FUJITSU Software

Interstage Application Server

Reference Manual
(Command Edition)

Windows/Solaris/Linux

Preface

Purpose of this Document

This manual explains the commands provided by Interstage Application Server.

Note

Throughout this manual Interstage Application Server is referred to as Interstage.

Intended Readers

This manual is intended for users of Interstage Application Server and developers of distributed applications with Interstage Application Server.

It is assumed that readers of this manual have a basic knowledge of:

- The Internet

- Object-oriented technology

- Distributed object technology (CORBA)

- Relational databases

- AIM on a global server

- XML

- Web service

- Basic knowledge of the OS used

Structure of This Document

The structure of this manual is as follows:

Chapter 1 Notes on Using Commands

This chapter provides general notes on using Interstage commands.

Part 1 Interstage Operation Edition

Chapter 2 Interstage Setup Commands

This chapter describes the commands for running Interstage in its entirety.

Chapter 3 Interstage Management Console Commands

This chapter describes the commands for using the Interstage Management Console.

Chapter 4 Interstage JMX Service Operation Commands

This chapter describes the JMX service operation commands.

Part 2 Multiserver Edition

Chapter 5 Multiserver Management Commands Windows32/64 Solaris32 Linux32/64

This chapter describes the Multiserver Management commands.

Part 3 J2EE Edition

Chapter 6 J2EE Operation Commands

This chapter describes the operation commands provided by J2EE.

Chapter 7 EJB Service Operation Commands

This chapter describes the EJB Service operation commands.

Conventions

Representation of Platform-specific Information

In the manuals of this product, there are parts containing content that relates to all products that run on the supported platform. In this case, an icon indicating the product platform has been added to these parts if the content varies according to the product. For this reason, refer only to the information that applies to your situation.

Windows32	Indicates that this product (32-bit) is running on Windows.
Windows64	Indicates that this product (64-bit) is running on Windows.
Windows32/64	Indicates that this product (32/64-bit) is running on Windows.
Solaris32	Indicates that this product (32-bit) is running on Solaris.
Solaris64	Indicates that this product (64-bit) is running on Solaris.
Solaris32/64	Indicates that this product (32/64-bit) is running on Solaris.
Linux32	Indicates that this product (32-bit) is running on Linux.
Linux64	Indicates that this product (64-bit) is running on Linux.
Linux32/64	Indicates that this product (32/64-bit) is running on Linux.

Abbreviations

Read occurrences of the following Components as their corresponding Service.

Service	Component
CORBA Service	ObjectDirector
Component Transaction Service	TransactionDirector

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Contents

Chapter 1 Notes on Using Commands

1.1 Notes on Using Commands in Windows Server x64 Editions (32-bit compatibility)

Windows64

The 32-bit command prompt must be used to execute Interstage Application Server commands on Windows Server x64 Editions (32-bit compatibility). Use the following method to open the 32-bit command prompt:

1. From Windows, click Start, then click Run.

2. In the Run dialog, enter the following text:

    %windir%\SysWoW64\cmd.exe

3. Click the OK button.

1.2 Notes on Using Commands in Windows Vista(R) or later

To use the Interstage Application Server client package or other products (such as Interstage Studio) in which this product is bundled in Windows Vista(R) or later, execute the commands mentioned in this manual for which administrator permissions are required from the administrator command prompt.

The method to start the administrator command prompt is shown below.

1. Click the [Start] button, select [All Programs](*1) > [Accessories] > [Command Prompt], and then right-click the mouse.

2. From the context menu, click [Run as administrator].

3. In the user account control dialog box, click [Continue].

*1 in the classic [Start] menu, this is [Programs].

1.3 Notes on Using Commands in Windows Server(R) 2008 or later

If the user is not the built-in account "Administrator", execute the commands mentioned in this manual for which administrator permissions are required from the administrator command prompt.

The method to start the administrator command prompt is shown below.

1. Click the [Start] button, select [All Programs](*1) > [Accessories] > [Command Prompt], and then right-click the mouse.

2. From the context menu, click [Run as administrator].

3. In the user account control dialog box, click [Continue].

*1 in the classic [Start] menu, this is [Programs].

1.4 User Permissions

Solaris32/64 Linux32/64

If secure mode is selected during Application Server installation, or this mode is activated using the *issetsecuritymode* command, the permission required to execute the commands below is changed from general user to the group nominated for secure mode.

To permit a user other than root to execute these commands when secure mode is active, change the effective group of the user to the nominated group.

For details on how to set and check effective groups, refer to "Common Security Measures" > "Notes on Interstage Installation Resources" in the Security System Guide.

CORBA Service Operation Commands

- *OD_impl_inst*
- *OD_or_adm*
- *OD_set_env*
- *odcntlque*
- *odlistir*
- *odlistns*
- *odlistproc*
- *odlistque*
- *odsetque*

WorkUnit Management Commands

- *isaddwudef*
- *iscancelque*
- *isdelwudef*
- *isinfobj*
- *isinfwudef*
- *isinhibitque*
- *islistaplproc*
- *islistobj*
- *islistwu*
- *islistwudef*
- *ismodifyprocnum*
- *ispermitque*
- *isrecoverwu*
- *isresetretrycount*
- *isstartwu*
- *isstopwu*

J2EE Operation Commands

- *ijscompilejsp*
- *ijsdeployment*
- *ijslistapl*
- *ijstune*
- *ijsundeployment*
- *isj2eeadmin*
- *isj2eemonitor*

EJB Service Operation Commands

- *ejbdefexport*

- *ejbdefimport*

Interstage Directory Service Operation Commands

- *ldapdelete*

- *ldapmodify*

- *ldapsearch*

Application Development Commands

- *IDLc*

- *otslinkrsc*

- *otsmkxapgm*

Backup Commands

- *odexportir*

- *odexportns*

- *odimportir*

- *odimportns*

Maintenance Commands

- *odcntllog*

- *odcvttrace*

- *oddumpresp*

- *odformsnap*

- *odformtrace*

- *odfreesnap*

- *odlistsnap*

- *odprtcurparam*

- *odprtthdrtrace*

- *odprtsetparam*

- *odstartsnap*

- *odstopsnap*

Load Balancing Operation Commands

- *odadministerlb*

- *oddisplaylbojb*

- *odnotifydown*

- *odntofiyrecover*

Part 1   Interstage Operation Edition
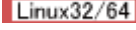
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Chapter 2 Interstage Setup Commands

This chapter details the Interstage setup commands.

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
iscreatesys Solaris32	Creates a system	NO	OK (*1)
isdeletesys Solaris32	Deletes a system	NO	OK (*1)
islistsys Solaris32	Displays a list of systems	NO	OK (*1)
isgendef	Generates Interstage System Definition	OK (*2)	OK (*1)
isinit	Initializes Interstage	OK (*2)	OK (*1)
isinitservice	This command restores the environment where it was set up, immediately after Interstage installation	OK (*2)	OK
ismodifyservice	An addition/change/deletion of service by Interstage employment environment, change the monitoring mode	OK (*2)	OK
isregistdef	Generates an Interstage operating environment definition	OK (*2)	OK (*1)
isstart	Starts Interstage	OK	OK
isstat	Displays the Interstage starting status	OK	OK
isstop	Stops Interstage	OK	OK
K00stopis Solaris32/64 Linux32/64	Stops the Interstage service	OK	OK
S99startis Solaris32/64 Linux32/64	Starts the Interstage service	OK	OK
issetfoldersecurity Windows32/64	Interstage resource access authority settings	OK	OK
issetsecuritymode Solaris32/64 Linux32/64	Interstage resource access authority settings	OK	OK

OK: Support

NO: No support

*1 If Multilanguage Service or J2EE compatibility has been installed

*2 If J2EE compatibility has been installed

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Command	Directory
Windows32/64	All	C:\Interstage\bin

Platform	Command	Directory
Solaris32/64	iscreatesys Solaris32	/opt/FSUNtd/bin
	isdeletesys Solaris32	
	isgendef	
	isinit	
	isinitservice	
	islistsys Solaris32	
	ismodifyservice	
	isregistdef	
	isstart	
	isstat	
	isstop	
	K00stopis	
	S99startis	
	issetsecuritymode	/opt/FJSVisas/bin
Linux32/64	isgendef	/opt/FJSVtd/bin
	isinit	
	isinitservice	
	ismodifyservice	
	isregistdef	
	isstart	
	isstat	
	isstop	
	K00stopis	
	S99startis	
	issetsecuritymode	/opt/FJSVisas/bin

2.1 iscreatesys

Name

iscreatesys

Creates a system

Synopsis

 Solaris32

```
iscreatesys {[-d directory path] | [-a]} system-name
```

Description

This command creates a system.

The option and argument for this command is as follows:

In addition, the -d option and -a option cannot be specified simultaneously.

-d directory path

Specify the directory in which system resources are to be stored. It specifies in the character sequence except the blank character which starts in "/." The maximum length who can specify is 512 bytes. If this argument is omitted, a system directory is generated like a default system (under <FJSVisas package installation directory>/var/system).

-a

Adds components installed after system creation to the system. Specify a system name that is already created.

system-name

Specify the name of the system to be created. The system name must be unique in the server and consist of alphanumeric characters beginning with an upper-case letter (within 8 bytes). The system name is case-sensitive.

Notes

- Only system administrators are authorized to execute this command.

- The following paths cannot be specified in the -d option:

    - directories under /opt/FJSVisas/var/system

    - directories under <FJSVisas package installation directory>/var/system

    - directories under /var/opt/FJSVisas/system

    - directories under < FJSVisas package temporary file installation directory>/var/system

Example

```
iscreatesys   system1
iscreatesys  -d /proj system1
iscreatesys  -a system1
```

2.2 isdeletesys

Name

isdeletesys

Deletes a system

Synopsis

Solaris32

```
isdeletesys system-name
```

Description

This command deletes a system.

The argument for this command is as follows:

system-name

Specify the name of the system to be deleted. Specify a unique system name on the server using alphanumeric characters of up to eight bytes. Uppercase and lowercase characters are distinguished.

Notes

- Only system administrators are authorized to execute this command.

- Stop all the services constituting the system to be deleted before executing this command.

- The default system cannot be deleted.

Example

```
isdeletesys  system1
```

2.3 isgendef

Name

isgendef

Generates Interstage System Definition

Synopsis

```
isgendef [-M system-name] scale-value
```

Description

This command generates the Interstage System Definition, based on the system scale specified at scale-value.

In addition, where the *Interstage environment* is initialized, if the *isgendef* command is executed, and the *isinit* command is executed next, the Component Transaction Service will be set up again. In this case, since the registered work unit definition is deleted, reregistration of the work unit definition is required.

The argument for this command is as follows:

-M system-name Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

scale-value

Specify one of the following system scales in scale-value. Scale-value is mandatory.

Windows32/64

small	Small scale system having less than 5 clients
moderate	Moderate scale system having 6-10 clients
large	Large scale system having 11-50 clients
super	Super scale system having 51-100 clients

The Interstage System Definition is stored in the following file:

```
C:\Interstage\td\etc\isdef\isconf.txt
```

Solaris32/64

small	Small scale system having 50 clients or less
moderate	Moderate scale system having 51-100 clients
large	Large scale system having 101-500 clients
super	Super scale system having 501-1000 clients

The Interstage System Definition is stored in the following file:

```
/opt/FSUNtd/etc/isdef/isconf.txt
```

Linux32/64

small:	Small scale system having 50 clients or less
moderate:	Moderate scale system having 51-100 clients
large:	Large scale system having 101-500 clients
super:	Super scale system having 501-1000 clients

The Interstage System Definition is stored in the following file:

```
/opt/FJSVtd/etc/isdef/isconf.txt
```

Notes

- Only system administrators are authorized to execute this command.

- When using this command, don't execute the command shown below to initialized service with an Interstage integrated command.

Windows32/64 Solaris32/64 Linux32/64	Windows32/64 Solaris32 Linux32/64	Windows32 Solaris32 Linux32	Solaris32/64 Linux32/64
- essetup - esunsetup - esstart - esstop	- otssetup - otsmklog - otsstart - otsstop	- odsetlbo - odstartlbo - odstoplbo - tdsetup - tdunsetup - tdstart - tdstop	- odadmin - S99startod - CosNaming_s - InterfaceRep_Cache_s - InterfaceRep_Cache_e - OD_stop - apachectl

- If the IJServer that has already been created uses SSL, do one of the following for the IJServer that uses SSL before issuing this command: The *isj2eeadmin* command can also be used for this operation.

  - From the Interstage Management Console, select [System] > [Work Unit] > [IJServer name], and disable SSL on the [Environment Settings] tab.

  - From the Interstage Management Console, select [System] > [Work Unit], and delete IJServer on the [Status] tab.

Windows32/64

- Do not use the start/stop commands of the following services using the Control Panel or the net start/net stop commands while using this command. However, when "mode2" is specified to be the operation state surveillance mode ("IS Monitor Mode") of an Interstage operation environment definition and service is being initialized about a command with the following (*), it can perform.

  - CORBA Service (OD_start)

  - Naming Service (Naming Service)

  - Interface Repository (InterFaceRep_Cache Service)

  - Interface Repository (InterfaceRep_Cache_e Service)

  - Event Service (EventService)

  - Component Transaction Service (Transaction Director)

  - Database Linkage Service (Object TransactionService)

  - Interstage API Service (INTERSTAGE API)

  - Load Balancing Option (NS LoadBalancingOption) Windows32

- Interstage HTTP Server (*)

Example

The following example generates the Interstage System Definition on a large scale system:

```
isgendef large
```

2.4 isinit

Name

isinit

Initializes Interstage

Synopsis

```
isinit [-M system-name] [-f] [-w] TYPE1 | TYPE2 | TYPE3 | type1 | type2 | type3 [EJB | ejb]
isinit [-M system-name] -l
```

Description

This command initializes the services that are related to the operation type specified in the operand.

The services which can be initialized by the *isinit* command are shown below:

  - CORBA Service

  - Naming Service

  - Interface Repository (standard Interface)

  - Interface Repository (value Interface)

  - Event Service

  - Component Transaction Service

  - Database Linkage Service Windows32/64 Solaris32 Linux32/64

  - Interstage HTTP Server (Interstage Application Server Enterprise Edition only)

  - Load Balancing Option Windows32 Solaris32 Linux32

It is necessary to initialize the services before starting Interstage with the *isstart* command. *isinit* initializes the services, and *isstart* sets Interstage in the executable state.

The parameters required by each service when Interstage is initialized are read from the Interstage operating environment definition file. These parameters (required by the service) must be already initialized in the environment definition file.

The following items can be set by customizing the Interstage operating environment definition:

  - Windows32/64

    Database type used by the Interface Repository, and path and size setting.

  - Solaris32/64 Linux32/64

    Database type used by the Interface Repository, and path, size, user name and group name setting.

  - Naming Service / Interface Repository host and port number.

  - Directory to create the Component Transaction Service operating environment file.

  - Windows32/64 Solaris32 Linux32/64

    Multiple degrees of Database Linkage Service, system log file path, and maximum number of transactions.

Additionally, if the *isinit* command is executed excluding the initialization, the resources below might be deleted (it is recommended that you back up all Interstage resources beforehand - resources not listed below will be inherited, except when the -f option is specified):

- Resources for services except those which are setup targets

- Resources for services for which the definition items of Interstage operating environment definitions have been changed.

   Note that if the definition items of the following functions have been changed, the registered information and WorkUnit definitions for these services will be deleted:

   - CORBA Service

   - Naming Service

   - Interface Repository

   - Event Service

   - Load Balancing Option `Windows32` `Solaris32` `Linux32`

- Host name used for running the CORBA service.

   All the Interstage resources will be initialized.

You cannot initialize the following resource regardless of whether you specify the -f option or not:

- Implementation repository (impl.db)

🅿 Point
. . . .

To initialize the implementation repository (impl.db), execute the *isinit* command according to the following procedure:

1. Stop Interstage by force.

2. Copy the following files (the installation directory is the default):

   `Windows32/64`

   From: C:\Interstage\ODWIN\impl.db.default

   To : C:\Interstage\ODWIN\impl.db

   `Solaris32/64`

   From: /etc/opt/FSUNod/impl.db.default

   To : /etc/opt/FSUNod/impl.db

   `Linux32/64`

   From: /etc/opt/FJSVod/impl.db.default

   To : /etc/opt/FJSVod/impl.db

3. Specify the -f option, and then execute the *isinit* command.

   The following error messages may be output:

   od15005, od15009

   This does not mean there is a problem.
. . . .

The arguments for this command are as follows:

-M system-name `Solaris32`

   Specify the name of the target system.

   If this option is omitted, the default system is assumed to be specified.

-l

   Displays the current operation status. This option is valid only if the Interstage initialization process (invoked by the *isinit* command) is completed. Interstage cannot be initialized once this option has been specified.

-f

    Forced initialization mode.

    The registered information of both the application status and of all services that are specified by the Interstage operating environment definition must be initialized. Thereby, the data (already registered WorkUnit definition information and object reference) that has been registered before initialization is all deleted.

-w

    This option is valid only when the cluster service function of Interstage is used.

    Specify this option to initialize a standby node.

    `Windows32/64` `Solaris32` `Linux32/64`
    If type2 is specified as the operation type, the system log file of the Database Linkage Service must exist under the directory specified by "OTS path for system log" in the Interstage operating environment definition.

TYPE1 or type1

    This is the application status that consists of the CORBA Service, Naming Service, Interface Repository and Component Transaction Service.

TYPE2 or type2 `Windows32/64` `Solaris32` `Linux32/64`

    This is the application status that consists of the CORBA Service, Naming Service, Interface Repository, Component Transaction Service and Database Linkage Service.

TYPE3 or type3

    This is the application status that consists of the CORBA Service and Component Transaction Service.

EJB or ejb

    This is specified when using the EJB Service.

    When the application status is TYPE3 (type3), it can be specified only when the Interface Repository of local host is used. Perform registration for an operating environment definition that enables use of the Interface Repository in the local host.

Notes

- Only system administrators are authorized to execute this command.

- To initialize Interstage using the *isinit* command, first complete the initialization of Interstage, and then restart the services below while Interstage is stopped. If these services are not restarted, it may cause an error to occur when the Interstage Management Console is used for further operations:

    `Windows32/64`

      - Interstage Operation Tool service

      - Interstage JServlet(OperationManagement) service

    `Solaris32/64` `Linux32/64`

      - Servlet service for Interstage OperationManagement Console

- Multi-execution of this command is not possible.

- This command cannot be executed in the following circumstances:

    - When any Interstage services are operating.

    - When any of the isgendef, isregistdef, isstart, isstop or isstat commands are being executed

- To execute this command, use comment markers for the host name of the Interface Repository service and Naming Service specified in the inithost file, or remove them. If you set another host in the inithost file, execute this command, then set the host.

- If the IJServer that has already been created uses SSL, do one of the following for the IJServer that uses SSL before issuing this command: The *isj2eeadmin* command can also be used for this operation.

    - From the Interstage Management Console, select [System] > [Work Unit] > [IJServer name], and disable SSL on the [Environment Settings] tab.

- From the Interstage Management Console, select [System] > [Work Unit], and delete IJServer on the [Status] tab.

- `Windows32/64` `Solaris32` `Linux32/64`

  When you use the Transaction Service (OTS), do not perform combined use of an Interstage Management Console and an Interstage integrated command. If using these functions together, be aware of the following points.

  - If OTS setup was performed using the Interstage Management Console, this setup should be cancelled before initializing the environment using the Interstage integrated command.

  - If the system was initialized using the Interstage integrated command as TYPE2, the environment should be reinitialized as TYPE1 using the Interstage integrated command before tuning the system using the Interstage Management Console.

- When the Naming Service is initialized using this command, the Naming Service becomes the setup that is used for the expansion function of the Naming Service.

- When using this command, don't execute the command shown below to initialized service with an Interstage integrated command.

`Windows32/64` `Solaris32/64` `Linux32/64`	`Windows32/64` `Solaris32` `Linux32/64`	`Windows32` `Solaris32` `Linux32`	`Solaris32/64` `Linux32/64`
- essetup - esunsetup - esstart - esstop	- otssetup - otsmklog - otsstart - otsstop	- odsetlbo - odstartlbo - odstoplbo - tdsetup - tdunsetup - tdstart - tdstop	- odadmin - S99startod - CosNaming_s - InterfaceRep_Cache_s - InterfaceRep_Cache_e - OD_stop - apachectl

- When the Event Service is used, use the *esmkchnl* command to create the event channel and then, before initializing Interstage, use the *esrmchnl* command to delete the created event channel. For details of the *esrmchnl* command, refer to *esrmchnl* in "Event Service Operation Commands".

`Windows32/64`

- Do not use the start/stop commands of the following services using the Control Panel or the net start/net stop commands while using this command. However, when "mode2" is specified to be the operation state surveillance mode ("IS Monitor Mode") of an Interstage operation environment definition and service is being initialized about a command with the following (*), it can perform.

  - CORBA Service (OD_start)

  - Naming Service (Naming Service)

  - Interface Repository (InterFaceRep_Cache Service)

  - Interface Repository (InterFaceRep_Cache_e Service)

  - Event Service (EventService)

  - Component Transaction Service (Transaction Director)

  - Database Linkage Service (Object TransactionService)

  - Interstage API Service (INTERSTAGE API)

  - Interstage HTTP Server (*)

  - Load Balancing Option (NS LoadBalancingOption) `Windows32`

`Solaris32/64` `Linux32/64`

- The user name and the group name of Interface Repository are set up as follows at the time of this command execution.

User name: root

Group name: sys

The 'root' user needs to be registered into the 'sys' group when this command performs an environment setup of Interface Repository. If this registration does not exist, the following messages are output and initialization of Interstage fails.

- If the root user does not exist.

Invalid settings in the environment setting file.

Invalid user-name is specified.

- If the root user is not registered into the sys group.

Invalid settings in the environment setting file.

Invalid group-name is specified.

2.5 isinitservice

Name

isinitservice

This command restores the environment where it was set up, immediately after Interstage installation.

Synopsis

```
isinitservice
```

Description

This command restores the environment where it was set up, immediately after Interstage installation.

The *initservice* command does not recreate the IJServer that was created at installation. If necessary, create the IJServer using the Interstage Management Console or using the *isj2eeadmin* command. Set the WorkUnit name to 'IJServer' and don't change the default WorkUnit settings.

Notes

- Only system administrators are authorized to execute this command.

- To initialize Interstage using the *initservice* command, first complete initialization of Interstage, and then restart the services below while Interstage is stopped. If these services are not restarted, it may cause an error to occur when the Interstage Management Console is used for further operations.

  Windows32/64

  - Interstage Operation Tool service

  - Interstage JServlet(OperationManagement) service

  Solaris32/64 Linux32/64

  - Servlet service for Interstage OperationManagement Console

- The following services need to be installed:

  - CORBA Service

  - Component Transaction Service

  - Interstage EJB Service (Only Standard-J Edition)

  - J2EE (Only Standard-J Edition)

  - XML (Only Standard-J Edition)

- This command clears the environment definition used in the services indicated below. It is recommended to back up resources as required. For backup information, refer to Backing Up and Restoring Resources in the Interstage Operator's Guide.

  - CORBA Service

  - Component Transaction Service

  - Interstage EJB Service

  - J2EE

- If the IJServer that has already been created uses SSL, perform one of the following before issuing this command: The *isj2eeadmin* command can also be used for this operation.

  - From the Interstage Management Console, select [System] > [Work Unit] > [IJServer name], and disable SSL on the [Environment Settings] tab.

  - From the Interstage Management Console, select [System] > [Work Unit], and delete IJServer on the [Status] tab.

- When this command is used for Standard-J Edition, the Portalworks system definition is cleared.

- If this command is executed in the environment where Interstage EJB service is installed, the Interface Repository will be set up.

Example

```
isinitservice
```

2.6 islistsys

Name

islistsys

Displays a list of systems.

Synopsis

Solaris32

```
islistsys [-v]
```

Description

This command displays a list of systems that exist on the server.

The options for this command are as follows:

-v

Displays the detail information of each system on the server in addition to the system name. When this option is specified, the following information is displayed:

SYSTEM : system name

DESCRIPTION : System profile

DIRECTORY : System directory (directory where the system resources are stored)

Notes

- Only system administrators are authorized to execute this command.

Example

When the option is omitted

```
islistsys
    SYSTEM
    default
    system1
```

When the -v option is specified

```
islistsys -v
    SYSTEM        :   default
    DESCRIPTION   :   -
    DIRECTORY     :   /var/opt/FJSVis/system/default

    SYSTEM        :   system1
    DESCRIPTION   :   extension system1
    DIRECTORY     :   /proj/system1
```

2.7 ismodifyservice

Name

ismodifyservice

Adds/changes/deletes service by Interstage employment environment, or changes the Interstage monitoring mode.

Synopsis

To add a service:

```
ismodifyservice [-M system name] -a ES|FJapache
```

To delete a service:

```
ismodifyservice [-M system name] -d ES|FJapache
```

To change the reference location of the Naming Service and the Interface Repository (standard interface/value interface) to a local host:

```
ismodifyservice [-M system name] -a NS|IR
```

To change the reference location of the Naming Service and the Interface Repository (standard interface) to a remote host:

```
ismodifyservice [-M system name] -r -h host name [-p port number] NS|IR
```

To change the Interstage monitoring mode:

```
ismodifyservice [-M system name] -m mode1|mode2
```

Description

The *ismodifyservice* command is a command which performs the following operations.

- Adds a service.

- Deletes a server.

- Reference location change of Naming Service and Interface Repository (standard interface/value interface).

- Changes the Interstage monitoring mode.

The services which can be operated with this command are as follows.

- Interface Repository (standard interface)

- Interface Repository (value interface)

- Naming Service

- Event Service

- Interstage HTTP Server (Interstage Application Server Enterprise Edition only)

When a service is added using this function, the tuning value of the service is customized according to the system scale currently set up.

The arguments for this command are as follows:

-M system-name `Solaris32`

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

-a

Specify when adding the following service.

- ES: Event Service

- FJapache: Interstage HTTP Server (Interstage Application Server Enterprise Edition only)

And, specify when changing the reference location of the Naming Service and the Interface Repository (standard interface/value interface) to a local host.

-r

Specify when changing the reference location of the following service.

- NS: Naming Service

- IR: Interface Repository (standard interface)

-d

Specify when deleting the following service.

- ES: Event Service

- FJapache: Interstage HTTP Server (Interstage Application Server Enterprise Edition only)

-h host name

Specify the host name changed at the time of -r option specification.

-p port number

Specify the port number changed at the time of -r option specification. When this is omitted, it is assumed that 8002 was specified.

-m mode1|mode2

Select one of the following to specify as the Interstage operating status monitoring mode:

Argument	Description
mode1	Determines that Interstage should be stopped if one of the services below (which configure Interstage) stops: - CORBA Service - Naming Service (*1) - Interface Repository (*1) - Component Transaction Service - Database Linkage Service `Windows32/64` `Solaris32` `Linux32/64` - Load Balancing Option (*1) `Windows32` `Solaris32` `Linux32` - Web Server (*2) Specify this mode if it is necessary for Interstage to be stopped, because stopping Interstage affects all running jobs.
mode2	Determines that Interstage should be stopped if one of the services below stops (Interstage will continue if a service not listed below is stopped):

Argument	Description
	- CORBA Service - Component Transaction Service - Database Linkage Service `Windows32/64` `Solaris32` `Linux32/64` Specify this mode if it is necessary for Interstage to continue if a service not listed above is stopped.

*1 `Solaris32/64` `Linux32/64` To specify this mode in Interstage on the Cluster Service, set "1" to the environment variable IS_ISV_WATCH_MODE in the status transition procedure. Otherwise, Interstage will continue even if this service is stopped (note that if another service stops, Interstage will also stop).

*2 In the Interstage Management Console [System] > [Update System Settings] window, if the [Synchronized Services] > [Web Server] setting is "Yes", then Interstage will continue even if the Web server is stopped. To stop Interstage when the Web server is stopped, change the setting to "No", and then set up the Web Server using the *isinit*/*ismodifyservice* command.

Service discernment name

Specify the discernment name of the service added, changed or deleted. The discernment name of each service is as follows. There is no distinction between uppercase and lowercase.

Service	Discernment Name
Interface Repository (Standard interface)	IR
Naming Service	NS
Event Service	ES
Interstage HTTP Server (Interstage Application Server Enterprise Edition only)	FJapache

Notes

- Only system administrators are authorized to execute this command.

- To add/change/delete Interstage application environment services using the *ismodifyservice* command, first complete the operation, and then restart the services below. If these services are not restarted, it may cause an error to occur when the Interstage Management Console is used for further operations.

  `Windows32/64`

  - Interstage Operation Tool service

  - Interstage JServlet(OperationManagement) service

  `Solaris32/64` `Linux32/64`

  - Servlet service for Interstage OperationManagement Console

- Multi-execution of this command is not possible.

- The -a/-d/-r option of this command cannot be used if the following services have been set up in the environment.

  - Database Linkage Service `Windows32/64` `Solaris32` `Linux32/64`

  - Load Balancing Option `Windows32` `Solaris32` `Linux32`

- This command cannot be executed in the following circumstances:

  - When any Interstage services are operating

  - When any of the isgendef, isregistdef, isstart, isstop or isstat commands are being executed

- When using this command, don't execute the command shown below to initialized service with an Interstage integrated command.

Windows32/64 / Solaris32/64 / Linux32/64	Windows32/64 / Solaris32 / Linux32/64	Windows32 / Solaris32 / Linux32	Solaris32/64 / Linux32/64
- essetup - esunsetup - esstart - esstop	- otssetup - otsmklog - otsstart - otsstop	- odsetlbo - odstartlbo - odstoplbo - tdsetup - tdunsetup - tdstart - tdstop	- odadmin - S99startod - CosNaming_s - InterfaceRep_Cache_s - InterfaceRep_Cache_e - OD_stop - apachectl

- This command cannot be executed when the service on which the service to be added/deleted depends does not exist.

- This command cannot be executed if Interstage initialization has not completed.

- The operation type is changed to TYPE3 when either the Naming Service or Interface Repository (or both) are remote.

- The operation type is changed to TYPE1 when both the Naming Service and Interface Repository become the local reference.

- The Interface Repository (value interface) is set up automatically when the Interface Repository is set up locally and the Naming Service is a local reference.

- When the Event Service is used, use the *esmkchnl* command to create the event channel and then, before initializing Interstage, use the *esrmchnl* command to delete the created event channel. Refer to the *esrmchnl* command in "Event Service Operation Commands".

- When this command is executed, the default value may be set as a parameter that is not used in the Interstage operating environment definition file (a non-backup target parameter), however this will have no impact on Interstage operations.

Windows32/64

- Do not use the start/stop commands of the following services using the Control Panel or the net start/net stop commands while using this command. However, when "mode2" is specified to be the operation state surveillance mode ("IS Monitor Mode") of an Interstage operation environment definition and service is being initialized about a command with the following (*), it can perform.

  - CORBA Service (OD_start)

  - Naming Service (Naming Service)

  - Interface Repository (InterFaceRep_Cache Service)

  - Interface Repository (InterFaceRep_Cache_e Service)

  - Event Service (EventService)

  - Component Transaction Service (Transaction Director)

  - Database Linkage Service (Object TransactionService)

  - Interstage API Service (INTERSTAGE API)

  - Interstage HTTP Server (*)

  - Load Balancing Option (NS LoadBalancingOption) Windows32

Solaris32

- The Interstage HTTP Server cannot be added to or deleted from an extended system. (Enterprise Edition only)

Example

For the addition of an Event Service:

```
ismodifyservice -s ES
```

When the reference place of naming service is changed:

```
imodifyservice -r -h host01 NS
```

2.8 isregistdef

Name

isregistdef

Generates an Interstage operating environment definition.

Synopsis

```
isregistdef [-M system-name]
```

Description

This command generates a definition for each service, and an Interstage operating environment definition, based on the Interstage System Definition generated by the *isgendef* command.

The options and arguments for this command are as follows:

-M system-name Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

The Interstage operating environment definition is stored in the following file:

Windows32/64

```
C:\Interstage\td\etc\isreg\isinitdef.txt
```

Solaris32/64

```
/opt/FSUNtd/etc/isreg/isinitdef.txt
```

Linux32/64

```
/opt/FJSVtd/etc/isreg/isinitdef.txt
```

Notes

- Only system administrators are authorized to execute this command.

- Following installation, the *isgendef* command must be executed before *isregistdef*.

- If the IJServer that has already been created uses SSL, do one of the following before issuing this command: The *isj2eeadmin* command can also be used for this operation.

  - From the Interstage Management Console, select [System] > [Work Unit] > [IJServer name], and disable SSL on the [Environment Settings] tab.

  - From the Interstage Management Console, select [System] > [Work Unit], and delete IJServer on the [Status] tab.

- Before executing this command, stop Interstage.

- After executing this command, initialize Interstage with the *isinit* command. If the definition is changed after executing this command, reinitialize Interstage.

- The following assumptions are made while registering the definition of each service with the *isregistdef* command. When customizing the system, modify the definition of each service before executing the *isinit* command.

    - All services configured are operating.

    - The number of server applications running is one tenth of the maximum number of client connections, and that any server can also be used as a client.

    - | Windows32/64 | Solaris32 | Linux32/64 |
      The Database Linkage Service has 5 levels.

    - | Windows32/64 | Solaris32 | Linux32/64 |
      The Resource Manager has 6 levels.

- When using this command, don't execute the command shown below to initialized service with an Interstage integrated command.

Windows32/64 Solaris32/64 Linux32/64	Windows32/64 Solaris32 Linux32/64	Windows32 Solaris32 Linux32	Solaris32/64 Linux32/64
- essetup	- otssetup	- odsetlbo	- odadmin
- esunsetup	- otsmklog	- odstartlbo	- S99startod
- esstart	- otsstart	- odstoplbo	- CosNaming_s
- esstop	- otsstop	- tdsetup	- InterfaceRep_Cache_s
		- tdunsetup	- InterfaceRep_Cache_e
		- tdstart	- OD_stop
		- tdstop	- apachectl

| Windows32/64 |

- Do not use the start/stop commands of the following services using the Control Panel or the net start/net stop commands while using this command. However, when "mode2" is specified to be the operation state surveillance mode ("IS Monitor Mode") of an Interstage operation environment definition and service is being initialized about a command with the following (*), it can perform.

    - CORBA Service (OD_start)

    - Naming Service (Naming Service)

    - Interface Repository (InterFaceRep_Cache Service)

    - Interface Repository (InterFaceRep_Cache_e Service)

    - Event Service (EventService)

    - Component Transaction Service (Transaction Director)

    - Database Linkage Service (Object TransactionService)

    - Interstage API Service (INTERSTAGE API)

    - Interstage HTTP Server (*)

    - Load Balancing Option (NS LoadBalancingOption) | Windows32 |

2.9 issetfoldersecurity

Name

issetfoldersecurity

Interstage resource access authority settings.

Synopsis

Windows32/64

```
issetfoldersecurity [user]
```

Description

The issetfoldersecurity command gives full control of all Interstage resources (the installation folder and the files under it), to the 'Administrators' group and to any users or groups that can be identified. .

This command can be used to enhance security for Interstage resources (the installation folder and the files under it).

This command can have the following parameter:

user

Specify the user or group to which full control access is to be given. Specify multiple users or groups, separating each entry with a space.

If this argument is omitted, only the 'Administrators' group is given full control.

Messages

Succeeded.

The setting is success. A process message is output to 'cacls_out.txt' in the folder on which the command was executed.

Failed. [%d]

Failed to execute the command. A process message is output to 'cacls_out.txt' of the folder on which the command was executed.

You need Administrators right.

'Administrators' group authority is required to execute this command. Log in as a user that has 'Administrators' group authority.

Specified ID(%s) has not been registered

The specified user or group name has not been registered. Verify that the user or group name is valid.

Failed to find ID(%s) error code=%d

An error occurred searching for the specified user or group name. Verify that the user or group name is valid.

No Memory

There was insufficient memory. Wait for a while and reexecute. Alternatively, increase the size of the page file.

Failed to write temporary file [%d]

Failed to write the temporary file. Verify that there is sufficient space in the current directory, and that it has write access.

Failed to close temporary file [%d]

Failed to close the temporary file. Verify that there is sufficient space in the current directory, and that it has write access.

Failed to create temporary file [%d]

Failed to create the temporary file. Verify that there is sufficient space in the current directory, and that it has write access.

Interstage is not installed

Interstage has not been installed. Install Interstage.

Invalid path was found

The Interstage installation path is invalid. Verify that Interstage has been installed correctly.

Failed to read registry :ErrorInfo=%d

Failed to read the registry. Verify that Interstage has been installed correctly.

Failed to read path (%s) :ErrorInfo=%d

Failed to read the path. Verify that Interstage has been installed correctly.

Notes

- Only system administrators are authorized to execute this command.

- Interstage must be stopped before using this command.

- When this command is executed, all Interstage resource (the installation folder and the files under it) access is overwritten.

Examples

Setting full control access for the 'Administrators' group only.

```
issetfoldersecurity
```

Setting full control access for the 'Administrators' group, user1, and group1 only.

```
issetfoldersecurity user1 group1
```

2.10 issetsecuritymode

Name

issetsecuritymode

This command can be used to switch or view the active security mode. This mode affects Application Server resource access permission settings.

Synopsis

Solaris32/64 Linux32/64

```
issetsecuritymode -g group
issetsecuritymode -c
issetsecuritymode -l
```

Description

This command is used to switch the security permission settings applied to Application Server program resources such as executable files, environment settings files, and logs, based on the Secure By Default policy.

Two security modes are available:

- Secure mode

  Imposes permission settings for program resources in a group nominated for this mode.

- Compatibility mode

  Permission settings are the same as those of previous Application Server versions (V8 and lower).

An option is provided to display the active security mode.

The options for this command are as follows:

-g

This option is used to restrict the user permission on program resources to the group specified in "Group Name". Use of this option is recommended to increase the system security level. Specifying this option switches the system to secure mode. This changes the required user permission to execute some commands from general users to the group specified in 'Group Name'. For details, refer to "Notes on Using Commands".

The specified group must already exist in the operating system.

If already in secure mode, execute the command specifying this option to change the nominated group name.

-c

This option is used to set the same permission settings as for previous versions. Specifying this option switches the system to compatibility mode. It is recommended that you execute -g to increase the security level.

-l

Use this option to view the active security mode, and the nominated group name if secure mode is active. The information in the following table is displayed.

Item displayed	Value	Meaning
Security Mode	Sec	Secure mode is active
	Comp	Compatibility mode is active
Group	Nominated group name when secure mode is active	

Notes

- Only users with administrator permission can execute this command.

- Before executing this command, stop all the services of Interstage. If all the services are not stopped, correctly configuring security authority settings may not be possible.

- The group name nominated for secure mode must already exist in the operating system prior to running this command with the -g option. If it does not, command execution fails with an error.

- If a number is specified for the group name with the -g option, its validity is not checked. If using a number, ensure it is valid, as specifying an invalid number for a group name may result in installation or operation failure.

- If command execution fails following an error, establish the cause of the error and then reexecute the command. If the error status is allowed to continue, the authority settings for the security mode may not be correctly configured, and Application Server may not run normally (for example, it may run with a lower security level).

- Do not execute this command at the same time on different terminals.

- If this product uses a shared disk in a cluster environment, execute the command after the shared disk has been registered as a cluster environment resource.

Also note the following when using this option in Java EE environments:

- If the compatible security mode is specified, the security privileges will be the same as when the enhanced security mode is specified in the "sys" group.

- If this command is executed when the service operator user has a setting other than root, the service operator user will be initialized to root. Reexecute the *ijsetoperatorid* command if necessary.

Examples

Setting the system to secure mode, or changing the nominated group for this mode.

```
issetsecuritymode -g apsgroup
```

Viewing the security mode (in this example secure mode is active)

```
issetsecuritymode -l
 Security mode : sec
 Group         : apsgroup
```

2.11 isstart

Name

isstart

Starts Interstage.

Synopsis

```
isstart [-M system-name]
```

Description

This command starts Interstage.

This command is used to start up the following services:

- Interstage Java EE Node Agent Service

- Services set up when Interstage is installed

- Services initialized using the *isinit* command

- Services set to be used from the Interstage Management Console [System] > [Environment Settings] page

- Services added using the *ismodifyservice* command

Services started using this command can be checked using the *isstat* command, or from [System] > [Status] > 'Details' of the Interstage Management Console.

If the service is already running when this command is executed, the service is not started.

If the initialization described above is not completed, an error occurs when this command is executed.

The options for this command are as follows:

-M system-name | Solaris32 |

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

Notes

- Only system administrators are authorized to execute this command.

- When using this command, don't execute the command shown below to initialized service with an Interstage integrated command.

Windows32/64 Solaris32/64 Linux32/64	Windows32/64 Solaris32 Linux32/64	Windows32 Solaris32 Linux32	Solaris32/64 Linux32/64
- ijnastart	- otssetup	- odsetlbo	- odadmin
- ijnastop	- otsmklog	- odstartlbo	- S99startod
- essetup	- otsstart	- odstoplbo	- CosNaming_s
- esunsetup	- otsstop	- tdsetup	- InterfaceRep_Cache_s
- esstart		- tdunsetup	- InterfaceRep_Cache_e
- esstop		- tdstart	- OD_stop
		- tdstop	- apachectl

- In Interstage Single Sign-on, if a large number of role and site definitions are registered in the SSO repository to run the repository server, and settings have been configured for connection to Interstage HTTP Server, Interstage startup may be slower.

| Windows32/64 |

- Do not use the start/stop commands of the following services using the Control Panel or the net start/net stop commands while using this command. However, when "mode2" is specified to be the operation state surveillance mode ("IS Monitor Mode") of an Interstage operation environment definition and service is being initialized about a command with the following (*), it can perform.

  - Interstage Java EE Node Agent Service (Interstage Java EE Node Agent)

  - CORBA Service (OD_start)

  - Naming Service (Naming Service)

  - Interface Repository (InterFaceRep_Cache Service)

  - Interface Repository (InterFaceRep_Cache_e Service)

  - Event Service (EventService)

  - Component Transaction Service (Transaction Director)

  - Database Linkage Service (Object TransactionService)

  - Interstage API Service (INTERSTAGE API)

  - Interstage HTTP Server (*)

  - Load Balancing Option (NS LoadBalancingOption) `Windows32`

- If this command is executed after the naming context is repeatedly registered/deleted for the naming service, then it might take a few moments for Interstage to start up. This is because naming service start processing takes a few moments, but this is no problem.

`Solaris32/64` `Linux32/64`

- When running EJB applications in a WorkUnit, it is necessary to set environment variables before running the *isstart* command.

2.12 isstat

Name

isstat

Displays the Interstage starting status.

Synopsis

```
isstat [-M system-name]
```

Description

This command displays the current status of Interstage.
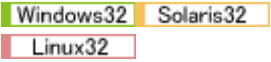
This command displays the status of the following services:

- Interstage Java EE Node Agent Service

- Services set up when Interstage is installed

- Services initialized using the *isinit* command

- Services set to be used from the Interstage Management Console [System] > [Environment Settings] page

- Services added using the *ismodifyservice* command

This commands returns an error if the initialization shown above is not completed.

The service name, the name of the function for the service, and the function status displayed using the *isstat* command are shown in the table below.

For Interstage Application Server Enterprise Edition

SERVICE NAME	FUNCTION NAME	STATUS
ObjectDirector	CORBA Service	execute: the service is running stop: the service is not running
NamingService	Naming Service	execute: the service is running stop: the service is not running
`Windows32` `Solaris32` `Linux32` NS LoadBalancingOption	Load Balancing Option	execute: the service is running stop: the service is not running
InterfaceRepositoryCacheService	Interface Repository Service (Standard interface)	execute: the service is running stop: the service is not running
InterfaceRepositoryCacheEService	Interface Repository Service (Value interface)	execute: the service is running stop: the service is not running
EventService	Event Service	execute: the service is running stop: the service is not running
TransactionDirector	Component Transaction Service	execute: the service is running standby: standby stop: the service is not running
`Windows32/64` `Solaris32` `Linux32/64` ObjectTransactionService	Database Linkage Service	execute: the service is running stop: the service is not running
Java EE Node Agent	Interstage Java EE Node Agent Service	execute: the service is running stop: the service is not running
FJapache	Web Server	execute: the service is running execute(partially): the service is partially running no entries: unregistered stop: the service is not running (Note)

Note: If more than one Web server is running in Interstage HTTP Server, the status is displayed as follows:

execute: All Web servers are running.

execute(partially): Some Web servers are running.

no entries: No Web servers have been registered.

stop: No Web servers are running.

To check which Web servers are running when the status is "execute(partially)", use the *ihsdisp* command.

For Interstage Application Server Standard-J Edition

SERVICE NAME	FUNCTION NAME	STATUS
ObjectDirector	CORBA Service	execute: the service is running stop: the service is not running
NamingService	Naming Service	execute: the service is running stop: the service is not running

SERVICE NAME	FUNCTION NAME	STATUS
InterfaceRepositoryCacheService	Interface Repository Service (Standard interface)	execute: the service is running stop: the service is not running
InterfaceRepositoryCacheEService	Interface Repository Service (Value interface)	execute: the service is running stop: the service is not running
EventService	Event Service	execute: the service is running stop: the service is not running
TransactionDirector	Component Transaction Service	execute: the service is running stop: the service is not running
ObjectTransactionService	Database Linkage Service	execute: the service is running stop: the service is not running
Java EE Node Agent	Interstage Java EE Node Agent Service	execute: the service is running stop: the service is not running

The options for this command are as follows:

-M system-name ▐ Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

Notes

- Only system administrators are authorized to execute this command.

- If this command is executed during Interstage start/stop processing, it may take a while for the command to return.

- If Interstage Java EE has been installed, it may take a while for this command to return.

▐ Windows32/64 ▐ Solaris32 ▐ Linux32/64

- When the setup mode of Database Linkage Service has turned into the mode which employs only a resource control manager, the state of "ObjectTransactionService" is set to "stop" regardless of the employment state of Interstage or a resource control program.

▐ Solaris32/64 ▐ Linux32/64

- When this command is executed, message od15500 may be output without any consequences. Reexecute the command.

Example

▐ Windows32 ▐ Solaris32 ▐ Linux32

```
isstat
SERVICE NAME                     STATUS
ObjectDirector                   execute
NamingService                    execute
NS LoadBalancingOption           execute
InterfaceRepositoryCacheService  execute
InterfaceRepositoryCacheEService execute
EventService                     execute
TransactionDirector              execute
ObjectTransactionService         execute
Java EE Node Agent               execute
FJapache                         execute
```

▐ Windows64

```
isstat
SERVICE NAME                          STATUS
ObjectDirector                        execute
NamingService                         execute
InterfaceRepositoryCacheService       execute
InterfaceRepositoryCacheEService      execute
EventService                          execute
TransactionDirector                   execute
ObjectTransactionService              execute
Java EE Node Agent                    execute
FJapache                              execute
```

Solaris64   Linux64

```
isstat
SERVICE NAME                          STATUS
ObjectDirector                        execute
NamingService                         execute
InterfaceRepositoryCacheService       execute
InterfaceRepositoryCacheEService      execute
EventService                          execute
TransactionDirector                   execute
ObjectTransactionService              execute
Java EE Node Agent                    execute
FJapache                              execute
```

2.13 isstop

Name

isstop

Stops Interstage

Synopsis

```
isstop [-M system-name] [-c|-f|-f -s] [-t monitor_time]
```

Description

This command stops Interstage.

This command is used to stop the following services:

- Interstage Java EE Node Agent Service

- Services set up when Interstage is installed

- Services initialized using the *isinit* command

- Services set to be used in the Interstage Management Console [System] > [Environment Settings] page

- Services added using the *ismodifyservice* command

Services stopped using this command can be checked using the *isstat* command, or from [System] > [Status] > 'Details' of the Interstage Management Console.

The services stopped when this command is executed depend on the option specified.

Specify the -c , -f or '-f -s' options to forcibly stop it.

The options of this command are as follows:

- no option

This option is used to stop services that are running. It stops Resource Manager programs and some Interstage services. For details on Interstage services, refer to 'Behavior of the service for the specified option".

-M system-name `Solaris32`

Specify the name of the target system.

-c

Forcibly terminate active services.

This option forcibly stops WorkUnits, resource management programs, and some Interstage services. For details on Interstage services, refer to 'Behavior of the service for the specified option'.

`Windows32/64` `Solaris32` `Linux32/64`
Regardless of the transactions being processed, it forcibly stops the Database Linkage Service and the Resource Manager. Therefore, if any in-doubt transactions exist while restarting the resource control program after forcible termination, perform the recovery process.

-f

Forcibly stop all services.

This option forcibly stops WorkUnits, resource management programs, and all Interstage services. For details on Interstage services, refer to 'Behavior of the service for the specified option'.

On the Windows (R) system, even when Interstage HTTP Server is not being initialized using the *isinit* command, the forcible stop of these services is carried out.

-f -s `Windows32/64`

Forcibly terminate all services.

This option forcibly terminates WorkUnits, Resource Manager programs, and all Interstage services. For details about the Interstage services, refer to "Behavior of the service for the specified option".

When Interstage HTTP Server is not being initialized using the *isinit* command, the forcible stop of these services is not carried out.

-t monitor_time

Specify the stop monitoring interval in seconds using a value from 300 to 3600. If this option is omitted, the stop monitoring interval is 300 seconds. If Interstage does not stop when this value is exceeded, it is assumed that an error occurred and investigation data is collected automatically using the *iscollectinfo* command. After the data is collected, the is20270 message is output.

Behavior of the service for the specified option

The behavior of the service for the specified option is described in the tables shown below.

`Windows32/64`

Service Name	Specified Option			
	no option	-c	-f -s	-f
Interstage Java EE Node Agent Service	Service stops (Normally)	Service stops (Forcibly)	Service stops (Forcibly)	Service stops (Forcibly)
CORBA Service	Service does not stop	Service does not stop	Service stops (Forcibly)	Service stops (Forcibly)
InterfaceRepositoryCacheService (standard interface)	Service does not stop	Service does not stop	Service stops (Forcibly)	Service stops (Forcibly)
InterfaceRepositoryCacheEService (value interface)	Service does not stop	Service does not stop	Service stops (Forcibly)	Service stops (Forcibly)
Naming Service	Service does not stop	Service does not stop	Service stops (Forcibly)	Service stops (Forcibly)
`Windows32` Load Balancing Option	Service does not stop	Service does not stop	Service stops (Forcibly)	Service stops (Forcibly)

Service Name	Specified Option			
	no option	**-c**	**-f -s**	**-f**
Event Service	Service does not stop	Service does not stop	Service stops (Forcibly)	Service stops (Forcibly)
Component Transaction Service	Service stops (Normally)	Service stops (Forcibly)	Service stops (Forcibly)	Service stops (Forcibly)
Database Linkage Service	Service stops (Normally)	Service stops (Forcibly)	Service stops (Forcibly)	Service stops (Forcibly)
Web Server Service (Interstage HTTP Server)	(*1) (Forcibly)	(*1) (Forcibly)	(*1) (Forcibly)	Service stops (Forcibly)

*1 The service stops if it was integrated using the Interstage integration commands or the Interstage Management Console.

Solaris32/64 Linux32/64

Service Name	Specified Option		
	no option	**-c**	**-f**
Interstage Java EE Node Agent Service	Service stops (Normally)	Service stops (Forcibly)	Service stops (Forcibly)
CORBA Service	Service does not stop	Service does not stop	Service stops (Forcibly)
InterfaceRepositoryCacheService (Standard interface)	Service does not stop	Service does not stop	Service stops (Forcibly)
InterfaceRepositoryCacheEService (Value interface)	Service does not stop	Service does not stop	Service stops (Forcibly)
Naming Service	Service does not stop	Service does not stop	Service stops (Forcibly)
Solaris32 Linux32 Load Balancing Option	Service does not stop	Service does not stop	Service stops (Forcibly)
Event Service	Service does not stop	Service does not stop	Service stops (Forcibly)
Component Transaction Service	Service stops (Normally)	Service stops (Forcibly)	Service stops (Forcibly)
Solaris32 Linux32/64 Database Linkage Service	Service stops (Normally)	Service stops (Forcibly)	Service stops (Forcibly)
Web Server Service (Interstage HTTP Server)	(*1) (Forcibly)	(*1) (Forcibly)	(*1) (Forcibly)

*1 The service stops if it was integrated using the Interstage integration commands or the Interstage Management Console.

Notes

- Only system administrators are authorized to execute this command.

- When using this command, don't execute the command shown below to initialized service with an Interstage integrated command.

Windows32/64 Solaris32/64 Linux32/64	Windows32/64 Solaris32 Linux32/64	Windows32 Solaris32 Linux32	Solaris32/64 Linux32/64
- ijnastart - ijnastop	- otssetup - otsmklog	- odsetlbo - odstartlbo	- odadmin - S99startod

Windows32/64 Solaris32/64 Linux32/64	Windows32/64 Solaris32 Linux32/64	Windows32 Solaris32 Linux32	Solaris32/64 Linux32/64
- essetup - esunsetup - esstart - esstop	- otsstart - otsstop	- odstoplbo - tdsetup - tdunsetup - tdstart - tdstop	- CosNaming_s - InterfaceRep_Cache_s - InterfaceRep_Cache_e - OD_stop - apachectl

- To terminate Interstage in full forced termination mode, first close all services that comprise Interstage, then execute the *isstop* command.

  For example, because the Systemwalker CentricMGR operation management server assumes control for the running of the CORBA Service and Naming Service, the isstop command must be executed after stopping the Systemwalker CentricMGR operation management server.

Windows32/64 Solaris32 Linux32/64

- New transactions cannot be performed by the Database Linkage Service or Resource Manager if services have been terminated with this command.

  Only transactions being terminated (commit/rollback) can be completed, as follows.

  - Database Linkage Service

    A new begin issued by the client application terminates abnormally, however, if begin has already been issued, commit/rollback succeeds.

  - Resource Manager

    Commit/rollback to be issued by the client application terminates abnormally, however, if two-phase commit has been issued in the resource control program, commit succeeds.

Windows32/64

- Do not use the start/stop commands of the following services using the Control Panel or the net start/net stop commands while using this command. However, when "mode2" is specified to be the operation state surveillance mode ("IS Monitor Mode") of an Interstage operation environment definition and service is being initialized about a command with the following (*), it can perform.

  - Interstage Java EE Node Agent Service (Interstage Java EE Node Agent)

  - CORBA Service (OD_start)

  - Naming Service (Naming Service)

  - Interface Repository (InterfaceRep_Cache Service)

  - Interface Repository (InterfaceRep_Cache_e Service)

  - Event Service (EventService)

  - Component Transaction Service (Transaction Director)

  - Database Linkage Service (Object TransactionService)

  - Interstage API Service (INTERSTAGE API)

  - Interstage HTTP Server (*)

  - Load Balancing Option (NS LoadBalancingOption) Windows32

Solaris32/64 Linux32/64

- When this command is executed, message od15500 may be output without any consequences. Reexecute the command.

2.14 K00stopis

Name

K00stopis

Stops the Interstage service.

Synopsis

Solaris32/64 Linux32/64

```
K00stopis
```

Description

This command stops the Interstage service.

This command is in the following directory for the system shutdown script. Normally, the user does not need to execute this command.

Solaris32/64

```
/etc/rc0.d
```

Linux32/64

```
/etc/rc.d/rc0.d
/etc/rc.d/rc1.d
/etc/rc.d/rc6.d
```

Notes

- Only system administrators are authorized to execute this command.

- For details on the execution result for this command, refer to the system log.

Solaris32

- This command cannot be used for extended systems.

2.15 S99startis

Name

S99startis

Starts the Interstage service.

Synopsis

Solaris32/64 Linux32/64

```
S99startis
```

Description

This command starts the Interstage service.

This command is available from the directory below for the system initialization script. The command is executed at server startup, automatically starting the Interstage service. Normally, the user does not need to execute this command.

Solaris32/64

```
/etc/rc2.d
```

```
/etc/rc.d/rc2.d
/etc/rc.d/rc3.d
/etc/rc.d/rc4.d
/etc/rc.d/rc5.d
```

Notes

- Only system administrators are authorized to execute this command.

- For details on the execution result for this command, refer to the system log.

- This command cannot be used for extended systems.

Chapter 3 Interstage Management Console Commands

This chapter describes commands for the Interstage Management Console.

Supported commands

Table 3.1 Commands supported by Each Product

Command	Outline	Standard-J Edition	Enterprise Edition
ismngconsolestart Solaris32/64 Linux32/64	Starts the service for the Interstage Management Console	OK	OK
ismngconsolestop Solaris32/64 Linux32/64	Stops the service for the Interstage Management Console	OK	OK
S99isstartoptool Solaris32/64 Linux32/64	Starts and stops Interstage HTTP Server for the Interstage Management Console	OK	OK

OK: Support

NO: No support

Location of commands

Table 3.2 Location of Commands

Platform	Directory
Solaris32/64	/opt/FJSVisgui/bin
Linux32/64	/opt/FJSVisgui/bin

3.1 ismngconsolestart

Name

ismngconsolestart

Starts the services for the Interstage Management Console.

Synopsis

Solaris32/64 Linux32/64

```
ismngconsolestart
```

Description

This script starts the following services of the Interstage Management Console.

- The Web server for the Interstage Management Console

- The Servlet service for Interstage Operation Management Console

- The JMX service

Notes

- Only a superuser can execute this command.

- If a service is already running, all services start without error.

- If this script is executed when all services are already running, the scrip exits normally.

Examples

```
ismngconsolestart
```

3.2 ismngconsolestop

Name

ismngconsolestop

Stops the services for the Interstage Management Console.

Synopsis

Solaris32/64 Linux32/64

```
ismngconsolestop
```

Description

This script stops the following services of the .Interstage Management Console.

- The Web server for the Interstage Management Console

- The Servlet service for Interstage Operation Management Console

- The JMX service

Notes

- Only a superuser can execute this command.

- If a service has already stopped, all services stop without error.

- If this script is executed when no services are running, the scrip exits normally.

Examples

```
ismngconsolestop
```

3.3 S99isstartoptool

Name

S99isstartoptool

Starts and stops Interstage HTTP Server for the Interstage Management Console.

Synopsis

Solaris32/64 Linux32/64

```
/opt/FJSVwgui/gui/bin/S99isstartoptool  {start|stop}
```

Description

This script starts and stops Interstage HTTP Server for the Interstage Management Console.

This script is started as a system initialization script or system shut down script at system startup.

This script starts and stops the following service.

- Interstage HTTP Server for the Interstage Management Console

The parameters of this command are:

start

    Starts the Interstage HTTP Server for the Interstage Management Console.

stop

    Stops the Interstage HTTP Server for the Interstage Management Console.

Notes

- Only a superuser can execute this command.

Examples

Starting the Interstage HTTP Server for the Interstage Management Console

```
# /opt/FJSVwgui/gui/bin/S99isstartoptool  start
```

Stopping the Interstage HTTP Server for the Interstage Management Console

```
# /opt/FJSVwgui/gui/bin/S99isstartoptool  stop
```

Chapter 4 Interstage JMX Service Operation Commands

This chapter describes the Interstage JMX Service Operation Commands.

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
isdispuserrep	Displays the user repository currently being used	OK	OK
isjmxchangedef	Interstage JMX Service definition operation	OK	OK
isjmxstart Solaris32/64 Linux32/64	Starts the Interstage JMX service	OK	OK
isjmxstat Solaris32/64 Linux32/64	Displays the Interstage JMX service status	OK	OK
isjmxstop Solaris32/64 Linux32/64	Stops the Interstage JMX service	OK	OK
isresetuserrep	This switches the user repository to OS authentication	OK	OK
S95isjmxstart Solaris32/64 Linux32/64	Starts or stops the Interstage JMX service	OK	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Directory
Windows32/64	C:\Interstage\bin
Solaris32/64 Linux32/64	/opt/FJSVisjmx/bin

4.1 isdispuserrep

Name

isdispuserrep

Displays the user repository currently being used

Synopsis

```
isdispuserrep
```

Description

The *isdispuserrep* command displays the type of user repository that is currently being used for operations.

Notes

This command is only available to a user with OS administrator authority.

Example

Using an OS user repository:

RepositoryType=OS

Using a Directory Service user repository:

RepositoryType=LDAP

4.2 isjmxchangedef

Name

isjmxchangedef

Interstage JMX Service definition operation

Synopsis

```
isjmxchangedef [-host -localhost] IP address
isjmxchangedef -d -host -localhost
```

Description

Use this to set or delete the local host IP address definition. Edit this command using the "isjmx.xml" Interstage JMX Service definition file.

For details of the isjmx.xml file, refer to "Customizing the Interstage Management Console Environment" - "Resources that can be Backed Up and Restored" in the Operator's Guide.

-host -localhost IP address

Use this to set the local host IP address. The IP address is used when the Interstage JMX Service communicates with other servers. Specify the IP address to be used for the Interstage JMX Service when separating the system operation management LAN and business LAN in a server with more than one IP address.

-d -host -localhost

Use this to delete the local host IP address definition.

Notes

- This command can only be executed with administrator authority.

- This command can only be executed once at a time.

- All messages are output as standard output.

- After this command is executed, restart Interstage JMX Service according to startup procedure.

- This command may change the isjmx.xml tags or the position of the attributes, however the Interstage JMX service will not be affected.

Interstage JMX service startup procedure

Start up the Interstage JMX service according to the following procedure.

`Windows32/64`

Restart the 'Interstage Operation Tool' and 'Interstage JServlet (OperationManagement)' services.

`Solaris32/64` `Linux32/64`

Use the *isjmxstop* and *isjmxstart* commands to first stop and then start Interstage the JMX Service.

Example

An example in which the IP address of the local host is "10.XXX.XXX.XX (*1)" is described below.

```
isjmxchangedef -host -localhost 10.XXX.XXX.XX
```

An example in which the IP address definition of the local host is deleted is described below.

```
isjmxchangedef -d -host -localhost
```

*1 Change 10.XXX.XXX.XX to a valid IP address.

4.3 isjmxstart

Name

isjmxstart

Starts the Interstage JMX service.

Synopsis

`Solaris32/64` `Linux32/64`

```
isjmxstart
```

Description

The *isjmxstart* command starts the Interstage JMX service.

Notes

- Only superusers can execute this command.

- The Interstage JMX service uses the local specified in the "LANG" environment variable at command execution.

`Solaris32/64`

- This command cannot be used for an extended system.

4.4 isjmxstat

Name

isjmxstat

Displays the Interstage JMX service status.

Synopsis

`Solaris32/64` `Linux32/64`

```
isjmxstat
```

Description

The *isjmxstat* command displays the Interstage JMX service status.

The service statuses displayed using this command are as follows:

- started

- stopped

- starting

- stopping

Return Value

The *isjmxstat* command returns the following command values depending on the Interstage JMX service status:

- 0 : started

- 1 : stopped

- 2 : starting

- 3 : stopping

- 99: error

Example

If the Interstage JMX service status has started

```
Name                    Status
--------------------------------------------------
Interstage JMX Service   started
```

4.5 isjmxstop

Name

isjmxstop

Stops the Interstage JMX service

Synopsis

Solaris32/64 Linux32/64

```
isjmxstart
```

Description

The *isjmxstop* command stops the Interstage JMX service.

Notes

- Only superusers can execute this command.

Solaris32/64

- This command cannot be used for an extended system.

4.6 isresetuserrep

Name

isresetuserrep

This switches the user repository to OS authentication

Synopsis

```
isresetuserrep
```

Description

Use this command to switch the repository used for operating the management server and standalone server to the OS user repository. This command is used primarily for switching to OS authentication if the Interstage Management Console cannot be used for operations because of problems with the Directory service.

This command is only available to a user with OS administrator authority.

4.7 S95isjmxstart

Name

S95isjmxstart

Starts or stops the Interstage JMX service.

Synopsis

Solaris32/64 Linux32/64

```
S95isjmxstart  start|stop
```

Description

The *S95isjmxstart* command starts or stops the Interstage JMX service.

This command is stored in the directory shown below and activated as a system initialization script. When the server starts, the command is called to automatically start the Interstage JMX service. The user does not usually enter this command manually.

Solaris32/64

```
/etc/rc2.d
```

Linux32/64

```
/etc/rc2.d
/etc/rc3.d
/etc/rc4.d
/etc/rc5.d
```

The option and argument of this command are explained below:

start

Starts the Interstage JMX service.

stop

Stops the Interstage JMX service.

Notes

- Only superusers can execute this command.

- Check the system log for the execution results of this command.

- The Interstage JMX service uses the system's default locale. This is defined in the system initialization script and set during server startup. Check the system's default locale as follows:

Solaris32/64

Check the value set for the "LANG" environment variable in the '/etc/default/init' file.

Linux32/64

Refer to the '/etc/sysconfig/i18n' file.

Solaris32/64

- This command cannot be used for an extended system.

Part 2　Multiserver Edition

Chapter 5 Multiserver Management Commands `Windows32/64` `Solaris32` `Linux32/64`

This chapter describes the Multiserver Management commands

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
isaddadminfunc `Windows32/64` `Solaris32` `Linux32/64`	Adds the Admin Server function.	NO	OK
isleavesite `Windows32/64` `Solaris32` `Linux32/64`	Deletes Multiserver management resource file	NO	OK
issepbackuprsc `Windows32/64` `Solaris32` `Linux32/64`	Separates Combined Server backup resources	NO	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Directory
`Windows32/64`	C:\Interstage\bin
`Solaris32`	/opt/FJSVisjmx/bin
`Linux32/64`	/opt/FJSVisjmx/bin

5.1 isaddadminfunc

Name

isaddadminfunc

Adds the Admin Server function.

Synopsis

`Windows32/64` `Solaris32` `Linux32/64`

```
isaddadminfunc
```

Description

The *isaddadminfunc* command adds the Admin Server function to the Standalone Server.

When this command is executed, the message shown below is output. Switch from the Standalone Server to the Admin Server, ensure that there are no problems, and then type **y.** Note that it is not possible to switch from the Admin Server to the Standalone Server.

```
Switching from the Admin Server to Standalone Server is not possible..
Are you sure to switch from Standalone Server to the Admin Server?[y,n]:
```

Notes

- Only superusers can execute this command.

- This command can only be executed on a Standalone Server. It will fail to execute on any other type of server.

- After this command is executed, the server is a Standalone Server and an Admin Server. If you want to make this server belong to the Site or the Server Group, use the Interstage Management Console.

- When servers on multiple machines are managed using Multiserver Management, the Admin Server and Managed Server will run as separate servers. Accordingly, coexistent server operations are not normally performed.

- It is not possible to switch from the Admin Server to the Standalone Server. To switch from the Admin Server to Standalone Server or Managed Server operations, reinstall Interstage Application Server.

- Solaris32

    This command cannot be used in a Managed Server installed in a non-global zone.

Messages

The following messages might be displayed:

isaddadminfunc: ERROR: Improper Java Execution environment.

Explanation

The Java runtime environment is invalid.

System Action

Stops command processing.

User Action

Set a correct installation path for JDK/JRE that will be used by Interstage JMX Service.

isaddadminfunc: ERROR: Improper Interstage environment.

Explanation

The Interstage environment is invalid.

System Action

Stops command processing.

User Action

Make sure that a valid installation target for this product has been set in the IS_HOME environment variable. If a valid target has been set, then the Interstage environment status is invalid and this product must be reinstalled.

isaddadminfunc: ERROR: Failure execution of command.

Explanation

Command failed.

System Action

Stops command processing.

User Action

A message indicating the cause of the failure will also have been output. Refer to that message and take appropriate action.

isaddadminfunc: INFO: Success execution of command..

Explanation

Command succeeded.

isaddadminfunc: INFO: Execution of command has been terminated.

> Explanation
>
> > Command was terminated.

Windows32/64

isaddadminfunc: ERROR: The function cannot be used.

> Explanation
>
> > The feature cannot be used.
>
> System Action
>
> > Stops command processing.
>
> User Action
>
> > Check whether the PATH environment variable contains "%SystemRoot%\system32" - it if does not, then add it and reexecute the command, otherwise change the environment variable so that it starts with "%SystemRoot%\system32" and reexecute the command.

Example

Adds the Admin Server function.

```
isaddadminfunc
```

5.2 isleavesite

Name

isleavesite

Deletes Multiserver function resources in a Managed Server which is deleted from a Site.

Synopsis

Windows32/64　Solaris32　Linux32/64

```
isleavesite -f
```

Description

The *isleavesite* command deletes Multiserver function resources in a Managed Server which is deleted from a Site. Execute the *isleave* command according to the following order:

1. Using the Interstage Management Console, force the Managed Server to leave the Site.

2. Execute *isleavesite* on the Managed Server which has been deleted from the Site to delete the resources.

The *isleavesite* command argument is explained below.

-f forcibly delete mode

> This argument forces the Managed Server to delete the resources of the Multiserver function and must be specified.

Notes

- Only the super user can execute this command.

- Before a Managed Server is deleted from the Site by the Interstage Management Console, isleavesite is executed, and is20764 is output. In this case, forcibly delete the Managed Server from the Site using the Interstage Management Console.

- After executing this command, Interstage JMX Service must be restarted.

Example

Deletes Multiserver function resources in a Managed Server which is deleted from a Site.

```
isleavesite -f
```

5.3 issepbackuprsc

Name

issepbackuprsc

Separates Combined Server backup resources

Synopsis

Windows32/64   Solaris32   Linux32/64

```
issepbackuprsc [-a] [-m] inputdir outputdir
```

Description

The backup resources obtained in the Combined Server are separated into backup resources for the Admin Server and Managed Server.

Use the Combined Server backup resources when switching Interstage resources to the Admin Server or Managed Server.

-a

Specify this to get the backup resources for the Admin Server only.

-m

Specify this to get the backup resources for the Managed Server only.

inputdir

Specify the storage directory for the backup resources obtained in the Combined Server.

