-control-mapping>	Zero or more times	
	<url-pattern>	Once		<url-pattern>	Once	
	<stats-monitor>	Once		<stats-monitor>	Once	

3. Property Files Used for Setting J2EE Applications

HITACHI WAR Property file				cosminexus.xml			
Tag name		Occurrence pattern		Tag name		Occurrence pattern	
	<waiting-request-count>	Once			<waiting-request-count>	Once	
	<enabled>	Once			<enabled>	Once	
	<high-threshold>	Once			<high-threshold>	Once	
	<low-threshold>	Once			<low-threshold>	Once	
	<http-request>	Zero or once			<http-request>	Zero or once	
	<encoding>	Zero or once			<encoding>#2	Once	
	<http-response>	Zero or once			<http-response>	Zero or once	
	<encoding>	Zero or once			<encoding>#2	Once	
	<jsp>	Zero or once			<jsp>	Zero or once	
	<page-encoding>	Zero or once			<page-encoding>#2	Once	
	<http-session>	Zero or once			<http-session>	Zero or once	
	<http-session-max-number>	Once			<http-session-max-number>#2	Zero or once	
	<resource-watcher>	Once			<resource-watcher>	Once	
	<watcher-threshold>	Once			<watcher-threshold>	Once	
	<watcher-interval>	Once			<watcher-interval>	Once	
	<watcher-enabled>	Once			<watcher-interval>	Once	
	<watcher-writefile-enabled>	Once			<watcher-writefile-enabled>	Once	
	<dbsfo>	Zero or once			<dbsfo>	Zero or once	
	<enabled>	Zero or once			<enabled>	Zero or once	
	<application-id>	Zero or once			<application-id>	Zero or once	
	<attribute-data-size-max>	Zero or once			<attribute-data-size-max>	Zero or once	
	<exclude-extensions>	Zero or once			<exclude-extensions>	Zero or once	
	<start-notify-error>	Zero or once			<start-notify-error>	Zero or once	
	<start-order>	Zero or once			<start-order>	Zero or once	

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

#1

This tag corresponds to <application>-<module>-<web>-<web-uri> in the application.xml and does not exist in the property file, however, the tag is unique to cosminexus.xml. This tag is the key for identifying WAR files.

#2

The occurrence pattern is different from the property file because only the elements to be customized are coded in `cosminexus.xml`.

#3

Enter the resource adapter display name in `resource-adapter` and the QUEUE name in `<queue>`.

#4

Enter the resource adapter display name in `<resourceadapter-name>` and the administered object name in `<adminobject-name>`.

3.8 HITACHI Filter Property file

The HITACHI Filter Property file is used to acquire and edit the filter properties.

3.8.1 Specifications of the HITACHI Filter Property file

The HITACHI Filter Property file has the following DOCTYPE declaration:

```
<!DOCTYPE hitachi-filter-property PUBLIC "-//Hitachi, Ltd.//DTD Filter Property 7.0//EN"
'file:///Cosminexus-installation-directory/CC/admin/dtds/hitachi-filter-property_7_0.dtd'>
```

The HITACHI Filter Property file is an xml file containing the following tags. Note that you can also use the earlier versions of the property file.

Tag name	Occurrence pattern	Explanation
<hitachi-filter-property>	Once	Specifies the root tag.
<description>#1	Zero or more times#2	Describes the filter.
<display-name>#1	One or more times#2	Specifies the display name of the filter. Make sure you specify <code>display-name</code> with <code>xml:lang</code> property as <code>en</code> . Even if the display name of the corresponding resource is specified using the command argument, specify <code>display-name</code> with <code>xml:lang</code> as <code>en</code> . $1 \leq \text{character-string-length}$ There is no restriction on the characters to be used. When multiple filters exist, specify a unique character string for each filter.
<icon>#1	Zero or more times#2	Defines the filter icons displayed on the Deploy tool.
<small-icon>	Zero or once	Specifies the file name for small icons (16 × 16).
<large-icon>	Zero or once	Specifies the file name for large icons (32 × 32).
<filter-name>	Once	Specifies the filter name.#3 When multiple filters exist, specify a unique character string for each filter.
<filter-class>	Once	Specifies the filter class name.#3 Specified from the package name when the package is defined.
<init-param>	Zero or more times	Defines the initialization parameters.
<description>#1	Zero or more times#2	Describes the parameters.
<param-name>	Once	Specifies the name of the initialization parameter. When multiple filter names exist, specify a unique character string for each filter.
<param-value>	Once	Specifies the initialization parameter value.
<method-observation-timeout>	Zero or once	Specifies the timeout value for monitoring the in-process methods among the common methods in the filter. You can specify a value from 0 to 86400 (unit: seconds). When you specify 0, a timeout will not occur. The default value is 0.

#1

You can specify the `xml:lang` property. If the `xml:lang` property is not specified, `en` (English) is assumed. Note that you cannot specify multiple tags with the same `xml:lang` property.

#2

You cannot specify this tag multiple times for the WARs of Servlet 2.3 or earlier versions.

#3

Do not change the tag name, add or delete the tag, or change the value for the tags output with the `cjgetappprop` or `cjgetresprop` commands.

3.8.2 Mapping with DD

The following table describes the correspondence between the HITACHI Filter Property file and the Deployment Descriptor:

HITACHI Filter Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<code><hitachi-filter-property></code>	Once	<code><web-app></code>	Once
(Omitted)	--	(Omitted)	--
--	--	<code><filter></code>	Zero or more times
<code><icon></code>	Zero or more times	<code><icon></code>	Zero or more times
<code><small-icon></code>	Zero or once	<code><small-icon></code>	Zero or once
<code><large-icon></code>	Zero or once	<code><large-icon></code>	Zero or once
<code><filter-name></code>	Once	<code><filter-name></code>	Once
<code><display-name></code>	One or more times	<code><display-name></code>	Zero or more times
<code><description></code>	Zero or more times	<code><description></code>	Zero or more times
<code><filter-class></code>	Once	<code><filter-class></code>	Once
<code><init-param></code>	Zero or more times	<code><init-param></code>	Zero or more times
<code><param-name></code>	Once	<code><param-name></code>	Once
<code><param-value></code>	Once	<code><param-value></code>	Once
<code><description></code>	Zero or more times	<code><description></code>	Zero or more times

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

3.8.3 Mapping with cosminexus.xml

The following table describes the correspondence between the HITACHI Filter Property file and `cosminexus.xml`:

HITACHI Filter Property file		cosminexus.xml	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<code><hitachi-filter-property></code>	Once	<code><war></code>	Zero or more times
(Omitted)	--	--	--
--	--	<code><filter></code>	Zero or more times

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HITACHI Filter Property file		cosminexus.xml			
Tag name	Occurrence pattern			Tag name	Occurrence pattern
--	--			<filter-name>#1	Once
<method-observation-timeout>	Zero or once			<method-observation-timeout>#2	Once

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

#1

This tag corresponds to <web-app>-<filter>-<filter-name> in the web.xml and does not exist in the property file. This tag is the key for identifying the Filter.

#2

The occurrence pattern is different from the property file because only the elements to be customized are coded in cosminexus.xml.

3.9 HITACHI Servlet Property file

The HITACHI Servlet Property file is used to acquire and edit the properties of servlets and JSPs.

3.9.1 Specifications of the HITACHI Servlet Property file

The HITACHI Servlet Property file has the following DOCTYPE declaration:

```
<!DOCTYPE hitachi-servlet-property PUBLIC "-//Hitachi, Ltd.//DTD Servlet Property 7.0//EN"
'file:///Cosminexus-installation-directory/CC/admin/dtds/hitachi-servlet-property_7_0.dtd'>
```

The HITACHI Servlet Property file is an xml file containing the following tags. Note that you can also use the earlier versions of the property file.

Tag name	Occurrence pattern	Explanation
<hitachi-servlet-property>	Once	Specifies the root tag.
<description>#1	Zero or more times#2	Describes the servlets and JSPs.
<display-name>#1	One or more times#2	Specifies the display name of the servlets and JSPs. Make sure you specify display-name with xml:lang property as en. Even if the display name of the corresponding resource is specified using the command argument, specify display-name with xml:lang as en. $1 \leq \text{character-string-length}$ There is no restriction on the characters to be used.
<icon>#1	Zero or more times#2	Defines the Servlet icons displayed on the Deploy tool.
<small-icon>	Zero or once	Specifies the file name for small icons (16 × 16).
<large-icon>	Zero or once	Specifies the file name for large icons (32 × 32).
<init-param>	Zero or more times	Defines the initialization parameters.
<description>#1	Zero or more times#2	Describes init-param.
<param-name>	Once	Specifies the name of the initialization parameter.
<param-value>	Once	Specifies the initialization parameter value.
<load-on-startup>	Zero or once	Specifies load settings for startup. You can specify the following integer values: $-2147483648 \leq \text{load-on-startup} \leq -1$ Loaded when required. Even if a value other than -1 is specified; it is treated as -1. 0 Loaded on startup. The Container determines the loading order. $1 \leq \text{load-on-startup} \leq 2147483647$ Loaded on startup. The loading order is from the smallest value to the biggest value. In the Servlet 2.5 or later versions, you can also specify a null character.
<run-as>	Zero or once	Defines the runtime identity. #3

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Tag name	Occurrence pattern	Explanation
<description>#1	Zero or more times#2	Describes run-as. #3
<role-name>	Once	Specifies the security role name. #3
<user-name>	Once	Specifies the user name.
<security-role-ref>	Zero or more times	Defines the security role.
<description>#1	Zero or more times#2	Describes security-role-ref.
<role-name>	Once	Specifies the security-role-ref name.
<role-link>	Zero or once	Specifies the role name to be linked to.
<url-pattern>	Zero or more times	Specifies the servlet URL. If the information of this tag is replaced with the information of a different servlet using the Application Integrated Properties File, use the <code>cjsetapprop</code> command to delete the <code><url-pattern></code> information of all the servlets in the registered application, and then specify the correct information.
<method-observation-timeout>	Zero or once	Specifies the timeout value for monitoring the in-process methods among the common methods in the servlet. You can specify a value from 0 to 86400 (unit: seconds). When you specify 0, a timeout will not occur. The default value is 0.

#1

You can specify the `xml:lang` property. If the `xml:lang` property is not specified, `en` (English) is assumed. Note that you cannot specify multiple tags with the same `xml:lang` property.

#2

You cannot specify this tag multiple times for the WARs of Servlet 2.3 or earlier versions.

#3

If values are specified for annotations, the changes in the values are ignored.

3.9.2 Mapping with DD

The following table describes the correspondence between the HITACHI Servlet Property file and the Deployment Descriptor:

HITACHI Servlet Property File		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-servlet-property>	Once	<web-app>	Once
--	--	(Omitted)	--
--	--	<servlet>	Zero or more times
<description>	Zero or more times	<description>	Zero or more times
<display-name>	One or more times	<display-name>	Zero or more times
--	--	<servlet-name>	Once
<icon>	Zero or more times	<icon>	Zero or more times
<small-icon>	Zero or once	<small-icon>	Zero or once
<large-icon>	Zero or once	<large-icon>	Zero or once
--	--	<servlet-class>#	Once

HITACHI Servlet Property File		Deployment Descriptor			
Tag name	Occurrence pattern	Tag name		Occurrence pattern	
--	--	<jsp-file>#	Once		
<init-param>	Zero or more times	<init-param>	Zero or more times		
<description>	Zero or more times	<description>	Zero or more times		
<param-name>	Once	<param-name>	Once		
<param-value>	Once	<param-value>	Once		
<load-on-startup>	Zero or once	<load-on-startup>	Zero or once		
<run-as>	Zero or once	<run-as>	Zero or once		
<description>	Zero or more times	<description>	Zero or more times		
<role-name>	Once	<role-name>	Once		
<security-role-ref>	Zero or more times	<security-role-ref>	Zero or more times		
<description>	Zero or more times	<description>	Zero or more times		
<role-name>	Once	<role-name>	Once		
<role-link>	Zero or once	<role-link>	Zero or once		
--	--	<servlet-mapping>	Zero or more times		
--	--	<servlet-name>	Once		
<url-pattern>	Zero or more times	<url-pattern>	One or more times		
--	--	(Omitted)	--		

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

#

Specify either <servlet-class> or <jsp-file>.

3.9.3 Mapping with cosminexus.xml

The following table describes the correspondence between the HITACHI Servlet Property file and cosminexus.xml:

HITACHI Servlet Property File		cosminexus.xml			
Tag name	Occurrence pattern	Tag name		Occurrence pattern	
<hitachi-servlet-property>	Once	<war>	Once		
--	--	<servlet>	Zero or more times		
--	--	<servlet-name>#	Once		
<run-as>	Zero or once	<run-as>	Zero or once		
<description>	Zero or more times	--	--		

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HITACHI Servlet Property File			cosminexus.xml			
Tag name		Occurrence pattern	Tag name			Occurrence pattern
	<role-name>	Once			--	--
	<user-name>	Once			<user-name>	Once
	<method-observation-timeout>	Zero or once			<method-observation-timeout>	Zero or once

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

#

This tag corresponds to <web-app>-<servlet>-<servlet-name> in the web.xml and does not exist in the property file. This tag is the key for identifying the Servlet.

4

Property Files Used for Setting Resources

This chapter describes the files used for setting resources that are used with Application Server.

4.1 HITACHI Connector Property file

The HITACHI Connector Property file is used to acquire and edit the resource adapter properties.

4.1.1 Specifications of the HITACHI Connector Property file

The following table lists and describes the items used in the tables of the HITACHI Connector Property file:

Item name	Explanation
Tag name	Displays the tag to be set.
Occurrence pattern	Indicates the frequency of occurrence of the tag.
Contents	Indicates the contents to be defined for the tag.
Specifiable value	Indicates the values that you can specify in the tag. If no value can be specified, a hyphen (-) is specified.
Default	Indicates the value that is enabled when the contents to be specified in the tag are omitted. If no default value exists, "None" is specified.
Version	Indicates the Application Server version that can be defined.

The details on the omission of the keys and values and the contents are described in each definition of the HITACHI Connector Property File.

The HITACHI Connector Property file has the following DOCTYPE declaration:

```
<!DOCTYPE hitachi-connector-property PUBLIC "-//Hitachi, Ltd.//DTD Connector Property
7.6//EN" 'file:///Cosminexus-installation-directory/CC/admin/dtds/hitachi-connector-property_7_6.dtd'>
```

The HITACHI Connector Property file is an xml file containing the following tags. Note that you can also use earlier versions of the property file.

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Version
<hitachi-connector-property>	Zero or once	This is the root tag.	--	None	05-05
<description>	Zero or more times	Describes the resource adapter.	There are no limitations for the input value.	None	05-05
<display-name>	One or more times	Specifies the name of the resource adapter displayed on the Deploy tool.	You can use only alphanumeric characters or underscore (_). You can specify the value in the range of $1 \leq \text{character-string-length} \leq 240$. The number of characters that you can specify is 1 to <i>range-estimated-with-the-formula[#]-for-estimating-the-work-directory-path-length</i> .	None	05-05

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Version
<display-name>	One or more times	Specifies the name of the resource adapter displayed on the Deploy tool.	<p>To change the value, you can use alphanumeric characters (0 to 9, A to Z, a to z), and the following special characters:</p> <p>plus sign (+), hyphen (-), period (.), caret (^), underscore (_)</p> <p>"TP1/Message Queue - Access" is the rar display name of TP1/Message Queue - Access, and therefore, can be specified. You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> Name containing a period (.) at the beginning or at the end Name containing only a period (.) <p>If you specify the following names, you might not be able to operate the J2EE applications. Therefore, do not specify the following names:</p> <ul style="list-style-type: none"> Name specifying an underscore (_) before and after a sign (example: abc_+_001) Name ending with a sign (example: abc+) 	None	05-05
<icon>	Zero or more times	Defines the icons of the resource adapter displayed on the Deploy tool.	--	None	05-05
<small-icon>	Zero or once	Specifies the file name for small icons (16 × 16).	There are no limitations for the input value.	None	05-05
<large-icon>	Zero or once	Specifies the file name for large icons (32 × 32).	There are no limitations for the input value.	None	05-05
<vendor-name>	Once	Specifies the vendor name of the resource adapter provider. You cannot change this tag.	There are no limitations for the input value.	None	05-05

4. Property Files Used for Setting Resources

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Version
<spec-version>	Once	Specifies the version of the connector architecture specifications supported by the resource adapter. You cannot change this tag.	There are no limitations for the input value.	None	05-05
<eis-type>	Once	Specifies the information about the EIS type. You cannot change this tag.	There are no limitations for the input value.	None	05-05
<version>	Once	Specifies the resource adapter version. You cannot change this tag.	There are no limitations for the input value.	None	05-05
<license>	Zero or once	Defines the license request of the resource adapter module.	--	None	05-05
<description>	Zero or more times	Describes the license.	There are no limitations for the input value.	None	07-60
<license-required>	Once	Specifies the flag for license request when deploying or using resource adapters. You cannot change this tag.	You can specify the following strings: <ul style="list-style-type: none"> • true: Requested • false: Not requested 	None	05-05
<resourceadapter>	Once	Defines the resource adapter settings.	--	None	05-05
<resourceadapter-class>	Zero or once	Specifies the Java class name in which <code>javax.resource.spi.ResourceAdapter</code> is implemented. You cannot change this tag.	There are no limitations for the input value.	None	07-50
<config-property>	Zero or more times	Defines the configuration properties of the <code>ResourceAdapter</code> instance. You can specify this tag only for resource adapters conforming to Connector 1.5 specifications.	--	None	05-05
<description>	Zero or more times	Describes the configuration property.	There are no limitations for the input value.	None	05-05
<config-property-name>	Once	Specifies the name of the configuration property.	You cannot specify a duplicate name. For details on the TP1 inbound adapter settings, see <i>4.1.11 Properties that you can specify in the <config-property> tag set up</i>	None	05-05

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Version
<config-property-name>	Once	Specifies the name of the configuration property.	<p><i>for TPI inbound adapter.</i></p> <p>For details on the resource adapter settings of Cosminexus JMS provider, see <i>4.1.12 Properties that you can specify in the <config-property> tag set up for resource adapters of Cosminexus JMS provider.</i></p>	None	05-05
<config-property-type>	Once	Specifies the Java type of the configuration property requested by ResourceAdapter.	<p>Specify any one of the following:</p> <ul style="list-style-type: none"> • java.lang.Boolean • java.lang.String • java.lang.Integer • java.lang.Double • java.lang.Byte • java.lang.Short • java.lang.Long • java.lang.Float • java.lang.Character 	None	05-05
<config-property-value>	Zero or once	<p>Specifies the configuration property value. When the <config-property-value> tag is not specified, the information about that property is not changed. The already set up information is retained as is.</p> <p>When the <config-property-value> tag is specified, and if no value is specified, a space will be specified in the information of that property.</p> <p>When the <config-property-value> tag is specified, and a value is also specified, the specified value will be set up in the property.</p>	There are no limitations for the input value.	None	05-05

4. Property Files Used for Setting Resources

Tag name		Occurrence pattern	Contents	Specifiable value	Default	Version
	<outbound-resourceadapter>	Zero or once	Specifies the definition of the resource adapter in the Outbound direction.	--	None	07-50
	<connection-definition>	One or more times	Defines the connection interface class.	--	None	07-50
	<managedconnectionfactory-class>	Once	Specifies the Java class name in which the <code>javax.resource.spi.ManagedConnectionFactory</code> interface is implemented. Specified from the package when the package is defined. You cannot change this tag.	There are no limitations for the input value.	None	05-05
	<config-property>	Zero or more times	Defines the configuration property.	--	None	05-05
	<description>	Zero or more times	Describes the configuration property.	There are no limitations for the input value.	None	05-05
	<config-property-name>	Once	Specifies the configuration property name.	You cannot specify a duplicate name. For details on the DB Connector settings, see <i>4.1.10 Properties that you can specify in the <config-property> tag set up for DB Connector.</i> For details on the resource adapter settings of Cosminexus JMS provider, see <i>4.1.12 Properties that you can specify in the <config-property> tag set up for resource adapters of Cosminexus JMS provider.</i>	None	05-05
	<config-property-type>	Once	Specifies the Java type of the configuration property requested by <code>ResourceAdapter</code> .	Specify any one of the following: <ul style="list-style-type: none"> • <code>java.lang.Boolean</code> • <code>java.lang.String</code> • <code>java.lang.Integer</code> • <code>java.lang.Double</code> 	None	05-05

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Version	
	<config-property-type>	Once	Specifies the Java type of the configuration property requested by ResourceAdapter.	<ul style="list-style-type: none"> • java.lang.Byte • java.lang.Short • java.lang.Long • java.lang.Float • java.lang.Character 	None	05-05
	<config-property-value>	Zero or once	<p>Specifies the configuration property value.</p> <p>When the <config-property-value> tag is not specified, the information about that property is not changed. The already set up information is retained as is.</p> <p>When the <config-property-value> tag is specified, and if no value is specified, a space will be specified in the information of that property.</p> <p>When the <config-property-value> tag is specified, and a value is also specified, the specified value will be set up in the property. When XAOpenString is set in the <config-property-name> tag, and a value is specified in the <config-property-value> tag, the <config-property-value> tag is not displayed for security reasons. To change the value, add the <config-property-value> tag, and then specify the value after change.</p>	There are no limitations for the input value.	None	05-05
			<p>If XAOpenString is set in the <config-property-name> tag when you execute the cjgetresprop or cjgetrarprop command, the tag will be displayed as follows:</p> <p>When a value is specified: Comment tag <!-- The config-</p>			

4. Property Files Used for Setting Resources

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Version
		<p>property-value has already been set. --></p> <p>When no value is specified: Empty tag <></p>			
<connectionfactory-interface>	Once	<p>Specifies the class name of the <code>ConnectionFactory</code> interface supported by the resource. Specified from the package when the package is defined.</p> <p>For resource adapters conforming to Connector 1.5 specifications, the value of this tag will become the connection definition identifier.</p> <p>You cannot change this tag.</p>	There are no limitations for the input value.	None	05-05
<connectionfactory-impl-class>	Once	<p>Specifies the Java class name in which the <code>ConnectionFactory</code> interface is implemented. You specify from the package when the package is defined.</p> <p>You cannot change this tag.</p>	There are no limitations for the input value.	None	05-05
<connection-interface>	Once	<p>Specifies the class name of the <code>Connection</code> interface supported by the resource adapter.</p> <p>Specified from the package when the package is defined.</p> <p>You cannot change this tag.</p>	There are no limitations for the input value.	None	05-05
<connection-impl-class>	Once	<p>Specifies the Java class name in which the <code>Connection</code> interface is implemented. Specified from the package when the package is defined.</p> <p>You cannot change this tag.</p>	There are no limitations for the input value.	None	05-05
<connector-runtime>	Zero or once	Defines the runtime property.	--	None	07-50
<property>	Zero or more times	Sets up the information unique to the connection interface class.	--	None	05-05
<property-name>	Once	Specifies the property name.	Specify any one of the following: <ul style="list-style-type: none"> • <code>MaxPoolSize</code> • <code>MinPoolSize</code> 	None	05-05

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Version
	Once	Specifies the property name.	<ul style="list-style-type: none"> • LogEnabled • User • Password • ValidationType • ValidationInterval • RetryCount • RetryInterval • ConnectionTimeout • SweeperInterval • RequestQueueEnable • RequestQueueTimeout • WatchEnabled • WatchInterval • WatchThreshold • WatchWriteFileEnabled • ConnectionPoolAdjustmentInterval • Warmup • NetworkFailureTimeout 	None	05-05
	Once	Specifies the Java type of the property value.	There are no limitations for the input value.	None	05-05
	Zero or once	<p>Specifies the property value.</p> <p>When the <property-value> tag is not specified, the information about that property is not changed. The already set up information is retained as is.</p> <p>When the <property-value> tag is specified, and if no value is specified, a blank will be specified in the information of that property.</p> <p>When the <property-value> tag is specified, and a value is also specified, the specified value will be set up in the property.</p>	<p>There are no limitations for the input value.</p> <p>See 4.1.13 Properties that you can specify for the <property> tag.</p>	--	05-05

4. Property Files Used for Setting Resources

Tag name		Occurrence pattern	Contents	Specifiable value	Default	Version
	<property-value>	Zero or once	When User or Password is specified in the <property-name> tag, and a value is specified in the <property-value> tag, the <property-value> tag is not displayed for security reasons. To change the value, add the <property-value> tag, and then specify the value after change.	There are no limitations for the input value. <i>See 4.1.13 Properties that you can specify for the <property> tag.</i>	--	05-05
			When a value is specified: Comment tag <!-- The property-value has already been set. --> When no value is specified: Empty tag <>			
	<property-default-value>	Zero or once	Specifies the default value of the property. You cannot change this tag.	There are no limitations for the input value.	--	05-05
	<resource-external-property>	Zero or more times	Defines the external properties of the resource. When multiple <resource-external-property> tags are specified and the set value of <optional-name> is the same, the tags are merged into one. In such cases, a warning message (KDJE37600-W) is output, and the value of <res-auth> and <res-sharing-scope> of the <resource-external-property> tag defined later becomes valid.	--	None	07-00
	<description>	Zero or once	Describes the optional name of the resource.	There are no limitations for the input value.	None	07-00
	<optional-name>	Once	Specifies the optional name of the resource.	You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters: Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign	None	07-00

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Version
<optional-name>	Once	Specifies the optional name of the resource.	(%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), forward slash (/), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~)	None	07-00
		<p>If multiple <resource-external-property> tags are specified within the same resource, and the specified value of <optional-name> configures the lower hierarchy of the specified value of another <optional-name> tag, a warning message (KDJE37602-W) is output.</p> <p>Example:</p> <pre>Optional name 1: AAA Optional name 2: AAA/BBB 1 ≤ character-string-length ≤ 255</pre>	<p>You can specify 1 to 255 characters.</p> <p>You cannot specify the following names:</p> <ul style="list-style-type: none"> Names beginning with the reserved word HITACHI_EJB (case sensitive) Names with a forward slash (/) or period (.) specified at the beginning or end Names containing only forward slash (/) or period (.) Names containing continuous forward slashes (/). <p>Any single-byte space or linefeed at the beginning or end of the character string is removed. If a space or linefeed appear in the middle of the character string, an error occurs.</p>		
<res-auth>	Zero or once	Specifies whether to perform authentication for using resources in the application or to entrust authentication to the container.	<p>You can specify the following strings:</p> <ul style="list-style-type: none"> Application Container 	Container	07-00
<res-sharing-scope>	Zero or once	Specifies whether to enable the sharing of a resource connection.	<p>You can specify the following strings:</p> <ul style="list-style-type: none"> Shareable 	Shareable	07-00

4. Property Files Used for Setting Resources

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Version
<res-sharing-scope>	Zero or once	Specifies whether to enable the sharing of a resource connection.	<ul style="list-style-type: none"> Unshareable 	Shareable	07-00
<transaction-support>	Once	Specifies the transaction support level provided in the resource adapter.	You can specify the following strings: <ul style="list-style-type: none"> NoTransaction LocalTransaction XATransaction 	None	05-05
<reauthentication-support>	Once	Specifies whether to support the reauthentication of the ManagedConnection instance.	You can specify the following strings: <ul style="list-style-type: none"> true false 	None	05-05
<inbound-resourceadapter>	Zero or once	Defines the resource adapter in the Inbound direction. You cannot change this tag.	--	None	07-60
<messageadapter>	Zero or once	Defines the messaging-related functionality of the resource adapter. You cannot change this tag.	--	None	07-60
<messagelistener>	One or more times	Defines the message listener. You cannot change this tag.	--	None	07-60
<messagelistener-type>	Once	Specifies the message listener type. You cannot change this tag.	There are no limitations for the input value.	None	07-60
<activation-spec>	Once	Specifies the information for message endpoint activation. You cannot change this tag.	--	None	07-60
<activation-spec-class>	Once	Specifies the class in which the ActivationSpec interface is implemented. You cannot change this tag.	There are no limitations for the input value.	None	07-60
<required-config-property>	Zero or more times	Specifies the properties that must be set up for message endpoint activation. You cannot change this tag.	--	None	07-60
<description>	Zero or more times	Describes the properties that must be set up for message endpoint activation. You cannot change this tag.	There are no limitations for the input value.	None	07-60
<config-property-name>	Once	Specifies the name of the properties that must be set up for message endpoint activation.	There are no limitations for the input value.	None	07-60

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Version
<config-property-name>	Once	You cannot change this tag.	There are no limitations for the input value.	None	07-60
<adminobject>	Zero or more times	<p>Defines the administered objects provided by the resource adapter.</p> <p>You can specify the definition about the Administered object, only for the resource adapter that complies with the specifications of Connector 1.5.</p>	--	None	07-60
<adminobject-name>	Zero or once	<p>Specifies the administered object name.</p> <p>This name must be unique within a resource adapter.</p>	<p>You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:</p> <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~)</p> <p>Note that you cannot use continuous underscores (_).</p>	None	07-60
			<p>You cannot specify the following names:</p> <ul style="list-style-type: none"> • Name containing a period (.) at the beginning or at the end • Name containing a period (.) only • Name containing continuous underscores (_) 		

4. Property Files Used for Setting Resources

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Version
			Any single-byte space or linefeed at the beginning or end of the character string is removed.		
<adminobject-interface>	Once	Specifies the interface implemented by the administered object class.	There are no limitations for the input value.	None	07-60
<adminobject-class>	Once	Specifies the administered object class.	There are no limitations for the input value.	None	07-60
<config-property>	Zero or more times	Defines the configuration property for the administered object.	--	None	07-60
<description>	Zero or more times	Describes the configuration property.	There are no limitations for the input value.	None	07-60
<config-property-name>	Once	Specifies the name of the configuration property.	You cannot specify a duplicate name.	None	07-60
<config-property-type>	Once	Specifies the Java type of the configuration property requested by the adminobject instance.	Specify any one of the following: <ul style="list-style-type: none"> • java.lang.Boolean • java.lang.String • java.lang.Integer • java.lang.Double • java.lang.Byte • java.lang.Short • java.lang.Long • java.lang.Float • java.lang.Character 	None	07-60
<config-property-value>	Zero or once	Specifies the configuration property value. The following operation is performed when executing the cjsetresprop command and the cjsetrarprop command:	There are no limitations for the input value.	None	07-60

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Version
<config-property-value>	Zero or once	<p>When the <config-property-value> tag is not specified</p> <p>The property information is set up as blank.</p> <p>When the <config-property-value> tag is specified, and the value is blank</p> <p>The property information is set up as blank.</p> <p>When the <config-property-value> tag is specified, and a value is also specified</p> <p>The value specified in the property is set up.</p>	There are no limitations for the input value.	None	07-60
<security-permission>	Zero or more times	<p>Defines the security permission.</p> <p>You cannot change this tag.</p>	--	None	05-05
<description>	Zero or more times	<p>Describes the security permission requested from the code of the resource adapter.</p> <p>You cannot change this tag.</p>	There are no limitations for the input value.	None	05-05
<security-permission-spec>	Once	<p>Specifies the security permission for the security policy file.</p> <p>You cannot change this tag.</p>	There are no limitations for the input value.	None	05-05
<resourceadapter-runtime>	Zero or once	You can specify this tag only for the resource adapters conforming to Connector 1.5 specifications.	--	None	07-50
<property>	Zero or more times	Sets up unique information for the resource adapter.	--	None	05-05
<property-name>	Once	Specifies the property name.	Specify any one of the following: <ul style="list-style-type: none"> • MaxThreadPoolSize • MinThreadPoolSize • ThreadPoolKeepalive 	None	05-05
<property-type>	Once	Specifies the property type.	There are no limitations for the input value.	None	05-05
<property-value>	Zero or once	Specifies the Java type of the property value.	There are no limitations for the input value.	--	05-05

Tag name	Occurrence pattern	Contents	Specifiable value	Default	Version
<property-value>	Zero or once	Specifies the Java type of the property value.	See 4.1.13 Properties that you can specify for the <property> tag.	--	05-05
<property-default-value>	Zero or once	Specifies the default value of the property. You cannot change this tag.	There are no limitations for the input value. See 4.1.13 Properties that you can specify for the <property> tag.	--	05-05

#

For details on the formula for estimating the length of the work directory path, see *Appendix C.1 Work directory of the J2EE server in the uCosminexus Application Server System Setup and Operation Guide*.