The backup resources must be stored in the specified directory according to the following folder configurations:

Windows32/64

Example: "C:\temp\backup" is specified for inputdir

```
C:\temp\backup\isgui\[Interstage Management Console backup resources]
C:\temp\backup\isjmx\[Interstage JMX service backup resources]
C:\temp\backup\jmx_cm\[Business configuration management backup resources]
C:\temp\backup\irep\[Interstage Directory Service backup resources]
C:\temp\backup\[Other backup resources]
```

Solaris32   Linux32/64

Example: "/tmp/backup" is specified for inputdir

```
/tmp/backup/isgui/[Interstage Management Console backup resources]
/tmp/backup/isjmx/[Interstage JMX service backup resources]
/tmp/backup/jmx_cm/[Business configuration management backup resources]
/tmp/backup/irep/[Interstage Directory Service backup resources]
/tmp/backup/[Other backup resources]
```

If the sample backup batch execution script is used, specify the string shown in the table below as the inputdir argument defined in the script for the issepbackuprsc command.

Windows32/64

Section Name	Definition Name	Explanation about the definition value
Common	COMMON_PATH	Specifies the directory used for evacuating the resources.

Solaris32   Linux32/64

Section Name	Definition Name	Explanation about the definition value
Common	Path	Specifies the directory used for evacuating the resources.

outputdir

Specifies the backup resource output destination for Admin Server or Managed Server backup resources that are extracted from the Combined Server backup resources.

The backup resources are stored under the specified directory according to the following folder configuration:

Windows32/64

Example: "C:\temp\outputdir" is specified for inputdir

```
C:\temp\outputdir\AdminServer\isgui\[Interstage Management Console backup resources for the Admin
Server]
C:\temp\outputdir\AdminServer\isjmx\[Interstage JMX service backup resources for the Admin Server]
C:\temp\outputdir\AdminServer\jmx_cm\[Business configuration management backup resources for the
Admin Server]
C:\temp\outputdir\AdminServer\irep\[Interstage Directory Service backup resources for the Admin
Server]
C:\temp\outputdir\ManagedServer\isgui\[Interstage Management Console backup resources for the
Managed Server]
C:\temp\outputdir\ManagedServer\isjmx\[Interstage JMX service backup resources for the Managed
Server]
C:\temp\outputdir\ManagedServer\jmx_cm\[Business configuration management backup resources for the
Managed Server]
C:\temp\outputdir\ManagedServer\irep\[Interstage Directory Service backup resources for the
Managed Server]
C:\temp\outputdir\ManagedServer\[Other backup resources for the Managed Server]
```

Solaris32   Linux32/64

Example: "/tmp/outputdir" is specified for inputdir

```
/tmp/outputdir/AdminServer/isgui/[Interstage Management Console backup resources for the Admin
Server]
/tmp/outputdir/AdminServer/isjmx/[Interstage JMX service backup resources for the Admin Server]
/tmp/outputdir/AdminServer/jmx_cm/[Business configuration management backup resources for the
Admin Server]
/tmp/outputdir/AdminServer/irep/[Interstage Directory Service backup resources for the Admin
Server]
/tmp/outputdir/ManagedServer/isgui/[Interstage Management Console backup resources for the Managed
Server]
/tmp/outputdir/ManagedServer/isjmx/[Interstage JMX service backup resources for the Managed Server]
/tmp/outputdir/ManagedServer/jmx_cm/[Business configuration management backup resources for the
Managed Server]
/tmp/outputdir/ManagedServer/irep/[Interstage Directory Service backup resources for the Managed
Server]
/tmp/outputdir/ManagedServer/[Other backup resources for the Managed Server]
```

The resources under AdminServer and ManagedServer have the same configuration as the resources obtained using the sample backup batch execution script in the Admin Server and Managed Server respectively.

To use the sample restore/import batch execution script for the Admin Server, use the resources under the AdminServer directory.

To use the sample restore/import batch execution script for the Managed Server, use the resources under the ManagedServer directory.

Notes

- This command can only be executed by a user with Administrator authority.

- Execute this command for backup resources obtained in the Combined Server.

- If the -a and -m options are specified at the same time, backup resources for both the Admin Server and the Managed Server are extracted.

- If neither of the -a or -m options are specified, backup resources for both the Admin Server and the Managed Server are extracted.

- If the Combined Server backup resource storage directory and extracted backup resource output destination directory path contains spaces, it must be put in double quotation marks ("") when the command parameter is specified.

- Only store batch backup samples or backup resources obtained using the Interstage backup command in the Combined Server backup resource storage directory.

- The following log file (separate.log) is output when this command is executed. Refer to this log file if necessary.

Windows32/64

outputdir\separate.log

Solaris32   Linux32/64

outputdir/separate.log

Example

Windows32/64

Extracting backup resources for the Admin Server and Managed Server from the Combined Server backup resources:

```
issepbackuprsc C:\temp\backup C:\temp\separatersc
```

Extracting backup resources for the Admin Server only from the Combined Server backup resources:

```
issepbackuprsc -a C:\temp\backup C:\temp\separatersc
```

Extracting backup resources for the Managed Server only from the Combined Server backup resources:

```
issepbackuprsc -m C:\temp\backup C:\temp\separatersc
```

Solaris32   Linux32/64

Extracting backup resources for the Admin Server and Managed Server from the Combined Server backup resources:

```
issepbackuprsc /tmp/backup /tmp/separatersc
```

Extracting backup resources for the Admin Server only from the Combined Server backup resources:

```
issepbackuprsc -a /tmp/backup /tmp/separatersc
```

Extracting backup resources for the Managed Server only from the Combined Server backup resources:

```
issepbackuprsc -m /tmp/backup /tmp/separatersc
```

Part 3   J2EE Edition

Chapter 6 J2EE Operation Commands

This chapter describes the J2EE operation commands.

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
ijscompilejsp	JSP precompile	OK	OK
ijsdeployment	J2EE deployment command.	OK	OK
ijsdispatchcont	Distributes requests at the Web server connector.	OK	OK
ijslistapl	Displays a deployment application list.	OK	OK
ijsprintdispatchcont	Displays the status of request distribution by the Web server connector.	OK	OK
ijstune	Tunes the IJServer	OK	OK
ijsdeployment	J2EE undeployment command.	OK	OK
isj2eeadmin	Updates definitions such as J2EE environment definitions, deployment and operation tasks	OK	OK
isj2eemonitor	Starts and ends log collection and displays the log status	OK	OK
svmondspstat	Displays the status of the server to be sorted in the Web server connector fault monitoring function.	OK	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Command	Directory
Windows32/64	All commands	C:/Interstage/bin
Solaris32/64 Linux32/64	ijscompilejsp	/opt/FJSVj2ee/bin
	ijsdeployment	
	ijsdispatchcont	
	Ijslistapl	
	ijsprintdispatchcont	
	Ijstune	
	ijsundeployment	
	isj2eeadmin	
	isj2eemonitor	
	svmondspstat	/opt/FJSVsvmon/bin

6.1 ijscompilejsp

Name

ijscompilejsp

JSP precompile

Synopsis

```
ijscompilejsp [-a] [-b] [-p] -n name [-t targetname]
```

Description

The *ijscompilejsp* command precompiles JSP files for deployed EAR/WAR modules.

The result of the JSP precompile created during the JSP precompile is stored in the following directory:

Windows32/64

```
[J2EE common directory]\ijserver\[IJServer name]\work\precompile
```

Solaris32/64 Linux32/64

```
[J2EE common directory]/ijserver/[IJServer name]/work/precompile
```

The options and arguments of the *ijscompilejsp* command are explained below:

-a

Compiles JSP files that have not been changed.

If this is omitted, files that have not been changed since the previous precompile are not compiled.

-b

If there is a compile error, the rest of the compile is not performed.

If this is omitted, the rest of the compile is completed.

-p

Outputs the compile target WorkUnit and JSP file names.

If this is omitted, and there is no compile error, the WorkUnit and JSP file names are not output.

-n name

Specify the compile target IJServer WorkUnit name.

-t targetname

Specify the compile target EAR/WAR module name.

If this is omitted, all applications under the WorkUnit become compile targets.

Return Value

0: Normal end

Other than the above: An error occurred and processing was interrupted.

Note

  - Performing the following operations deletes the JSP compile results:

    - Overwriting the application by deployment

    - Undeploy an application

- When the use of custom tag pooling is changed by clicking [WorkUnit] > [Environment Settings] > [Servlet Container Settings] on the Interstage management console

If required, recompile the JSP by executing the JSP precompile command.

- The compile is performed in the JMX service. For this reason, the JMX Admin Server must be running.

- WARNING level compiler messages are not output (unless a compile error occurs).

- This command cannot be executed for IJServer WorkUnits created in Interstage Application Server V6.

- Windows32/64

  Only users with administrator authority can execute this command.

- Solaris32/64 Linux32/64

  The user authority for this command may vary based on the active security mode. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Example

In the following example, the IJServer WorkUnit is 'IJServer001', the module is 'sample.war', and the compile target JSP file is 'sample.jsp'.

```
ijscompilejsp -p -n IJServer001 -t sample.war

IJServer: INFO: IJServer10230: Pre-compile has started

WebModule: sample.war

/sample.jsp
  Created class file

IJServer: INFO: IJServer10222: Pre-compile is complete: JSP File Number=1, Error File Number=0
```

6.2 ijsdeployment

Name

ijsdeployment

J2EE deployment command

Synopsis

```
ijsdeployment -n name -f filepath [-c web application name] [-r]
ijsdeployment -n name -d path [-c web application name] [-r]
```

Description

The *ijsdeployment* command deploys a J2EE application to an IJServer WorkUnit.

The HotDeploy function is treated as a deployed/undeployed application if the IJServer WorkUnit is running.

The options and arguments of the *ijsdeployment* command are explained below:

-n name

  Specifies the name of the IJServer WorkUnit to which deployment is to be performed.

-f filepath

  Specifies the file to be deployed with an absolute path or a relative path. This cannot be specified with the -d option.

  The following types of files can be deployed:

  - EAR file

- WAR file

- ejb-jar file

- RAR file

-d path

Specify the full directory path in which to deploy and run Web applications anywhere on the server. These applications run in the IJServer but are not copied to the default IJServer execution directory. This option cannot be used with the -f option..

If the Web application is deployed to a directory on the server using the -d option, the Web application can run on the IJServer without being copied to the IJServer directory.

-c web application name

Specify the Web application.

To deploy a Web application as the default for requests without specifying the Web application in the URL, specify [ROOT] as the Web application name.

The following cannot be used in the Web application name:

- Symbols except '+', '-', '.', '_', '$', and '/' ('.' can only be used with other characters)

- Spaces

- Greater than 64 characters

- Windows32/64

  DOS driver name

If the Web application name starts with '/', the '/' is ignored.

The-c option is enabled in the following cases:

- The WAR file is specified in -f

- The directory for the Web application is specified in -d

If the -c option is specified, it takes priority over the Web application name set in the Web module definition file (interstage-web.xml).

If the -c option is omitted, the name of the Web application is as follows:

- When deploying a WAR file

  - the WAR file name without the file extension

    For example, if '/home/tmp/warsample.war' is deployed, the name of the Web application is "warsample".

- When deploying a Web application anywhere on the server

  - the Web application directory

    For example, if '/home/webapp/j2eesample/' is deployed, the name of the Web application is "j2eesample".

If the Web application name is set in the Web module definition file (interstage-web.xml), however, this name is used.

The name of the module is as follows:

- When deploying a WAR file

  - the WAR file name.

    For example, if '/home/tmp/warsample.war' is deployed, the name of the Web application is "warsample.war".

- When deploying a Web application anywhere on the server

  - the directory for the Web application.

    for example, if '/home/webapp/j2eesample/' is deployed, the name of the Web application is "j2eesample".

If the Web application is deployed using the *ijsdeployment* command, the module name cannot be changed. To change the module name, use the Interstage Management Console to deploy the Web application.

-r

If used, the specified application will be deployed and will overwrite any existing application of the same name.

Return Value

0: Normal end

Other than the above: An error occurred and processing was interrupted.

Note

- Items other than Web application names are set to the default value at the time of implementation from the Interstage Management Console.

  However, if a Web module specified in the Web module definition file (interstage-web.xml) is deployed, values set in the definition file take precedence.

- To use the command, an Interstage JMX service must be installed and started in advance on the machine on which the command is to be executed.

- To execute this command, the deployment target IJServer WorkUnit must be created in advance on the machine on which the command is to be executed. Use the Interstage Management Console or the *isj2eeadmin* command to create the deployment target IJServer WorkUnit.

- In the following cases, the target IJServer WorkUnit must be stopped before the command is executed.

  - If the HotDeploy function is not being used.

  - If the IJServer was created by Interstage Application Server V6

- Only an IJServer WorkUnit created using the Interstage Management Console or the *isj2eeadmin* command can be a deployment target WorkUnit for the command.

- The command can be executed when Interstage is active or when it is stopped in mode other than the all forced stop mode.

- The JavaVM used to compile the Java class generated by deploy processing is the JavaVM set as the Java version in the IJServer WorkUnit settings.

- The command operation is processed by the Interstage JMX service that is the execution base of the Interstage Management Console. The Interstage JMX service should be customized in the following cases.

  - If a memory shortage occurs.

    Customize the option information specified to be the java process of Interstage JMX service.

  - If an Interstage JMX service communication timeout occurs

    Customize the timeout time of communication of Interstage JMX service.

- `Windows32/64`

  Only users with administrator authority can execute this command.

- `Solaris32/64` `Linux32/64`

  The user authority for this command may vary based on the active security mode. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Example

`Windows32/64`

The following example of the command assumes that the IJServer WorkUnit name is IJServer001 and the file path is C:\temp\sample.ear:

```
ijsdeployment -n IJServer001 -f C:\tmp\sample.ear
```

The following example of the command assumes that the IJServer WorkUnit name is IJServer001 and the file path is /usr/tmp/sample.ear:

```
ijsdeployment -n IJServer001 -f /usr/tmp/sample.ear
```

6.3 ijsdispatchcont

Name

ijsdispatchcont

Distributes requests at the Web server connector.

Synopsis

```
ijsdispatchcont ON|OFF IP-address[:Port-number] [-s Web server name]
```

Description

The Web server connector controls the distribution of requests to IJServer WorkUnits. The *ijsdispatchcont* command instructs the Web server connector whether to distribute requests to IJServer WorkUnits or not. The command can set (ON) or unset (OFF) individual IJServer WorkUnits as distribution targets.

The state set by this command is retained permanently. It is retained even after the Web server is restarted or terminated abnormally. The state is not changed unless the command is executed again.

No error is posted even if the command is issued while specifying an IJServer WorkUnit, which is already set as a distribution target, as a distribution target again. Similarly, no error is posted even if the command is issued while unsetting an IJServer WorkUnit that is already unset from a distribution target.

The options and arguments of the *ijsdispatchcont* command are explained below:

on

Sets the specified IJServer WorkUnit as a request distribution target of the Web server connector. Uppercase and lowercase letters are not distinguished.

off

Unsets the specified IJServer WorkUnit from the request distribution targets of the Web server connector. Uppercase and lowercase letters are not distinguished.

IP-address[:Port-number]

Specifies the IP address or IP address and port number of the IJServer WorkUnit that is to be subjected to distribution control.

If only an IP address is specified without a port number, all IJServer WorkUnits (Servlet containers in all IJServer WorkUnits) with the relevant IP address are subjected to distribution control.

-s Web server name

Specifies the name of the Web server whose Web server connectors should be used to control distribution of requests from a particular Web server only. Posts an error if the specified Web server does not exist.

When omitted, the distribution settings specified by this command are applied to Web server connectors on all Web servers.

Return Value

0: Normal end

Other than the above: An error occurred and processing was interrupted.

Note

- Only users with administrator authority can execute this command.

- If no distribution target exists as the result of this command, HTTP status code 503 (Service Temporarily Unavailable) is returned to the Web browser when access is requested.

Example

```
ijsdispatchcont OFF 10.10.10.1:9000 -s FJapache
IJServer: INFO: IJServer10201: Starting a request distribution processing to
a container
IJServer: INFO: IJServer10203: 10.10.10.1:9000:FJapache distribution was disabled
IJServer: INFO: IJServer10202: Stopping a request distribution processing to
a container
```

6.4 ijslistapl

Name

ijslistapl

Displays a deployment application list

Synopsis

```
ijslistapl [-n name] [-l]
```

Description

The *ijslistapl* command lists the applications deployed to an IJServer WorkUnit.

The information displayed by this command is as follows.

- modulekind: module type

    - EAR: EAR file

    - WAR: WAR file

    - ejb-jar: ejb-jar file

    - RAR: RAR file

- modulename: module name

- submodule: module name included in the EAR file

- kind: application type

    - Web: Web application

    - EJB: EJB application

    - RAR: connector

- name: An application name or a definition name

In the case of Web application anywhere on the server, "WAR" is displayed as the modulekind. The path for the deployed Web application is displayed after the module name in the modulename field.

The options and arguments of the *ijslistapl* command are explained below:

-n name

Specifies the target IJServer WorkUnit.

If this option is omitted, the command outputs information on all IJServer WorkUnits.

-l

Specify to display application names contained in the deployed modules.

Return Value

0: Normal end

Other than the above: An error occurred and processing was interrupted.

Note

- To use the command, an Interstage JMX service must be installed and started in advance on the machine on which the command is to be executed.

- Only an IJServer WorkUnit created using the Interstage Management Console or the *isj2eeadmin* command can be a deployment target WorkUnit for the command.

- The command operation is processed by the Interstage JMX service that is the execution base of the Interstage Management Console. The Interstage JMX service should be customized in the following cases.

  - If a memory shortage occurs.

    Customize the option information specified to be the java process of Interstage JMX service.

  - If an Interstage JMX service communication timeout occurs

    Customize the timeout time of communication of Interstage JMX service.

- Windows32/64

  Only users with administrator authority can execute this command.

- Solaris32/64 Linux32/64

  The user authority for this command may vary based on the active security mode. For details, refer to "Notes on Using Commands" at the beginning of this manual.

- The execution time of this command will increase as the number of deployed applications increases.

Example

The following example of the command assumes that the IJServer WorkUnit name is IJServer001:

```
>ijslistapl -n IJServer001
** IJServer001 **
modulekind    modulename
EAR           earsample001.ear
EAR           earsample002.ear
WAR           websample100.war
WAR           websample200.war
ejb-jar       ejbsample100.jar
ejb-jar       ejbsample200.jar
RAR           rarsample100.rar
RAR           rarsample200.rar
WAR           j2eesample2(/home/webapps/j2eesample2/)  (Note)
```

Note: This is an example of a Web application anywhere on the server.

The modules deployed in the specified WorkUnit of IJServer are displayed sorted by type in alphabetically ascending order for each module type.

The following example indicates what is displayed when IJServer001 is specified as a WorkUnit of IJServer, and the -l option is also specified:

```
>ijslistapl -n IJServer001 -l
** IJServer001 **
modulekind    modulename        submodule         kind    name
EAR           earsample001.ear  websample001.war  Web     Web001
                                ejbsample001.jar  EJB     EB001
                                                          EB002
                                rarsample001.rar  RAR     RAR001
```

```
WAR          websample100.war                  Web    Web100
ejb-jar      ejbsample100.jar                  EJB    EB100
RAR          rarsample100.rar                  RAR    RAR100
```

The modules deployed in the specified WorkUnit of IJServer are displayed sorted by type in alphabetically ascending order for each module type.

The example at the time of omitting the WorkUnit name of IJServer is shown below.

```
>ijslistapl
** IJServer001 **
modulekind     modulename
EAR            earsample001.ear
WAR            websample100.war
ejb-jar        ejbsample100.jar
RAR            rarsample100.rar
** IJServer002 **
modulekind     modulename
EAR            earsample002.ear
WAR            websample200.war
ejb-jar        ejbsample200.jar
RAR            rarsample200.rar
```

WorkUnits of all IJServers in the Interstage system are displayed in ascending order.

The modules deployed in WorkUnit of IJServer are also displayed sorted by type in alphabetically ascending order for each WorkUnit of IJServer.

6.5 ijsprintdispatchcont

Name

ijsprintdispatchcont

Displays the status of request distribution by the Web server connector.

Synopsis

```
ijsprintdispatchcont [-s Web server name]
```

Description

The *ijsprintdispatchcont* command displays the status of request distribution to IJServer WorkUnits by the Web server connector.

The distribution status is displayed in Status IP-address: Port-number WorkUnit-name format.

The contents of the item displayed are as follows:

- Status: Either ON (effective) or OFF (invalid)

- IP-address: Port-number : -- the IP address and port number of a Servlet container of a connection place

- WorkUnit-name: The WorkUnit name by which the Servlet container of a connection place is defined.

The options and arguments of the *ijsprintdispatchcont* command are explained below:

-s Web server name

Specifies the name of the Web server whose Web server connectors' status will be displayed.

When omitted, the status for Web server connectors on all Web servers are displayed.

Return Value

0: Normal end

Other than the above: An error occurred and processing was interrupted.

Example

When the Web server name is omitted:

```
 ijsprintdispatchcont
Status IP address:Port number WorkUnit name   Web server name
  OFF   10.10.10.1:9000      IJServer001        FJapache
  OFF   10.10.10.1:9001      IJServer001        WEB001
  ON    10.10.10.2:9000      IJServer002        FJapache
  ON    10.10.10.2:9001      IJServer002        WEB001
  ON    10.10.10.3:9000      IJServer003        FJapache
  ON    10.10.10.3:9001      IJServer003        WEB002
```

When the Web server name is specified:

```
 ijsprintdispatchcont -s FJapache
Status IP address:Port number WorkUnit name   Web server name
  OFF   10.10.10.1:9000      IJServer001        FJapache
  ON    10.10.10.1:9001      IJServer002        FJapache
  ON    10.10.10.2:9000      IJServer003        FJapache
```

6.6 ijsundeployment

Name

ijsundeployment

J2EE undeployment command

Synopsis

```
ijsundeployment -n name -t targetname ...
ijsundeployment -n name -k kind -a application ...
ijsundeployment -n name -f
```

Description

The *ijsundeployment* command undeploys the application that was previously deployed to an IJServer WorkUnit.

The HotDeploy function is treated as an undeployed application if the IJServer WorkUnit is running.

The options and arguments of the *ijsundeployment* command are explained below:

-n name

Specifies the IJServer WorkUnit to which the application to be undeployed is deployed.

-t targetname

Specify the name of the module to be undeployed.

More than one module can be specified by delimiting module names with space characters.

This option cannot be specified with the -k, -a and -f options.

The format "ijsundeployment -n name -t targetname ..." can be used for a WorkUnit of IJServer created with Interstage Application Server V7 or later.

-k kind

Specifies the type of the application to be undeployed.

The following types can be specified:

- ejb: EJB application

- web: Web application

This option cannot be specified with the -t and -f options.

The format "ijsundeployment -n name -k kind -a application ..." can be used for a WorkUnit of IJServer created with Interstage Application Server V6.

-a application

Specifies the name of the application to be undeployed.

Two or more application names can be specified by delimiting them with a blank if they are the same type of application.

This option must be specified with the -k option.

This option cannot be specified with the -t and -f options.

-f

This command undeploys the all applications that was deployed to the target IJServer WorkUnit.

This option cannot be specified with the -k, -a and -t options.

Return Value

0: Normal end

Other than the above: An error occurred and processing was interrupted.

Note

- To use the command, an Interstage JMX service must be installed and started in advance on the machine on which the command is to be executed.

- In the following cases, the target IJServer WorkUnit must be stopped before the command is executed.

  - If the HotDeploy function is not being used.

  - If the IJServer was created by Interstage Application Server V6

- Only an IJServer WorkUnit created using the Interstage Management Console or the *isj2eeadmin* command can be a deployment target WorkUnit for the command.

- When the Web application anywhere on the server, is undeployed from the server, only the deployment information for the application is deleted from the IJServer WorkUnit. The Web application deployed to the server directory is not deleted. Delete the Web application if necessary.

- The command can be executed when Interstage is active or when it is stopped in mode other than the all forced stop mode.

- The command operation is processed by the Interstage JMX service that is the execution base of the Interstage Management Console. The Interstage JMX service should be customized in the following cases.

  - If a memory shortage occurs.

    Customize the option information specified to be the java process of Interstage JMX service.

  - If an Interstage JMX service communication timeout occurs

    Customize the timeout time of communication of Interstage JMX service.

- If another IJServer references a client distribution jar directly, then the file may still exist even after the IJServer is undeployed. In this case, wait a few moments before manually deleting the files - if they still cannot be deleted, then restart the Interstage JMX service and try again.

- Windows32/64

Only users with administrator authority can execute this command.

-

   The user authority for this command may vary based on the active security mode. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Example

The following example assumes that the name of the IJServer WorkUnit (created with Interstage Application Server V7 or later) is IJServer001, and the module name is sample.ear:

```
ijsundeployment -n IJServer001 -t sample.ear
```

The following example assumes that the name of the IJServer WorkUnit (created with Interstage Application Server V6) is IJServer001, the application type is EJB, and the application name is sampleEJB:

```
ijsundeployment -n IJServer001 -k ejb -a sampleEJB
```

6.7 ijstune

Name

ijstune

Tunes IJServers

Synopsis

1. Tunes JDBC

   ```
   ijstune jdbc "jdbc options"
   ```

2. Display usage

   ```
   ijstune -h
   ```

Description

The *ijstune* command tunes operating IJServers.

The options of the *ijstune* command are explained below:

-h

   Displays *ijstune* usage.

Subcommands

This section explains the *ijstune* subcommands.

jdbc

   Performs JDBC tuning

Notes

- In a multiserver environment, the command must be executed for each server.

- This command cannot be used on version 8.0 compatible mode IJServers or IJServers created in Application Server version 8.0 or earlier.

- The user authority for this command may vary based on the active security mode. For details, refer to "Notes on Using Commands" at the beginning of this manual.

6.7.1 jdbc

Synopsis

1. Close pooled connections

```
ijstune jdbc -c -n ijs-name {-s data-source | -all}
```

2. Display usage

```
ijstune jdbc -h
```

Description

The jdbc subcommand performs JDBC tuning.

The options of the *jdbc* subcommand are explained below.

-c

Closes pooled connections.

Closes connections with data sources for which Interstage or Oracle perform connection pooling.

n ijs-name

Specifies the name of the IJServer that uses the data source being closed

-s data-source

Specifies the name of the data source being closed

Cannot be used with the -all option

-all

Applies to all data sources used by the IJServer

Outputs the processing result message for each data source

-h

Displays the jdbc subcommand usage

Example

```
ijstune jdbc -c -n MyServer -s DS1
```

6.8 isj2eeadmin

Name

isj2eeadmin

Updates J2EE definitions

Synopsis

```
isj2eeadmin {{ijserver | system | resource | service} "option" [-h]}
```

Description

The *isj2eeadmin* command performs definition manipulations and implements environment settings for J2EE.

Definition manipulations can be performed by specifying subcommands.

Subcommands

This section explains the subcommands for the *isj2eeadmin* command.

-

    This subcommand manipulates IJServer definitions.

-

    This subcommand manipulates J2EE system definitions.

-

    This subcommand manipulates J2EE resource definitions.

-

    This subcommand manipulates Web server connector definitions.

Refer to the sections below for more information about each of these subcommands.

Options

This section explains the options for the *isj2eeadmin* command.

-h

    Help information for the *isj2eeadmin* command can be displayed by specify the "-h" option with the *isj2eeadmin* command.

    Refer to the sections below for information on subcommand options.

Notes

- This command makes definition manipulation requests to the following services, so these services must be running when the command is executed.

    Windows32/64

    - Interstage Operation Tool Service

    Solaris32/64 Linux32/64

    - Interstage JMX Service

- Some of the subcommands of the command cannot be executed without administrator privileges for the operating system. See the following table to check which subcommand operations require administrator privileges for the operating system.

Subcommand name	Operations	Administrator privileges for the operating system
ijserver	Add new definition	Not required
	Update definition	Not required
	Delete definition	Not required
	Extract definition	Not required
	Get a list of definitions	Not required
system	Update definition	Required
	Extract definition	Not required
resource	Add new definition	Not required
	Update definition	Not required
	Extract definition	Not required
	Get list	Not required
service	Add new definition	Not required

Subcommand name	Operations	Administrator privileges for the operating system
	Update definition	Not required
	Delete definition	Not required
	Extract definition	Not required
	Get a list of definitions	Not required

- If the server type is "managed server" and the application operation type is "individual operation mode", only the application name for Web server connector definitions can be updated. For managed servers, other definitions cannot be added or updated.

- Perform the update/deletion of the IJServer definition when IJServer is not running.

- The user authority for this command may vary based on the active security mode. For details, refer to "Notes on Using Commands" at the beginning of this manual.

6.8.1 ijserver Subcommand

Synopsis

1. Add new IJServer definitions

```
isj2eeadmin ijserver -a [-f filename] [-v version]
```

2. Update IJServer definitions

```
isj2eeadmin ijserver -o [-f filename]
```

3. Delete IJServer definitions

```
isj2eeadmin ijserver -d {-n ijs-name | -all} [-y]
```

4. Extract IJServer definitions

```
isj2eeadmin ijserver -e {-n ijs-name | -all} [-f filename] [-y] [-encode {UTF-8 | SJIS | EUC}]
```

5. Display a list of IJServer definitions

```
isj2eeadmin ijserver -l
```

6. Display help information

```
isj2eeadmin ijserver -h
```

Description

The ijserver subcommand adds new IJServer definitions, updates, deletes and extracts IJServer definitions, and displays a list of IJServer definitions.

Note that this function supports version 8.0 or later of IJServers. This command cannot be used on IJServers that have been restored from Interstage V7.0 or earlier.

Options

This section explains the options for the *ijserver* subcommand

-a [-f filename] [-v version]

Adds a new IJServer. Default values will be set for any items not specified in the definition file.

An error will occur if IJServer definitions with the same name already exist.

- -f filename

  Specifies the name of the 6.8.7 IJServer Definition Files.

  Enclose file names that include blank spaces in double quotes.

  If this option is omitted, "ijserver.xml" in the current directory will be used.

  IJServer definition files have a lot of definition items, so use the *isj2eeadmin* command to extract and edit the IJServer definition file for an IJServer that has been created using the Interstage Management Console.

- -v version

  This option is compatible with the previous version/level of this product. However, V8.0 compatibility mode IJServers cannot be created in this version/level, even if 8.0 is specified. For details, refer to "6.8.5 Compatibility Option".

If the command is executed with multiple IJServers defined at once, the following messages will be output for each IJServer that has been defined. If some definitions fail, error messages will be output but command processing will continue. In this kind of situation, remove the cause of the error, and then execute the command again, specifying the "-o" option.

```
isj2eeadmin ijserver -a -f ijserver.xml
isj2eeadmin: INFO: isj2ee2100: The IJServer has been registered.  NAME=IJServer1
extp: Error: EXTP2030: Specified work unit definition already exists:
WU=IJServer2 SYSTEM=default
isj2eeadmin: INFO: isj2ee2100: The IJServer has been registered.
NAME=IJServer3
```

-o [-f filename]

  Updates IJServer definitions.

- If IJServer definitions with the same name already exist, these IJServer definitions will be updated.

  The settings for the items specified in the definition file will be updated and the settings for all other items (not specified in the definition file) will be left unchanged.

- If IJServer definitions with the same name do not exist, new IJServer definitions will be registered.

  Default values will be set for any items not specified in the definition file.

  An error will occur if there is another Work Unit with the same name that is not an IJServer.

-f filename

  Specifies the name of the 6.8.7 IJServer Definition Files.

  Enclose file names that include blank spaces in double quotes.

  If this option is omitted, "ijserver.xml" in the current directory will be used.

  If an IJServer with the same name is created, updated or deleted as a result of a request from a different user while the definitions are being updated, an error such as "DEP4157" may occur. If an error occurs, check how the definition information has changed as a result of the other user's operation, and then execute the processing again if necessary.

  Note that the Type tag must be defined when the IJServer definition is updated. If the Type tag is omitted, the definition will only be updated if the default value is valid for the IJServer type.

-d {-n ijs-name | -all} [-y]

  Deletes an IJServer.

- -n ijs-name

  Specifies the name of the IJServer to be deleted.

  This option cannot be specified together with the "-all" option.

- -all

  Deletes all registered IJServers.

- -y

  If this option is specified, IJServers will be deleted without a confirmation message being output.

If this option is omitted, a confirmation message will be output.

An error will occur if a Work Unit that is not an IJServer is specified.

Note

> If another IJServer references a client distribution jar directly, then the file may exist even after the IJServer is deleted. In this case, wait a few moments before manually deleting them - if they still cannot be deleted, then restart the Interstage JMX service and try again.

-e {-n ijs-name | -all} [-f filename] [-y] [-encode {UTF-8 | SJIS | EUC}]

Extracts 6.8.7 IJServer Definition Files:

- -n ijs-name

  Specifies the name of the IJServer whose definitions are to be extracted.

  This option cannot be specified together with the "-all" option.

- -all

  Extracts all registered definitions.

- -f filename

  Specifies the name of the file where the definitions will be output.

  Enclose file names that include blank spaces in double quotes.

  If this option is omitted, definitions will be output to "ijserver.xml" in the current directory.

- -y

  If this option is specified, any definition files with the same name that might exist will be overwritten unconditionally.

  If this option is omitted, a confirmation message will be output.

- -encode {UTF-8 | SJIS | EUC}

  Specifies the character encoding for the definition file to be output when the definition is extracted.

    - UTF-8: Output using UTF-8 (default value for Linux)

    - SJIS: Output using Shift_JIS (default value for Windows®)

    - EUC: Output using EUC-JP (default value for Solaris)

-l

Display a list of IJServer names for IJServers whose definitions have already been registered.

-h

Displays the help for the *ijserver* subcommand.

Definition File

Refer to '6.8.7 IJServer Definition Files'.

Messages

- If definitions are extracted by specifying the "-e" option, the following message will be output if there is already another file with the same name as the file to be extracted.

```
Override "file name", are you sure (y/n)?
```

Specify "y" to overwrite the file or "n" to cancel processing.

If anything other than "y" or "n" is specified, processing will be canceled (as if "n" is specified).

To overwrite files unconditionally (without a confirmation message being displayed), specify the "-y" option when the command is executed.

- If definitions are deleted by specifying the "-d" option, the following message will be output.

```
Delete "name of the definitions to be deleted", are you sure (a/y/n)?
```

Specify "y" to continue with the deletion processing or "n" to cancel definition deletion. If "a" is specified, all deletion processing will be performed without outputting any further confirmation messages. If anything other than "y", "n" or "a" is specified, processing will be canceled (as if "n" is specified).

To delete definitions unconditionally (without a confirmation message being displayed), specify the "-y" option when the command is executed.

Examples

Registering an IJServer using a file called "create-define.xml" where IJServer definitions have been entered

```
-----------------------------------------------------------
isj2eeadmin ijserver -a -f create-def.xml
-----------------------------------------------------------
```

Registering an IJServer by overwriting a file called "update-def.xml" where IJServer definitions have been entered

```
-----------------------------------------------------------
isj2eeadmin ijserver -o -f update-def.xml
-----------------------------------------------------------
```

Deleting the IJServer definitions for the IJServer called "IJSERVER1"

```
-----------------------------------------------------------
isj2eeadmin ijserver -d -n IJSERVER1
-----------------------------------------------------------
```

Extracting IJServer definitions for the IJServer called "IJSERVER1" and saving them to a file called "export-def.xml"

```
-----------------------------------------------------------
isj2eeadmin ijserver -e -n IJSERVER1 -f export-def.xml
-----------------------------------------------------------
```

Displaying a list of the IJServer definitions that have been registered

```
-----------------------------------------------------------
isj2eeadmin ijserver -l

    IJSERVER1
    IJSERVER2
-----------------------------------------------------------
```

6.8.2 system Subcommand

Synopsis

1. Update J2EE system definitions

   ```
   isj2eeadmin system -o [-f filename]
   ```

2. Extract J2EE system definitions

   ```
   isj2eeadmin system -e [-f filename] [-y] [-encode {UTF-8 | SJIS | EUC}]
   ```

3. Display help information

   ```
   isj2eeadmin system -h
   ```

Description

The *system* subcommand updates and extracts J2EE system definitions (J2EE properties, Servlet service settings and EJB service settings).

Options

This section explains the options for the *system* subcommand

-o [-f filename]

Updates J2EE definitions.

The settings for the items specified in the definition file will be updated and the settings for all other items (not specified in the definition file) will be left unchanged.

- -f filename

Specifies the name of the 6.8.8 J2EE System Definition File.

Enclose file names that include blank spaces in double quotes.

If this option is omitted, "system.xml" in the current directory will be used.

If J2EE system definitions are updated as a result of a request from a different user while the definitions are being updated, an error such as "isj2ee1005" may occur. If an error occurs, check how the definition information has changed as a result of the other user's operation, and then execute the processing again if necessary.

-e [-f filename] [-y] [-encode {UTF-8 | SJIS | EUC}]

Extracts 6.8.8 J2EE System Definition File.

- -f filename

Specifies the name of the file where the definitions will be output.

Enclose file names that include blank spaces in double quotes.

If this option is omitted, "system.xml" in the current directory will be used.

- -y

If this option is specified, any definition files with the same name that might exist will be overwritten unconditionally.

If this option is omitted, a confirmation message will be output.

- -encode {UTF-8 | SJIS | EUC}

Specifies the character encoding for the definition file to be output when the definition is extracted:

- UTF-8: Output using UTF-8 (default value for Linux)

- SJIS: Output using Shift_JIS (default value for Windows®)

- EUC: Output using EUC-JP (default value for Solaris)

-h

Displays the help for the *system* subcommand.

Definition File

Refer to "6.8.8 J2EE System Definition File".

Messages

- If definitions are extracted by specifying the "-e" option, the following message will be output if there is already another file with the same name as the file to be extracted.

```
Override "file name", are you sure (y/n)?
```

Specify "y" to overwrite the file or "n" to cancel processing.

If anything other than "y" or "n" is specified, processing will be canceled (as if "n" is specified).

To overwrite files unconditionally (without a confirmation message being displayed), specify the "-y" option when the command is executed.

Examples

Registering a J2EE system using a file called "update-def.xml" where J2EE system definitions have been entered

```
------------------------------------------------------------
isj2eeadmin system -o -f update-def.xml
------------------------------------------------------------
```

Extracting J2EE system definitions and saving them to a file called "export-def.xml"

```
------------------------------------------------------------
isj2eeadmin system -e -f export-def.xml
------------------------------------------------------------
```

Note

Definition updates using this subcommand can only be executed by users with administrator privileges for the operating system.

6.8.3 resource Subcommand

Synopsis

1. Add new J2EE resource definitions

   ```
   isj2eeadmin resource -a [-f filename] [-v version]
   ```

2. Update J2EE resource definitions

   ```
   isj2eeadmin resource -o [-f filename]
   ```

3. Delete J2EE resource definitions

   ```
   isj2eeadmin resource -d {-n resource-name | -all} -k {jdbc | javamail | jmsdst | jmsfact} [-y]
   ```

4. Extract J2EE resource definitions

   ```
   isj2eeadmin resource
   -e {-n resource-name | -all} [-k {jdbc | javamail | jmsdst | jmsfact |
   connector}] [-f filename] [-y] [-encode {UTF-8 | SJIS | EUC}]
   ```

5. Display a list of J2EE resource definitions

   ```
   isj2eeadmin resource -l -k {jdbc | javamail | jmsdst | jmsfact | connector}
   ```

6. Display help information

   ```
   isj2eeadmin resource -h
   ```

Description

The *resource* subcommand creates, updates, deletes, extracts and lists the following J2EE resource definitions.

- JDBC data source

- JavaMail resources

- JMS Destination

- JMS ConnectionFactory

- connector resources

Options

This section explains the options for the *resource* subcommand

-a [-f filename] [-v version]

Adds a new resource definition. Default values will be set for any items not specified in the definition file.

An error will occur if resource definitions with the same name already exist.

Note that for connector resources, resources are added by "deployment", so any definitions for connector resources in the resource definition file will be ignored.

  - -f filename

  Specifies the name of the 6.8.9 Resource Definition Files.

  Enclose file names that include blank spaces in double quotes.

  If this option is omitted, "resource.xml" in the current directory will be used.

  - -v version

  This option is a compatibility option for older versions and levels of this product. Use this option to use definition files that have been extracted from older versions or levels of this product. Refer to "6.8.5 Compatibility Option" for more information.

If the command is executed with multiple resource definitions in place, the messages below will be output for each definition. If some definitions fail, error messages will be output but command processing will continue. In this kind of situation, remove the cause of the error, and then execute the command again, specifying the "-o" option.

```
isj2eeadmin resource -a -f resource.xml
isj2eeadmin: INFO: isj2ee2200: The JDBC DataSource has been
registered.  NAME=DS1ISJ2EE
isj2eeadmin: Error: isj2ee0230: The specified name of a
definition has been already registered.  Specify another name:
Name of a definition=DS2
isj2eeadmin: INFO: isj2ee2200: The JDBC DataSource has been
registered.  NAME=DS3
```

-o [-f filename]

Updates resource definitions.

  - If resource definitions with the same name already exist, these resource definitions will be updated.

  The settings for the items specified in the definition file will be updated and the settings for all other items (not specified in the definition file) will be left unchanged.

  - If resource definitions with the same name do not exist, new resource definitions will be registered.

  Default values will be set for any items not specified in the definition file.

  - -f filename

  Specifies the name of the 6.8.9 Resource Definition Files.

  Enclose file names that include blank spaces in double quotes.

  If this option is omitted, "resource.xml" in the current directory will be used.

If a resource with the same name is created, updated or deleted as a result of a request from a different user while the definitions are being updated, an error such as "isj2ee0244" may occur. If an error occurs, check how the definition information has changed as a result of the other user's operation, and then execute the processing again if necessary.

-d {-n resource-name | -all} -k {jdbc | javamail | jmsdst | jmsfact} [-y]

Deletes resource definitions.

  - -n resource-name

  Specifies the name of the resource definition to be deleted.

  Specify this option together with the "-k" option.

This option cannot be specified together with the "-all" option.

- -all

  Deletes all registered resource definitions.

  If the "-k" option has been specified, only those resource definitions for the specified resource type will be deleted.

- -k {jdbc | javamail | jmsdst | jmsfact}

  Specifies the type of resource for which definitions should be deleted.

  - Jdbc: JDBC data source

  - Javamail: JavaMail resources

  - Jmsdst: JMS Destination

  - Jmsfact: JMS ConnectionFactory

  Connector resources cannot be specified. Use the deployment command to undeploy these resources.

- -y

  If this option is specified, resource definitions will be deleted without a confirmation message being output.

  If this option is omitted, a confirmation message will be output.

The following error will occur if JMS connection factories are deleted by specifying "-all". This is due to the product specification that the default definitions (that are created by default when Interstage is installed) cannot be deleted, and does not indicate a real problem.

```
JMS:Error:jms2882: It cannot delete of a default definition.
NAME 'QueueCF001'isj2eeadmin: Error: isj2ee2508: Failed to
delete the JMS ConnectionFactory.  NAME=QueueCF001
JMS:Error: jms2882: It cannot delete of a default definition.
NAME 'TopicCF001'isj2eeadmin: Error: isj2ee2508: Failed to
delete the JMS ConnectionFactory.  NAME=TopicCF001
```

-e {-n resource-name | -all} [-k {jdbc | javamail | jmsdst | jmsfact | connector}] [-f filename] [-y] [-encode {UTF-8 | SJIS | EUC}]

Extracts 6.8.9 Resource Definition Files.

- -n resource-name

  Specifies the name of the resource whose definitions are to be extracted.

  This option cannot be specified together with the "-all" option.

- -all

  Extracts all registered definitions.

- -k {jdbc | javamail | jmsdst | jmsfact | connector}

  Specifies the resource type to be extracted.

  - Jdbc: JDBC data source

  - Javamail: JavaMail resources

  - Jmsdst: JMS Destination

  - Jmsfact: JMS ConnectionFactory

    Connector: connector resources

- -f filename

  Specifies the name of the file where the definitions will be output.

  Enclose file names that include blank spaces in double quotes.

  If this option is omitted, "resource.xml" in the current directory will be used.

- -y

  If this option is specified, any definition files with the same name that might exist will be overwritten unconditionally.

  If this option is omitted, a confirmation message will be output.

- -encode {UTF-8 | SJIS | EUC}

  Specifies the character encoding for the definition file to be output when the definition is extracted.

  - UTF-8: Output using UTF-8 (default value for Linux)

  - SJIS: Output using Shift_JIS (default value for Windows®)

  - EUC: Output using EUC-JP (default value for Solaris)

-l -k {jdbc | javamail | jmsdst | jmsfact | connector}

  Displays a list of the names of the resources that have been registered with resource definitions.

  - -k {jdbc | javamail | jmsdst | jmsfact | connector}

    Specifies the type of resource to be listed.

    - Jdbc: JDBC data source

    - Javamail: JavaMail resources

    - Jmsdst: JMS Destination

    - Jmsfact: JMS ConnectionFactory

    - Connector: connector resources

-h

  Displays the help for the *resource* subcommand.

Definition File

Refer to "6.8.9 Resource Definition Files".

Messages

- If definitions are extracted by specifying the "-e" option, the following message will be output if there is already another file with the same name as the file to be extracted.

```
Override "file name", are you sure (y/n)?
```

Specify "y" to overwrite the file or "n" to cancel processing.

If anything other than "y" or "n" is specified, processing will be canceled (as if "n" is specified).

To overwrite files unconditionally (without a confirmation message being displayed), specify the "-y" option when the command is executed.

- If definitions are deleted by specifying the "-d" option, the following message will be output.

```
Delete "name of the definitions to be deleted", are you
sure (a/y/n)?
```

Specify "y" to continue with the deletion processing or "n" cancel definition deletion. If "a" is specified, all deletion processing will be performed without outputting any further confirmation messages. If anything other than "y", "n" or "a" is specified, processing will be canceled (as if "n" is specified).

To delete definitions unconditionally (without a confirmation message being displayed), specify the "-y" option when the command is executed.

Global Transaction Settings `Windows32/64` `Solaris32` `Linux32/64`

If global transactions are used with JDBC data sources and connector resources, use this command together with the *otssetrc* Database Linkage Service operation command when registering or deleting resource definitions. Refer to "otssetrsc" for more information about the *otssetrsc* command.

Execute the *otssetrsc* command as follows:

Sample

If the name of the resource definition file for the *otssetrsc* command is "otsresource"

`Windows32/64`

```
------------------------------------------------------------
isj2eeadmin resource -a -f resource.xml
otssetrsc -a -rf c:\temp\ots\otsresource
------------------------------------------------------------
```

`Solaris32` `Linux32/64`

```
------------------------------------------------------------
isj2eeadmin resource -a -f resource.xml
otssetrsc -a -rf /home/ots/otsresource
------------------------------------------------------------
```

In "resource.xml, define a JDBC data source that specifies "XADataSource" in the "DatasourceKind" tag.

If the Interstage Management Console is used, definitions equivalent to the otssetrsc command can be made by setting Data Source type in the window for defining JDBC resources for Oracle to Use Global transaction when defining resources.

JMS Destination Definitions

When defining JMS Destinations, define event channels using this command together with the *esmkchnl* Event Service operation command. Refer to "esmkchnl" for more information about the *esmkchnl* command.

Execute the *esmkchnl* command as follows:

Sample

Creating an event channel "EventChannel001" for the Event Service, with group name "EventGroup001"

```
------------------------------------------------------------
esmkchnl -g EventGroup001 -c EventChannel001 -notify
isj2eeadmin resource -a -f resource.xml
------------------------------------------------------------
```

Define JMS Destinations in "resource.xml", and specify the "EventGroup001" group name for the event channel created with the *esmkchnl* command in the "GroupName" tag and event channel "EventChannel001" in the "ChannelName" tag.

If the Interstage Management Console is used, JMS Destination definitions can be created with the window for defining event channels as well.

Examples

Registering J2EE resources using a file called "create-def.xml" where J2EE resource definitions have been entered

```
------------------------------------------------------------
isj2eeadmin resource -a -f create-def.xml
------------------------------------------------------------
```

Registering J2EE resources by overwriting a file called "update-def.xml" where J2EE resource definitions have been entered

```
------------------------------------------------------------
isj2eeadmin resource -o -f update-def.xml
------------------------------------------------------------
```

Deleting the definitions for the JDBC data source called "DS1"

```
-------------------------------------------------------------
isj2eeadmin resource -d -n DS1 -k jdbc
-------------------------------------------------------------
```

Extracting definitions for a JDBC data source called "DS1" and saving them to a file called "export-def.xml"

```
-------------------------------------------------------------
isj2eeadmin resource -e -n DS1 -k jdbc -f export-def.xml
-------------------------------------------------------------
```

Displaying a list of the JDBC data sources that have been registered

```
-------------------------------------------------------------
isj2eeadmin resource -l -k jdbc

    DS1
    DS2
-------------------------------------------------------------
```

6.8.4 service Subcommand

Synopsis

1. Add new Web server connector definitions

   ```
   isj2eeadmin service -a [-f filename] [-v version]
   ```

2. Update Web server connector definitions

   ```
   isj2eeadmin service -o [-f filename]
   ```

3. Delete Web server connector definitions

   ```
   isj2eeadmin service -d [-s web-server-name] {-n connector-name | -all} [-y]
   ```

4. Extract Web server connector definitions

   ```
   isj2eeadmin service -e [-s web-server-name] {-n connector-name | -all} [-f filename] [-y] [-encode {UTF-8 | SJIS | EUC}]
   ```

5. Display a list of Web server connector definitions

   ```
   isj2eeadmin service -l [-s web-server-name]
   ```

6. Display help information

   ```
   isj2eeadmin service -h
   ```

Description

The *service* subcommand adds new Web server connector definitions; updates, deletes and extracts Web server connector definitions; and displays a list of Web server connector definitions.

Options

This section explains the options for the *service* subcommand.

-a [-f filename] [-v version]

Adds a new Web server connector definition. Default values will be set for any items not specified in the definition file. Note also that log settings (the settings for the <log> tag) and fault monitoring settings (the settings for the <monitor> tag) are overwritten.

An error will occur if definitions for a Work Unit with the same name already exist.

- -f filename

  Specifies the name of the 6.8.10 Web Server Connector Definition Files.

  Enclose file names that include blank spaces in double quotes.

  If this option is omitted, "service.xml" in the current directory will be used.

- -v version

  This option is a compatibility option for older versions and levels of this product. Use this option to use definition files that have been extracted from older versions or levels of this product. Refer to "6.8.5 Compatibility Option" for more information.

-o [-f filename]

Updates Web server connector definitions.

- If definitions for a Work Unit with the same name already exist, the Web server connector definitions will be updated.

  The settings for the items specified in the definition file will be updated and the settings for all other items (not specified in the definition file) will be left unchanged.

- If definitions for a Work Unit with the same name do not exist, new Web server connector definitions will be registered.

  Default values will be set for any items not specified in the definition file.

Log settings (the settings for the <log> tag) and fault monitoring settings (the settings for the <monitor> tag) are overwritten.

- -f filename

  Specifies the name of the 6.8.10 Web Server Connector Definition Files.

  Enclose file names that include blank spaces in double quotes.

  If this option is omitted, "service.xml" in the current directory will be used.

If Web server connector definitions are created, updated or deleted as a result of a request from a different user while the definitions are being updated, an error such as "DEP4157" may occur. If an error occurs, check how the definition information has changed as a result of the other user's operation, and then execute the processing again if necessary.

-d [-s web-server-name] {-n connector-name | -all} [-y]

Deletes Web server connector definitions.

- -s web-server-name

  Specifies the name of the Web server to be processed.

  The Web server connectors corresponding to the specified Web server name will be processed. An error will occur if the specified Web server does not exist.

  If this option is omitted, the Web server connectors for all Web servers will be processed.

- -n connector-name

  Specifies the name of the Work Unit for the Web server connector definitions to be deleted.

  This option cannot be specified together with the "-all" option.

- -all

  Deletes all registered Web server connector definitions.

  Log settings (the settings for the <log> tag) and fault monitoring settings (the settings for the <monitor> tag) are left unchanged.

- -y

  If this option is specified, Web server connector definitions will be deleted without a confirmation message being output.

  If this option is omitted, a confirmation message will be output.

-e [-s web-server-name] {-n connector-name | -all} [-f filename] [-y] [-encode {UTF-8 | SJIS | EUC}]

Extracts 6.8.10 Web Server Connector Definition Files.

- -s web-server-name

    Specifies the name of the Web server to be processed.

    The Web server connectors corresponding to the specified Web server name will be processed. An error will occur if the specified Web server does not exist.

    If this option is omitted, the Web server connectors for all Web servers will be processed.

- -n connector-name

    Specifies the name of the Work Unit for the Web server connector whose definitions are to be extracted.

    This option cannot be specified together with the "-all" option.

- -all

    Extracts all registered definitions.

- -f filename

    Specifies the name of the file where the definitions will be output.

    Enclose file names that include blank spaces in double quotes.

    If this option is omitted, "service.xml" in the current directory will be used.

- -y

    If this option is specified, any definition files with the same name that might exist will be overwritten unconditionally.

    If this option is omitted, a confirmation message will be output.

- -encode {UTF-8 | SJIS | EUC}

    Specifies the character encoding for the definition file to be output when the definition is extracted.

    - UTF-8: Output using UTF-8 (default value for Linux)

    - SJIS: Output using Shift_JIS (default value for Windows®)

    - EUC: Output using EUC-JP (default value for Solaris)

-l [-s web-server-name]

    Displays a list of the names of the Work Units associated with the Web server connector that has been registered in the Web server connector definitions.

    - -s web-server-name

        Specifies the name of the Web server to be processed.

        The Web server connectors corresponding to the specified Web server name will be processed. An error will occur if the specified Web server does not exist.

        If this option is omitted, the Web server connectors for all Web servers will be processed.

-h

    Displays the help for the *service* subcommand.

Definition File

Refer to "6.8.10 Web Server Connector Definition Files".

Messages

- If definitions are extracted by specifying the "-e" option, the following message will be output if there is already another file with the same name as the file to be extracted.

```
Override "file name", are you sure (y/n)?
```

Specify "y" to overwrite the file or "n" to cancel processing.

If anything other than "y" or "n" is specified, processing will be canceled (as if "n" is specified).

To overwrite files unconditionally (without a confirmation message being displayed), specify the "-y" option when the command is executed.

- If definitions are deleted by specifying the "-d" option, the following message will be output.

```
Delete "name of the definitions to be deleted", are you sure (a/y/n)?
```

Specify "y" to continue with the deletion processing or "n" to cancel definition deletion. If "a" is specified, all deletion processing will be performed without outputting any further confirmation messages. If anything other than "y", "n" or "a" is specified, processing will be canceled (as if "n" is specified).

To delete definitions unconditionally (without a confirmation message being displayed), specify the "-y" option when the command is executed.

Examples

Registering Web server connector definitions using a file called "create-def.xml" where these definitions have been entered

```
-----------------------------------------------------------
isj2eeadmin service -a -f create-def.xml
-----------------------------------------------------------
```

Registering Web server connector definitions by overwriting the existing definitions in a file called "update-def.xml"

```
-----------------------------------------------------------
isj2eeadmin service -o -f update-def.xml
-----------------------------------------------------------
```

Deleting the Web server connector definitions associated with the Work Unit "WU001"

```
-----------------------------------------------------------
isj2eeadmin service -d -n WU001
-----------------------------------------------------------
```

Extracting the definitions for the Web server connector associated with the Work Unit "WU001" and saving these definitions to a file called "export-def.xml"

```
-----------------------------------------------------------
isj2eeadmin service -e -n WU001 -f export-def.xml
-----------------------------------------------------------
```

Displaying a list of the Web server connector definitions that have been registered.

```
-----------------------------------------------------------
isj2eeadmin service -l
WORKUNIT NAME          WEBSERVER NAME
WU001                  FJapache
WU002                  WEB001
-----------------------------------------------------------
```

6.8.5 Compatibility Option

A compatibility option can be used if definitions are added using definition files that have been extracted using older versions or levels of this product.

How to Specify the Compatibility Option

Specify the compatibility option using one of the following methods:

- Specify using the <Version> tag of the IJServer definition file

Specify compatibility using the <Version> tag of the IJServer definition file. Refer to "6.8.7 IJServer Definition Files" for more information.

- Specify using subcommand options

  Specify "-v *version*" when the command is executed. (Only "8.0" can be specified for version.)

  This option can be used in the following situations:

  - One of the *ijserver*, *resource*, or *service* subcommands is used; and

  - The "-a" (add new) option is specified.

- Specify using an external definition file

  Specify compatibility using the following definition file.

   Windows32/64

  - C:\Interstage\J2EE\etc\isj2eeadmin.conf

   Solaris32/64 Linux32/64

  - /opt/FJSVj2ee/etc/isj2eeadmin.conf

  Syntax

  ```
  version=version
  ```

  Only "8.0" can be specified for version.

  Example

  ```
  version=8.0
  ```

  An empty "isj2eeadmin.conf" file is created during installation.

  This definition will be ignored if "isj2eeadmin.conf" is not in the predetermined directory, or if there is an error with the item name ("version").

The order of priority for compatibility options is as follows:

1. The value in the <Version> tag of the IJServer definition file

2. The value specified for the compatibility option of a command option

3. The value specified for the compatibility option in the "isj2eeadmin.conf" external definition file

Functions of the Compatibility Option

The functions of the compatibility option are described below.

Swapping Default Values

If the compatibility option is specified when new IJServers, J2EE resources or Web server connectors are added, the default values for the version/level specified by the compatibility option will take effect.

If definition files that have been extracted using an earlier version or level of this product are used, values will have been set for definition items that already existed in the earlier version/level when the definition file was extracted, so the behavior will be the same with this version/level.

However, the values for definition items that have been added with the new version/level will not have been set when the definition file was extracted, and so the behavior may be different from that of the earlier version/level.

If the compatibility option is specified, the behavior can be made the same as for the earlier version/level even for definition items that have been added with the new version/level.

The following tags have been added with the new version/level and the default values result in behavior that is different from earlier versions and levels.

If the compatibility option is specified, the default values for the tags below will be set so that they result in the same behavior as the earlier version/level.

Table 6.1 IJServer Definition File

Tag name	Meaning	Default value in V9.0 or later	V8.0 behavior
<Version>	IJServer version	9.0	8.0

Note: V8.0 compatibility mode IJServers cannot be created in this version/level.

Table 6.2 Resource Definition File

Tag name	Meaning	Default value in V9.0 or later	V8.0 behavior
<Jdbc> <Symfoware> <DatasourceKind>	Data source type for the JDBC driver for Symfoware	ConnectionPool DataSource	DataSource
<Jdbc> <Symfoware> <DatasourceKind>		ConnectionPool DataSource	DataSource
<Jdbc> <Oracle> <FileSystemServiceProvider>	Whether a File System Service Provider is to be used	NO	YES
<Jdbc> <Sqlserver> <DatasourceKind>	Data source type for the JDBC driver for SQL Server	2005	2000
<Jdbc> <Sqlserver> <FileSystemServiceProvider>	Whether a File System Service Provider is to be used	NO	YES

Table 6.3 Web Server Connector Definition File

Tag name	Meaning	Default value in V9.0 or later	V8.0 behavior
<WebServer> <Name>	Name of the Web server	None (*1)	FJapache

*1 There is no default value for this tag with V9.0 or later, so this tag cannot be omitted.

IJServer in V8.0 Compatibility Mode

V8.0 compatibility mode IJServers cannot be created in this version/level. Specify 9.0 for the <Version> tag.

IJServer and JDK Combinations

IJServers of this version/level can only run using JDK/JRE 6. Specify 6 for the <JavaVersion> tag.

6.8.6 Definition Files

This section explains the following definition files that are used with the *isj2eeadmin* command:

For these definition files, use the *isj2eeadmin* command to extract and edit the definitions that have been created and edited using the Interstage Management Console.

Enter tags in the order determined by the syntax for each definition file.

Definition files are marked up in XML format. Extracted definition files include specifications for the XML file version, encoding, XML schema definition and root tag (*1) as shown below. Do not edit these tags.

If the encoding definition is deleted for some reason, the *isj2eeadmin* command will import definition files as though UTF-8 had been specified for the encoding.

```
-----------------------------------------------------------
<?xml version="1.0" encoding="Shift_JIS" standalone="yes"?>

<Isj2eeIjserverDefinition>          (*1)

<!-- Content of the definition file -->

</Isj2eeIjserverDefinition>         (*1)
-----------------------------------------------------------
```

　　*1 The following values will be set in the root tag, depending on the definition file.

Table 6.4 Values set in root tag

Definition file	Value of the root tag
IJServer definition file	Isj2eeIjserverDefinition
J2EE system definition file	Isj2eeSystemDefinition
Resource definition file	Isj2eeResourceDefinition
Web server connector definition file	Isj2eeServiceDefinition

Sample definition files can be found at the following location.

Windows32/64

C:\Interstage\J2EE\sample\isj2eeadmin

Solaris32/64 Linux32/64

/opt/FJSVj2ee/sample/isj2eeadmin

How to Read Tag Explanations

The following sections explain the tags in each definition file.

This section explains how to read these tag explanations.

- Tag notation methods and their meanings

Tag markup method	Meaning
Tags with ?	These tags can be omitted.
Tags with *	These tags can be specified repeatedly.
Tags where nothing has been specified	These tags must be specified at least once.

- Tag omission

Tag omission is handled differently for addition processing and for update processing.

- For addition processing

The default values will be used. If there is no default value, nothing will be set.

- For update processing

The old value will be left unchanged. If no value had been set previously, nothing will be set.

- Omitting value specifications for tags that specify fixed strings or numeric values

  If no value is specified for a tag that specifies a fixed string (such as the IJServer type in the IJServer definitions that specify fixed strings such as "ONE") or for a tag that specifies numeric values, and only the tag is defined (e.g., <Type></Type>), the tag will be handled differently for new addition processing and update processing.

  - For addition processing

    The specification will be regarded as having been omitted, and the default value will be used. For tags that do not have a default value, an error will occur.

  - For update processing

    The old value will be left unchanged. If no value had been set previously, nothing will be set.

- Omitting value specifications for tags that specify free strings

  If no value is specified for tags that specify free strings and only the tag is defined, an empty string (a string with length 0) will be regarded as having been specified.

- Updating tags that can be specified repeatedly

  To update a tag that can be specified repeatedly (a tag marked by * in the definition file explanations below) and for which arbitrary strings can be defined, define all of the values to be registered. Any definitions that have already been made will be deleted. To delete strings that have been defined, define an empty tag for the parent tag.

Sample

For the IJServer definition file

Definitions will be registered as follows:

```
---------------------------------------------
<Ports>
    <Number>9002</Number>
</Ports>
---------------------------------------------
```

To update this definition, define all of the values to be registered, as shown below.

```
---------------------------------------------
<Ports>
    <Number>9002</Number>
    <Number>9003</Number>
</Ports>
---------------------------------------------
```

To delete this definition, define an empty tag for the parent tag (the <Ports> tag), as shown below.

```
---------------------------------------------
<Ports>
</Ports>
---------------------------------------------
```

Notes on Definition Files

Note the following points when editing definition files.

- Follow the specification for the XML format when editing XML definition files.

  Use predefined entity references (implicit definition entities) for the following special characters.

Character	Predefined entity reference
<	<
>	>
&	&

Character	Predefined entity reference
'	'
"	"

- The new linefeed character in the extracted XML files is LF (Line Feed), so use an editor that recognizes LF as a new linefeed code.

- If the following messages are output when definitions are added or updated using the *isj2eeadmin* command, the version information, encoding information or root tag definition for the XML file may have been edited incorrectly. Do not edit the version information, encoding information or root tag definition for definition files that have been extracted in XML format.

Message	Cause	Response
isj2eeadmin: Error: isj2ee2007: There is an error for XML definition. FILE=[*definition file name*] INFO=line(1):The version is required in the XML declaration.	The version information for the XML file may have been edited incorrectly.	Either extract the definition file again or define the version information and encoding definitions for the XML file correctly (by referring to the information below) before executing the command again. [Encodings for definition files] Shift_JIS
isj2eeadmin: Error: isj2ee2007: There is an error for XML definition. FILE=[*definition file name*] INFO=line(1):Content is not allowed in prolog.	The encoding information for the XML file may have been edited incorrectly.	<?xml version="1.0" encoding="Shift_JIS" standalone="yes"?> EUC-JP <?xml version="1.0" encoding="euc-jp" standalone="yes"?> UTF-8 <?xml version="1.0" encoding="UTF-8" standalone="yes"?>
isj2eeadmin:Error: isj2ee2007: There is an error for XML definition. FILE=[*definition file name*] INFO=line([*line number*]):The markup in the document following the root element must be well-formed.	The root tag for the XML file may have been edited incorrectly.	The root tag for the definition file may have been deleted incorrectly. Either extract the definition file again or define the root tag correctly, and then execute the command again.

6.8.7 IJServer Definition Files

This section explains the following points about IJServer definition files:

6.8.7.1 Syntax of IJServer Definition Files

```
-------------------------------------------------------------
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Isj2eeIjserverDefinition>
    <IJServer>
        <Name>...</Name>
        <Version>...</Version>
        <Type>...</Type>
        <AutomaticStart>
            <Mode>...</Mode>
            <User>...</User>
        </AutomaticStart>
        <StartupMonitorTime>...</StartupMonitorTime>
        <ShutdownMonitorTime>...</ShutdownMonitorTime>
```

```xml
<ApplicationRetry>
    <AbnormalTerminationCounts>...</AbnormalTerminationCounts>
</ApplicationRetry>
<JavaDebugStart>...</JavaDebugStart>
<CurrentDirectory>
    <DirectoryType>...</DirectoryType>
    <Directory>...</Directory>
    <NumberOfRevisionDirectories>...</NumberOfRevisionDirectories>
</CurrentDirectory>
<ProcessDegeneracy>...</ProcessDegeneracy>
<HotDeploy>...</HotDeploy>
<XmlParser>
    <Kind>...</Kind>
    <Directory>...</Directory>
</XmlParser>
<UseWebServiceContainer>...</UseWebServiceContainer>
<ClassLoader>
    <SeparationKind>...</SeparationKind>
    <SearchOrder>...</SearchOrder>
    <Reload>
        <Use>...</Use>
        <Interval>...</Interval>
    </Reload>
    <Trace>...</Trace>
</ClassLoader>
<ARM>
    <ARMMode>...</ARMMode>
    <SamplingInterval>...</SamplingInterval>
</ARM>
<ApplicationFileProtectionLevel>...</ApplicationFileProtectionLevel>
<Common>
    <ProcessConcurrency>...</ProcessConcurrency>
    <ClassPaths>
        <Location>...</Location>
    </ClassPaths>
    <ApplicationClassPaths>
        <Location>...</Location>
    </ApplicationClassPaths>
    <PathsForApplication>
        <Location>...</Location>
    </PathsForApplication>
    <LibrariesForApplication>
        <Location>...</Location>
    </LibrariesForApplication>
    <EnvironmentVariables>
        <Variable>...</Variable>
    </EnvironmentVariables>
    <RetryCountResetTime>...</RetryCountResetTime>
    <JavaVersion>...</JavaVersion>
    <JavaCommandOptions>...</JavaCommandOptions>
    <ReactivationOfProcessAtOutOfMemory>...</ReactivationOfProcessAtOutOfMemory>
    <ProcessingTime>
        <MaximumProcessingTime>...</MaximumProcessingTime>
        <TerminateProcessModeForTimeout>...</TerminateProcessModeForTimeout>
    </ProcessingTime>
    <QueueCounts>
        <MaxQueueCounts>...</MaxQueueCounts>
        <AlarmQueueCounts>...</AlarmQueueCounts>
        <ResetAlarmQueueCounts>...</ResetAlarmQueueCounts>
    </QueueCounts>
    <CommunicationBuffer>
        <BufferNumber>...</BufferNumber>
        <BufferSize>...</BufferSize>
```

```xml
        </CommunicationBuffer>
        <DistributedTransaction>...</DistributedTransaction>
    </Common>
    <Web>
        <Common>
        </Common>
        <IPAddress>...</IPAddress>
        <Timeout>...</Timeout>
        <Ports>
            <Number>...</Number>
        </Ports>
        <Connection>
            <MaxConnection>...</MaxConnection>
        </Connection>
        <ThreadConcurrency>
            <MinSpareThreads>...</MinSpareThreads>
            <MaxThreads>...</MaxThreads>
            <MaxSpareThreads>...</MaxSpareThreads>
        </ThreadConcurrency>
        <Listings>...</Listings>
        <InvokerServletMapping>...</InvokerServletMapping>
        <EnablePooling>...</EnablePooling>
        <URIEncoding>...</URIEncoding>
        <UseBodyEncodingForURI>...</UseBodyEncodingForURI>
        <FileEncoding>...</FileEncoding>
        <JSPReload>
            <Mode>...</Mode>
            <CheckInterval>...</CheckInterval>
        </JSPReload>
        <Www>
            <AcceptedHosts>
                <Address>...</Address>
            </AcceptedHosts>
            <VirtualHost>
                <Name>...</Name>
            </VirtualHost>
            <WebServers>
                <WebServer>
                    <Name>...</Name>
                    <VirtualHost>
                        <Name>...</Name>
                    </VirtualHost>
                </WebServer>
            </WebServers>
            <Timeout>...</Timeout>
            <AllowedMaxConnections>...</AllowedMaxConnections>
            <SSLMode>...</SSLMode>
            <SSLConfName>...</SSLConfName>
            <ClientAuthorization>...</ClientAuthorization>
            <AllowedClientCertlist>...</AllowedClientCertlist>
            <AllowKeepAlive>...</AllowKeepAlive>
        </Www>
        <HttpConnector>
            <Use>...</Use>
            <Ports>
                <Number>...</Number>
            </Ports>
            <AcceptedHost>
                <Address>...</Address>
            </AcceptedHost>
        </HttpConnector>
    </Web>
    <Ejb>
```

```xml
        <Common>
        </Common>
        <SSL>...</SSL>
        <ThreadConcurrency>
            <MinSpareThreads>...</MinSpareThreads>
            <MaxThreads>...</MaxThreads>
        </ThreadConcurrency>
        <MDBThread>
            <MinSpareThreads>...</MinSpareThreads>
            <MaxThreads>...</MaxThreads>
            <IdleTimeout>...</IdleTimeout>
        </MDBThread>
        <TrafficDirector>
            <LoadDistribution >...</LoadDistribution>
            <HostName >...</HostName>
            <RepresentationPort >...</RepresentationPort>
            <Monitor >...</Monitor>
        </TrafficDirector>
    </Ejb>
    <Datasources>
        <Datasource>
            <Name>...</Name>
            <IsolationLevel>...</IsolationLevel>
            <StatementCacheSize>...</StatementCacheSize>
            <AutoCloseStatement>...</AutoCloseStatement>
            <PreviousConnectionCount>...</PreviousConnectionCount>
            <MaxConnectionCount>...</MaxConnectionCount>
            <ConnectionTimeout>...</ConnectionTimeout>
            <IdleTimeout>...</IdleTimeout>
            <AbnormalReconnection>...</AbnormalReconnection>
            <IntervalTime>...</IntervalTime>
            <RetryCount>...</RetryCount>
            <ConnectionUseTimeout>
                <Time>...</Time>
                <Recovery>...</Recovery>
            </ConnectionUseTimeout>
            <SqlWaitTimeout>
                <Time>...</Time>
                <SqlOutput>...</SqlOutput>
            </SqlWaitTimeout>
        </Datasource>
    </Datasources>
    <SessionRecovery>
        <Use>...</Use>
        <SRS>
            <IPAddress>...</IPAddress>
            <Port>...</Port>
        </SRS>
        <BackupMode>...</BackupMode>
        <BackupInterval>...</BackupInterval>
        <ResponseWaitTime>...</ResponseWaitTime>
        <ExcludeExt>
            <Extension>...</Extension>
        </ExcludeExt>
        <AccessLog>...</AccessLog>
    </SessionRecovery>
    <Log>
        <Directory>...</Directory>
        <Mode>...</Mode>
        <Size>...</Size>
        <StartTime>...</StartTime>
        <Interval>...</Interval>
        <HistorySize>...</HistorySize>
```

```
            </Log>
            <ExecutionClasses>
                <StartupClass>
                    <Name>...</Name>
                    <ClassName>...</ClassName>
                    <Container>...</Container>
                    <RelationalApplicationName>...</RelationalApplicationName>
                    <CallsOption>...</CallsOption>
                    <Args>...</Args>
                    <FailureOption>...</FailureOption>
                    <ExecuteForEachProcess>...</ExecuteForEachProcess>
                </StartupClass>
                <ShutdownClass>
                    <Name>...</Name>
                    <ClassName>...</ClassName>
                    <Container>...</Container>
                    <RelationalApplicationName>...</RelationalApplicationName>
                    <CallsOption>...</CallsOption>
                    <Args>...</Args>
                    <ExecuteForEachProcess>...</ExecuteForEachProcess>
                </ShutdownClass>
            </ExecutionClasses>
        </IJServer>
</Isj2eeIjserverDefinition>
------------------------------------------------------------
```

6.8.7.2 List of Tags in IJServer Definition Files

The table below lists the tags that are used in IJServer definition files. Refer to "How to Read Tag Explanations" for information on how to interpret information in this list.