Legend:

--: You cannot specify any value.

4.1.2 Defining resource adapters

This subsection describes the information about defining resource adapters in the HITACHI Connector Property File with reference to each tag.

Note that the tag details are described in the order mentioned in *4.1.1 Specifications of the HITACHI Connector Property file*.

(1) <hitachi-connector-property>

Description

This is the root tag.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) <description>

Description

This tag describes the resource adapter.

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(3) <display-name>

Description

This tag specifies the name of the resource adapter displayed on the Deploy tool.

Specifiable value

You can specify the value in the range of $1 \leq \text{character-string-length} \leq 240$. The number of characters that you can specify is 1 to *range-estimated-with-the-formula[#]-for-estimating-the-work-directory-path-length*. To change the value, you can use alphanumeric characters (0 to 9, A to Z, a to z), and the following special characters:

Plus sign (+), hyphen (-), period (.), caret (^), underscore (_)

You cannot, however, specify the following names:

- Name containing a period (.) at the beginning or at the end
- Name containing only a period (.)

"TP1/Message Queue - Access" is the rar display name of TP1/Message Queue - Access, and therefore, can be specified.

If you specify the following names, you might not be able to operate the J2EE applications. Therefore, do not specify the following names:

- Name specifying an underscore (_) before and after a sign (example: abc_+_001)
- Name ending with a sign (example: abc+)

#

For details on the formula for estimating the length of the work directory path, see *Appendix C.1 Work directory of the J2EE server* in the manual *uCosminexus Application Server System Setup and Operation Guide*.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(4) <icon>**Description**

This tag defines the icons of the resource adapter displayed on the Deploy tool.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(5) <small-icon>**Description**

This tag specifies the file name for small icons (16 × 16).

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(6) <large-icon>**Description**

This tag specifies the file name for large icons (32 × 32).

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(7) <vendor-name>

Description

This tag specifies the vendor name of the resource adapter provider.

You cannot change this tag.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(8) <spec-version>

Description

This tag specifies the version of the connector architecture specifications supported by the resource adapter.

You cannot change this tag.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(9) <eis-type>

Description

This tag specifies the information about the EIS type.

You cannot change this tag.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(10) <version>

Description

This tag specifies the resource adapter version.

You cannot change this tag.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(11) <license>

Description

This tag defines the license request of the resource adapter module.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(12) <description>

Description

This tag describes the license.

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(13) <license-required>

Description

This tag specifies the flag for license request when deploying or using resource adapters.

You cannot change this tag.

Specifiable value

- `true`: Requested
- `false`: Not requested.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

4.1.3 Setting resource adapters

This subsection describes the details on the resource adapter settings in the HITACHI Connector Property File with reference to each tag.

Note that the tag details are described in the order mentioned in *4.1.1 Specifications of the HITACHI Connector Property file*.

(1) <resourceadapter>

Description

This tag defines the resource adapter settings.

Specifiable value

--

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(2) <resourceadapter-class>

Description

This tag specifies the Java class name in which `javax.resource.spi.ResourceAdapter` is implemented.

You cannot change this tag.

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

4.1.4 Defining the configuration properties of the ResourceAdapter instance

This subsection describes the details of the configuration properties of the `ResourceAdapter` instance in the HITACHI Connector Property File with reference to each tag.

Note that the tag details are described in the order mentioned in *4.1.1 Specifications of the HITACHI Connector Property file*.

(1) <config-property>

Description

This tag defines the configuration properties of the `ResourceAdapter` instance.

You can specify this tag only for resource adapters conforming to Connector 1.5 specifications.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) <description>

Description

This tag describes the configuration property.

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(3) <config-property-name>**Description**

This tag specifies the name of the configuration property.

Specifiable value

You cannot specify a duplicate name.

For details on the TP1 inbound adapter settings, see *4.1.11 Properties that you can specify in the <config-property> tag set up for TP1 inbound adapter*.

For details on the resource adapter settings of Cosminexus JMS provider, see *4.1.12 Properties that you can specify in the <config-property> tag set up for resource adapters of Cosminexus JMS provider*.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(4) <config-property-type>**Description**

This tag specifies the Java type of the configuration property requested by `ResourceAdapter`.

Specifiable value

Specify any one of the following:

- `java.lang.Boolean`
- `java.lang.String`
- `java.lang.Integer`
- `java.lang.Double`
- `java.lang.Byte`
- `java.lang.Short`
- `java.lang.Long`
- `java.lang.Float`
- `java.lang.Character`

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(5) <config-property-value>**Description**

This tag specifies the configuration property value.

When the `<config-property-value>` tag is not specified, the information about that property is not changed. The already set up information is retained as is. When the `<config-property-value>` tag is specified, and if no value is specified, a blank is set in the information of that property.

When the `<config-property-value>` tag is specified, and a value is also specified, the specified value is set in the property.

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

4.1.5 Defining outbound resource adapters

This subsection describes the details on defining the outbound resource adapters in the HITACHI Connector Property File with reference to each tag.

Note that the tag details are described in the order mentioned in *4.1.1 Specifications of the HITACHI Connector Property file*.

(1) <outbound-resourceadapter>

Description

This tag defines the resource adapter in the outbound direction.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) <connection-definition>

Description

This tag defines the connection interface class.

Specifiable value

--

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(3) <managedconnectionfactory-class>

Description

This tag specifies the Java class name in which the `javax.resource.spi.ManagedConnectionFactory` interface is implemented. Specified from the package when the package is defined. You cannot change this tag.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(4) <config-property>

Description

This tag defines the configuration property for the connection interface class.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(5) <description>

Description

This tag describes the configuration property.

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(6) <config-property-name>

Description

This tag specifies the name of the configuration property.

Specifiable value

You cannot specify a duplicate name.

For details on the DB Connector settings, see *4.1.10 Properties that you can specify in the <config-property> tag set up for DB Connector*.

For details on the resource adapter settings of Cosminexus JMS provider, see *4.1.12 Properties that you can specify in the <config-property> tag set up for resource adapters of Cosminexus JMS provider*.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(7) <config-property-type>

Description

This tag specifies the Java type of the configuration property requested by `ResourceAdapter`.

Specifiable value

Specify any one of the following:

- `java.lang.Boolean`
- `java.lang.String`
- `java.lang.Integer`
- `java.lang.Double`
- `java.lang.Byte`
- `java.lang.Short`

- `java.lang.Long`
- `java.lang.Float`
- `java.lang.Character`

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(8) `<config-property-value>`

Description

This tag specifies the configuration property value.

When the `<config-property-value>` tag is not specified, the information about that property is not changed. The already set up information is retained as is.

When the `<config-property-value>` tag is specified, and if no value is specified, a blank is set in the information of that property.

When the `<config-property-value>` tag is specified, and a value is also specified, the specified value is set in the property.

When `XAOpenString` is set in the `<config-property-name>` tag, and a value is specified in the `<config-property-value>` tag, the `<config-property-value>` tag is not displayed for security reasons. To change the value, you add the `<config-property-value>` tag, and then specify the value after change.

When `XAOpenString` is set in the `<config-property-name>` tag when you execute the `cjgetresprop` or `cjgetrarprop` command, the tag is displayed as follows:

When a value is specified:

```
Comment tag <!-- The config-property-value has already been set. -->
```

When no value is specified:

```
Empty tag <>
```

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(9) `<connectionfactory-interface>`

Description

This tag specifies the class name of the `ConnectionFactory` interface supported by the resource. Specified from the package when the package is defined.

For resource adapters conforming to Connector 1.5 specifications, the value of this tag will become the connection definition identifier.

You cannot change this tag.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(10) <connectionfactory-impl-class>

Description

This tag specifies the Java class name in which the `ConnectionFactory` interface is implemented. Specified from the package when the package is defined.

You cannot change this tag.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(11) <connection-interface>

Description

This tag specifies the class name of the `Connection` interface supported by the resource adapter. Specified from the package when the package is defined.

You cannot change this tag.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(12) <connection-impl-class>

Description

This tag specifies the Java class name in which the `Connection` interface is implemented. Specified from the package when the package is defined.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(13) <connector-runtime>

Description

This tag defines the runtime property.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(14) `<property>`

Description

This tag sets up the information unique to the connection interface class.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(15) `<property-name>`

Description

This tag specifies the property name.

Specifiable value

Specify any one of the following:

- `MaxPoolSize`
- `MinPoolSize`
- `LogEnabled`
- `User`
- `Password`
- `ValidationType`
- `ValidationInterval`
- `RetryCount`
- `RetryInterval`
- `ConnectionTimeout`
- `SweeperInterval`
- `RequestQueueEnable`
- `RequestQueueTimeout`
- `WatchEnabled`
- `WatchInterval`
- `WatchThreshold`
- `WatchWriteFileEnabled`
- `ConnectionPoolAdjustmentInterval`
- `Warmup`
- `NetworkFailureTimeout`

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(16) `<property-type>`

Description

This tag specifies the Java type of the property value.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(17) <property-value>**Description**

This tag specifies the property value.

When the <property-value> tag is not specified, the information about that property is not changed. The already set up information is retained as is.

When the <property-value> tag is specified, and if no value is specified, a blank is set in the information of that property.

When the <property-value> tag is specified, and a value is also specified, the specified value is set in the property.

When User or Password is set in the <property-name> tag, and a value is specified in the <property-value> tag, the <property-value> tag is not displayed for security reasons. To change the value, you add the <property-value> tag, and then specify the value after change.

When a value is specified:

```
Comment tag <!-- The property-value has already been set. -->
```

When no value is specified:

```
Empty tag <>
```

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(18) <property-default-value>**Description**

This tag specifies the default value of the property.

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(19) <resource-external-property>**Description**

This tag defines the external properties of the resource.

When multiple <resource-external-property> tags are specified and the set value of <optional-name> is the same, the tags are merged into one. In such cases, a warning message (KDJE37600-W) is output, and the values of <res-auth> and <res-sharing-scope> of the <resource-external-property> tag defined later become valid.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(20) <description>

Description

This tag describes the optional name of the resource.

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(21) <optional-name>

Description

This tag specifies the optional name of the resource.

If multiple <resource-external-property> tags are specified within the same resource, and the specified value of <optional-name> configures the lower hierarchy of the specified value of another <optional-name> tag, a warning message (KDJE37602-W) is output.

Example:

```
Optional name 1: AAA
Optional name 2: AAA/BBB
1 ≤ character-string-length ≤ 255
```

Specifiable value

You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:

Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), forward slash (/), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (|), and tilde (~)

Any single-byte space or linefeed at the beginning or end of the character string is removed. If a space or linefeed appear in the middle of the character string, an error occurs.

You can specify 1 to 255 characters.

You cannot specify the following names:

- Names beginning with the reserved word HITACHI_EJB (case sensitive)
- Names with a forward slash (/) or period (.) specified at the beginning or end
- Names containing only forward slash (/) or period (.)
- Names containing continuous forward slashes (/).

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(22) <res-auth>

Description

This tag specifies whether to perform authentication for using resources in the application, or to entrust authentication to the container.

Specifiable value

You can specify the following strings:

- `Application`
- `Container`

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(23) <res-sharing-scope>

Description

This tag specifies whether to share a resource connection.

Specifiable value

You can specify the following strings:

- `Shareable`
- `Unshareable`

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(24) <transaction-support>

Description

This tag specifies the transaction support level provided in the resource adapter.

Specifiable value

You can specify the following strings:

- `NoTransaction`
- `LocalTransaction`
- `XATransaction`

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(25) <reauthentication-support>

Description

This tag specifies whether to support the re-authentication of the `ManagedConnection` instance.

Specifiable value

- `true`
- `false`

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

4.1.6 Defining inbound resource adapters

This subsection describes the details on defining the inbound resource adapters in the HITACHI Connector Property File with reference to each tag.

Note that the tag details are described in the order mentioned in *4.1.1 Specifications of the HITACHI Connector Property file*.

(1) <inbound-resourceadapter>

Description

This tag defines the resource adapter in the inbound direction.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) <messageadapter>

Description

This tag defines the messaging-related functionality of the resource adapter.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(3) <messagelistener>

Description

This tag defines the message listener.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(4) <messagelistener-type>

Description

This tag specifies the message listener type.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(5) <activation-spec>**Description**

This tag specifies the information for message endpoint activation.

Specifiable value

--

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(6) <activation-spec-class>**Description**

This tag specifies the class in which the `ActivationSpec` interface is implemented.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(7) <required-config-property>**Description**

This tag specifies the properties that must be set up for message endpoint activation.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(8) <description>**Description**

This tag describes the properties that must be set up for message endpoint activation.

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(9) <config-property-name>

Description

This tag specifies the name of the properties that must be set up for message endpoint activation.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

4.1.7 Defining administered objects

This subsection describes the details on defining the administered objects in the HITACHI Connector Property File with reference to each tag. You can specify the definition about the Administered object only for the resource adapter that complies with the specifications of Connector 1.5.

Note that the tag details are described in the order mentioned in *4.1.1 Specifications of the HITACHI Connector Property file*.

(1) <adminobject>

Description

This tag defines the administered objects provided by the resource adapter.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) <adminobject-name>

Description

This tag specifies the administered object name.

This name must be unique within a resource adapter.

Specifiable value

You can use alphanumeric characters (0 to 9, A to Z, and a to z) and the following special characters:

Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation mark ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (|), and tilde (~)

You cannot specify the following names:

- Name containing a period (.) at the beginning or at the end
- Name containing a period (.) only
- Name containing continuous underscores (_)

Any single-byte space or linefeed at the beginning or end of the character string is removed.

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(3) <adminobject-interface>**Description**

This tag specifies the interface implemented by the administered object class.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(4) <adminobject-class>**Description**

This tag specifies the administered object class.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(5) <config-property>**Description**

This tag defines the configuration property for the administered object.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(6) <description>**Description**

This tag describes the configuration property.

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(7) <config-property-name>

Description

This tag specifies the configuration property name.

Specifiable value

You cannot specify a duplicate name. See *4.1.10 Properties that you can specify in the <config-property> tag set up for DB Connector.*

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(8) <config-property-type>

Description

This tag specifies the Java type of the configuration property requested by the `adminobject` instance.

Specifiable value

Specify any one of the following:

- `java.lang.Boolean`
- `java.lang.String`
- `java.lang.Integer`
- `java.lang.Double`
- `java.lang.Byte`
- `java.lang.Short`
- `java.lang.Long`
- `java.lang.Float`
- `java.lang.Character`

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(9) <config-property-value>

Description

This tag specifies the configuration property value.

The following operation is performed, when executing the `cjsetresprop` command and the `cjsetrarprop` command:

When the <config-property-value> tag is not specified

The property information is set up as blank.

When the <config-property-value> tag is specified, and if the value is blank

The property information is set up as blank.

When the <config-property-value> tag is specified, and a value is also specified

The value specified in the property is set up.

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

4.1.8 Defining the security permissions

This subsection describes the details on defining the security permissions in the HITACHI Connector Property File with reference to each tag.

Note that the tag details are described in the order mentioned in *4.1.1 Specifications of the HITACHI Connector Property file*.

(1) <security-permission>

Description

This tag defines the security permission.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) <description>

Description

This tag describes the security permission requested from the code of the resource adapter.
You cannot change this tag.

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(3) <security-permission-spec>

Description

This tag specifies the security permission for the security policy file.
You cannot change this tag.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

4.1.9 Runtime information of resource adapters

This subsection describes the details on the runtime information of resource adapters in the HITACHI Connector Property File with reference to each tag.

Note that the tag details are described in the order mentioned in *4.1.1 Specifications of the HITACHI Connector Property file*.

(1) <resourceadapter-runtime>

Description

You can specify this tag only for resource adapters conforming to Connector 1.5 specifications.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(2) <property>

Description

This tag sets up unique information for the resource adapter.

Specifiable value

--

Tag omission

You can omit this tag.

Value omission

You cannot omit the value of this tag.

(3) <property-name>

Description

This tag specifies the property name.

Specifiable value

Specify any one of the following:

- MaxTPoolSize
- MinTPoolSize
- TPoolKeepalive

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(4) <property-type>

Description

This tag specifies the property type.

Specifiable value

There are no limitations for the input value.

Tag omission

You cannot omit this tag.

Value omission

You cannot omit the value of this tag.

(5) <property-value>

Description

This tag specifies the Java type of the property value.

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

(6) <property-default-value>

Description

This tag specifies the default value of the property.

Specifiable value

There are no limitations for the input value.

Tag omission

You can omit this tag.

Value omission

You can omit the value of this tag.

4.1.10 Properties that you can specify in the <config-property> tag set up for DB Connector

This subsection describes the values that you can specify in the <config-property> tag set up for DB Connector.

(1) When HiRDB Type4 JDBC Driver is used for connecting to HiRDB

- DBConnector_HiRDB_Type4_CP.rar, DBConnector_HiRDB_Type4_CP_Cosminexus_RM.rar, DBConnector_HiRDB_Type4_XA.rar, or DBConnector_HiRDB_Type4_XA_Cosminexus_RM.rar
Use the above when the transaction is not managed or when a local transaction is used. Furthermore, use DBConnector_HiRDB_Type4_CP_Cosminexus_RM.rar when integrating with Cosminexus RM.
For details on the properties that you can specify, see *Table 4-1*.
- DBConnector_HiRDB_Type4_CP.rar or DBConnector_HiRDB_Type4_CP_Cosminexus_RM.rar
Use the above when using a global transaction. Furthermore, use DBConnector_HiRDB_Type4_XA_Cosminexus_RM.rar when integrating with Cosminexus RM.
For details on the properties that you can specify, see *Table 4-2*.
- DBConnector_HiRDB_Type4_XA.rar or DBConnector_HiRDB_Type4_XA_Cosminexus_RM.rar
Use the above when using a global transaction. Furthermore, use DBConnector_HiRDB_Type4_XA_Cosminexus_RM.rar when integrating with Cosminexus RM.
For details on the properties that you can specify, see *Table 4-3*.

Table 4-1: Properties that you can specify when using DBConnector_HiRDB_Type4_CP.rar, DBConnector_HiRDB_Type4_CP_Cosminexus_RM.rar,

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DBConnector_HiRDB_Type4_XA.rar, or
DBConnector_HiRDB_Type4_XA_Cosminexus_RM.rar

config-property-name	config-property-type	config-property-value	Specifiable value	Default	Version
CallableStatementPoolSize	java.lang.Integer	Specifies the pool size of <code>CallableStatement</code> for each connection allocated to the connection pool. The valid range is from 0 to 4095.	Specify an integer value from 0 to 4095.	10	07-00
CancelStatement	java.lang.Boolean	Specifies whether to cancel the SQL statement during a transaction timeout or an UAP forced termination. If you specify <code>true</code> : The SQL statement being executed is cancelled. If you specify <code>false</code> : The SQL statement being executed is not cancelled.	You can specify the following strings: <ul style="list-style-type: none"> <code>true</code> <code>false</code> 	<code>true</code>	07-00
DBHostName	java.lang.String	Specifies the host name of HiRDB and XDM/RD E2 to be connected. The set value is passed to the <code>setDBHostName</code> method of the <code>DataSource</code> node interface of HiRDB Type4 JDBC Driver.	There are no limitations for the input value.	(Null character string)	07-00
description	java.lang.String	Specifies the additional connection information required for connecting to the database. The set value is passed to the <code>setDescription</code> method of the <code>DataSource</code> node interface of HiRDB Type4 JDBC Driver.	There are no limitations for the input value.	(Null character string)	07-00
encodeLang	java.lang.String	Specifies the character set name for data conversion. The set value is passed to the <code>setEncodeLang</code> method of the <code>DataSource</code> node interface of HiRDB Type4 JDBC Driver.	There are no limitations for the input value.	(Null character string)	07-10
environmentVariables	java.lang.String	Specifies the HiRDB client environment variables. The set value is passed to the <code>setEnvironmentVariables</code> method of the <code>DataSource</code> node interface of HiRDB Type4 JDBC Driver.	There are no limitations for the input value.	(Null character string)	07-10
HiRDBCursorMode	java.lang.Boolean	Specifies whether to enable the object of the <code>ResultSet</code> class when commit is executed in HiRDB. The set value is passed to the <code>setHiRDBCursorMode</code> method of the <code>DataSource</code> node interface of HiRDB Type4 JDBC Driver.	You can specify the following strings: <ul style="list-style-type: none"> <code>true</code> <code>false</code> 	<code>false</code>	07-00
JDBC_IF_TRC	java.lang.Boolean	Specifies whether to collect the JDBC interface method trace. The set value is passed to the <code>setJDBC_IF_TRC</code> method of	You can specify the following strings: <ul style="list-style-type: none"> <code>true</code> 	<code>false</code>	07-00

config-property-name	config-property-type	config-property-value	Specifiable value	Default	Version
JDBC_IF_TR C	java.lang. Boolean	the DataSource node interface of HiRDB Type4 JDBC Driver.	<ul style="list-style-type: none"> • false 	false	07-00
loginTimeo ut	java.lang. Integer	Specifies the maximum standby period (unit: seconds) for an attempt to establish a physical connection with the HiRDB server when the Connection object is acquired with the getConnection method. The set value is passed to the setLoginTimeout method of the DataSource node interface of HiRDB Type4 JDBC Driver.	There are no limitations for the input value.	8	07-00
logLevel	java.lang. String	Specifies the log trace level that DB Connector outputs. <ul style="list-style-type: none"> • 0 or ERROR • 10 or WARNING • 20 or INFORMATION 	Specify any one of the following: <ul style="list-style-type: none"> • 0 or ERROR • 10 or WARNING • 20 or INFORMATION 	ERROR	07-00
LONGVARBIN ARY_Access	java.lang. String	Specifies how to access the JDBC SQL type LONGVARBINARY (serial property BLOB and serial property BINARY that are HiRDB data types) database. The set value is passed to the setLONGVARBINARY_Access method of the DataSource node interface of HiRDB Type4 JDBC Driver.	There are no limitations for the input value.	REAL	07-00
LONGVARBIN ARY_Access Size	java.lang. Integer	Specifies the length of the JDBC SQL type LONGVARBINARY data to be requested at one time for the HiRDB server. The set value is passed to the setLONGVARBINARY_AccessSize method of the DataSource node interface of HiRDB Type4 JDBC Driver.	There are no limitations for the input value.	0	07-00
LONGVARBIN ARY_TruncE rror	java.lang. Boolean	Specifies that an exception is to be thrown when truncate occurs during the acquisition of the JDBC SQL type LONGVARBINARY data. The set value is passed to the setLONGVARBINARY_TruncEror method of the DataSource node interface of HiRDB Type4 JDBC Driver.	You can specify the following strings: <ul style="list-style-type: none"> • true • false 	true	07-10
maxBinaryS ize	java.lang. Integer	Specifies the upper limit for the data size when the JDBC SQL type LONGVARBINARY data is acquired. The set value is passed to the setMaxBinarySize method of the DataSource node interface of HiRDB Type4 JDBC Driver.	There are no limitations for the input value.	0	07-10

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config-property-name	config-property-type	config-property-value	Specifiable value	Default	Version
PreparedStatementPoolSize	java.lang.Integer	Specifies the pool size of PreparedStatement for each connection allocated to the connection pool. The valid range is from 0 to 4095.	Specify an integer value from 0 to 4095.	10	07-00
SQLInNum	java.lang.Integer	Specifies the maximum number of input ? parameters of the SQL statement to be executed. The set value is passed to the setSQLInNum method of the DataSource node interface of HiRDB Type4 JDBC Driver.	There are no limitations for the input value.	300	07-10
SQLOutNum	java.lang.Integer	Specifies the maximum number of search items of the SQL statement to be executed. The set value is passed to the setSQLOutNum method of the DataSource node interface of HiRDB Type4 JDBC Driver.	There are no limitations for the input value.	300	07-10
SQLWarningIgnore	java.lang.Boolean	Specifies whether to retain the warning returned from the database, in the Connection class. The set value is passed to the setSQLWarningIgnore method of the DataSource node interface of HiRDB Type4 JDBC Driver.	You can specify the following strings: <ul style="list-style-type: none"> • true • false 	false	07-00
SQLWarningLevel	java.lang.String	Specifies the warning level that occurred during the execution of the SQL statement. The set value is passed to the setSQLWarningLevel method of the DataSource node interface of HiRDB Type4 JDBC Driver.	There are no limitations for the input value.	SQLWARN	07-10
TRC_NO	java.lang.Integer	Specifies the entry count of the JDBC interface method trace. The set value is passed to the setTRC_NO method of the DataSource node interface of HiRDB Type4 JDBC Driver.	There are no limitations for the input value.	500	07-00
uapName	java.lang.String	Specifies the application name. The set value is passed to the setUapName method of the DataSource node interface of HiRDB Type4 JDBC Driver.	There are no limitations for the input value.	(Null character string)	07-10

Table 4-2: Properties that you can specify when using DBConnector_HiRDB_Type4_CP.rar or DBConnector_HiRDB_Type4_CP_Cosminexus_RM.rar

config-property-name	config-property-type	config-property-value
linkedResourceAdapterName	java.lang.String	Specifies the display name of the Cosminexus RM resource adapter to be integrated. You can specify this property when using DBConnector_HiRDB_Type4_CP_Cosminexus_RM.rar.

Table 4-3: Properties that you can specify when using DBConnector_HiRDB_Type4_XA.rar or DBConnector_HiRDB_Type4_XA_Cosminexus_RM.rar

config-property-name	config-property-type	config-property-value
linkedResourceAdapterName	java.lang.String	Specifies the display name of the Cosminexus RM resource adapter to be integrated. You can specify this property when using DBConnector_HiRDB_Type4_XA_Cosminexus_RM.rar.
XACloseString	java.lang.String	Specifies the XA close character string. The set value is passed to the setXACloseString method of the DataSource node interface of HiRDB Type4 JDBC Driver.
XALocalCommitMode	java.lang.String	Specifies whether to enable the auto-commit functionality when the transaction is not a global transaction. The set value is passed to the setXALocalCommitMode method of the DataSource node interface of HiRDB Type4 JDBC Driver. Note that when you specify false, the resource connection test (cjtestres command) and the connection failure detection functionality does not operate normally. If you want to use the resource connection test (cjtestres command) and the connection failure detecting functionality, do not specify false. Do not specify false, when using DBConnector_HiRDB_Type4_XA_Cosminexus_RM.rar.
XAOpenString	java.lang.String	Specifies the XA open character string. The set value is passed to the setXAOpenString method of the DataSource node interface of HiRDB Type4 JDBC Driver.

(2) When connecting to Oracle using Oracle JDBC Thin Driver

- DBConnector_Oracle_CP.rar, DBConnector_Oracle_CP_Cosminexus_RM.rar, DBConnector_Oracle_XA.rar, or DBConnector_Oracle_XA_Cosminexus_RM.rar
Use the above when the transaction is not managed or when a local transaction is used. Also, use the DBConnector_Oracle_CP_Cosminexus_RM.rar file when integrating with Cosminexus RM.
For details on the properties that you can specify, see *Table 4-4*.
- DBConnector_Oracle_CP.rar or DBConnector_Oracle_CP_Cosminexus_RM.rar
Use the above when the transaction is not managed or when a local transaction is used. Also, use the DBConnector_Oracle_CP_Cosminexus_RM.rar file when integrating with Cosminexus RM.
For details on the property of DBConnector_Oracle_CP.rar, see *Table 4-5*. For details on the property that can be specified with DBConnector_Oracle_CP_Cosminexus_RM.rar, see *Table 4-6*.
- DBConnector_Oracle_XA.rar or DBConnector_Oracle_XA_Cosminexus_RM.rar
Use the above when using a global transaction. Also, use the DBConnector_Oracle_XA_Cosminexus_RM.rar file when integrating with Cosminexus RM.
For details on the property of DBConnector_Oracle_XA.rar, see *Table 4-5* and *Table 4-7*. For details on the property that can be specified with DBConnector_Oracle_XA_Cosminexus_RM.rar, see *Table 4-6* and *Table 4-7*.

For the values that you can specify in the properties, see the Oracle documentation.

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Table 4-4: Properties that you can specify when using DBConnector_Oracle_CP.rar, DBConnector_Oracle_CP_Cosminexus_RM.rar, DBConnector_Oracle_XA.rar, or DBConnector_Oracle_XA_Cosminexus_RM.rar

config-property-name	config-property-type	config-property-value	Specifiable value	Default	Version
CallableStatementPoolSize	java.lang.Integer	Specifies the pool size of <code>CallableStatement</code> for each connection allocated to the connection pool.	Specify an integer value from 0 to 2147483647.	10	07-00
CancelStatement	java.lang.Boolean	Specifies whether to cancel the SQL statement being executed in the <code>Statement</code> class, <code>CallableStatement</code> class, and <code>PreparedStatement</code> class, if the transaction times out or if the business application is terminated forcibly. If you specify <code>true</code> The SQL statement being executed is cancelled. If you specify <code>false</code> The SQL statement being executed is not cancelled. Specify <code>false</code> when connecting to an exclusive server.	You can specify the following strings: <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	<code>true</code>	07-00
ConnectionIDUpdate	java.lang.Boolean	Specifies whether to update the connection ID for each <code>DataSource#getConnection</code> method. If you specify <code>true</code> The connection ID is generated for each <code>DataSource#getConnection</code> method. If you specify <code>false</code> The connection ID is generated for the <code>DataSource#getConnection</code> method, when a new physical connection is established, and the connection ID is not updated thereafter.	You can specify the following strings: <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	<code>false</code>	07-00
databaseName	java.lang.String	Specifies a specific database name (SID) on the Oracle server. The set value is passed to the <code>setDatabaseName</code> method of the <code>DataSource</code> node interface of Oracle JDBC Thin Driver.	There are no limitations for the input value.	(Null character string)	07-00
loginTimeout	java.lang.Integer	Specifies the timeout (unit: milliseconds) for attempting to connect to the database. If you specify 0, the timeout value becomes infinite and is blocked until a connection is established or an error occurs. The default value is <u>8000</u> . The specified	There are no limitations for the input value.	8000	07-00

config-property-name	config-property-type	config-property-value	Specifiable value	Default	Version
loginTimeout	java.lang.Integer	value is passed to the <code>setLoginTimeout</code> method of the <code>DataSource</code> node interface of Oracle JDBC Thin Driver. For Oracle JDBC Thin Driver 9.2.0.8 or later, 10.1.0.5 or later, and 10.2 or later, the value is rounded off to the seconds unit, and the value is passed to the <code>setLoginTimeout</code> method.	There are no limitations for the input value.	8000	07-00
logLevel	java.lang.String	Specifies the log trace level that the DB Connector outputs. You can specify the following values: <ul style="list-style-type: none"> • 0 or ERROR • 10 or WARNING • 20 or INFORMATION 	Specify any one of the following: <ul style="list-style-type: none"> • 0 or ERROR • 10 or WARNING • 20 or INFORMATION 	ERROR	07-00
portNumber	java.lang.Integer	Specifies the port number by which the Oracle server listens to the request. The set value is passed to the <code>setPortNumber</code> method of the <code>DataSource</code> node interface of Oracle JDBC Thin Driver.	There are no limitations for the input value.	1521	07-00
PreparedStatementPoolSize	java.lang.Integer	Specifies the pool size of <code>PreparedStatement</code> for each connection allocated to the connection pool.	Specify an integer value from 0 to 2147483647.	10	07-00
serverName	java.lang.String	Specifies the host name or the IP address of the Oracle server. The set value is passed to the <code>setServerName</code> method of the <code>DataSource</code> node interface of Oracle JDBC Thin Driver.	There are no limitations for the input value.	(Null character string)	07-00
url	java.lang.String	Specifies the JDBC URL required by the Oracle JDBC Thin Driver to connect to the database. The values you specify are passed to the <code>setURL</code> method of the <code>DataSource</code> system interface of Oracle JDBC Thin Driver. When a value is set in this property, the value specified in <code>databaseName</code> , <code>portNumber</code> , and <code>serverName</code> is ignored. Specifies a thin driver in JDBC URL, when the user specifies a url. (Example) <code>jdbc:oracle:thin:@ServerA:1521:service1</code>	There are no limitations for the input value.	(Null character string)	07-00