The "Corresponding section in the Interstage Management Console" column indicates which Interstage Management Console section corresponds to each tag. Each of the tags in the IJServer file corresponds to the following items in System > WorkUnit > IJServer.

Daughter tags of the <IJServer> tag

Tag name			Corresponding section in Interstage Management Console
IJServer*			Create a new WorkUnit or Settings
	Name		WorkUnit name
	Version?		Version
	Type?		Type
	AutomaticStart?		Auto Start in WorkUnit Settings
		Mode?	
		User?	
	StartupMonitorTime?		WorkUnit maximum startup time in WorkUnit Settings
	ShutdownMonitorTime?		Process maximum stop time (during forced stop) in WorkUnit Settings
	ApplicationRetry?		
		AbnormalTerminationCounts?	Retry Count in WorkUnit Settings
	JavaDebugStart?		WorkUnit Start Mode in WorkUnit Settings
	CurrentDirectory?		Working Directory in WorkUnit Settings
		DirectoryType?	
		Directory?	
		NumberOfRevisionDirectories?	

Tag name	Corresponding section in Interstage Management Console
ProcessDegeneracy?	Stop the WorkUnit if the application failed to restart automatically? in WorkUnit Settings
HotDeploy?	Use HotDeploy in Common Application Settings
XmlParser?	Type of XML parser to use in Common Application Settings
Kind?	
Directory?	
UseWebServiceContainer?	Container Web Service in Common Application Settings
ClassLoader?	
ARM?	Transaction Type Analysis in Common Application Settings
ARMMode?	
SamplingInterval?	
ApplicationFileProtectionLevel?	Application Protection Level in Common Application Settings
Common?	
Web?	Servlet Container Settings and Web Server Connector Settings
Ejb?	EJB Container Settings
Datasources?	DB Connection Settings
Datasource*	DB Connection Settings
SessionRecovery?	Session Recovery Settings
Log?	WorkUnit > IJServer > Log Settings
ExecutionClasses?	WorkUnit > IJServer > Startup/Shutdown

Daughter tags of the <IJServer><ClassLoader> tag

Tag name	Corresponding section in Interstage Management Console
ClassLoader?	
SeparationKind?	Class Loaders in Common Application Settings
SearchOrder?	Search order of class loaders in Common Application Settings
Reload?	Auto Reload in Common Application Settings
Use?	
Interval?	
Trace?	Output trace information for the class loader in Common Application Settings

Daughter tags of the <IJServer><Common> tag

Tag name	Corresponding section in Interstage Management Console
Common?	WorkUnit Settings
ProcessConcurrency?	Process Concurrency
ClassPaths?	Classpath
Location*	
ApplicationClassPaths?	Application Library Path
Location*	
PathsForApplication?	Paths

Tag name	Corresponding section in Interstage Management Console
Location*	
LibrariesForApplication?	Library path
Location*	
EnvironmentVariables?	Environment Variables
Variable*	
RetryCountResetTime?	Retry Count Reset Interval
JavaVersion?	Java SDK Version
JavaCommandOptions?	Java VM Options
ReactivationOfProcessAtOutOfMemory?	Control for insufficient heap/Java Permanent area
ProcessingTime?	
MaximumProcessingTime?	Maximum processing time for applications
TerminateProcessModeForTimeout?	Forcefully end application on timeout?
QueueCounts?	
MaxQueueCounts?	Maximum Size of Queue
AlarmQueueCounts?	Queue alarm level
ResetAlarmQueueCounts?	Queue alarm reset level
CommunicationBuffer?	
BufferNumber?	Communication Buffer Count
BufferSize?	Communication Buffer Length
Windows32/64 Solaris32 Linux32/64 DistributedTransaction?	Use Distributed Transactions for EJB applications? in EJB Container Settings

Daughter tags of the <IJServer><Web> tag

Tag name	Corresponding section in Interstage Management Console
Web?	Servlet Container Settings
Common?	
IPAddress?	Servlet Container IP Address
Timeout?	Timeout
Ports?	Port numbers
Number*	
Connection?	Number of connections
MaxConnection?	Maximum number of connections
ThreadConcurrency?	Simultaneous processes
MinSpareThreads?	
MaxThreads?	
MaxSpareThreads?	
Listings?	Display directory listings if index file present?
InvokerServletMapping?	Run servlets even if mapping is not present?
EnablePooling?	Use custom tag pooling
URIEncoding?	Request URI encoding

Tag name	Corresponding section in Interstage Management Console
UseBodyEncodingForURI?	Use request body processing encoding for query parameters
FileEncoding?	Encoding for dispatch to static resources
JSPReload?	JSP reload
Mode?	
CheckInterval?	
Www?	Web Server Connector Settings
HttpConnector?	

Daughter tags of the <IJServer><Web><Www> tag

Tag name				Corresponding section in Interstage Management Console
Www?				Web Server Connector Settings
	AcceptedHosts?			Web Server IP Address
		Address*		
	VirtualHost?			Web Server Virtual Host
		Name*		
	WebServer?			
		WebServer*		
			Name?	
			VirtualHost*	Web Server Virtual Host
			Name*	
	Timeout?			Send/Receive timeout
	AllowedMaxConnections?			Maximum number of connections to the Servlet container
	SSLMode?			Use SLL between Servlet Container and Connector.
	SSLConfName?			SSL configuration to be used for the Servlet Container and Connector
	ClientAuthorization?			Connector Limitation
	AllowedClientCertlist?			Connector Limitation
	AllowKeepAlive?			KeepAlive between the connector and the Servlet container

Daughter tags of the <IJServer><Web><HttpConnector> tag

Tag name	Corresponding section in Interstage Management Console
HttpConnector?	
Use?	
Ports?	Control Port Number
Number*	
AcceptedHost?	Access permission IP address
Address*	

Daughter tags of the <IJServer><Ejb> tag

Tag name	Corresponding section in Interstage Management Console
Ejb?	EJB Container Settings
Common?	
SSL?	Use SSL for IIOP
ThreadConcurrency?	IIOP CallSimultaneous processes
MinSpareThreads?	
MaxThreads?	
MDBThread?	Simultaneous Message-driven Bean processes
MinSpareThreads?	
MaxThreads?	
IdleTimeout?	
TrafficDirector?	Use IPCOM load balancing?
LoadDistribution?	
HostName?	
RepresentationPort?	
Monitor?	Monitor operating status of the WorkUnit by IPCOM

Daughter tags of the <IJServer><Datasources><Datasource> tag

Tag name	Corresponding section in Interstage Management Console
Datasource*	DB Connection Settings
Name	Data Source Name
IsolationLevel?	Transaction Isolation Level
StatementCacheSize?	Statement Cache Size
AutoCloseStatement?	Statement Automatic Close
PreviousConnectionCount?	Preexisting Connections
MaxConnectionCount?	Maximum Connections
ConnectionTimeout?	Connection Timeout(s)
IdleTimeout?	Idle Timeout (sec)
AbnormalReconnection?	Reconnect on Failure?
IntervalTime?	Interval (s)
RetryCount?	Retry Count
ConnectionUseTimeout?	Connection Monitoring Time (Minutes)
Time?	
Recovery?	
SqlWaitTimeout?	Communication Wait Time (Seconds)
Time?	
SqlOutput?	

Daughter tags of the <IJServer><SessionRecovery> tag

Tag name	Corresponding section in Interstage Management Console
SessionRecovery?	Session Recovery Settings
Use?	Session Recovery
SRS?	Session backup destination Session Registry Server address:Port
IPAddress?	
Port?	
BackupMode?	Backup Mode
BackupInterval?	Backup Mode
ResponseWaitTime?	Response waiting time from the Repository Server
ExcludeExt?	End of the non-session URL
Extension*	
AccessLog?	Outputs the access log

Daughter tags of the <IJServer><Log> tag

Tag name	Corresponding section in Interstage Management Console
Log?	WorkUnit > IJServer > Log Settings
Directory?	Log File Directory under WorkUnit Settings in Create a new WorkUnit or Settings
Mode?	Rotate log file based on
Size?	Rotate log file based on in Log Settings
StartTime?	Rotate log file based on in Log Settings
Interval?	Rotate log file based on in Log Settings
HistorySize?	Number of files to maintain in Log Settings

Daughter tags of the <IJServer><ExecutionClasses> tag

Tag name	Corresponding section in Interstage Management Console
ExecutionClasses?	WorkUnit > IJServer > Startup/Shutdown
StartupClass*	Startup Class
Name	Name
ClassName	Class Name
Container?	Application Container
RelationalApplicationName?	Start Order
CallsOption?	Start Order
Args?	Arguments
FailureOption?	Abort startup if error occurs in startup class?
ExecuteForEachProcess?	Method of calling startup class when WorkUnit is running in multiple VMs
ShutdownClass*	Shutdown Class
Name	Name
ClassName	Class Name
Container?	Application Container
RelationalApplicationName?	Start Order

Tag name	Corresponding section in Interstage Management Console
CallsOption?	Start Order
Args?	Arguments
ExecuteForEachProcess?	Method of calling startup class when WorkUnit is running in multiple VMs

6.8.7.3 Description of Tags in the IJServer Definition File

Daughter tags of the \<IJServer>tag

Name (Parent tag: \<IJServer>)

Specify the name of the IJServer to be created, using between 1 and 28 bytes of alphanumeric characters and the underscore character '_' (underscores cannot be used at the beginning or end of strings).

Windows32/64

Strings are not case-sensitive. DOS device names cannot be specified.

Solaris32/64 Linux32/64

Strings are case-sensitive.

Version (Parent tag: \<IJServer>)

This is the IJServer version information.

This is an optional item, and the only valid value is 9.0.

If the definition was extracted for a V8.0 compatibility mode IJServer or a IJServer created as V8 or earlier, it will be output as 8.0, however it cannot be used in this version/level. For this reason, change it to 9.0.

Type (Parent tag: \<IJServer>)

Select the type of IJServer from the following, according to the operation mode. These strings are not case-sensitive.

- ONE

Default value

Work Units created in this mode will run both Web applications and EJB applications on the same Java VM.

EJB applications that are deployed to this type of IJServer cannot be called from applications running on other IJServers (or from EJB client applications).

With this type of IJServer, operations where only Web applications are deployed are possible but operations where only EJB applications are deployed are not possible.

- SPLIT

Work Units created in this mode will run Web applications and EJB applications on separate Java VMs.

If only EJB applications are deployed, only the EJB Java VM will start. Similarly, if only Web applications are deployed, only the Web Java VM will start.

Note that some conditions for the Java VM that is started differ according to whether or not the HotDeploy function is used. Refer to "HotDeploy Function of J2EE" under "Deploying and Setting J2EE Applications" in the J2EE User's Guide for more information.

- WEB

Work Units created in this mode will only run Web applications.

If an attempt is made to deploy an EAR file containing an EJB application, the deployment processing for the EJB application will be skipped.

- EJB

Work Units created in this mode will only run EJB applications.

If an attempt is made to deploy an EAR file containing a Web application, the deployment processing for the Web application will be skipped.

Note that the "Type" that is specified when new IJServer definitions are created cannot be changed. If the version needs to be changed, define a new IJServer.

Note that the Type tag must be defined when the IJServer definition is updated. If the Type tag is omitted, the definition will only be updated if the default value is valid for the IJServer type.

AutomaticStart (Parent tag: <IJServer>)

- <Mode> tag

  Select either of the following values to determine whether to start the Work Unit when Interstage starts. Strings are not case-sensitive.

  - YES (Start the Work Unit automatically)

    Default value

    For Solaris and Linux, specify the name of the startup user for the Work Unit with the <User> tag

  - NO (Do not start the Work Unit automatically)

- <User> tag `Solaris32/64` `Linux32/64`

  This tag takes effect if "YES"(start automatically) has been specified for the <Mode> tag.

  If "YES"(start automatically) has been specified for the <Mode> tag, specify the name of the startup user for the Work Unit using a string that is between 1 and 8 bytes long. The default value is the name of the command startup user.

  Similarly, if the value of the <Mode> tag changes from "NO" to "YES" and the <User> tag is omitted, the default value will be the name of the command startup user.

  The following startup user names can be specified:

  - If the system has been logged in as a superuser:

    Any user name registered with the system

  - If the system has been logged in as a user other than a superuser:

    The name of the user that has logged in

  The names of startup users that have been registered can be changed as follows:

  - If the system has been logged in as a superuser, the name of the startup user can be changed to any user name.

  - If the system has been logged in as a user other than a superuser, the name of the startup user can be changed to only the name of the user that has logged in.

StartupMonitorTime (Parent tag: <IJServer>)

Specify an integer between 0 and 65535 for the monitoring time (in seconds) until the Work Unit starts up completely. The default value is 600 seconds.

If the startup processing for an application process takes longer to complete than the specified time, the process will be shut down and the startup processing will be canceled.

If 0 is specified, then the WorkUnit startup time will not be monitored.

ShutdownMonitorTime (Parent tag: <IJServer>)

If the stopping of the WorkUnit was executed, specify the maximum wait time (in seconds) for the process to completely stop. Specify an integer value from 0 to 65,535 (the default value is 180).

If the application process stop processing exceeds the specified time (there was a hangup), the process is shut down.

If 0 is specified, the WorkUnit shutdown time will not be monitored.

[Estimate Method]

ShutdownMonitorTime is the baseline value (time) used for determining that Application Process Stop Processing Time in the stopping of the WorkUnit is abnormal (there was a hangup). When tuning ShutdownMonitorTime, try to ensure that Application Process Stop Processing Time obeys the formula below:

```
ShutdownMonitorTime (sec) > Application Process Stop Processing Time (secs)
```

- Application Process Stop Processing Time

In most cases, the default value can be used. The exception is when the shutdown execution class is registered. For details on the shutdown execution class, refer to "J2EE User's Guide", section "J2EE Common Edition" > "Design of J2EE Application" > "Environment where J2EE applications are operated (IJServer)" > "Startup/Shutdown Execution Class".

Customer transactions are expected to be complete when the WorkUnit is stopped. For this reason, the default value is set to 180 seconds, to allow confirmation of hangups.)

If WorkUnit is stopped during a transaction, then try to ensure that ShutdownMonitorTime exceeds the combined total for the Application Processing Time and the Application Process Stop Processing Time:

```
ShutdownMonitorTime (sec) > Application Processing Time (secs) + Application Process Stop
Processing Time (secs)
```

- Application Processing Time

If the WorkUnit is stopped while the application is being processed, then set the longest time required for the application to complete normally.

If normal stop of the WorkUnit is executed while the application is being processed, then it waits for completion of requests being processed before stopping the processes. If this element is not taken into account, then the shutdown will occur while requests are still being processed in the normal stopping of the WorkUnit.

- Application Process Stop Processing Time

Refer to the formula above.

Example:

If the Application Processing Time is 120 and the Application Process Stop Processing Time is 5, set a minimum of 126 for ShutdownMonitorTime.

ApplicationRetry (Parent tag: <IJServer>)

If an application process terminates abnormally, it will be restarted automatically.

However, sometimes an application will terminate abnormally and restart repeatedly, without ever being processed successfully, because of a fault with the application or some other reason. To handle this kind of situation, it is possible to specify a limit value for the number of times an application process can terminate abnormally.

- <AbnormalTerminationCounts> tag

Specify an integer between 0 and 255 for the limit value (the number of times that an application process can terminate abnormally). The default value is 0.

If the number of times that an application process has terminated abnormally reaches the specified limit value, the Work Unit will terminate abnormally.

If 0 is specified, application processes that terminate abnormally will be restarted without limit, and Work Unit operations will continue.

The abnormal termination count is also reset automatically during operations, and so Work Unit operations will continue if the abnormal termination count is reset before the value specified for the retry count is reached, even if an application process abnormally terminates repeatedly.

The abnormal termination count is reset when the time specified by the retry count reset time elapses after the first time the application terminates abnormally.

Note that the position where the <RetryCountResetTime> tag is defined has changed with Interstage Application Server V9.0. With earlier versions, this tag could be defined under the <AbnormalTerminationCounts> tag but from V9.0 this tag is defined under the <Common> tag.

Refer to the article on the <Common><RetryCountResetTime> tag for more information.

JavaDebugStart (Parent tag: <IJServer>)

Select whether to start in normal mode or in debug mode. Strings are not case-sensitive.

- NO (normal mode)

    Default value

- YES (debug startup mode)

CurrentDirectory (Parent tag: <IJServer>)

- <DirectoryType> tag

    Select the type of current directory from the following. Strings are not case-sensitive:

    - SEPARATE (Use a separate current directory for each process)

      Default value

    - SINGLE (Use a unique current directory for IJServer)

      In this case, the current directory must be specified with the <Directory> tag. (The default current directory must not be used.)

    Note

    Linux32/64

    If SINGLE (use a unique current directory for IJServer) is specified, the "core" file may be overwritten in the following situations, in which case it will not be possible to obtain diagnostic information if problems occur. Accordingly, Fujitsu recommends not specifying "SINGLE".

    - If 2 or more is set for the process concurrency in the Work Unit settings

    - If the Work Unit is restarted

- <Directory> tag

    To change the current directory, specify the new current directory using the full path specification. The following strings can be used:

    Windows32/64

    Strings between 1 and 127 bytes long that do not contain control characters (0x00 to 0x1f and 0x7f for Shift_JIS)

    Solaris32/64 Linux32/64

    Strings between 1 and 255 bytes long that start with "/"and do not contain spaces

    If the current directory has been changed, the old directory will still remain, so delete it if necessary.

    If this tag is omitted, or if only the tag is defined and no value is specified, the following directory will be used for the current directory.

    Windows32/64

    J2EE common directory\ijserver\[IJServer name]\current\[IJServer name*]\[process ID]

    Solaris32/64 Linux32/64

    J2EE common directory/ijserver/[IJServer name]/current[IJServer name*]/[process ID]

- <NumberOfRevisionDirectories> tag

    Specify an integer between 0 and 5 for the number of generations of the current directory to back up. The default value is one generation. If 0 is specified, the current directory will not be backed up.

    The name of the latest directory will be the name of the IJServer.

    When the Work Unit starts, the IJServer name*" directory name part of the <Directory> tag will be backed up as "IJServer name.old1", "IJServer name.old2", ..., "IJServer name.old5".

    Note that if "SINGLE" (use a unique current directory for IJServer) has been specified for the <DirectoryType> tag, generation management for the current directory will not be performed, and this item will be ignored.

ProcessDegeneracy (Parent tag: <IJServer>)

Select either of the following values to determine the behavior performed when applications fail to restart automatically. Strings are not case-sensitive.

- NO (Stop IJServer)

  Default value

- YES (Continue IJServer operations)

  If an application fails to restart automatically, the number of concurrent processes will decrease and operations will continue.

HotDeploy (Parent tag: <IJServer>)

Select either of the following values to determine whether to use the HotDeploy function. Strings are not case-sensitive.

- FALSE (Do not use the HotDeploy function)

  Default value

- TRUE (Use the HotDeploy function)

If the HotDeploy function is used, modules can be deployed, redeployed or undeployed without stopping IJServer.

If "NO" (do not separate) has been set for the <SeparationKind> (class loader separation) tag under the <ClassLoader> tag, the HotDeploy function cannot be used.

XmlParser (Parent tag: <IJServer>)

- <Kind> tag

  Select one of the following values to determine which XML parser the IJServer will use. Strings are not case-sensitive.

  - XERCES2 (Xerces2)

    Default value

  - FUJITSU (Fujitsu XML Processor)

  - OTHER (Other XML parser)

- <Directory> tag

  This item is required if "OTHER" has been specified for the <Kind> tag.

  If "OTHER" has been selected for the <Kind> tag, specify the directory where the JAR file for the XML parser is stored, using a full path specification string between 1 and 65535 bytes long.

UseWebServiceContainer (Parent tag: <IJServer>)

This tag takes effect if "ONE" has bee specified for the <Type> tag (the IJServer type).

Select either of the following values to determine whether to enable or disable the Web service function for the container. Strings are not case-sensitive.

- TRUE (Enable)

- FALSE (Disable)

  Web modules that include Web services cannot be deployed.

This value cannot be changed to "FALSE" if a Web module that includes a Web service has already been deployed.

The default value depends on the IJServer type.

- If the IJServer type is "ONE", the default value is "TRUE"

- If the IJServer type is not "ONE", the default value is "FALSE"

ARM (Parent tag: <IJServer>)

This definition is valid if "ONE", "SPLIT" or "WEB" has been specified for the <Type> tag (the IJServer type).

In Windows (64bit), the Transaction Breakdown Analysis function is not supported in V8.0 IJServers in compatibility mode, or in IJServers upgraded from Interstage V7.0/8.0. Therefore the ARM tag is invalid.

- <ARMMODE> tag

  Select either of the following values to determine whether to use transaction breakdown analysis. Strings are not case-sensitive.

- FALSE (Do not use transaction breakdown analysis)

    Default value

- TRUE (Use transaction breakdown analysis)

- \<SamplingInterval\> tag

If "TRUE" (use transaction breakdown analysis) has been selected, specify an integer between 1 and 2147483647 for the sampling interval (the number of requests) for transaction breakdown analysis. The default value is 1000.

If transaction breakdown analysis is used, the processing time for each component of the application can be measured. Measurements are taken the first time a request is received and whenever the specified number of requests is reached during the sampling interval.

Note

Note the following points if transaction breakdown analysis is used:

- The Systemwalker Service Quality Coordinator Agent must be installed.

- If there are two or more concurrent processes, the sampling interval is measured separately for each process.

- Fujitsu normally recommends using the default value for the sampling interval. To change the default value, set an appropriate value by referring to the Systemwalker Service Quality Coordinator manuals.

ApplicationFileProtectionLevel (Parent tag: \<IJServer\>)

Solaris32/64 Linux32/64

Select the application file protection level from the following. Strings are not case-sensitive.

- HIGH (A high level of protection)

    Default value

- LOW (A low level of protection)

Daughter tags of the \<IJServer\>\<ClassLoader\> tag

SeparationKind (Parent tag: \<IJServer\>\<ClassLoader\>)

Select the class loader configuration from the following values. Strings are not case-sensitive:

- EAR (Separate between EAR files)

    Default value

    Select this value if ejb-jar files have been deployed individually, without creating EAR files.

- ALL (Separate all)

    Select this value if applications have been distributed by creating EAR files.

    This value cannot be selected in the following cases:

    - If a RAR file or an EAR file that contains only a RAR file has been deployed

    - If "ONE" (run Web applications and EJB applications on the same Java VM) has been specified for the \<Type\> tag (the IJServer type) and an "ejb-jar file" or "an EAR file that does not contain a WAR file" has been deployed

- NO (Do not separate)

    Select this value if applications are looked up between EAR files, or if the system class loader loads EJB applications or connectors.

    The HotDeploy function cannot be used if this value is selected.

SearchOrder (Parent tag: \<IJServer\>\<ClassLoader\>)

Select the search order for class loaders from the following values. Strings are not case-sensitive.

Note that if "EJB" (only run EJB applications) has been specified for the \<Type\> tag (the IJServer type), there is no difference in the search order because there is no Webapp class loader.

- PARENT_FIRST (Parents first)

    Default value

    The search order for class loaders will be as follows: system class loader > Application class loader > Webapp class loader > Interstage class loader.

- PARENT_LAST (Parents last)

    The search order for class loaders will be as follows: system class loader > Webapp class loader > Application class loader > Interstage class loader.

Reload (Parent tag: <IJServer><ClassLoader>)

Note that this tag is only valid with IJServers of V9.0 or later.

- <Use> tag

    Select either of the following values to determine whether to reload classes automatically. Strings are not case-sensitive.

    - FALSE (Do not reload automatically)

        Default value

    - TRUE (Reload automatically)

        This value cannot be selected if "NO" has been specified for the <SeparationKind> tag or if a Web service application has already been deployed.

- <Interval> tag

    If automatic reloading for classes is used, specify an integer between 1 and 2147483647 for the interval (in seconds) for checking for changes. The default value is 15 seconds.

Trace (Parent tag: <IJServer><ClassLoader>)

Select either of the following values to determine whether to output trace information for class loaders. Strings are not case-sensitive.

Trace information that is output to the "container log" indicates which class loader was used to load classes.

- OFF (Do not output trace information)

    Default value

- ON (Output trace information)

    Note that this tag is only valid for IJServers in V8.0 compatibility mode.

Daughter tags of the <IJServer><Common>, <IJServer><Web><Common> and <IJServer><Ejb><Common> tags

The settings in the <Common> tag immediately below the <IJServer> tag are applied to both servlet containers and EJB containers. To create separate definitions for each type of container, create specifications for the <Common> tag under the <Web> tag and the <Common> tag under the <Ejb> tag. If both sets of specifications are created, it is the latter definitions (for the <Common> tag under the <Web> tag and the <Common> tag under the <Ejb> tag) that will take effect.

If "ONE" has been specified for the <Type> tag (the IJServer type), either the <Common> tag under the <IJServer> tag or the <Common> tag under the <Web> tag will take effect. In this case, the definitions for the <Common> tag under the <Ejb> tag will not take effect.

ProcessConcurrency (Parent tag: The <Common> tag under the <IJServer> tag, <Web><Common>, <Ejb><Common>)

Specify an integer between 1 and 255 for the number of concurrent application processes. The default value is 1.

ClassPaths (Parent tag: The <Common> tag under the <IJServer> tag, <Web><Common>, <Ejb><Common>)

Specify the class path that applications use when they run. This setting is equivalent to the CLASSPATH environment variable. Up to 255 paths can be specified, but each path can only be specified once.

For each path, use a <Location> daughter tag to specify the path using a string between 1 and 255 bytes long that does not include control characters (0x00 to 0x1f and 0x7f for Shift_JIS) for the full path specification.

These class paths are also valid when EJB applications are deployed and when environment settings for EJB applications are made.

To call an EJB application running on another IJServer, set the client distributables in the class path for the other Work Unit.

The classes specified in the class path are loaded as below, depending on the settings for the <SeparationKind> (class loader separation) tag under the <ClassLoader> tag.

- If "EAR" (separate between EAR files) or ALL (separate all) has been specified, classes will be loaded using the Interstage class loader.

- If "NO" (do not separate) has been specified, classes will be loaded by the system class loader.

ApplicationClassPaths (Parent tag: The <Common> tag under the <IJServer> tag, <Web><Common>, <Ejb><Common>)

To use application-specific libraries, specify the paths to these libraries. Specify the class path that applications use when they run. This setting is equivalent to the CLASSPATH environment variable. Up to 255 paths can be specified, but each path can only be specified once.

For each path, use a <Location> daughter tag to specify the path using a string between 1 and 255 bytes long that does not include control characters (0x00 to 0x1f and 0x7f for Shift_JIS) for the full path specification.

Application-specific libraries are loaded using the same class loader as for the application.

PathsForApplication (Parent tag: The <Common> tag under the <IJServer> tag, <Web><Common>, <Ejb><Common>)

Specify the path that applications use when they run. This setting is equivalent to the PATH environment variable. Up to 30 paths can be specified, but each path can only be specified once.

For each path, use a <Location> daughter tag to specify the full path using a string between 1 and 255 bytes long that does not include control characters (0x00 to 0x1f and 0x7f for Shift_JIS).

LibrariesForApplication (Parent tag: The <Common> tag under the <IJServer> tag, <Web><Common>, <Ejb><Common>)

Windows32/64

This item is invalid.

Solaris32/64 Linux32/64

Specify the library path that the application uses when it runs. This setting is equivalent to the LD_LIBRARY_PATH environment variable. Up to 30 paths can be specified, but each path can only be specified once.

For each path, use a <Location> daughter tag to specify the full path using a string between 1 and 255 bytes long that does not include control characters (0x00 to 0x1f and 0x7f for Shift_JIS).

EnvironmentVariables (Parent tag: The <Common> tag under the <IJServer> tag, <Web><Common>, <Ejb><Common>)

Specify the environment variables that the application uses when it runs.

However, the "PATH" and "LD_LIBRARY_PATH" environment variables cannot be specified.

Multiple environment variables can be defined, but the total length can be no longer than 4,096 bytes.

Specify each environment variable with <Variable> daughter tags, using the "Environment variable=value" format.

RetryCountResetTime (Parent tag: < The <Common> tag under the <IJServer> tag, <Web><Common>, <Ejb><Common>)

Specify an integer between 0 and 65535 for the time (in seconds) when the retry count will be reset. The default value is 600 seconds

If 0 is specified, the abnormal termination count for each application process will not be reset, and the Work Unit will terminate abnormally when the number of abnormal terminations reaches the value set by the retry count.

Note that the position of the definition for the <RetryCountResetTime> tag has changed with Interstage Application Server V9.0. With earlier versions, this tag could be defined under the <AbnormalTerminationCounts> tag but from V9.0 this tag is defined under the <Common> tag.

Note also that the value defined by the <AbnormalTerminationCounts><RetryCountResetTime> tag will also be valid when definitions are added or updated, in order to maintain compatibility with past versions.

If both the <AbnormalTerminationCounts><RetryCountResetTime> tag and the <Common><RetryCountResetTime> tag have been specified in a single IJServer definition file, the value of the latter tag will be valid.

JavaVersion (Parent tag: The <Common> tag under the <IJServer> tag, <Web><Common>, <Ejb><Common>)

This is information about the Java version used.

This is an optional item, and the only value is 6.

If the definition was extracted for a V8.0 compatibility mode IJServer or a IJServer created as V8 or earlier, it will be output as 1.4, however it cannot be used in this version/level. For this reason, change it to 6. If the definition was extracted for an IJServer created as V9.0 or V10.1, it will be output as "5.0", however it cannot be used 'as is' in this version/level, therefore it must be changed to 6.

JavaCommandOptions (Parent tag: The <Common> tag under the <IJServer> tag, <Web><Common>, <Ejb><Common>)

Specify the options to be specified with the java command, using a string between 1 and 4096 bytes long that meets the following conditions.

- Options that include spaces should be enclosed in double quotes ("").

- If multiple options are specified, separate each option with a space.

The following options are typical Java VM options. For the values specified for the <size> tag, specify a number followed by either "k" (kilobytes) or "m" (megabytes) indicating the units.

- Maximum size of the memory allocation pool

  Specify the memory used by Java with the -Xmx<size> parameter.

- Maximum size of the permanent area

  Specify the heap area for storing classes with the -XX:MaxPermSize=<size> parameter.

To output trace information for class loaders, implement the following settings. Refer to "Problem Investigation with the Trace Function" under "Class Loader" in the J2EE User's Guide for more information on trace information for class loaders. Outputting trace information is a function for debugging during development. Fujitsu recommends not using this function in the production environment.

```
-Dcom.fujitsu.interstage.j2ee.ijserver.loader.trace=true
```

To also monitor requests to static resources for Web applications using the server application timer function (which monitors the maximum processing time for applications), implement the following settings.

```
-Dcom.fujitsu.interstage.
j2ee.ijserver.server_application_timer.servlet.target.DefaultServlet=true
```

Settings example

Specifying 512 MB for the maximum size of the memory allocation pool and 128 MB for the maximum size of the permanent area

```
-Xmx512m -XX:MaxPermSize=128m
```

ReactivationOfProcessAtOutOfMemory (Parent tag: The <Common> tag under the <IJServer> tag, <Web><Common>, <Ejb><Common>)

Select either of the following values to determine how to control IJServer when the Java heap or the Java permanent area runs out of memory. Strings are not case-sensitive.

- ReStart (Restart the process)

  Default value

  Restart the process that has run out of memory. The number of restarts is specified by the retry count.

- Error (Return a java.lang.OutOfMemoryError to the application)

  Return a java.lang.OutOfMemoryError to the application in the same way as for a normal Java application.

ProcessingTime (Parent tag: The <Common> tag under the <IJServer> tag, <Web><Common>, <Ejb><Common>)

- <MaximumProcessingTime> tag

  Specify an integer between 0 and 86400 for the maximum processing time (in seconds) for applications. The default value is 480 seconds.

  If 0 is specified, application processing time will not be monitored.

  If processing does not complete within the specified time, the application will time out.

  If an application timeout is detected, thread dumps will be output to the container information log ("info.log"). Two thread dumps are output, one immediately after the timeout occurs, the other 10 seconds later. This makes it possible to detect problems with applications running on thread if there is no change between the two thread dumps.

- \<TerminateProcessModeForTimeout\> tag

  Select either of the following values to determine how to control applications when application processing does not complete within the time specified by the \<MaximumProcessingTime\> tag. Strings are not case-sensitive.

    - NO (Output a warning message and continue operating)

      Default value

      For 10 minutes after a message is output when the first timeout occurs, timeout messages from this process will be suppressed.

    - YES (Cancel the process)

      When a timeout occurs, the process will be canceled using the following procedure.

      1. The first thread dump will be output.

      2. Ten seconds after step 1, a second thread dump will be output.

      3. Ten seconds after step 2., the process will be canceled.

      As can be seen from this procedure, the process will not stop for at least 20 seconds even if a timeout occurs. This means that even if a timeout message is output, the application may return normally before the process is forcibly stopped.

QueueCounts (Parent tag: The \<Common\> tag under the \<IJServer\> tag, \<Ejb\>\<Common\>)

This definition is valid if "EJB" or "SPLIT" has been specified for the \<Type\> tag (the IJServer type).

This tag is for creating definitions relating to message queuing.

- \<MaxQueueCounts\> tag

  Specify an integer between 0 and 2147483647 for the maximum number of messages that can accumulate in a queue (the maximum queue length). The default value is 0.

  If this tag is omitted, or if 0 is specified, the maximum number of messages will not be controlled.

- \<AlarmQueueCounts\> tag

  Specify an integer between 0 and 2147483647 for the number of messages that can accumulate in a queue before an alarm is notified.

  Setting this to -1 disables monitoring. By default the number of messages is not monitored.

  If a value other than"0" has been specified for the \<MaxQueueCounts\> tag, then the value specified for this tag cannot be greater than the value specified for the \<MaxQueueCounts\> tag.

  If this tag is omitted, alarms will not be notified.

- \<ResetAlarmQueueCounts\> tag

  This definition is valid if the \<AlarmQueueCounts\> tag (the number of messages that can accumulate in a queue before an alarm is notified) has been specified.

  Specify an integer between 0 and 2147483647 for the number of accumulated messages at which monitoring for alarm notification will be restarted.

  If this item is omitted when the \<AlarmQueueCounts\> tag has been specified, a value of 70% of the value specified for the \<AlarmQueueCounts\> tag (ignoring numbers after the decimal point) will be regarded as having been set. To restore this default value after another value has been specified, specify -1.

  If the number of accumulated messages exceeds the value specified for the \<AlarmQueueCounts\> tag and then reaches the value set for this item, monitoring of the number of accumulated messages will restart. The value specified for this tag cannot be higher than the values specified for the \<AlarmQueueCounts\> tag.

CommunicationBuffer (Parent tag: The \<Common\> tag under the \<IJServer\> tag, \<Ejb\>\<Common\>)

This definition is valid if "EJB" or "SPLIT" has been specified for the \<Type\> tag (the IJServer type).

These definitions relate to the communication buffer.

If these definitions are specified, both the \<BufferNumber\> tag (the number of communication buffers) and the \<BufferSize\> tag (the length of communication buffers) must be specified. It is not possible to specify just one tag or the other.

- <BufferNumber> tag

  If these definitions are specified, both the <BufferNumber> tag (the number of communication buffers) and the <BufferSize> tag (the length of communication buffers) must be specified. It is not possible to specify just one tag or the other.

  If this definition is omitted, Interstage will set an appropriate value dynamically.

  To restore the default value once a different value has been specified, specify -1 for both the <BufferNumber> tag and the <BufferSize> tag.

- <BufferSize> tag

  Specify an integer between 4096 and 2147483647 for the length (in bytes) of one data item for which queue operations are performed in response to requests. The default value is 4096.

DistributedTransaction (Parent tag: The <Common> tag under the <IJServer> tag, <Ejb><Common>) `Windows32/64` `Solaris32` `Linux32/64`

This definition is valid if "EJB" or "SPLIT" has been specified for the <Type> tag (the IJServer type).

Select either of the following values to determine whether to use distributed transactions. Strings are not case-sensitive.

- FALSE (Do not use distributed transactions)

  Default value

- TRUE (Use distributed transactions)

Daughter tags of the <IJServer><Web> tag

These definitions relate to servlets.

This definition is valid if "ONE", "SPLIT" or "WEB" has been specified for the <Type> tag (the IJServer type).

IPAddress (Parent tag: <IJServer><Web>) `Windows32/64` `Solaris32` `Linux32/64`

This tag is only valid if Web servers and Work Units are running on different machines.

Use xxx.xxx.xxx.xxx format (where "xxx" are decimal numbers) to specify the IP address that the servlet container uses to connect to the Web server connector.

If this definition is omitted, the servlet container will run using localhost for the IP address.

If multiple IP addresses have been set for the servlet container server, specify the IP address that will receive requests when there is a need to restrict the IP addresses that will receive requests from the Web server connector. If an IP address is not specified, requests will be received using all of the IP addresses that have been set for the server.

Timeout (Parent tag: <IJServer><Web>)

Specify an integer between 1 and 2147483 for the timeout time (in seconds). The default value is 60 seconds.

Requests will be processed as having timed out in the following situation.

- If there have been no communications from the Web server connector for more than the specified time

Ports (Parent tag: <IJServer><Web>)

Use <Number> tags to specify an integer between 5001 and 65535 for the port numbers that the servlet container uses to connect to Web server connectors.

If multiple concurrent processes are used, specify a port number for each concurrent process.

If this definition is omitted, available port numbers will be allocated automatically.

Connection (Parent tag: <IJServer><Web>)

These definitions relate to the number of connections to the servlet container.

- <MaxConnection> tag

  Specify an integer between 1 and 2147483647 for the maximum number of connections to the servlet container. The default value is 200.

  Note that this tag is only valid with IJServers of V9.0 or later.

ThreadConcurrency (Parent tag: <IJServer><Web>)

These definitions relate to the number of concurrent threads.

Either the value specified for the <MinSpareThreads> tag or the value specified for the <MaxThreads> tag will be used by the internal processing for the servlet container for receiving requests from client systems.

The values specified for these tags must meet the following relationship:

```
<MaxThreads> tag >= <MaxSpareThreads> tag >= <MinSpareThreads> tag
```

Note that to increase the number of requests that the servlet container can process simultaneously, consider changing the number of connections to the servlet container, the number of simultaneous threads and the number of simultaneous connections for Web server clients together.

Refer to "Number of Clients that can be Connected Simultaneously" in the "Interstage HTTP Server Environment Definition" and "Tuning Servlet Containers" sections of the Tuning Guide for more information.

- <MinSpareThreads> tag

Specify an integer between 2 and 2048 for the initial value/increment for the number of requests from client systems that can be processed simultaneously by a servlet container process. The default value is 16.

Specify a value that is not greater than the value specified for the <MaxSpareThreads> tag.

Note that this tag is only valid with IJServers of V9.0 or later.

- <MaxThreads> tag

Specify an integer between 2 and 2048 for the maximum number of requests from client systems that can be processed simultaneously by one servlet container process. The default value is 64.

If multiple concurrent processes are used, the maximum number of requests from client systems that can be processed simultaneously will be equal to:

- the number of concurrent processes x the value specified for this item.

For the servlet settings, specify a value greater than or equal to the maximum number of connections from clients to the Web server. If the number of concurrent threads is smaller than the number of simultaneous connections from clients to the Web server, the number of requests received may exceed the maximum number of requests that the servlet container can process simultaneously. If this happens, status code 503 (Service Temporarily Unavailable) may be posted to Web browsers.

- <MaxSpareThreads> tag

Specify an integer between 2 and 2048 for the maximum number of queued requests from client systems that can be simultaneously processed by a servlet container process. The default value is 16.

Specify a value that is not greater than the value specified for the <MaxThreads> tag.

Note that this tag is only valid with IJServers of V9.0 or later.

Listings (Parent tag: <IJServer><Web>)

Select either of the following values to determine whether to display a list of files if there are no "welcome" file settings and a URL has only been specified as far as the directory. Strings are not case-sensitive.

- OFF (Do not display a list of files)

Default value

- ON (Display a list of files)

If "ON" (display a list of files) is selected, memory usage will increase, depending on the number of requests being processed simultaneously and increase in the size of files in the directory.

For this reason, and because of security considerations, Fujitsu recommends using the default value.

InvokerServletMapping (Parent tag: <IJServer><Web>)

Select either of the following values to determine whether servlets should run without servlet mappings. Strings are not case-sensitive.

From a security perspective, Fujitsu recommends specifying "OFF" (do not run).

- OFF (Do not run)

  Default value

- ON (Run)

  Servlets can be called from Web browsers by including "servlet/servlet class name" in the URL.

EnablePooling (Parent tag: <IJServer><Web>)

Select either of the following values to determine whether to use the custom pooling function. Strings are not case-sensitive.

- ON (Use the custom pooling function)

  Default value

  Performance can be improved by pooling custom tag classes that are used from JSPs.

- OFF (Do not use the custom pooling function)

URIEncoding (Parent tag: <IJServer><Web>)

Specify the encoding used for request URIs by using a string consisting of alphanumeric characters, hyphens (-) or underscores (_).

Any encoding supported by Java can be specified.

This value will also be used for processing query string parameters if "FALSE" has been specified for the <UseBodyEncodingForURI> tag.

If this value is omitted, request URIs will be interpreted as using ISO-8859-1 when requests are executed.

Note that this tag is only valid with IJServers of V9.0 or later.

UseBodyEncodingForURI (Parent tag: <IJServer><Web>)

Select either of the following values to determine whether to use the encoding for processing request bodies for query parameters. Strings are not case-sensitive.

- FALSE (Do not use the encoding for processing request bodies)

  Default value

- TRUE (Use the encoding for processing request bodies)

Note that this tag is only valid with IJServers of V9.0 or later.

FileEncoding (Parent tag: <IJServer><Web>)

Specify the encoding used when files are dispatched to static resources, by using a string consisting of alphanumeric characters, hyphens (-) or underscores (_).

Any encoding supported by Java can be specified.

If this definition is omitted, the default encoding for the operating system will be used.

Note that this tag is only valid with IJServers of V9.0 or later.

JSPReload (Parent tag: <IJServer><Web>)

Note that this tag is only valid with IJServers of V9.0 or later.

- <Mode> tag

  Select the reload method for JSPs from the following. Strings are not case-sensitive.

  - DISABLE (Disable reloading JSPs)

    Default value

  - REQUEST (Reload JSPs for each request)

  - INTERVAL (Reload JSPs at fixed intervals)

- <CheckInterval> tag

  Specify an integer between 1 and 2147483647 for the interval (in seconds) to check for changes if "INTERVAL"(reload JSPs at fixed intervals) has been specified for the <Mode> tag. The default value is 15 seconds.

Daughter tags of the <IJServer><Web><Www> tag

AcceptedHosts (Parent tag: <IJServer><Web><Www>)

This definition is valid if Web servers and Work Units are running on separate machines.

Specify the IP addresses for the Web servers that are allowed to connect to this IJServer, by using xxx.xxx.xxx.xxx format (where "xxx" are decimal numbers) in the <Address> daughter tags.

To specify multiple IP addresses, use a separate tag for each address.

If this definition is omitted, connections from all Web servers will be allowed.

From a security perspective, Fujitsu recommends setting this item.

VirtualHost (Parent tag: <IJServer><Web><Www>)

Specify the "server host name" for the virtual host.

Specify the virtual host or main host that has been defined, by using <Name> daughter tags.

Note that this tag is only valid for IJServers in V8.0 compatibility mode.

WebServer (Parent tag: <IJServer><Web><Www><WebServers>)

These definitions are valid if Web servers and Work Units are running on the same machine.

Note that this tag is only valid with IJServers of V9.0 or later.

- <Name> tag

  Specify the name of the Web servers linked to IJServer.

  Specify Web server names using the <Name> tag and strings that are between 1 and 64 bytes long and consist of alphanumeric characters and hyphens '-' (which cannot be specified as the first or last character).

  Up to 16 Web servers can be specified.

  For Windows®, Web server names are not case sensitive.

  For Solaris and Linux, Web server names are case sensitive.

  If this definition is omitted, this IJServer will not be linked to any Web servers.

  This definition is not valid if the IJServer is being created in V8.0 compatibility mode.

- <VirtualHost> tag

  Specify the virtual hosts for receiving requests with respect to Web applications deployed to the IJServer.

  If no virtual hosts for linked Web servers are specified, requests will be received from all virtual hosts and main hosts for linked Web servers.

  If virtual hosts are specified, requests will be restricted so that only requests from the specified virtual hosts will be received.

  Any virtual host specifications other than linked Web server names are invalid.

  Use the <Name> daughter tags to specify virtual hosts (that have been defined) using the "IP address[:port number]/server host name" format. Use a separate tag for each specification.

  Define this tag for the following kind of Web application operations.

  - Operations where Web applications with the same name are running on separate IJServers

    In this case, a virtual host must be selected where either the "port number" or "host name of the server" part is different. Web applications with the same name can be deployed to the following two IJServers:

    Example 1) Allocating requests by host name

    IJServerA xxx.xxx.xxx.xxx:80/HostA

    IJServerB xxx.xxx.xxx.xxx:80/HostB

    Example 2) Allocating requests by port number

    IJServerA xxx.xxx.xxx.xxx:80/HostA

IJServerB xxx.xxx.xxx.xxx:81/HostA

IJServer name: IJServerA,IJServerB

IP address of the Web server: xxx.xxx.xxx.xxx

Port number: 80,81

Host name of the servers: HostA, HostB

- Operations where only requests to a particular host name are received

If different host names have been allocated to the same IP address on a single system, select the virtual host where the host name for receiving requests has been set up.

Example) Host name: Receiving only requests to HostB

xxx.xxx.xxx.xxx:80/HostA

xxx.xxx.xxx.xxx:80/HostB Define this IP address)

Note

Note the following points when specifying virtual hosts:

- Requests will not be allocated if virtual hosts where only the IP address is different are specified. Be sure to specify virtual hosts where either the port number or the host name is different.

- Settings for virtual hosts can be made by selecting Services > Web Server > Web Server Name > Virtual Hosts from the Interstage Management Console.

- Only virtual hosts where the host name of the server has been set up can be used with IJServer. Virtual hosts where the host name of the server has not been set up cannot be specified. Requests to virtual hosts where the host name of the server has not been set up will be received by IJServer if a virtual host with the same host name as the host name found by reverse lookup from the IP address of the virtual host and a main host with the same host name are selected with IJServer.

- If the IJServer was created in V6.0 or V7.0 and a main host has been defined, this main host will be a virtual host.

- It is not possible to restrict requests so that only requests from the main host are received.

To restrict requests so that only requests from the following main host are received, create a virtual host with the same host name and port number as the main host, and select this virtual host. In this way, requests will be restricted so that only requests that access port 80 of Host A will be received.

Host name for the main host: HostA

Port number for the main host: 80

Timeout (Parent tag: <IJServer><Web><Www>)

Specify an integer between 1 and 2147483647 for the maximum time (in seconds) to wait for Web server connectors to send/receive data packets to/from servlet containers. The default value is 600.

Set a value that is larger than the maximum application processing time that has been set in the Work Unit environment settings on the connection destination machine.

Note

- This tag is valid only if IJServer is linked to a Web server.

- This tag is only valid with IJServers of V9.0 or later.

AllowedMaxConnections (Parent tag: <IJServer><Web><Www>)

Specify an integer between 1 and 2048 for the maximum number of connections per servlet container. This tag is omitted by default (unlimited connections). To restore the default value (unlimited connections) after another value has been set, specify 0.

This tag has been left to maintain compatibility with older versions. There is usually no need to change the default value.

Note

- This tag is valid only if IJServer is linked to a Web server.

- This tag is only valid with IJServers of V9.0 or later.

SSLMode (Parent tag: <IJServer><Web><Www>)

Select either of the following values to determine whether to use SSL for communications between Web server connectors and servlet containers. Strings are not case-sensitive.

- OFF (Do not use SSL)

  Default value

- ON (Use SSL)

If the Web server and IJServer are running on separate machines, specify the same value as the settings for the connection destination Web server connector that has been set up.

Solaris32/64 Linux32/64

To use SSL, start the Work Unit using either superuser privileges or the privileges of a user that belongs to the group with access privileges to the Interstage certificate environment. The execution group for the Web server must also be the same group as the group with access privileges to the Interstage certificate environment.

SSLConfName (Parent tag: <IJServer><Web><Www>)

This item is required if "ON" (use SSL) has been specified for the <SSLMode> tag.

Specify the SSL definition name used when SSL is used for communications between Web server connectors and servlet containers.

The SSL definitions described below cannot be used. If these definitions are used, an attempt to connect to the Web application may fail, or the Work Unit may fail to start.

- SSL definitions where one of the following has not been specified for the encryption method:

  - 128-bit AES encryption, SHA-1 MAC

  - 168-bit triple DES encryption, SHA-1 MAC

  - 128-bit RC4 encryption, SHA-1 MAC

  - 128-bit RC4 encryption, MD5 MAC (SSL 3.0/TLS 1.0 only)

  - 56-bit DES encryption, SHA-1 MAC

  - 40-bit RC4 encryption, MD5 MAC (SSL 3.0/TLS 1.0 only)

  - No encryption, SHA-1 MAC

  - No encryption, MD5 MAC

- SSL definitions where only "SSL 2.0" has been specified for the protocol version

ClientAuthorization (Parent tag: <IJServer><Web><Www>)

This definition is valid if Web servers and Work Units are running on separate machines.

Select either of the following values to determine whether to control connection destination Web server connectors when SSL is used for communications between Web server connectors and servlet containers. Strings are not case-sensitive.

- FALSE (Do not control connection destination Web server connectors)

  Allow connections from all Web server connectors

- TRUE (Control connection destination Web server connectors)

  Specify certificate information for the Web server connectors for which connections will be allowed.

The default values are as follows:

- If "OFF" has been specified for the <SSLMode> tag: FALSE

- If "ON" has been specified for the <SSLMode> tag:

  The default value is determined by the client authentication settings for the SSL definitions that have been specified in the <SSLConfName> tag.

  - If client authentication is not performed: FALSE

- If client authentication is performed: TRUE

Note that this tag is only valid for IJServers in V8.0 compatibility mode.

AllowedClientCertlist (Parent tag: <IJServer><Web><Www>)

This definition is valid if Web servers and Work Units are running on separate machines.

Specify certificate information for allowing connections when SSL is used for communications between Web server connectors and servlet containers and connection destination Web server connectors are controlled. Specify this information using one line in "serial number@DN identifying the issuer" format. When specifying multiple information items, separate each definition with a new linefeed character.

Settings example

```
0a 27 21 ab dc 5c eb ef 4d da 16 81 a6 79 11 52 @ OU=For VeriSign
authorized testing only.  No assurances
(C)VS1997,OU=www.verisign.com/repository/TestCPS Incorp.  By Ref.  Liab.
LTD.,O=VeriSign\, Inc
```

Note that this tag is only valid for IJServers in V8.0 compatibility mode.

AllowKeepAlive (Parent tag: <IJServer><Web><Www>)

Select either of the following values to determine whether to keep connections between Web server connectors and servlet containers alive. Strings are not case-sensitive.

- TRUE

  Default value

  Whether the connection is kept alive depends on whether the client is requesting a KeepAlive connection.

- FALSE

  Connections between Web server connectors and servlet containers will not be kept alive even if a client requests a KeepAlive connection.

  Whether connections between clients and Web servers are kept alive depends on the settings for the Web server.

Whether connections between Web server connectors and servlet containers are kept alive is determined by whether clients request KeepAlive connections.

Connections between Web server connectors and servlet containers will be kept alive only if clients request KeepAlive connections.

Specify this item if there is some reason for not keeping connections between Web server connectors and servlet containers alive, such as a load balancer being placed between Web server connectors and servlet containers.

Daughter tags of the <IJServer><Web><HttpConnector> tag

This definition is valid if "ONE", "SPLIT" or "WEB" has been specified for the <Type> tag (the IJServer type). The following products can be used.

- Interstage Application Server Enterprise Edition

- Interstage Application Server Standard-J Edition

Use (Parent tag: <IJServer><Web><HttpConnector>)

Select either of the following values to determine whether to use a control port. Strings are not case-sensitive.

- FALSE (Do not use a control port)

  Default value

- TRUE (Use a control port)

Ports (Parent tag: <IJServer><Web><HttpConnector>)

Specify an integer between 5001 and 65535 for the port number that receives control information for the servlet container.

If concurrent processes are used, specify a separate port number for each concurrent process by using separate tags for each specification.

If this value is not specified, this servlet container will not use a control port.

A control port is required to use the session recovery function.

AcceptedHost (Parent tag: <IJServer><Web><HttpConnector>)

Specify the IP addresses that are allowed access (the IP addresses for the Session Registry Server), by using xxx.xxx.xxx.xxx format (where "xxx" are decimal numbers) in the <Address> daughter tags.

To specify multiple IP addresses, use a separate tag for each address.

Communications from IP addresses other than the ones specified will not be accepted. If these definitions are omitted, access control will not be performed.

If multiple IP addresses have been set for the machine running the Session Registry Server, enter all of these IP addresses.

Daughter tags of the <IJServer><Ejb> tag

These definitions relate to EJBs.

SSL (Parent tag: <IJServer><Ejb>)

This definition is valid if "SPLIT" or "EJB" has been specified for the <Type> tag (the IJServer type).

Select either of the following values to determine whether to use SSL when EJB applications are called from outside the IJServer via IIOP communications. Strings are not case-sensitive.

- OFF (Do not use SSL)

  Default value

- ON (Use SSL)

ThreadConcurrency (Parent tag: <IJServer><Ejb>)

This definition is valid if "SPLIT" or "EJB" has been specified for the <Type> tag (the IJServer type).

This definition relates to the number of simultaneous threads for IIOP calls.

Specify the minimum and maximum numbers of requests from client systems that can be processed simultaneously by EJB container processes. When the IJServer starts, the number of threads specified for the minimum value will be generated, and the number of threads will be increased up to the maximum value as necessary.

If concurrent processes are used, the maximum number of requests from client systems that can be processed simultaneously is determined by *the number of concurrent processes* x *the value specified for the maximum value*.

- <MinSpareThreads> tag

  Specify an integer between 1 and 2147483647 for the minimum value. The default value is 16.

- <MaxThreads> tag

  Specify an integer between 1 and 2147483647 for the maximum value. The default value is 64.

MDBThread (Parent tag: <IJServer><Ejb>)

This definition is valid if "ONE", "SPLIT" or "EJB" has been specified for the <Type> tag (the IJServer type).

These definitions relate to the number of message-driven bean threads that are simultaneously processed.

Specify the minimum and maximum values for the number of messages that can be processed simultaneously by message-driven beans on EJB container processes. The number of threads that is specified by the minimum value will be pooled when IJServer starts.

If concurrent processes are used, the maximum number of messages that can be processed simultaneously is given by:

the number of concurrent processes x the value specified for the maximum value.

- <MinSpareThreads> tag

  Specify an integer between 0 and 2147483647 for the minimum value. The default value is 0.

- <MaxThreads> tag

  Specify an integer between 1 and 2147483647 for the maximum value. The default value is 64.

- <IdleTimeout> tag

    Specify an integer between 0 and 2147483647 for the idle timeout for the message-driven bean thread pool. The default value is 600 seconds.

    Threads that are not used within the specified time after being returned to the pool will be deleted.

Daughter tags of the <IJServer><Ejb><TrafficDirector> tag

These definitions relate to linking to IPCOM.

LoadDistribution (Parent tag: <IJServer><Ejb><TrafficDirector>)

This tag is only valid with the Enterprise Edition of Interstage Application Server, and only if "EJB" has been specified for the <Type> tag (the IJServer type).

Select either of the following values to determine whether to use IPCOM method load balancing with EJB applications. Strings are not case-sensitive.

- OFF (Do not use IPCOM method load balancing)

    Default value

- ON (Use IPCOM method load balancing)

HostName (Parent tag: <IJServer><Ejb><TrafficDirector>)

This tag is valid only if "EJB" has been specified for the <Type> tag (the IJServer type).

This item is required if "ON" (Use IPCOM method load balancing) has been specified for the <LoadDistribution> tag.

Specify a string between 1 and 64 bytes long for the virtual host name corresponding to the virtual IP address that has been set in the IPCOM site load balancing policy.

RepresentationPort (Parent tag: <IJServer><Ejb><TrafficDirector>)

This tag is valid only if "EJB" has been specified for the <Type> tag (the IJServer type).

Specify an integer between 1 and 65535 for the value of the representative port that has been set for the IPCOM CORBA Service. The default value is 8002.

Monitor (Parent tag: <IJServer><Ejb><TrafficDirector>)

This tag is only valid with the Enterprise Edition of Interstage Application Server. This definition is valid if "SPLIT" or "EJB" has been specified for the <Type> tag (the IJServer type).

Select either of the following values to determine whether to perform operational status monitoring for Work Units using IPCOM. Strings are not case-sensitive.

- NO (Do not use operational status monitoring)

    Default value

    Degradation operations will not be performed even if Work Units stop.

- YES (Use operational status monitoring)

    If a Work Unit stops, degradation operations will be performed by disconnecting the relevant server from the target servers for load balancing.

Fujitsu recommends selecting "YES" (use operational status monitoring) if IPCOM method load balancing is being used. Note that operational status monitoring can also be used for Work Units that are not subject to IPCOM method load balancing.

Daughter tags of the <IJServer><Datasources><Datasource> tag

Specify each of the definitions for the database connection settings. Different database connection settings items are valid, depending on the database type and the data source type. See the table below. When implementing settings, check the validity of the values of invalid items as well.

	Oracle			Symfoware		SQL Server	Generic definition	
	Interstage (*1)	JDBC (*2)	XA (*3)	Interstage (*1)	JDBC (*2)	Interstage (*1)	Interstage (*4)	JDBC (*5)
IsolationLevel	Y	Y	Y	Y	Y	Y	Y	Y
PreviousConnectionCount	Y	Y	Y	Y	Y	Y	Y	Y
MaxConnectionCount	Y	Y	Y	Y	N	Y	Y	N
ConnectionTimeout	Y	Y	Y	Y	N	Y	Y	N
IdleTimeout	Y	Y	Y	Y	N	Y	Y	N
ConnectionUseTimeout	Y	Y	Y	Y	Y	Y	Y	Y
StatementCacheSize	N	Y	N	Y	N	N	N	N
AutoCloseStatement	N	N	N	Y	N	N	N	N
SqlWaitTimeout	Y	Y	Y	Y	Y	Y	Y	Y
AbnormalReconnection	Y	N	N	Y	N	Y	N	N
IntervalTime	Y	N	N	Y	N	Y	N	N
RetryCount	Y	N	N	Y	N	Y	N	N

Y: Valid

N: Invalid

*1 If Interstage connection pooling is used

*2 If JDBC connection pooling is used

*3 If distributed transactions are used Windows32/64 Solaris32 Linux32/64

*4 If the data source class implements the java.sql.ConnectionPoolDataSource interface

*5 If the data source class does not implement the java.sql.ConnectionPoolDataSource interface (whether connections are pooled by JDBC depends on the implementation of the JDBC driver.)

Name (Parent tag: <IJServer><Datasources><Datasource>)

Specify the name of the registered data source.

IsolationLevel (Parent tag: <IJServer><Datasources><Datasource>)

Select one of the following values to determine the default value for the transaction isolation level for connections acquired from the data source. Strings are not case-sensitive.

- default

Default value

The default value will be the default transaction isolation level for the data source. Refer to the JDBC or database manuals for information about the meanings of each value.

- Transaction-read-committed

- Transaction-read-uncommitted

- Transaction-repeatable-read

- Transaction-serializable

StatementCacheSize (Parent tag: <IJServer><Datasources><Datasource>)

This definition is valid if Oracle is used for the database and Oracle connection pooling is used, or if Symfoware is used for the database and Interstage connection pooling is used.

Specify an integer between 0 and 32000 for the size of the statement cache. The default value is 10.

If 0 is specified, statements will not be cached.

For J2EE applications, caching statements improves the performance of database access processing.

Refer to "JDBC Connection" in the Tuning Guide for more information about usage conditions and the relationship to connection pooling types, and so on.

Note that this tag is only valid with IJServers of V9.0 or later.

AutoCloseStatement (Parent tag: <IJServer><Datasources><Datasource>)

This definition is valid if Symfoware is used for the database and Interstage connection pooling is used.

Select either of the following values to determine whether the JDBC driver should automatically close statements when the statement cache function is used. Strings are not case-sensitive.

- FALSE (Do not close statements automatically)

    Default value

- TRUE (Close statements automatically)

Refer to "JDBC Connection" in the Tuning Guide for more information about usage conditions and the relationship to connection pooling types and so on.

Note that this tag is only valid with IJServers of V9.0 or later.

PreviousConnectionCount (Parent tag: <IJServer><Datasources><Datasource>)

Specify an integer between 0 and 2147483647 for the number of preopened connections. The default value is 0.

When the server starts, the specified number of data source connections used by EJB or Web applications is created. Creating preopened connections improves performance when the application initially connects to the database.

If 0 is specified, preopened connections will not be created.

Refer to "JDBC Connection" in the Tuning Guide for more information about usage conditions and the relationship to connection pooling types and so on.

Note

Note the following if the database is Oracle and the data source type is "Use Oracle connection pooling":

- If "InitialLimit" is specified in the connection cache properties for the implicit connection cache and one or more has been specified for the number of preopened connections, then the larger of these two values (the value for the <PreviousConnectionCount> tag and the value for the "InitialLimit" property) will take effect.

MaxConnectionCount (Parent tag: <IJServer><Datasources><Datasource>)

Specify an integer between 1 and 2147483647 for the maximum number of connections that can be pooled. The default value is 64.

Refer to "JDBC Connection" in the Tuning Guide for more information about usage conditions and the relationship to connection pooling types and so on.

Note that if the database is Oracle, the data source type is "Use Oracle connection pooling", and "MaxLimit" has been specified in the connection cache properties for the implicit connection cache, then the definition in this tag (<MaxConnectionCount>) will take effect.

ConnectionTimeout (Parent tag: <IJServer><Datasources><Datasource>)

Specify an integer between 1 and 2147483647 for the time (in seconds) for connection timeouts. The default value is 5 seconds.

If a connection request arrives while the maximum number of connections is already being used by the J2EE application, the request will wait for a connection. An SQLException will be returned if a connection is not established within the specified time.

If 0 is specified, an SQLException will be returned as soon as a request has to wait for a connection.

Refer to "JDBC Connection" in the Tuning Guide for more information about usage conditions and the relationship to connection pooling types and so on.

Note that if the database is Oracle, the data source type is "Use Oracle connection pooling", and "ConnectionWaitTimeout" has been specified in the connection cache properties for the implicit connection cache, then the definition in this tag (<ConnectionTimeout>) will take effect.

IdleTimeout (Parent tag: <IJServer><Datasources><Datasource>)

Specify an integer between 1 and 2147483647 for the monitoring time (in seconds) for pooled connections. The default value is 600 seconds.

The container will destroy any pooled connections that are not used within the specified time.

If 0 is specified, timeout monitoring will not be performed.

Refer to "JDBC Connection" in the Tuning Guide for more information about usage conditions and the relationship to connection pooling types and so on.

Note

Note the following points if the database is Oracle and the data source type is "Use Oracle connection pooling".

- This item will become the "InactivityTimeout" setting in the connection cache properties for the implicit connection cache.

The interval for checking for timeouts is determined by the "PropertyCheckInterval" setting in the connection cache properties for the implicit connection cache.

Define "PropertyCheckInterval" in the environment settings for the data source.

Refer to the Oracle manuals for more information.

- If "InactivityTimeout" has been specified in the connection cache properties for the implicit connection cache for the data source definitions, the definition in this tag (<IdleTimeout>) will take effect.

AbnormalReconnection (Parent tag: <IJServer><Datasources><Datasource>)

Select either of the following values to determine whether to use the automatic reconnection function for JDBC connections. Strings are not case-sensitive.

- TRUE (Reconnect automatically)

Default value

- FALSE (Do not reconnect automatically)

If the automatic reconnection function is used, then this function will determine whether pooled JDBC connections can be used. For connections that cannot be used, this function will automatically reconnect to the database.

Refer to "JDBC Connection" in the Tuning Guide for more information about usage conditions and the relationship to connection pooling types and so on.

IntervalTime (Parent tag: <IJServer><Datasources><Datasource>)

This definition is valid if "TRUE" (reconnect automatically) has been specified for the <AbnormalReconnection> tag.

Specify an integer between 1 and 2147483647 for the interval (in seconds) before the JDBC connection automatic reconnection function can reconnect to the database if a pooled JDBC connection cannot be used or if connection to the database fails. The default value is 10 seconds.

Refer to "JDBC Connection" in the Tuning Guide for more information about usage conditions and the relationship to connection pooling types and so on.

RetryCount (Parent tag: <IJServer><Datasources><Datasource>)

This definition is valid if "TRUE" (reconnect automatically) has been specified for the <AbnormalReconnection> tag.

Specify an integer between 1 and 2147483647 for the number of times that the JDBC connection automatic reconnection function should try to reconnect to the database if a pooled JDBC connection cannot be used or if connection to the database fails. The default value is 10.

Refer to "JDBC Connection" in the Tuning Guide for more information about usage conditions and the relationship to connection pooling types and so on.

ConnectionUseTimeout (Parent tag: <IJServer><Datasources><Datasource>)

Refer to "JDBC Connection" in the Tuning Guide for more information about usage conditions and the relationship to connection pooling types and so on.

Note that this tag is only valid with IJServers of V9.0 or later.

- <Time> tag

  Specify an integer between 1 and 2147483647 for the monitoring time (in minutes) for connections used by the application. The default value is 60 minutes.

  If 0 is specified, connections will not be monitored.

  If a connection is used for longer than the specified time, warning messages will be output to the container log and the system log.

- <Recovery> tag

  Select either of the following values to determine whether to automatically release the connections used by the application if processing does not complete within the time specified by the <Time> tag. Strings are not case-sensitive.

  - FALSE (Do not release connections automatically)

    Default value

  - TRUE (Release connections automatically)

SqlWaitTimeout (Parent tag: <IJServer><Datasources><Datasource>)

Refer to "JDBC Connection" in the Tuning Guide for more information about usage conditions and the relationship to connection pooling types and so on.

Note that this tag is only valid with IJServers of V9.0 or later.

- <Time> tag

  Specify an integer between 1 and 2147483647 for the monitoring time (in seconds) from when the following APIs (which execute SQL statements) start until they finish. The default value is 400 seconds.

  If 0 is specified, the time taken to execute SQL statements will not be monitored.

  - java.sql.Statement

    execute(String)

    execute(String, int)

    execute(String, int[])

    execute(String, String[])

    executeBatch()

    executeQuery(String)

    executeUpdate(String)

    executeUpdate(String, int)

    executeUpdate(String, int[])

    executeUpdate(String, String[])

  - java.sql.PreparedStatement

    execute()

    executeQuery()

    executeUpdate()

  If the results of executing the SQL statement do not return within the specified time, warning messages will be output to the container log and the system log.

  Note

  - Set a value that is smaller than the 'Maximum application processing time' in the 'WorkUnit settings' (the value specified for the <Common><ProcessingTime><MaximumProcessingTime> tag). If the value of this tag is larger, a "maximum application process time" timeout will occur first.

- <SqlOutput> tag

  Select either of the following values to determine whether to output SQL statements to the logs that are output when the results of executing an SQL statement do not return within the time specified by the <Time> tag. Strings are not case-sensitive.