Table 4-5: Properties that you can specify when using DBConnector_Oracle_CP.rar or DBConnector_Oracle_XA.rar

config-property-name	config-property-type	config-property-value	Specifiable value	Default	Version
appendZero	java.lang.Boolean	<p>When you want to acquire the decimal point having an integer part as 0, from the NUMBER type or FLOAT type column, by using the <code>getString</code> method of the <code>java.sql.ResultSet</code> interface, specify whether to fill the integer part with 0.</p> <p>When specifying <code>true</code>: The integer part is filled with 0.</p> <p>When specifying <code>false</code>: The integer part is not filled with 0.</p>	<p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	false	09-50
forceFixedString	java.lang.Boolean	<p>When you specify a value of the CHAR type (fixed length character string) column in the <code>setString</code> method or the <code>setObject</code> method of the <code>java.sql.PreparedStatement</code> interface and the specified value is smaller than the size of the column, specify whether to add blank characters to match the size to the size of the column.</p> <p>When specifying <code>true</code>: The blank characters of fixed length character string are added.</p> <p>When specifying <code>false</code>: The blank characters of fixed length character string are not added.</p>	<p>You can specify the following character strings:</p> <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	false	09-50

Table 4-6: Properties that you can specify when using DBConnector_Oracle_CP_Cosminexus_RM.rar or DBConnector_Oracle_XA_Cosminexus_RM.rar

config-property-name	config-property-type	config-property-value
linkedResourceAdapterName	java.lang.String	<p>Specify the display name for the Reliable Messaging resource adapter to be integrated.</p> <p>You can specify this value only when using <code>DBConnector_Oracle_CP_Cosminexus_RM.rar</code>.</p>

Table 4-7: Properties that you can specify when using DBConnector_Oracle_XA.rar or DBConnector_Oracle_XA_Cosminexus_RM.rar

config-property-name	config-property-type	config-property-value
sessionTimeout	java.lang.Integer	<p>Specifies the session timeout (maximum time period in which the transaction branch is not active) in Oracle server in seconds. You must specify a time period longer than the transaction timeout in the J2EE server. The default value is <u>300 seconds</u>. The set value is passed to the</p>

config-property-name	config-property-type	config-property-value
sessionTimeout	java.lang.Integer	XAResource.setTimeout method of Oracle JDBC Thin Driver.

(3) When SQL Server JDBC Driver is used to connect to SQL Server

- DBConnector_SQLServer2005_CP.rar

Use the above when the transaction is not managed or when a local transaction is used.

For details on the properties that you can specify, see the following table.

Table 4-8: Properties that you can specify when using DBConnector_SQLServer2005_CP.rar

config-property-name	config-property-type	config-property-value	Specifiable value	Default	Version
applicationIntent	java.lang.String	<p>When you use the SQL Server 2012 availability group or the SQL Server 2012 failover cluster functionality, specify the connection to a failover destination database as read-only or read and write only.</p> <p>The value you specify is passed to the <code>setApplicationIntent</code> method of the <code>DataSource</code> system interface of JDBC Driver 4.0 for SQL Server. For details, see the manual of JDBC Driver 4.0 for SQL Server.</p> <p>You can specify this value only when using JDBC Driver 4.0 for SQL Server.</p>	<p>Specify any of the following:</p> <ul style="list-style-type: none"> • <code>ReadOnly</code> • <code>ReadWrite</code> 	<code>ReadWrite</code>	09-50
applicationName	java.lang.String	Specifies the name of the application connecting to SQL Server. The set value is displayed on the management tool of SQL Server. The set value is passed to the <code>setApplicationName</code> method of the <code>DataSource</code> node interface of SQL Server JDBC Driver.	There are no limitations for the input value.	(Null character string)	07-50
CallableStatementPoolSize	java.lang.Integer	Specifies the pool size of <code>CallableStatement</code> for each connection allocated to the connection pool.	Specify an integer value from 0 to 2147483647.	10	07-00
CancelStatement	java.lang.Boolean	<p>Specifies whether to execute the cancel statement functionality, in the case of a transaction timeout or a forced termination of an application.</p> <p>If you specify <code>true</code> The cancel statement functionality is executed.</p> <p>If you specify <code>false</code> The cancel statement functionality is not executed.</p>	<p>You can specify the following strings:</p> <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	<code>true</code>	07-00
databaseName	java.lang.String	Specifies the database name of SQL Server to be connected. If no value is specified, the connection	There are no limitations for the input value.	(Null character string)	07-00

4. Property Files Used for Setting Resources

config-property-name	config-property-type	config-property-value	Specifiable value	Default	Version
databaseName	java.lang.String	is established with a defined database. The set value is passed to the <code>setDatabaseName</code> method of the <code>DataSource</code> node interface of SQL Server JDBC Driver.	There are no limitations for the input value.	(Null character string)	07-00
failoverPartner	java.lang.String	Specifies the name of the failover server used in a database mirroring configuration. Use this property in combination with the <code>databaseName</code> property. The set value is passed to the <code>setFailoverPartner</code> method of the <code>DataSource</code> node interface of SQL Server JDBC Driver. For details, see the SQL Server JDBC Driver documentation.	There are no limitations for the input value.	(Null character string)	07-50
instanceName	java.lang.String	Specifies the instance name of SQL Server to be connected to. If no value is specified, the connection is established with an existing instance. The set value is passed to the <code>setInstanceName</code> method of the <code>DataSource</code> node interface of SQL Server JDBC Driver.	There are no limitations for the input value.	(Null character string)	07-50
integratedSecurity	java.lang.Boolean	Specifies how to perform authentication for connecting to SQL Server. If you specify <code>true</code> Windows authentication will be used. If you specify <code>false</code> SQL Server authentication will be used. The set value is passed to the <code>setIntegratedSecurity</code> method of the <code>DataSource</code> node interface of SQL Server JDBC Driver. For details, see the SQL Server JDBC Driver documentation.	You can specify the following strings: <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	<code>false</code>	07-50
lastUpdateCount	java.lang.Boolean	Specifies whether to return only the last update count from the SQL statements passed to the server. If you specify <code>true</code> Only the last update count is returned from the SQL statements passed to the server. Also, you can ignore the update count that is used in either the <code>SELECT</code> , <code>INSERT</code> , or <code>DELETE</code> statements and is added by a server trigger.	You can specify the following strings: <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	<code>true</code>	07-50

config-property-name	config-property-type	config-property-value	Specifiable value	Default	Version
lastUpdateCount	java.lang.Boolean	<p>If you specify <code>false</code> the entire update count is returned, including the update count returned by a server trigger.</p> <p>The set value is passed to the <code>setLastUpdateCount</code> method of the <code>DataSource</code> node interface of SQL Server JDBC Driver. For details, see the SQL Server JDBC Driver documentation.</p>	<p>You can specify the following strings:</p> <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	<code>true</code>	07-50
lockTimeout	java.lang.Integer	<p>Specifies the standby time (unit: milli-seconds) until the database reports the lock timeout. If you specify <code>-1</code>, the timeout becomes infinite. If you specify <code>0</code>, the system does not standby. The set value is passed to the <code>setLockTimeout</code> method of the <code>DataSource</code> node interface of SQL Server JDBC Driver.</p>	There are no limitations for the input value.	<code>-1</code>	07-50
loginTimeout	java.lang.Integer	<p>Specifies the maximum standby period (unit: seconds) of the data source when trying to connect to the database. The set value is passed to the <code>setLoginTimeout</code> method of <code>DataSource</code> node interface of SQL Server JDBC Driver.</p>	There are no limitations for the input value.	<code>8</code>	07-00
logLevel	java.lang.String	<p>Specifies the log trace level output by the DB Connector.</p> <p>You can specify the following values:</p> <ul style="list-style-type: none"> • <code>0</code> or <code>ERROR</code> • <code>10</code> or <code>WARNING</code> • <code>20</code> or <code>INFORMATION</code> 	<p>Specify any one of the following:</p> <ul style="list-style-type: none"> • <code>0</code> or <code>ERROR</code> • <code>10</code> or <code>WARNING</code> • <code>20</code> or <code>INFORMATION</code> 	<code>ERROR</code>	07-00
multiSubnetFailover	java.lang.Boolean	<p>When you use the SQL Server 2012 availability group or the SQL Server 2012 failover cluster functionality, specify <code>true</code>.</p> <p>The value you specify is passed to the <code>setApplicationIntent</code> method of the <code>DataSource</code> system interface of JDBC Driver 4.0 for SQL Server. For details, see the manual of <i>JDBC Driver 4.0 for SQL Server</i>.</p> <p>You can specify this value only when using JDBC Driver 4.0 for SQL Server</p>	<p>The specifiable character strings are as follows:</p> <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	<code>false</code>	09-50
packetSize	java.lang.Integer	<p>Specifies the network packet size (unit: bytes) used for communication with SQL Server. The set value is passed to the <code>setPacketSize</code> method of the</p>	There are no limitations for the input value.	<code>4096</code>	07-50

4. Property Files Used for Setting Resources

config-property-name	config-property-type	config-property-value	Specifiable value	Default	Version
packetSize	java.lang.Integer	DataSource node interface of SQL Server JDBC Driver. For details, see the SQL Server JDBC Driver documentation.	There are no limitations for the input value.	4096	07-50
portNumber	java.lang.Integer	Specifies the port number of SQL Server to be connected to. The set value is passed to the <code>setPortNumber</code> method of the DataSource node interface of SQL Server JDBC Driver.	There are no limitations for the input value.	1433	07-00
PreparedStatementPoolSize	java.lang.Integer	Specifies the pool size of PreparedStatement for each connection allocated to the connection pool.	Specify an integer value from 0 to 2147483647.	10	07-00
selectMethod	java.lang.String	<p>Specifies whether to use the database cursor when executing the <code>select</code> statement. Set the value in lower case.</p> <p><code>cursor</code></p> <p>The database cursor is created when executing the <code>select</code> statement. Search result of the database is returned to the client in parts.</p> <p><code>direct</code></p> <p>The database cursor is not created when executing the <code>select</code> statement. The entire search result of the database is returned to the client in one request.</p> <p>The set value is passed to the <code>setSelectMethod</code> method of DataSource node interface of SQL Server JDBC Driver. For details, see the SQL Server JDBC Driver documentation.</p>	<p>You can specify the following strings:</p> <ul style="list-style-type: none"> • <code>cursor</code> • <code>direct</code> 	<code>cursor</code>	07-00
sendStringParametersAsUnicode	java.lang.Boolean	<p>Specifies whether to send the character string parameter to be sent to SQL Server as Unicode or as the default character encoding of the database.</p> <p>If you specify <code>true</code></p> <p>The character string parameter is sent as Unicode.</p> <p>If you specify <code>false</code></p> <p>The character string parameter is sent as the default character encoding of the database.</p> <p>The set value is passed to the <code>setSendStringParametersAsUnicode</code> method of DataSource node interface of SQL Server JDBC Driver.</p>	<p>You can specify the following strings:</p> <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	<code>true</code>	07-00

config-property-name	config-property-type	config-property-value	Specifiable value	Default	Version
serverName	java.lang.String	Specifies the host name or the IP address of SQL Server to be connected to. The set value is passed to the <code>setServername</code> method of the <code>DataSource</code> node interface of SQL Server JDBC Driver.	There are no limitations for the input value.	(Null character string)	07-00
workstationID	java.lang.String	Specifies the host name of Application Server. The set value is displayed on the management tool of SQL Server. The set value is passed to the <code>setWorkstationID</code> method of <code>DataSource</code> node interface of SQL Server JDBC Driver.	There are no limitations for the input value.	(Null character string)	07-50
xopenStates	java.lang.Boolean	Specifies the SQL standards for the return value of the <code>java.sql.SQLException.getSQLState</code> method. If you specify <code>true</code> The <code>getSQLState</code> method returns the state code defined in the X/Open standard. If you specify <code>false</code> The <code>getSQLState</code> method returns the state code defined in the SQL 99 standard. The set value is passed to the <code>setXopenStates</code> method of the <code>DataSource</code> node interface of SQL Server JDBC Driver.	You can specify the following strings: <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	<code>false</code>	07-50

(4) When connecting to Oracle by using cluster connection pool (root resource adapter)

- `DBConnector_CP_ClusterPool_Root.rar`

Use the above when the transaction is not managed or when a local transaction is used.

For details on the properties that you can specify, see the following table.

Table 4-9: Properties that you can specify when using `DBConnector_CP_ClusterPool_Root.rar`

config-property-name	config-property-type	config-property-value
algorithm	java.lang.String	Specifies how to select the connection pool of the cluster connection pool functionality. <ul style="list-style-type: none"> • <code>RoundRobin</code> An attempt is made to acquire the connections as per the priority order from the connection pool that is next in the priority list below the last chosen connection pool. When the connection pool with the lowest priority is reached, the connection pool with the highest priority is chosen. An exception is thrown when you cannot acquire a connection from the entire connection pool. Specified when the cluster database is active/active configuration and aims at load distribution in each instance. The default value is <code>RoundRobin</code>.

4. Property Files Used for Setting Resources

config-property-name	config-property-type	config-property-value
dbCheckInterval	java.lang.Integer	<p>Specifies an integer value from 2 to 2147483647 (unit: seconds) for the interval to check the DB node status in the suspended connection pool. If you specify a value outside the valid range, the default value is assumed. The default value is <u>30</u>.</p> <p>When the Oracle JDBC Thin Driver is used in the member resource adapter, specify a time period longer than the <code>loginTimeout</code> property value of each member resource adapter.</p>
enableAutoPoolResume	java.lang.Boolean	<p>Specifies whether to enable or disable the auto-resume functionality of the connection pool.</p> <ul style="list-style-type: none"> If you specify <code>true</code> The auto-resume functionality of the connection pool is enabled. If you specify <code>false</code> The auto-resume functionality of the connection pool is disabled. <p>The default value is <u>true</u>.</p>
enableAutoPoolSuspend	java.lang.Boolean	<p>Specifies whether to enable or disable the auto-suspend functionality of the connection pool.</p> <ul style="list-style-type: none"> If you specify <code>true</code> The auto-suspend functionality of the connection pool is enabled. If you specify <code>false</code> The auto-suspend functionality of the connection pool is disabled. <p>The default value is <u>true</u>.</p>
logLevel	java.lang.String	<p>Specifies the log trace level output by the DB Connector. You can specify the following values:</p> <ul style="list-style-type: none"> 0 or <code>ERROR</code> 10 or <code>WARNING</code> 20 or <code>INFORMATION</code> <p>The default value is <u>0 or ERROR</u>.</p>
memberResourceAdapterName[n]	java.lang.String	<p>Specifies the display name of the member resource adapter of priority n. This property is not defined by default, so add this property as and when required. For n, specify the value from 1 to 100.</p>
memberResourceAdapterName1	java.lang.String	<p>Specifies the display name of the member resource adapter of priority 1. Smaller the specified value, higher the priority order.</p>
memberResourceAdapterName2	java.lang.String	<p>Specifies the display name of the member resource adapter of priority 2.</p>

(5) When connecting to Oracle by using the cluster connection pool (member resource adapter)

- `DBConnector_Oracle_CP_ClusterPool_Member.rar`
Use the above when the transaction is not managed or when a local transaction is used.
For details on the properties that you can specify, see the following table.

Table 4-10: Properties that you can specify when using
DBConnector_Oracle_CP_ClusterPool_Member.rar

config-property-name	config-property-type	config-property-value
CallableStatementPool Size	java.lang.Integer	Specifies the pool size of <code>CallableStatement</code> for each connection allocated to the connection pool. The default value is <u>10</u> .
CancelStatement	java.lang.Boolean	Specifies whether to cancel the SQL statement being executed in the <code>Statement</code> class, <code>CallableStatement</code> class, and <code>PreparedStatement</code> class, in the case of a transaction timeout or a forced termination of an application. <ul style="list-style-type: none"> If you specify <code>true</code> The SQL statement being executed is cancelled. If you specify <code>false</code> The SQL statement being executed is not cancelled. The default value is <code>true</code> . Specify <code>false</code> when connecting to an exclusive server.
ConnectionIDUpdate	java.lang.Boolean	Specifies whether to update the connection ID for each <code>DataSource#getConnection</code> method. <ul style="list-style-type: none"> If you specify <code>true</code> The connection ID is generated for each <code>DataSource#getConnection</code> method. If you specify <code>false</code> The connection ID is generated for the first <code>DataSource#getConnection</code> method and is not updated thereafter. The default value is <code>false</code> .
databaseName	java.lang.String	Specifies a specific database name (SID) on the Oracle server. The set value is passed to the <code>setDatabaseName</code> method of the <code>DataSource</code> node interface of Oracle JDBC Thin Driver.
loginTimeout	java.lang.Integer	Specifies an integer value (unit: milli-seconds) from 1 to 2147483647 when trying to connect to the database. If you specify a value outside the valid range, the default value is assumed. The default value is <u>8000</u> . The set value is passed to the <code>setLoginTimeout</code> method of the <code>DataSource</code> node interface of Oracle JDBC Thin Driver. For Oracle JDBC Thin Driver 10.1.0.5 or later and 10.2 or later, the value is rounded off to the seconds unit, and the value is passed to the <code>setLoginTimeout</code> method.
logLevel	java.lang.String	Specifies the log trace level output by the DB Connector. You can specify the following values: <ul style="list-style-type: none"> 0 or ERROR 10 or WARNING 20 or INFORMATION The default value is <u>0 or ERROR</u> .
portNumber	java.lang.Integer	Specifies the port number by which the Oracle server listens to the request. The default port number is <u>1521</u> . The set value is passed to the <code>setPortNumber</code> method of the <code>DataSource</code> node interface of Oracle JDBC Thin Driver.
PreparedStatementPool Size	java.lang.Integer	Specifies the pool size of <code>PreparedStatement</code> for each connection allocated to the connection pool. The default value is <u>10</u> .

config-property-name	config-property-type	config-property-value
serverName	java.lang.String	Specifies the host name or IP address of the Oracle server. The set value is passed to the <code>setServerName</code> method of the <code>DataSource</code> node interface of Oracle JDBC Thin Driver.
url	java.lang.String	Specifies the JDBC URL required by the Oracle JDBC Thin Driver to connect to the database. The value you specify is passed to the <code>setURL</code> method of Oracle JDBC Thin Driver. When a value is set in this property, the value specified in <code>databaseName</code> , <code>portNumber</code> , and <code>serverName</code> is ignored. Specifies a thin driver in JDBC URL, when the user specifies a url. (Example) <code>jdbc:oracle:thin:@ServerA:1521:service1</code>

4.1.11 Properties that you can specify in the <config-property> tag set up for TP1 inbound adapter

This subsection describes the properties that you can specify in the <config-property> tag set up for TP1 inbound adapter.

Table 4-11: Properties that you can specify in the <config-property> tag set up for TP1 inbound adapter

config-property-name	config-property-type	config-property-value
backlog_count	java.lang.Integer	Specifies an integer from 1 to 4096 for the length of the <code>Listen</code> queue of the port that awaits RPC requests. The default value is <u>50</u> . The maximum value for the length of the queue that can be specified differs for each OS. For details, see the manuals describing <code>listen()</code> for each OS and the documentation describing the details of the TCP/IP implementation for each OS.
connection_timeout	java.lang.Integer	Specifies an integer from 0 to 65535 for a timeout value (unit: seconds), when establishing a connection for sending replies of RPC requests. The default value is <u>8</u> . When 0 is specified, a timeout will not occur.
ipc_socketl_watchtime	java.lang.Integer	Specifies an integer from 0 to 65535 as the waiting time for a temporary close response (unit: seconds). The default value is <u>180</u> . When 0 is specified, no operation is performed.
ipc_tcpnodelay	java.lang.Boolean	Specifies whether to use the <code>TCP_NODELAY</code> option for the socket used for establishing a connection with OpenTP1. <ul style="list-style-type: none"> If you specify <code>true</code> The <code>TCP_NODELAY</code> option will be used. If you specify <code>false</code> The <code>TCP_NODELAY</code> option will not be used. The default value is <u>false</u> .
max_connections	java.lang.Integer	Specifies an integer from 1 to 2032 for the maximum number of concurrent connections with the port that awaits RPC requests. The default value is <u>64</u> .
node_id	java.lang.String	Specifies the node identifier using 4 characters. Specify an alphabetic character (A to Z, a to z) as the first character and for the second and subsequent characters, use alphanumeric characters

config-property-name	config-property-type	config-property-value
node_id	java.lang.String	(A to Z, a to z, 0 to 9) or underscore (_). Specify a unique string for each TP1 inbound adapter. The default value is <u>Cos_</u> .
receive_buffer_size	java.lang.Integer	Specifies an integer from 8192 to 10485761, for the received buffer size. The default value is <u>8192</u> .
rpc_close_after_send	java.lang.Boolean	Specifies whether to close the connection after the message is sent to OpenTP1. <ul style="list-style-type: none"> • If you specify <code>true</code> The connection will be closed after the message is sent to OpenTP1. • If you specify <code>false</code> The connection will not be closed after the message is sent to OpenTP1. The default value is <u>false</u> . For results similar to 08-50, specify <code>true</code> .
rpc_max_thread_count	java.lang.Integer	Specifies an integer from 1 to 1024 as the maximum number of threads for receiving concurrent RPC requests. The default value is <u>10</u> .
rpc_receive_timeout	java.lang.Integer	Specifies an integer from 0 to 65535 for a timeout (unit: seconds) when receiving RPC requests. The default value is <u>180</u> . When 0 is specified, a timeout will not occur.
rpc_receive_timeout_interval	java.lang.Integer	Specifies an integer from 1 to 65535 for the timeout monitoring interval, when receiving RPC requests. The default value is <u>5</u> .
rpc_sockctl_highwater	java.lang.Integer	Specifies an integer from 0 to 100 as the threshold value (unit: percent (%)) to start the temporary close processing for RPC receiving connections. The default value is <u>100</u> .
rpc_sockctl_lowwater	java.lang.Integer	Specifies an integer from 0 to 100 as the percentage of number of connections (unit: percent (%)) where the temporary close processing for RPC receiving connections is an exception. The default value is <u>0</u> .
scd_port	java.lang.Integer	Specifies an integer from 5001 to 65535, for the port number of the port that awaits RPC requests. The default value is <u>23700</u> .
send_buffer_size	java.lang.Integer	Specifies an integer from 8192 to 10485761 for the sent buffer size for a reply. The default value is <u>8192</u> .
send_retry_count	java.lang.Integer	Specifies an integer from 0 to 65535 for the retry count, when an error occurs while establishing a TCP/IP connection for sending server responses. The default value is <u>1</u> . When 0 is specified, the system does not try to re-establish a connection.
send_retry_interval	java.lang.Integer	Specifies an integer from 0 to 300000 for the retry interval (unit: milliseconds), when an error occurs while establishing a TCP/IP connection for sending server responses. The default value is <u>0</u> . When 0 is specified, the system tries to establish the TCP/IP connection without any interval. This property becomes valid, when 1 to 65535 is specified in <code>send_retry_count</code> .
service_group	java.lang.String	Specifies 1 to 31 characters as the name of the service group for TP1 inbound adapter. Specify an alphabetic character (A to Z, a to z) as the first character and for the second and subsequent characters, use alphanumeric characters (A to Z, a to z, 0 to 9) or underscore (_). Specify a unique service group name among the J2EE servers.
tcp_receive_timeout	java.lang.Integer	Specifies an integer from 0 to 65535 for a timeout (unit: seconds) starting from establishing a connection or from the time of receiving current data until the next data is received. The default value is <u>10</u> .

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config-property-name	config-property-type	config-property-value
tcp_receive_timeout	java.lang.Integer	When 0 is specified, a timeout will not occur.
tcp_send_timeout	java.lang.Integer	Specifies an integer from 0 to 65535 for a timeout (unit: seconds) when sending replies for RPC requests. The default value is <u>10</u> . When 0 is specified, a timeout will not occur.
tcp_send_timeout_interval	java.lang.Integer	Specifies an integer from 1 to 65535 for a timeout monitoring interval when sending replies for RPC requests. The default value is <u>5</u> . Note that in 08-53 and later versions, the settings for this property are ignored.
trn_max_connections	java.lang.Integer	Specifies an integer from 1 to 2032 as the maximum number of concurrent connections for sending RPC requests. The default value is <u>64</u> .
trn_max_thread_count	java.lang.Integer	Specifies an integer from 1 to 1024 as the maximum number of concurrent threads used for sending and receiving synchronous point messages. The default value is <u>1</u> .
trn_port	java.lang.Integer	Specifies an integer from 5001 to 65535 for the port number of the port that awaits synchronization. The default value is <u>23900</u> .
trn_sockctl_highwater	java.lang.Integer	Specifies an integer from 0 to 100 as the threshold value (unit: percent (%)) to start the temporary close processing for RPC sending connections. The default value is <u>100</u> .
trn_sockctl_lowwater	java.lang.Integer	Specifies an integer from 0 to 100 as the percentage of number of connections (unit: percent (%)) where the temporary close processing for RPC sending connections is an exception. The default value is <u>0</u> .

4.1.12 Properties that you can specify in the <config-property> tag set up for resource adapters of Cosminexus JMS provider

This subsection describes the values that you can specify in the <config-property> tag set up for resource adapters (CJMSP resource adapters) of Cosminexus JMS provider.

Note that you can use template files for specifying the properties of CJMSP resource adapters. For details on the template files, see *4.1.14 Template files of the HITACHI Connector Property File*.

(1) Resource adapter (<resourceadapter>) settings

This subsection describes the properties that you can set up for resource adapters.

Table 4-12: Properties that you can set up for resource adapters (<resourceadapter>)

config-property-name	config-property-type	config-property-value
connectionURL	java.lang.String	Specifies a URL for connecting to Cosminexus JMS provider. The URL includes a host name, port number, and service name.
reconnectAttempts	java.lang.Integer	Specifies an integer from 1 to 2147483647 for the retry count, when an error occurs while establishing a connection with Cosminexus JMS provider. The default value is <u>6</u> .
reconnectEnabled	java.lang.Boolean	Specifies <i>true</i> (retry) or <i>false</i> (do not retry) for executing retry, when an error occurs while establishing a connection with Cosminexus JMS provider. The default value is <i>false</i> .
reconnectInterval	java.lang.Integer	Specifies an integer from 0 to 2147483647 for the retry interval (unit: milliseconds), when an error occurs while establishing a

config-property-name	config-property-type	config-property-value
reconnectInterval	java.lang.Integer	connection with Cosminexus JMS provider. The default value is <u>30000</u> .

The following is an example of specification:

```
<resourceadapter-class>com.cosminexus.jmsprovider.messaging.jms.ra.ResourceAdapter</
resourceadapter-class>
<config-property>
  <description xml:lang="en"/>
  <config-property-name>ConnectionURL</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
  <config-property-value>mq://localhost:7676</config-property-value>
</config-property>
<config-property>
  <description xml:lang="en"/>
  <config-property-name>ReconnectEnabled</config-property-name>
  <config-property-type>java.lang.Boolean</config-property-type>
  <config-property-value>>false</config-property-value>
</config-property>
<config-property>
  <description xml:lang="en"/>
  <config-property-name>ReconnectAttempts</config-property-name>
  <config-property-type>java.lang.Integer</config-property-type>
  <config-property-value>6</config-property-value>
</config-property>
<config-property>
  <description xml:lang="en"/>
  <config-property-name>ReconnectInterval</config-property-name>
  <config-property-type>java.lang.Integer</config-property-type>
  <config-property-value>30000</config-property-value>
</config-property>
```

! Important note

When setting the properties of resource adapters, if you try to start the resource adapters without editing the values of the administered object (AdminObject) for each queue or topic, an exception is thrown. This exception is output to `cjexceptionN.log` (N is the number of log files) in the log directory of the J2EE server.

(2) ManagedConnectionFactory (<config-property> of <managedconnectionfactory-class>) settings

This subsection describes the properties that you can set up in `ManagedConnectionFactory` (<config-property> of <managedconnectionfactory-class>).

Table 4-13: Properties specifiable in `ManagedConnectionFactory` (<config-property> of <managedconnectionfactory-class>)

config-property-name	config-property-type	config-property-value
clientId	java.lang.String	Specifies the client ID for connecting to Cosminexus JMS provider.
reconnectAttempts	java.lang.Integer	Specifies an integer from 1 to 2147483647 for the retry count when an error occurs while establishing a connection with Cosminexus JMS provider. The default value is <u>6</u> .
reconnectEnabled	java.lang.Boolean	Specifies <code>true</code> (retry) or <code>false</code> (do not retry) for executing retry when an error occurs while establishing a connection with Cosminexus JMS provider. The default value is <u>false</u> .
reconnectInterval	java.lang.Integer	Specifies an integer from 0 to 2147483647 for the retry interval (unit: milliseconds), when an error occurs while establishing a connection with Cosminexus JMS provider. The default value is <u>30000</u> .

The following is an example of specification. Note that `clientId` is not set up in the default status. Add the characters in **bold** as and when required.

```

<managedconnectionfactory-
class>com.cosminexus.jmsprovider.messaging.jms.ra.ManagedConnectionFactory</
managedconnectionfactory-class>
  <config-property>
    <description xml:lang="en"/>
    <config-property-name>ReconnectEnabled</config-property-name>
    <config-property-type>java.lang.Boolean</config-property-type>
    <config-property-value>>false</config-property-value>
  </config-property>
  <config-property>
    <description xml:lang="en"/>
    <config-property-name>ReconnectAttempts</config-property-name>
    <config-property-type>java.lang.Integer</config-property-type>
    <config-property-value>6</config-property-value>
  </config-property>
  <config-property>
    <description xml:lang="en"/>
    <config-property-name>ReconnectInterval</config-property-name>
    <config-property-type>java.lang.Integer</config-property-type>
    <config-property-value>30000</config-property-value>
  </config-property>
  <config-property>
    <config-property-name>ClientId</config-property-name>
    <config-property-type>java.lang.String</config-property-type>
    <config-property-value>Test</config-property-value>
  </config-property>

```

(3) Administered object (<adminobject>) settings

This subsection describes the properties that you can set up in the administered object (<config-property> of <adminobject>).

Table 4-14: Properties specifiable in the administered object (<config-property> of <adminobject>)

config-property-name	config-property-type	config-property-value
Description	java.lang.String	This property specifies additional information. Specify the required description. You can also specify spaces.
Name	java.lang.String	Specifies the destination name that is used for creating the destination specified in the <adminobject> tag. The destination is created with the name specified in this property.