    - FALSE (Do not output SQL statements)

      Default value

    - TRUE (Output SQL statements)

Daughter tags of the <IJServer><SessionRecovery> tag

Refer to "Creating Session Registry Server WorkUnits (Using the *isj2eeadmin* Command)" in the J2EE User's Guide if Work Units for a Session Registry Server are to be processed.

This definition is valid if "ONE", "SPLIT" or "WEB" has been specified for the <Type> tag (the IJServer type). The following products can be used.

- Interstage Application Server Enterprise Edition

- Interstage Application Server Standard-J Edition

Use (Parent tag: <IJServer><SessionRecovery>)

  Select either of the following values to determine whether to use the session recovery function. Strings are not case-sensitive.

    - FALSE (Do not use the session recovery function)

      Default value

    - TRUE (Use the session recovery function)

SRS (Parent tag: <IJServer><SessionRecovery>)

  This item is required if "TRUE" has been specified for the <Use> tag.

  Specify the "Address" and "Port" for the Session Registry Servers where sessions will be backed up.

  Specify IP addresses using <IPAddress> tags and xxx.xxx.xxx.xxx format (where "xxx" are decimal numbers).

  Specify an integer between 5001 and 65535 for the port numbers by using <Port> tags.

BackupMode (Parent tag: <IJServer><SessionRecovery>)

  Select the trigger for backing up sessions from the following. Strings are not case-sensitive.

    - INTERVAL (Back up sessions at fixed intervals)

      Default value

    - REQUEST (Back up sessions on each request)

BackupInterval (Parent tag: <IJServer><SessionRecovery>)

  This definition is valid if "INTERVAL" has been specified for the <BackupMode> tag.

  Specify an integer between 1 and 2147483647 for the interval (in seconds) for backing up sessions. The default value is 5 seconds.

ResponseWaitTime (Parent tag: <IJServer><SessionRecovery>)

  Specify an integer between 1 and 86400 for the time (in seconds) to wait for a response from the Session Registry Server. The default value is 440 seconds.

ExcludeExt (Parent tag: <IJServer><SessionRecovery>)

  Use <Extension> daughter tags to specify the extensions that come at the end of URLs that do not use sessions. To enter multiple extensions, use a separate tag for each definition.

AccessLog (Parent tag: <IJServer><SessionRecovery>)

  Select either of the following values to determine whether to output access logs. Strings are not case-sensitive.

- FALSE (Do not output access logs)

    Default value

- TRUE (Output access logs)

Daughter tags of the <IJServer><Log> tag

Directory (Parent tag: <IJServer><Log>)

Specify the full path to the directory where IJServer logs are output. The following strings can be used.

`Windows32/64`

Strings between 1 and 127 bytes long that do not contain control characters (0x00 to 0x1f and 0x7f for Shift_JIS)

`Solaris32/64` `Linux32/64`

Strings between 1 and 255 bytes long that start with "/"and do not contain spaces

Logs for each IJServer process are output to the directories below. The directory specified for this tag will be created if it does not exist.

`Windows32/64`

[specified directory]\[IJServer name]\log\[process serial number]

`Solaris32/64` `Linux32/64`

[specified directory]/[IJServer name]/log/[process serial number]

If the log output directory has been changed, old logs will be left in the old output directory, so delete these logs if necessary.

If this tag is omitted, logs will be output to the following directory.

`Windows32/64`

J2EE common directory\ijserver\[IJServer name]\current\[IJServer name]\log\[process serial number]

`Solaris32/64` `Linux32/64`

J2EE common directory/ijserver/[IJServer name]/log/[process serial number]

Mode (Parent tag: <IJServer><Log>)

Select either of the following values to determine whether to roll logs over according to log size or log collection time. Strings are not case-sensitive.

- SIZE (Log size)

    Default value

- TIME (Log collection time)

Size (Parent tag: <IJServer><Log>)

This definition is valid if "SIZE" has been specified for the <Mode> tag.

Specify an integer between 1 and 512 for the maximum size (in megabytes) for log files. The default value is 1 megabyte.

Log files will be rolled over when they reach the specified size.

StartTime (Parent tag: <IJServer><Log>)

This definition is valid if "TIME" has been specified for the <Mode> tag.

Specify an integer between 0 and 23 for the time (o'clock) to start rolling log files over. The default value is 1 (1:00 AM).

After the Work Unit starts, log files will start being rolled over when the start time specified by this tag arrives.

Interval (Parent tag: <IJServer><Log>)

This definition is valid if "TIME" has been specified for the <Mode> tag.

Specify an integer between 1 and 24 for the interval (in hours) at which log files are rolled over. The default value is 24 hours.

After the time specified by the <StartTime> tag, log files will be rolled over every time the interval specified by this tag elapses.

Example

If 0 is specified for <StartTime> and 24 is specified for <Interval> and the Work Unit is started at 10:00 PM, then the log file that is used from the time the Work Unit starts (10:00 PM) will be rolled over at midnight (0:00 AM - the start time specified with the <StartTime> tag). Log files will then be rolled over every 24 hours (the interval specified with the <Interval> tag).

If the specified rollover conditions are met, log collection will go on indefinitely, backing up log files by appending the date/time (year/month/day/hour/minute/second) that they were rolled over (container-YYYY_MM_DD-hh_mm_ss.log).

HistorySize (Parent tag: <IJServer><Log>)

Specify an integer between 1 and 9 for the number of generations of log files that are to be stored after they have been rolled over. The default value is 1 generation.

If the number of log files being stored exceeds the specified number of generations, the oldest log file will be deleted.

Daughter tags of the <IJServer><ExecutionClasses> tag

StartupClass (Parent tag: <IJServer><ExecutionClasses>)

These definitions relate to the startup class.

ShutdownClass (Parent tag: <IJServer><ExecutionClasses>)

These definitions relate to the shutdown class.

Name (Parent tag: The <StartupClass> and <ShutdownClass> tags under the <IJServer><ExecutionClasses> tag)

Specify the names identifying the settings information for the execution classes. There are no character restrictions.

Execution classes will be registered with IJServer in the order that they were defined in the XML file.

ClassName (Parent tag: The <StartupClass> and <ShutdownClass> tags under the <IJServer><ExecutionClasses> tag)

Specify a string between 1 and 65535 bytes for the name (including the package name) of the Java class being called.

As well as this setting, be sure to make the necessary settings for the Work Units' class paths in the Work Unit environment settings so that the specified Java classes can be called and executed on the Work Unit.

Container (Parent tag: The <StartupClass> and <ShutdownClass> tags under the <IJServer><ExecutionClasses> tag)

If "SPLIT" has been specified for the <Type> tag (the IJServer type) in the IJServer Work Unit settings, select one of the following values to determine which Java VM process the execution class should be executed on. Strings are not case-sensitive.

- both (Execute on both the EJB container Java VM and the Web container Java VM)

    Default value

- ejb (Execute only on the EJB container Java VM)

- web (Execute only on the Webcontainer Java VM)

RelationalApplicationName (Parent tag: The <StartupClass> and <ShutdownClass> tags under the <IJServer><ExecutionClasses> tag)

Specify the name of an execution class that has already been registered, in order to specify the execution order for the execution class being registered with this definition.

Use the <CallsOption> tag to specify whether this execution class should be executed before or after the specified preregistered execution class.

If this tag is omitted, this execution class will be defined so that it is executed last after the execution classes that have already been registered.

CallsOption (Parent tag: The <StartupClass> and <ShutdownClass> tags under the <IJServer><ExecutionClasses> tag)

Select either of the following values to determine whether the execution class being registered should be executed before or after the preregistered execution class specified with the <RelationalApplicationName> tag. Strings are not case-sensitive.

- behind (Execute this execution class after the execution class specified by the <RelationalApplicationName> tag)

    Default value

- front (Execute this execution class before the execution class specified by the <RelationalApplicationName> tag)

Args (Parent tag: The <StartupClass> and <ShutdownClass> tags under the <IJServer><ExecutionClasses> tag)

Specify a string to be passed to the "main" method of the execution class as arguments.

There are no character restrictions. To specify multiple arguments, separate each argument with a blank space, in accordance with the Java specification.

To specify blank spaces within arguments, enclose the argument being specified with either single- or double-quotes (' or "). In this case, the quotes at each end are not included in the argument.

FailureOption (Parent tag: <IJServer><ExecutionClasses><StartupClass>)

Select either of the following values to determine whether to cancel or continue starting the IJServer Work Unit when an exception occurring with the startup class is thrown to the IJServer Work Unit. Strings are not case-sensitive.

- TRUE (Continue startup)

  Default value

- FALSE (Cancel startup)

ExecuteForEachProcess (Parent tag: The <StartupClass> and <ShutdownClass> tags under the <IJServer><ExecutionClasses> tag)

If two or more Work Unit processes are running concurrently, select either of the following values to determine whether to call execution classes on all Java VM processes or only on a single Java VM process. Strings are not case-sensitive.

- FALSE (Call only once)

  Default value

- TRUE (Call on all Java VMs)

Note

From Interstage Application Server V9.0, the name of this tag has changed to <DisregardConcurrency>.

The <DisregardConcurrency> tag can still be used when creating or updating definitions, but an <ExecuteForEachProcess> tag will be output when the definitions are extracted.

Also, if both the <DisregardConcurrency> tag and the <ExecuteForEachProcess> tag have been specified in the same IJServer definition, the value for the <ExecuteForEachProcess> tag will take effect

6.8.7.4 Settings Order for IJServer Definitions

Creating IJServers and updating definitions are executed in the following order.

1. Create an IJServer or update definitions

   Create or update the IJServer based on the information in the following tags. If processing fails, processing will be terminated without executing steps 2 and 3.

   - <IJServer><ExecutionClasses> tag

   - <IJServer><Log> tag (Except for the <IJServer><Log><Directory> tag)

2. Define execution classes

   Define execution classes for IJServer based on the definitions in the <IJServer><ExecutionClasses> tag. Processing continues even if some processing fails.

3. Update IJServer log settings based on the definitions in the <IJServer><Log> tag.

   The following messages will be displayed when each of these processes completes. Use these messages to check the execution results.

```
isj2eeadmin: INFO: isj2ee2103: Environment settings for
IJServer have been updated.  NAME=IJSERVER
isj2eeadmin: ERROR: isj2ee2008: There is an error for XML
definition.
TAG=<Isj2eeIjserverDefinition><IJServer><ExecutionClasses><StartupClass>
<Container> VALUE=BOTHH
```

```
isj2eeadmin: ERROR: isj2ee2117: Updating the definitions
for startup execution classes has failed.  NAME=StartupClass
isj2eeadmin: INFO: isj2ee2108: Definitions for shutdown
execution classes have been updated.  NAME=StopClass
isj2eeadmin: INFO: isj2ee2109: Log definitions have been
updated.  NAME=IJSERVER
```

6.8.7.5 Example IJServer Definition File

[Defining an IJServer with All Default Settings]

```
AllowKeepAlive (Parent tag:
-----------------------------------------------------------------
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Isj2eeIjserverDefinition>
    <IJServer>
        <Name>SAMPLE</Name>
        <Web>
            <Www>
                <WebServers>
                    <WebServer>
                        <Name>FJapache</Name>
                    </WebServer>
                </WebServers>
            </Www>
        </Web>
    </IJServer>
</Isj2eeIjserverDefinition>
-----------------------------------------------------------------
```

[Making Detailed Definitions]

```
-----------------------------------------------------------------
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Isj2eeIjserverDefinition>
    <IJServer>
        <Name>SAMPLE</Name>
        <Version>9.0</Version>
        <Type>ONE</Type>
        <AutomaticStart>
            <Mode>YES</Mode>
            <User/>
        </AutomaticStart>
        <StartupMonitorTime>600</StartupMonitorTime>
        <ShutdownMonitorTime>180</ShutdownMonitorTime>
        <ApplicationRetry>
            <AbnormalTerminationCounts>0</AbnormalTerminationCounts>
        </ApplicationRetry>
        <JavaDebugStart>NO</JavaDebugStart>
        <CurrentDirectory>
            <DirectoryType>SEPARATE</DirectoryType>
            <Directory/>
            <NumberOfRevisionDirectories>1</NumberOfRevisionDirectories>
        </CurrentDirectory>
        <ProcessDegeneracy>NO</ProcessDegeneracy>
        <HotDeploy>FALSE</HotDeploy>
        <XmlParser>
            <Kind>XERCES2</Kind>
            <Directory/>
        </XmlParser>
        <UseWebServiceContainer>TRUE</UseWebServiceContainer>
        <ClassLoader>
```

```
            <SeparationKind>EAR</SeparationKind>
            <SearchOrder>PARENT_FIRST</SearchOrder>
            <Reload>
                <Use>FALSE</Use>
                <Interval>15</Interval>
            </Reload>
    </ClassLoader>
    <ARM>
            <ARMMode>FALSE</ARMMode>
            <SamplingInterval>1000</SamplingInterval>
    </ARM>
    <ApplicationFileProtectionLevel>HIGH
    </ApplicationFileProtectionLevel>
    <Common>
            <ProcessConcurrency>1</ProcessConcurrency>
            <ClassPaths>
                <Location/>
            </ClassPaths>
            <ApplicationClassPaths>
                <Location/>
            </ApplicationClassPaths>
            <PathsForApplication>
                <Location/>
            </PathsForApplication>
            <LibrariesForApplication>
                <Location/>
            </LibrariesForApplication>
            <EnvironmentVariables>
                <Variable/>
            </EnvironmentVariables>
            <RetryCountResetTime>600</RetryCountResetTime>
            <JavaVersion>6</JavaVersion>
            <JavaCommandOptions>-Xms16m -Xmx256m</JavaCommandOptions>
            <ReactivationOfProcessAtOutOfMemory>RESTART
            </ReactivationOfProcessAtOutOfMemory>
            <ProcessingTime>
                <MaximumProcessingTime>480</MaximumProcessingTime>
                <TerminateProcessModeForTimeout>NO
                </TerminateProcessModeForTimeout>
            </ProcessingTime>
    </Common>
    <Web>
            <IPAddress/>
            <Timeout>60</Timeout>
            <Ports>
                <Number>9002</Number>
            </Ports>
            <Connection>
                <MaxConnection>200</MaxConnection>
            </Connection>
            <ThreadConcurrency>
                <MinSpareThreads>16</MinSpareThreads>
                <MaxThreads>64</MaxThreads>
                <MaxSpareThreads>16</MaxSpareThreads>
            </ThreadConcurrency>
            <Listings>OFF</Listings>
            <InvokerServletMapping>OFF</InvokerServletMapping>
            <EnablePooling>ON</EnablePooling>
            <URIEncoding/>
            <UseBodyEncodingForURI>FALSE</UseBodyEncodingForURI>
            <FileEncoding/>
            <JSPReload>
                <Mode>DISABLE</Mode>
```

```xml
                    <CheckInterval>15</CheckInterval>
                </JSPReload>
                <Www>
                    <AcceptedHosts>
                        <Address>127.0.0.1</Address>
                    </AcceptedHosts>
                    <WebServers>
                        <WebServer>
                            <Name>FJapache</Name>
                            <VirtualHost>
                                <Name/>
                            </VirtualHost>
                        </WebServer>
                    </WebServers>
                    <Timeout>600</Timeout>
                    <AllowedMaxConnections/>
                    <SSLMode>OFF</SSLMode>
                    <SSLConfName/>
                    <AllowKeepAlive>TRUE</AllowKeepAlive>
                </Www>
                <HttpConnector>
                    <Use>FALSE</Use>
                    <Ports>
                        <Number/>
                    </Ports>
                    <AcceptedHost>
                        <Address/>
                    </AcceptedHost>
                </HttpConnector>
            </Web>
            <Ejb>
                <MDBThread>
                    <MinSpareThreads>0</MinSpareThreads>
                    <MaxThreads>64</MaxThreads>
                    <IdleTimeout>600</IdleTimeout>
                </MDBThread>
            </Ejb>
            <Datasources/>
            <SessionRecovery>
                <Use>FALSE</Use>
                <SRS>
                    <IPAddress/>
                    <Port/>
                </SRS>
                <BackupMode>INTERVAL</BackupMode>
                <BackupInterval>5</BackupInterval>
                <ResponseWaitTime>440</ResponseWaitTime>
                <ExcludeExt>
                    <Extension/>
                </ExcludeExt>
                <AccessLog>FALSE</AccessLog>
            </SessionRecovery>
            <Log>
                <Directory/>
                <Mode>SIZE</Mode>
                <Size>1</Size>
                <StartTime/>
                <Interval/>
                <HistorySize>1</HistorySize>
            </Log>
            <ExecutionClasses/>
        </IJServer>
```

```
</Isj2eeIjserverDefinition>
-------------------------------------------------------------
```

Note

Refer to the Notes on Definition Files on editing files in XML format, and follow the specification for the XML format.

6.8.8 J2EE System Definition File

This section explains the following points about J2EE system definition files.

- 6.8.8.1 Syntax for the J2EE System Definition File

- 6.8.8.2 List of Tags in the J2EE System Definition File

- 6.8.8.3 Description of Tags in the J2EE System Definition File

- 6.8.8.4 Example J2EE System Definition File

- 6.8.8.5 Note

6.8.8.1 Syntax for the J2EE System Definition File

```
-------------------------------------------------------------
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Isj2eeSystemDefinition>
    <System>
        <ClassPaths>
            <Location>...</Location>
        </ClassPaths>
        <Paths>
            <Location>...</Location>
        </Paths>
        <LibraryPaths>
            <Location>...</Location>
        </LibraryPaths>
        <JavaCommandOptions>...</JavaCommandOptions>
        <J2EECommonDirectory>...</J2EECommonDirectory>
        <Web>
            <WwwWuEditMode>...</WwwWuEditMode>
        </Web>
        <Ejb>
            <EjbQLVersion>...</EjbQLVersion>
            <Cmp2xMultiObjectAccess>...</Cmp2xMultiObjectAccess>
            <Cmp11BytearrayUpdate>...</Cmp11BytearrayUpdate>
        </Ejb>
    </System>
</Isj2eeSystemDefinition>
-------------------------------------------------------------
```

6.8.8.2 List of Tags in the J2EE System Definition File

The table below lists the tags that are used in J2EE system definition files. Refer to 'How to Read Tag Explanations' for information on how to interpret information in this list.

The "Corresponding Interstage Management Console window" column indicates which Interstage Management Console window corresponds to each tag. The tags in the J2EE System Definition File correspond to the following items in the System > Update System Settings window.

Daughter tags of the <System> tag

Tag name	Corresponding section in the Interstage Management Console
System?	
ClassPaths?	Classpath in the J2EE Settings window
Location*	
Paths?	Path in the J2EE Settings window
Location*	
LibraryPaths?	Library path in the J2EE Settings window
Location*	
JavaCommandOptions?	Java VM Options in the J2EE Settings window
J2EECommonDirectory?	J2EE Common Directory in the J2EE Properties window
Web?	Servlet Service Settings
WwwWuEditMode?	Run Web server and WorkUnit on the same machine?
Ejb?	EJB Service settings
EjbQLVersion?	Use EJB QL Extension of CMP2.0?
Cmp2xMultiObjectAccess?	Speed up CMP2.0 item search
Cmp11BytearrayUpdate?	Judge CMP1.1 byte array update

6.8.8.3 Description of Tags in the J2EE System Definition File

Daughter tags of the <System> tag

ClassPaths (Parent tag: <System>)

Specify the class paths that will be valid when the database connection test function is used and when IJServers operate. Up to 255 class paths can be specified.

Specify the full path to each class path using <Location> daughter tags and strings between 1 and 255 bytes long.

If the specified values are changed, take the following steps if necessary.

- Windows32/64 Solaris32 Linux32/64
  If distributed transactions (via the Database Linkage Service) are being used, restart the resource management program.

- Restart the IJServer for which the specified class paths need to be enabled.

Paths (Parent tag: <System>)

Specify the paths that will be valid when the database connection test function is used and when IJServers operate. Up to 30 class paths can be specified.

Specify the full path to each path using <Location> daughter tags and strings between 1 and 255 bytes long.

If the specified values are changed, take the following steps if necessary.

- Restart the IJServer for which the specified paths need to be enabled.

Note that this definition is not valid for compatible IJServers that have been created using V6.0.

LibraryPaths (Parent tag: <System>)

Solaris32/64 Linux32/64

Specify the library paths that will be valid when the database connection test function is used and when IJServers operate. Up to 30 library paths can be specified.

Specify the full path to each library path using <Location> daughter tags and strings between 1 and 255 bytes long.

If the specified values are changed, take the following steps if necessary.

- Restart the IJServer for which the specified library paths need to be enabled.

Note that this definition is not valid for compatible IJServers that have been created using V6.0.

JavaCommandOptions (Parent tag: <System>)

Specify a string between 1 and 4096 bytes long for the options to be specified with the Java command when the database connection test function is used and when IJServers are operated.

Enclose any options that include spaces in double quotes ("").

To specify multiple options, specify options one after the other, separated by spaces. In this case, if the entire string is enclosed in double quotes (""), the entire string will be interpreted as one option. Use double quotes ("") only when specifying options that include spaces.

Note that this definition is not valid for compatible IJServers that have been created using V6.0.

J2EECommonDirectory (Parent tag: <System>)

Specify the full path to the J2EE common directory.

Windows32/64

Specify the directory using a string between 1 and 50 bytes long.

If this tag is omitted, the following path will be set up:

- Interstage installation directory\J2EE\var\deployment

Solaris32/64 Linux32/64

Specify the directory using a string between 1 and 239 bytes long.

If this tag is omitted, the following path will be set up.

- /opt/FJSVj2ee/var/deployment

Note that paths under the following directories cannot be specified:

- /opt/FJSVj2ee/var/deployment, and

- /var/opt/FJSVj2ee/deployment

Any changes to this tag must be made while there are no assets in the old J2EE common directory. Here "assets" refers to modules that have been distributed and IJServers that have been created via Interstage operations.

The old directory will be deleted, so back it up if necessary.

Daughter tags of the <System><Web> tag

WwwWuEditMode (Parent tag: <System><Web>)

Select either of the following values to determine whether to run Web servers and Work Units on the same machine. Strings are not case-sensitive.

- (64 bit platforms)

    - normal (Run on the same machine)

      Default value

    - expert (Run on separate machines)

- (non-64 bit platforms)

    - normal (Run on the same machine)

      Default value (Except for the Web package)

    - expert (Run on separate machines)

      Default value (For the Web Package)

If the specified value is changed, the IJServer configuration will change, so restart all IJServers. IJServers that are not restarted may not run correctly.

Daughter tags of the `<System><Ejb>` tag

EjbQLVersion (Parent tag: `<System><Ejb>`)

Select either of the following values to determine whether EJB QL extensions can be used for CMP 2.0 entity beans. Strings are not case-sensitive.

- EJB_QL21 (Use EJB QL extensions)

    Default value

- EJB_QL20 (Do not use EJB QL extensions)

Cmp2xMultiObjectAccess (Parent tag: `<System><Ejb>`)

Select either of the following values to determine the method for setting up high-speed multi-conditional searches for CMP 2.0 entity beans. Strings are not case-sensitive.

- normal

    Default value

    Select this option to make separate settings (about whether to use high-speed searches) for each CMP 2.0 entity bean and relationship.

- optimized

    Select this option to use high-speed multi-conditional searches for all CMP 2.0 entity beans and relationships.

Cmp11BytearrayUpdate (Parent tag: `<System><Ejb>`)

Select either of the following values to determine the method for deciding whether the byte array for CMFs has been updated when deciding whether to update CMP 1.1 entity bean instance data to the database. Strings are not case-sensitive.

- element (Decide whether data has been updated separately for each array element)

    Default value

- reference (Decide whether the reference for the byte array has been updated)

6.8.8.4 Example J2EE System Definition File

```
------------------------------------------------------------
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Isj2eeSystemDefinition>
    <System>
<!-- Windows(R) -->
<!--
        <ClassPaths>
            <Location>C:\oracle\jdbc\lib\ojdbc6.jar</Location>
            <Location>C:\oracle\jdbc\lib\orai18n.jar</Location>
        </ClassPaths>
        <J2EECommonDirectory>C:\Interstage\J2EE\var\deployment</J2EECommonDirectory>
-->
<!-- Solaris/Linux -->
<!--
        <ClassPaths>
            <Location>/opt/oracle/jdbc/lib/ojdbc6.jar</Location>
            <Location>/opt/oracle/jdbc/lib/orai18n.jar</Location>
        </ClassPaths>
        <J2EECommonDirectory>/opt/FJSVj2ee/var/deployment</J2EECommonDirectory>
-->
        <Web>
            <WwwWuEditMode>normal</WwwWuEditMode>
        </Web>
        <Ejb>
            <EjbQLVersion>EJB_QL21</EjbQLVersion>
            <Cmp2xMultiObjectAccess>normal</Cmp2xMultiObjectAccess>
            <Cmp11BytearrayUpdate>element</Cmp11BytearrayUpdate>
```

```
            </Ejb>
        </System>
</Isj2eeSystemDefinition>
------------------------------------------------------------
```

6.8.8.5 Note

- Refer to the Notes on Definition Files on editing files in XML format, and follow the specification for the XML format.

6.8.9 Resource Definition Files

This section explains the following points about resource definition files.

- 6.8.9.1 Syntax of Resource Definition Files

- 6.8.9.2 List of Tags in Resource Definition Files

- 6.8.9.3 Description of Tags in Resource Definition Files

- 6.8.9.4 Example Resource Definition File

- 6.8.9.5 Note

6.8.9.1 Syntax of Resource Definition Files

```
----------------------------------------------------------------------
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Isj2eeResourceDefinition>
    <Jdbc>
        <JndiName>...</JndiName>
        <DatabaseKind>...</DatabaseKind>
        <Symfoware>
            <DatasourceKind>...</DatasourceKind>
            <User>...</User>
            <Password>...</Password>
            <NetworkProtocol>...</NetworkProtocol>
            <ServerName>...</ServerName>
            <PortNumber>...</PortNumber>
            <DatabaseName>...</DatabaseName>
            <InitialContextFactory>...</InitialContextFactory>
            <ProviderUrl>...</ProviderUrl>
            <BindName>...</BindName>
            <Schema>...</Schema>
            <SYMOption>...</SYMOption>
            <AccessLog>...</AccessLog>
        </Symfoware>
        <Oracle>
            <DatasourceKind>...</DatasourceKind>
            <User>...</User>
            <Password>...</Password>
            <DriverType>...</DriverType>
            <NetworkProtocol>...</NetworkProtocol>
            <ServerName>...</ServerName>
            <PortNumber>...</PortNumber>
            <DatabaseName>...</DatabaseName>
            <OracleRac>...</OracleRac>
            <Url>...</Url>
            <ConnectionProperties>
                <ConnectionProperty>
                    <PropertyName>...</PropertyName>
                    <PropertyValue>...</PropertyValue>
                </ConnectionProperty>
            </ConnectionProperties>
```

```xml
            <ConnectionCacheProperties>
                <ConnectionCacheProperty>
                    <PropertyName>...</PropertyName>
                    <PropertyValue>...</PropertyValue>
                </ConnectionCacheProperty>
            </ConnectionCacheProperties>
            <OtherProperties>
                <OtherProperty>
                    <PropertyName>...</PropertyName>
                    <DataType>...</DataType>
                    <PropertyValue>...</PropertyValue>
                </OtherProperty>
            </OtherProperties>
            <FileSystemServiceProvider>...</FileSystemServiceProvider>
            <InitialContextFactory>...</InitialContextFactory>
            <ProviderUrl>...</ProviderUrl>
            <BindName>...</BindName>
            <Bind>...</Bind>
        </Oracle>
        <Sqlserver>
            <DatasourceKind>...</DatasourceKind>
            <User>...</User>
            <Password>...</Password>
            <ServerName>...</ServerName>
            <PortNumber>...</PortNumber>
            <DatabaseName>...</DatabaseName>
            <OtherProperties>
                <OtherProperty>
                    <PropertyName>...</PropertyName>
                    <DataType>...</DataType>
                    <PropertyValue>...</PropertyValue>
                </OtherProperty>
            </OtherProperties>
            <FileSystemServiceProvider>...</FileSystemServiceProvider>
            <InitialContextFactory>...</InitialContextFactory>
            <ProviderUrl>...</ProviderUrl>
            <BindName>...</BindName>
            <Bind>...</Bind>
        </Sqlserver>
        <Generic>
            <DatasourceClassName>...</DatasourceClassName>
            <LogWriter>...</LogWriter>
            <OtherProperties>
                <OtherProperty>
                    <PropertyName>...</PropertyName>
                    <DataType>...</DataType>
                    <PropertyValue>...</PropertyValue>
                </OtherProperty>
            </OtherProperties>
        </Generic>
    </Jdbc>
    <JmsDestination>
        <JndiName>...</JndiName>
        <Type>...</Type>
        <GroupName>...</GroupName>
        <ChannelName>...</ChannelName>
        <Host>...</Host>
        <Port>...</Port>
    </JmsDestination>
    <JmsConnectionFactory>
        <JndiName>...</JndiName>
        <Type>...</Type>
        <ClientId>...</ClientId>
```

```
            <GlobalTransactionMode>...</GlobalTransactionMode>
        </JmsConnectionFactory>
        <Javamail>
            <JndiName>...</JndiName>
            <From>...</From>
            <User>...</User>
            <Smtp>
                <Host>...</Host>
                <Port>...</Port>
            </Smtp>
            <Imap>
                <Host>...</Host>
                <Port>...</Port>
            </Imap>
            <Pop3>
                <Host>...</Host>
                <Port>...</Port>
            </Pop3>
        </Javamail>
        <Connector>
            <JcaSourceName>...</JcaSourceName>
            <User>...</User>
            <Password>...</Password>
            <ConfigProperties>
                <ConfigPropertyName>...</ConfigPropertyName>
                <ConfigPropertyType>...</ConfigPropertyType>
                <ConfigPropertyValue>...</ConfigPropertyValue>
            </ConfigProperties>
        </Connector>
</Isj2eeResourceDefinition>
-----------------------------------------------------------------------
```

6.8.9.2 List of Tags in Resource Definition Files

The table below lists the tags that are used in resource definition files. Refer to "How to Read Tag Explanations" for information on how to interpret information in this list.

The "Corresponding Interstage Management Console window" column indicates which Interstage Management Console window corresponds to each tag. The tags in resource definition files correspond to the following items in the System > Resources.

Tag name	Corresponding section in the Interstage Management Console
Jdbc*	JDBC
JmsDestination*	JMS > EventChannels
	JMS > Destination
JmsConnectionFactory*	JMS > ConnectionFactory
Javamail*	JavaMail
Connector*	Connectors

Daughter tags of the <Jdbc> tag

Tag name	Corresponding section in the Interstage Management Console
Jdbc*	JDBC > Create a new JDBC Data Source or Environment Settings
JndiName	Configuration Name
DatabaseKind	Database type

Tag name		Corresponding section in the Interstage Management Console
	Symfoware?	(If the database type is Symfoware)
	Oracle?	(If the database type is Oracle)
	Sqlserver?	(If the database type is SQL Server)
	Generic?	(If the database type is "Generic Definition")

Daughter tags of the <Jdbc><Symfoware> tag

Tag name		Corresponding section in the Interstage Management Console
Symfoware?		(If the database type is Symfoware)
	DatasourceKind?	Data Source Type
	User	User Name
	Password?	Password
	NetworkProtocol?	Network protocol
	ServerName?	Host name
	PortNumber?	Port Number
	DatabaseName?	Data Resource Name
	InitialContextFactory?	Class name
	ProviderUrl?	PROVIDER_URL
	BindName?	Data source name
	Schema?	Default Schema Name
	SYMOption?	Other Parameter
	AccessLog?	Output Web server connection information to access logs

Daughter tags of the <Jdbc><Oracle> tag

Tag name		Corresponding section in the Interstage Management Console
Oracle?		(If the database type is Oracle)
	DatasourceKind?	Data Source Type
	User	User ID
	Password?	Password
	DriverType?	Driver Type
	NetworkProtocol?	Network Protocol
	ServerName?	Hostname
	PortNumber?	Port Number
	DatabaseName?	SID/Net Service Name
	OracleRac?	Use RAC
	Url?	Server URL
	ConnectionProperties?	
	ConnectionProperty*	Connection Properties

Tag name			Corresponding section in the Interstage Management Console
		PropertyName	Property Name
		PropertyValue	Property Value
	ConnectionCacheProperties?		
		ConnectionCacheProperty*	Connection Cache Properties
		PropertyName	Property Name
		PropertyValue	Property Value
	OtherProperties?		
		OtherProperty*	Other Data Source properties
		PropertyName	Property name
		DataType?	Property type
		PropertyValue	Property value
	FileSystemServiceProvider?		Use File System Service Provider
	InitialContextFactory?		Class name
	ProviderUrl?		Provider URL
	BindName?		Data Source Name
	Bind?		Register data source

Daughter tags of the <Jdbc><Sqlserver> tag

Tag name		Corresponding section in the Interstage Management Console
Sqlserver?		(If the database type is SQL Server)
	DatasourceKind?	Data Source Type
	User	User ID
	Password?	Password
	ServerName	Hostname
	PortNumber?	Port Number
	DatabaseName	Database Name
	OtherProperties?	
	OtherProperty*	Other Data Source properties
	PropertyName	Property Name
	DataType?	Property Type
	PropertyValue	Property Value
	FileSystemServiceProvider?	Use File System Service Provider
	InitialContextFactory?	Class name
	ProviderUrl?	Provider URL
	BindName?	Data Source Name
	Bind?	Register data source

Daughter tags of the <Jdbc><Generic> tag

Tag name				Corresponding section in the Interstage Management Console
Generic?				(If the database type is "generic definition")
	DatasourceClassName			Data Source Class Name
	LogWriter?			Log Writer
	OtherProperties?			
		OtherProperty*		Other Data Source properties
			PropertyName	Property Name
			DataType?	Property Type
			PropertyValue	Property Value

Daughter tags of the <JmsDestination> tag

Tag name		Corresponding section in the Interstage Management Console
JmsDestination*		EventChannels > Destination
		Destination > Create a New QueueCF or Unit Configuration
	JndiName	Destination
	Type	Type
	GroupName	Group Name
	ChannelName	Channel Name
	Host?	Host name or IP address
		Note: No corresponding item in the EventChannels
	Port?	Port number
		Note: No corresponding item in the EventChannels

Daughter tags of the <JmsConnectionFactory> tag

Tag name		Corresponding section in the Interstage Management Console
JmsConnectionFactory*		Create a New QueueCF or under ConnectionFactory
	JndiName	JNDI Name
	Type	Type
	ClientId	Client ID
	Windows32/64 Solaris32 Linux32/64 GlobalTransactionMode?	Global Transactions

Daughter tags of the <Javamail> tag

Tag name		Corresponding section in the Interstage Management Console
Javamail*		JavaMail > or Environment Settings
	JndiName	Configuration Name
	From	Mail Sender
	User	Login ID

Tag name			Corresponding section in the Interstage Management Console
Smtp			SMTP Server, SMTP Server Port Number
	Host		
	Port		
Imap?			IMAP Server/Port Number
	Host		
	Port		
Pop3?			POP3 Server/Port Number
	Host		
	Port		

Daughter tags of the <Connector> tag

Tag name		Corresponding section in the Interstage Management Console
Connector*		connector > Resource Adapter Settings
	JcaSourceName	Configuration Name
	User?	User ID
	Password?	Password
	ConfigProperties*	Property Information
	ConfigPropertyName	Property Name
	ConfigPropertyType	Class Name
	ConfigPropertyValue	Value

6.8.9.3 Description of Tags in Resource Definition Files

Daughter tags of the <Jdbc> tag

Refer to "Database" in the "Software Products Required for Application Execution" chapter in the Product Notes for information on the databases that can be used.

JndiName (Parent tag: <Jdbc>)

Specify the name of the data source (the resource name) using a string between 1 and 255 characters long (*1).

The data source name is the name for looking up data source objects using JNDI.

*1 If "Oracle" is specified for the <DatabaseKind> tag and "XADataSource" (use distributed transactions) is specified for the <DatasourceKind> tag, specify the data source name using between 1 and 27 characters.

DatabaseKind (Parent tag: <Jdbc>)

Select the type of database from the following. Strings are not case-sensitive. This definition is required when creating new resources.

- Symfoware

- Oracle

- SQLServer

- Generic (Generic definition)

Note

- Refer to "Database" in the "Software Products Required for Application Execution" chapter in the Product Notes for information on the databases that can be used.

- This definition cannot be changed when definitions are updated. To change this definition, delete the resource definitions first and then create them again.

Daughter tags of the <Symfoware>, <Oracle>, <Sqlserver>, and <Generic> tags under the <Jdbc> tag

DatasourceKind (Parent tag: The <Symfoware> tag under the <Jdbc> tag, <Oracle>, <Sqlserver>)

Refer to the environment settings for using each database in "Environment Setup when JDBC (Database) is Referenced" in the J2EE User's Guide for more information about different kinds of data sources.

- If "Symfoware" or "Oracle" has been specified for the <DatabaseKind> tag (the database type)

Select one of the following values to determine the type of data source for the JDBC driver for the database to be used. Strings are not case-sensitive:

- ConnectionPoolDataSource

Default value

Use Interstage connection pooling

- DataSource

Use connection pooling for the database being used

- XADataSource Windows32/64 Solaris32 Linux32/64

Use distributed transactions

Values that can be specified will depend on the database type. Refer to the following table.

	Oracle	**Symfoware**	**PosgtreSQL**
ConnectionPoolDataSource	YES	YES	YES
DataSource	YES	YES	YES
XADataSource	YES	NO	NO

Note

- If XADataSource is selected, then the resources must also be registered in the resource management program.

- If the RAC function is used with Oracle 9i, select "Use Interstage connection pooling".

- To use the high-speed connection failover function with Oracle 10g's or later RAC function, select "Use Oracle connection pooling". If "Use Interstage connection pooling" is selected, the high-speed connection failover function cannot be used.

- If "SQLServer" has been specified for the <DatabaseKind> tag (the database type)

Select one of the following values to determine the type of data source for the JDBC driver for the SQL Server to be used.

- 2005

The data source is com.microsoft.sqlserver.jdbc.SQLServerXADataSource.

Interstage connection pooling is used. Distributed transactions cannot be used.

User (Parent tag: The <Symfoware> tag under the <Jdbc> tag, <Oracle>, <Sqlserver>)

Specify the user ID for connecting to the database, using a string between 1 and 255 characters long. This definition is required when creating new resources.

Note

- The position where the <User> tag is defined has changed with Interstage Application Server V9.0. With earlier versions, this tag could be defined under the <Jdbc> tag but from V9.0 this tag is defined under the tags for each database (such as <Oracle> and <Symfoware>).

- The value defined under the <Jdbc> tag will also be valid when definitions are added or updated, in order to maintain compatibility with previous versions.

If both the value defined under the <Jdbc> tag and the value defined under the tag for each database have been specified in a single resource definition file, the value of the latter tag will be valid.

Password (Parent tag: The <Symfoware> tag under the <Jdbc> tag, <Oracle>, <Sqlserver>)

Specify the password for the user ID for connecting to the database by using a string between 1 and 255 characters long.

If definitions have been extracted using the -e option, this tag will be extracted with nothing specified.

Note

- The position where the <Password> tag is defined has changed with Interstage Application Server V9.0. With earlier versions, this tag could be defined under the <Jdbc> tag but from V9.0 this tag is defined under the tags for each database (such as <Oracle> and <Symfoware>).

- The value defined under the <Jdbc> tag will also be valid when definitions are added or updated, in order to maintain compatibility with previous versions.

If both the value defined under the <Jdbc> tag and the value defined under the tag for each database have been specified in a single resource definition file, the value of the latter tag will be valid.

DriverType (Parent tag: The <Oracle> tag under the <Jdbc> tag)

This definition is valid if "Oracle" has been specified for the <DatabaseKind> tag (the database type) and "NO" has been specified for the <OracleRac> tag.

Select either of the following values to determine the type of driver that the JNDI service provider (for the JDBC driver for Oracle) uses to connect to the naming service. Strings are not case-sensitive.

- thin

  Default value

- oci

NetworkProtocol (Parent tag: The <Symfoware> tag under the <Jdbc> tag, <Oracle>)

This definition is valid if "Symfoware" or "Oracle" has been specified for the <DatabaseKind> tag (the database type).

- If "Symfoware" has been specified for the <DatabaseKind> tag

  This definition is valid if "ConnectionPoolDataSource" has been specified for the <DatasourceKind> tag.

  Select either of the following values to determine the network protocol that the Symfoware JDBC driver uses to access the database.

  - Remote

    Default value

  - Local

    If "Local" is selected, the name of the RDB system must be added to the <DatabaseName> tag.

    This is not necessary for operations that do not use RDB system names.

- If "Oracle" has been specified for the <DatabaseKind> tag

  This definition is valid if "NO" has been specified for the <OracleRac> tag.

  Select either of the following values to determine the network protocol that the JNDI service provider (for the JDBC driver for Oracle) uses to connect to the naming service. Strings are not case-sensitive.

  Only "tcp" can be specified for the <NetworkProtocol> tag if "thin" has been specified for the <DriverType> tag.

  - tcp

    Default value

  - ipc

ServerName (Parent tag: The <Symfoware> tag under the <Jdbc> tag, <Oracle>, <Sqlserver >)

Specify the name of the host where the database is located, using a string between 1 and 255 characters long.

- If "Symfoware" has been specified for the <DatabaseKind> tag

This definition is valid if "ConnectionPoolDataSource" has been specified for the <DatabaseKind> tag and "Remote" has been specified for the <NetworkProtocol>. It is required when creating new resources.

- If "Oracle" has been specified for the <DatabaseKind> tag

This definition is valid if "NO" has been specified for the <OracleRac> tag. It is required when creating new resources.

Note

ServerName can be specified even if DatabaseKind is Symfoware, and DatasourceKind is DataSource. If ServerName is specified, the ServerName and PortNumber values have priority over the host name and port number in ProviderUrl, and the values in ProviderUrl are not used.

PortNumber (Parent tag: The <Symfoware> tag under the <Jdbc> tag, <Oracle>, <Sqlserver>)

Specify an integer between 1 and 65535 for the port number for communicating with the database. The default values are shown below. Note that if the port number is specified using double-byte characters, the definition will be made by converting the number to single-byte characters.

- If "Symfoware" is specified for the <DatabaseKind> tag (the database type):

if "ConnectionPoolDataSource" has been specified for the <DatasourceKind> tag: 2050.

- If "Oracle" is specified for the <DatabaseKind> tag (the database type): 1521

- If "SQLServer" is specified for the <DatabaseKind> tag (the database type): 1433

Note

If DatabaseKind is Symfoware, and DatasourceKind is DataSource, ServerName cannot be omitted if PortNumber is specified. If ServerName is specified, the values specified for ServerName and PortNumber have priority over the host name and port number in ProviderUrl, and the values in ProviderUrl are not used. If only ServerName is specified and PortNumber is omitted, the default value is '10326'.

DatabaseName (Parent tag: The <Symfoware> tag under the <Jdbc> tag, <Oracle>, <Sqlserver>)

- If "Symfoware" is specified for the <DatabaseKind> tag (the database type):

Specify the data resource name using a string between 1 and 255 characters long.

This definition is valid if "ConnectionPoolDataSource" has been specified for the <DatasourceKind> tag. This definition is required when creating new resources.

If "Local" has been specified for the <NetworkProtocol> tag, the name of the RDB system must be added as follows. This is not necessary for operations that do not use RDB system names.

```
<RDB system name><data resource name>
```

- If "Oracle" is specified for the <DatabaseKind> tag (the database type),

Specify the SID or Net Service Name for the Oracle database, using a string between 1 and 255 characters long.

This definition is valid if "NO" has been specified for the <OracleRac> tag. It is required when creating new resources.

- If "SQLServer" is specified for the <DatabaseKind> tag (the database type)

Specify the name of the database using a string between 1 and 255 characters long. It is required when creating new resources.

OracleRac (Parent tag: <Jdbc><Oracle>)

This definition is valid if "Oracle" has been specified for the <DatabaseKind> tag.

Select either of the following values to determine whether to use the Oracle RAC linkage function. Strings are not case-sensitive.

- NO (Do not use the Oracle RAC linkage function)

Default value

- YES (Use the Oracle RAC linkage function)

Url (Parent tag: <Jdbc><Oracle>)

This definition is valid if "Oracle" has been specified for the <DatabaseKind> tag and "YES" has been specified for the <OracleRac> tag. This definition is required when creating new resources.

Specify the URL for connecting to the data source by using a string between 1 and 65535 characters long.

Refer to the Oracle manuals and "Linking with Oracle Real Application Clusters" in the J2EE User's Guide for more information.

ConnectionProperty (Parent tag: <Jdbc><Oracle>)

This definition is valid if "Oracle" has been specified for the <DatabaseKind> tag.

The settings for this item are not valid if "YES" has been specified for the <FileSystemServiceProvider> tag.

Note that this tag cannot be specified for Oracle 9i.

- <PropertyName> tag

  Specify the property name for the connection property using a string between 1 and 255 characters long.

- <PropertyValue> tag

  Specify the property value for the connection property using a string between 0 and 65535 characters long.

ConnectionCacheProperty (Parent tag: <Jdbc><Oracle>)

This definition is valid if "Oracle" has been specified for the <DatabaseKind> tag and "DataSource" has been specified for the <DatasourceKind> tag. The settings for this item are not valid if "YES" has been specified for the <FileSystemServiceProvider> tag.

- <PropertyName> tag

  Specify the property name for the connection cache property for the implicit connection cache using a string between 1 and 255 characters long.

- <PropertyValue> tag

  Specify the property value for the connection cache property for the implicit connection cache using a string between 1 and 65535 characters long.

OtherProperty (Parent tag: The <Oracle> tag under the <Jdbc> tag, <Sqlserver>, <Generic>)

This definition relates to other data source property information.

If a value other than "Symfoware" has been specified for the <DatabaseKind> tag (the database type), use this tag to specify the settings for optional data source properties. The settings for this item are not valid if "YES" has been specified for the <FileSystemServiceProvider> tag.

- <PropertyName> tag

  Specify the name of the data source property using a sting between 1 and 255 characters long.

- <DataType> tag

  Select the data type from the following.

  - java.lang.String

    Default value

  - boolean

  - int

  - long

  - short

  - byte

  - char

  - double

- float

- java.lang.Boolean

- java.lang.Integer

- java.lang.Long

- java.lang.Short

- java.lang.Byte

- java.lang.Character

- java.lang.Double

- java.lang.Float

- \<PropertyValue\> tag

Specify the value for other data source properties using a sting between 0 and 65535 characters long.

Refer to "Environment Set up when generically-defined data sources are used" in the "Environment Setup when JDBC (Database) is Referenced" chapter of the J2EE User's Guide for more information on other database property information.

FileSystemServiceProvider (Parent tag: The \<Oracle\> tag under the \<Jdbc\> tag, \<Sqlserver\>)

This definition is valid if "Oracle" or "SQLServer" has been specified for the \<DatabaseKind\> tag (the database type).

Select either of the following values to determine whether to use a File System Service Provider. Strings are not case-sensitive.

- NO

  Default value

- YES

Note

If "Oracle" has been specified for the \<DatabaseKind\> tag, the values that can be set for the \<FileSystemServiceProvider\> tag vary depending on DatasourceKind.

- DataSource

  NO only

- ConnectionPoolDataSource

  YES/NO

- XADataSource

  YES only

InitialContextFactory (Parent tag: The \<Symfoware\> tag under the \<Jdbc\> tag, \<Oracle\>, \<Sqlserver\>)

Specify the name of the class that allows the JNDI service provider for the JDBC driver to access the naming service.

- If "Symfoware" is specified for the \<DatabaseKind\> tag (the database type):

  com.fujitsu.symfoware.jdbc2.jndisp.SYMContextFactory

- If a value other than "Symfoware" has been specified for the \<DatabaseKind\> tag (the database type):

  com.sun.jndi.fscontext.RefFSContextFactory

If this tag is omitted, the values above will be set as default values depending on the value specified for the \<DatabaseKind\> tag.

Note

- The position where the \<InitialContextFactory\> tag is defined has changed with Interstage Application Server V9.0. With earlier versions, this tag could be defined under the \<Jdbc\> tag but from V9.0 this tag is defined under the tags for each database (such as \<Oracle\> and \<Symfoware\>).

- Note also that the value defined under the <Jdbc> tag will also be valid when definitions are added or updated, in order to maintain compatibility with previous versions.

  If both the value defined under the <Jdbc> tag and the value defined under the tag for each database have been specified in a single resource definition file, the value of the latter tag will be valid.

ProviderUrl (Parent tag: The <Symfoware> tag under the <Jdbc> tag, <Oracle>, <Sqlserver>)

Specify the URL that the JNDI service provider for the JDBC driver uses to access the naming service.

- If "Symfoware" is specified for the <DatabaseKind> tag (the database type), and "DataSource" (use Symfoware connection pooling) is specified for the <DatasourceKind> tag (the type of data source)

  This definition is required when creating new resources.

  Specify URLs using the following format.

```
SYM://host name[:port number for connecting to the naming service
```

  The part in brackets [] can be omitted, in which case the default value is 10326.)

- If a value other than "Symfoware" has been specified for the <DatabaseKind> tag (the database type)

  This definition is valid when a new resource is created by specifying "YES" for the <FileSystemServiceProvider> tag. This definition is required when creating new resources.

  Specify URLs using the following format.

  Windows32/64

```
file:///drive name:path to the directory where the PROVIDER URL
information has been created (Be sure to specify the drive name.)
```

  Solaris32/64 **Linux32/64**

```
file:path to the directory where the PROVIDER URL information has been created
```

Note

- The position where the <ProviderUrl> tag is defined has changed with Interstage Application Server V9.0. With earlier versions, this tag could be defined under the <Jdbc> tag but from V9.0 this tag is defined under the tags for each database (such as <Oracle> and <Symfoware>).

- Note also that the value defined under the <Jdbc> tag will also be valid when definitions are added or updated, in order to maintain compatibility with previous versions.

  If both the value defined under the <Jdbc> tag and the value defined under the tag for each database have been specified in a single resource definition file, the value of the latter tag will be valid.

- If DatabaseKind is Symfoware, and ServerName is specified, the values specified for ServerName and PortNumber have priority over the host name and port number in ProviderUrl, and the values specified in ProviderUrl are not used.

BindName (Parent tag: The <Symfoware> tag under the <Jdbc> tag, <Oracle>, <Sqlserver>)

Specify the data source name that has been registered with the naming service for the JDBC driver.

- If "Symfoware" is specified for the <DatabaseKind> tag (the database type)

  This definition is required when creating new resources.

  Specify the data source name that has been registered with the naming service for the JNDI service provider, using a string between 1 and 255 characters long.

- If a value other than "Symfoware" has been specified for the <DatabaseKind> tag (the database type)

  This definition is valid when a new resource is created by specifying "YES" for the <FileSystemServiceProvider> tag. This definition is required when creating new resources.

  Specify the data source name that has been registered with the naming service for the File System Service Provider, using a string between 1 and 255 characters long.

Note

- The position where the <BindName> tag is defined has changed with Interstage Application Server V9.0. With earlier versions, this tag could be defined under the <Jdbc> tag but from V9.0 this tag is defined under the tags for each database (such as <Oracle> and <Symfoware>).

- Note also that the value defined under the <Jdbc> tag will also be valid when definitions are added or updated, in order to maintain compatibility with previous versions.

  If both the value defined under the <Jdbc> tag and the value defined under the tag for each database have been specified in a single resource definition file, the value of the latter tag will be valid.

Bind (Parent tag: The <Oracle> tag under the <Jdbc> tag, <Sqlserver>)

This definition is valid if "Oracle" or "SQLServer" has been specified for the <DatabaseKind> tag (the database type).

This definition is valid if "YES" has been specified for the <FileSystemServiceProvider> tag.

Select either of the following values to determine whether to register the data source (that is, whether to register the data source in the ".bindings" file). Strings are not case-sensitive.

- YES (Register the data source)

  Default value

- NO (Do not register the data source)

Schema (Parent tag: <Jdbc><Symfoware>)

This definition is valid if "Symfoware" has been specified for the <DatabaseKind> tag and "ConnectionPoolDataSource" has been specified for the <DatasourceKind>.

Specify the default schema name using a string between 1 and 255 characters long.

SYMOption (Parent tag: <Jdbc><Symfoware>)

This definition is valid if "Symfoware" has been specified for the <DatabaseKind> tag and "ConnectionPoolDataSource" has been specified for the <DatasourceKind>.

Specify the "ctuneparam" option using a string between 1 and 65535 characters long.

Refer to the Symfoware manuals for more information.

AccessLog (Parent tag: <Jdbc><Symfoware>)

This definition is valid if "Symfoware" has been specified for the <DatabaseKind> tag.

Select either of the following values to determine whether to output Web server connection information to the Symfoware access log.

- FALSE (Do not output Web server connection information to monitoring logs)

  Default

- TRUE (Output Web server connection information to monitoring logs)

DatasourceClassName (Parent tag: <Jdbc><Symfoware>)

This definition is valid if "Generic" (generic definitions) has been specified for the <DatabaseKind> tag. This definition is required when creating new resources.

Specify the class name for the data source, using a string between 1 and 255 characters long.

LogWriter (Parent tag: <Jdbc><Symfoware>)

This definition is valid if "Generic" (generic definitions) has been specified for the <DatabaseKind> tag.

Specify the name of the log output file using a string between 1 and 255 characters long.

Daughter tags of the <JmsDestination> tag

JndiName (Parent tag: <JmsDestination>)

Specify the JNDI name to be registered in the Destination definitions using a string between 1 and 255 characters long.

Type (Parent tag: <JmsDestination>)

Select the type of destination from the following. Strings are not case-sensitive.

- Topic (Specify if the type is "Topic")

- Queue (Specify if the type is "Queue")

GroupName (Parent tag: <JmsDestination>)

Specify the group name for a preregistered event channel that will be associated with this destination, using a string between 1 and 64 characters long.

ChannelName (Parent tag: <JmsDestination>)

Specify the name of the preregistered event channel that will be associated with this destination, using a string between 1 and 64 characters long.

Host (Parent tag: <JmsDestination>)

Specify the host name of the naming service registered in the associated event channel, using a string between 1 and 64 characters long.

Note

When "Host name or IP address" is specified, check whether name resolution (IP address resolution) using the contents of the host file or DNS settings is possible.

Port (Parent tag: <JmsDestination>)

Specify the port number of the naming service registered in the associated event channel, using an integer between 0 and 65535.

Daughter tags of the <JmsConnectionFactory> tag

JndiName (Parent tag: <JmsConnectionFactory>)

Specify the JNDI name to be registered in the ConnectionFactory definitions using a string between 1 and 255 characters long.

Type (Parent tag: <JmsConnectionFactory>)

Select the type of ConnectionFactory from the following. Strings are not case-sensitive.

- Queue

    Default value

- Topic

Note

"TopicCF001" is registered as the default definition for the <JndiName> tag if "Topic" has been specified for the <Type> tag, while "QueueCF001" is registered as the default definition for the <JndiName> tag if "Queue" has been specified for the <Type> tag. The <Type> tag for the default definitions cannot be changed.

ClientId (Parent tag: <JmsConnectionFactory>)

Specify the client identifier to be set for the ConnectionFactory definition by using a string between 1 and 255 characters long.

The JMS provider uses this definition to identify a durable subscriber.

GlobalTransactionMode (Parent tag: <JmsConnectionFactory>) Windows32/64 Solaris32 Linux32/64

Select either of the following values to determine whether to use the global transaction function. Strings are not case-sensitive.

- FALSE (Do not use the global transaction function)

    Default value

- TRUE (Use the global transaction function)

This definition works as follows if the global transaction function is used.

- If "Topic" has been specified for the "ConnectionFactory" type, then the TopicConnectionFactory will support the global transaction function.

- If "Queue" has been specified for the "ConnectionFactory" type, then the QueueConnectionFactory will support the global transaction function.

Daughter tags of the <Javamail> tag

JndiName (Parent tag: <Javamail>)

Specify the resource name using a string between 1 and 255 bytes long.

This resource name is for looking up JavaMail objects using JNDI.

From (Parent tag: <Javamail>)

Specify the mail sender using a string between 1 and 255 bytes long.

This is set in the following property of the looked-up javax.mail.Session object:

- mail.from

User (Parent tag: <Javamail>)

Specify the name of the login user for the mail server using a string between 1 and 255 bytes long.

This is set in the following properties of the looked-up javax.mail.Session object:

- mail.user

- mail.smtp.user

- mail.[pop3 or imap].user

Smtp (Parent tag: <Javamail>)

- <Host> tag

  Specify the host name or IP address of the SMTP server using a string between 1 and 255 bytes long.

- <Port> tag

  Specify the port number of the SMTP server using an integer between 1 and 65535. The default value is 25.

This is set in the following properties of the looked-up javax.mail.Session object:

- mail.smtp.host

- mail.smtp.port

The following property is also set:

- mail.transport.protocol=smtp

Imap (Parent tag: <Javamail>)

- <Host> tag

  Specify the host name or IP address of the IMAP server using a string between 1 and 255 bytes long.

- <Port> tag

  Specify the port number of the IMAP server using an integer between 1 and 65535. The default value is 143.

This is set in the following properties of the looked-up javax.mail.Session object:

- mail.imap.host

- mail.imap.port

- mail.host

The following property is also set:

- mail.store.protocol=imap

Note

This tag cannot be specified at the same time as the <Pop3> tag. When a new resource definition file is created, either the <Imap> tag or the <Pop3> must be specified, not both.

Pop3 (Parent tag: <Javamail>)

- <Host> tag

Specify the host name or IP address of the POP3 server using a string between 1 and 255 bytes long.

- <Port> tag

Specify the port number of the POP3 server using an integer between 1 and 65535. The default value is 110.

This is set in the following properties of the looked-up javax.mail.Session object:

- mail.pop3.host

- mail.pop3.port

- mail.host

The following property is also set:

- mail.store.protocol=pop3

Note

This tag cannot be specified at the same time as the <Imap> tag. When a new resource definition file is created, either the <Imap> tag or the <Pop3> must be specified, not both.

Daughter tags of the <Connector> tag

JcaSourceName (Parent tag: <Connector>)

Specify the name of the resource adapter that was specified when it was deployed.

The resource adapter name is for looking up the resource adapter using JNDI.

User (Parent tag: <Connector>)

Specify the name of the user for connecting to the resource adapter, using a string between 1 and 255 characters long.

Password (Parent tag: <Connector>)

Specify the password for connecting to the resource adapter, using a string between 1 and 255 characters long.

If definitions have been extracted using the "-e" option, nothing will be specified for the <Password> tag when the definitions are extracted.

ConfigProperties (Parent tag:<Connector>)

Specify the property name, data type and value for the "config-property" defined in the deployment descriptor for the resource adapter specified when it was deployed.

- <ConfigPropertyName> tag

Specify the name of the property. Properties cannot be added directly to the resource definition file. To add properties, add them to the "config-property" in the deployment descriptor for the resource adapter, and deploy the resource adapter again.

- <ConfigPropertyType> tag

Specify the data type for the property. The data type cannot be changed by editing the resource definition file. To change the data type, edit the deployment descriptor for the resource adapter, and deploy the resource adapter again.

- <ConfigPropertyValue> tag

Specify the value for the property, using a string between 0 and 255 characters long.

6.8.9.4 Example Resource Definition File

```
------------------------------------------------------------
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Isj2eeResourceDefinition>
```

```xml
<Jdbc>
    <JndiName>SAMPLE_JDBC</JndiName>
    <DatabaseKind>Oracle</DatabaseKind>
    <Oracle>
        <DatasourceKind>ConnectionPoolDataSource</DatasourceKind>
        <User>j2ee</User>
        <Password>j2ee</Password>
        <DriverType>thin</DriverType>
        <NetworkProtocol>tcp</NetworkProtocol>
        <ServerName>localhost</ServerName>
        <PortNumber>1521</PortNumber>
        <DatabaseName>dbname</DatabaseName>
        <OracleRac>NO</OracleRac>
        <Url/>
        <ConnectionProperties>
            <ConnectionProperty>
                <PropertyName/>
                <PropertyValue/>
            </ConnectionProperty>
        </ConnectionProperties>
        <ConnectionCacheProperties>
            <ConnectionCacheProperty>
                <PropertyName/>
                <PropertyValue/>
            </ConnectionCacheProperty>
        </ConnectionCacheProperties>
        <OtherProperties>
            <OtherProperty>
                <PropertyName/>
                <DataType/>
                <PropertyValue/>
            </OtherProperty>
        </OtherProperties>
        <FileSystemServiceProvider>NO</FileSystemServiceProvider>
        <InitialContextFactory/>
        <ProviderUrl/>
        <BindName/>
        <Bind/>
    </Oracle>
</Jdbc>
<JmsDestination>
    <JndiName>SAMPLE_JMSDST</JndiName>
    <Type>queue</Type>
    <GroupName>EventGroupSample</GroupName>
    <ChannelName>EventChannelSample</ChannelName>
    <Host>localhost</Host>
    <Port>8002</Port>
</JmsDestination>
<JmsConnectionFactory>
    <JndiName>QueueCF001</JndiName>
    <Type>queue</Type>
    <ClientId>clientId_QueueCF001</ClientId>
    <GlobalTransactionMode>false</GlobalTransactionMode>
</JmsConnectionFactory>
<JmsConnectionFactory>
    <JndiName>SAMPLE_JMSFACT</JndiName>
    <Type>queue</Type>
    <ClientId>clientId_sample</ClientId>
    <GlobalTransactionMode>false</GlobalTransactionMode>
</JmsConnectionFactory>
<JmsConnectionFactory>
    <JndiName>TopicCF001</JndiName>
    <Type>topic</Type>
```

```
            <ClientId>clientId_TopicCF001</ClientId>
            <GlobalTransactionMode>false</GlobalTransactionMode>
        </JmsConnectionFactory>
        <Javamail>
            <JndiName>SAMPLE_JAVAMAIL</JndiName>
            <From>JavaMailTester</From>
            <User>tester</User>
            <Smtp>
                <Host>smtp_hostname</Host>
                <Port>25</Port>
            </Smtp>
            <Pop3>
                <Host>pop3_hostname</Host>
                <Port>110</Port>
            </Pop3>
        </Javamail>
        <Connector>
            <JcaSourceName>SAMPLE_CONNECTOR</JcaSourceName>
            <User>j2ee</User>
            <Password>j2ee</Password>
            <ConfigProperties>
                <ConfigPropertyName>Log</ConfigPropertyName>
                <ConfigPropertyType>java.lang.Boolean</ConfigPropertyType>
                <ConfigPropertyValue>true</ConfigPropertyValue>
            </ConfigProperties>
        </Connector>
</Isj2eeResourceDefinition>
--------------------------------------------------------------
```

6.8.9.5 Note

Refer to the Notes on Definition Files on editing files in XML format, and follow the specification for the XML format.

6.8.10 Web Server Connector Definition Files

This section explains the following points about Web Server Connector Definition Files.

6.8.10.1 Syntax for Web Server Connector Definition Files

```
------------------------------------------------------------------------
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Isj2eeServiceDefinition>
    <WebServer>
        <Name>...</Name>
        <WebServerConnector>
            <WorkunitName>...</WorkunitName>
            <Servlet>
                <Address>...</Address>
            </Servlet>
            <Application>
                <Name>...</Name>
            </Application>
            <ServletContainer>
                <Timeout>...</Timeout>
                <MaxProcessors>...</MaxProcessors>
```

```
                </ServletContainer>
                <Www>
                    <VirtualHost>
                        <Name>...</Name>
                    </VirtualHost>
                    <ServletSsl>...</ServletSsl>
                    <SslConfigName>...</SslConfigName>
                </Www>
            </WebServerConnector>
            <Log>
                <Directory>...</Directory>
                <RolloverMode>...</RolloverMode>
                <RolloverSize>...</RolloverSize>
                <RolloverTimeStart>...</RolloverTimeStart>
                <RolloverEverytime>...</RolloverEverytime>
                <HistorySize>...</HistorySize>
                <Debug>...</Debug>
            </Log>
            <FaultMonitor>
                <Mode>...</Mode>
                <CheckInterval>...</CheckInterval>
                <CheckRetryInterval>...</CheckRetryInterval>
                <CheckRetryCount>...</CheckRetryCount>
                <WaitTime>...</WaitTime>
            </FaultMonitor>
        </WebServer>
</Isj2eeServiceDefinition>
----------------------------------------------------------------------
```

6.8.10.2 List of Tags for Web Server Connector Definition Files

The tables below list the tags that are used in Web server connector definition files. Refer to "How to Read Tag Explanations" for information about how to interpret information in this list.

The "Corresponding Interstage Management Console window" column indicates which Interstage Management Console window corresponds to each tag. Each of the tags in Web server connector definition files correspond to the following items in System > Service > Web Server > Web Server Name > Web Server Connectors

Daughter tags of the <WebServer> tag

Tag name	Corresponding section in the Interstage Management Console
WebServer*	
Name	Web Server Name
WebServerConnector*	Create a new Web Server Connector or Settings
Log? (*1)	Log Settings
FaultMonitor? (*1)	Fault Monitoring Settings

Daughter tags of the <WebServer><WebServerConnector> tag

Tag name	Corresponding section in the Interstage Management Console
WebServerConnector*	Create a new Web Server Connector or Settings
WorkunitName	WorkUnit Name
Servlet?	Servlet Container IP Address : Port Number
Address*	
Application?	Web Application Name

Tag name			Corresponding section in the Interstage Management Console
		Name*	
	ServletContainer?		Servlet Service Settings
		Timeout?	Send/Receive Timeout
		MaxProcessors?	Maximum number of connections to the Servlet container
	Www?		Web Server Connector (Connector) Settings
		VirtualHost?	Web Server Virtual Host
			Name*	
		ServletSsl?	Use SSL between Servlet Container and Connector?
		SslConfigName?	SSL configuration to be used for the Servlet Container and Connector.

Daughter tags of the <WebServer><Log> tag

Tag name		Corresponding section in the Interstage Management Console
Log? (*1)		Log Settings
	Directory?	Log File Directory
	RolloverMode?	Rotate log file based on
	RolloverSize?	"Log size" for Rotate log file based on
	RolloverTimeStart?	"Backup start time" for Rotate log file based on
	RolloverEverytime?	"Backup every" for Rotate log file based on
	HistorySize?	Number of log files to maintain
	Debug?	Write debugging info to log?

Daughter tags of the <WebServer><FaultMonitor> tag

Tag name		Corresponding section in the Interstage Management Console
FaultMonitor? (*1)		Fault Monitoring Settings
	Mode?	Fault Monitoring Method
	CheckInterval?	Fault Monitoring Interval
	CheckRetryInterval?	Response Wait Time
	CheckRetryCount?	Fault Retry Count
	WaitTime?	Startup Wait Time

*1 This setting is shared between all Web server connectors.

6.8.10.3 Description of Tags in the Web Server Connector Definition File

Daughter tags of the <WebServer> tag

Name (Parent tag: <WebServer>)

Specify the names of Web servers using strings that are between 1 and 64 bytes long and consist of alphanumeric characters and hyphens '-' (which cannot be specified as the first or last character). Up to 16 Web servers can be specified.

For Windows®, Web server names are not case sensitive.

For Solaris and Linux, Web server names are case sensitive.

Web server names cannot be omitted. Note also that this definition is invalid if "8.0" has been specified for the "-v version" option.

The definitions for the Web server connector corresponding to the specified Web server will be updated.

Daughter tags of the <WebServer><WebServerConnector> tag

WorkunitName (Parent tag: <WebServer><WebServerConnector>)

Specify the names of connection destination Work Units (IJServer names) using strings that are between 1 and 28 bytes long and consist of alphanumeric characters and the underscore character '_'.

Servlet (Parent tag: <WebServer><WebServerConnector>)

- <Address> tag

Use the following format to specify the servlet container identifier and the IP address and port number for the machine where the connection destination Work Unit (servlet container) is running. Be sure to define this tag at least once.

```
[Format] IP address: port number [servlet container identifier]
```

- IP address and port number

Specify the same value as the IP address and port number for the servlet container that was specified with the environment settings for the Work Unit on the connection destination machine.

- servlet container identifier

Specify the servlet container identifier using a string that is between 1 and 32 bytes long and consists of alphanumeric characters and the underscore character '_'. If this specification is omitted, servlet containers will be numbered automatically, using the format "Work Unit name_n" where n is a serial number starting from 1.

- Settings example

(Not specifying the servlet container identifier) 111.222.333.444:9999

(Specifying the servlet container identifier) 111.222.333.444:9999 ID1

Application (Parent tag: <WebServer><WebServerConnector>)

- <Name> tag

Specify the names of Web applications that are distributed to the connection destination Work Unit.

Daughter tags of the <WebServer><WebServerConnector><ServletContainer> tag

Timeout (Parent tag: <WebServer><WebServerConnector><ServletContainer>)

Specify the timeout time (in seconds) using an integer between 1 and 2147483647. The default value is 600 seconds.

In the following cases, requests will be processed as having timed out:

- If the application does not return a response within the specified time

- If the request transmission/response reception to/from the servlet container does not complete within the specified time

- If communications from the client system are stopped for longer than the specified time

MaxProcessors (Parent tag: <WebServer><WebServerConnector><ServletContainer>)

Specify the maximum number of connections per servlet container, using an integer between 1 and 2048. The default value is no limit. To restore the default value (unlimited connections) after another value has been set, specify 0.

Daughter tags of the <WebServer><WebServerConnector><Www> tag

VirtualHost (Parent tag: <WebServer><WebServerConnector><Www>)

- <Name> tag

Using the following format, specify the predefined virtual hosts that receive requests to the Web applications deployed to the connection destination Work Unit.

If this definition is omitted, requests from all virtual hosts will be received.

```
[Format] host name of the server [: port number]
```

- Settings example

```
www.abcd.efg:9999
```

Note

- Requests will not be allocated if virtual hosts where only the IP address is different are specified. Be sure to specify virtual hosts where either the port number or the host name is different.