The following is the tag information in the settings for the administered objects. A queue is created in this example. To create a topic, change the type of the destination.

```

<adminobject>
  <adminobject-name>TestQueue</adminobject-name>
  <adminobject-interface>javax.jms.Queue</adminobject-interface>
  <adminobject-class>com.cosminexus.jmsprovider.messaging.Queue</adminobject-class>
  <config-property>
    <description xml:lang="en"></description>
    <config-property-name>Name</config-property-name>
    <config-property-type>java.lang.String</config-property-type>
    <config-property-value>TestQueue</config-property-value>
  </config-property>
  <config-property>
    <description xml:lang="en"></description>
    <config-property-name>Description</config-property-name>
    <config-property-type>java.lang.String</config-property-type>
    <config-property-value></config-property-value>
  </config-property>
</adminobject>

```

(4) Log-related settings

This subsection describes the properties that you can set up for a log.

Table 4-15: Properties specifiable for a log

config-property-name	config-property-type	config-property-value
ExpLogFileNum	java.lang.Integer	Specifies an integer from 1 to 16 for the maximum number of log files to output the exception log. The default value is <u>2</u> .
ExpLogFileSize	java.lang.Integer	Specifies an integer from 8192 to 4194304 for the maximum log file size (bytes) to output the exception log. The default value is <u>1048576</u> . Once the specified size is reached, a new file is created, and the output destination of log is switched to the created file.
MsgLogFileNum	java.lang.Integer	Specifies an integer from 1 to 16 for the maximum number of log files to output the message log. The default value is <u>2</u> .
MsgLogFileSize	java.lang.Integer	Specifies an integer from 8192 to 4194304 for the maximum log file size (bytes) to output the message log. The default value is <u>1048576</u> . Once the specified size is reached, a new file is created, and the output destination of the log is switched to the created file.
MsgLogLevel	java.lang.String	Specifies the log level. Based on the specified level, the information is output to the log file. You can specify one of the following values: <ul style="list-style-type: none"> • ERROR • WARNING • INFO The default is <u>ERROR</u> .

! Important note

- The log file of the CJMSP resource adapter is output to the `cjms` directory below the `<ejb.server.log.directory>` directory. When the `cjms` directory does not exist, first the `cjms` directory is created below the `<ejb.server.log.directory>` directory, and then the log is output.
- The properties of the resource adapter are verified in both the J2EE server and the CJMSP resource adapter. When there is a problem in verifying a property with the J2EE server, an error message is output to the log file of the J2EE server, and then the processing stops. When there is a problem in verifying a property with the CJMSP resource adapter, a warning message is output to the log file of the CJMSP resource adapter; however, the property value is considered as the default value, and the processing continues.

4.1.13 Properties that you can specify for the `<property>` tag

This subsection describes the properties that you can specify for the `<property>` tag.

Table 4-16: List of information to be set in the `<property>` tag

property-name	property-type	property-value	Specifiable value	Default	Version
ConnectionPoolAdjustmentInterval	int	Specifies an integer (unit: seconds) for the interval at which the connection adjustment functionality is to be operated. If you specify 0, the operation is not performed.	Specify an integer value from 0 to 2147483647.	600	06-70
ConnectionTimeout	int	Specifies an integer (unit: seconds) for the timeout value until the connection is cancelled. If the time period from the last usage of connection until the time	Specify an integer value from 0 to 2147483647.	0	06-50

4. Property Files Used for Setting Resources

property-name	property-type	property-value	Specifiable value	Default	Version
ConnectionTimeout	int	when the timeout is determined is greater than the specified value, the connection sweeper deletes the connection. When 0 is specified, a timeout will not occur. We recommend that you use a value greater than 3600.	Specify an integer value from 0 to 2147483647.	0	06-50
LogEnabled	boolean	Specifies whether to output log using LogWriter. If you specify <code>true</code> : Log will be output using LogWriter. If you specify <code>false</code> : Log will not be output using LogWriter.	You can specify the following strings: <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	<code>true</code>	05-05
MaxPoolSize	int	Specifies the maximum number of connections within a pool. If you specify <code>-1</code> , the number of connections within a pool will be unlimited.	You can specify the following values (integers): <ul style="list-style-type: none"> • <code>-1</code> • 0 to 2147483647 	10	05-05
MaxThreadPoolSize#	int	Specifies an integer for the maximum number of threads executed concurrently in a thread pool. When the lifecycle management functionality is not enabled (when <code><resourceadapter-class></code> is not specified), the property value is ignored.	Specify an integer from 1 to 2147483647.	10	07-50
MinPoolSize	int	Specifies the minimum number of connections within a pool.	Specify an integer value from 0 to 2147483647.	10	05-05
MinThreadPoolSize#	int	Specifies an integer for the minimum number of threads existing in a thread pool. When the lifecycle management functionality is not enabled (when <code><resourceadapter-class></code> is not specified), the property value is ignored.	Specify an integer from 0 to 1024.	0	07-50
NetworkFailureTimeout	boolean	Specifies whether to enable the timeout value of the network failure detection functionality. If you specify <code>true</code> : The timeout of the network failure detection functionality is enabled. If you specify <code>false</code> : The timeout of the network failure detection functionality is disabled.	You can specify the following strings: <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	<code>true</code>	07-00
Password	String	Specifies the password.	There are no limitations for the input value.	None	05-05

property-name	property-type	property-value	Specifiable value	Default	Version
Password	String	<p>When a value is set in the <code><property-value></code> tag, this tag is not displayed for security reasons. To change the value, add the <code><property-value></code> tag, and then specify the value after change.</p> <p>When User or Password is set in the <code><property-name></code> tag when you execute the <code>cjgetresprop</code> or <code>cjgetrarprop</code> command, the tag will be displayed as follows:</p> <p>When a value is specified: Comment tag <code><!-- The property-value has already been set. --></code></p> <p>When no value is specified: Empty tag <code><></code></p>	There are no limitations for the input value.	None	05-05
RequestQueueEnable	boolean	<p>Specifies whether to enable the acquire connection queue when the connections are depleted.</p> <p>If you specify <code>true</code>: The acquire connection queue functionality is enabled when the connections are depleted.</p> <p>If you specify <code>false</code>: The acquire connection queue functionality is disabled when the connections are depleted.</p>	<p>You can specify the following strings:</p> <ul style="list-style-type: none"> <code>true</code> <code>false</code> 	<code>true</code>	06-50
RequestQueueTimeout	int	<p>Specifies an integer (unit: seconds) for the maximum time period for which the connection acquisition pending queue can be retained when the connections are depleted.</p> <p>If you specify 0, the connection waits in the queue infinitely.</p>	Specify an integer value from 0 to 2147483647.	30	06-50
RetryCount	int	<p>Specifies an integer (unit: number of times) for the connection retry frequency.</p>	Specify an integer value from 0 to 2147483647.	0	05-05
RetryInterval	int	<p>Specifies an integer (unit: seconds) for the connection retry interval.</p> <p>This property is enabled when <code>RetryCount</code> is 1 or more.</p>	Specify an integer from 1 to 2147483647.	10	05-05
SweeperInterval	int	<p>Specifies an integer (unit: seconds) for the operation time interval of the connection sweeper.</p> <p>A connection sweeper operates at the specified interval and deletes the connection that has timed out. When 0 is specified, connection sweeper does not operate.</p>	Specify an integer value from 0 to 2147483647.	0	06-50

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property-name	property-type	property-value	Specifiable value	Default	Version
SweeperInterval	int	We recommend that you use a value greater than 3600.	Specify an integer value from 0 to 2147483647.	0	06-50
TThreadPoolKeepalive#	int	Specifies an integer for the timeout value (unit: seconds) until the release of threads of a thread pool. When the lifecycle management functionality is not enabled (when <code><resourceadapter-class></code> is not specified), the property value is ignored.	Specify an integer from 1 to 2147483647.	300	07-50
User	String	Specifies the user name. When a value is set in the <code><property-value></code> tag, this tag is not displayed for security reasons. To change the value, add the <code><property-value></code> tag, and then specify the value after change. When <code>User</code> or <code>Password</code> is set in the <code><property-name></code> tag when you execute the <code>cjgetresprop</code> or <code>cjgetrarprop</code> command, the tag will be displayed as follows: When a value is specified: Comment tag <code><!-- The property-value has already been set. --></code> When no value is specified: Empty tag <code><></code>	There are no limitations for the input value.	None	05-05
ValidationInterval	int	Specifies an integer (unit: seconds) for the connection check interval.	Specify an integer from 1 to 2147483647.	3600	05-05
ValidationType	int	Specifies the trigger for checking the connection. You can specify the following values: <ul style="list-style-type: none"> • 0: Check connection functionality Off • 1: Check when acquiring the connection • 2: Check at fixed intervals 	You can specify the following values (integers): <ul style="list-style-type: none"> • 0 • 1 • 2 	1	05-05
Warmup	boolean	Specifies whether to enable the warming up functionality of the connection pool. If you specify <code>true</code> : The warming up functionality of the connection pool is enabled. If you specify <code>false</code> : The warming up functionality of the connection pool is disabled.	You can specify the following strings: <ul style="list-style-type: none"> • <code>true</code> • <code>false</code> 	<code>true</code>	07-00

property-name	property-type	property-value	Specifiable value	Default	Version
WatchEnabled	boolean	Specifies whether to enable the output of an alert for connection pool monitoring. If you specify <code>true</code> : Alert output is enabled. If you specify <code>false</code> : Alert output is disabled.	You can specify the following strings: • <code>true</code> • <code>false</code>	<code>true</code>	06-50
WatchInterval	int	Specifies an integer (unit: seconds) for the connection pool monitoring interval.	Specify an integer from 1 to 2147483647.	30	06-50
WatchThreshold	int	Specifies an integer (unit: %) for the threshold value for monitoring the connection pool usage status.	Specify an integer from 1 to 100.	80	06-50
WatchWriteFileEnabled	boolean	Specifies whether to output the connection pool monitoring result to a file. If you specify <code>true</code> : The result is output to a file. If you specify <code>false</code> : The result is not output to a file.	You can specify the following strings: • <code>true</code> • <code>false</code>	<code>true</code>	06-50

Legend:

--: Not set up

#

The property value is ignored when the lifecycle management functionality is not enabled (when `<resourceadapter-class>` is not specified).

4.1.14 Template files of the HITACHI Connector Property File

When you set up new properties of a DB Connector, TP1 inbound adapter, and resource adapters of Cosminexus JMS provider, you can use the template files that Cosminexus Component Container provides.

If you use these template files, you can edit the HITACHI Connector Property File before importing a DB Connector. You copy a template file and then use the file. The template file is in the *xml* file format.

Note that when you want to change the properties of a DB Connector, TP1 inbound adapter, and resource adapters of Cosminexus JMS provider where the properties are already setup, do not use the template file. You acquire the Connector properties of the imported DB Connector, TP1 inbound adapter, and resource adapters of Cosminexus JMS provider, and then edit the HITACHI Connector Property File.

This subsection describes template files and the storage location of the template files for DB Connector, TP1 inbound adapter, and resource adapters of Cosminexus JMS provider.

(1) Template files of DB Connector

File storage location

- In Windows
Cosminexus-installation-directory\CC\admin\templates\
- In UNIX
/opt/Cosminexus/CC/admin/templates/

4. Property Files Used for Setting Resources

Template files

The following table lists and describes the DB Connector template files that Cosminexus Component Container provides.

Table 4-17: List of DB Connector template files

Template file name	Description
DBConnector_HiRDB_Type4_CP_cfg.xml	Template file of the HITACHI Connector Property File of DB Connector used for HiRDB Type4 JDBC Driver (for local transactions).
DBConnector_HiRDB_Type4_XA_cfg.xml	Template file of the HITACHI Connector Property File of DB Connector used for HiRDB Type4 JDBC Driver (for global transactions).
DBConnector_Oracle_CP_cfg.xml	Template file of the HITACHI Connector Property File of DB Connector used for Oracle JDBC Thin Driver (for local transactions).
DBConnector_Oracle_XA_cfg.xml	Template file of the HITACHI Connector Property File of DB Connector used for Oracle JDBC Thin Driver (for global transactions).
DBConnector_SQLServer_CP_cfg.xml	Template file of the Connector properties of DB Connector used for SQL Server JDBC Driver (for local transactions).
DBConnector_HiRDB_Type4_CP_Cosminexus_RM_cfg.xml	Template file of the HITACHI Connector Property File of DB Connector for Cosminexus RM used for HiRDB Type4 JDBC Driver (for local transactions).
DBConnector_HiRDB_Type4_XA_Cosminexus_RM_cfg.xml	Template file of the HITACHI Connector Property File of DB Connector for Cosminexus RM used for HiRDB Type4 JDBC Driver (for global transactions).
DBConnector_Oracle_CP_Cosminexus_RM_cfg.xml	Template file of the HITACHI Connector Property File of DB Connector for Cosminexus RM used for Oracle JDBC Thin Driver (for local transactions).
DBConnector_Oracle_XA_Cosminexus_RM_cfg.xml	Template file of the Connector properties of DB Connector for Cosminexus Reliable Messaging used for Oracle JDBC Thin Driver (for global transactions).
DBConnector_CP_ClusterPool_Root_cfg.xml	Template file of the HITACHI Connector Property File of the root resource adapter of a cluster connection pool (for local transactions).
DBConnector_Oracle_CP_ClusterPool_Member_cfg.xml	Template file of the HITACHI Connector Property File of DB Connector used for Oracle JDBC Thin Driver that is a member resource adapter of a cluster connection pool (for local transactions).

(2) Template files of TP1 inbound adapter

File storage location

- In Windows
Cosminexus-installation-directory\CC\admin\templates\
- In UNIX
/opt/Cosminexus/CC/admin/templates/

Template files

The following table lists and describes the template files of the TP1 inbound adapter that Cosminexus Component Container provides.

Table 4-18: List of template files of TP1 inbound adapter

Template file name	Description
TP1InboundAdapter_cfg.xml	Template file of the HITACHI Connector Property File for TP1 inbound adapters.

(3) Template files of resource adapters of Cosminexus JMS provider

File storage location

- In Windows
Cosminexus-installation-directory\CC\cjmsp\lib\templates\
- In UNIX
/opt/Cosminexus/CC/cjmsp/lib/templates/

Template files

The following table lists and describes the template files of resource adapters of Cosminexus JMS provider that Cosminexus Component Container provides.

Table 4-19: List of template files of resource adapters of Cosminexus JMS provider

Template file name	Description
Cosminexus_JMS_Provider_RA_cfg.xml	Template file of the property file used for Cosminexus_JMS_Provider_RA.

(4) Notes

When the property file provided by the template file is used without using the server management commands, you must rewrite the URL specifications of the DOCTYPE declaration according to the environment used.

Example

Before change

C:/Program%20Files/Hitachi/Cosminexus

After change

Cosminexus-installation-directory

4.1.15 Mapping with DD

The following table describes the correspondence between the HITACHI Connector Property file and the Deployment Descriptor.