- Settings for virtual hosts can be made by selecting Services > Web Server > Web Server Name > Virtual Hosts from the Interstage Management Console.

ServletSsl (Parent tag: <WebServer><WebServerConnector><Www>)

Select either of the following values to determine whether to use SSL for communications between Web server connectors and servlet containers. Strings are not case-sensitive.

- OFF (Do not use SSL)

    Default value

- ON (Use SSL)

If the Web server and IJServer are running on separate machines, specify the same value as the settings for the connection destination Web server connector that has been set up.

Solaris32/64 Linux32/64

If "ON" (use SSL) has been specified, the execution group for the Web server must match the group with access privileges to the Interstage certificate environment.

SslConfigName (Parent tag: <WebServer><WebServerConnector><Www>)

This definition is valid if "ON" has been specified for the <ServletSsl> tag (use SSL).

Specify the SSL definition name that is used for communications between Web server connectors and servlet containers.

The SSL definitions described below cannot be used. If these definitions are used, an attempt to connect to the Web application may fail, or the Work Unit may fail to start.

- SSL definitions where one of the following has not been specified for the encryption method:

    - 128-bit AES encryption, SHA-1 MAC

    - 168-bit triple DES encryption, SHA-1 MAC

    - 128-bit RC4 encryption, SHA-1 MAC

    - 128-bit RC4 encryption, MD5 MAC (SSL 3.0/TLS 1.0 only)

    - 56-bit DES encryption, SHA-1 MAC

    - 40-bit RC4 encryption, MD5 MAC (SSL 3.0/TLS 1.0 only)

    - No encryption, SHA-1 MAC

    - No encryption, MD5 MAC

- SSL definitions where only "SSL 2.0" has been specified for the protocol version

Daughter tags of the <WebServer><Log> tag

Directory (Parent tag: <WebServer><Log>)

Specify the output directory for log files, using the full path specification for a directory name that meets the following conditions:

- The maximum length of the directory name is as follows:

    Windows32/64

127 bytes

`Solaris32/64` `Linux32/64`

255 bytes

- The directory name cannot include "${serverroot}"

- The following symbols cannot be specified:

`Windows32/64`

Hash mark (#), double-quote ("), comma (,), slash (/), semicolon (;), asterisk (*), question mark (?), greater than (>), less than (<), and pipe (|)

Colons (:) can only be used immediately after the drive letter.

`Solaris32/64` `Linux32/64`

Hash mark (#)

The directory specified for this tag will be created if it does not exist.

Note that log file names are fixed as "jk2.log" and cannot be changed.

If the log output directory has been changed, old logs will be left in the old output directory, so delete these logs if necessary.

If this tag is omitted, log files will be output to the following directory.

`Windows32/64`

C:\Interstage\F3FMjs5\logs\jk2*Web server name*

`Solaris32/64` `Linux32/64`

/opt/FJSVjs5/logs/jk2/*Web server name*

`Solaris32/64` `Linux32/64`

The owner of log files will be the user who executes the Web server communication process, so specify a directory that this user has write permission for. By default, the user who executes the Web server communication process is "nobody".

RolloverMode (Parent tag: <WebServer><Log>)

Select either of the following values to determine whether to back up logs according to their size or according to the log collection time. Strings are not case-sensitive.

- SIZE (Log size)

  Default value

- TIME (Log collection time)

RolloverSize (Parent tag: <WebServer><Log>)

This definition is valid if "SIZE" has been specified for the <RolloverMode> tag.

Specify an integer between 1 and 512 for the maximum size (in megabytes) for log files. The default value is 1 megabyte.

Log files will be rolled over when they reach the specified size.

RolloverTimeStart (Parent tag: <WebServer><Log>)

This definition is valid if "TIME" has been specified for the <RolloverMode> tag.

Specify an integer between 0 and 23 for the time (o'clock) to start rolling log files over.

After the Work Unit starts, log files will start being rolled over when the start time specified by this tag arrives.

RolloverEverytime (Parent tag: <WebServer><Log>)

This definition is valid if "TIME" has been specified for the <RolloverMode> tag.

Specify an integer between 1 and 24 for the interval (in hours) at which log files are rolled over. The default value is 24 hours.

After the time specified by the <RolloverTimeStart> tag, log files will be rolled over every time the interval specified by this tag elapses.

- Example

If 0 is specified for <StartTime> and 24 is specified for <Interval> and the Work Unit is started at 10:00 PM, then the log file that is used from the time the Work Unit starts (10:00 PM) will be rolled over at midnight (0:00 AM - the start time specified with the <StartTime> tag). Log files will then be rolled over every 24 hours (the interval specified with the <Interval> tag).

If the specified rollover conditions are met, log collection will go on indefinitely, backing up log files by appending the date/time (year/month/day/hour/minute/second) that they were rolled over (jk2_YY.MM.DD_hh.mm.ss.log).

HistorySize (Parent tag: <WebServer><Log>)

Specify an integer between 1 and 9 for the number of generations of log files that are to be stored after they have been rolled over. The default value is 1 generation.

If the number of log files being stored exceeds the specified number of generations, the oldest log file will be deleted.

Debug (Parent tag: <WebServer><Log>)

Select either of the following values to determine whether to output debugging information. Strings are not case-sensitive.

- OFF (Do not output debugging information) ... Default value

- ON (Output debugging information)

Daughter tags of the <WebServer><FaultMonitor> tag

Mode (Parent tag: <WebServer><FaultMonitor>)

Select the monitoring method for fault monitoring from the following. Strings are not case-sensitive.

- None (Do not use the monitoring method) ... Default value

- ping (ping monitoring)

- port(port monitoring)

CheckInterval (Parent tag: <WebServer><FaultMonitor>)

Specify an integer between 1 and 99999 for the interval (in seconds) for performing fault monitoring. The default value is 60 seconds.

CheckRetryInterval (Parent tag: <WebServer><FaultMonitor>)

Specify an integer between 1 and 99 for the time (in seconds) to wait for fault monitoring responses. The default value is 10 seconds.

CheckRetryCount (Parent tag: <WebServer><FaultMonitor>)

Specify an integer between 0 and 99999 for the number of retries to be made (when there are no fault monitoring responses) before the Web server connector is judged to be faulty. The default value is 3.

WaitTime (Parent tag: <WebServer><FaultMonitor>)

Specify an integer between 0 and 600 for the time (in seconds) to wait for Web server connector fault monitoring to start when the Web server starts. The default value is 30 seconds.

6.8.10.4 Example Web Server Connector Definition File

```
----------------------------------------------------------------------
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<Isj2eeServiceDefinition>
    <WebServer>
        <Name>FJapache</Name>
        <WebServerConnector>
            <WorkunitName>SAMPLE</WorkunitName>
            <Servlet>
                <Address>10.10.10.10:9002 SAMPLE_001</Address>
            </Servlet>
            <ServletContainer>
                <Timeout>600</Timeout>
                <MaxProcessors>0</MaxProcessors>
            </ServletContainer>
```

```
                <Www>
                    <ServletSsl>OFF</ServletSsl>
                </Www>
            </WebServerConnector>
            <Log>
<!-- Windows(R) -->
<!--
                <Directory>C:\Interstage\F3FMjs5\logs\jk2\FJapache</Directory>
-->
<!-- Solaris/Linux -->
<!--
                <Directory>/opt/FJSVjs5/logs/jk2/FJapache</Directory>
-->
                <RolloverMode>SIZE</RolloverMode>
                <RolloverSize>1</RolloverSize>
                <RolloverTimeStart>0</RolloverTimeStart>
                <RolloverEverytime>0</RolloverEverytime>
                <HistorySize>1</HistorySize>
                <Debug>OFF</Debug>
            </Log>
            <FaultMonitor>
                <Mode>none</Mode>
                <CheckInterval>60</CheckInterval>
                <CheckRetryInterval>10</CheckRetryInterval>
                <CheckRetryCount>3</CheckRetryCount>
                <WaitTime>30</WaitTime>
            </FaultMonitor>
        </WebServer>
</Isj2eeServiceDefinition>
-----------------------------------------------------------------------
```

6.8.10.5 Note

Refer to the Notes on Definition Files on editing files in XML format, and follow the specification for the XML format.

6.9 isj2eemonitor

Name

isj2eemonitor

Starts and ends log collection and displays the log status

Synopsis

1. Start log collection

```
isj2eemonitor -start {-n ijs-name | -all} [-l j,d,t,sc,ec,a] [-i interval] [-r rollover] [-g
generationSize]
```

2. End log collection

```
isj2eemonitor -stop {-n ijs-name | -all}
```

3. Display log status

```
isj2eemonitor -stat {-n ijs-name | -all}
```

4. Display usage status

```
isj2eemonitor -h
```

Description

The isj2eemonitor command starts and ends log collection and displays the log status.

Refer to "J2EE Monitor Logging Function" in the Tuning Guide for operation procedure and details on the log collected.

Option

The options of the isj2eemonitor command are explained below.

-start {-n ijs-name | -all} [-l j,d,t,sc,ec,a] [-i interval] [-r rollover] [-g generationSize]

Starts logging for the specified IJServer

Option	Meaning
-n ijs-name	Specifies the name of IJServer to be logged Cannot specify with the -all option Note that if a CORBA WorkUnit is specified, an error is posted.
-all	Starts logging for all registered IJServers Note that this does not include version 8.0 compatible mode IJServers or IJServers created in version 8.0 or earlier.

-l j,d,t,sc,ec,a	Specifies the type of log to be collected. If logging is to be done for multiple types, separate with "," (comma).
	
	Log type:
	
	  - j: Java VM information
	
	  - d: Data source information
	
	  - t: Transaction information
	
	  - sc: Servlet container information
	
	  - ec: EJB container information
	
	  - a: All information
	
	If the -l option is omitted, Java VM information is collected.
	
	An error is posted if all logs specified for the IJServer could not be collected.

-i interval	Specifies the data logging collection interval (in minutes). Specify a value between 1 and 60. If omitted, data will be logged every 10 minutes.
-r rollover	Specifies the start time of log file rollover. Specify an integer between 0 and 23. If omitted, rollover will be performed at 01:00 am.
-g generationSize	Specifies the number of generations of log files to store. Specify an integer between 1 and 64. If omitted, one generation of log files will be stored.

-stop {-n ijs-name | -all}

Ends logging for the specified IJServer

Option	Meaning
-n ijs-name	Name of IJServer to log Cannot specify with the -all option Note that when a CORBA WorkUnit is specified, an error is posted.

Option	Meaning
-all	Ends logging of all registered IJServers
	Note: This does not include version 8.0 compatible mode IJServers or IJServers created in version 8.0 or earlier.

-stat {-n ijs-name | -all}

Displays the monitoring status of the specified IJServer.

If the option is not specified, a list of registered IJServers and the monitoring status for each is displayed.

Specifying the following options provides access to detailed information for the specified IJServer:

Option	Meaning
-n ijs-name	Specifies the name of the IJServer to be checked
	Cannot be specified with the -all option
	Note that when a CORBA WorkUnit is specified, an error is posted.
-all	Displays the status of all registered IJServers
	Note: This does not include version 8.0 compatible mode IJServers or IJServers created in version 8.0 or earlier.

The meaning of displayed items is as follows:

Displayed item	Displayed contents
IJSERVER NAME	Displays the IJServer name
MONITOR STATUS	Displays the active monitoring status of one of the following:
	- starting: Start processing in progress
	- execute: Execution status
	- wait: Waiting for IJServer to be active
	- stopping: Termination processing in progress
	- stop: Inactive status
LOGGING START TIME	Displays the time monitoring started
	Displayed only when the monitoring status is "execute" or "wait".
	Displays "-" at other times
NEXT LOGGING TIME	Displays the next time information is due to be logged
	Displayed only when the monitoring status is "execute" or "wait".
	Displays "-" at other times
NEXT ROLLOVER TIME	Displays the time when log files are due to be rolled over next
	Displays only when the monitor status is "execute" or "wait" . Displays "-" at other times
MONITOR INTERVAL	Displays the data logging interval specified by the -I option
	Displays only when the monitor status is "execute" or "wait".
	Displays "-" at other times
GENERATION SIZE	Displays the number of rollover generations to be stored
	Displays only when the monitor status is "execute" or "wait".
	Displays "-" at other times
COLLECTORS STATUS	Displays the log types being output. Displays the following list:

Displayed item	Displayed contents
	- JavaVM (Java VM information)
	- DataSource (data source information)
	- Transaction (Transaction information)
	- Servlet Container (Servlet container information)
	- EJB Container (EJB container information)
	Displays one of the following statuses:
	- on (to be logged)
	- off (not to be logged)
	- unavailable (to be logged but invalid (*1))
	Displays on/off only when the monitor status is "execute" or "wait".
	Displays "-" at other times

*1 "unavailable" is displayed when it is clear that the values will not change because of the contents of a definition, such as IJServer even when specified to collect information and logging had started. "unavailable" status results from the following conditions:

Output target	Condition for "unavailable"
JavaVM	None
DataSource	None
Transaction	None
Servlet Container	When the IJServer type is 'Web Applications Only'
EJB Container	When the IJServer type is 'EJB Applications Only'

-h

Outputs the usage

Example

1. Starts logging for the IJServer called "MyServer", specifying to collect Java VM information

```
isj2eemonitor -start -l j -n MyServer
```

2. Starts logging for the IJServer called "MyServer", specifying to collect Java VM, data source, and EJB container information

```
isj2eemonitor -start -l j,d,ec -n MyServer
```

3. Ends logging for the IJServer called "MyServer"

```
isj2eemonitor -stop -n MyServer
```

4. Displays the monitoring status

```
isj2eemonitor -stat
IJSERVER NAME            MONITOR STATUS
Server1                  execute
Server2                  wait
Server3                  stop
```

5. Displays detailed monitoring status information for the IJServer called "MyServer"

```
> isj2eemonitor -stat -n MyServer
IJSERVER NAME:           MyServer
MONITOR STATUS:          start
```

```
LOGGING START TIME:        11/07/2006 03:10:30:534
NEXT LOGGING TIME:         12/07/2006 20:05:30:200
NEXT ROLLOVER TIME:        13/07/2006 00:00:00:000
MONITOR INTERVAL:          10
ROLLOVER START:            1
GENERATION SIZE:           1


COLLECTORS                 STATUS
JavaVM                     on
DataSource                 off
Transaction                on
Servlet Container          off
EJB Container              unavailable
```

Notes

- This command cannot be used with the version 8.0 compatible mode IJServers or IJServers created in Application Server 8.0 or earlier.

- In addition to when the log type status is "unavailable", a data source log is not output when no data source is defined.

- When the command is specified with options -start, -stop, and -stat, the ability to execute the command is as follows:

	-start	-stop	-stat
-start	x	x	y
-stop	x	x	y
-stat	y	y	y

y: Executable

x: Error

Solaris32/64 Linux32/64

- The user authority for this command may vary based on the active security mode. For details, refer to "Notes on Using Commands" at the beginning of this manual.

6.10 svmondspstat

Name

svmondspstat

Displays the status of the server to be sorted in the Web server connector fault monitoring function.

Synopsis

```
svmondspstat [-i name] [-s Web server name]
```

Description

The *svmondspstat* command lists the statuses of servers to be sorted in the Web server connector. These servers are monitored using the Web server connector fault monitoring function.

The status of a server to be sorted is displayed in the format

```
"Status IP address:Port Number : WorkUnit Name : WebServer Name".
```

The status is displayed as follows:

- ACTIVE

  The status displayed in the IP address:Port number is "operating". The sorting of requests is executed by the Web server connector.

- DOWN

    The status displayed in the IP address:Port number is "stopped". The sorting of requests is halted by the Web server connector.

- UNKNOWN

    The status displayed in the IP address:Port number has not completed. The sorting of requests is executed by the Web server connector.

    From immediately after the start of fault monitoring until the first monitoring is completed, UNKNOWN is displayed as the status.

The options and arguments of the *svmondspstat* command are explained below:

-i name

    To display the status of a specific IJServer, specify the WorkUnit name of the IJServer.

    If the specified IJServer does not exist, an error is posted.

    If this option is omitted, the status of all IJServers is displayed.

-s Web server name

    Specifies the name of the Web server whose Web server connectors should display the status of distribution targets. If the specified Web server does not exist, an error is posted.

    If omitted, the status of all Web servers all will be displayed.

Return Value

0: Normal end

Other than the above: An error occurred and processing was interrupted.

Note

- Restart the Web server after the fault monitoring function is enabled, or after the fault monitoring function settings are changed. In such a case, if a Web server is not restarted, the fault monitoring function which was changed is started after the first access from a client.

    If a Web server is not restarted after implementing a setting change, the state before the change is displayed until the first access occurs.

    For example, it is displayed as "ACTIVE" until first access from a client. This occurs even if the Servlet container for monitoring has stopped, when the monitoring method is changed into "Port" from "Ping".

    Solaris32/64 Linux32/64

- Only users with administrator authority can execute this command.

    Windows32/64

- In Windows Server(R) 2003 or Windows Server(R) 2008, write authority for the event log must be set if the user that executes this command does not have administrator authority.

- If this command is executed using a built-in guest account (a Guest user created when the OS is installed) in Windows Server(R) 2008, the SvMon1010 message is output and the command cannot be executed normally.

Example

Displaying the status of all IJServers to be sorted:

```
svmondspstat
Status  IP Address  : Port Number : WorkUnit Name : WebServer Name
---------------------------------------------------------------
ACTIVE  172.16.30.2 : 9000        : MyIJServer1    : FJapache
ACTIVE  172.16.30.3 : 9000        : MyIJServer1    : WEB001
DOWN    172.16.30.2 : 9001        : MyIJServer2    : FJapache
ACTIVE  172.16.30.3 : 9001        : MyIJServer2    : WEB001
```

To display only the status of the IJServer that is a distribution target and has a Web server name of FJapache

```
svmondspstat -s FJapache
Status  IP Address  : Port Number : WorkUnit Name : WebServer Name
----------------------------------------------------------------
ACTIVE  172.16.30.2 : 9000        : MyIJServer1   : FJapache
DOWN    172.16.30.2 : 9001        : MyIJServer2   : FJapache
```

Displaying the status of the IJServer with the WorkUnit name MyIJServer1 to be sorted:

```
svmondspstat -i MyIJServer1
Status  IP Address  : Port Number : WorkUnit Name : WebServer Name
----------------------------------------------------------------
ACTIVE  172.16.30.2 : 9000        : MyIJServer1   : FJapache
ACTIVE  172.16.30.3 : 9000        : MyIJServer1   : WEB001
```

Chapter 7 EJB Service Operation Commands

This chapter describes the commands used for operating the EJB Service.

All operations in Interstage Versions since 6.0 can be executed from the Interstage Management Console.

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
ejbdefexport	Enterprise Bean definition information	OK	OK
ejbdefimport	Enterprise Bean definition information	OK	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Directory
Windows32/64	C:\Interstage\bin
Solaris32/64 Linux32/64	/opt/FJSVejb/bin

7.1 ejbdefexport

Name

ejbdefexport

Exports Enterprise Bean definition information.

Synopsis

```
ejbdefexport {EJB application name} -i IJServer name
{[-f Enterprise Bean definition file name] | -all [directory name]}
[-comment {editable | all | non}] [-r] [-encode {UTF-8 | SJIS | EUC}]
```

Description

Exports the Enterprise Bean definition information in the IJServer to the Enterprise Bean definition file.

The arguments for this command are as follows:

EJB application name

    Specifies the EJB application name which has been installed in the IJServer.

    This argument and the -all option cannot be specified at the same time.

-i IJServer name

    Specifies the IJServer to which the EJB application has been deployed.

    This option is required if an IJServer is to be customized.

-f Enterprise Bean definition file name

    Specifies the name of the Enterprise Bean definition file as an absolute path name or a relative path name. If this specification is omitted, the information is output to the current folder name\EJB application name.xml.

If an EJB application name contains a slash '/' or colon ':', or begins (??) period '.' at the beginning, it is converted into an underscore '_' for the output file name. If the EJB application name is "Session/Sample: Bean", for example, the output file name is "Session_Sample_Bean.xml".

This argument and the -all option cannot be specified at the same time.

-all directory name

Outputs all of the Enterprise Bean definition information contained in the IJServer to the specified directory. If this directory specification is omitted, the information is output to the current directory.

This argument cannot be specified together with the EJB application name and -f option.

The name of the Enterprise Bean definition file to be exported becomes 'EJB application name .xml.'

-comment {editable | all | none}

Outputs tag explanations in XML comment format. If this argument is omitted, tag explanations are not output.

editable : Outputs only the explanations for editable tags.

all : Outputs all tag explanations.

none : Does not output tag explanations.

-r

If an Enterprise Bean definition file with the same name exists, the Enterprise Bean definition file is overwritten with no conditions. If this argument is omitted, confirmation for overwriting of the file is carried out.

-encode {UTF-8 | SJIS | EUC}

Specifies the code type of the Enterprise Bean definition file to be output. If this specification is omitted, UTF-8 is assumed to be specified.

- UTF-8 : Outputs the file with UTF-8 (Unicode).

- SJIS : Outputs the file with Shift_JIS.

- EUC : Outputs the file with EUC-JP.

Notes

Solaris32/64 Linux32/64

- The user authority for this command may vary based on the security mode selected during installation . For details, refer to 'Notes on Using Commands' at the beginning of this manual.

Solaris32/64

- This command cannot be used on an extended multi-system.

Examples

Windows32/64

```
ejbdefexport NameBean -i TestIJServer -f c:\ejb\NameBean.xml
```

Solaris32/64 Linux32/64

```
ejbdefexport NameBean -i TestIJServer -f /ejb/NameBean.xml
```

7.2 ejbdefimport

Name

ejbdefimport

Imports Enterprise Bean definition information.

Synopsis

```
ejbdefimport {[EJB application name] -f Enterprise Bean definition file name
| -all [directory name]} -i IJServer name
```

Description

Imports information of the Enterprise Bean definition file to the Enterprise Bean definition information in the IJServer.

The arguments for this command are as follows:

EJB application name

Specifies the EJB application name which has been installed in the IJServer. If this specification is omitted, the EJB application name specified for <component-name> in the Enterprise Bean definition file is used.

This argument and the -all option cannot be specified at the same time.

-f Enterprise Bean definition file name

Specifies the name of the Enterprise Bean definition file as an absolute path name or a relative path name.

This argument and the -all option cannot be specified at the same time.

-all directory name

The Enterprise Bean definition file in the specified directory reflects the Enterprise Bean definition information.

This argument cannot be specified together with the EJB application name and -f options.

The EJB application name of the destination is the one that is specified for <component-name> in the Enterprise Bean definition file.

-i IJServer name

Specifies the IJServer to which the EJB application has been deployed.

This option is required if an IJServer is to be customized.

Notes

- If the IJServer to be customized is active, the Enterprise Bean definition information will be applied when the IJServer is restarted or the HotDeploy is used.

Solaris32/64　Linux32/64

- Use this command as the user type dictated by the application protection level for the IJServer. For details on application protection levels, refer to "Deploying and Setting J2EE Applications" in the "J2EE User's Guide".

- The user authority for this command may vary based on the security mode selected during installation. For details, refer to 'Notes on Using Commands' at the beginning of this manual.

Solaris32/64

- This command cannot be used in an extended multi-system.

Examples

Windows32/64

```
ejbdefimport NameBean -i TestIJServer -f c:\ejb\NameBean.xml
```

Solaris32/64　Linux32/64

```
ejbdefimport NameBean -i TestIJServer -f /ejb/NameBean.xml
```

Chapter 8 Interstage Web Service Development Commands

This chapter explains the commands used when developing J2EE Web services.

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
isdwsgen	This command generates files required when developing Web service applications and Web service client applications.	OK	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Directory
Windows32/64	C:\Interstage\bin
Solaris32/64 Linux32/64	/opt/FJSVj2ee/bin

Refer to the J2EE User's Guide (Web Service Edition) for more information about how to develop and operate Web service applications.

8.1 iswsgen

Name

iswsgen

Generates files for Web service applications and Web service client applications.

Synopsis

```
iswsgen {wsdl | server | client} ["Sub Command options"] "Sub Command argument"
```

Description

This command generates the files required when developing Web service applications and Web service client applications.

Sub Commands

wsdl

Generates WSDL files and the files required for developing Web service applications from service end point interfaces.

server

Generates the files required for developing Web service applications from WSDL files.

client

Generates the files required for developing Web service client from WSDL files.

Note

- The output destinations of the files that are generated can be specified using the subcommand common option '-output'.

- Java source files are generated using a directory configuration that follows the package names.

- When generating Java source files, the subcommand common option '-overwriteJava' can be used to specify whether to overwrite any existing files with the same name.
  When generating other files, any files with the same name will always be overwritten.

- If file output fails while multiple files are being output, those files that have been generated so far will remain.

- Character encoding of the Java resource files generated is UTF-8. When non-ASCII characters are contained, 'UTF-8' must be specified in the javac -encoding option before the file can be compiled.

- Do not add these changes to the Java source files, WSDL files or XML files generated by the iswsgen command (files explicitly mentioned in the manuals of this product are exempt from this rule).

- If the Java class or WSDL used in the iswsgen command input was changed, the required file must be created again using the iswsgen command.

8.1.1 wsdl

Synopsis

```
iswsgen wsdl ["options"] <service-endpoint-interface>
```

Description

This subcommand generates WSDL files and the files required for developing Web service applications from service end point interfaces.

- WSDL File

  This is the interface definition file for the Web service.

  The WSDL file is generated under the 'WEB-INF/wsdl' directory of the output destination. The name of the WSDL file can be specified using the -wsdlFile option. The name of the service end point interface is used for the name of the WSDL PortType element.

  The output destination of the file is determined by the value that is specified for the -module option.

- <WSDL file name>_mapping.xml

  This file is packaged together with the application when the Web service application is packaged.

  This file includes XML used by the (SOAP) protocol and associations for the application.

  This file is generated in the 'WEB-INF' directory on the output destination.

  The output destination of the file is determined by the value that is specified for the -module option.

service-endpoint-interface

Specifies the class name (including the package name) for the service end point interface. Classes can be searched from the class path specified by the -classpath option.

Classes used as method arguments and classes that have been inherited must also be specified as the class path.

options

The *wsdl* subcommand options are explained in the table below. Option names are case-sensitive.

Option Name (*1)	Option argument (*2)	Content	Default value
-classpath	<class path>	Specifies the class path referred to by the command.	Current directory

Option Name (*1)	Option argument (*2)	Content	Default value
-location -l (*3)	\<URL\>	Specifies the connection destination URL specified in the WSDL file. Only the HTTP protocol (http:// or https://) can be used for the URL.	Dummy value
-bindingName -B	\<binding name\>	Specifies the name used for the 'binding' element in the WSDL file that is generated.	Port name + 'SoapBinding'
-serviceElementName -E	\<service name\>	Specifies the name used for the 'service' element in the WSDL file that is generated.	Port type name + 'Service'
-servicePortName -P	\<port name\>	Specifies the name used for the 'port' element in the WSDL file that is generated.	service end point interface name + 'Port'
-namespace -N	\<namespace name\>	Specifies the value used for the namespace name (the targetNamespace attribute of the definitions element) that represents the WSDL file to be generated.	A value that is automatically generated from the package name of the service end point interface using a fixed rule. For the default package, this is http://DefaultNamespace.
-PkgtoNS -p	\<pakkege name \>=\<namespace name\>	Defines associations from Java package names to the namespace names in the WSDL file that is generated. To define associations from multiple package names to namespace names, this option can be specified repeatedly. Also, the same kind of definitions can be made using the -PkgNSmappingFile option, but this option takes precedence if both options have definitions for the same package name.	A value that is automatically generated from the package name using a fixed rule

-soapAction
-A
	OPERATION | NONE	Specifies how the 'soapAction' attribute of the 'operation' element in the WSDL file to be generated is set.
		
		- OPERATION
		  Sets soapAction to the operation name.
		
		- NONE
		  Sets soapAction to "".
			OPERATION

-styleuse
-y
	DOCLITERALWRAPPED |RPCLITERAL |RPCENC	Specifies the 'style' and 'use' for the SOAP bindings in the WSDL file to be generated. These affect the format of the XML data that is sent and received during SOAP communications.
		
		- DOCLITERALWRAPPED
		  Sets style to 'document' and use to 'literal'.
		
		- RPCLITERAL
		  Sets style to 'rpc' and use to 'literal'.
		
		- RPCENC
		  Sets style to 'rpc' and use to 'encoded'.
			DOCLITERALWRAPPED

-wsdlFile -w	\<WSDL file name \>	Specifies the name of the WSDL file to be generated.	WSDL port name + '.wsdl'

Option Name (*1)	Option argument (*2)	Content	Default value

-attachmentsType
-t
	swaref | apache	Specifies the XML data type when the Java class used for the attachment file type is mapped to the XML data type:
		
		- swaref
		  The Java class is mapped to the wsibp:swaref type defined in WS-I attachments profile 1.0.
		
		- apache
		  The Java class is mapped to the corresponding apachesoap namespace XML data type.
		
		Only wsibp:swaref type.can be mapped to the javax.activation.DataHandler class. If the class that is mapped to the XML data type is not the javax.activation.DataHandler class, this option must be specified expressly as the "apache" argument. If it is not specified as such, an error is notified.
			Swaref

- module {web|ejb}	web | ejb	Specifies the Web service application type that is created. - web: The WSDL file is generated in WEB-INF/wsd of the output destination directory. The <WSDL file name>_mapping.xml file is generated in WEB-INF of the output destination directory. - ejb: The WSDL file is generated in META-INF/wsdl of the output destination directory. The <WSDL file name>_mapping.xml file is generated in META-INF of the output destination directory.	web

*1 Option names are case sensitive.

*2 Options indicated by '-' in the table do not require option arguments.

*3 The connection destination URL specified in the WSDL file does not usually need to be specified with the -location option because it is updated by the public WSDL that can be obtained after deployment to match the deployment environment.
To use the WSDL file generated by the *wsdl* subcommand as the public WSDL, specify the connection destination URL explicitly with the -location option.

8.1.2 server

Synopsis

```
iswsgen server ["options"] <wsdl-path>
```

Description

The following files required for developing Web service applications are generated from the WSDL for the Web service being created and provided.

- Service end point interface
  This is the source code for the Java interface that defines the public interface for the Web service application being provided as a Web service.
  The name of the 'PortType' element in the WSDL file is used as the interface name.

- Source code for user-defined type classes

  If user-defined types are specified as the 'operation' parameter in the WSDL file, the source code for the corresponding Java classes will be generated.

  The type names for the user-defined types will be used for the class names.

- Source code for other classes

  This is the source code for the classes required to execute the application. Everything required for the Java source files being generated is generated (sources generated or not depend on the contents of WSDL). All class names begin with '_isws_'.

- <WSDL file name>_mapping.xml

  This file is packaged together with the application when the Web service application is packaged.

  This file includes XML used by the (SOAP) protocol and associations for the application.

  This file is generated in the 'WEB-INF' directory on the output destination.

  The output destination of the file is determined by the value that is specified for the -module option.

wsdl-path

The path of WSDL is specified.

options

The server subcommand options are explained in the table below. Option names are case-sensitive.

Option Name (*1)	Option argument (*2)	Content	Default value
-NStoPkg -n	<namespace name>=<package name>	Defines associations from the namespace names in the WSDL file to the corresponding package names generated for Java. To define associations from multiple package names to namespace names, this option can be specified repeatedly. Also, the same kind of definitions can be made using the -PkgNSmappingFile option, but this option takes precedence if both options have definitions for the same package name.	A value that is automatically generated from the namespace name using a fixed rule
- module {web|ejb}	web | ejb	Specifies the Web service application type that is created. - web: The <WSDL file name>_mapping.xml file is generated in WEB-INF of the output destination directory. - ejb: The <WSDL file name>_mapping.xml file is generated in META-INF of the output destination directory.	web

*1 Option names are case sensitive.

*2 Options indicated by '-' in the table do not require option arguments.

8.1.3 client

Synopsis

```
iswsgen client ["options"] <wsdl-path>
```

Description

The following files required for developing Web service client applications are generated from the WSDL for the Web service being created and provided.

- Service end point interface
  This is the source code for the Java interface that defines the public interface for the Web service application being provided as a Web service.
  It inherits the java.rmi.Remote interface.
  The name of the 'PortType' element in the WSDL file is used as the interface name.

- Service interface
  This is the source code for the Java interface that expresses the Web service specified in the WSDL file.
  It inherits the javax.xml.rpc.Service interface.
  The name of the 'Service' element in the WSDL file is used as the interface name.

- Source code for user-defined type classes
  If user-defined types are specified as the 'operation' parameter in the WSDL file, the source code for the corresponding Java classes will be generated.
  The type names for the user-defined types will be used for the class names.

- Stub/service implementation
  This is the source for classes that implement the service end point and Service interfaces. All class names begin with '_isws_'.

wsdl-path

The path of WSDL is specified.

options

The client subcommand options are explained in the table below. Option names are case-sensitive.

Option Name (*1)	Option argument (*2)	Content	Default value
-NStoPkg -n	<namespace name>=<package name>	Defines associations from the namespace names in the WSDL file to the corresponding package names generated for Java. To define associations from multiple package names to namespace names, this option can be specified repeatedly. Also, the same kind of definitions can be made using the -PkgNSmappingFile option, but this option takes precedence if both options have definitions for the same package name.	A value that is automatically generated from the namespace name using a fixed rule

*1 Option names are case sensitive.

*2 Options indicated by '-' in the table do not require option arguments.

8.1.4 Subcommand Common Options

The options listed in the table below can be specified with all subcommands (wsdl, server and client), in addition to the options that are specific to each subcommand.

Option Name (*1)	Option argument (*2)	Content	Default value
-help -h	-	Displays the Usage for the subcommand and finishes processing.	Not displayed.
-output -o	\<path\>	Specifies the output destination for the files that are generated.	Current directory
-PkgNSmappingFile -F	\<prpperty file\>	Specifies a property file that defines the mapping between namespace names and package names. The format of the property file is: \<package name\>=\<namespace name\> If multiple namespace names are specified for a single package name in the property file, the last namespace name specified will take effect.	A value that is automatically generated from the namespace names and package names using a fixed rule
-overwriteJava -J (*3)	-	Overwrites any existing files with the same name when generating Java source files.	Fails to generate files if there are files with the same name.
-timeout (*4)	\<number of seconds\>	Specify in seconds the timeout value for the command processing. No time out will be generated when '-1' is specified.	45 seconds
-retrieve (*4)	none | local | global	Specifies the processing performed when the WSDL file and the XML schema refer to different resources in the 'import' element, as follows: - none: Does not get referenced resources. An error will occur if either the WSDL file or the XML schema contain an import specification. - local: Gets local files. An error will occur if remote resources are referenced. - global: Gets resources specified using HTTP in addition to local files. However, an error will occur if non-HTTP protocols are specified.	local
-proxyHost (*4) (*5)	\<host name\>	Specifies the host name of the proxy server used when referencing remote resources.	Does not use proxy servers.
-proxyPort (*4) (*5)	\<port number\>	Specifies the port number of the proxy server used when referencing remote resources.	Does not use proxy servers.
-proxyUser (*4) (*5)	\<user name\>	Specifies the user name when the proxy server that is used for referencing remote resources requires authentication.	Does not present authentication information to the proxy server.
-proxyPassword (*4) (*5)	\<Password\>	Specifies the password when the proxy server that is used for referencing remote resources requires authentication.	Does not present authentication information to the proxy server.

*1 Option names are case sensitive.

*2 Options indicated by '-' in the table do not require option arguments.

*3 These options can be used with both the server subcommand and the client subcommand.

*4 Not valid for the wsd1 subcommand

*5 Vaild only when 'global' is specified in '-retrieve'.

*1 Option names are case sensitive.

*2 Options indicated by '-' in the table do not require option arguments.

Chapter 9 JMS Operation Commands

This chapter details the JMS operation commands.

Supported commands

The following table describes the commands supported by each product.
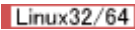
Command	Outline	Standard-J Edition	Enterprise edition
jmsinfods	Displays durable Subscriber list.	OK	OK
jmsinfodst	Displays Destination definition list.	OK	OK
jmsinfofact	Display ConnectionFactory definition list.	OK	OK
jmsmkdst	Registers Destination definition.	OK	OK
jmsmkfact	Registers ConnectionFactory definition.	OK	OK
jmsrmds	Deletes durable Subscriber.	OK	OK
jmsrmdst	Deletes Destination definition.	OK	OK
jmsrmfact	Deletes ConnectionFactory definition.	OK	OK
jmssetsecmode Solaris32/64 Linux32/64	Security mode Settings/Show	OK	OK
jmssetupcluster	Creates, displays, or deletes the cluster environment.	OK	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Directory
Windows32/64	C:\Interstage\bin
Solaris32/64	/opt/FJSVjms/bin
Linux32/64	/opt/FJSVjms/bin

Notes

If any of the below occurs while the JMS operation command is running, then the Interstage JMS resources might acquire an illegal status.

- The JMS operation command is stopped because of an urgent situation.

- A JMS operation command process is forced to shut down.

- The terminal used to execute the JMS operation command is stopped.

9.1 jmsinfods

Name

jmsinfods

Displays durable Subscriber list.

Synopsis

```
jmsinfods [-M system]
```

Description

This command displays durable Subscriber list. The durable Subscriber name, client identifier, and topic name (JNDI name of Destination definition) are displayed from the left.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Note

- Solaris32/64 Linux32/64
  Execute this command with Administrator authority.

Example

```
jmsinfods
  DS name          ClientID       Topic Name
  -------          --------       ----------
  dsub             client1        TestTopic
```

9.2 jmsinfodst

Name

jmsinfodst

Displays Destination definition list.

Synopsis

```
jmsinfodst [-t | -q] [-M system]
```

Description

This command displays the Destination definition list.

The list displays the total number of displayed Destination definitions followed by information categorized by Destination type. The items in each Destination definition are displayed in the following order:

- Serial number

- Destination definition JNDI name

- Related event channel group name

- Event channel

- Naming Service IP address (Hostname)

- Naming Service port number

The available options and parameters are listed below:

-t

Lists the Topic-type Destination definitions.

-q

Lists the Queue-type Destination definitions.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- `Solaris32/64` `Linux32/64`
  Execute this command with Administrator authority.

- When both the *-t* option and the *-q* option are omitted, all Destination definitions are listed.

- When the *jmsmkfact*, *jmsmkdst*, *jmsrmfact*, or *jmsrmdst* command is active, this command cannot be executed.

- If the information for the IP address (Hostname) and port number is not configured in Destination, [IP Address(Host)] and [Port Number] are not displayed.

- If the hostname cannot be resolved From the IP address, it is not displayed. If the IP address cannot be resolved from the hostname, "unknown" is displayed for the IP address and the hostname is not displayed. Check the hosts file contents and the DNS settings.

Example

```
jmsinfodst

[Total count : 2]
  +--[Topic count : 2]
  |    +--[1]
  |    |  [JNDI Name]        : Topic001
  |    |  [Group Name]       : EventGroup001
  |    |  [Channel Name]     : EventChannel001
  |    |  [IP Address(Host)] : 192.168.1.1(fujitsu)
  |    |  [Port Number]      : 8002
  |    |
  |    +--[2]
  |       [JNDI Name]        : Topic002
  |       [Group Name]       : EventGroup002
  |       [Channel Name]     : EventChannel001
  |
  +--[Queue count : 0]

JMS:INFO:jms2815: Command completed successfully.
```

9.3 jmsinfofact

Name

jmsinfofact

Display ConnectionFactory definition list.

Synopsis

```
jmsinfofact [-t | -q] [-M system]
```

Description

This command displays the JMS ConnectionFactory definition list.

The list displays the total number of displayed ConnectionFactory definitions, then provides the information categorized by ConnectionFactory type. The items in each ConnectionFactory definition are displayed in the following order.

- Serial number

- ConnectionFactory JNDI name

- Client identifier

- Global transaction function settings Windows32/64 Solaris32 Linux32/64

The available options and parameters are listed below:

-t

Lists the ConnectionFactory definitions of TopicConnectionFactory.

-q

Lists the ConnectionFactory definitions of QueueConnectionFactory.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Solaris32/64 Linux32/64
Execute this command with Administrator authority.

- When both the *-t* option and *-q* option are omitted, all ConnectionFactory definitions are listed.

- When the *jmsmkfact*, *jmsmkdst*, *jmsrmfact*, or *jmsrmdst* command is active, this command cannot be executed.

Example

```
jmsinfofact
  [Total count : 2]
    +--[TopicConnectionFactory count : 1]
    |    +--[1]
    |        [JNDI Name]          : TestTopicFactory
    |        [Client ID]         : client1
    |        [Global Transaction] : false
    |
    +--[QueueConnectionFactory count : 1]
         +--[1]
             [JNDI Name]          : TestQueueFactory
             [Client ID]         : client1
             [Global Transaction] : false
```

9.4 jmsmkdst

Name

jmsmkdst

Registers Destination definition.

Synopsis

```
jmsmkdst [-t | -q] -g <group-name> -c <channel-name>
[-ipaddress <ipaddress> -port <port-number>] <jndi-name> [-M system]
```

```
jmsmkdst -o [-t | -q] [-g <group-name>] [-c <channel-name>]
[-ipaddress <ipaddress> -port <port-number>] <jndi-name> [-M system]
```

Description

This command registers JMS Destination definition. The options and parameters of this command are shown below.

-o

Overwrites the Destination definition with the same name at registration. If Destination definition with the same name does not exist, registers it as a new definition.

When this option is omitted, the Destination definition is registered if Destination definition with the same name does not exists.

-t

Specified when the Destination definition type is Topic.

If this option is omitted when the **-o** option is specified, the information that has already been registered is used.

-q

Specified when the Destination definition type is Queue.

If this option is omitted when the **-o** option is specified, the information that has already been registered is used.

-g <group-name>

Specify the group name of the event channel to be linked.

When the **-o** option is specified if this option is omitted, already-registered information is used.

-c <channel-name>

Specify the channel name of the event channel to be linked.

When the **-o** option is specified if this option is omitted, already-registered information is used.

-ipaddress <ipaddress>

Specify the Naming Service IP address or Hostname registered in the associated Event Channel. When "Host name or IP address" is specified, check whether name resolution (IP address resolution) using the contents of the host file or DNS settings is possible.

IPv6 format addresses cannot be specified. Specify the Hostname if the host that is used to run the Naming Service is run in an IPv6 environment.

-port <port-number>

Specify the Naming Service port number registered in the associated Event Channel.

<jndi-name>

Specify the JNDI name to be set in Destination definition. The JMS application can obtain Destination definition using the specified JNDI name.

-M system | Solaris32 |

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- This command is compatible with previous versions. It is recommended that the *isj2eeadmin* command is used with this version.

- | Solaris32/64 | Linux32/64 |
  Execute this command with Administrator authority.

- When registering a new definition, if both the *-t* option and the *-q* option are omitted, the same operation is performed as when the *-t* option is specified.

- When the *-o* option is specified to overwrite the definition that has been registered, specify any of the following options: *-t*, *-q*, *-g*, or *-c*.

- When the *jmsmkfact*, *jmsmkdst*, *jmsrmfact*, or *jmsrmdst* command is active, this command cannot be executed. This command may not be executed if a JMS application is being executed.

- The following restrictions are imposed on the JNDI name, group name and channel name:

  - Alphabets (both upper- and lower-case letters), digits, period (.), colon (:), underscore (_), hyphen (-), and slash (/) are available. A slash is treated as a delimiter for atomic names of a JNDI name.

  - The atomic name and client identifier must begin with an alphabet followed by a digit.

  - A specified JNDI name is automatically preceded by "java:comp/env/jms/". To reference a JNDI name from a JMS application, the JNDI name must be preceded by "java:comp/env/jms/".

  - A string can consist of up to 255 bytes. Note that the JNDI name excluding "java:comp/env/jms/" must be 255 bytes or less.

- If the Interstage management console is used to list ConnectionFactories while a JNDI name including the character shown below is specified, processing fails and error message "jms9997" is output. When the Interstage management console is used, do not include the following character in the JNDI name, group name, and channel name.

  - Colon (:)

Examples

To link an event channel whose group name is "jms_topic" and whose channel name is "topic1" to a new Topic-type Destination definition called "java:comp/env/jms/TestTopic":

```
jmsmkdst -t -g jms_topic -c topic1 TestTopic
```

To link an event channel whose group name is "jms_queue" and whose channel name is "queue1" to a new Queue-type Destination definition called "java:comp/env/jms/TestQueue":

```
jmsmkdst -q -g jms_queue -c queue1 TestQueue
```

To change the channel name of the event channel of Destination definition whose JNDI name is "java:comp/env/jms/TestTopic" to channel name "topic2":

```
jmsmkdst -o -c topic2 TestTopic
```

9.5 jmsmkfact

Name

jmsmkfact

Registers ConnectionFactory definition.

Synopsis

```
jmsmkfact [-t|-q] -i <client-id> [-x] <jndi-name> [-M system]
jmsmkfact -o [-t|-q] [-i <client-id>] [-x] <jndi-name> [-M system]
```

Description

Registers JMS ConnectionFactory definition. The available options and parameters are shown below:

-o

Overwrites the ConnectionFactory definition with the same name at registration. If ConnectionFactory definition with the same name does not exist, registers it as a new definition.

When this option is omitted, the ConnectionFactory definition is registered if ConnectionFactory definition with the same name does not exist.

-t

Specify this option when the ConnectionFactory type is TopicConnectionFactory.

When the **-o** option is specified, and this option is omitted, already-registered information is used.

-q

Specify this option when the ConnectionFactory type is QueueConnectionFactory.

When the **-o** option is specified, and this option is omitted, already-registered information is used.

-i <client-id>

Specify the client identifier to be set in the ConnectionFactory definition. The JMS provider uses this information to identify durable Subscriber.

When the **-o** option is specified if this option is omitted, already-registered information is used.

-x `Windows32/64` `Solaris32` `Linux32/64`

Specify this option to use the global transaction function.

If this option is specified with the **-t** option, ConnectionFactory becomes TopicConnectionFactory which supports the global transaction function.

If this option is specified together with the **-q** option, ConnectionFactory becomes QueueConnectionFactory which supports the global transaction function.

When the **-o** option is specified, and this option is omitted together with the **-t** and **-q** options, already-registered information is used.

<jndi-name>

Specify the JNDI name to be set in the ConnectionFactory definition. The JMS application can obtain the ConnectionFactory definition by using the specified JNDI name.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- This command is compatible with previous versions. It is recommended that the *isj2eeadmin* command is used with this version.

- `Solaris32/64` `Linux32/64`
  Execute this command with Administrator authority.

- When registering a new definition, if both the *-t* option and the *-q* option are omitted, the same operation is performed as when the *-t* option is specified.

- When the *-o* option is specified to overwrite the definition that has been registered, specify any of the following options: *-t*, *-q*, or *-x*.

- `Solaris32`
  When the extended system name is specified with the *-M* option, the *-x* option cannot be specified.

- When the *jmsmkfact*, *jmsmkdst*, *jmsrmfact*, or *jmsrmdst* command is active, this command cannot be executed. This command may not be executed if a JMS application is being executed.

- The following restrictions are imposed on the JNDI name and client identifier.

  - Alphabets (both upper- and lower-case letters), digits, period (.), colon (:), underscore (_), hyphen (-), and slash (/) are available. A slash is treated as a delimiter for atomic names of a JNDI name.

  - The atomic name and client identifier must begin with an alphabet followed by a digit.

  - In the case of JNDI name, "java:comp/env/jms/" is automatically added at the top of a specified JNDI name. To reference a JNDI name from a JMS application, the JNDI name must be preceded by "java:comp/env/jms/".

  - A string can consist of up to 255 bytes. Note that the JNDI name excluding "java:comp/env/jms/" must be 255 bytes or less.

- If the Interstage management console is used to list ConnectionFactories while a JNDI name including the character shown below is specified, processing fails and error message "jms9997" is output. When the Interstage management console is used, do not include the following character in the JNDI name and client identifier.

    - Colon (:)

- The ConnectionFactory definition of JNDI name "TopicCF001" is registered as the default definition of the TopicConnectionFactory type. The ConnectionFactory definition of JNDI name "QueueCF001" is registered as the default definition of the QueueConnectionFactory type.

- In the default definition, the -o option can be specified to change the following settings:

    - Client Identifier (specified in the -i option)

    - Windows32/64   Solaris32   Linux32/64
      Global Transaction (specified in the -x option)

Examples

To newly register a TopicConnectionFactory-type ConnectionFactory definition whose client identifier is "client1" and JNDI name is "java:comp/env/jms/TestTopicFactory":

```
jmsmkfact -t -i client1 TestTopicFactory
```

To newly register a QueueConnectionFactory-type ConnectionFactory definition whose client identifier is "client1" and JNDI name is "java:comp/env/jms/TestQueueFactory":

```
jmsmkfact -q -i client1 TestQueueFactory
```

To change the client identifier of ConnectionFactory definition whose JNDI name is "java:comp/env/jms/TestTopicFactory" to "client2":

```
jmsmkfact -o -i client2 TestTopicFactory
```

9.6 jmsrmds

Name

jmsrmds

Deletes durable Subscriber.

Synopsis

```
jmsrmds -n <dsub-name> -i <client-id> [-M system]
```

Description

This command deletes durable Subscriber which is already created. The options and parameters of this command are shown below.

-n <dsub-name>

Specify the name of durable Subscriber to be deleted. The name of durable Subscriber is called durable subscription name.

-i <client-id>

Specify the client identifier used for creating durable Subscriber to be deleted.

-M system   Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Solaris32/64 Linux32/64

  Execute this command with Administrator authority.

- An event channel must be active before executing this command.

- Confirm that durable Subscriber to be deleted is in stop state before executing this command.

Example

To delete durable Subscriber whose durable subscription name is "dsub" and client identifier is "client1":

```
jmsrmds -n dsub -i client1
```

9.7 jmsrmdst

Name

jmsrmdst

Deletes Destination definition.

Synopsis

```
jmsrmdst <jndi-name> [-M system]
```

Description

This command deletes JMS Destination definition.

The parameter of this command is shown below.

<jndi-name>

Specifies the JNDI name set in Destination definition to be deleted.

-M system   Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- This command is compatible with previous versions. It is recommended that the *isj2eeadmin* command is used with this version.

- Solaris32/64 Linux32/64

  Execute this command with Administrator authority.

- When the *jmsmkfact*, *jmsmkdst*, *jmsrmfact*, or *jmsrmdst* command is active, this command cannot be executed. This command may not be executed if a JMS application is being executed.

Example

To delete Destination definition whose JNDI name is "java:comp/env/jms/TestTopic":

```
jmsrmdst TestTopic
```

9.8 jmsrmfact

Name

jmsrmfact

Deletes ConnectionFactory definition.

Synopsis

```
jmsrmfact <jndi-name> [-M system]
```

Description

This command deletes JMS ConnectionFactory definition.

The option and parameter of the *jmsrmfact* command are explained below.

<jndi-name>

Specify the JNDI name set in the ConnectionFactory definition to be deleted.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- This command is compatible with previous versions. It is recommended that the *isj2eeadmin* command is used with this version.

- `Solaris32/64` `Linux32/64`
  Execute this command with Administrator authority.

- When the *jmsmkfact*, *jmsmkdst*, *jmsrmfact*, or *jmsrmdst* command is active, this command cannot be executed. This command may not be executed if a JMS application is being executed.

- The ConnectionFactory definition of JNDI name "TopicCF001" is registered as the default definition of the TopicConnectionFactory type. The ConnectionFactory definition of JNDI name "QueueCF001" is registered as the default definition of the QueueConnectionFactory type. It is not allowed to delete the default definition.

Example

To delete ConnectionFactory definition whose JNDI name is "java:comp/env/jms/TestFactory":

```
jmsrmfact TestFactory
```

9.9 jmssetsecmode

Name

jmssetsecmode

Security mode Settings/Show

Synopsis

`Solaris32/64` `Linux32/64`

1. Set the security mode

```
jmssetsecmode secure {-uid <userid> | -gid <groupid>} [-M system]
jmssetsecmode compatible [-M system]
```

2. Show active security mode

```
jmssetsecmode -l [-M system]
```

Description

To enhance security, change the Interstage JMS application to security mode.

The options and parameters of this command are shown below.

secure {[-uid <userid>] [-gid <groupid>]}

Configure the authorization settings for the user specified in the -uid option or the group specified in the -gid option for the Interstage JMS resources.

If this option is specified, the security mode changes to secure mode. It is recommended that this option be specified to increase the security level.

To change the user or group if secure mode is already active, re-execute the command specifying this option.

compatible

This is used to configure the same authorization settings as the previous version for the Interstage JMS resources.

If this option is specified, the system changes to compatibility mode security. It is recommended that the secure option be specified to increase the security level.

-l

This displays the active security mode (secure mode/ compatibility mode). If secure mode is active, the user and group names are also displayed.

Item name	Meaning
security_mode	This displays the current security mode as follows: - secure: Secure mode - comp: Compatibility mode
owner	This displays the user if the secure mode is active.
group	This displays the group if the secure mode is active.

-M system   `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, the default system becomes the operation target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with Administrator authority.

- Stop all Interstage Application Server services before executing this command. If they are not stopped, security authorization settings may not be configured correctly.

- System accounts must already be registered for the user specified in the -uid option and the group specified in the -gid option. If they are not, the command may close with an error.

- If this command closes with an error, fix the cause of the error and then re-execute the command. If the error status is retained, it may mean that the security authorization settings are not configured correctly, affecting normal operations, for example, so that applications run with low security levels.

Examples

Set secure mode

```
jmssetsecmode secure -uid root -gid sys
```

Set compatibility mode

```
jmssetsecmode compatible
```

Display the active security mode

```
jmssetsecmode -l
```

9.10 jmssetupcluster

Name

jmssetupcluster

Creates, displays, or deletes the cluster environment.

Synopsis

```
jmssetupcluster <cluster-path> [-w|-r] [-M system]
jmssetupcluster -l [-M system]
jmssetupcluster -d [-M system]
```

Description

This command has the following functions:

- Creates a cluster environment.

- Displays a cluster environment.

- Deletes a cluster environment.

The options and parameters of this command are shown below.

<cluster-path>

Specify the path of the shared disk in which JMS non-volatile information (durable Subscriber information) is stored in cluster service function operation.

-w

When this option is omitted, the cluster environment for the production server is created.

When this option is specified, the cluster environment for the standby server is created.

-r

Specify this option to repair the cluster environment.

-l

Specify this option to display the cluster environment that is set.

-d

Specify this option to delete the cluster environment that is set.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Solaris32/64 Linux32/64
  Execute this command with Administrator authority.

- The following restrictions are imposed on path specification of the shared disk:

  - The path must be a full path.

- The path can be a string consisting of up to 127 bytes.

- The path of the shared disk that is specified at creation of the cluster environment should not specify the directory in which other resources are stored.

- Specify the *-r* option to repair the cluster environment definition file when a message whose message number is jms6200 or jms6201 is displayed.

- Confirm that the JMS application is in stop state before executing this command.

Examples

Windows32/64

To create the cluster environment for the production server using the shared disk "D:\cluster\jms":

```
jmssetupcluster D:\cluster\jms
```

To create the cluster environment for the standby server using the shared disk "D:\cluster\jms":

```
jmssetupcluster D:\cluster\jms -w
```

Solaris32/64 Linux32/64

To create the cluster environment for the production server using the shared disk "/cluster/jms":

```
jmssetupcluster /cluster/jms
```

To create the cluster environment for the standby server using the shared disk "/cluster/jms":

```
jmssetupcluster /cluster/jms -w
```

Chapter 10 Servlet Service Operation Commands

This chapter describes the Servlet Service operation commands.

Supported commands

Table 10.1 Commands Supported by each Product

Command	Outline	Standard-J Edition	Enterprise Edition
jssrsadmin	Session Registry Server management.	NO	OK

OK: Support

NO: No support

Location of commands

Table 10.2 Location of Commands

Platform	Command	Directory
Windows32/64	All commands	C:\Interstage\F3FMjssrs\bin
Solaris32/64 Linux32/64	All commands	/opt/FJSVjssrs/bin

10.1 jssrsadmin

Name

jssrsadmin

Session Registry Server management.

Synopsis

```
jssrsadmin {clearsession} "option"
```

Description

The jssrsadmin command is used to manage the Session Registry Server.
Session Registry Server operations can be performed for the specified command.

Subcommands

The subcommands of the *jssrsadmin* command are described below:

- clearsession -n server-name [-a application-name]

  Clears the session information serialized by the Session Registry Server.

Subcommand : "clearsession"

The *clearsession* subcommand options are described below:

-n server-name

Specify the Session Registry Server for which you want the serialized session information to be cleared.

In Windows(R), names are not case-sensitive.

-a application-name

Specify the Web application.

In Windows(R), names are not case-sensitive.

If this option is omitted, serialized sessions are cleared for all applications.

The method used to delete the "directory specified for serialized file output/sessionrecovery" depends on whether or not this option is specified. The different methods are detailed below:

- This option is specified

  The directory for the application specified in the -a option under "directory specified for serialized file output/sessionrecovery" is deleted.

  If there are no directories or files apart from the deletion target, "directory specified for serialized file output/sessionrecovery" is also deleted.

- This option is omitted

  "directory specified for serialized file output/sessionrecovery" and its contents are deleted.

Return Value

0: Normal end

Other than the above: An error occurred and processing was interrupted.

Note

- Execute this command with administrator authority.

- To execute the *clearsession* subcommand, the Session Registry Server and IJServer (that uses Session Registry Server) in the system must be stopped.

- A request is made for Interstage JMX Service processing when this command is executed. For this reason, the Interstage JMX Service must be running.

Example

In the following example, the Session Registry Server WorkUnit is called srs001, and the application for the serialized session information to be cleared is called sample.war.

Windows32/64

```
C:\Interstage\F3FMjssrs\bin\jssrsadmin clearsession -n srs001 -a sample

JSSRS: INFO: JSSR60011: clearsession has started.

JSSRS: INFO: JSSR60012: clearsession is complete.
```

Solaris32/64 Linux32/64

```
/opt/FJSVjssrs/bin/jssrsadmin clearsession -n srs001 -a sample

JSSRS: INFO: JSSR60011: clearsession has started.

JSSRS: INFO: JSSR60012: clearsession is complete.
```

Chapter 11 Servlet Service of Interstage Management Console Operation Commands

This chapter describes the Servlet Service of Interstage Management Console operation commands.

Supported commands

Table 11.1 Commands Supported by each Product

Command	Outline	Standard-J Edition	Enterprise Edition
jscontdisp	Starts Servlet Service of Interstage Management Console.	OK	OK
jssvstart	Starts Servlet Service of Interstage Management Console	OK	OK
jssvstop	Stops Servlet Service of Interstage Management Console	OK	OK

OK: Support

NO: No support

Location of commands

Table 11.2 Location of Commands

Platform	Command	Directory
Windows32/64	All commands	C:\Interstage\F3FMjs2su\bin
Solaris32/64 Linux32/64	All commands	/opt/FJSVjs2su/bin

11.1 jscontdisp

Name

jscontdisp

Servlet container of Interstage Management Console status display.

Synopsis

```
jscontdisp
```

Description

The *jscontdisp* command displays the status of containers of Interstage Management Console.
The information displayed by the command is described in the following table. Information for one servlet is displayed per line.

Table 11.3 Information Displayed by jscontdisp Command

Title	Description
PID	Process ID of the servlet container. A hyphen is shown if the servlet container is stopped.

STATUS	Servlet container status. Any of the following may be displayed:
	
	  - ACTIVE
	    Servlet container has been started
	
	  - STOPPED
	    Servlet container has been stopped

Title	Description
	- STOPPING Servlet container is being stopped
Container name	Servlet container name

Messages

The results of running commands are displayed on the command screen. For details about the messages displayed, refer to the Messages. Detailed log information is output to following log file:

Windows32/64

    C:\INTERSTAGE\F3FMjs2su\log\jswatch.log

Solaris32/64 Linux32/64

    /var/opt/FJSVjs2su/log/jswatch.log

    /var/opt/FJSVisas/system/system name/FJSVjs2su/var/log/jswatch.log For the extended system

Note

- Execute this command with administrator authority.

- Two or more Servlet Service of Interstage Management Console operation commands cannot be operated at the same time.

Example

```
jscontdisp
PID     STATUS    Container Name
------ -------- --------------------------------
   341 ACTIVE    opmanager
```

11.2 jssvstart

Name

jssvstart

Starts Servlet Service of Interstage Management Console.

Synopsis

```
jssvstart
```

Description

The *jssvstart* command starts the Servlet Service of Interstage Management Console.

Messages

The results of running commands are displayed on the command screen. For details about the messages displayed, refer to the Messages. Detailed log information is output to following log file:

Windows32/64

    C:\INTERSTAGE\F3FMjs2su\log\jswatch.log

Solaris32/64 Linux32/64

    /var/opt/FJSVjs2su/log/jswatch.log

    /var/opt/FJSVisas/system/system name/FJSVjs2su/var/log/jswatch.log For the extended system

Note

- Execute this command with administrator authority.

- The *jssvstart* command asks for servlet containers in a Java VM to be started, and returns without waiting for the results. Use the *jscontdisp* command to check whether servlet containers have been started.

- Two or more Servlet Service of Interstage Management Console operation commands cannot be operated at the same time.

Example

Windows32/64

```
jssvstart
F3FMjs2su: INFO: 2001: Servlet service is starting.
F3FMjs2su: INFO: 2006: opmanager has been started.
F3FMjs2su: INFO: 2002: Servlet service has been started.
```

Solaris32/64 Linux32/64

```
jssvstart
UX:FJSVjs2su: INFO: 2001: Servlet service is starting.
UX:FJSVjs2su: INFO: 2006: opmanager has been started.
UX:FJSVjs2su: INFO: 2002: Servlet service has been started.
```

11.3 jssvstop

Name

jssvstop

Stops Servlet Service of Interstage Management Console.

Synopsis

```
jssvstop
```

Description

The *jssvstop* command stops the Servlet Service of Interstage Management Console.

Messages

The results of running commands are displayed on the command screen. For details about the messages displayed, refer to the Messages. Detailed log information is output to following log file:

Windows32/64

C:\INTERSTAGE\F3FMjs2su\log\jswatch.log

Solaris32/64 Linux32/64

/var/opt/FJSVjs2su/log/jswatch.log

/var/opt/FJSVisas/system/system name/FJSVjs2su/var/log/jswatch.log For the extended system

Note

- Execute this command with administrator authority.

- Two or more Servlet Service of Interstage Management Console operation commands cannot be operated at the same time.

Example

```
jssvstop
F3FMjs2su: INFO: 2007: Servlet service is stopping.
F3FMjs2su: INFO: 2012: opmanager has been stopped.
F3FMjs2su: INFO: 2008: Servlet service has been stopped.
```

```
jssvstop
UX:FJSVjs2su: INFO: 2007: Servlet service is stopping.
UX:FJSVjs2su: INFO: 2012: opmanager has been stopped.
UX:FJSVjs2su: INFO: 2008: Servlet service has been stopped.
```

Part 4   Web Server Operation Edition

Chapter 12 Interstage HTTP Server Operation Commands

This chapter describes the Interstage HTTP Server operation commands.

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
apachectl Solaris32/64 Linux32/64	Starts and stops the Web Server.	OK	OK
htpasswd	Enables the editing of password files for user authentication.	OK	OK
ihsconfig	Configures the settings for and shows the Web Server start/stop timeout.	OK	OK
ihscreate	Creates the Web Server operating environment.	OK	OK
ihsdelete	Deletes the Web Server operating environment.	OK	OK
ihsdisp	Displays the Web Server operation status.	OK	OK
ihsstart	Starts the Web Server.	OK	OK
ihsstop	Stops the Web Server.	OK	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Directory
Windows32/64	C:\Interstage\bin
Solaris32/64	/opt/FJSVihs/bin
Linux32/64	/opt/FJSVihs/bin

12.1 apachectl

Name

apachectl

Starting and stopping the Web Server.

Synopsis

Solaris32/64 Linux32/64

```
apachectl start | stop
```

Description

This command starts and stops the Web Server "FJapache".

The available options are shown below:

start

Starts the Web Server "FJapache".

stop

Stops the Web Server "FJapache".

Notes

- Execute this command with administrator authority.

- This command starts and stops the Web Server "FJapache". To start/stop a Web server that is not "FJapache", use the *ihsstart* and *ihstop* commands.

- Except for 'start' and 'stop', the options that can be used in Apache HTTP Server cannot be used in the Interstage HTTP Server.

- In Interstage Single Sign-on, if a large number of role and site definitions are registered in the SSO repository to run the repository server, Web server startup may be slower.

Examples

Starts the Web Server "FJapache".

```
apachectl start
```

Stops the Web Server "FJapache".

```
apachectl stop
```

12.2 htpasswd

Name

htpasswd

Enables the editing of password files for user authentication.

Synopsis

```
htpasswd [-c] passwdfile username
```

Description

This command enables you to edit the password file that is used for user authentication.

This command is used to specify the AuthUserFile directive parameter in the environment definition file (httpd.conf).

The available options and parameters are shown below:

-c

Creates a new user password file. If there is another file with the same name, it is overwritten. If this option is omitted, the user name is added to the file specified with *passwdfile*.

passwdfile

Specify a password file name.

username

Specify a user name to be added.

Windows32/64

Specify a maximum of 216 bytes for the user name. Alphanumeric characters, and symbols except those shown below, can be used.

Solaris32/64 Linux32/64

Specify a maximum of 240 bytes for the user name. Alphanumeric characters, and symbols except those shown below, can be used.

- Colons (:)

- hash symbols (#)

- white spaces ( )

Notes

- To delete a user, edit the password file by using a text editor.

    The contents of the password file appear as follows when it is referenced using a text editor. To delete 'user2', delete the line containing 'user2' and save the file.

```
user1:$apr1$SR3.....$4aQAE2EU9NZTtbkxMEOa4/
user2:$apr1$DS3.....$tEb4EYLhraAc1p2wIygTV/
```

- It is recommended that you change the access privileges for files created by this command:

    Windows32/64

    1. Start Windows Explorer.

    2. Right-click the password file, and then click [Properties].

    3. In the [Properties] dialog box, click the [Security] tab.

    4. Select "Deny" for [Full control] for all groups except SYSTEM and Administrators.

    Solaris32/64   Linux32/64

    1. Login as superuser.

    2. Change the file access privileges to "640".

    ```
    chmod 640 <file>
    ```

    3. Change the file owner to "root".

    ```
    chown root <file>
    ```

    4. Change the file group to "nobody" (the value set for the environment definition file (httpd.conf) Group directive).

    ```
    chgrp nobody <file>
    ```

- As well as the -c option, the options for this command in Apache HTTP Server Version 2.0 can also be used.

    For details about these options, refer to the 'Apache HTTP Server Version 2.0 Documentation'.

Examples

Windows32/64

To create a new password file 'C:\Interstage\F3FMihs\servers\FJapache\conf\password.txt', and register the password of user 'user1':

```
htpasswd -c C:\Interstage\F3FMihs\servers\FJapache\conf\password.txt user1
Automatically using MD5 format.
New password:***** (*1)
Re-type new password:***** (*1)
Adding password for user user1
```

To add the password of user 'user2' to the same password file as above:

```
htpasswd C:\Interstage\F3FMihs\servers\FJapache\conf\password.txt user2
Automatically using MD5 format.
New password:***** (*1)
Re-type new password:***** (*1)
Adding password for user user2
```

*1 Specify a maximum of 255 bytes for the password.

To create a new password file '/opt/FJSVihs/servers/FJapache/conf/password.txt', and register the password of user 'user1':

```
htpasswd -c /opt/FJSVihs/servers/FJapache/conf/password.txt user1
New password:***** (*1)
Re-type new password:***** (*1)
Adding password for user user1
```

To add the password of user 'user2' to the same password file as above:

```
htpasswd /opt/FJSVihs/servers/FJapache/conf/password.txt user2
New password:***** (*1)
Re-type new password:***** (*1)
Adding password for user user2
```

*1 Specify a maximum of 8 bytes for the password.

12.3 ihsconfig

Name

ihsconfig

Configures the settings for and shows the Web server start/stop timeout

Synopsis

1. Web Server Start/Stop Timeout Settings

```
ihsconfig -n WebServerName [-a StartTimeout] [-o StopTimeout]
```

2. Show Web Server Start/Stop Timeout

```
ihsconfig [-n WebServerName[,...]]
```

Description

This command is used to configure the settings and show the start/stop timeout for the Web server set up using either the ihscreate command or the Interstage Management Console, or for the Web server created during the installation.

The start timeout is the time monitored from start to completion of start processing when the Web server starts up. If start processing is not completed by the time set for the start timeout, it ends abnormally.

The stop timeout is the time monitored from start to completion of stop processing when the Web server stops. If stop processing is not completed by the time set for the stop timeout, it ends abnormally.

It takes a while for start/stop processing to begin. For this reason, the time taken for the Web server to complete start/stop exceeds the start/stop timeout.

The available options and parameters are shown below:

If this option is not specified, the start/stop timeout for all created Web servers is displayed.

-n WebServerName[,...]

Specify the name of the Web server for which the start/stop timeout settings are configured and shown. Use the Web server name specified by the *ihscreate* command or that was created using the Interstage Management Console. To execute this command for a Web server created during installation, specify "FJapache".

If this option, the -a, and -o options are specified at the same time, the start/stop timeout for the specified Web server is set. If only this option is specified, the start/stop timeout for the specified Web server is displayed.

-a StartTimeout

Specify a number from 1 to 600 (seconds) for the Web server start timeout. The default value set when the Web server is created is 20.

If more than one Web server is started using the -n or -all options or using the Interstage Management Console when the *ihsstart* command is executed, the maximum start timeout set for the Web servers that have not already started is used.

-o StopTimeout

Specify a number from 1 to 600 (seconds) for the Web server stop timeout. The default value set when the Web server is created is 40.

If more than one Web server is stopped using the -n or -all options or using the Interstage Management Console when the *ihsstop* command is executed, the maximum stop timeout set for the Web servers that have not already stopped is used.

Notes

- Execute this command with administrator authority.

- The settings configured using this command are enabled immediately after the command is executed.

- The settings information configured using this command cannot be changed if the integration command is used to configure settings for connection to Interstage in Interstage Application Server Enterprise Edition.

- Windows32/64 Solaris32 Linux32/64
  This command cannot be executed if the runtime environment is a Managed Server.

- Windows32/64
  In Interstage Single Sign-on, if the repository server is used when a large number of role and site definitions have been registered in the SSO repository, the start timeout time set using the *ihsconfig* command may be invalid.

Examples

"60" is set for the start timeout (in seconds) for the "web001" Web server

```
ihsconfig -n web001 -a 60
```

Displaying settings for all Web servers

```
ihsconfig
Web Server Name    : FJapache
Configuration File : C:\Interstage\F3FMihs\servers\FJapache\conf\httpd.conf
Start Timeout Value: 20
Stop  Timeout Value: 40

Web Server Name    : web001
Configuration File : C:\Interstage\F3FMihs\servers\web001\conf\httpd.conf
Start Timeout Value: 60
Stop  Timeout Value: 40
```

12.4 ihscreate

Name

ihscreate

Creates the Web Server operating environment.

Synopsis

```
ihscreate -n WebServerName [-l {IPaddress:PortNum|PortNum}] [-h HostName]
```

Description

This command is used when more than one Web server is running to create a new operating environment for a Web server that was not created during the installation. A maximum of 64 Web servers can be created.

Windows32/64

When this command is executed, the following services are registered:

- Name: Interstage HTTP Server(Web Server name)
  Note: The name of the Web server service created during the installation is "FJapache".

- Description: This offers the Interstage Web server function (Interstage HTTP Server).

- Startup type: Automatic

Solaris32/64

If this command is executed when a Web server has not been created, the start and stop shells (symbolic link files) shown below are registered. If the installation is not for an Admin Server, this command is executed when the Web server environment used for the installation is created, and the start and stop shells (symbolic link files) shown below are registered.

- /etc/rc0.d/K17FJapache

- /etc/rc1.d/K17FJapache

- /etc/rc2.d/K17FJapache

- /etc/rc3.d/S51FJapache

- /etc/rcS.d/K17FJapache

Linux32/64

If this command is executed when a Web server has not been created, the start and stop shells (symbolic link files) shown below are registered. If the installation is not for an Admin Server, this command is executed when the Web server environment used for the installation is created, and the start and stop shells (symbolic link files) shown below are registered.

- /etc/rc0.d/K14FJapache

- /etc/rc1.d/K14FJapache

- /etc/rc2.d/S86FJapache

- /etc/rc3.d/S86FJapache

- /etc/rc4.d/S86FJapache

- /etc/rc5.d/S86FJapache

- /etc/rc6.d/K14FJapache

The available options and parameters are shown below:

-n WebServerName

Specify a maximum of 64 bytes (alphanumerics and hyphens (-)) for the Web server used to create the environment (the start and end characters must be alphanumerics). In Windows(R), upper and lower case are treated as being the same. In Solaris/Linux, upper and lower case are treated as being different.

This option cannot be omitted. The name of a Web server that already exists cannot be specified.

-l {IPaddress:PortNum|PortNum}

Specify the IP address and port number. To set the port number, use the "xxx.xxx.xxx.xxx" format (xxx: A number from 0 to 255). In Solaris, the IPv6 address can be specified in square brackets ([]) in the IP address. Specify a number from 1 to 65535 for the IP address.

If this option is not specified, 80 is set for the port number.

-h HostName

Specify the server host name. In Windows(R), specify a maximum of 255 bytes. In Solaris/Linux, specify a maximum of 106 bytes.

If this option is not specified, the system host name is entered.

The following characters and symbols cannot be specified:

- multi-byte characters

- white spaces ( )

- hash symbols (#)

- double quotation marks (")

- slash (/)

Notes

- Execute this command with administrator authority.

- This command cannot be executed if the integration command is used to configure settings for connection to Interstage in Interstage Application Server Enterprise Edition.

- This command can be used to set the same port number in more than one Web server, but these Web servers cannot be started at the same time. If one port number is used by multiple Web servers, specify a different "IP address:port number (IPaddress:PortNum)" for each Web server in the -l option.

  The initial value for the port number of the "FJapache" Web server created in the installation is "80".

- Windows32/64 Solaris32 Linux32/64
  This command cannot be executed if the runtime environment is a Managed Server.

- Windows32/64 Linux32/64
  The IPv6 address cannot be specified in the -l option. To run a Web server in an IPv6 environment, specify just the port number, not the IP address.

Examples

Creating a Web server operating environment for the "web001" Web server with a port number of "82"

```
ihscreate -n web001 -l 82
```

Solaris32/64

Creating a Web server operating environment for the "web001" Web server with the IPv6 address of "2001:db8::a00:20ff:fea7:ccea" and a port number of "80"

```
ihscreate -n web01 -l "[2001:db8::a00:20ff:fea7:ccea]:80"
```

12.5 ihsdelete

Name

ihsdelete

Deletes the Web server operating environment.

Synopsis

```
ihsdelete -n WebServerName [-c] [-y]
```

Description

This command is used to delete the Web server operating environment.

Confirm deletion of the resources in the dialog. To delete the resources, enter "yes" or "y". If you do not want to delete the resources, enter "no" or "n". If nothing is entered here, it is the same as entering "no" or "n".

Windows32/64

If this command is executed, the services and resources for the Web server are deleted.

Solaris32/64 Linux32/64

If this command is executed, the resources are deleted. If no other Web servers exist, the start and stop shells (symbolic link files) are also deleted.

The available options and parameters are shown below:

-n WebServerName

Specify the Web server for which the environment is to be deleted. Specify the name of the Web server that was specified when the *ihscreate* command was executed or that was created using the Interstage Management Console. To delete the operating environment for a Web server created during the installation, specify "FJapache".

This option cannot be omitted.

-c

Delete the Web server operating environment by force. Specify this to delete the Web server operating environment by force when the specified Web server main host or virtual host is being used by IJServer or Single Sign-on (business server, authentication server, or repository server).

-y

Delete the specified Web server operating environment without receiving confirmation of deletion of the resources in the dialog.

Notes

- Execute this command with administrator authority.

- Stop the Web server using the ihsstop command or the Interstage Management Console before executing this command. The specified Web server cannot be deleted while it is running.

- This command cannot be executed while the specified Web server main host or virtual host is being used by IJServer or Single Sign-on (business server, authentication server, or repository server). To delete the Web server operating environment by force, specify the -c option.

- This command cannot be executed if the integration command is used to configure settings for connection to Interstage in Interstage Application Server Enterprise Edition.

- Windows32/64 Solaris32 Linux32/64
  This command cannot be executed if the runtime environment is a Managed Server.

Examples

Deleting a Web server operating environment for the "web001" Web server

```
ihsdelete -n web001
```

12.6 ihsdisp

Name

ihsdisp

Displays the Web Server operation status.

Synopsis

```
ihsdisp [-n WebServerName[,...]] [-a]
```

Description

This command displays the Web Server operation status during processing. It can be set to display information for all basic, statistical, and communication processes (threads).

The available options and parameters are shown below:

-n WebServerName

Specify the name of the Web server for which you want to display the operation status when more than one Web server is running. Specify the name of the Web server that was specified when the *ihscreate* command was executed or that was created using the Interstage Management Console. To display the operation status of a Web server created during the installation, specify "FJapache".

If this option is not specified, information for all Web servers is displayed.

-a

When specified, information for all basic, statistical, and communication processes (threads) on the Web Server is displayed. If omitted, only the Web Server basic information is displayed.

The items displayed for each of the following information levels is described below:

- Basic Information

- Statistical Information

- Information on each Communication Processes (Threads)

Information for communication processes (threads) represents only communication processes (threads) that have received requests. Information for communication processes (threads) that have not received any requests is not displayed.

Table 12.1 Basic Information

Option	Meaning
Web Server Name (*1)	Web Server name
Status (*2)	Web server status - Running - Stopped
Configuration File (*1)	Environment definition file
Server Version	Server version of the Interstage HTTP Server
Current Time	Current time
Start Time	Start time
Daemon Process ID	Daemon process ID
Solaris32/64 Linux32/64 Child Process ID	Communication process ID
Listening Port	The Web Server IP address and port number for receiving the connection request (if the SSL protocol is used, 'HTTPS' is displayed). IPv6 format IP addresses are displayed in square brackets ([]).
requests currently being processed	Number of requests currently being processed
Idle servers	Number of idle communication processes (threads)

*1 If the Web server name and environment definition file are 60 characters or more, the first 59 characters are displayed.

*2 If the Status option in the above Basic Information table is "Stopped", the information for the Configuration File option and the information below that in the above table, the information for the Statistical Information table, and the information for the Information on each Communication Processes (Threads) table is not displayed.

Table 12.2 Statistical Information

Option		Meaning
Server Built		Compile time of the Interstage HTTP Server
Server Uptime		Uninterrupted operation time (day(s), hour(s), minute(s), second(s))
Total Accesses		Total number of accesses since startup (KB: kilobytes, MB: megabytes, GB: gigabytes)
Total Traffic		Total traffic
Solaris32/64 Linux32/64 CPU Usage	u	The CPU time used up in the communication process (seconds)
	s	The CPU time used up by the system because of communication processes (seconds)
	cu	The CPU time used up by the child processes created by CGI access (seconds)
	cs	The CPU time used up by the system because of child processes created by CGI access (seconds)
Solaris32/64 Linux32/64 CPU load		CPU load (%) Note that this information is not displayed unless the CPU time is used up in all communication processes.
requests/sec		Average number of requests per second
B/second		Average traffic per second (B: bytes, KB: kilobytes, MB: megabytes, GB: gigabytes)
B/request		Traffic per request (B: bytes, KB: kilobytes, MB: megabytes, GB: gigabytes) Note that this information is not displayed if no requests have been received.

Table 12.3 Information on each Communication Processes (Threads)

Option	Meaning
Child Server number	Communication process (thread) number
Windows32/64 TID	Communication thread ID
Solaris32/64 Linux32/64 PID	Communication process ID
Status	Communication process (thread) status This is displayed as one of the following: - Waiting for Connection - Reading Request - Sending Reply - Keepalive (read) - DNS Lookup - Logging - Closing Connection
Host	Latest request Host information This is displayed as follows: IP address of systems such as client or proxy server:Port number of systems such as client or proxy server ==> The Web Server IP address:Port number (Hostname) IPv6 format IP addresses are displayed in square brackets ([]).
Request	Latest request

Option	Meaning
	Note that this information is not displayed if no requests have been received (only the option name is displayed).
Number of accesses	Number of accesses in the connection / Total number of accesses per communication process (thread)
Seconds since beginning of most recent request	Time elapsed since latest request was received (seconds)
Milliseconds required to process most recent request	Time required to process latest request (milliseconds)
Kilobytes transferred this connection	Traffic in the connection (kilobytes)
Megabytes transferred this child	Total traffic per communication process (thread) (megabytes)
Solaris32/64 Linux32/64 CPU usage, number of seconds	CPU usage time (seconds)

Notes

- Execute this command with administrator authority.

- Execute this command while the Web server for which you want to display the operation status is running.

- If this command is executed repeatedly and the error message "ihs81518" is output, then execute this command at intervals of at least 1 second. Note that there will be no impact on the Web Server operation even if this problem occurs, therefore it is not necessary to restart it.

Examples

Displaying only Web Server basic information

Note: When more than one Web server is running, information for all Web servers is displayed.

```
ihsdisp
```

Displaying all information for the Web Server basic information, statistical information, and communication processes (threads)

Note: When more than one Web server is running, information for all Web servers is displayed.

```
ihsdisp -a
```

Displaying only basic information for the "web001" Web server

```
ihsdisp -n web001
```

Displaying basic information, statistical information, and communication processes (threads) for the "web001" Web server

```
ihsdisp -n web001 -a
```

12.7 ihsstart

Name

ihsstart

Starts the Web Server.

Synopsis

```
ihsstart {-n WebServerName[,...] | -all}
```

Description

This command is used to start the Web server created using the *ihscreate* command or the Interstage Management Console, and the Web server created during the installation.

The available options and parameters are shown below:

-n WebServerName[,...]

Specify the name of the Web server to be started. Specify the name of the Web server that was specified when the *ihscreate* command was executed or that was created using the Interstage Management Console. To start a Web server created during the installation, specify "FJapache". To specify more than one Web server, separate each server name using commas (,).

This cannot be specified at the same time as other options.

-all

Starts all Web servers created using the *ihscreate* command and the Web server created during the installation.

This cannot be specified at the same time as other options.

Notes

- Execute this command with administrator authority.

- Windows32/64

  If the desktop heap is depleted, the Web Server (or process) may fail to start.

- In Interstage Single Sign-on,if a large number of role and site definitions are registered in the SSO repository to run the repository server, Web server startup may be slower.

Examples

Starting the "web001" Web server

```
ihsstart -n web001
```

12.8 ihsstop

Name

ihsstop

Stops the Web Server.

Synopsis

```
ihsstop {-n WebServerName[,...] | -all}
```

Description

This command is used to stop the Web server created using the ihscreate command or the Interstage Management Console, and the Web server created during the installation.

The available options and parameters are shown below:

-n WebServerName

Specify the name of the Web server to be stopped. Specify the name of the Web server that was specified when the *ihscreate* command was executed or that was created using the Interstage Management Console. To stop a Web server created during the installation, specify "FJapache". To specify more than one Web server, separate each server name using commas (,).

This cannot be specified at the same time as other options.

-all

Stops all Web servers created using the *ihscreate* command and the Web server created during the installation.

This cannot be specified at the same time as other options.

Notes

- Execute this command with administrator authority.

- This command cannot be executed if "mode1" is set for the Interstage operation status monitoring mode, and the Interstage Setup command is used to configure settings for connection to Interstage in Interstage Application Server Enterprise Edition.

Examples

Stopping the "web001" Web server

```
ihsstop -n web001
```

Part 5　Single Sign-on Operation Edition

Chapter 13 Single Sign-on Operation Commands

Supported commands

The following table describes the commands supported by each product.
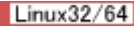
Command	Outline	Standard-J Edition	Enterprise Edition
ssocloneaz	Replicating the business server.	OK	OK
ssodeploy	Deploys servlet applications for Interstage Single Sign-on.	OK	OK
ssoimpac	Imports environment settings (for the authentication server).	OK	OK
ssoimpaz	Imports environment settings (for a business server) and creates a business server service ID file.	OK	OK
ssoimpsv	Imports environment settings (for the repository server (reference system))	OK	OK
ssomksid	Create a service ID file.	OK	OK
ssosetsvc Windows32/64	Setting the service dependency of the repository server.	OK	OK
ssosignoff	Forced session sign-off.	OK	OK
ssounsetsvc Windows32/64	Cancels the service dependency of the repository server.	OK	OK
ssoupsid	Updates to the encryption information (service ID)	OK	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Command	Directory
Windows32/64	All commands	C:\Interstage\bin
Solaris32/64 Linux32/64	ssodeploy	/opt/FJSVssoac/bin
	ssoimpac	
	ssocloneaz	/opt/FJSVssoaz/bin
	ssoimpaz	
	ssoimpsv	/opt/FJSVssosv/bin
	ssomksid	
	ssosignoff	
	ssoupsid	

13.1 ssocloneaz

Name

ssocloneaz

Replicating the business server.

Synopsis

```
ssocloneaz [-p|-c] -f filepath
```

Description

The *ssocloneaz* command replicates the business server environment for load balancing on the business server.

The *ssocloneaz* command is used by the business server administrator.

The following describes the options and arguments for the *ssocloneaz* command:

-p

When the -p option is specified, the command prepares to replicate of the business server environment.

The command option should be executed on the replication-source machine.

When the -p option is specified, the command stores the business server environment information required to replicate the business server environment in the business server environment information file specified in the filepath argument.

-c

When the -c option is specified, the command replicates the business server environment.

The command option should be executed on the replication-destination machine.

In the filepath argument, specify the business server environment information file created by the command including the -p option.

The business server environment information necessary for operating the business server is replicated from its file to the machine where the command is operated.

-f filepath

Specify the absolute path for the business server environment information file.

When the -p option is specified, the command stores the business server environment information in the file specified in filepath.

When the -c option is specified, the command replicates the business server environment from the business server environment information file specified in filepath.

Notes

- Execute the command only with the Administrators authority.

- The version, edition, and installation directory of the business server where the environment is replicated by the command must be the same as those for the replication-source business server. Also, the two business servers must be set up using the same operating system.

- The replication of the business server must be combined with the same version of the same Web server product as the one for the replication-source business server.

- The following software must be installed on the machine where the command is executed.

  Windows32/64

  Business server

  Solaris32/64 Linux32/64

  FJSVssoaz, FJSVssocm

- The command cannot be executed when a repository server or an authentication server environment is already set up on the replication-destination machine.

- The command does not replicate the contents of the business system. The business system contents created by the user must be migrated by the same user.

-

    When executing this command in Windows, the DOS device name cannot be specified for filepath.

-

    When executing this command in Solaris or Linux, the system locale (e.g., environment variable LANG) must be adjusted to be the same as the system locale on the replication-source and replication-destination machines.

    A path specified in filepath cannot contain the space character.

- When the -p option is specified (to prepare for the replication of the business server environment):

    - If no business server environments have been set up on the replication-source machine where the command is to be executed, the command will terminate and display an error message.

    - Transfer the business server environment information file to the replication-destination machine via an external storage medium or network. When transferring the business server environment information file via a network, use care to prevent wire-tapping by a third person. Also, do not change the file format (binary format) and the permissions for the file while the transfer is occurring.

    - Ensure that the business server environment information file is deleted after completion of the transfer.

    - Set the following authority for the business server environment information file.

        Windows32/64

        Only users in the Administrators group and the system administrator can access the business server environment information file.

        Solaris32/64 Linux32/64

        The owner of the business server environment information file is referred to as the super user. Super users are the only user authorized to access the file.

- When the -c option is specified (to replicate the business server environment):

    - If a business server environment has already been set up on the replication-destination machine where the command is executed, the command will terminate and display an error message.

    - On the replication-destination machine where the command is executed, the Interstage Single Sign-on system must be in the initial state after installation.

    - After the command is started, the user is asked to confirm whether to continue the replication of the business server environment. To continue the replication processing, enter 'yes'.

Examples

Preparing for the Replication of the Business Server Environment

The command is executed on the replication-source machine.

Windows32/64

Creating the 'C:\temp\ssoacfile' environment information file of the business server required for replication:

```
ssocloneaz -p -f C:\temp\ssoazfile
```

Solaris32/64 Linux32/64

Creating the '/tmp/ssoazfile' environment information file of the business server required for replication:

```
/opt/FJSVssoaz/bin/ssocloneaz -p -f /tmp/ssoazfile
```

Replicating the Business Server Environment

The command is executed on the replication-destination machine.

Windows32/64

Replicating the business server environment using the 'C:\temp\ssoazfile' environment information file of the business server:

```
ssocloneaz -c -f C:\temp\ssoazfile
Is a Business server cloned ? (yes/no)(*1)
```

Replicating the business server environment using the '/tmp/ssoazfile' environment information file of the business server:

```
/opt/FJSVssoaz/bin/ssocloneaz -c -f /tmp/ssoazfile
Is a Business server cloned ? (yes/no)(*1)
```

*1 After starting the *ssocloneaz* command, the user is asked to confirm whether to continue the operation. Enter yes or no. When a value other than yes or no is entered, entry of no is assumed. When 'yes' is entered and the command completes the replications normally, no further message will be displayed. When 'no' is entered, the message' ssocloneaz canceled' will be displayed.

13.2 ssodeploy

Name

ssodeploy

Deploys servlet applications for Interstage Single Sign-on

Synopsis

```
ssodeploy winauth kdc keytab [-n name]
```

Description

Deploys the Integrated Windows Authentication servlet applications offered in Interstage Single Sign-on.

Subcommands

winauth

The deployed servlet application is specified using the *winauth* subcommand. This deploys the Integrated Windows Authentication application.

Arguments and options of the *winauth* subcommand are:

- kdc

   Use this to specify the FQDN of the machine used to run Active Directory.

- keytab

   Specify the absolute path of the keytab file.

- -n name

   Use this to specify the name of the new IJServer. (*1)

   If this is omitted, the IJServer is created using the following name:

   - SSO_WINDOWS_AUTH

   *1 It can contain up to 28 alphanumeric characters and underscores (it cannot start or end with underscore).

Messages

If this command (ssodeploy) is executed, the messages shown below are output.

The contents are the isj2eeadmin and ijsdeployment execution script and the isj2eeadmin and ijsdeployment output messages. If the messages content is not isj2ee2100/DEP5050, refer to the relevant message explanation in "Messages" and take action according to the error.

```
isj2eeadmin ijserver -a -f
"C:\Interstage\F3FMsso\ssoatcag\webapps\winauth\WEB-INF\ijserver.xml"
isj2eeadmin: INFO: isj2ee2100:IJServer was registered NAME=SSO_WINDOWS_AUTH
```

```
ijsdeployment -n SSO_WINDOWS_AUTH -d "C:\Interstage\F3FMsso\ssoatcag\webapps\winauth"
DEPLOY: INFO: DEP5050: Deployment processing is complete: File
name=C:\Interstage\F3FMsso\ssoatcag\webapps\winauth
```

`Solaris32/64` `Linux32/64`

```
isj2eeadmin ijserver -a -f /etc/opt/FJSVssoac/webapps/winauth/WEB-
INF/ijserver.xml
UX:isj2eeadmin: INFO: isj2ee2100:IJServer was registered
NAME=SSO_WINDOWS_AUTH

ijsdeployment -n SSO_WINDOWS_AUTH -d /etc/opt/FJSVssoac/webapps/winauth
UX:DEPLOY: INFO: DEP5050: Deployment processing is complete: File
name=/etc/opt/FJSVssoac/webapps/winauth
```

Notes

- Only users with administrator authority can execute this command.

- This command must be executed on the authentication server.

- `Solaris32/64` `Linux32/64`

  To execute this command, set the JDK or JRE installation path in the JAVA_HOME environment variable.

- When this command is executed, servlet application deployment information and a message asking you to confirm if you want to deploy the servlet application are output. To deploy the servlet application, enter "yes".

  If anything other than "yes" is entered, "Command canceled." is displayed and the servlet application is not deployed.

- When the *isj2eeadmin* and *ijsdeployment* commands are called from the *ssodeploy* command, the result output from these commands is displayed unchanged. If an error is output by the command, fix the error as described in the relevant commands documentation. Also, delete the WorkUnit created using this command and then re-execute the command.

- When this command terminates, delete the keytab file specified in the "keytab" argument.

Examples

Deployed an Integrated Windows Authentication application.

`Windows32/64`

  Name of the machine used to run Active Directory: ADserver.fujitsu.com

  Keytab file name: C:\TEMP\authserver.keytab

```
ssodeploy winauth ADserver.fujitsu.com C:\TEMP\authserver.keytab
[Deployment information]
  FQDN of SSO Authentication server : authserver.fujitsu.com
  Host name of Active Directory     : ADserver.fujitsu.com
  Kerberos domain area              : DOMAIN.FUJITSU.COM
  IJServer name                     : SSO_WINDOWS_AUTH
  Application name                  : winauth
Are you sure you want to deploy the Integrated Windows Authentication
application? (yes/no)                                                (*1)
```

`Solaris32/64` `Linux32/64`

  Name of the machine used to run Active Directory: ADserver.fujitsu.com

  Keytab file name : /tmp/authserver.keytab

  Before executing *ssodeploy*, set the JDK or JRE installation path in the JAVA_HOME environment variable.

```
JAVA_HOME=/opt/FJSVawjbk/jdk6;export JAVA_HOME
/opt/FJSVssoac/bin/ssodeploy winauth ADserver.fujitsu.com /tmp/authserver.keytab
[Deployment information]
```

```
   FQDN of SSO Authentication server : authserver.fujitsu.com
   Host name of Active Directory     : ADserver.fujitsu.com
   Kerberos domain area              : DOMAIN.FUJITSU.COM
   IJServer name                     : SSO_WINDOWS_AUTH
   Application name                  : winauth
Are you sure you want to deploy the Integrated Windows Authentication
application? (yes/no)                                            (*1)
```

*1 After the command has executed, enter "yes" or "no" (case sensitive) in the dialog. Entering any other value is equivalent to entering "no". If "no" is entered in the dialog, "Command canceled." is displayed.

13.3 ssoimpac

Name

ssoimpac

Imports environment settings (for the authentication server)

Synopsis

```
ssoimpac AuthInfSetupFile
```

Description

Uses a specified authentication infrastructure setup file to apply the following changes, performed on the repository server (the update system if more than one repository server is in use), to the authentication server:

- Changes to session management operation (from 'Do not use session management' to 'Use session management') and the attendant changes to the environment settings of the authentication server

- Changes to the repository server (update system) URL

- Updates to the encryption information (service ID)

- Changes to the user information registration destination directory service (Changing from "Interstage Directory Service" to "Active Directory")

This command is used by the SSO administrator.

The options and arguments of the *ssoimpac* command are explained below:

AuthInfSetupFile

Specifies the absolute pathname of the authentication infrastructure setup file downloaded from the repository server (the update system if more than one repository server is in use) that is conducting session management.

In the following case, however, there is no need to use session management.

- Changing the user information registration destination directory service

Message

After the command has been executed, a message prompting the user to enter a password will appear.

If the user enters the correct password for decoding the authentication infrastructure setup file, the messages shown below are displayed depending on the content that is changed.

After the messages shown below have been displayed, another message appears to prompt the user to confirm whether the changes should become effective. If there is no need to make any changes, 'Nothing' will be displayed and the process will terminate.

The format of each message is shown in the following examples:

Table 13.1 Messages Displayed when Changes are Made to Environment Settings

Environment settings of authentication server (*1)	Content of change		Displayed message
	Before change	After change	
Use Session management?	No	Yes	Session management : Yes
Input User ID/ Password	Basic authentication dialog	Form authentication page	Password input screen : Form authentication page
Re-authentication Interval	0 minutes	1440 minutes	Re-authentication Interval : 1440 minutes
Suppression of authentication requests from sources other than protection resources (*2)	YES	NO	Configuration "reject-incorrect-protection-resource-url" : No

Table 13.2 Messages Displayed when Changes are Made to the URL of the Repository Server (update system)

Repository server (update system) URL (*1)	Displayed message
Perform change	Repository server (update system) URL: [before] URL before change [after] URL after change

Table 13.3 Messages Displayed when the Encryption Information (Service ID) is Updated

Encryption information (service ID)	Displayed message
Perform change	Service ID: Updated

Table 13.4 Messages Displayed when the user information registration destination directory service is changed

Contents that are changed (*1)		Displayed message
Before the change	After the change	
Interstage Directory Service	Active Directory	Directory service for the user information : Active Directory

*1 The following information can be verified by opening the Interstage Management Console of the authentication server and selecting [System] > [Security] > [Single Sign-on] > [Authentication Infrastructure] > [Authentication Server], then clicking the [Settings] tab and selecting [Detailed Settings] [Show].

- [Use Session management?] in [Authentication infrastructure Information]

- [Input User ID/Password] in [Password Authentication Settings]

- [Re-authentication Interval] in [Operation after Authentication]

- [Repository server (update system) URL] in [Communication Settings with Repository server]

- When the user information registration destination directory service has been changed

  "Not used" is displayed for [Attributes used for authentication] in [Integrated Windows Authentication Settings].

*2 This information cannot be verified with the Interstage Management Console. Refer to "Settings for Protection Resource in Authentication server" in the Single Sign-on Operator's Guide for details

Notes

- Execute the command only with the Administrators authority.

- Execute this command on the authentication server.

- Back up authentication server resource files before executing this command. The backup method is explained in the Operator's Guide.

- The following packages must be installed before this command can be executed.

Windows32/64

Authentication server

Solaris32/64 Linux32/64

FJSVssoac, FJSVssocm

- Always restart the authentication server after this command has been executed.

- The authentication infrastructure setup file is important for security reasons. Always delete it after the command has been executed.

- The user will be prompted to enter a password. Enter the password that is required to decode the authentication infrastructure setup file. If the wrong password is entered, an error message will appear and the command will terminate.

- When performing session management, the 'basic authentication dialog' cannot be used in the user ID/password entry window. If the 'basic authentication dialog' is used in the user ID/password entry window, the user ID/password entry window will change to the 'form authentication page'.

  Refer to the messages and usage examples for information about the messages that are output.

  Refer also to "Authentication" in the Single Sign-on Operator's Guide for information about form authentication.

- When performing session management, it is not possible to set "0" (no reauthentication) as the reauthentication interval specified for each Interstage single sign-on system. If "0" is specified, the reauthentication interval for each system will default to "1440" (minutes).

  Refer to the messages and usage examples for information about the messages that are output.

- When session management is performed, it is not necessary to set protection resources in the authentication server. For this reason, if "YES" is specified to suppress authentication requests from non-protection resources, it will change to "NO".

  Refer to the messages and usage examples for information about the messages that are output.

  Refer to "Settings for Protection Resource in Authentication server" in the Single Sign-on Operator's Guide for information about suppressing authentication requests from sources other than protection resources.

- A message to confirm the importing of environment settings will be displayed. Enter "yes" to import environment settings.

  If anything other than "yes" is entered, "Command canceled." will be displayed and the update will not be performed.

Examples

Windows32/64

Use the authentication infrastructure setup file "C:\tmp\sso-auth-infra" to import an environment into the authentication server with the following settings:

- Use Session Management: "Do not use Session Management"

- User ID/password entry window: "Basic authentication dialog"

- Reauthentication interval for each Interstage single sign-on system: "0"

- Repository server (update system) URL: Change URL

  Before change : http://repo.fujitsu.com:10550

  After change : https://repo2.fujitsu.com:10550

- Suppress authentication requests from non-protection resources: "YES"

- Encryption information (service ID): Perform update

- User information registration destination directory service: Interstage Directory Service

```
ssoimpac C:\tmp\sso-auth-infra
Password: (*1)
```

```
[Update information]
  Session management : Yes
  Password input screen : Form authentication page
  Re-authentication Interval : 1440 minutes
  Repository server (update system) URL :
    [before] http://repo.fujitsu.com:10550
    [after] https://repo2.fujitsu.com:10550
  Configuration "reject-incorrect-protection-resource-url" : No
  Service ID : Updated
  Directory service for the user information : Active Directory
Are you sure to update the server configuration to the above information? (yes/no) (*2)
```

If, after environment settings have been imported, the same authentication infrastructure setup file is used to import an environment into the authentication server again, the following message will be output and the process will terminate.

```
[Update information]
  Nothing
```

Solaris32/64 Linux32/64

Use the authentication infrastructure setup file "/tmp/sso-auth-infra" to import an environment into the authentication server with the following settings:

- Use Session Management: "Do not use Session Management"

- User ID/password entry window: "Basic authentication dialog"

- Reauthentication interval for each Interstage single sign-on system: "0"

- Repository server (update system) URL: Change URL

  Before change : http://repo.fujitsu.com:10550

  After change : https://repo2.fujitsu.com:10550

- Suppress authentication requests from non-protection resources: "YES"

- Encryption information (service ID): Perform update

- User information registration destination directory service: Interstage Directory Service

```
/opt/FJSVssoac/bin/ssoimpac /tmp/sso-auth-infra
Password: (*1)
[Update information]
  Session management : Yes
  Password input screen : Form authentication page
  Re-authentication Interval : 1440 minutes
  Repository server (update system) URL :
    [before] http://repo.fujitsu.com:10550
    [after] https://repo2.fujitsu.com:10550
  Configuration "reject-incorrect-protection-resource-url" : No
  Service ID : Updated
  Directory service for the user information : Active Directory
Are you sure to update the server configuration to the above information? (yes/no) (*2)
```

If, after environment settings have been imported, the same authentication infrastructure setup file is used to import an environment into the authentication server again, the following message will be output and the process will terminate.

```
[Update information]
  Nothing
```

*1 Enter the password required to decode the authentication infrastructure setup file.

*2 Enter either "yes" or "no". Any other response will be interpreted as signifying "no".

13.4 ssoimpaz

Name

ssoimpaz

Imports environment settings (for a business server) and creates a business server service ID file

Synopsis

```
ssoimpaz BusSysSetupFile [-j | -sid ServiceIDFile]
```

Description

The specified Business system setup file is used to reflect the following changes and Single Sign-on JavaAPI settings made in the Repository server (if more than one is used, this is the Repository server (update system)) in the Business server.

- Changes to session management operation (from "Do not use session management" to "Use session management") and the attendant changes to the environment settings of the business server

- Updates to the encryption information (service ID)

If session management is used in the Single Sign-on system, the Business server administrator can create the service ID file using the Business system setup file if the "-sid" option is specified.

If session management is not used, the SSO administrator creates the service ID file using the "ssomksid" command.

This command is used by the business server administrator.

The options and arguments of the *ssoimpaz* command are explained below.

BusSysSetupFile

Specifies the absolute pathname of the business system setup file downloaded from the repository server (the update system if more than one repository server is in use) that is conducting session management.

-j

Specified when the single sign-on Java API is used on a business server.

This option cannot be specified if the -sid option is also specified.

If this option is specified on a business server that is already conducting session management, the environment settings of the business server will not be changed.

To change the Single Sign-on JavaAPI settings, in the Business server Interstage Management Console click [System] > [Security] > [Single Sign-on] > [Business system] > [Business system Name] > [Settings] > [Detailed Settings [Show]] > [Single Sign-on JavaAPI] > [Use Single Sign-on JavaAPI?].

-sid ServiceIDFile

Specify the absolute path of the service ID file output file created using the Business system setup file.

This option cannot be specified if the -j option is also specified.

If this option is specified, changes to session management operation and attendant changes to the environment settings of the business server will not be made.

Message

When the -sid option is not specified

After the command has been executed, a message prompting the user to enter a password will appear.

If the password that was entered is the correct password for decrypting the Business system setup file, a message is output for the changed Business server environment settings, the updated encryption information (service ID), and Single Sign-on JavaAPI settings. For details about the message contents, refer to the tables shown below

After the message is output, another message asking you to confirm that you want to change the environment settings and update the encryption information (service ID) is output. Note that if there is no need to make changes to these parameters, "Nothing" will be displayed and the process will terminate.

The format of each message is shown in the following examples.

Table 13.5 Messages displayed when changes are made to environment settings

Environment settings of authentication server (*1)	Content of change		Displayed message
	Before change	After change	
Use Session management?	No	Yes	Session management : Yes

Table 13.6 Messages displayed when the encryption information (service ID) is updated

repository server (update system) URL	Displayed message
Perform change	Service ID : Updated

Table 13.7 Messages output when settings are made for using Single Sign-on JavaAPI

-j option	Displayed message
Not specified	Single Sign-on JavaAPI : Disable (*2)
Specified	Single Sign-on JavaAPI : Enable (*2)

*1 The following information can be verified by opening the Interstage Management Console of the authentication server and selecting [System] > [Security] > [Single Sign-on] > [Business System] > [Business System Name], then clicking the [Settings]tab and selecting [Detailed Settings [Show]].

- [Use Session management?] in [Authentication infrastructure Information]

*2 When session management is to be performed, settings relating to the use of the single sign-on Java API will be added to the environment settings of the business server. The -j option in these settings determines whether to use the single sign-on Java API. The setting can be verified by opening the Interstage Management Console of the business server and selecting [System] > [Security] > [Single Sign-on] > [Business System] > [Business System Name], then clicking the [Settings]tab and selecting [Detailed Settings [Show]][to display the [Use Single Sign-on JavaAPI?] setting under [Single Sign-on JavaAPI].

When the -sid option is specified

After the command has been executed, a message prompting the user to enter a password will appear.

If the user enters the correct password for decoding the business system setup file, a message similar to one of the following examples will be displayed, depending on whether the file specified by the -sid option exists.

The format of each message is shown in the following examples.

Presence of file	Displayed message
File exists	The file specified by "-sid" option has already existed. Are you sure to overwrite it? (yes/no)
File does not exist	The file specified by "-sid" option does not exist. Are you sure to create it? (yes/no)

Notes

- Execute the command only with the Administrators authority.

- This command should be executed on the business server. However, if the -sid option is specified, execute the command on the business system that uses the business server service ID file.

- Back up business server resource files before executing this command. The backup method is explained in the Operator's Guide.

- The following packages must be installed before this command can be executed.

Windows32/64

Business server

Solaris32/64 Linux32/64

FJSVssoaz, FJSVssocm

- After this command has been executed, always restart the business server if a business server has been constructed, and always restart Java applications if the single sign-on Java API is being used.

- The business system setup file is important for security reasons. Always delete it after the command has been executed.

- The user will be prompted to enter a password. Enter the password that is needed to decode the business system setup file. If the wrong password is entered, an error message will appear and the command will terminate.

- A message to confirm the importation of environment settings or the creation of a business server service ID file will be displayed. Enter "yes" to import settings or create the file.

  If anything other than "yes" is entered, "Command canceled." will be displayed and the update will not be performed.

  The -j and -sid options cannot be specified at the same time.

- Windows32/64

  When executing this command in Windows, the DOS device name cannot be specified using the -sid option.

- Assign the following permissions to the service ID file newly created with the -sid option.

  Windows32/64

  Only users who belong to the Administrators group will be able to access the file.

  Solaris32/64 Linux32/64

  Only the superuser will be able to access the file.

  If an existing service ID file specified by the -sid option is overwritten, the permissions of the existing service ID file will be inherited unchanged.

Examples

Windows32/64

Use the business system setup file "C:\tmp\sso-bus-infra" to import the environment into the business server that will use the single sign-on Java API with the following settings:

- Use Session Management: "Do not use Session Management"

- Encryption information (service ID): Perform update

```
ssoimpaz C:\tmp\sso-bus-infra -j
Password: (*1)
[Update information]
  Session management : Yes
  Single Sign-on JavaAPI : Enable
  Service ID : Updated
Are you sure to update the server configuration to the above information? (yes/no) (*2)
```

Use the business system setup file "C:\tmp\sso-bus-infra" to import the environment into the business server that will not use the single sign-on Java API with the following settings:

- Use Session Management: "Do not use Session Management"

- Encryption information (service ID): Perform update

```
ssoimpaz C:\tmp\sso-bus-infra
Password: (*1)
[Update information]
  Session management : Yes
  Single Sign-on JavaAPI : Disable
  Service ID : Updated
Are you sure to update the server configuration to the above information? (yes/no) (*2)
```

If, after environment settings have been imported, the same business system setup file is used to import an environment into the business server again, the following message will be output and the process will terminate.

```
[Update information]
  Nothing
```

Create a new business server service ID file "C:\tmp\serviceid" from the business system setup file "C:\tmp\sso-bus-infra".

```
ssoimpaz C:\tmp\sso-bus-infra -sid C:\tmp\serviceid
Password: (*1)
The file specified by "-sid" option does not exist.
Are you sure to create it? (yes/no) (*2)
```

Solaris32/64 Linux32/64

Use the business system setup file "/tmp/sso-bus-infra" to import the environment into the business server that will use the single sign-on Java API with the following settings.

  - Use Session Management: "Do not use Session Management"

  - Encryption information (service ID): Perform update

```
/opt/FJSVssoaz/bin/ssoimpaz /tmp/sso-bus-infra -j
Password: (*1)
[Update information]
  Session management : Yes
  Single Sign-on JavaAPI : Enable
  Service ID : Updated
Are you sure to update the server configuration to the above information? (yes/no) (*2)
```

Use the business system setup file "/tmp/sso-bus-infra" to import the environment into the business server that will not use the single sign-on Java API with the following settings.

  - Use Session Management: "Do not use Session Management"

  - Encryption information (service ID): Perform update

```
/opt/FJSVssoaz/bin/ssoimpaz /tmp/sso-bus-infra
Password: (*1)
[Update information]
  Session management : Yes
  Single Sign-on JavaAPI : Disable
  Service ID : Updated
Are you sure to update the server configuration to the above information? (yes/no) (*2)
```

If, after environment settings have been imported, the same business system setup file is used to import an environment into the business server again, the following message will be output and the process will terminate.

```
[Update information]
  Nothing
```

Create a new business server service ID file "/tmp/serviceid" from the business system setup file "/tmp/sso-bus-infra".

```
/opt/FJSVssoaz/bin/ssoimpaz /tmp/sso-bus-infra -sid /tmp/serviceid
Password: (*1)
The file specified by "-sid" option does not exist.
Are you sure to create it? (yes/no) (*2)
```

*1 Enter the password that is needed to decode the business system setup file.

*2 Enter either "yes" or "no". Any other response will be interpreted as signifying "no".

13.5 ssoimpsv

Name

ssoimpsv

Imports environment settings (for the repository server (reference system))

Synopsis

```
ssoimpsv AuthInfSetupFile
```

Description

This command uses a specified authentication infrastructure setup file to apply the following changes performed on the repository server (update system) to the repository server (reference system):

- Changes to session management operation (from "Do not use Session Management" to "Use Session Management")

- Updates to the encryption information (service ID)

This command is used by the SSO administrator.

The options and arguments of the *ssoimpsv* command are explained below.

AuthInfSetupFile

Specifies the absolute pathname of the authentication infrastructure setup file downloaded from the repository server (update system) conducting session management.

Message

After the command has been executed, a message prompting the user to enter a password will appear.

If the user enters the correct password for decoding the authentication infrastructure setup file, messages similar to those shown in the following tables will reveal changes to the content of the repository server (reference system) environment settings and updates to the encryption information (service ID).

After the messages have been displayed, the user will be asked if he or she wishes to change the environment settings or update the encryption information (service ID). Note that if there is no need to make changes to these parameters, "Nothing" will be displayed and the process will terminate.

The format of each message is shown in the following examples.

Table 13.8 Messages displayed when changes are made to environment settings

Environment settings of repository server (reference system((*1)	Content of change		Displayed message
	Before change	**After change**	
Use Session management?	No	Yes	Session management : Yes

Table 13.9 Messages displayed when the encryption information (service ID) is updated

Encryption information (service ID)	Displayed message
Perform change	Service ID : Updated

*1 The following information can be verified by opening the Interstage Management Console of the repository server (reference system) and selecting [System] > [Security] > [Single Sign-on] > [Authentication infrastructure] > [Repository Server], then clicking the [Settings]tab and selecting [Detailed Settings [Show]], then [Use Session management?] in [Authentication infrastructure Information]

Notes

- Execute the command only with the Administrators authority.

- Execute this command on the repository server (reference system).

- Back up repository server (reference system) resource files before executing this command. The backup method is explained in the Operator's Guide.

- The following packages must be installed before this command can be executed.

  Windows32/64

  Repository server

  Solaris32/64 Linux32/64

  FJSVssosv, FJSVssocm

- Always restart the repository server (reference system) after this command has been executed.

- The authentication infrastructure setup file is important for security reasons. Always delete it after the command has been executed

- The user will be prompted to enter a password. Enter the password that is needed to decode the authentication infrastructure setup file. If the wrong password is entered, an error message will appear and the command will terminate.

- A message to confirm the importing of environment settings will be displayed. Enter "yes" to import environment settings.

  If anything other than "yes" is entered, "Command canceled." will be displayed and the update will not be performed.

Examples

Windows32/64

Use the authentication infrastructure setup file "C:\tmp\sso-auth-infra" to import an environment into the repository server (reference system) with the following settings.

- Use Session Management: "Do not use Session Management"

- Encryption information (service ID): Perform update

```
ssoimpsv C:\tmp\sso-auth-infra
Password: (*1)
[Update information]
  Session management : Yes
  Service ID : Updated
Are you sure to update the server configuration to the above information? (yes/no) (*2)
```

If, after environment settings have been imported, the same authentication infrastructure setup file is used to import an environment into the repository server (reference system) again, the following message will be output and the process will terminate.

```
[Update information]
  Nothing
```

Solaris32/64 Linux32/64

Use the authentication infrastructure setup file "/tmp/sso-auth-infra" to import an environment into the repository server (reference system) with the following settings.

- Use Session Management: "Do not use Session Management"

```
/opt/FJSVssosv/bin/ssoimpsv /tmp/sso-auth-infra
Password: (*1)
[Update information]
  Session management : Yes
```

```
   Service ID : Updated
Are you sure to update the server configuration to the above information? (yes/no) (*2)
```

If, after environment settings have been imported, the same authentication infrastructure setup file is used to import an environment into the repository server (reference system) again, the following message will be output and the process will terminate.

```
[Update information]
 Nothing
```

*1 Enter the password required to decode the authentication infrastructure setup file.

*2 Enter either "yes" or "no". Any other response will be interpreted as signifying "no".

13.6 ssomksid

Name

ssomksid

Create a service ID file.

Synopsis

```
ssomksid serviceidpath {-f FQDN | -n domain-name}
```

Description

The *ssomksid* command creates a service ID file that is required when:

- A JAAS authentication is performed

The *ssomksid* command is used by the SSO administrator.

The following describes the options and arguments for the *ssomksid* command:

serviceidpath

In the serviceidpath argument, specify the absolute path to the output-destination file for the service ID file required to be created.

If the specified output-destination file already exists or the user does not have write permission for the output-destination file, this command will output an error message in addition to the standard error message and exit the operation.

If the absolute path to the output-destination file is not given, the command outputs an error message in addition to the standard error message and exits the operation.

-f FQDN

In the -f FQDN option, specify the fully qualified domain name (FQDN) of the host where the Java applications using the service ID file operate or where the business server operates.

The -f FQDN and -n domain-name options cannot be specified together.

-n domain-name

In the -n domain-name option, specify the domain name indicating the range where the service ID file is shared. Specify this option only when generating a service ID file for the business server. The -f FQDN and -n domain-name options cannot be specified together.

When a two-leveled domain name (e.g., '.co.jp') is specified, the browser may not accept cookies. If this occurs during the system operation, the browser displays a HTTP status code 403. In such cases, recreate the service ID file by using this command and specifying a three or more -leveled domain name (e.g., '.fujitsu.co.jp').

Use the following rules for domain names:

- Do not use characters that are not alphanumeric. For example, hyphen (-), and period (.) characters

- Always begin the domain name with a period (.)

- Specify the entire domain name, including those with multiple levels

- Do not use the following domain name instances:

  - Domain names that include successive periods (.)

  - Domain names that follow a period (.) by a hyphen (-)

  - Domain names ending with a period (.)

  - Domain names ending with a hyphen (-)

How to Create a Service ID File

Select one of the following two methods to create a service ID file according to the operation requirements:

1. Create the service ID file by specifying the server's fully qualified domain name (FQDN).

   The authentication information is stored only in the server specified by the FQDN. Specify the server FQDN in the -f option of this command, and create the service ID file. Select this method for ordinary operations.

2. Create the service ID file by specifying the network domain of the servers.

   The authentication information is stored within the network domain of the servers. Specify the domain name in the -n option of this command, and create the service ID file. When the service ID file is created by this method, authentication information is shared in the domain and high-speed operations can be achieved.

   It is important to note that the network be secured by installing a domain exclusive to the Single Sign-on operation or by using other measures to prevent illegal servers from being set up in the domain.

Use completely different units, e.g., '.co.jp' and '.com', for domains that share a single service ID file. Do not specify domains that have an inclusive relationship (e.g., '.abc.sample.co.jp' and '.sample.co.jp').

The service ID files created with the -f option and those created with the -n option cannot be operated together. For example, the service ID file created with 'hostA.sample.co.jp' in the -f option for business server 'hostA.sample.co.jp' cannot be used together with the one created with '.sample.co.jp' specified in the -n option for business server 'hostB.sample.co.jp'. This is because domains 'hostA.sample.co.jp' and '.sample.co.jp' have an inclusive relationship.

Windows32/64

```
Example:
When preparing service ID files for the business servers that have domain
names "x.abc.co.jp" and "y.abc.com", create the service ID files using the
commands specifying ".abc.co.jp" and ".abc.com" for the respective business
servers as shown below.

ssomksid C:\temp\sid-for-x  -n .abc.co.jp

ssomksid C:\temp\sid-for-y  -n .abc.com

As shown below, when ".abc.co.jp" is specified as the domain to share a
service ID, the same service ID file can be used by both the "x.abc.co.jp"
and "y.domain.abc.co.jp" business servers.

ssomksid C:\temp\sid -n .abc.co.jp
```

Solaris32/64 Linux32/64

```
Example:
When preparing service ID files for business servers that have domain names
"x.abc.co.jp" and "y.abc.com", create a service ID file using the command
specifying ".abc.co.jp" and ".abc.com" for each business server as shown
below.

ssomksid /tmp/sid-for-x  -n .abc.co.jp

ssomksid /tmp/sid-for-y  -n .abc.com

As shown below, when ".abc.co.jp" is specified as the domain to share a
```

```
 service ID, the same service ID file can be used by both the "x.abc.co.jp"
and "y.domain.abc.co.jp" business servers.

ssomksid /tmp/sid -n .abc.co.jp
```

Notes

- The command must be executed on the repository server that does not use session management.

- The command must be executed after the repository server environment has been set up.

- The file output by this command must not be edited.

- Execute the command only with the Administrators authority.

  Windows32/64

  The service ID file created by the command can be accessed only by the Administrators group.

  Solaris32/64 Linux32/64

  The owner of the service ID file created by the command is referred to as the super user, and the file can be accessed only by the super user.

- If the FQDN specified in the -f option or the domain name defined in the -n option service ID file do not match the FQDN defined in the configuration file on the relevant business server, an error will occur when the business server is started. In such cases, the service ID file must be recreated. The error will not affect the Java application that performs the authentication using a user ID and password on the authentication server, even if the Java application shares the service ID file with the business server.

  Windows32/64

  When executing this command in Windows, the DOS device name cannot be specified for serviceidpath.

Examples

Windows32/64

The following example shows how to create a service ID file for a business server (FQDN = www.fujitsu.example.com) by using the *ssomksid* command and specifying the FQDN so that it is output in "atz.sid" under the 'C:\temp' directory.

```
ssomksid C:\temp\atz.sid -f www.fujitsu.example.com
```

The following example shows how to create a service ID file for a business server (FQDN = www.fujitsu.example.com) by using the *ssomksid* command, specifying the domain name '.example.com' of the domain that shares the file so that it is output in "atz.sid" under the 'C:\temp' directory.

```
ssomksid C:\temp\atz.sid -n .example.com
```

Solaris32/64 Linux32/64

The following example shows how to create a service ID file for a business server (FQDN = www.fujitsu.example.com) by using the *ssomksid* command and specifying the FQDN so that it is output in "atz.sid" under the '/temp' directory.

```
/opt/FJSVssosv/bin/ssomksid /tmp/atz.sid -f www.fujitsu.example.com
```

The following example shows how to create a service ID file for a business server (FQDN = www.fujitsu.example.com) by using the *ssomksid* command, specifying the domain name '.example.com' of the domain that shares the file so that it is output in "atz.sid" under the '/temp' directory.

```
/opt/FJSVssosv/bin/ssomksid /tmp/atz.sid -n .example.com
```

13.7 ssosetsvc

Name

ssosetsvc

Setting the service dependency of the repository server.

Synopsis

Windows32/64

```
ssosetsvc repname webname
```

Description

The SSO repository must be started before the repository server.

This command sets a dependency relationship between the Interstage HTTP Server integrated with the repository server and the SSO repository so that the SSO repository starts automatically when the repository server is started.

After the dependency relationship is set using this command, start/stop for the repository server and the SSO repository operate as follows:

- When the repository server is started

  The SSO repository starts with it.

- When the repository server is stopped

  The SSO repository does not stop.

- When the SSO repository is started

  The repository server does not start.

- When the SSO repository is stopped

  The SSO repository cannot stop. The repository server must be stopped first.

The following describes the arguments for the *ssosetsvc* command:

repname

Specifies the repository name of the SSO repository.

Use the following procedure to check for the repository name:

From the Interstage Management Console of the repository server, select [Repository server detailed settings [show]] or [Detailed Settings [show]] on [System] > [Security] > [Single Sign on] > [Authentication Infrastructure] > [Repository server] > [Settings] tab, and check the [Repository Name] under [Repository].

webname

Specify the Web server name of the Interstage HTTP Server set up on the repository server. To check the Web server name, from the Interstage Management Console of the repository server click [System] > [Security] > [Single Sign-on] > [Authentication infrastructure]. Click the [List] tab and check the Web server name in the repository server information displayed.

Message

When the *ssosetsvc* command is executed normally, the message below is output. If the repository server is set up in the Web server created during installation, 'FJapache' is displayed for the service name.

```
Reconfiguring the Interstage HTTP Server (Web server name) service
The Interstage HTTP Server(Web server name) service has been reconfigured successfully.
```

If another message is output, the command has not executed correctly. Refer to the Messages and take the appropriate action to correct the problem.

Notes

- Execute the command only with the Administrators authority.

- Use the command only when the target SSO repository is either 'Active' or 'Stopped' status. The SSO repository status can be checked by the Directory Service operation command *ireplist*.

- Using the Service window, verify that the Interstage Directory Service (repository-name) is correctly set for the Interstage HTTP Server service (Interstage HTTP Server(Web server name) or FJapache) dependency. Correct the setting if the repository name is incorrect.

- When the repository name of the SSO repository is changed, set the relevant service dependency with this command.

- When the SSO repository is required to be deleted, cancel the relevant service dependency using the *ssounsetsvc* command.

- When the cluster service is used, service dependency relationships need not be set for the command.

Example

Setting a service dependency relationship for the Interstage HTTP Server "web001" and the SSO repository "ssorep".

```
ssosetsvc ssorep web001
```

13.8 ssosignoff

Name

ssosignoff

Forced session sign-off

Synopsis

```
ssosignoff {-s SessionID | -u UserID} [-tm time-out]
```

Description

This command forcibly signs off a specified session.

This command is used by the SSO administrator.

The options and arguments of the *ssosignoff* command are explained below.

-s SessionID

This option is specified when the session to be forcibly signed off is to be identified with a session ID.

The session specified by SessionID is forcibly signed off.

The session ID to be specified can be verified from the access log or session management log of the repository server, authentication server or business server.

-u UserID

This option is specified when the session to be forcibly signed off is to be identified with a user ID.

The session that matches the user ID specified by UserID is forcibly signed off.

-tm time-out

This option specifies the response waiting time (in seconds) to be used when a connection is established with the session management server that will perform the forced sign-off operation. The waiting time can be any value between 1 and 3600.

When this option is omitted, the response waiting time defaults to 60 seconds.

Notes

- Execute the command only with the Administrators authority.

- Execute this command on the repository server (update system).

- To use load balancing to deploy more than one repository server (update system), execute the command on the repository server (update system) used to manage the session. The repository server (update system) used to manage the session can be checked from the following:

    - The server output in the business server access log

    - The session ID output in the session management log

    When the business server access log cannot be checked, execute the command on each repository server (update system).

- Execute this command after the repository server (update system) has begun operating.

- If there is no response from the session management server after the response waiting time specified by the -tm option has elapsed, the following message will be output but the forced sign-off process will continue. If necessary, change the waiting time specified by the -tm option to a more suitable value.

    [0026]Connection with specified URL timeout : <url>

Example

To force the session with the session ID "h8ijgVTHFYOoE5vrjeGgW3H/yo" to sign off:

Windows32/64

```
ssosignoff -s ih8ijgVTHFYOoE5vrjeGgW3H/yo
Are you sure to sign off? (yes/no)      SessionID: ih8ijgVTHFYOoE5vrjeGgW3H/yo
(*1)
```

Solaris32/64 Linux32/64

```
/opt/FJSVssosv/bin/ssosignoff -s ih8ijgVTHFYOoE5vrjeGgW3H/yo
Are you sure to sign off? (yes/no)      SessionID: ih8ijgVTHFYOoE5vrjeGgW3H/yo
(*1)
```

To force the session whose user ID matches "user0001" to sign off:

Windows32/64

```
ssosignoff -u user0001
Are you sure to sign off? (yes/no)      UserID: tarou
(*1)
```

Solaris32/64 Linux32/64

```
/opt/FJSVssosv/bin/ssosignoff -u user0001
Are you sure to sign off? (yes/no)      UserID: tarou
(*1)
```

*1 After starting the *ssocloneac* command, the user is asked to confirm whether to continue the operation. Enter yes or no. When a value other than yes or no is entered, entry of no is assumed. When "yes" is entered and the command completes the replication normally, no further message will be displayed. If anything other than "yes" is entered, "Command canceled." will be displayed.

13.9 ssounsetsvc

Name

ssounsetsvc

Cancels the service dependency of the repository server.

Synopsis

Windows32/64

```
ssounsetsvc webname
```

Description

This command deletes the dependency relationship between the Interstage HTTP Server integrated with the repository server and the SSO repository specified using the *ssosetsvc* command.

The arguments of the *ssounsetsvc* command are described below.

webname

Specify the Web server name of the Interstage HTTP Server set up on the repository server. To check the Web server name, from the Interstage Management Console of the repository server click [System] > [Security] > [Single Sign-on] > [Authentication infrastructure]. Click the [List] tab and check the Web server name in the repository server information displayed.

Message

When the *ssounsetsvc* command is executed normally, the message below is output. If the repository server is set up on the Web server created during installation, 'FJapache' is displayed for the service name.

```
Reconfiguring the Interstage HTTP Server(Web server name) service
The Interstage HTTP Server(Web server name) service has been reconfigured successfully.
```

If another message is output, the command has not executed correctly. Refer to the Messages and take the appropriate action to correct the problem.

Notes

- Execute the command only with the Administrators authority.

- When the SSO repository is required to be deleted or only the SSO repository needs to be stopped, use this command first to cancel the SSO repository service dependency.

- If the service dependency has been canceled, the repository server fails to start when the service is started from system startup.

Example

Deleting a service dependency relationship for the Interstage HTTP Server "web001"

```
ssounsetsvc web001
```

13.10 ssoupsid

Name

ssoupsid

Updates to the encryption information (service ID)

Synopsis

```
ssoupsid
```

Description

This command updates the encryption information (service ID) used by an Interstage single sign-on system conducting session management.

This command is used by the SSO administrator.

Notes

- Execute the command only with the Administrators authority.

- Execute this command on the repository server (the update system if more than one repository server is in use).

- This command cannot be executed if session management is being performed.

- Back up repository server (the update system if more than one repository server is in use) resource files before executing this command. The backup method is explained in the Operator's Guide.

- Always restart the repository server (the update system if more than one repository server is in use) after this command has been executed.

- After this command has been used to update encryption information (service ID), always update the encryption information (service ID) on all the servers making up the Interstage single sign-on system.

- Encryption information (service ID) is vital for the operation of an Interstage single sign-on system. Do not update it unless it is necessary to do so.

Example

Windows32/64

```
ssoupsid
Are you sure to update service ID? (yes/no)(*1)
```

Solaris32/64 Linux32/64

```
/opt/FJSVssosv/bin/ssoupsid
Are you sure to update service ID? (yes/no)(*1)
```

*1 After starting the *ssocloneac* command, the user is asked to confirm whether to continue the operation. Enter yes or no. When a value other than yes or no is entered, entry of no is assumed. When "yes" is entered and the command completes the replication normally, no further message will be displayed. If anything other than "yes" is entered, "Command canceled." will be displayed.

Chapter 14 Interstage Directory Service Operation Commands

This is not valid for Standard-J Edition on Windows (64 bit).

This is not valid for Standard-J Edition on Linux (64 bit).

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
enablerstart Solaris32/64 Linux32/64	Starts the Interstage data store.	OK	OK
irepacl	Registers/shows the access control list definition file	NO	OK
irepaddrole	Adds a single sign-on role configuration entry to the repository.	OK	OK
irepadmin	Creates advanced repository settings	OK	OK
irepcrttbl	Creates a table for storing repository data	NO	OK
irepeditent Solaris32/64 Linux32/64	Starts the Entry Administration Tool.	OK	OK
irepencupin	Encrypts the user PIN of the SSL environment definition file.	OK	OK
irepgendb	Creates tables for storing repository data	NO	OK
ireplist	Lists Interstage Directory Service definitions.	OK	OK
irepmodifyent	Adds, modifies, or deletes a entry in the repository using a CSV file.	OK	OK
irepmodtbl	Changes the definition of a repository data storage table	NO	OK
irepschema	Registers/deletes/shows the user definition schema	NO	OK
irepstart Solaris32/64 Linux32/64	Starts a repository.	OK	OK
irepstop Solaris32/64 Linux32/64	Stops a repository.	OK	OK
ldapdelete	Deletes a repository entry.	OK	OK

Command	Outline	Standard-J Edition	Enterprise Edition
ldapmodify	Adds, modifies, or deletes a repository entry.	OK	OK
ldapsearch	Searches for a repository entry.	OK	OK

OK: Supported

NO: Not supported

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Command	Directory
Windows32/64	irepacl	C:\Interstage\bin
	irepaddrole	
	irepadmin	
	irepcrttbl	C:\Interstage\IREP\bin\RDB\archive\compatible
	irepgendb	C:\Interstage\IREP\bin\RDB C:\Interstage\IREP\bin\RDB\archive (*1)
	irepencupin	C:\Interstage\bin
	ireplist	
	irepmodifyent	
	irepschema	
	irepmodtbl	C:\Interstage\IREP\bin\RDB\archive\compatible
	ldapdelete	C:\Interstage\bin
	ldapmodify	
	ldapsearch	
Solaris32/64	enablerstart	/opt/FJSVena/server/bin
	irepacl	/opt/FJSVirep/bin
	irepaddrole	
	irepadmin	
	irepcrttbl	/opt/FJSVirep/bin/RDB/archive/compatible
	irepeditent	/opt/FJSVirep/gui/bin
	irepencupin	/opt/FJSVirepc/bin
	irepgendb	/opt/FJSVirep/bin/RDB /opt/FJSVirep/bin/RDB/archive (*1)
	ireplist	/opt/FJSVirep/bin
	irepmodifyent	
	irepschema	
	irepmodtbl	/opt/FJSVirep/bin/RDB/archive/compatible
	irepstart	/opt/FJSVirep/bin
	irepstop	
	ldapdelete	/opt/FJSVirepc/bin

Platform	Command	Directory
	ldapmodify	-
	ldapsearch	
Linux32/64	enablerstart	/opt/FJSVirepc/bin
	irepacl	/opt/FJSVirep/bin
	irepaddrole	
	irepadmin	
	irepcrttbl	/opt/FJSVirep/bin/RDB/archive/compatible
	irepeditent	/opt/FJSVirep/gui/bin
	irepencupin	/opt/FJSVirepc/bin
	irepgendb	/opt/FJSVirep/bin/RDB /opt/FJSVirep/bin/RDB/archive (*1)
	ireplist	/opt/FJSVirep/bin
	irepmodifyent	
	irepschema	
	irepmodtbl	/opt/FJSVirep/bin/RDB/archive/compatible
	irepstart	/opt/FJSVirep/bin
	irepstop	
	ldapdelete	/opt/FJSVirepc/bin
	ldapmodify	
	ldapsearch	

*1 If the Interstage Directory Service and the RDB product are installed on different machines, create the runtime environment for this command according to the platform on which the RDB product is installed.

For details, refer to the Notes section for each command.

14.1 enablerstart

Name

enablerstart

Starts the Interstage data store.

Synopsis

Solaris32/64 Linux32/64

```
enablerstart
```

Description

Starts the Interstage data store.

There is no need to use this command if a relational database is used as the repository database.

Notes

Windows32/64

- This command starts the Interstage data store for Solaris and Linux systems.

  On Windows(R) systems, this command is not needed because dependency relationships with the Interstage Directory Service service have been established.

Solaris32/64 Linux32/64

- Execute this command with administrator authority.

- When this command is executed, "C" must be set in the LANG environment variable.

- Normally, the Interstage data store automatically starts when the OS starts. Use enablerstart if the Interstage data store is not started.

- Executing this command with any of the following operations concurrently for one repository may cause the Interstage data store to malfunction:

  - Creating a repository using the Interstage Management Console

  - Deleting a repository using the Interstage Management Console

  - Starting a repository using the Interstage Management Console

  - Stopping a repository using the Interstage Management Console

  - Using the irepbacksys command to back up or export Interstage Directory Service resources

  - Using the ireprestsys command to restore or import Interstage Directory Service resources

  - Using the irepstart command to start a repository

  - Using the irepstop command to stop a repository

Example

Solaris32/64

Starts the Interstage data store.

```
/opt/FJSVena/server/bin/enablerstart
```

Linux32/64

Starts the Interstage data store.

```
/opt/FJSVena/Enabler/server/bin/enablerstart
```

14.2 irepacl

Name

irepacl

Registers/shows the access control list definition file

Synopsis

1. Registering the access control list definition file

   ```
   irepacl -R repository -f filepath
   ```

2. Displaying the access control list definition file

   ```
   irepacl -R repository -l
   ```

Description

Registers the access control list definition file in the repository. Stop the repository before registering the access control list definition file.

The access control list definition can be displayed while the repository is still running.

Depending on the contents of the access control list, registering or showing the access control list definition file may compromise repository security. For this reason, take care when registering/showing the access control list definition file.

The irepacl command arguments are described below.

-R repository

Specify the name of the repository used to register or display the access control list definition.

The name is not case-sensitive.

-f filepath

Specify the definition file used to describe the access control list in the filepath parameter. The access control list of the specified repository is overwritten by the contents described in the file.

It is not possible to specify more than one file.

-l

Outputs the access control list definition of the specified repository using standard output.

Note

Execute this command with administrator authority.

Example

Overwriting the access control list of repository "rep001" with the "acl.txt" access control list definition file

Windows32/64

```
irepacl -R rep001 -f C:\conf\acl.txt
```

Solaris32/64 Linux32/64

```
irepacl -R rep001 -f /conf/acl.txt
```

14.3 irepaddrole

Name

irepaddrole

Adds a single sign-on role configuration entry to the repository.

Synopsis

```
irepaddrole [-h host] [-p port] -D binddn [-w passwd] -b dn [-C type] -r
rule-file -i csv-file ...
```

Description

Based on the rule file specifications, this command reads information from a CSV format file and adds a single sign-on role configuration entry to the repository.

The irepaddrole command also:

- Writes the associations between the CSV format and user information entry attributes to the rule file.

- Writes role configuration information and user information to the same CSV file. There is no need to use separate files. The command reads role configuration information from the CSV file and adds a role configuration entry.

For details of the rule file and CSV file, refer to "Using CSV Files Extracted from the Database" in the "Creating a Repository" chapter of the Directory Service Operator's Guide.

After creating single sign-on user information using the irepmodifyent command, execute the command with the same rule file and CSV file specified.

The following section describes the arguments for the irepaddrole command.

-h host

Specifies the host name or IP address of the repository.

If this option is omitted, the local host (127.0.0.1) is assumed.

Specifying only -h without host also defaults to the local host (127.0.0.1).

-p port

Specifies the TCP port number of the repository.

The value defaults to 389 in the following cases:

- The option is omitted.

- 0 is specified for the TCP port number

- Only -p is specified without the port.

-D binddn

Specifies an Administrator DN of the repository. The character string representation of the DN must be defined by RFC2253.

Special characters such as spaces, asterisks (*), and backslashes (\) must be put in quotation marks. Use single or double quotation marks, depending on the command line used.

For details about how DN includes special characters, refer to the "Entry Management" chapter of the Directory Service Operator's Guide.

-w passwd

Specifies the Administrator DN password of the repository.

If the option is omitted, enter the Administrator DN password of the repository in interactive mode as requested.

-b dn

Specifies the DN for which a role configuration is to be created. The character string representation of the DN must be defined by RFC2253. Special characters such as spaces, asterisks (*), and backslashes (\) must be put in quotation marks. Use single or double quotation marks, depending on the command line used.

-C type

Specifies the character encoding used for CSV files. The character set that is generally used and the values to be specified for them are listed below:

Windows32/64

Character set	Values to be specified
ISO-8859-1	ISO-8859-1
Cp1252	Cp1252
UTF-8	UTF-8

If this option is omitted, Cp1252 is used.

Solaris32/64

Character set	Values to be specified
ISO-8859-1	ISO-8859-1
ISO646-US	ISO646-US
ASCII	US-ASCII
UTF-8	UTF-8

If this option is omitted, ISO646-US is used.

Linux32/64

Character set	Values to be specified
ISO-8859-1	ISO-8859-1
ASCII	US-ASCII
UTF-8	UTF-8

If this option is omitted, ISO-8859-1 is used.

If only -C is specified without a type, the operation continues assuming that the -C option is not specified.

Allowable values for this option depend on the JDK version. For details, refer to the JDK documentation.

-r rule-file

Specifies the rule file. For details of the rule file, refer to "Using CSV Files Extracted from the Database" in the "Creating a Repository" chapter of the Directory Service Operator's Guide.

-i csv-file

Specifies a CSV file. To specify multiple files, delimit them by using a blank character. For details of the CSV file, refer to "Using CSV Files Extracted from the Database" in the "Creating a Repository" chapter of the Directory Service Operator's Guide.

Specifying the Role Name

A role name is required for information written in the CSV file.

The <ssoRoleName> tag needs to be written within the <Attribute> tag in the rule file.

An item associated with the value specified in the <ssoRoleName> tag of the CSV file is used as the name (cn attribute) for the role configuration entry (ssoRole object class).

The specified role configuration entry in the line beginning with ADD or MOD in the CSV file is added only when it has not been registered (not overwritten).

Note that this command cannot be used to register a role set.

For detailed information on how to write CSV and rule files, refer to "Repository Server Setup", "Using a CSV Data File" in the "Environment Setup (SSO Administrators)" chapter of the Single Sign-On Operator's Guide.

Note

Execute this command with administrator authority.

Example

Based on the rule file "sample_rule_utf8.xml", this command reads information from the CSV file "sample_add.csv" and adds a single sign-on role configuration entry to the repository (*1).

```
irepaddrole -h hostname -p 389 -D
"cn=manager,ou=interstage,o=fujitsu,dc=com" -w admin -r sample_rule_utf8.xml
-i sample_add.csv -b "ou=Role,ou=SSO ACI,ou=interstage,o=fujitsu,dc=com"(*1)
```

*1 Write this statement in a single line without a linefeed.

These sample files are stored in the single sign-on sample directory. Refer to the following for details about the samples:

"Repository Server Setup", "Registering User Information and Role Configuration in the SSO Repository" and "Repository Server Setup", "Using a CSV Data File" in the "Environment Setup (SSO Administrators)" chapter of the Single Sign-On Operator's Guide.