(1) In Connector 1.0

HITACHI Connector Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-connector-property>	Once	<connector>	Once
<description>	Zero or more times	<description>	Zero or once
<display-name>	Zero or more times	<display-name>	Zero or once
<icon>	Zero or more times	<icon>	Zero or once
<small-icon>	Zero or once	<small-icon>	Zero or once
<large-icon>	Zero or once	<large-icon>	Zero or once
<vendor-name>	Once	<vendor-name>	Once
<spec-version>	Once	<spec-version>	Once
<eis-type>	Once	<eis-type>	Once
<version>	Once	<version>	Once
<license>	Zero or once	<license>	Zero or once

4. Property Files Used for Setting Resources

HITACHI Connector Property file			Deployment Descriptor		
Tag name		Occurrence pattern	Tag name		Occurrence pattern
	<description>	Zero or more times		<description>	Zero or once
	<license-required>	Once		<license-required>	Once
	<resourceadapter>	Once		<resourceadapter>	Once
	<outbound-resourceadapter>	Zero or once		--	--
	<connection-definition>	One or more times		--	--
	<managedconnectionfactory-class>	Once		<managedconnectionfactory-class>	Once
	<config-property>	Zero or more times		<config-property>	Zero or more times
	<description>	Zero or more times		<description>	Zero or once
	<config-property-name>	Once		<config-property-name>	Once
	<config-property-type>	Once		<config-property-type>	Once
	<config-property-value>	Zero or once		<config-property-value>	Zero or once
	<connectionfactory-interface>	Once		<connectionfactory-interface>	Once
	<connectionfactory-impl-class>	Once		<connectionfactory-impl-class>	Once
	<connection-interface>	Once		<connection-interface>	Once
	<connection-impl-class>	Once		<connection-impl-class>	Once
	<connector-runtime>	Zero or once		--	--
	(Omitted)	--		--	--
	<transaction-support>	Once		<transaction-support>	Once
	--	--		<authentication-mechanism>	Zero or more times
	--	--		<description>	Zero or once
	--	--		<authentication-mechanism-type>	Once
	--	--		<credential-interface>	Once
	<reauthentication-support>	Once		<reauthentication-support>	Once
	<security-permission>	Zero or more times		<security-permission>	Zero or more times
	<description>	Zero or more times		<description>	Zero or once
	<security-permission-spec>	Once		<security-permission-spec>	Once

HITACHI Connector Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<resourceadapter-runtime>	Zero or once	--	--

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

(2) In Connector 1.5

HITACHI Connector Property file		Deployment Descriptor	
Tag name	Occurrence pattern	Tag name	Occurrence pattern
<hitachi-connector-property>	Once	<connector>	Once
<description>	Zero or more times	<description>	Zero or more times
<display-name>	Zero or more times	<display-name>	Zero or more times
<icon>	Zero or more times	<icon>	Zero or more times
<small-icon>	Zero or once	<small-icon>	Zero or once
<large-icon>	Zero or once	<large-icon>	Zero or once
<vendor-name>	Once	<vendor-name>	Once
<spec-version>	Once	(version property of the <connector> tag)	--
<eis-type>	Once	<eis-type>	Once
<version>	Once	<resourceadapter-version>	Once
<license>	Zero or once	<license>	Zero or once
<description>	Zero or more times	<description>	Zero or more times
<license-required>	Once	<license-required>	Once
<resourceadapter>	Once	<resourceadapter>	Once
<resourceadapter-class>	Zero or once	<resourceadapter-class>	Zero or once
<config-property>	Zero or more times	<config-property>	Zero or more times
<description>	Zero or more times	<description>	Zero or more times
<config-property-name>	Once	<config-property-name>	Once
<config-property-type>	Once	<config-property-type>	Once
<config-property-value>	Zero or once	<config-property-value>	Zero or once
<outbound-resourceadapter>	Zero or once	<outbound-resourceadapter>	Zero or once
<connection-definition>	One or more times	<connection-definition>	One or more times

4. Property Files Used for Setting Resources

HITACHI Connector Property file				Deployment Descriptor			
Tag name			Occurrence pattern	Tag name			Occurrence pattern
		<managedconnectionfactory-class>	Once			<managedconnectionfactory-class>	Once
		<config-property>	Zero or more times			<config-property>	Zero or more times
		<description>	Zero or more times			<description>	Zero or more times
		<config-property-name>	Once			<config-property-name>	Once
		<config-property-type>	Once			<config-property-type>	Once
		<config-property-value>	Zero or once			<config-property-value>	Zero or once
		<connectionfactory-interface>	Once			<connectionfactory-interface>	Once
		<connectionfactory-impl-class>	Once			<connectionfactory-impl-class>	Once
		<connection-interface>	Once			<connection-interface>	Once
		<connection-impl-class>	Once			<connection-impl-class>	Once
		<connector-runtime>	Zero or once			--	--
		(Omitted)	--			--	--
		<transaction-support>	Once			<transaction-support>	Once
		--	--			<authentication-mechanism>	Zero or more times
		--	--			<description>	Zero or more times
		--	--			<authentication-mechanism-type>	Once
		--	--			<credential-interface>	Once
		<reauthentication-support>	Once			<reauthentication-support>	Once
		<inbound-resourceadapter>	Zero or once			<inbound-resourceadapter>	Zero or once
		<messageadapter>	Zero or once			<messageadapter>	Zero or once
		<messagelistener>	One or more times			<messagelistener>	One or more times
		<messagelistener-type>	Once			<messagelistener-type>	Once
		<activation-spec>	Once			<activation-spec>	Once
		<activation-spec-class>	Once			<activation-spec-class>	Once

HITACHI Connector Property file					Deployment Descriptor						
Tag name					Occurrence pattern	Tag name					Occurrence pattern
				<required-config-property>	Zero or more times					<required-config-property>	Zero or more times
				<description>	Zero or more times					<description>	Zero or more times
				<config-property-name>	Once					<config-property-name>	Once
				<adminobject>	Zero or more times					<adminobject>	Zero or more times
				<adminobject-name>	Zero or once					--	--
				<adminobject-interface>	Once					<adminobject-interface>	Once
				<adminobject-class>	Once					<adminobject-class>	Once
				<config-property>	Zero or more times					<config-property>	Zero or more times
				<description>	Zero or more times					<description>	Zero or more times
				<config-property-name>	Once					<config-property-name>	Once
				<config-property-type>	Once					<config-property-type>	Once
				<config-property-value>	Zero or once					<config-property-value>	Zero or once
				<config-property-value>	Zero or once					<config-property-value>	Zero or once
				<security-permission>	Zero or more times					<security-permission>	Zero or more times
				<description>	Zero or more times					<description>	Zero or more times
				<security-permission-spec>	Once					<security-permission-spec>	Once
				<resourceadapter-runtime>	Zero or once					--	--

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

4.1.16 Mapping with cosminexus.xml

The following table describes the correspondence between the HITACHI Connector Property file and cosminexus.xml:

4. Property Files Used for Setting Resources

HITACHI Connector Property file				cosminexus.xml			
Tag name		Occurrence pattern	Tag name		Occurrence pattern		
<hitachi-connector-property>		Once	<rar>		Zero or more times		
<description>		Zero or more times	--		--		
<display-name>		Zero or more times	--		--		
--		--	<module-name>#1		Once		
<resourceadapter>		Zero or once	<resourceadapter>#2		Zero or once		
<outbound-resourceadapter>		Zero or once	<outbound-resourceadapter>		Zero or once		
<connection-definition>		One or more times	<connection-definition>		One or more times		
--		--	<connectionfactory-interface>		Once		
<connector-runtime>		Zero or once	--		--		
<property>		Zero or more times	<connector-property>		Zero or more times		
<property-name>		Once	<property-name>		Once		
<property-type>		Once	--		--		
<property-value>		Zero or once	<property-value>#2		Once		
<property-default-value>		Zero or once	--		--		
<resource-external-property>		Zero or more times	<resource-external-property>		Zero or more times		
<description>		Zero or once	--		--		
<optional-name>		Once	<optional-name>		Once		
<res-auth>		Zero or once	<res-auth>		Zero or once		
<res-sharing-scope>		Zero or once	<res-sharing-scope>		Zero or once		
<adminobject>		Zero or more times	<adminobject>		Zero or more times		
<adminobject-name>		Zero or once	<adminobject-name>#2		Once		
(Omitted)		--	--		--		
<security-permission>		Zero or more times	--		--		
(Omitted)		--	--		--		
<resourceadapter-runtime>		Zero or once	--		--		

HITACHI Connector Property file			cosminexus.xml			
Tag name		Occurrence pattern	Tag name		Occurrence pattern	
	<property>	Zero or more times		<resourceadapter-property>	Zero or more times	
	<property-name>	Once		<property-name>	Once	
	<property-type>	Once		--	--	
	<property-value>	Zero or once		<property-value>#2	Once	
	<property-default-value>	Zero or once	--		--	

Legend:

--: No corresponding tag. Alternatively, the description of the occurrence pattern is omitted because the corresponding tag does not exist or the tag is omitted.

(Omitted): The tag is omitted.

#1

This tag corresponds to <application>-<module>-<connector> in the application.xml, does not exist in the property file, and is unique to cosminexus.xml. This tag is the key for identifying the resource adapter.

#2

The occurrence pattern is different from the property file because only the elements to be customized are coded in cosminexus.xml.

4.2 HITACHI JavaBeans Resource Property file

The HITACHI JavaBeans Resource Property file is used to acquire and edit the properties of the JavaBeans.

4.2.1 Specifications of the HITACHI JavaBeans Resource Property file

The HITACHI JavaBeans Resource Property file has the following DOCTYPE declaration:

```
<!DOCTYPE hitachi-javabeans-resource-property PUBLIC "-//Hitachi, Ltd.//DTD JavaBeans
Resource Property 7.0//EN" 'file:///Cosminexus-installation-directory/CC/admin/dtds/hitachi-javabeans-
resource-property_7_0.dtd'>
```

The HITACHI JavaBeans Resource Property file is an xml file containing the following tags. Note that you can also use the earlier versions of the property file.

Tag name	Occurrence pattern	Description
<hitachi-javabeans-resource-property>	Once	This is the root tag.
<description>	Zero or once	Describes the JavaBeans resource.
<display-name>	Once	Specifies the display name of the JavaBeans resource. $1 \leq \text{character-string-length} \leq 240$. To change the value, you can use alphanumeric characters (0 to 9, A to Z, a to z), and the following special characters: Space (), exclamation mark (!), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), left parenthesis and right parenthesis (()), plus sign (+), hyphen (-), period (.), semicolon (;), less-than sign (<), greater-than sign (>), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~) You cannot, however, specify the following names: <ul style="list-style-type: none"> • Name containing a period (.) at the beginning or at the end • Name containing only a period (.) Also, any single-byte space at the beginning or end of the character string is removed and does not cause an error.
<res-type>	Zero or once	Specifies the resource type. Specify the class name of the JavaBeans resource. You can omit the resource type when the name is the same as <class-name>.
<class-name>	Once	Specifies the implementation class name. Specify the implementation class name of the JavaBeans resource.
<runtime>	Once	--
<property>	Zero or more times	If the <property> tag is specified multiple times and if the setup value of <property-name> is the same, the tags are merged together. In this case, a warning message (KDJE37600-W) is output and the value of <property-value> of the <property> tag that was defined later is enabled.
<property-name>	Once	Specifies the property name. Specify the set method name and get method name of the JavaBeans resource.
<property-type>	Once	Specifies the types of Java property values.

Tag name	Occurrence pattern	Description
<code><property-type></code>	Once	<p>You can specify the following types:</p> <ul style="list-style-type: none"> • <code>int</code> • <code>long</code> • <code>short</code> • <code>byte</code> • <code>double</code> • <code>float</code> • <code>boolean</code> • <code>char</code> • <code>java.lang.Integer</code> • <code>java.lang.Long</code> • <code>java.lang.Short</code> • <code>java.lang.Byte</code> • <code>java.lang.Double</code> • <code>java.lang.Float</code> • <code>java.lang.Boolean</code> • <code>java.lang.Character</code> • <code>java.lang.String</code>
<code><property-value></code>	Zero or once	Specifies the property value.
<code><resource-env-external-property></code>	Zero or more times	--
<code><description></code>	Zero or once	Describes the optional name of the resource environment.
<code><optional-name></code>	Once	<p>Specifies the optional name of the resource environment.</p> <p>You can use alphanumeric characters (0 to 9, A to Z, a to z) and the following special characters in the value:</p> <p>Space (), exclamation mark (!), double quotation mark ("), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), single quotation mark ('), left parenthesis and right parenthesis (()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), forward slash (/), colon (:), semicolon (;), less-than sign (<), equal sign (=), greater-than sign (>), question mark (?), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~).</p> <p>You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> • Names beginning with the reserved word <code>HITACHI_EJB</code> (case sensitive) • Names in which forward slash (/) or period (.) is specified at the beginning or end • Names containing only forward slash (/) or period (.) • Names containing continuous forward slashes (/) <p>Any space or linefeed at the beginning or end of the character string is removed and does not cause an error. If a space or linefeed appears in the middle of the character string, an error occurs.</p> <p>If multiple <code><resource-external-property></code> tags are specified within the same resource, and the specified value of <code><optional-name></code> configures the lower hierarchy of the specified value of another <code><optional-name></code> tag, a warning message (KDJE37602-W) is output.</p>

4. Property Files Used for Setting Resources

Tag name	Occurrence pattern	Description
<code><optional-name></code>	Once	Example: Optional name 1: AAA Optional name 2: AAA/BBB $1 \leq \textit{character-string-length} \leq 255$

4.3 HITACHI Mail Property file

The HITACHI Mail Property file has the following DOCTYPE declaration:

```
<!DOCTYPE hitachi-mail-property PUBLIC "-//Hitachi, Ltd.//DTD Mail Property 7.1//EN"
'file:///Cosminexus-installation-directory/CC/admin/dtds/hitachi-mail-property_7_1.dtd'>
```

The HITACHI Mail Property file is an xml file containing the following tags:

Tag name	Occurrence pattern	Description
<hitachi-mail-property>	Once	This is the root tag.
<description>	Zero or once	Describes the setup information.
<display-name>	Once	<p>Specifies the mail display name.</p> <p>$1 \leq \text{character-string-length} \leq 240$.</p> <p>To change the value, you can use alphanumeric characters (0 to 9, A to Z, a to z), and the following special characters:</p> <p>Space (), exclamation mark (!), hash mark (#), dollar sign (\$), percent sign (%), ampersand (&), left parenthesis and right parenthesis (()), plus sign (+), hyphen (-), period (.), semicolon (;), less-than sign (<), greater-than sign (>), at mark (@), square brackets ([]), yen sign (¥), caret (^), underscore (_), grave accent mark (`), curly brackets ({ }), vertical bar (), and tilde (~)</p> <p>You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> • Name containing a period (.) at the beginning or at the end • Name containing a period (.) only <p>Also, any single-byte space at the beginning or end of the character string is removed and does not cause an error.</p>
<from>	Once	Specifies the mail address of the sender.
<server>	Once	Specifies the host name or IP address of the mail server.
<runtime>	Zero or once	--
<resource-external-property>	Zero or more times	If the <resource-external-property> tag is specified multiple times and if the setup value of <optional-name> is the same, the tags are merged together. In this case, a warning message (KDJE37600-W) is output and the value of <res-auth> and <res-sharing-scope> of the <resource-external-property> tag that was defined later is enabled.
<description>	Zero or once	Describes the optional name of the resource.
<optional-name>	Once	<p>Specifies the optional name of the resource.</p> <p>When setting the value, you can use alphanumeric characters (0 to 9, A to Z, a to z), underscore (_), hyphen (-), period (.), and forward slash (/) as the hierarchical delimiter.</p> <p>You cannot, however, specify the following names:</p> <ul style="list-style-type: none"> • Names beginning with the reserved word HITACHI_EJB (case sensitive) • Names in which forward slash (/) or period (.) is specified at the beginning or end

4. Property Files Used for Setting Resources

Tag name	Occurrence pattern	Description
<p><optional-name></p>	<p>Once</p>	<ul style="list-style-type: none"> • Names containing only forward slash (/) or period (.) • Names containing continuous forward slashes (/) <p>Any space or linefeed at the beginning or end of the character string is removed and does not cause an error. If a space or linefeed appears in the middle of the character string, an error occurs.</p> <p>If multiple <resource-external-property> tags are specified within the same resource, and the specified value of <optional-name> configures the lower hierarchy of the specified value of another <optional-name> tag, a warning message (KDJE37602-W) is output.</p> <p>Example:</p> <pre>Optional name 1: AAA Optional name 2: AAA/BBB</pre> <p>$1 \leq \textit{character-string-length} \leq 255$</p>
<p><res-auth></p>	<p>Zero or once</p>	<p>Specifies whether the authentication for using the resource is to be performed in the application or is to be entrusted to the container.</p> <p>You can specify the following strings:</p> <ul style="list-style-type: none"> • Application • Container <p>The default value is <u>Container</u>.</p>
<p><res-sharing-scope></p>	<p>Zero or once</p>	<p>Specifies whether to share the resource connection.</p> <p>You can specify the following strings:</p> <ul style="list-style-type: none"> • Shareable • Unshareable <p>The default value is <u>Shareable</u>.</p>

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