14.4 irepadmin

Name

irepadmin

Creates advanced repository settings

Synopsis

1. Windows32/64

    Repository and RDB dependency settings: (*1)

    ```
    irepadmin -R repository -setsvc name
    ```

2. Windows32/64

    Release of the repository and RDB dependency: (*1)

    ```
    irepadmin -R repository -unsetsvc name
    ```

3. Solaris32/64 Linux32/64

    To set repository startup:

    ```
    irepadmin -R repository -startup type
    ```

4. Solaris32/64 Linux32/64

    Specify whether or not there is a delay before the RDB starts when the repository starts automatically: (*1)

    ```
    irepadmin -R repository -rdbwait mode
    ```

5. Set the maximum number of connections from the repository to the RDB: (*1)

    ```
    irepadmin -R repository -maxconn
    ```

6. Slave server environment settings: (*1)

    ```
    irepadmin -R repository -readonly mode
    ```

7. Settings required so that passwords are not encrypted:

    ```
    irepadmin -R repository -plaintext
    ```

8. Display of the repository settings contents:

    ```
    irepadmin -R repository -status
    ```

*1 These settings are only enabled when RDB is used as the repository database.

Description

The following functions allow you to make advanced repository settings:

- Repository and RDB service dependency settings

- Release of the repository and RDB service dependency

- Repository startup method settings

- Delay/do not delay before starting the RDB when the repository starts automatically

- Maximum number of connections from the repository to the RDB

- Replication slave server environment settings

- User password encryption method settings

- Display of the repository settings contents

Once the repository is created using the Interstage Management Console, the user password encryption method settings and replication slave server environment settings can only be made until the first repository startup. Once the repository starts up, the user password encryption method settings and replication slave server environment settings cannot be changed.

-R repository

Specifies the name of the repository for which information is to be set.

The name is not case-sensitive. Upper-case characters will be treated as lower-case characters.

-startup type

Solaris32/64 Linux32/64

The following startup type parameters determine whether to start the repository automatically when the system starts. The value is not case-sensitive. The default value is "Auto".

- Auto: Starts the repository automatically when the system starts.

- Manual: Does not start the repository automatically when the system starts. The repository needs to be started manually.

If RDB is used as the repository database, check that automatic start has been set for the RDB system. For details about automatic start for the RDB system, refer to "Automatic Start" in the "Operating and Maintaining Repositories" chapter of the Directory Service Operator's Guide.

-plaintext

Specify this option when it is necessary to extract the repository's user password unencrypted. The password will be unencrypted when it passes over the communication lines, so always use lines that have been encrypted with SSL.

-setsvc name

Windows32/64

So that the repository starts when the system starts up, set the dependency relationship so that the RDB service starts before the repository service. This is only effective when RDB is used as the repository database, and RDB and Interstage Directory Service run on the same machine. Specify the following for the name:

- In Symfoware Server:

RDB system name

Example:

```
irepadmin -R rep001 -setsvc DSDBSYS
```

- In Oracle databases:

Set a separate dependency relationship with the following two services:

1) Listener service name

- When the default listener is used:

Oracle<Oracle home name>TNSListener

- When the listener other than the default listener is used:

Oracle<Oracle home name>TNSListener<Listener name>

2) Oracle database service name

OracleService<Oracle instance identifier(Oracle SID)>

Example:

```
irepadmin -R rep001 -setsvc OracleOra10homeTNSListener
irepadmin -R rep001 -setsvc OracleServiceOraDSDB
```

-unsetsvc name

Windows32/64

This is used when the dependency contents set using -setsvc are released. Set the name specified in the name parameter of the -setsvc option. For details, refer to the -setsvc option.

This can only be specified when RDB is used as the repository database.

Example:

- In Symfoware Server:

```
irepadmin -R rep001 -unsetsvc DSDBSYS
```

- In Oracle databases:

```
irepadmin -R rep001 -unsetsvc OracleOra10homeTNSListener
irepadmin -R rep001 -unsetsvc OracleServiceOraDSDB
```

-readonly mode

If the repository is used as a slave, configure the settings so that the repository cannot be updated. Specify either of the following parameters in "mode". Upper and lower case are treated as distinct. The default value is "off".

- on: This is set for the slave to make it readonly.

- off: This is set to release the readonly mode.

This can only be specified when RDB is used as the repository database.

-status

The repository settings contents are displayed using standard output.

```
startup  : Auto
readonly : on
max-connection : 16
rdbwait : yes
```

The startup output results are shown in the table below.

- Auto: Starts the repository automatically when the system starts.

- Manual: Does not start the repository automatically when the system starts. The repository needs to be started manually.

- Unknown: Failed to get the repository settings.

The readonly output results are as follows:

- on: The server runs as the Slave.

- off: The server runs as the Master.

The rdbwait output results are as follows:

- yes: wait is performed.

- no: wait is not performed and an error occurs.

The displayed result depends on the OS and database that are used.

OS/database	startup	readonly	maxconn	rdbwait	Remarks
Windows32/64 Standard database	-	-	-	-	Cannot be used.
Windows32/64 RDB	-	Yes	Yes	-	
Solaris32/64 Linux32/64 Standard database	Yes	-	-	-	

OS/database	startup	readonly	maxconn	rdbwait	Remarks
Solaris32/64 Linux32/64 RDB	Yes	Yes	Yes	Yes	

Yes: The settings contents are displayed.

-maxconn Maximum number of connections

Specify a number from 4 to 1024 for the maximum number of connections from the repository to the RDB. The initial value is "16". It is recommended that this value is the CPU number of the server used to deploy the database * 4.

This can only be specified when an RDB is used as the repository database.

-rdbwait mode

Solaris32/64 Linux32/64

If the repository has been set to start up automatically when the system starts up (by specifying "Auto" in the -startup option), configure settings to specify whether or not a wait is performed for the RDB service startup. Specify either of the following parameters in 'mode'. Names are not case-sensitive. The initial value is "no".

- wait is performed.

- wait is not performed and an error occurs.

If "yes" is specified, the wait is unlimited. If the repository is accessed from the client while the repository is waiting for the database startup, LDAP_UNAVAILABLE or LDAP_CONNECT_ERROR is returned.

This can only be specified when an RDB is used as the repository database.

Notes

- This command must be executed by a user with administrator authority.

- A function for referencing password encryption method settings is not offered because of the possible threat to security. The user should manage the settings carefully.

Solaris32/64

- If "yes" is specified in the -rdbwait option, the wait for the RDB startup by the repository is unlimited. For this reason, the startup of other services or applications in the system may be affected. Consider this fact carefully before specifying this option.

14.5 irepcrttbl

Name

irepcrttbl

Creates a table for storing repository data

Synopsis

```
irepcrttbl
```

Description

This command creates a table in the RDB that stores repository data when a relational database (Symfoware® Server) is used as the repository database.

If Interstage Directory Service and Symfoware Server are installed on separate servers, the executable environment for this command must be created on the server used to install Symfoware Server. If a table is created by a repository database connection user that is not the system administrator, the executable environment for this command must be also copied to a directory and created, even if Interstage Directory Service and Symfoware Server are installed on the same server.

On the server used to install Interstage Directory Service, the directory shown below contains files with compressed command environments. For this reason, copy the archive files to the server used to install Symfoware Server.

Windows32/64

When Interstage Directory Service is installed on a Windows® system:

- When the machine on which Symfoware® Server is installed is running Windows®:

```
C:\Interstage\IREP\bin\RDB\archive\compatible\WIN_SCRIPT_80.exe
```

- When the machine on which Symfoware® Server is installed is running Solaris or Linux:

```
C:\Interstage\IREP\bin\RDB\archive\compatible\UNIX_SCRIPT_80.tar.gz
```

Solaris32/64 Linux32/64

When Interstage Directory Service is installed on a Solaris or Linux system:

- When the machine on which Symfoware® Server is installed is running Solaris or Linux:

```
/opt/FJSVirep/bin/RDB/archive/compatible/UNIX_SCRIPT_80.tar.gz
```

- When the machine on which Symfoware® Server is installed is running Windows®:

```
/opt/FJSVirep/bin/RDB/archive/compatible/WIN_SCRIPT_80.exe
```

Copy the command environment according to the following procedure.

Creating tables with administrator authority

1. Forward the following archive files to the server used to install Symfoware Server.

   Windows32/64

   WIN_SCRIPT_80.exe (this is a self-extracting format file)

   Solaris32/64 Linux32/64

   UNIX_SCRIPT_80.tar.gz

2. Extract the archive files to any directory.

3. After the archive files are extracted, they must be deleted.

Creating tables as a repository database connection user without administrator authority

1. Copy the archive files.

   Ask the system administrator to extract or copy the platform archive files to any location. If Symfoware Server is installed on a different server, forward the archive files to that server.

2. Extract the copied archive files.

   The system administrator extracts the copied archive files.

3. Solaris32/64 Linux32/64

   After the archive files are extracted, change the directory owner.

   Change the directory owner so that the repository database connection user can execute this command.

   Example: Changing the repository database connection user ID to sradmin, the repository database connection user group to srgrp, and the directory name to UNIX_SCRIPT_80

   ```
   chown -R sradmin: srgrp UNIX_SCRIPT_80
   ```

4. Delete the copied archive files.

   If the archive files were copied or forwarded, they must be deleted.

Execution method

Windows32/64

To execute this command, log in to the console of the machine on which the command is executed or to a remote desktop that is connected to the console session.

Move to the directory where this command is stored and then execute the command.

If Interstage Directory Service and Symfoware Server are installed on separate servers, move to the directory where the command executable environment was extracted according to the copy operation in step 2.

The execution result for this command is output in the following files.

```
Directory used to extract the command executable environment/log/sr_crt.log
```

The execution result is output using the character code used when Symfoware Server was installed.

Notes

- When the executable environment of this command is extracted, delete the directory once the work is complete.

Solaris32/64

- To execute this command on a Solaris machine, verify that the following Solaris patches have been applied.

- Solaris 10:

118367-04

- If Shift-JIS ("ja_JP.PCK") is specified in the LANG environment variable, the message is output in English.

14.6 irepeditent

Name

irepeditent

Starts the Entry Administration Tool.

Synopsis

Solaris32/64 Linux32/64

```
irepeditent
```

Description

Starts the Entry Administration Tool.

Notes

- Windows32/64

This command starts the Entry Administration Tool in Solaris or Linux systems.

In Windows(R) systems, log in with administrator authority and start the Entry Administration Tool by selecting [Program] > [Interstage] > [Interstage Directory Service] > [Entry Administration Tool] from the [Start] menu.

- Solaris32/64 Linux32/64

Execute this command with administrator authority.

- Interstage Directory Service does not run a schema check when an entry is modified. If performing inappropriate modifications on entries, i.e. deleting a required attribute in an entry or adding an attribute that should not be added to the object class, information in the repository becomes inconsistent. Use extra care when modify the entries.

-   A bitmap display is required to use this command.

14.7 irepencupin

Name

irepencupin

Encrypts the user PIN of the SSL environment definition file.

Synopsis

```
irepencupin -f file
```

Description

Encrypts the user PIN defined in the SSL environment definition file.

The irepencupin command argument is described below:

-f file

   Specifies the SSL environment definition file containing the user PIN to be encrypted.

Notes

-   Execute this command with administrator authority.

   Solaris32/64

   When the command execution is successful, a backup file of the SSL environment definition file (ssl-environment-definition-file-name.backup) is created in the same directory. Delete the backup file if it is unnecessary.

Example

Windows32/64

Encrypt the user PIN in the SSL environment definition file, sslconfig.cfg.

```
irepencupin -f C:\conf\sslconfig.cfg
```

Solaris32/64 Linux32/64

Encrypt the user PIN in the SSL environment definition file, sslconfig.cfg.

```
irepencupin -f /conf/sslconfig.cfg
```

14.8 irepgendb

Name

irepgendb

Creates a table for storing repository data.

Synopsis

```
irepgendb
```

Description

Creates a table for storing repository data in a relational database (RDB) when the RDB is used as the repository database.

There are 2 modes for creating the table. The first method simply allocates the table size based on the maximum number of entries registered in the repository. The second method uses a detailed definition file to set the size for each table created by a user. If the detailed definition file is used, set the size that is allocated to the table in the template file provided and then execute this command.

The runtime environment for this command must be created in the following circumstances.

- If you are using Symfoware/RDB

  - If the Interstage Directory Service and the RDB are installed on different machines, the runtime environment for this command must be created on the machine in which the RDB is installed.

  - If the user that connects to the repository database to create the table is not the system administrator, the runtime environment for this command must be copied to any directory before being created.

- If you are using an Oracle database

  - To create a table as an Oracle software owner (oracle user), the runtime environment for this command must be copied to any directory before being created.

If you are using Symfoware/RDB

The following directories on the machine in which the Interstage Directory Service is installed contain files in which the command runtime environment has been compressed. For this reason, copy these archive files to the machine in which the Symfoware/RDB is installed.

- Windows32/64

  When Interstage Directory Service is installed on a Windows® system:

Machine used to install Symfoware Server	Location of compressed files for the command runtime environment
Windows®	C:\Interstage\IREP\bin\RDB\archive\DBCRT_Win.exe
Solaris	C:\Interstage\IREP\bin\RDB\archive\DBCRT_Sol.tar.gz
Linux(RHEL5(x86)/(Intel64))	C:\Interstage\IREP\bin\RDB\archive\DBCRT_RHEL5.tar.gz

- Solaris32/64 Linux32/64

  When Interstage Directory Service is installed on a Solaris or Linux system:

Machine used to install Symfoware Server	Location of compressed files for the command runtime environment
Solaris	/opt/FJSVirep/bin/RDB/archive/DBCRT_Sol.tar.gz
Linux(RHEL5(x86)/(Intel64))	/opt/FJSVirep/bin/RDB/archive/DBCRT_RHEL5.tar.gz
Windows®	/opt/FJSVirep/bin/RDB/archive/DBCRT_Win.exe

Copy the command environment according to the following procedure

Creating tables with administrator authority

1. Forward the following archive files to the server used to install RDB.

Machine used to install Symfoware Server	Compressed files for the command runtime environment
Windows®	DBCRT_Win.exe (self-extracting)
Solaris	DBCRT_Sol.tar.gz
Linux(RHEL5(x86)/(Intel64))	DBCRT_RHEL5.tar.gz

2. Extract the archive files to any directory.

3. After the archive files are extracted, they must be deleted.

Creating tables as a repository database connection user without administrator authority

1. Copy the archive files.

   Ask the system administrator to extract or copy the platform archive files to any location. If Symfoware/RDB is installed on a different server, forward the archive files to that server.

2. Extract the copied archive files.

   The system administrator extracts the copied archive files.

3. `Solaris32/64` `Linux32/64`

   After the archive files are extracted, change the directory owner.

   Change the directory owner so that the repository database connection user can execute this command.

   Example: Changing the repository database connection user ID to DSADMIN, the repository database connection user group to DSGRP, and the directory name to DBCRT

   ```
   chown -R DSADMIN:DSGRP DBCRT
   ```

4. Delete the copied archive files.

   If the archive files were copied or forwarded, they must be deleted.

Note

If the runtime environment for this command is copied to a Windows(R) machine that is different to the machine used to install Interstage Directory Service and then used, the following package must be installed. If it has not been installed, download it from the Microsoft website and then install it.

- Microsoft Visual C++ 2005 redistributable package (x86)

If you are using an Oracle database

The following directories on the machine on which the Interstage Directory Service is installed contain files in which the command runtime environment has been compressed. For this reason, extract or copy the platform archive files to any location on the machine on which the Interstage Directory Service is installed.

Machine used to install Interstage Directory Service	Location of compressed files for the command runtime environment
Windows®	C:\Interstage\IREP\bin\RDB\archive\DBCRT_Win.exe
Solaris	/opt/FJSVirep/bin/RDB/archive/DBCRT_Sol.tar.gz
Linux(RHEL5(x86)/(Intel64))	/opt/FJSVirep/bin/RDB/archive/DBCRT_RHEL5.tar.gz

Copy the command environment using the following procedure.

1. Copy the archive files.

   Ask the system administrator to extract or copy the platform archive files to any location.

2. Extract the copied archive files.

   The system administrator extracts the copied archive files.

3. `Solaris32/64` `Linux32/64`

   After the archive files are extracted, change the directory owner.

   Change the directory owner after the archive files are extracted so that the user can execute this command,

   Example: Changing the user ID to oracle, the user group to oinstall, and the directory name to DBCRT

   ```
   chown -R oracle:oinstall DBCRT
   ```

4. Delete the copied archive files.

   If the archive files were copied or forwarded, they must be deleted.

Execution method

Windows32/64

To execute this command, log in either to the console of the machine on which the command is executed or to a remote desktop that is connected to the console session.

Execute the command from the directory where it is stored.

If Interstage Directory Service and Symfoware/RDB are installed on separate servers, or a user other than the system administrator is to be created for connection to the repository database or a table with a user account, move to the directory where the command executable environment was extracted in step 2.

The execution result for this command is output in the following files:

- Interstage Directory Service and RDB are installed on the same server, or operated by the system administrator

Windows32/64

```
C:\Interstage\IREP\bin\RDB\log\ds_gen.log
```

Solaris32/64 Linux32/64

```
/opt/FJSVirep/bin/RDB/log/ds_gen.log
```

- If Interstage Directory Service and Symfoware/RDB are installed on separate servers, or a user other than the system administrator is to be created for connection to the repository database or a table with a user account:

If Interstage Directory Service and Symfoware/RDB are installed on separate servers, the execution result is output in the following file on the server used to install RDB:

Windows32/64

```
Directory used to extract the command executable environment \log\ds_gen.log
```

Solaris32/64 Linux32/64

```
Directory used to extract the command executable environment/log/ds_gen.log
```

If the database that is used is Symfoware/RDB, the execution result is output using the character code used when RDB was installed. If the database that is used is an Oracle database, the execution result is output in English.

Notes

- When the executable environment of this command is extracted, delete the directory once the work is complete.

Solaris32/64

- To execute this command on a Solaris machine, verify that the following Solaris patches have been applied.

  - Solaris 10:

    118367-04

14.9 ireplist

Name

ireplist

Lists Interstage Directory Service definitions.

Synopsis

```
ireplist
```

Description

Lists the Interstage Directory Service definitions created in the system using the standard output. The items that are output through the command execution are described in the table below:

Item name	Explanation
No	Indicates the number of repositories beginning at 1
Repository	Interstage Directory Service definition name (repository name)
Status	The status of the Interstage Directory Service to be output. The following types of status are used:
	Active: The Interstage Directory Service is active.
	Stopped: The Interstage Directory Service is not active.
	Starting: The Interstage Directory Service is being started.
	Stopping: The Interstage Directory Service is being stopped.
	Aborted: The Interstage Directory Service has not been started or stopped after abnormal termination.
	Unknown: Status collection failed.

If multiple Interstage Directory Services are defined, the processing results are listed in ascending order of repository names.

Note

- Execute this command with administrator authority.

Example

List the status where the repository names "fujitsu" and "is" are defined and only "fujitsu" is active.

```
ireplist
No Repository Status
-- ---------- --------
 1 fujitsu    Active
 2 is         Stopped
```

14.10 irepmodifyent

Name

irepmodifyent

Adds, modifies, or deletes an entry in the repository using a CSV file.

Synopsis

```
irepmodifyent [-h host] [-p port] -D binddn [-w passwd] [-C type] -r rule-
file -i csv-file ...
```

Description

Based on the rule file specifications, the irepmodifyent command reads information from the CSV file and adds, modifies, or deletes an entry in the repository.

For details about the rule file and CSV file, refer to "Using CSV Files Extracted from the Database" in the "Creating a Repository" chapter of the Directory Service Operator's Guide.

The *irepmodifyent* command arguments are described below:

-h host

Specifies the host name or IP address of the repository.

If this option is omitted, or only -h without the host is specified, the local host (127.0.0.1) is used.

-p port

Specifies the TCP port number of the repository.

The value defaults to 389 in the following cases:

- The option is omitted.

- 0 is specified for the TCP port number

- Only -p is specified without the port.

-D binddn

Specifies an Administrator DN of the repository. The character string representation of the DN must be defined by RFC2253.

Special characters such as spaces, asterisks (*), and backslashes (\) must be put in quotation marks. Use single or double quotation marks, depending on the command line used.

For details about how DN includes special characters, refer to the "Entry Management" chapter of the Directory Service Operator's Guide.

-w passwd

Specifies the Administrator DN password of the repository.

If this option is omitted, the user will later be requested to enter the Administrator DN password of the repository in interactive mode.

-C type

Specifies the character encoding used for CSV files. The table below lists the character set generally used and the values that can be specified for them:

Windows32/64

Character set	Values to be specified
ISO-8859-1	ISO-8859-1
Cp1252	Cp1252
UTF-8	UTF-8

If this option is omitted, Cp1252 is used.

Solaris32/64

Character set	Values to be specified
ISO-8859-1	ISO-8859-1
ISO646-US	ISO646-US
ASCII	US-ASCII
UTF-8	UTF-8

If this option is omitted, ISO646-US is used.

Linux32/64

Character set	Values to be specified
ISO-8859-1	ISO-8859-1
ASCII	US-ASCII
UTF-8	UTF-8

If this option is omitted, ISO-8859-1 is used.

If only -C is specified without type, operation continues assuming that the -C option is not specified.

Allowable values for this option depend on the JDK version. For details, refer to the JDK documentation.

-r rule-file

Specifies the rule file. For details of the rule file, refer to "Importing User Information Using the CSV File" in the "Creating a Repository" chapter of the Directory Service Operator's Guide.

-i csv-file

Specifies a CSV file. To specify multiple files, delimit them by using a blank character. For details of the CSV file, refer to "Importing User Information Using the CSV File" in the "Creating a Repository" chapter of the Directory Service Operator's Guide.

Notes

- If a standard database is used, the Interstage Directory Service does not run a schema check when an entry is modified. If inappropriate modifications are performed on entries, i.e. deleting a required attribute in an entry or adding an attribute that should not be added to the object class, information in the repository becomes inconsistent. Use extra care when modifying an entry.

- Execute this command with Administrator authority.

- Write the associations between the CSV format and user information entry attributes to the rule file. Write role configuration information and user information to the same CSV file. There is no need to use separate files.

Example

Read information from CSV file "add.csv" and adds an entry to the repository according to the rule file "rule.xml."

```
irepmodifyent -h hostname -p 389 -D
"cn=manager,ou=interstage,o=fujitsu,dc=com" -w admin -r rule.xml -i add.csv
(*1)
```

*1 Write this statement in a single line without a linefeed.

14.11 irepmodtbl

Name

irepmodtbl

Changes the repository data storage table definition

Synopsis

```
irepmodtbl
```

Description

Changes the table definition for storing repository data when a relational database (RDB (Symfoware Server)) is used as the repository database.

If Interstage Directory Service and Symfoware Server are installed on separate servers, the executable environment for this command must be created on the server used to install Symfoware Server. If a table is changed by a repository database connection user that is not the system administrator, the executable environment for this command must be also copied to a directory and created, even if Interstage Directory Service and Symfoware Server are installed on the same server.

On the server used to install Interstage Directory Service, the directory shown below contains files with compressed command executable environments. For this reason, copy the archive files to the server used to install Symfoware Server.

Windows32/64

Interstage Directory Service is installed on Windows(R)

- Symfoware Server is installed on Windows(R):

```
C:\Interstage\IREP\bin\RDB\archive\compatible\WIN_SCRIPT_80.exe
```

- Symfoware Server is installed on Solaris/Linux

```
C:\Interstage\IREP\bin\RDB\archive\compatible\UNIX_SCRIPT_80.tar.gz
```

Solaris32/64 Linux32/64

Interstage Directory Service is installed on Solaris/Linux

- Symfoware Server is installed on Solaris/Linux:

```
/opt/FJSVirep/bin/RDB/archive/compatible/UNIX_SCRIPT_80.tar.gz
```

- Symfoware Server is installed on Windows(R)

```
/opt/FJSVirep/bin/RDB/archive/compatible/WIN_SCRIPT_80.exe
```

Copy the command environment according to the following procedure.

Changing table definitions with administrator authority

1. Forward the following archive files to the server used to install Symfoware Server.

   Windows32/64

   WIN_SCRIPT_80.exe (this is a self-extracting format file)

   Solaris32/64 Linux32/64

   UNIX_SCRIPT_80.tar.gz

2. Extract the archive files to any directory.

3. After the archive files are extracted, they must be deleted.

Changing table definitions as a repository database connection user without administrator authority

1. Copy the archive files.

2. Ask the system administrator to extract or copy the platform archive files to any location. If Symfoware Server is installed on a different server, forward the archive files to that server.

3. Extract the copied archive files.

4. The system administrator extracts the copied archive files.

5. Solaris32/64 Linux32/64

   After the archive files are extracted, change the directory owner.

   After the archive files are extracted, change the directory owner so that the repository database connection user can execute this command in the repository application account.

   Example: Changing the repository database connection user ID to sradmin, the repository database connection user group to srgrp, and the directory name to UNIX_SCRIPT_80:

   ```
   chown -R sradmin:srgrp UNIX_SCRIPT_80
   ```

6. Delete the copied archive files.

7. If the archive files were copied or forwarded, they must be deleted.

Execution method

Windows32/64

To execute this command, log in to the console of the machine on which the command is executed or to a remote desktop that is connected to the console session.

Move to the directory where this command is stored and then execute the command.

If Interstage Directory Service and Symfoware Server are installed on separate servers, move to the directory where the command executable environment was extracted according to the copy operation in step 2.

The execution result for this command is output in the following files.

```
Directory used to extract the command executable environment/log/sr_mod.log
```

The execution result is output using the character code used when Symfoware Server was installed.

Notes

- This can only be executed for newly created databases for which entry information has not been registered. When the repository is created, the initial tree is registered. For this reason, this command cannot be operated.

- When the executable environment of this command is extracted, delete the directory once the work is complete.

- When extending the length of binary data, specify so that the size of the extended data is less than or equal to 16MB. When extending the length of any other data type, specify so that the size of the extended data is less than or equal to 10,000 bytes.

Solaris32/64

- To execute this command on a Solaris machine, verify that the following Solaris patches have been applied.

    - Solaris 10:

      118367-04

- If Shift-JIS ("ja_JP.PCK") is specified in the LANG environment variable, the message is output in English.

14.12 irepschema

Name

irepschema

Registers/deletes/shows the user definition schema

Synopsis

1. Registering the user definition schema

   ```
   irepschema -R repository -a filepath
   ```

2. Deleting the user definition schema

   ```
   irepstart -R repository -d names...
   ```

3. Displaying the user definition schema

   ```
   irepstart -R repository -l
   ```

Description

1. Registering the user definition schema

   Registers the specified user definition schema file contents in the repository. Stop the repository before executing this command.

   This command compares the consistency of the definition statement syntax in the user definition schema with other repository schema definitions. The definitions in the specified file are examined. If there is incorrect syntax or contradictions with other definitions, the schema is not registered and an error occurs. A new definition is registered so that the syntax and consistency can be maintained. Although the OID format is examined, there is no examination to determine whether this is globally unique.

2. Deleting the user definition schema

Deletes the specified object class name or attribute name schema definition from the repository. Stop the repository before executing this command.

This command also compares the consistency of the definition statement syntax in the user definition schema with other repository schema definitions even when deleting the user definition schema. This command should be used when deleting a user definition schema that has already been registered. The definitions in the specified file are examined. Do not use it to delete a user definition schema that is still running.

The following types of schema definition cannot be deleted:

- Basic type attributes of other attributes

- Basic object classes of other object classes

- Essential object class attributes or option attributes

- Standard schemata provided in Interstage Directory Service

3. Displaying the user definition schema

Shows the specified repository user definition schema contents.

The irepschema command arguments are described below.

-R repository

Specify the name of the repository used to register, delete, or display the user definition schema.

The name is not case-sensitive.

-a filepath

Registers the user definition schema. Specify the file used to describe the schema definition in the filepath parameter.

It is not possible to specify more than one file. If a user definition schema has already been registered, a new definition is added (a user definition schema has already been defined is not overwritten).

-d names

Deletes the user definition schema. Specify the object class name or attribute name to be deleted in the names parameter. Specify more than one object class name or attribute name by separating each using a space character. Do not enter a line feed.

If more than one object class name or attribute name is specified, and the attempt to delete even one of them fails, the deletion of all the specified user definitions is canceled.

-l

Outputs the user definition schema using the standard output.

Notes

- Execute this command with Administrator authority.

- Before deleting a user definition schema, delete the entry or entry attribute that uses the deletion target object class or attribute from the entry data in the repository. If the schema definition is deleted while entry data that uses the deletion target object class or attribute remains in the repository, it is not possible to access the entry.

Example

Registering the user definition schema of repository "rep001" in the "schema.txt" user definition schema file

Windows32/64

```
irepschema -R rep001 -a C:\conf\schema.txt
```

Solaris32/64　Linux32/64

```
irepschema -R rep001 -a /conf/schema.txt
```

14.13 irepstart

Name

irepstart

Starts a repository.

Synopsis

Solaris32/64 Linux32/64

```
irepstart -R repository
```

Description

Starts a Interstage Directory Service repository.

The irepstart command argument is described below.

-R repository

Specifies the name of the repository to be started.

Uppercase and lowercase letters are not distinguished. Uppercase letters are regarded as lowercase letters.

Notes

Windows32/64

- This command is used to start a repository in Solaris and Linux systems.

  In Windows(R) systems, use the Interstage Management Console to start a repository.

Solaris32/64 Linux32/64

- Execute this command with Administrator authority.

- Executing this command and any of the following operations concurrently for one repository may cause the repository or the Interstage data store to malfunction:

  - Creating a repository using the Interstage Management Console

  - Deleting a repository using the Interstage Management Console

  - Starting a repository using the Interstage Management Console

  - Stopping a repository using the Interstage Management Console

  - Using the irepbacksys command to back up or export Interstage Directory Service resources

  - Using the ireprestsys command to restore or import Interstage Directory Service resources

  - Using the enablerstart command to start the Interstage data store

  - Using the irepstop command to stop a repository

Example

Solaris32/64 Linux32/64

Start the repository "rep001".

```
irepstart -R rep001
```

14.14 irepstop

Name

irepstop

Stops a repository.

Synopsis

Solaris32/64 Linux32/64

```
irepstop -R repository
```

Description

The irepstop command stops the Interstage Directory Service repository.

The irepstop command argument is described below.

-R repository

Specifies the name of the repository to be stopped.

Uppercase and lowercase letters are not distinguished. Uppercase letters are regarded as lowercase letters.

Notes

Windows32/64

- This command is used to stop a repository in Solaris and Linux systems.

  In Windows(R) systems, use the Interstage Management Console to stop a repository.

Solaris32/64 Linux32/64

- Execute this command with administrator authority.

- Executing this command and any of the following operations concurrently for one repository may cause the repository or the Interstage data store to malfunction:

  - Creating a repository using the Interstage Management Console

  - Deleting a repository using the Interstage Management Console

  - Starting a repository using the Interstage Management Console

  - Stopping a repository using the Interstage Management Console

  - Using the irepbacksys command to back up or export Interstage Directory Service resources

  - Using the ireprestsys command to restore or import Interstage Directory Service resources

  - Using the enablerstart command to start the Interstage data store

  - Using the irepstart command to start a repository

Example

Solaris32/64 Linux32/64

Stop the repository "rep001".

```
irepstop -R rep001
```

14.15 ldapdelete

Name

ldapdelete

Deletes a repository entry.

Synopsis

```
ldapdelete [-H uri | [-h host] [-p port]] [-D binddn] [-w passwd | -W] [-c]
[-G type] [-m] [-n] [-r] [-v] [-V] [-Z file] [-f file | dn...]
```

Description

The ldapdelete command deletes the entry with the specified DN from the repository. A DN can be specified by using the following three methods:

- File (-f file)

- Command line (dn)

- Standard input

  If a DN is not specified either with a file or on the command line, the command reads a DN from standard input. Pressing the Return key after entering a DN deletes the corresponding entry. If blank lines continue, the command ends reading from standard input. The command also ends if it fails in deletion.

Windows32/64

To include characters added in JIS2004 in the DN, specify UTF8 as the character code type using the -G option. Specify the DN of the entry to be deleted in the file using the -f option.

The ldapdelete command arguments are explained below:

-H uri

Specifies the host name and port number of the repository using the URI format (schema + host name + port number). Enclose the IPv6 address in square brackets ("[" and "]").

Example:

Normal port specification: ldap://hostname.fujitsu.com:389

SSL port specification: ldaps://hostname.fujitsu.com:636

An IPv6 address specified in a normal port ldap://[IP address]:389

If omitted or set to 0, the port number defaults to 389. With the -Z option specified, the port number defaults to 636 if it is omitted or set to 0. This option cannot be used with the -h option and the -p option.

-h host

Specifies the host name or IP address of the repository.

If this option is omitted, the local host (127.0.0.1) is used. This option cannot be used with the -H option.

-p port

Specifies the TCP port number of the repository.

If omitted or set to 0, this option defaults to 389. If this option is omitted or set to 0 with the -Z option specified, the port number defaults to 636. This option cannot be used with the -H option.

-D binddn

Specifies an Administrator DN for the repository. The character string representation of the DN must be defined by RFC2253.

Special characters such as spaces, asterisks (*), and backslashes (\) must be put in quotation marks. Use single or double quotation marks, depending on the command line used.

For special characters, refer to the "Entry Management" chapter of the Directory Service Operator's Guide.

If this option and the -W or -w option are omitted, access will take place anonymously.

-w passwd

Specifies the Administrator DN password of the repository. This option cannot be specified with the -W option.

If this option and the -D or -W option are omitted, access will take place anonymously.

-W

Specifies that the Administrator DN password of the repository is entered in interactive mode. The password can be specified using from 1 up to 256 characters. This option cannot be used with the -w option.

If this option and the -D or -w option are omitted, access will take place anonymously.

-c

Executes in continuous operation mode. If the DN to be deleted was specified by file (-f file) or command line (dn), the command does not cancel processing and proceeds to the next processing.

If this option is omitted, the process aborts on errors.

If DNs are specified on the command line, the command continues to process the next DN when an error occurs even if this option is omitted.

-G type

Specifies the character encoding to be used by the command. The table below lists the code types with the values that can be specified.

Windows32/64

Character set	Values to be specified
ISO-8859-1	88591
Shift-JIS	SJIS
UTF-8	UTF8

If this option is omitted, 88591 is used.

To include characters added in JIS2004 in the DN, specify UTF8.

Specify the DN of the entry to be deleted in the file using the -f option.

Solaris32/64

Character set	Values to be specified
ISO-8859-1	88591
Shift-JIS	SJIS
Japanese EUC	EUC (*1)
UTF-8	UTF8

*1 This value can be specified only when LDAP protocol version 3 is used.

If the option is omitted, the locale environment (LANG environment variable) is used.

When the user logs in with Administrator authority, the locale environment may not have been set. To account for this case, be sure to specify this option.

The locale environments and the corresponding character set used by the command when this option is omitted are listed below:

LANG environment variables	Character set
ja japanese	Japanese EUC
ja_JP.PCK (for Solaris only)	Shift-JIS
Other than the above	ISO-8859-1

Linux32/64

Character set	Values to be specified
ISO-8859-1	88591
Shift-JIS	SJIS
Japanese EUC	EUC
UTF-8	UTF8

If the option is omitted, the locale environment (LANG environment variable) is used.

When the user logs in with administrator authority, the locale environment may not have been set. To account for this case, be sure to specify this option.

The locale environments and the corresponding character set used by the command when this option is omitted are listed below:

LANG environment variables	Character set
ja_JP.UTF-8	UTF-8
Other than the above	ISO-8859-1

-m

Displays the usage information.

-n

Only authorization (Bind) request is sent to repository. Deletion requests are not sent.

This option is used for operation confirmation, before command execution or repository startup.

If authentication was successful, nothing is displayed. If authentication failed, or if an option was specified incorrectly, a message will be displayed.

-r

Deletes entries recursively.

If the specified DN is not a leaf entry, all subordinate entries up to the leaf entry and all sub-trees will be deleted.

Care must be taken when using this option because the command does not prompt the user to confirm deletions.

-v

Outputs detailed information.

-V

Displays the command version.

Example:

```
ldapdelete: @(#) $ Interstage Directory Service V3.0: ldapdelete (Dec 16 2005 12:54:54) $
(LDAP library: FUJITSU LIMITED 300)
```

-Z file

Specifies that SSL is used for safety communication and authentication. For authentication, the option argument specified with the -D, -w, or -W option is used for simple authentication.

For the file parameter, specify the name of the file containing items necessary for SSL environment setup. For details of environment setting, refer to the "Setting up an Environment for SSL Communication" chapter of the Directory Service Operator's Guide.

-f file

For the file parameter, specify the file name where the DN of the entry to be deleted is written.

When specifying multiple entries in a file, separate each entry with a linefeed. (*1)

    *1 Specify only the DN, not the LDIF, in the file.

An example of writing a file is shown below.

The following example deletes two entries "cn=User002 Fujitsu,ou=interstage,o=fujitsu,dc=com" and "cn=User003 Fujitsu,ou=interstage,o=fujitsu,dc=com".

```
cn=User002 Fujitsu,ou=interstage,o=fujitsu,dc=com
cn=User003 Fujitsu,ou=interstage,o=fujitsu,dc=com
```

This option cannot be used together with the dn option. If this option is specified together with the dn option, the DN specified in this option will be valid.

If this option and the dn option are omitted, the DN of entries to be deleted will be read from the standard input.

dn

Specifies the DN of the entry that is to be deleted. When specifying multiple DNs on the command line, delimit them by using a blank.

Special characters such as spaces, asterisks (*), and backslashes (\) must be put in quotation marks. Use single or double quotation marks, depending on the command line used.

For details about how DN includes special characters, refer to the "Entry Management" chapter of the Directory Service Operator's Guide.

This option cannot be used together with the -f option.

If this option and the -f option are omitted, the command reads the DN of the entry that is to be deleted from standard input.

When specifying multiple DNs on the command line, delimit them by using a blank.

Notes

Windows32/64

- The LDAP command for the other product installed on the same machine may be executed depending on the setting of the Path environment variable.

  - If it is necessary to use the LDAP command for the other product together with Interstage Directory Service:

    Specify the LDAP command of Interstage Directory Service with its full path [C:\Interstage\bin\ldap-command-name].

  - If it is not necessary to use the LDAP command for the other product:

    In the Path environment variable, set the LDAP command path of Interstage Directory Service [C:\Interstage\bin] in front of the path of the other product's LDAP command.

Solaris32/64 Linux32/64

- The LDAP command for the OS or other product installed on the same machine may be executed depending on the setting of the PATH environment variable.

  - If it is necessary to use the LDAP command for the OS or other product together with Interstage Directory Service:

    Specify the LDAP commands of the Interstage Directory Service with its full path [/opt/FJSVirepc/bin/ldap-command-name].

  - If it is not necessary to use the LDAP command for the OS or other product:

    In the PATH environment variable, set the LDAP command path of Interstage Directory Service [/opt/ FJSVirepc/bin] in front of [/usr/bin], [/bin] and the path of the other product's LDAP command.

- The user authority for this command may change depending on the environment that was used to install this product. For details, refer to "User Permissions" in the "Notes on Using Commands" chapter.

Example

Delete an entry using the file "del.txt".

```
ldapdelete -H ldap://hostname:389 -D "cn=manager,ou=interstage,o=fujitsu,dc=com"
-w admin -f del.txt (*1)
```

*1 Write this statement in a single line without a linefeed.

Delete an entry by specifying the DN.

```
ldapdelete -H ldap://hostname:389 -D "cn=manager,ou=interstage,o=fujitsu,dc=com"
-w admin "cn=User001 Fujitsu,ou=interstage,o=fujitsu,dc=com" (*1)
```

*1 Write this statement in a single line without a linefeed.

Delete an entry by reading the DN from standard input.

```
ldapdelete -H ldap://hostname:389 -D "cn=manager,ou=interstage,o=fujitsu,dc=com"
-w admin[RETURN]
cn=User001 Fujitsu,ou=interstage,o=fujitsu,dc=com[RETURN] (*1)
```

*1 [RETURN] indicates a pressing of the Return key. Specify one DN for the entry to be deleted per line.

14.16 ldapmodify

Name

ldapmodify

Adds, modifies, or deletes a repository entry.

Synopsis

```
ldapmodify [-H uri | [-h host] [-p port]] [-D binddn] [-w passwd | -W] [-a]
[-c] [-G type] [-m] [-n] [-r] [-S file] [-v] [-V] [-Z file] [-f file]
```

Description

The ldapmodify command adds, modifies, or deletes a repository entry according to the specified information. Information can be specified in the following two methods:

- File (-f file)

    The information to be specified must be written in the LDIF in the file. For details, refer to "Using the LDAP Data Interchange Format (LDIF)" in the "Creating a Repository" chapter of the Directory Service Operator's Guide.

- Standard input

    If information is not specified with a file, the command reads information from standard input. Pressing the Return key to insert a blank line after entering information adds, modifies, or deletes the relevant entry. If blank lines continue, the command ends reading from standard input. The command also ends if it fails in addition, modification, or deletion.

Windows32/64

To include characters added in JIS2004 in the add/update/delete information for the entry, specify UTF8 as the character code type using the -G option. Specify the modified information for the entry in the file using the -f option.

The ldapmodify command arguments are described below:

-H uri

Specifies the host name and port number of the repository using the URI format (schema + host name + port number). Enclose the IPv6 address, in square brackets ("[" and "]").

Example:

Normal port specification: ldap://hostname.fujitsu.com:389

SSL port specification: ldaps://hostname.fujitsu.com:636

An IPv6 address specified in a normal port ldap://[IP address]:389

If omitted or set to 0, the port number defaults to 389. With the -Z option specified, the port number defaults to 636 if it is omitted or set to 0. This option cannot be used with the -h option and the -p option.

-h host

Specifies the host name or IP address of the repository.

If this option is omitted, the local host (127.0.0.1) is used. This option cannot be used with the -H option.

-p port

Specifies the TCP port number of the repository.

If omitted or set to 0, this option defaults to 389. If this option is omitted or set to 0 with the -Z option specified, the port number defaults to 636. This option cannot be used with the -H option.

-D binddn

Specifies an Administrator DN for the repository. The character string representation of the DN must be defined by RFC2253.

Special characters such as spaces, asterisks (*), and backslashes (\) must be put in quotation marks. Use single or double quotation marks, depending on the command line used.

For details about how DN includes special characters, refer to the "Entry Management" chapter of the Directory Service Operator's Guide.

If this option and the -W or -w option are omitted, access will take place anonymously.

-w passwd

Specifies the Administrator DN password of the repository. This option cannot be specified with the -W option.

If this option and the -D or -W option are omitted, access will take place anonymously.

-W

Specifies that the Administrator DN password of the repository is entered in interactive mode. This option cannot be specified with the -w option.

If this option and the -D or -w option are omitted, access will take place anonymously.

-a

If the type of LDIF change (changetype line) is omitted, the operation is the same as when add is specified (an entry is added). If a value is specified on the changetype line, the changetype line specification has priority.

-a option specification	changetype line specification	Operation of the command
Yes	No	Add entry
	add	Add entry
	delete	Delete entry
	modify	Update entry
	modrdn	Change RDN of entry
No	No	Update entry
	add	Add entry
	Delete	Delete entry
	modify	Update entry
	modrdn	Change RDN of entry

For details, refer to "Creating Data", "Using the LDAP Data Interchange Format (LDIF)" in the "Creating a Repository" chapter of the Directory Service Operator's Guide.

-c

Executes in continuous operation mode. If entry change information is specified in a file (-f file), the command does not cancel processing and proceeds to the next processing.

If the option is omitted, the command aborts on error.

-G type

Specifies the character encoding to be used by the command. The table below lists the code types with their values that can be specified.

Character set	Values to be specified
ISO-8859-1	88591
Shift-JIS	SJIS
UTF-8	UTF8

If this option is omitted, 88591 is used.

To include characters added in JIS2004 in the add/update/delete information for the entry, specify UTF8 as the character code type using the -G option. Specify the modified information for the entry in the file using the -f option.

Character set	Values to be specified
ISO-8859-1	88591
Shift-JIS	SJIS
Japanese EUC	EUC (*1)
UTF-8	UTF8

*1 This value can be specified only when LDAP protocol version 3 is used.

If this option is omitted, the locale environment (LANG environment variable) is used.

When the user logs in with administrator authority, the locale environment may have not been set. To account for this case, be sure to specify this option.

The locale environments and the corresponding code types used by the command when this option is omitted are listed below:

LANG environment variables	Character set
ja japanese	Japanese EUC
ja_JP.PCK (for Solaris only)	Shift-JIS
Other than the above	ISO-8859-1

Character set	Values to be specified
ISO-8859-1	88591
Shift-JIS	SJIS
Japanese EUC	EUC
UTF-8	UTF-8

If this option is omitted, the locale environment (LANG environment variable) is used.

When the user logs in with administrator authority, the locale environment may have not been set. To account for this case, be sure to specify this option.

The locale environments and the code types used by the command when this option is omitted are cross-referenced below:

LANG environment variables	Character set
ja_JP.UTF-8	UTF-8
Other than the above	ISO-8859-1

-m

    Displays the usage information.

-n

    Only authorization (Bind) request is sent to repository. Addition/modification/deletion requests are not sent.

    This option is used for operation confirmation, before command execution or repository startup.

    If authentication was successful, nothing is displayed. If authentication failed, or if an option was specified incorrectly, a message will be displayed.

-r

    Specifies the operation to be performed if the attribute change mode ("add" | "delete" | "replace") is omitted for the next line while "modify" is specified for the LDIF change type (changetype line). If this option is specified with the attribute change mode omitted, the default (replace) is used. An addition (add) is performed if this option is omitted.

    If this option is omitted, "add" is used. For details, refer to "Using the LDAP Data Interchange Format (LDIF)" in the "Creating a Repository" chapter of the Directory Service Operator's Guide.

-S file

    Writes information about added or updated entries that were skipped because of an error to the specified file. Error messages returned by the server are added as comments.

    Output example:

```
# Error: Already exists (68), additional info: LDAP_ALREADY_EXISTS: Rdn
already member of the current parent node.
dn: cn=User001 Fujitsu,ou=interstage,o=fujitsu,dc=com
changetype: add
objectClass: top
objectClass: person
objectClass: organizationalPerson
objectClass: inetOrgPerson
cn: User001 Fujitsu
sn: Fujitsu
```

-v

    Outputs detailed information.

-V

    Specify the command version

    Example:

```
ldapmodify: @(#) $ Interstage Directory Service V3.0: ldapmodify (Dec 16
2005 12:54:54) $
(LDAP library: FUJITSU LIMITED 300)
```

-Z file

    Specifies that SSL is used for safe communication and authentication. For authentication, the option argument specified with the -D, -w, or -W option is used for simple authentication.

    For the file parameter, specify the name of the file containing items necessary for SSL environment setup. For details about environment settings, refer to the "Setting up an Environment for SSL Communication" chapter of the Directory Service Operator's Guide.

-f file

    Specifies the file in which entry modification information is written for the file parameter.

    If this option is omitted, the command reads information from standard input.

    Entry modification information must be written in LDIF. For details, refer to "Using the LDAP Data Interchange Format (LDIF)" in the "Creating a Repository" chapter of the Directory Service Operator's Guide.

Notes

- In standard databases, the Interstage Directory Service does not run a schema check when an entry is modified. If performing inappropriate modifications on entries, i.e. deleting a required attribute in an entry or adding an attribute that should not be added to the object class, information in the repository becomes inconsistent. Use extra care when modifying an entry.

Windows32/64

- The LDAP command for the other product installed on the same machine may be executed depending on the setting of the Path environment variable.

    - If it is necessary to use the LDAP command for the other product together with Interstage Directory Service:

    Specify the LDAP command of Interstage Directory Service with its full path [C:\Interstage\bin\ldap-command-name].

    - If it is not necessary to use the LDAP command for the other product:

    In the Path environment variable, set the LDAP command path of Interstage Directory Service [C:\Interstage\bin] in front of the path of the other product's LDAP command.

Solaris32/64 Linux32/64

- The LDAP command for the OS or other product installed on the same machine may be executed depending on the setting of the PATH environment variable.

    - If it is necessary to use the LDAP command for the OS or other product together with Directory Service:

    Specify the LDAP commands of the Directory Service with its full path [/opt/FJSVirepc/bin/ldap-command-name].

    - If it is not necessary to use the LDAP command for the OS or other product:

    In the PATH environment variable, set the LDAP command path of Interstage Directory Service [/opt/ FJSVirepc/bin] in front of [/usr/bin], [/bin] and the path of the other product's LDAP command.

- The user authority for this command may change depending on the environment that was used to install this product. For details, refer to "Notes on Using Commands".

Example

Add an entry using the LDIF file "addldif.txt".

```
ldapmodify -H ldap://hostname:389 -D "cn=manager,ou=interstage,o=fujitsu,dc=com"
-w admin -f addldif.txt (*1)
```

*1 Write this statement in a single line without a linefeed.

Add an entry by reading information from standard input.

```
ldapmodify -H ldap://hostname:389 -D "cn=manager,ou=interstage,o=fujitsu,dc=com"
-w admin[RETURN]
dn: cn=User001 Fujitsu, ou=interstage,o=fujitsu, dc=com[RETURN]
changetype: add[RETURN]
objectClass: top[RETURN]
objectClass: person[RETURN]
objectClass: organizationalPerson[RETURN]
objectClass: inetOrgPerson[RETURN]
cn: User001 Fujitsu[RETURN]
sn: Fujitsu[RETURN]
[RETURN] (*1)
```

*1 [RETURN] indicates that the Return key has to be pressed. After specifying the DN of the entry to be added, enter information for one attribute per line. After entering all information for one entry, press the Return key once again to indicate that this is the end of the information.

14.17 ldapsearch

Name

ldapsearch

Searches for a repository entry.

Synopsis

```
ldapsearch -b searchbase [-H uri | [-h host] [-p port]] [-D binddn]
[-w passwd | -W] [-A] [-G type] [-l timelimit] [-m] [-n] [-s scope]
[-S attr] [-t] [-T path] [-u] [-v] [-V] [-z sizelimit] [-Z file] [-f file]
[filter] [attributes...]
```

Description

The ldapsearch command searches for a repository entry based on the conditions specified by the search filter. The command then places the detected entry in LDIF on standard output.

Windows32/64

To include characters added in JIS2004 in the search condition, specify UTF8 as the character code type using the -G option. Specify the search filter in the file using the -f option.

If it is expected that characters added in JIS2004 will be included in the search result, specify UTF8 as the character code type using the -G option. Redirect the search result to the file.

The ldapsearch command arguments are explained below:

-b searchbase

Specifies the search base (the entry to begin search with). The command begins search with the specified search base.

Special characters such as spaces, asterisks (*), and backslashes (\) must be put in quotation marks. Use single or double quotation marks, depending on the command line used.

For details about how DN includes special characters, refer to the "Entry Management" chapter of the Directory Service Operator's Guide.

Note that searchbase cannot be omitted.

-H uri

Specifies the host name and port number of the repository using the URI format (schema + host name + port number). Enclose the IPv6 address in square brackets ("[" and "]").

Example:

Normal port specification: ldap://hostname.fujitsu.com:389

SSL port specification: ldaps://hostname.fujitsu.com:636

An IPv6 address specified in a normal port ldap://[IP address]:389

If omitted or set to 0, the port number defaults to 389. With the -Z option specified, the port number defaults to 636 if it is omitted or set to 0. This option cannot be used with the -h option and the -p option.

-h host

Specifies the host name or IP address of the repository.

If this option is omitted, the local host (127.0.0.1) is used. This option cannot be used with the -H option.

-p port

Specifies the TCP port number of the repository.

If omitted or set to 0, this option defaults to 389. If this option is omitted or set to 0 with the -Z option specified, the port number defaults to 636. This option cannot be used with the -H option.

-D binddn

Specifies an Administrator DN for the repository or specifies a general user (entry registered in the repository) DN. The character string representation of the DN must be defined by RFC2253.

Special characters such as spaces, asterisks (*), and backslashes (\) must be put in quotation marks. Use single or double quotation marks, depending on the command line used.

For details about how DN includes special characters, refer to the "Entry Management" chapter of the Directory Service Operator's Guide.

If this option and the -W or -w option are omitted, access will take place anonymously.

-w passwd

Specifies the Administrator DN password of the repository. This option cannot be specified with the -W option.

If this option and the -D or -W option are omitted, access will take place anonymously.

-W

Specifies that the Administrator DN password of the repository is entered in interactive mode. The password can be specified using from 1 up to 256 characters. This option cannot be specified with the -w option.

If this option and the -D or -w option are omitted, access will take place anonymously.

-A

Displays attribute names only. No values are displayed.

-G type

Specifies the character encoding to be used by the command. The table below lists the character set with their values that can be specified.

Windows32/64

Character set	Values to be specified
ISO-8859-1	88591
Shift-JIS	SJIS
UTF-8	UTF8

If this option is omitted, 88591 is used.

To include characters added in JIS2004 in the search condition, or if it is expected that characters added in JIS2004 will be included in the search result, specify UTF8.

Output the search result to the file.

Solaris32/64

Character set	Values to be specified
ISO-8859-1	88591
Shift-JIS	SJIS
Japanese EUC	EUC (*1)
UTF-8	UTF8

*1 This value can only be specified when LDAP protocol version 3 is used.

If the option is omitted, the locale environment (LANG environment variable) is used.

When the user logs in with administrator authority, the locale environment may have not been set. To account for this case, make sure that this option is specified.

The locale environments and the corresponding character set used by the command when this option is omitted are listed below:

LANG environment variables	Character set
ja japanese	Japanese EUC
ja_JP.PCK (for Solaris only)	Shift-JIS
Other than the above	ISO-8859-1

Linux32/64

Character set	Values to be specified
ISO-8859-1	88591
Shift-JIS	SJIS
Japanese EUC	EUC
UTF-8	UTF-8

If the option is omitted, the locale environment (LANG environment variable) is used.

When the user logs in with administrator authority, the locale environment may have not been set.

To account for this case, be sure to specify this option.

The locale environments and the corresponding character set used by the command when this option is omitted are listed in the table below:

LANG environment variables	Character set
ja_JP.UTF-8	UTF-8
Other than the above	ISO-8859-1

-l timelimit

Specifies the search time limit (seconds), BIND results, and search result wait time (seconds) for the timelimit parameter. The default is infinite.

Note:

The specification of this option may not be enabled depending on the DN (bind DN) to access the repository and the search timeout setting on the server. For details, refer to "Search Timeout" under "Setting Items of the Interstage Management Console" section in the "Creating a Repository" chapter of the Directory Service Operator's Guide.

-m

Displays the usage information.

-n

Only authorization (Bind) request is sent to repository. Search request is not sent.

This option is used for operation confirmation, before command execution or repository startup.

If authentication was successful, nothing is displayed. If authentication failed, or if an option was specified incorrectly, a message will be displayed.

-s scope

Specifies one of the following for the scope of search (scope parameter):

- base: Search only the layer specified with the -b option.

- one: Search the layer one level lower than the one specified with the -b option.

- sub: Search the layer specified with the -b option and all of its subordinate layers. (Default)

-S attr

Specifies that the results of the search for attribute attr are sorted in ascending order in the client. The "attr" attribute specified for this option must be included in the search attributes specified for the "attributes" option. If the "attr" attribute is not included in the search attributes, it is not sorted.

-t

Writes to files the result of a search for all attributes. The number of files created is the number of attribute names in the search results. File names are in the format "ldapsearch-attribute name-unique six character string", as in the following example:

Example:

   ldapsearch-ou-pwm1aI

`Windows32/64`

If -t is not specified, the files will be created in the path specified by the following environment variables. The priority of environment variables is as follows:

1. User environment variable TMPDIR

2. System environment variable TMPDIR

3. User environment variable TMP

4. System environment variable TMP

5. User environment variable TEMP

6. System environment variable TEMP

`Solaris32/64` `Linux32/64`

If -t is not specified, the files will be created in /tmp.

-T path

Specifies the path where search result files are created when the -t option is specified. A path that already exists should be specified. If the path does not exist, create it before running the command.

`Windows32/64`

If this option is omitted, the search result files will be created in the path specified in the environment variable. Refer to the explanation accompanying the -t option for a list of valid environment variables.

`Solaris32/64` `Linux32/64`

If this option is omitted, the search result files will be created in /tmp.

-u

Specifies that a user-friendly name is added to the output format for display.

A user-friendly name is a line beginning with "ufn:".

Example:

```
dn: cn=User001 Fujitsu,ou=User,ou=interstage,o=fujitsu,dc=com
ufn: User001 Fujitsu,User,interstage,fujitsu,dc=com
```

-v

Outputs detailed information.

-V

Displays the command version.

Example:

```
ldapsearch @(#) $ Interstage Directory Service V3.0: ldapsearch (Dec 16 2005 12:54:54) $
(LDAP library: FUJITSU LIMITED 300)
```

-z sizelimit

Specifies the search size limit (the number of entries) for the sizelimit parameter. The default is infinite.

Note

- The specification of this option may not be enabled depending on the DN (bind DN) used to access the repository and the setting of the maximum number of entries that can be searched for on the server. For details, refer to "Maximum Number of Searchable Entries" under "Setting Items of the Interstage Management Console" in the "Creating a Repository" chapter of the Directory Service Operator's Guide.

-Z file

Specifies that SSL is used for safety communication and authentication. For authentication, the option argument specified with the -D, -w, or -W option is used for simple authentication.

For the file parameter, specify the name of the file containing items necessary for SSL environment setup. For details of environment setting, refer to the "Setting up an Environment for SSL Communication" chapter of the Directory Service Operator's Guide.

-f file

Specifies that the file contains an LDAP search filter. If the search filter is to be read from a file, "%s" must be specified as the filter. For details of the search filter, refer to "Search Filter" in "Entry Management" of the Directory Service Operator's Guide.

When this option is used, specify it immediately before the filter option ("%s").

An example of the statement in the search filter file is shown below.

This example searches for every entry containing telephoneNumber. It then searches for an entry in which cn is User001 and sn is Fujitsu.

```
telephoneNumber=*
(&(cn=User001)(sn=Fujitsu))
```

Specifying the LDAP search filter with a file

```
ldapsearch -p 389 -h hostname -D "cn=manager,ou=interstage,o=fujitsu,dc=com"
 -w admin -b "ou=interstage,o=fujitsu,dc=com" -f sch.txt "%s" sn  (*1)
```

　　*1 Write this statement in a single line without a linefeed.

filter

Specifies the LDAP search filter.

If this option is to be specified, it must be done immediately before the attributes option. If the attributes option is not specified, the filter option must be the last argument.

If the -f option is used to read a search filter from the file "%s" must be specified as the filter. The search filter can be up to 512 bytes.

If this option is omitted, the search is performed using attributes specified for "objectClass=*" as the search filter.

Special characters such as spaces, asterisks (*), and backslashes (\) must be put in quotation marks. Use single or double quotation marks, depending on the command line used.

The special characters in the table shown below must be escaped using a backslash (\).

Special character	How to specify it
*	\2a
(	\28
)	\29
\	\5c

Windows32/64

To include characters added in JIS2004 in the search condition, specify the search filter using the -f option.

For details of the search filter, refer to "Search Filters" in the "Entry Management" chapter of the Directory Service Operator's Guide.

attributes

Specifies the attribute that will be searched for. When specifying multiple attributes, delimit them by using a blank. If no attribute is specified, all attributes are returned as the search results.

When this option is specified, it must be specified as the last argument.

Notes

Windows32/64

- The LDAP command for the other product installed on the same machine may be executed depending on the setting of the Path environment variable.

  - If it is necessary to use the LDAP command for the other product together with Directory Service:

    Specify the LDAP command of Directory Service with its full path [C:\Interstage\bin\ldap-command-name].

  - If it is not necessary to use the LDAP command for the other product:

    In the Path environment variable, set the LDAP command path of Directory Service [C:\Interstage\bin] in front of the path of the other product's LDAP command.

Solaris32/64 Linux32/64

- The LDAP command for the OS or other product installed on the same machine may be executed depending on the setting of the PATH environment variable.

  - If it is necessary to use the LDAP command for the OS or other product together with Directory Service:

    Specify the LDAP commands of the Directory Service with its full path [/opt/FJSVirepc/bin/ldap-command-name].

  - If it is not necessary to use the LDAP command for the OS or other product:

    In the PATH environment variable, set the LDAP command path of Directory Service [/opt/ FJSVirepc/bin] in front of [/usr/bin], [/bin] and the path of the other product's LDAP command.

- The user authority for this command may change depending on the environment that was used to install this product. For details, refer to "Notes on Using Commands".

Example

Put all of the contents of the following examples on one line without starting a new line.

Search all entries for sn.

```
ldapsearch -H ldap://hostname:389 -D "cn=manager,ou=interstage,o=fujitsu,dc=com"
-w admin -b "ou=interstage,o=fujitsu,dc=com" "objectClass=*" sn
```

Search for an entry where cn is User001 and sn is Fujitsu.

```
ldapsearch -H ldap://hostname:389 -D "cn=manager,ou=interstage,o=fujitsu,dc=com"
-w admin -b "ou=interstage,o=fujitsu,dc=com" "(&(cn=User001)(sn=Fujitsu))"
```

The following example searches for an entry in which cn is User001 for sn

```
ldapsearch -H ldap://hostname:389 -D "cn=manager,ou=interstage,o=fujitsu,dc=com"
-w admin -b "ou=interstage,o=fujitsu,dc=com" "cn=User001*" sn
```

All searched entries are output to a file (ldif.txt).

```
ldapsearch -H ldap://hostname:389 -D "cn=manager,ou=interstage,o=fujitsu,dc=com"
-w admin -b "ou=interstage,o=fujitsu,dc=com" "objectClass=*" > ldif.txt
```

Part 6 SSL Commands

Chapter 15 SSL Environment Setting Commands

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
cmcrtsslenv	Configures the SSL communication environment for Interstage Management Console	OK	OK
cmdspcert	Outputs a certificate	OK	OK
cmentcert	Registers a certificate	OK	OK
cmentcrl	Registers a CRL	OK	OK
cmenterkey	Registers a private key	OK	OK
cmentpfx	Registers a certificate from PKCS#12(PFX) data	OK	OK
cmgetcrl	Collects CRL	OK	OK
cmlistcert	Outputs a list of certificates	OK	OK
cmlistcrl	Outputs a list of CRL	OK	OK
cmmakecsr	Create CSR (Certificate Signing Request) data	OK	OK
cmmkenv	Creates and sets a Certificate/Key Management Environment	OK	OK
cmmkpfx	Creating PKCS#12(PFX) data	OK	OK
cmrmcert	Deletes a certificate	OK	OK
cmsetenv	Sets a certificate environment	OK	OK
ihsregistupin	Registers user PINs	OK	OK
makeslot	Creates a slot	OK	OK
maketoken	Generates a token	OK	OK
mkslt Windows32	Creates a slot	OK	OK
mktkn Windows32	Generates a token	OK	OK
odsetSSL	Sets an SSL environment for a CORBA service (ObjectDirector)	OK	OK
odsetpath Solaris32/64 Linux32/64	Sets access authority for the SSL environment	OK	OK
porbMngCert	Registers/removes built-in CA certificates (Issuer certificates)	OK	OK
scsdelete	Deletes a certificate	OK	OK
scsenter	Registers a certificate and CRL	OK	OK

Command	Outline	Standard-J Edition	Enterprise Edition
scsexppfx	Exports (fetches) a site certificate and private key in the PKCS#12 data format	OK	OK
scsimppfx	Imports (registers) a private key and site certificate from PKCS#12 data	OK	OK
scslistcrl	Displays a listing of CRLs	OK	OK
scsmakeenv	Creates a Certificate Signing Request (CSR) or site certificate for testing, and configures an Interstage certificate environment	OK	OK
scslist	Lists the CSRs (Certificate Signing Requests) not associated with a site certificate and site and CA certificates registered in the Interstage certificate environment	OK	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Command	Directory
Windows32/64	cmcrtsslenv	%CommonProgramFiles%\Fujitsu Shared\F3FSSMEE
	cmdspcert	
	cmentcert	
	cmentcrl	
	cmenterkey	
	cmentpfx	
	cmgetcrl	
	cmlistcert	
	cmlistcrl	
	cmmakecsr	
	cmmkenv	
	cmmkpfx	
	cmrmcert	
	cmsetenv	
	mkslt Windows32	
	mktkn Windows32	
	ihsregistupin	C:\Interstage\bin
	makeslot	Windows32
	maketoken	%ProgramFiles%\SecurecryptoLibraryR\PROGRAM\bin
		Windows64
		%ProgramFiles%\SecurecryptoLibraryR64\PROGRAM\bin

Platform	Command	Directory
	odsetSSL	C:\Interstage\ODWIN\bin
	porbMngCert	C:\Interstage\porb\bin
	scsdelete scsenter scsexppfx scsimppfx scslistcrl scsmakeenv scslist	C:\Interstage\bin
Solaris32/64	cmcrtsslenv cmdspcert cmentcert cmentcrl cmenterkey cmentpfx cmgetcrl cmlistcert cmlistcrl cmmakecsr cmmkenv cmmkpfx cmrmcert cmsetenv	Solaris32 /opt/FJSVsmee/bin Solaris64 /opt/FJSVsme64/bin
	ihsregistupin	/opt/FJSVihs/bin
	makeslot maketoken	Solaris32 /opt/FJSVsclr/bin Solaris64 /opt/FJSVscl64/bin
	odsetSSL odsetpath	/opt/FSUNod/bin
	porbMngCert	/opt/FJSVporb/bin
	scsdelete scsenter scsexppfx scsimppfx scslistcrl scsmakeenv scslist	/opt/FJSVisscs/bin

Platform	Command	Directory
Linux32/64	cmcrtsslenv	Linux32
	cmdspcert	/opt/FJSVsmee/bin
	cmentcert	Linux64
	cmentcrl	
	cmenterkey	/opt/FJSVsmee64/bin
	cmentpfx	
	cmgetcrl	
	cmlistcert	
	cmlistcrl	
	cmmakecsr	
	cmmkenv	
	cmmkpfx	
	cmrmcert	
	cmsetenv	
	ihsregistupin	/opt/FJSVihs/bin
	makeslot	Linux32
	maketoken	/opt/FJSVsclr/bin
		Linux64
		/opt/FJSVsclr64/bin
	odsetSSL	/opt/FJSVod/bin
	odsetpath	
	porbMngCert	/opt/FJSVporb/bin
	scsdelete	/opt/FJSVisscs/bin
	scsenter	
	scsexppfx	
	scsimppfx	
	scslistcrl	
	scsmakeenv	
	scslist	

15.1 cmcrtsslenv

Name

cmcrtsslenv

Configures the SSL communication environment for Interstage Management Console.

Synopsis

```
cmcrtsslenv -ed Environment-directory [-k {1024|2048|3072|4096} ] [-sa {SHA1|SHA256|SHA384|SHA512} ]
[-of CertOutputFileName]
```

Description

Enter the *cmcrtsslenv* command to change the communication mode to SSL communication if needed after the Interstage Management Console is installed.

This command configures the SSL communication environment for the Interstage Management Console. The command also creates a site certificate for SSL communication for the Interstage Management Console.

The options and arguments of this command are as follows:

-ed Environment-directory

Specify the full path of the directory (Environment-directory) in which the SSL communication environment is to be configured for the Interstage Management Console. Specify the following path:

`Windows32/64`

```
[Interstage installation folder]\gui\etc\cert
```

`Solaris32/64` `Linux32/64`

```
/etc/opt/FJSVisgui/cert
```

-k {1024|2048|3072|4096}

Specify the length of the key to be created.

1024: 1,024 bits (default value)

2048: 2,048 bits (recommended)

3072: 3,072 bits

4096: 4,096 bits

In recent years machine processing performance has rapidly improved, and 1024-bit RSA keys may no longer be safe. Key length concerns the server security, so it is recommended to specify 2048 bits or more. If operational circumstances specifically require the use of 1024-bit RSA keys, use them only after considering the risk involved.

-sa {SHA1|SHA256|SHA384|SHA512}

Specify a signature algorithm.

SHA1: SHA1 algorithm (default value)

SHA256: SHA256 algorithm

SHA384: SHA384 algorithm

SHA512: SHA512 algorithm

-of CertOutputFileName

Specify the full name of the file to which output the created certificate.

Note

- This command is installed in the following directory:

`Windows32/64`

```
%CommonProgramFiles%\Fujitsu Shared\Fujitsu Shared\F3FSSMEE
```

`Solaris32`

```
/opt/FJSVsmee/bin
```

`Solaris64`

```
/opt/FJSVsme64/bin
```

`Linux32`

```
/opt/FJSVsmee/bin
```

```
/opt/FJSVsmee64/bin
```

- The site certificate created by this command includes the following types of information:

Table 15.1 Information Included in the Site Certificate

Information on certificate	Information that is set
Issuer name and subject name	CN=Interstage Application Server
date on which the certificate validity period ends	23:59:59 Dec. 31, 2049

Additionally, the RSA encryption algorithm key pair is generated using the key length specified for -k, and the signature uses the algorithm specified for -sa.

Note that, when -k and -sa are omitted, an RSA key pair is created with 1024 bits, and SHA-1 is used for the signature.

- This command need not be executed if SSL communication has been selected during installation of the Interstage Management Console.

- The "Interstage Secure Communication Service" package is required to execute this command.

- After this command is executed, the settings of the Interstage Management Console must be changed. Refer to the Operator's Guide for more information.

- Windows32/64

  Execute this command as a user belonging to the Administrator group.

- Solaris32/64 Linux32/64

  Execute this command as a Super User.

15.2 cmdspcert

Name

cmdspcert

Outputs a certificate.

Synopsis

```
cmdspcert [-ed Environment-directory ] {-id CertID | -nn NickName | -fn FileName }
          [-sl Select] [-of OutFile]
```

Description

The cmdspcert command outputs the contents of a certificate to edit, standard output, or a file for every item.

The options and arguments of this command are as follows:

-ed Environment-directory

  Specify the full path to the Certificate/Key Management Environment (Environment-directory). When this option is omitted, the information set in the "CMIPATH" environment variable is validated.

-id CertID

  Only when displaying a registered certificate, the certificate discernment name (CertID) displayed by the cmlistcert command is specified.

-nn NickName

  Only when displaying a registered certificate, the nickname (NickName) specified at the time of registration is specified.

-fn FileName

A certificate file name (FileName) is specified only when displaying a non-registered certificate.

The file of DER form and BASE64 form can be specified.

-sl Select

Display form (Select) is specified.

0 : Display for every item (default)

1 : Display of a key

-of OutFile

The file name (OutFile) that outputs a display result is specified with a full path.

If it omits, it will output to standard output. The file specifies that something is intact.

Note

- It is necessary to specify -id, -nn, or -fn.

- The validity period of a certificate can be confirmed from the "VALIDITY" line of the output. It is displayed using Greenwich Mean Time in the format:

Start date (YYYYMMDDHHMMSS)-End date (YYYYMMDDHHMMSS)

- When a certificate of the BASE64 format is specified in the certificate file and the header and footer listed below are described, these lines are skipped. If the header or footer has a format other than the ones listed below, an abnormal end occurs. When the specified certificate file contains more than one certificate, only the first certificate is processed.

- Header: Line that begins with "-----BEGIN"

- Footer: Line that begins with "-----END"

- The item to which discernment name information is not set is not displayed.

15.3 cmentcert

Name

cmentcert

Registers a certificate.

Synopsis

```
cmentcert FileName [-ed Environment-directory ] [-nv] [-ca|-own] [-nn NickName]
```

Description

The *cmentcert* command registers a certificate in a Certificate/Key Management Environment.

The options and arguments of this command are as follows:

FileName

Specify the full path to the certificate data file to be registered.

A file of the DER format or BASE64 format can be specified.

-ed Environment-directory

Specify the full path to the Certificate/Key Management Environment (Environment-directory). When this option is omitted, the information set in the "CMIPATH" environment variable is validated.

-nv

Specify this option to not verify a certificate at registration. Specifying this allows an invalid certificate to be registered, thus do not specify this option.

-ca

Specify this option when the Certification Authority (CA) certificate and the intermediate CA certificate are to be registered.

-own

Specify this when the certificate to be registered is a site certificate which has been issued to you.

-nn NickName

Specify this to designate a nickname for certificate identification. Ensure the nickname is specified during registration of the certificate for SSL communication. The nickname cannot begin or end with a blank character. Any nickname already in use is not valid.

Note

- A Certificate must be sequentially registered in the order from the "root" CA certificate.

- When a certificate of the BASE64 format is specified in the certificate file and the header and footer listed below are described, these lines are skipped. If the header or footer has a format other than the ones listed below, an abnormal end occurs. When the specified certificate file contains more than one certificate, only the first certificate is processed.

    - Header: Line that begins with "-----BEGIN"

    - Footer: Line that begins with "-----END"

  Refer to the following example of certificate data in the form of BASE64:

```
-----BEGIN CERTIFICATE-----
 (Base-64-encoded certificate data is embedded.)
-----END CERTIFICATE-----
```

- Be sure to specify the -ca option or -own option. Since it is registered as another certificate when it omits, it is not effective in a Web server.

15.4 cmentcrl

Name

cmentcrl

Registers a CRL.

Synopsis

```
cmentcrl FileName [-ed Environment-directory ] [-nv]
```

Description

The *cmentcrl* command registers a CRL in a Certificate/Key Management Environment.

The options and arguments of this command are as follows:

FileName

Specify the full path to the CRL data file to be registered.

A file of the DER format or BASE64 format can be specified.

-ed Environment-directory

Specify the full path to the Certificate/Key Management Environment (Environment-directory). When this option is omitted, the information set in the "CMIPATH" environment variable is validated.

-nv

Specify this option to not verify a CRL at registration. Specifying this allows an invalid CRL to be registered, thus do not specify this option.

Note

- Old CRL is deleted when old CRL, published by the same CA, exists in the case of CRL registration.

- You must register the certificate of CA, which is the publisher of CRL that registers beforehand.

- When a CRL of the BASE64 format is specified in the CRL file and the header and footer listed below are described, these lines are skipped. If the header or footer has a format other than the ones listed below, an abnormal end occurs. When the specified CRL file contains more than one CRL, only the first CRL is processed.

  - Header: Line that begins with "-----BEGIN"

  - Footer: Line that begins with "-----END"

See the following example of CRL data in the form of BASE64:

```
-----BEGIN X509 CRL-----
 (Base-64-encoded CRL data is embedded.)
-----END X509 CRL-----
```

15.5 cmenterkey

Name

cmenterkey

Registers a private key.

Synopsis

```
cmenterkey  -ed Env-Dir -tl TokenLabel -kf KeyFile -kl KeyLabel
           [-userpassword User-PIN -keypassword Key-Password]
```

Description

The *cmenterkey* command registers, in a token, the PKCS#8-formatted private-key file that was created with the certificate creation tool appended to the InfoCA or InfoProvider Pro. That is, the PKCS#8-formatted private-key file that was specified in the token that corresponds to the specified token label is registered.

The encryption algorithm used in the PKCS#8-formatted private key must be DES.

The options and arguments of this command are as follows:

-ed Env-Dir

Specify the full path to the Certificate/Key Management Environment (Env-dir). This option cannot be omitted.

-tl TokenLabel

Specify the token label (TokenLabel) in which a private key is to be registered. This option cannot be omitted.

-kf KeyFile

Specify the full path to the PKCS#8-formatted private-key file (KeyFile). This option cannot be omitted.

-kl KeyLabel

Specify the key label (KeyLabel) to be added to a registered token object. This option cannot be omitted. The key label must be a number from 1 to 64.

-userpassword User-PIN

Specify the user PIN (UserPIN) for accessing the token. Blank characters cannot be specified. A prompt for requesting the User-PIN input is not displayed.

This option is not displayed in the Usage field of the command.

-keypassword Key-Password

Specify the password for decoding the private key. Blank characters cannot be specified. A prompt for requesting password input is not displayed.

This option is not displayed in the Usage field of the command.

15.6 cmentpfx

Name

cmentpfx

Registers a certificate from PKCS#12(PFX) data.

Synopsis

```
cmentpfx FileName [-ed Environment-directory ] {-sn slotID|-tl TokenLabel}
         [-kl KeyLabel] -nn NickName [-entca] [-sncert]
         [-userPIN UserPIN -password Password]
```

Description

The certificate and private key stored in the PKCS#12(PFX) format data file are registered in the certificate/private-key environment.

The input of the UserPIN and the password which decrypts PKCS#12(PFX) data, is performed interactively.

The options and arguments of this command are as follows:

FileName

Specify the full path to the file that contains the PKCS#12(PFX) data.

-ed Environment-directory

Specify the full path to the Certificate/Key Management Environment (Environment-directory). When this option is omitted, the information set in the "CMIPATH" environment variable is validated.

-sn slotID

Specify the slotID for registering a private key.

-tl TokenLabel

Specify the TokenLabel set in the token for registering a private key.

-kl KeyLabel

Specify the ASCII character string that indicates the label to be assigned to the private key to be registered. When this option is omitted, the private key is registered without a label.

-nn NickName

Specify a nick name (NickName). A blank character cannot be specified at the beginning or end of the character string.

-entca

CA certificate is contained in PKCS#12(PFX) data, and CA certificate is registered when it has not been registered into a Certificate/Key Management Environment.

-sncert

It specifies when registering an EE(End Entity) certificate into the same token as a private key. Do not specify this option in this version because it is not necessary to register certificates into the token. If it omits, it will register with the Certificate/Key Management Environment.

-userPIN UserPIN

Specify the user PIN (UserPIN) for accessing the token. A blank character cannot be specified in this argument. A prompt for requesting the UserPIN input is not displayed.

This option is not displayed in the command Usage area.

-password Password

Specify the password for decoding the PKCS#12(PFX) data. A blank character cannot be specified in this argument. A prompt for requesting the password input for PKCS#12(PFX) data decoding is not displayed.

This option is not displayed in the command Usage area.

Note

- The PKCS#12(PFX) data files created by the following products can be processed:

    - Exported from the Interstage certificate environment using the *scsexppfx* command.

    - Exported from the certificate/key management environment, which was configured with the SMEE command, using the *cmmkpfx* command.

- When no "root" CA certificate is registered, a verification error occurs and the certificate in the PKCS#12(PFX) data is not registered.

- The CRL contained in the PKCS#12(PFX) data file cannot be handled.

- When a token label is specified with the -tl option, the token under the Slot Information Directory specified in the -sd option of the *cmsetenv* command is retrieved.

- When a token is specified with the -tl option, an exclusive error may occur while the token is being accessed by another application.

- Certificates in a certificate path can be registered with the nickname character string (specified in -nn option) and a 4-digit number. This 4-digit number must begin from 0001. For example, when "nickname" is specified in the -nn option, the certificates are registered with nickname0001, nickname0002, ... starting at the higher-level path. Before the registration starts, execute the *cmlistcert* command to check that there are no specified nicknames and there are no certificates having the nickname+00*.

- When a certificate is already registered with the same nickname or a different nickname, an error occurs.

15.7 cmgetcrl

Name

cmgetcrl

Collects CRL.

Synopsis

```
cmgetcrl [-ed EnvDir] -url Url [-pr Proxy] [ -lc LDAPHopLimit] [-w Wait] [-iv IPVersion]
```

Description

The *cmgetcrl* command collects a CRL from the specified URL and stores it in the Certificate/Key Management Environment.

The command options and arguments are explained below:

-ed EnvDir

This option specifies the absolute path of the Certificate/Key Management Environment created during SSL environment configuration for the Interstage HTTP Server. The default is the information specified in environment variable CMIPATH.

-url Url

This option specifies "http://..." or "ldap://..." for the CRL collection source.

-pr Proxy

This option specifies the host name of the proxy server. The option is valid only when http is specified for -url. If something other than http is specified for -url, this option is ignored if specified.

-lc LDAPHopLimit

This option specifies the HOP count (0 to 100) from an LDAP server to another LDAP server when a referral is used. The option is valid only when ldap is specified for -url. If something other than ldap is specified for -url, this option is ignored if specified.

If 0 is specified, the HOP count is not limited. The default is 5.

-w Wait

This option specifies the time (1 to 300 seconds) to wait for a response during communication with the server. The default is 150 seconds.

-iv IPVersion

If the host name in -url has both IPv6 and IPv4 addresses, specify which is preferred. This is only enabled when http has been specified in -url.

  - V4 : The IPv4 address is preferred (default)

  - V6 : The IPv6 address is preferred

Note that if ldap is specified in -url the preferred address will depend on LDAP SDK.

Note

  - The URLs that can be specified for the collection sources are only http and ldap.

  - To obtain CRLs with LDAP, it is necessary to install one of the following LDAP SDKs beforehand:

    - Systemwalker/InfoDirectory V10 or later

    - Interstage Directory Service

  - If the host name of a proxy server is specified, a CRL is collected via the specified server. If it is not specified, a CRL is collected directly from the source specified by -url.

  - When a CRL is stored, an existing CRL may have been issued by the same Certification Authority (CA) and may be older than the CRL to be stored. In this case, only the new CRL is registered.

  - The CA certificate that issued the CRL to be registered must be registered in advance. If not, an error is reported during CRL verification.

  - If two or more CRLs are found at the specified URL, all CRLs are collected and stored.

  - The specification of the CRL collection source must follow RFC3986. If a blank needs to be included in the URL character string, specify "%20".

  - In IPv6 environments, host names with a link-local address assigned, or the link-local address itself, must not be specified as the source destination of the CRL.

  - In IPv6 environments, host names with an IPv4-mapped address assigned, or the IPv4-mapped address itself, must not be specified as the source destination of the CRL.

  - If the port number is omitted when the CRL collection source is specified, the default port is used.

  - When a CRL is to be collected with ldap, ";binary" can be omitted from the URL. Note that no values (such as the host name) other than the port number can be omitted.

  - When obtaining the CRL using ldap, it is recommended that you specify the host name using ldap of -url. Note that the behavior when the IPv6 address is specified depends on LDAP SDK.

15.8 cmlistcert

Name

cmlistcert

Outputs a list of certificates.

Synopsis

```
cmlistcert  [-ed Environment-directory] [-c Country] [-cn CommonName]
            [-o Organization] [-ou OrganizationUnit] [-ea EMailAddress]
            [-ic Country] [-icn CommonName] [-io Organization]
            [-iou OrganizationUnit] [-iea EMailAddress]
            [-ca] [-own] [-nn NickName]
```

Description

The *cmlistcert* command outputs, as a standard output, the information about the certificates that correspond to specified search keys. When all of the -c, -cn, -o, -ou, -ea, -ca, -own, and -nn options are omitted, a list of all the certificates is output.

The options and arguments of this command are as follows:

-ed Environment-directory

Specify the full path to the Certificate/Key Management Environment (Environment-directory). When this option is omitted, the information set in the "CMIPATH" environment variable is validated.

-c Country

Specify a country name (Country).

-cn CommonName

Specify an alphanumeric personal name (CommonName).

-o Organization

Specify an alphanumeric organization name (Organization).

-ou OrganizationUnit

Specify an alphanumeric organization unit name (OrganizationUnit).

-ea EMailAddress

Specify a mail address (EmailAddress).

-ic Country

Specify the country name (Country) of the certificate issuer.

-icn CommonName

Specify the alphanumeric personal name (CommonName) of the certificate issuer.

-io Organization

Specify the alphanumeric organization name (Organization) of the certificate issuer.

-iou OrganizationUnit

Specify the alphanumeric organization unit name (OrganizationUnit) of the certificate issuer.

-iea EMailAddress

Specify the mail address (EMailAddress) of the certificate issuer.

-ca

This option must be specified when the certificate to be registered was issued by the Certification Authority (CA).

-own

Specify this option when the certificate to be registered was issued to you.

-nn NickName

Specify a nickname (NickName). A blank character cannot be specified at the beginning or end of the character string.

Note

- Only the certificates registered in the Certificate/Key Management Environment can be displayed in a list.

- The item name is the same as the option name.

- Any item whose information is not set in the above options is not displayed.

- The information items for the specified options are searched for in partial matching mode.

15.9 cmlistcrl

Name

cmlistcrl

Outputs a list of CRL.

Synopsis

```
cmlistcrl  [-ed Environment-directory] [-c Country] [-cn CommonName]
           [-o Organization] [-ou OrganizationUnit] [-ea EMailAddress]
```

Description

The *cmlistcrl* command outputs, as a standard output, the information about the CRLs that correspond to specified search keys. When all of the -c, -cn, -o, -ou, and -ea options are omitted, a list of all the CRL is output.

The options and arguments of this command are as follows:

-ed Environment-directory

Specify the full path to the Certificate/Key Management Environment (Environment-directory). When this option is omitted, the information set in the "CMIPATH" environment variable is validated.

-c Country

Specify a country name (Country).

-cn CommonName

Specify an alphanumeric personal name (CommonName).

-o Organization

Specify an alphanumeric organization name (Organization).

-ou OrganizationUnit

Specify an alphanumeric organization unit name (OrganizationUnit).

-ea EMailAddress

Specify a mail address (EmailAddress).

Note

- Only the CRL registered in the Certificate/Key Management Environment can be displayed in a list.

- The item name is the same as the option name.

- Any item whose information is not set in the above options is not displayed.

- The information items for the specified options are searched for in partial matching mode.

15.10 cmmakecsr

Name

cmmakecsr

Create CSR (Certificate Signing Request) data.

Synopsis

```
cmmakecsr  [-ed Environment-directory] -sd Slot-directory -tl TokenLabel -of OutFile
          [-f {TEXT|NOHEAD|V2} ] [-c Country] [-cn CommonName] [-o Organization]
          [-ou OrganizationUnit] [-ea EMailAddress] [-t Title] [-tel Phone]
          [-l Locality] [-s State] [-sa {SHA1|MD5|SHA256|SHA384|SHA512} ]  { -kl KeyLabel | [-kt RSA]
          [-kb {512|768|1024|2048|3072|4096} ] } [-p UserPIN]
```

Description

The *cmmakecsr* command creates CSR(Certificate Signing Request) data having specified information and outputs it to a file. To create a new key pair for CSR creation, the -kt or -kb option must always be specified. Users are recommended to specify 2048 bits or more for the -kb option. To create the CSR by using an already created key pair, only the -kl option must be specified.

The options and arguments of this command are as follows:

-ed Environment-directory

Specify the full path to the Certificate/Key Management Environment (Environment-directory).

When this option is omitted, the information set in the "CMIPATH" environment variable is validated.

-sd Slot-directory

Specify the full path to the Slot Information Directory (Slot-directory).

-tl TokenLabel

Specify the registered key or register a new key to be used. Specify the token label (TokenLabel).

-of OutFile

Specify the full path to the certificate request output file (OutFile).

-f {TEXT|NOHEAD|V2}

Specify one of the following output formats:

TEXT: CSR format output (default value)

NOHEAD: Output without header

V2: S/MIME format output with application/pkcs10 header

-c Country

Specify a country name (Country).

-cn CommonName

Specify an alphanumeric personal name (CommonName).

-o Organization

Specify an alphanumeric organization name (Organization).

-ou OrganizationUnit

Specify an alphanumeric organization unit name (OrganizationUnit).

-ea EMailAddress

Specify a mail address (EMailAddress).

-t Title

Specify a title (Title).

-tel Phone

Specify a telephone number (Phone).

-l Locality

Specify a local name (Locality).

-s State

Specify a state name (State).

-sa {SHA1|MD5|SHA256|SHA384|SHA512}

Specify a signature algorithm.

SHA1: SHA1 algorithm (default value)

MD5: MD5 algorithm

SHA256: SHA256 algorithm

SHA384: SHA384 algorithm

SHA512: SHA512 algorithm

-kl KeyLabel

Specify the label (KeyLabel) for the key to be used.

-kt RSA

Specify the type of the key to be created.

RSA: RSA key pair (default value)

-kb {512|768|1024|2048 |3072|4096}

Specify the length of the key to be created.

512: 512 bits

768: 768 bits

1024: 1,024 bits

2048: 2,048 bits (default value)

3072: 3,072 bits

4096: 4,096 bits

In recent years machine processing performance has rapidly improved, and 512-bit and 768-bit RSA keys may no longer be safe. Key length concerns the server security, so it is recommended to specify 2048 bits or more. If operational circumstances specifically require the use of 512-bit or 768-bit RSA keys, use them only after considering the risk involved.

-p UserPIN

Specify the User-PIN for accessing the token. A blank character cannot be specified. A prompt for requesting the User-PIN input is not displayed.

This option is not displayed in the Usage field of the command.

Note

- Specify a Web server host name to be -cn.

- When any of the -kt, -kb, and -sf option is specified, a key pair is initially created.

- When the -kl option is specified, the keys of the label specified as an option parameter are used.

- One of the -c,-cn, -o, -ou, -ea, -t, -tel, -l, and -s options must always be specified. Please apply to CA for options that you should specify.

- The valid values for the -kb option are displayed in Usage field of the command. Note that 3072 and 4096 cannot be specified if the Certificate/Key Management Environment created by the *mkslt*/*mktkn* commands is used. Use the Certificate/Key Management Environment created by the *makeslot*/*maketoken* commands.

- The valid values for the -sa option are displayed in Usage field of the command. Note that SHA256, SHA384 and SHA512 cannot be specified if the Certificate/Key Management Environment created by the *mkslt*/*mktkn* commands is used. Use the Certificate/Key Management Environment created by the *makeslot*/*maketoken* commands.

- If 512 (deprecated value) is specified for the -kb option, SHA384 and SHA512 cannot be specified for the -sa option.

- When requesting VeriSign Inc. to issue a certificate, select "Secure Site SSL Certificates" certificates or "Secure Site with EV SSL Certificates" certificates.

- When requesting Cybertrust, Inc. to issue a certificate, select "Cybertrust SureServer Certificate" certificates.

15.11 cmmkenv

Name

cmmkenv

Creates and sets a Certificate/Key Management Environment.

Synopsis

```
cmmkenv  Environment-directory [-fromdir ValidCert-directory,CRL-directory]
        -todir ValidCert-directory,CRL-directory
```

Description

The *cmmkenv* command creates and initializes a directory required to operate a Certificate/Key Management Environment.

The options and arguments of this command are as follows:

Environment-directory

Specify the full path to the Certificate/Key Management Environment (Environment-directory).

-fromdir ValidCert-directory,CRL-directory

This option is not supported in this product.

-todir ValidCert-directory,CRL-directory

Specify the directory name of the new general file to be operated.

ValidCert-directory: Specify the full path to the certificate directory.

CRL-directory: Specify the full path to the CRL directory.

Note

- Use the name of the Environment-directory specified in this command when executing the following commands.

    - cmdspcert

    - cmentcert

    - cmentcrl

    - cmenterkey

    - cmentpfx

- cmgetcrl

- cmlistcert

- cmlistcrl

- cmmakecsr

- cmmkpfx

- cmrmcert

- cmsetenv

- To specify the -fromdir and -todir options, delimit items with a comma. Blank characters cannot be used.

  Example: -todir d:\csslcert\cert,d:\sslcert\crl

- The same directory cannot be specified in both the ValidCert-directory and CRL-directory of the -todir option.

- Execute backup and restore with the resources for each service which use the Certificate/Key Management Environment.

15.12 cmmkpfx

Name

cmmkpfx

Creating PKCS#12(PFX) data

Synopsis

```
cmmkpfx FileName [-ed Environment-directory ] {-sn slotID|-tl TokenLabel}
        -nn NickName [-eeonly] [-userPIN UserPIN][ -password Password]
```

Description

The *cmmkpfx* command retrieves an EE(End Entity) certificate corresponding to the specified nickname as well as a private key from the Certificate/Key Management Environment, and certificates in the certificate path required to verify the EE certificate, and outputs PKCS#12(PFX) format data file.

Enter the UserPIN and a password used to encrypt PKCS#12(PFX) data on an interactive basis.

The options and arguments of this command are as follows:

FileName

Specify the full path to the file that creates the PKCS#12(PFX) data.

-ed Environment-directory

Specify the full path to the Certificate/Key Management Environment (Environment-directory).

-sn SlotID

Specify the SlotID set in the token for registering a private key.

-tl TokenLabel

Specify the TokenLabel set in the token for registering a private key.

It will become an error if there are two or more of the same labels.

-nn NickName

Specify a nickname (NickName).

-eeonly

Specify this option when creating PKCS#12(PFX) data that does not include certificates in the certificate path required to verify the EE certificate (only a certificate specified with a nickname and the corresponding private key will be retrieved).

If PKCS#12(PFX) data created with this option is to be registered with another environment, those (CA certificates) in the certificate path must be registered beforehand by another means.

-userPIN UserPIN

Specify the user PIN (UserPIN) for accessing the token.

-password Password

Specify a password used to encrypt PKCS#12(PFX) data. A blank character cannot be specified in this argument.

The password is a string of 6 to 128 characters that can be selected from the following character set.

Table 15.2 Valid Character Sets

Category	Character set
Alphabetic characters	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz
Numeric characters	0123456789
Symbols	!"#%&'()*+,-./:;<=>?[\]^_{|}~
Blanks	' '

Note

- The certificates and the private key output to PKCS#12(PFX) data are not deleted from the Certificate/Key Management Environment.

- Unless the -userPIN and -password options are specified at the same time, a parameter error occurs.

- If the -userPIN and -password options are specified, no prompt appears requesting you to enter the UserPIN and a password to encrypt PKCS#12(PFX) data.

- For a token specified in the -tl option, the tokens in the Slot Information Directory specified in the -sd option of the *cmsetenv* command are searched.

- If a token specified in the -tl option is accessed by another application, an exclusive error may occur.

- A certificate is retrieved from those corresponding to the specified nickname and those in the certificate path required to verify the certificate.

- If there is no private key corresponding to the certificate with the specified nickname, this command ends with an error.

- If there is more than one certificate with the specified nickname, this command ends with an error. Check the certificates using *cmlistcert* and, if you want to retrieve one, change its nickname using the *cmchgnickname* command.

- If the certificate does not exist in the token specified in the -sn | -tl option, the certificates in the Certificate/Key Management Environment are searched.

15.13 cmrmcert

Name

cmrmcert

Deletes a certificate.

Synopsis

```
cmrmcert [-ed Environment-directory ] { -id CertID | -nn NickName }
```

Description

The *cmrmcert* command deletes a certificate from the Certificate/Key Management Environment.

The options and arguments of this command are as follows:

-ed Environment-directory

Specify the full path to the Certificate/Key Management Environment (Environment-directory). When this option is omitted, the information set in the "CMIPATH" environment variable is valid.

-id CertID

Specify the identifier (CertID) of a certificate.

-nn NickName

Specify a nickname (NickName).

Note

- The -id or -nn option must always be specified.

- The certificate identifier (CertID) or nickname can be checked using the *cmlistcert* command.

15.14 cmsetenv

Name

cmsetenv

Sets a certificate environment.

Synopsis

```
cmsetenv Environment-directory -sd Slot-directory -jc LocaleCode
        [-rc ContractCertList]
```

Description

The *cmsetenv* command sets the locale-language code system required for registering a Slot Information Directory, certificate, and CRL into a Certificate/Key Management Environment.

The options and arguments of this command are as follows:

Environment-directory

Specify the full path to the Certificate/Key Management Environment (Environment-directory).

-sd Slot-directory

Specify the full path to the Slot Information Directory (Slot-directory). Using the *makeslot* or *mkslt* command, specify the name of the directory designated to make a slot.

-jc LocaleCode

Specify 0 (that is, UNICODE) as locale code required to register a certificate and CRL.

-rc ContractCertList

Specify the full path to the built-in certificate list file (ContractCertList) if certificates must be registered at environment setting.

Note

- To specify the -rc option, a slot must be previously created with the *makeslot* or *mkslt* command and a token must be previously created with the *maketoken* or *mktkn* command.

- When the -rc option is specified and a certificate must be registered in a Certificate/Key Management Environment, the certificate and nickname must be unique. Otherwise, the certificate is not registered and this command terminates normally. If the same certificate is already registered with a different nickname or another certificate is already registered with the same nickname, this command terminates abnormally.

- The "root" certificate built-in list files that were issued by a public CA supported by this product can be specified in the -rc option.

The specifiable built-in list files are as follows:

- Solaris server: /etc/opt/FJSVisas/contractcertlist

- Windows client: Interstage installation folder\IS_cert\contractcertlist

When this file is registered, the certificate is registered using the following nicknames:

["Root" certificates issued by VeriSign, Inc.]

- VeriSign_Class3_PCA_G2_v2

- VeriSign_PCA3ss_v4

- VeriSign_Class3_G5

- VeriSign_Class3_PCA_G3

- VeriSign_Universal_Root_CA

["Root" certificates issued by Cybertrust, Inc.]

- GTE_CyberTrust_Global_Root

- Baltimore_CyberTrust_Root

15.15 ihsregistupin

Name

ihsregistupin

Registers user PINs.

Synopsis

```
ihsregistupin -f upinfile -d slotdir
```

Description

The *ihsregistupin* command registers a user PIN in the user PIN control file.

The created user PIN management file is defined in the SSLUserPINFile directive in the environment definition file (httpd.conf) of the Interstage HTTP Server.

The options and arguments of the *ihsregistupin* command are as follows:

-f upinfile

Specifies the user PIN control file that the encrypted user PIN is to be stored in.

-d slotdir

Specifies the slot information directory of the private-key control environment with an absolute path or a relative path.

User PIN Registration Procedure

1. Execute the user PIN registration command (*ihsregistupin*).

2. When you are prompted for your user PIN, enter your user PIN with up to 128 characters (hidden).

3. When you are prompted for your user PIN again, enter the same user PIN as entered above (hidden).

Note

- Execute this command with administrator authority.

- Specify the character string of user PIN identical to the one that is used when the private-key control environment is created.

- The user PIN control file is overwritten and saved.

- It is recommended that this command is executed from consoles or from terminals connected by LANs which will not be accessed from outside, in order to prevent the user PIN from running on networks to leak out.

Windows32/64

- It is recommended that you change the access privileges for the user PIN file:

    1. Start Windows Explorer.

    2. Right-click the user PIN file, and then click [Properties].

    3. In the [Properties] dialog box, click the [Security] tab.

    4. Select "Deny" for [Full control] for all groups except SYSTEM and Administrators.

Example

Windows32/64

```
ihsregistupin -f C:\ihs\upinfile -d C:\ihs\slotdir
  UserPIN:
  Re-type UserPIN:
```

Solaris32/64 Linux32/64

```
ihsregistupin -f /etc/opt/FJSVihs/upinfile -d /etc/opt/FJSVihs/slot
  UserPIN:
  Re-type UserPIN:
```

15.16 makeslot

Name

makeslot

Creates a slot.

Synopsis

```
makeslot [-d Slot-directory]
```

Description

When using SMEE3 as a SSL library, use this command.

The *makeslot* command creates a slot.

The slot password to be set in the Slot Information Directory can be entered in interactive mode.

When the set-up slot password incorporates by generating a token, it is required.

When it succeeds in generation of a slot, the slot ID of the generated slot is output.

The slot ID is used to identify slots. It is used in the *maketoken* command that will be executed next.

Creating the first slot (executing this command for the first time) assigns 1 to its slot ID.

The options and arguments of this command are as follows:

-d Slot-directory

Specify the full path to the directory in which the slot for managing the key is to be stored.

Although it is omissible, specify and be sure to create a Slot Information Directory peculiar to application.

Use the Slot Information Directory specified in this command when executing the *maketoken* and *cmsetenv* commands.

Note

- The slot password is a string of 6 to 128 characters that can be selected from the following character set. If an invalid character string is specified, the command terminates abnormally.

Table 15.3 Valid Character Sets

Category	Character set
Alphabetic characters	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz
Numeric characters	0123456789
Symbols	!"#%&'()*+,-./:;<=>?[\]^_{|}~
Blanks	' '

- Manage the slot password carefully not to leak or get stolen.

  Do not use a name, word, or a character string that can easily be guessed or that consists of all same characters. It is recommended to specify as long a character string as possible that consists of a mixture of alphanumeric characters and symbols.

Example

Windows32/64

```
> makeslot -d d:\sslenv\slot
New Slot-password: (*1)
Retype: (*1)
makeslot: Succeeded.  New Slot-ID is 1.
```

Solaris32/64 Linux32/64

```
# makeslot -d /export/home/slot
New Slot-password: (*1)
Retype: (*1)
makeslot: Succeeded.  New Slot-ID is 1
```

*1 The entered slot password is not displayed.

15.17 maketoken

Name

maketoken

Generates a token.

Synopsis

```
maketoken [-d Slot-directory] -s SlotID [-t TokenLabel]
```

Description

When you use SMEE3 as a SSL library, use this command.

The *maketoken* command generates a token and builds it into a slot.

The SO-PIN and user PIN to be set in the token can be entered in interactive mode.

The token of FLM03 is generated for a device model by execution of this command.

In the application program under starting, in order to confirm the generated token, an application program reboot is required.

The options and arguments of this command are as follows:

-s Slot-directory

Specify the full path to the Slot Information Directory (Slot-directory).

When the specified Slot Information Directory does not exist, it becomes an error, and an abnormal termination of the command is carried out.

-s SlotID

Specify the slot ID (SlotID) of the slot in which the generated token is to be built. Specify the slot ID indicated in execution of the *makeslot* command.

-t TokenLabel

Specify a string of up to 32 characters for the token label (TokenLabel) to be set in the generated token. The token label is a string of characters used in the identification of tokens.

When the specified character string has less than 32 characters, the remaining digits are filled up with blank characters. A blank character cannot be specified at the beginning of the character string.

When it omits, it is regarded that 2 figures (it is Token01 when a slot number is 1) of low ranks of a Token+ slot number were specified to be.

Note

- The token label must consist of characters selected from the following character sets. If an invalid character string is specified, the command terminates abnormally.

Table 15.4 Valid Character Sets

Category	Character set
Alphabetic characters	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz
Numeric characters	0123456789
Symbols	!"#%&'()*+,-./:;<=>?[\]^_{|}~
Blanks	' '

- Manage the password carefully not to leak or get stolen.

  For SO-PIN and User-PIN, do not use a name, word, or a character string that can easily be guessed or that consists of all same characters. It is recommended to specify as long a character string as possible that consists of a mixture of alphanumeric characters and symbols.

- The specified token label and User-PIN may be needed to build the environment of a service or put a service into operation. Do not forget them.

Example

Windows32/64

```
> maketoken -d d:\sslenv\slot -s 1 -t token
Slot-password: (*1)
New SO-PIN for token: (*2)
Retype: (*2)
New User-PIN for token: (*3)
Retype: (*3)
```

Solaris32/64 Linux32/64

```
# maketoken -d /export/home/slot -s 1 -t token
Slot-password: (*1)
New SO-PIN for token: (*2)
Retype: (*2)
```

```
New User-PIN for token: (*3)
Retype: (*3)
```

*1 Specify the slot password used in execution of the makeslot command. It is not displayed.

*2 Specify this to set SO-PIN for the token. It is not displayed.

*3 Specify this to set User-PIN for the token. It is not displayed.

15.18 mkslt

Name

mkslt

Creates a slot.

Synopsis

Windows32

```
mkslt -sd Slot-directory [-Slotpasswd Slot-password]
```

Description

Use this command when you use SMEE2 as a SSL library. In all other cases, use the *makeslot* command.

The *mkslt* command creates a slot. The slot password to be set in the Slot Information Directory must be entered in interactive mode. If the specified Slot Information Directory is not found, an error occurs and the command processing terminates abnormally.

In case the set-up slot password incorporates by generating a token, it is needed.

When it succeeds in generation of a slot, the slot ID of the generated slot is output.

The slot ID is used for identification of slots. It is used in the *mktkn* command to be executed next.

Creating the first slot (executing this command for the first time) assigns 1 to its slot ID.

The options and arguments of this command are as follows:

-sd Slot-directory

Specify the full path to the directory in which the slot for managing the key is to be stored.

Use the Slot Information Directory specified in this command when executing the *mktkn* and *cmsetenv* command.

-Slotpasswd Slot-password

Specify the password (Slot-password) to be set in the slot. Blank characters cannot be specified. If this option is specified, a prompt for requesting password input is not displayed.

This option is not displayed in the Usage field of the command.

Note

- The slot password is a string of 6 to 128 characters that can be selected from the following character set. If an invalid character string is specified, the command terminates abnormally.

Table 15.5 Valid Character Sets

Category	Character set
Alphabetic characters	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz
Numeric characters	0123456789
Symbols	!"#%&'()*+,-./:;<=>?[\]^_{|}~
Blanks	' '

- Ensure that the slot password is secure, to avoid it being accessed by unauthorized parties.

  Do not use a name, word, or a character string that can easily be guessed or that consists of all the same characters. It is recommended to specify as long a character string as possible that consists of a mixture of alphanumeric characters and symbols.

15.19 mktkn

Name

mktkn

Generates a token.

Synopsis

Windows32

```
mktkn -sd Slot-directory -sn SlotID -tl TokenLabel
      [-Slotpasswd Slot-password -SOPIN SO-PIN -UserPIN User-PIN]
```

Description

Use this command when you use SMEE2 as a SSL library. In all other cases, use the *maketoken* command.

The *mktkn* command generates a token and builds it into a slot. The SO-PIN and user PIN to be set in the token can be entered in interactive mode.

The options and arguments of this command are as follows:

-sd Slot-directory

Specify the full path to the Slot Information Directory (Slot-directory).

When the specified Slot Information Directory does not exist, it causes an error, and an abnormal end of the command is carried out.

-sn SlotID

Specify the slot ID (SlotID) of the slot in which the generated token is to be built. Specify the slot ID indicated in execution of the *mkslt* command.

-tl TokenLabel

Specify a string of up to 32 characters for the token label (TokenLabel) to be set in the generated token. When the specified character string has less than 32 characters, the remaining digits are filled up with blank characters. A blank character cannot be specified at the beginning of the character string.

A token label is the information used when a user specifies a token. Therefore, specify a meaningful label within the system in which a token is used.

-Slotpasswd Slot-password

Specify the password (Slot-password) set in the slot. Blank characters cannot be specified. If this option is specified, a prompt for requesting the password input is not displayed.

This option is not displayed in the Usage field of the command.

-SOPIN SO-PIN

Specify the SO-PIN required for token processing such as token password operation and token initialization. Blank characters cannot be specified. If this option is specified, a prompt for requesting the SO-PIN input is not displayed.

This option is not displayed in the Usage field of the command.

-UserPIN User-PIN

Specify the user PIN (User-PIN) required to operate an object in a token. Blank characters cannot be specified. If this option is specified, a prompt for requesting the user-PIN input is not displayed.

This option is not displayed in the Usage field of the command.

Note

- The token label must consist of characters selected from the following character sets. If an invalid character string is specified, the command terminates abnormally.

Table 15.6 Valid Character Sets

Category	Character set
Alphabetic characters	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz
Numeric characters	0123456789
Symbols	!"#%&'()*+,-./:;<=>?[\]^_{|}~
Blanks	' '

- Slotpasswd, -SOPIN, and -UserPIN option become a parameter error when not specified simultaneously.

- When -Slotpasswd, -SOPIN, and -UserPIN option are specified, the prompt that asks for an input is not displayed.

- Ensure that the slot password is secure, to avoid it being accessed by unauthorized parties.

  For SO-PIN and User-PIN, do not use a name, word, or a character string that can easily be guessed or that consists of all same characters. It is recommended to specify as long a character string as possible that consists of a mixture of alphanumeric characters and symbols.

- The specified token label and User-PIN may be needed to build the environment of a service or put a service into operation. Do not forget them.

15.20 odsetSSL

Name

odsetSSL

Sets an SSL environment for a CORBA service (ObjectDirector).

Synopsis

```
odsetSSL -sd Slot-directory -ed Environment-directory -tl TokenLabel
        [-nn nick-name] [-level2 n] [-level3 n] [-verify m] [-tkpasswd
         User-PIN] [-M system]
```

Description

The odsetSSL command registers an SSL operation environment for a CORBA service.

The user PIN for SSL communication must be entered in interactive mode.

The options and arguments of this command are as follows:

-sd Slot-directory

  Specify the full path to the slot information directory (Slot-directory). This parameter must not be omitted.

-ed Environment-directory

  Specify the full path to the certificate operation control directory (Environment-directory). This parameter must not be omitted.

-tl TokenLabel

  Specify the token label (TokenLabel) assigned to the token that was generated with the *mktkn* command. This parameter must not be omitted.

-nn nick-name

  When using the site certificate of the local host, specify the nickname of the site certificate registered with the *cmentcert* command.

When setting on the server side, be sure to specify this option. When setting on the client side and performing operation without client certificate (when SSL server function is not used), omit this option.

-level2 n

As the encryption method permitted in the communication of SSL version 2.0, specify the sum of the following values (decimal). The default is "0".

0: SSL2.0 communication is not allowed

1: RC2 code using 128bit key and MD5 MAC

2: RC2 code using 40bit key and MD5 MAC

4: DES code using 56bit key and MD5 MAC

8: 3DES code using 168bit key and MD5 MAC

16: RC4 code using 128bit key and MD5 MAC

32: RC4 code using 40bit key and MD5 MAC

When '0' is specified with the -level3 option below, this option cannot be omitted, and '0' cannot be specified for it.

-level3 n

As the encryption method permitted in the communication of SSL version 3.0, specify the sum of the following values (decimal). The default is "4048".

0: SSL3.0 communication is not allowed

1: Code none (no encryption) by use of MD5 MAC

2: Code none (no encryption) by use of SHA-1 MAC

4: RC2 code using 40bit key and MD5 MAC

8: DES code using 56bit key and SHA-1 MAC

16: 3DES code using 168bit key and SHA-1 MAC (*1)

32: RC4 code using 40bit key and MD5 MAC

64: RC4 code using 128bit key and MD5 MAC (*1)

128: RC4 code using 128bit key and SHA-1 MAC (*1)

256: AES code using 128bit key and SHA-1 MAC (*1)

512: SC2000 code using 128bit key and SHA-1 MAC (*1)

1024: AES code using 256bit key and SHA-1 MAC (*1)

2048: SC2000 code using 256bit key and SHA-1 MAC (*1)

*1 If the -level3 option is omitted (if "4048" is specified), the selected encryption method is used.

If the -level2 option is omitted, or "0" is specified for it, "0" cannot be specified for this option.

-verify m

Specify the operation to be performed on the server side when authorizing the client in cases where no client certificate exists in the local host in the communication with SSL version 3.0. The client does not need to specify this option.

1: Authentication success (default value)

The authorization processing continues even if no client certificate exists in the local host.

2: Authentication failure

The system terminates in error (without certificate) if no client certificate exists in the local host.

-tkpasswd USER-PIN

Specifies a user PIN (User-PIN) used for SSL communication. If this option is specified, the prompt to ask for the user PIN input will not be displayed.

Note that this option is not displayed in the command usage.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

Note

- This command must be executed with the administrator authority.

- If both SSL versions 2.0 and 3.0 are enabled in the client/server, a priority is given to Version 2.0. If there is no matching version 2.0 encryption method between the client and server, the encryption method that matches in version 3.0 is used.

- If there is no client certificate (the -m option is omitted), this host cannot use the SSL function as a CORBA server. Therefore, the message od40303 is displayed when starting the CORBA service.

- Interstage supports the following encryption types (SSL_TXT_XXX):

    - Public-key cryptography: RSA

    - Private-key cryptosystem: DES, 3DES (triple DES), RC2, RC4 (NULL indicates no encryption.)

    - Private-key processing mode: CBC, EDE (The number indicates the block length.)

    - Hash key: SHA, MD5

Examples

Execute this command for SSL 3.0 AES/128-bit key encryption.

`Windows32/64`

```
odsetSSL -sd C:\slot -ed C:\sslcert -tl Token01 -nn Jiro -level3 256
```

`Solaris32/64`

```
odsetSSL -sd /export/home/SSL/slot -ed /export/home/SSL/sslcert -tl Token01
-nn Jiro -level3 256
```

Execute this command for SSL 2.0 RC4/128-bit key encryption or SSL 3.0 DES encryption.

`Windows32/64`

```
odsetSSL -sd C:\slot -ed C:\sslcert -tl Token01 -nn Jiro -level2 16 -level3 8
```

`Solaris32/64`

```
odsetSSL -sd /export/home/SSL/slot -ed /export/home/SSL/sslcert -tl Token01
-nn Jiro -level2 16 -level3 8
```

15.21 odsetpath

Name

odsetpath

Sets access authority for the SSL environment.

Synopsis

`Solaris32/64` `Linux32/64`

```
odsetpath Slot-directory Environment-directory [-M system]
```

Description

The *odsetpath* command sets the access authority of a general user (other than system administrator) for an SSL information file registered with *odsetSSL*.

The following parameters can be specified in this command:

Slot-directory

Specify the full path to the slot information directory (Slot-directory). This parameter cannot be omitted.

Environment-directory

Specify the full path to the certificate operation control directory (Env-dir). This parameter cannot be omitted.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

Note

- This command must be executed with the administrator authority.

- This command does not check whether the specified directory is a slot information directory or a certificate operation control directory.

Example

```
odsetpath /export/home/SSL/slot /export/home/SSL/sslcert
```

15.22 porbMngCert

Name

porbMngCert

Registers or removes built-in CA certificates (Issuer certificates)

Synopsis

`Windows32/64`

(1) Registering a built-in CA certificate

```
java -classpath "%PORB_HOME%"\bin\porbMngCert.jar;"%CLASSPATH%" porbMngCert
  -import [ -kf keystore_name ][ -p storepass ][ -rc contract_cert_list ]
  [ -rl file_directory]
```

(2) Removing a built-in CA certificate

```
java -classpath "%PORB_HOME%"\bin\porbMngCert.jar;"%CLASSPATH%" porbMngCert
  -remove [ -kf keystore_name ][ -p storepass ][ -rl file_directory]
```

`Solaris32/64` `Linux32/64`

(1) Registering a built-in CA certificate

```
java -classpath $PORB_HOME/bin/porbMngCert.jar:$CLASSPATH porbMngCert
  -import [ -kf keystore_name ][ -p storepass ][ -rc contract_cert_list ]
  [ -rl file_directory]
```

(2) Removing a built-in CA certificate

```
java -classpath $PORB_HOME/bin/porbMngCert.jar:$CLASSPATH porbMngCert
  -remove [ -kf keystore_name ][ -p storepass ][ -rl file_directory]
```

Note

- The environment variable PORB_HOME is the install directory for Portable-ORB.

- If the environment variable *CLASSPATH* includes space characters, as in the string "Program Files", enclose it in double quotation marks as follows: "%*CLASSPATH*%".

Description

The porbMngCert command is used to register or remove certificates in or from the keystore in the certificate that is built into this product (CA certificate: Root CA certificate).

Built-in certificates that are handled in this command are stored in the following list file:

Built-in certificate list file (the installation path is used as the default)

 Windows32/64

C:\Interstage\IS_cert\contractcertlist

 Solaris32/64 Linux32/64

/etc/opt/FJSVisas/contractcertlist

The following parameters can be specified in this command:

-import

This option registers the built-in CA certificate in the keystore.

-remove

This option removes the built-in CA certificate from the keystore.

-kf keystore_name

This option specifies the keystore in which the CA certificate is registered or from which it is removed.

The directory that is used for storing the keystore must be created in advance. If the keystore does not exist when the certificate is registered, create a new keystore.

If this option is omitted, it goes into interactive mode.

Solaris32/64 Linux32/64

Note: The name of the keystore and the directory where it is stored cannot contain spaces.

-p storepass

This option specifies the password (a minimum of 6 characters) for accessing the keystore.

If this option is omitted, it goes into interactive mode.

Access to the keystore will require this password therefore care must be taken to ensure it is not lost.

-rc contract_cert_list

This option specifies the built-in certificate list file (this is only enabled when the -import option is used).

If this option is omitted, it goes into interactive mode.

-rl file_directory

This option specifies the directory for managing the CA certificate. This directory must be created in advance.

If this option is omitted, it goes into interactive mode.

When the CA certificate is registered the built-in certificate management information file (removelist) is created in the specified directory. This file is required when the CA certificate is removed therefore it must not be edited or deleted.

Note

- The file that is required in Portable-ORB (porbMngCert.jar) is stored in the following directory:

Windows32/64

C:\Interstage\PORB\bin

/opt/FJSVporb/bin

- Directory and file names containing spaces must be delimited by double quotation marks (").

- This command must be executed with the administrator authority.

Remarks

When Using Command

When using command, creating the following batch file is recommended.

Example

```
set PORB_HOME=C:\Interstage\PORB
java -classpath "%PORB_HOME%"\bin\porbMngCert.jar;"%CLASSPATH%" porbMngCert
  -import -kf "%PORB_HOME%"\etc\keystore -rc C:\Interstage\IS_cert\contractcertlist
  -rl "%PORB_HOME%"\etc
```

```
PORB_HOME=/opt/FJSVporb ; export PORB_HOME
ISAS_HOME=/opt/FJSVisas ; export ISAS_HOME
java -classpath $PORB_HOME/bin/porbMngCert.jar:$CLASSPATH porbMngCert
  -import -kf $PORB_HOME/etc/keystore -rc $ISAS_HOME/etc/contractcertlist
  -rl $PORB_HOME/etc
```

Point

Set PORB_HOME as the installation directory of Portable-ORB.

The above batch file is stored in the following directory:

C:\Interstage\PORB\bin\porbMngCert.bat

/opt/FJSVporb/bin/porbMngCert.sh

Example

(1) Registers the built-in CA certificate (contractcertlist) in the keystore.

```
java -classpath "%PORB_HOME%"\bin\porbMngCert.jar;"%CLASSPATH%"
 porbMngCert -import -kf "%PORB_HOME%"\etc\keystore
 -rc C:\Interstage\IS_cert\contractcertlist -rl "%PORB_HOME%"\etc
porbMngCert: INFO: PORB0002: Please input keystore password.
password
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= VeriSign_Class3_PCA_G2_v2
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= VeriSign_PCA3ss_v4
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= VeriSign_Class3_G5
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= VeriSign_Class3_PCA_G3
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= VeriSign_Universal_Root_CA
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= JCS_CA1
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= SecureSign_Root_CA11
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= GTE_CyberTrust_Global_Root
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= Baltimore_CyberTrust_Root
```

```
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= GlobalSign_Root_CA_R1
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= GlobalSign_Root_CA_R2
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= GlobalSign_Root_CA_R3
porbMngCert: INFO: PORB0000: porbMngCert command completed.
```

(2) removes the built-in CA certificate (contractcertlist) from the keystore.

```
java -classpath "%PORB_HOME%"\bin\porbMngCert.jar;"%CLASSPATH%"
 porbMngCert -remove -kf "%PORB_HOME%"\etc\keystore -rl "%PORB_HOME%"\etc
porbMngCert: INFO: PORB0002: Please input keystore password.
password
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <GlobalSign_Root_CA_R3>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <GlobalSign_Root_CA_R2>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <GlobalSign_Root_CA_R1>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <Baltimore_CyberTrust_Root>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <GTE_CyberTrust_Global_Root>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <SecureSign_Root_CA11>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <JCS_CA1>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <VeriSign_Universal_Root_CA>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <VeriSign_Class3_PCA_G3>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <VeriSign_Class3_G5>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <VeriSign_PCA3ss_v4>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <VeriSign_Class3_PCA_G2_v2>
porbMngCert: INFO: PORB0008: removelist deleted.
porbMngCert: INFO: PORB0000: porbMngCert command completed.
```

`Solaris32/64` `Linux32/64`

(1) Registers the built-in CA certificate (contractcertlist) in the keystore.

```
java -classpath $PORB_HOME/bin/porbMngCert.jar:$CLASSPATH
 porbMngCert -import -kf $PORB_HOME/etc/keystore
 -rc $ISAS_HOME/etc/contractcertlist -rl $PORB_HOME/etc
porbMngCert: INFO: PORB0002: Please input keystore password.
password
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= VeriSign_Class3_PCA_G2_v2
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= VeriSign_PCA3ss_v4
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= VeriSign_Class3_G5
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= VeriSign_Class3_PCA_G3
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= VeriSign_Universal_Root_CA
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= JCS_CA1
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= SecureSign_Root_CA11
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= GTE_CyberTrust_Global_Root
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= Baltimore_CyberTrust_Root
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= GlobalSign_Root_CA_R1
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= GlobalSign_Root_CA_R2
porbMngCert: INFO: PORB0010: Certificate was added to keystore. alias= GlobalSign_Root_CA_R3
porbMngCert: INFO: PORB0000: porbMngCert command completed.
```

(2) removes the built-in CA certificate (contractcertlist) from the keystore.

```
java -classpath $PORB_HOME/bin/porbMngCert.jar:$CLASSPATH
 porbMngCert -remove -kf $PORB_HOME/etc/keystore -rl $PORB_HOME/etc
porbMngCert: INFO: PORB0002: Please input keystore password.
password
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <GlobalSign_Root_CA_R3>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <GlobalSign_Root_CA_R2>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <GlobalSign_Root_CA_R1>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <Baltimore_CyberTrust_Root>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <GTE_CyberTrust_Global_Root>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <SecureSign_Root_CA11>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <JCS_CA1>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <VeriSign_Universal_Root_CA>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <VeriSign_Class3_PCA_G3>
```

```
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <VeriSign_Class3_G5>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <VeriSign_PCA3ss_v4>
porbMngCert: INFO: PORB0006: Certificate was removed from keystore. <VeriSign_Class3_PCA_G2_v2>
porbMngCert: INFO: PORB0008: removelist deleted.
porbMngCert: INFO: PORB0000: porbMngCert command completed.
```

15.23 scsdelete

Name

scsdelete

Deletes a certificate.

Synopsis

```
scsdelete -n nickname [-p password]
```

Description

The *scsdelete* command deletes a certificate and/or a private key from the Interstage certificate environment.

Note that executing this command for the nickname of a private-key or the nickname of your site certificate disables registration of a certificate for the private-key as your site certificate.

The options that can be specified for this command are explained below:

-n nickname

This option specifies the nickname of the certificate to be deleted or the nickname of the private key specified by the *scsmakeenv* command. This option cannot be omitted. If the nickname of a site certificate is specified, ensure that the private key having the same nickname is also deleted.

Characters used to specify nicknames are not case-sensitive (i.e. uppercase and lowercase letters are not distinguished).

-p password

This option specifies the password used to access the Interstage certificate environment. Specify the same password as that specified by the *scsmakeenv* command. If this option is omitted, a prompt for password appears.

Note

- If the CA certificate is deleted by specifying its nickname, the site certificate issued by the CA can no longer be used.

- If the private key is deleted by specifying its nickname or its corresponding site certificate's nickname, the site certificate can no longer be registered as an own site certificate. Please be careful.

- An Interstage certificate environment must be configured using the *scsmakeenv* command before this command is executed.

- When specifying the -p option, be careful to protect the confidentiality of the password.

- When entering this command, specify the JDK or JRE installation path for environment variable JAVA_HOME.

- Windows32/64

  Execute this command as a user belonging to the Administrators group.

- Solaris32/64 Linux32/64

  Execute this command as a super user.

15.24 scsenter

Name

scsenter

Registers a certificate and CRL.

Synopsis

1. To register a certificate

```
scsenter -n nickname -f filename [-p password] [-o | -e]
```

2. To register a CRL

```
scsenter -c -f filename [-p password]
```

Description

The *scsenter* command checks whether the certificate or CRL is valid and, if it is valid, registers it in the Interstage certificate environment.

To register your site certificate issued by a Certification Authority (CA), execute the command with the -n option, specifying the same nickname as specified in the scsmakeenv command -n option.

The options that can be specified for this command are explained below:

-n nickname

This option specifies the nickname of the certificate to be registered. Specify a character string (1 to 32 characters long) that begins with an alphanumeric character from the character set defined below. To register your site certificate issued by a Certification Authority (CA), specify the same nickname as that specified for the private key with the *scsmakeenv* command.

When registering the CA certificate, specify a nickname that does not match the nickname of a certificate already registered.

Note that nicknames are not case-sensitive (i.e. uppercase and lowercase letters are not distinguished).

The characters that can be used for the nickname are listed below:

Table 15.7 Valid Character Sets for Nickname

Category	Character
Alphabet	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz
Digit	0123456789
Symbol	()-[]_

-f filename

This option specifies the full path of the file that contains certificate (site certificate or CA certificate) or a CRL. This option cannot be omitted.

The command can register a certificate or CRL that conforms to X.509 or RFC2459 and that uses RSA keys.

The data format that can be specified is binary data (DER format) or Based64 encoding data (PEM format).

To specify a certificate in Base64 encoding data (PEM format), specify data that begins with "----BEGIN CERTIFICATE----" and ends with "----END CERTIFICATE----." To specify a CRL in Base64 encoding data (PEM format), specify data that begins with "----BEGIN X509 CRL----" and ends with "----END X509 CRL----."

An example of the certificate in the PEM format is shown below:

```
-----BEGIN CERTIFICATE-----
 (Base-64-encoded certificate data is embedded.)
-----END CERTIFICATE-----
```

An example of the CRL in the PEM format is shown below:

```
-----BEGIN X509 CRL-----
 (Base-64-encoded CRL data is embedded.)
-----END X509 CRL-----
```

-p password

This option specifies the password used to access the Interstage certificate environment. Specify the same password as that specified by the *scsmakeenv* command. If this option is omitted, a prompt for password appears.

-o

This option specifies that the own site certificate issued by a CA be registered.

Do not specify this option when registering the CA certificate, an accompanying certificate (intermediate CA certificate), or the certificate of another site.

-e

This option specifies that the certificate of another site be registered. The registered certificate is handled as the certificate of a reliable site.

Do not specify this option when registering the CA certificate, an accompanying certificate (intermediate CA certificate), or the certificate of the own site.

The registered certificate of another site can be referenced from the Interstage Management Console as follows: [System] > [Security] > [Certificates] > [CA Certificates] screen.

-c

This option specifies that a CRL be registered.

Note

- Back up the Interstage certificate environment after the certificate and CRL are registered. Refer to the Operator's Guide for the backup procedure.

- An Interstage certificate environment must be configured using the *scsmakeenv* command before this command is executed.

- When specifying the -p option, be careful to protect the confidentiality of the password.

- When registering certificates, register them in order starting with the CA certificate then others. Registration fails if the registration order is confused.

- Specify a different nickname for each of the CA certificate, intermediate CA certificate, and site certificate.

- A CRL issued by the same CA under the same conditions as an existing CRL is registered in overwrite mode.

- When a CRL is to be registered, the CA certificate that issued the CRL must be registered in advance.

- No nickname is assigned to the registered CRL.

- When entering this command, specify the JDK or JRE installation path for environment variable JAVA_HOME.

- Windows32/64

  Execute this command as a user belonging to the Administrators group.

- Solaris32/64 Linux32/64

  Execute this command as a super user.

15.25 scsexppfx

Name

scsexppfx

Exports (fetches) a site certificate and private key in the PKCS#12 data format.

Synopsis

```
scsexppfx -n nickname -f filename [-p password] [-x pfxpassword]
```

Description

The *scsexppfx* command exports (fetches) the site certificate and the corresponding private key registered in the Interstage certificate environment. The command then outputs them, including the CA certificates required for certificate verification, in the PKCS#12 data format to a file. Because PKCS#12 data is encrypted by the password, the private key is protected securely.

The options that can be specified for this command are explained below:

-n nickname

Specifies the nickname of the site certificate to be exported from the Interstage certificate environment. This option cannot be omitted. Uppercase and lowercase letters used for the nickname are not distinguished.

-f filename

Specifies the full path of the file name in which PKCS#12 data is to be stored. This option cannot be omitted.

-p password

Specifies the password used to access the Interstage certificate environment. Specify the same password as that specified with the *scsmakeenv* command. If this option is omitted, a password prompt is displayed.

-x pfxpassword

Specifies the password to protect PKCS#12 data. Refer to the Note section, and specify a password with 6 to 128 characters. If this option is not specified, a password prompt is displayed.

Note

- The PKCS#12 data that is exported by this command can be imported into the following environments:

    - Interstage certificate environment

    - Certificate/key management environment configured with the SMEE command

- The certificates and the private key output to PKCS#12(PFX) data are not deleted from the Interstage certificate environment.

- If the command is executed with the -x option omitted, the system prompts the user to enter the password to protect the PKCS#12 data. Specify the password with 6 to 128 characters selected from the following character set.

Table 15.8 Valid Character Set for Passwords

Category	Character
Alphabet	ABCDEFGHIJKLMNOPQRSTUVWXYZ
	Abcdefghijklmnopqrstuvwxyz
Digit	0123456789
Symbol	!"#%&'()*+,-./:;<=>?[\]^_{|}~
Blank	' '

- An Interstage certificate environment must be configured using the *scsmakeenv* command before this command is executed.

- When specifying the -p or -x option, be careful not to allow others to view the password.

- Remember the password entered for PKCS#12 data. Otherwise, the PKCS#12 data can no longer be used.

- Manage the password carefully so as not to allow it be exposed or stolen. Do not specify an easy-to-guess character string such as a name or word, or a character string consisting of all same characters. It is recommended to specify as long a character string as possible consisting of alphanumeric characters and symbols.

- When entering this command, specify the JDK or JRE installation path for environment variable JAVA_HOME.

Solaris32/64 Linux32/64

- The installation path for JDK or JRE does not need to be set in the LD_LIBRARY_PATH environment variable when executing this command.

Solaris32/64

If the JDK or JRE installation path is set in LD_LIBRARY_PATH, check that the path is the same as the installation path set in JAVA_HOME, as shown below.

Note that the operation of this command is not guaranteed if the paths do not match.

Solaris32

Java to be used	Configured JAVA_HOME	Configured LD_LIBARY_PATH
JDK6	/opt/FJSVawjbk/jdk6	/opt/FJSVawjbk/jdk6/jre/lib/sparc
		/opt/FJSVawjbk/jdk6/jre/lib/sparc/native_threads
		/opt/FJSVawjbk/jdk6/jre/lib/sparc/client
JRE6	/opt/FJSVawjbk/jre6	/opt/FJSVawjbk/jre6/lib/sparc
		/opt/FJSVawjbk/jre6/lib/sparc/native_threads
		/opt/FJSVawjbk/jre6/lib/sparc/client
JDK7	/opt/FJSVawjbk/jdk7	/opt/FJSVawjbk/jdk7/jre/lib/sparc
		/opt/FJSVawjbk/jdk7/jre/lib/sparc/server
		/opt/FJSVawjbk/jdk7/jre/lib/sparc/client
JRE7	/opt/FJSVawjbk/jre7	/opt/FJSVawjbk/jre7/lib/sparc
		/opt/FJSVawjbk/jre7/lib/sparc/server
		/opt/FJSVawjbk/jre7/lib/sparc/client

Solaris64

Java to be used	Configured JAVA_HOME	Configured LD_LIBARY_PATH
JDK6	/opt/FJSVawjbk/jdk6	/opt/FJSVawjbk/jdk6/jre/lib/sparcv9 /opt/FJSVawjbk/jdk6/jre/lib/sparcv9/native_threads
JRE6	/opt/FJSVawjbk/jre6	/opt/FJSVawjbk/jre6/lib/sparcv9 /opt/FJSVawjbk/jre6/lib/sparcv9/native_threads
JDK7	/opt/FJSVawjbk/jdk7	/opt/FJSVawjbk/jdk7/jre/lib/sparcv9 /opt/FJSVawjbk/jdk7/jre/lib/sparcv9/server
JRE7	/opt/FJSVawjbk/jre7	/opt/FJSVawjbk/jre7/lib/sparcv9 /opt/FJSVawjbk/jre7/lib/sparcv9/server

Windows32/64

- Execute this command as a user belonging to the Administrators group.

Solaris32/64   Linux32/64

- Execute this command as a super user.

15.26 scsimppfx

Name

scsimppfx

Imports (registers) a private key and site certificate from PKCS#12 data.

Synopsis

```
scsimppfx -f filename [-p password] [-x pfxpassword] [-a nicknameprefix]
```

Description

The *scsimppfx* command imports (registers) the site certificate stored in PKCS#12 data, the corresponding private key, and CA certificate into the Interstage certificate environment.

Information (character string) included in the PKCS#12 data is used for the nickname to the certificate. If no character string is included or the included character string cannot be used such as because it matches an existing nickname, the system prompts for a nickname or automatically generates one.

The options that can be specified for this command are explained below:

-f filename

　　Specifies the full path of the file name of the PKCS#12 data to be imported into the Interstage certificate environment. This option cannot be omitted.

-p password

　　Specifies the password used to access the Interstage certificate environment. Specify the same password as that specified with the *scsmakeenv* command. If this option is omitted, a password prompt is displayed.

-x pfxpassword

　　Specifies the password used to protect PKCS#12 data. If this option is not specified, a password prompt is displayed.

-a nicknameprefix

　　If a nickname cannot be set from the information (character string) included in the PKCS#12 data, specify a prefix to automatically generate a nickname. The nickname prefix specified with this option is followed by a serial number starting from 000 and a certificate is thus registered with a unique nickname.

　　Specify a nickname prefix with 1 to 29 characters selected from the character set shown below. The prefix must begin with an alphanumeric character.

　　If this option is not specified, a nickname prompt is displayed.

Table 15.9 Valid Character Set for Nickname Prefix

Category	Character
Alphabet	ABCDEFGHIJKLMNOPQRSTUVWXYZ
	Abcdefghijklmnopqrstuvwxyz
Digit	0123456789
Symbol	()-[]_

Note

- If the same CA certificate is already registered in the Interstage certificate environment, the command continues processing without registering the CA certificate.

- If the same site certificate is already registered in the Interstage certificate environment, the command ends with an error.

- If the information (character string) included in the PKCS#12 data cannot be used for a nickname while the -a option is omitted, a nickname prompt is displayed. Specify a nickname with 1 to 32 characters selected from the available character set (see the -a option). Note that the nickname must begin with an alphanumeric character.

- The nickname of the registered certificate is output in messages.

- The command can import PKCS#12 data that was:

  - Exported from the Interstage certificate environment using the *scsexppfx* command.

  - Exported from the certificate/key management environment, which was configured with the SMEE command, using the *cmmkpfx* command.

- An Interstage certificate environment must be configured using the *scsmakeenv* command before this command is executed.

- When specifying the -p or -x option, be careful not to allow others to view the password.

- A site certificate included in PKCS#12 data cannot be imported into the Interstage certificate environment if the certificate is invalid such as because of expiration.

- Back up the Interstage certificate environment after PKCS#12 data is imported. Refer to the Operator's Guide for the backup procedure.

- When entering this command, specify the JDK or JRE installation path for environment variable JAVA_HOME.

Solaris32/64 Linux32/64

- The installation path for JDK or JRE does not need to be set in the LD_LIBRARY_PATH environment variable when executing this command.

Solaris32/64

If the JDK or JRE installation path is set in LD_LIBRARY_PATH, check that the path is the same as the installation path set in JAVA_HOME, as shown below.

Note that the operation of this command is not guaranteed if the paths do not match.

Solaris32

Java to be used	Configured JAVA_HOME	Configured LD_LIBARY_PATH
JDK6	/opt/FJSVawjbk/jdk6	/opt/FJSVawjbk/jdk6/jre/lib/sparc
		/opt/FJSVawjbk/jdk6/jre/lib/sparc/native_threads
		/opt/FJSVawjbk/jdk6/jre/lib/sparc/client
JRE6	/opt/FJSVawjbk/jre6	/opt/FJSVawjbk/jre6/lib/sparc
		/opt/FJSVawjbk/jre6/lib/sparc/native_threads
		/opt/FJSVawjbk/jre6/lib/sparc/client
JDK7	/opt/FJSVawjbk/jdk7	/opt/FJSVawjbk/jdk7/jre/lib/sparc
		/opt/FJSVawjbk/jdk7/jre/lib/sparc/server
		/opt/FJSVawjbk/jdk7/jre/lib/sparc/client
JRE7	/opt/FJSVawjbk/jre7	/opt/FJSVawjbk/jre7/lib/sparc
		/opt/FJSVawjbk/jre7/lib/sparc/server
		/opt/FJSVawjbk/jre7/lib/sparc/client

Solaris64

Java to be used	Configured JAVA_HOME	Configured LD_LIBRARY_PATH
JDK6	/opt/FJSVawjbk/jdk6	/opt/FJSVawjbk/jdk6/jre/lib/sparcv9 /opt/FJSVawjbk/jdk6/jre/lib/sparcv9/native_threads
JRE6	/opt/FJSVawjbk/jre6	/opt/FJSVawjbk/jre6/lib/sparcv9 /opt/FJSVawjbk/jre6/lib/sparcv9/native_threads
JDK7	/opt/FJSVawjbk/jdk7	/opt/FJSVawjbk/jdk7/jre/lib/sparcv9 /opt/FJSVawjbk/jdk7/jre/lib/sparcv9/server
JRE7	/opt/FJSVawjbk/jre7	/opt/FJSVawjbk/jre7/lib/sparcv9 /opt/FJSVawjbk/jre7/lib/sparcv9/server

Windows32/64

- Execute this command as a user belonging to the Administrators group.

Solaris32/64 Linux32/64

- Execute this command as a super user.

15.27 scslistcrl

Name

scslistcrl

Displays a listing of CRLs.

Synopsis

```
scslistcrl [-p password]
```

Description

The *scslistcrl* command lists CRLs registered in the Interstage certificate environment. The options that can be specified for this command are explained below:

-p password

This option specifies the password used to access the Interstage certificate environment. Specify the same password as that specified by the *scsmakeenv* command. If this option is omitted, a prompt for password is displayed.

Note

- An Interstage certificate environment must be configured using the *scsmakeenv* command before this command is executed.

- When specifying the -p option, be careful to keep the password confidential.

- When entering this command, specify the JDK or JRE installation path for environment variable JAVA_HOME.

- Windows32/64

  Execute this command as a user belonging to the Administrators group.

- Solaris32/64   Linux32/64

  Execute this command as a super user.

15.28 scsmakeenv

Name

scsmakeenv

Creates a Certificate Signing Request (CSR) or site certificate for testing, and configures an Interstage certificate environment.

Synopsis

Windows32/64

To create a certificate signing request (CSR)

```
scsmakeenv -n nickname -f filename [-c] [-k keysize] [-p password]
[-cn CommonName [-ou OrganizationalUnit] [-or Organization] [-lo Locality]
[-st State] [-cc CountryCode] ]
```

To create a site certificate for testing

```
scsmakeenv -n nickname [-c] [-k keysize] [-v valday] [-p password]
[-cn CommonName [-ou OrganizationalUnit] [-or Organization] [-lo Locality]
[-st State] [-cc CountryCode] ]
```

Configuring or reconfiguring Interstage certificate environment

```
scsmakeenv -e [-p password] [-c]
```

Solaris32/64 Linux32/64

To create a certificate signing request (CSR)

```
scsmakeenv -n nickname -f filename [-c] [-k keysize] [-g group]
[-p password] [-cn CommonName [-ou OrganizationalUnit] [-or Organization]
[-lo Locality] [-st State] [-cc CountryCode] ]
```

To create a site certificate for testing

```
scsmakeenv -n nickname [-c] [-k keysize] [-v valday] [-g group]
[-p password] [-cn CommonName [-ou OrganizationalUnit] [-or Organization]
[-lo Locality] [-st State] [-cc CountryCode] ]
```

Configuring or reconfiguring Interstage certificate environment

```
scsmakeenv -e [-p password] [-c] [-g group]
```

Description

The *scsmakeenv* command creates a pair of RSA public and private keys and outputs a certificate signing request (CSR) to a file. The command can also create a test site certificate if the option "-f filename" is omitted. The key and site certificate for testing created by the *scsmakeenv* command are registered in the Interstage certificate environment.

When executed for the first time, the command creates an Interstage certificate environment and defines a password. Thereafter, the command uses the Interstage certificate environment according to the defined password.

Between the time a CSR is created to when your site certificate is obtained and registered, if the Interstage Certificate Environment is damaged or the private-key is deleted, the site certificate becomes unusable. Therefore, after creating the Interstage Certificate Environment using this command, make a backup of the Interstage Certificate Environment to secure private-keys. For details on how to make a backup, see the Operator's Guide.

The DN information options -cn, -ou, -or, -lo, -st and -cc can be specified when the Trial Site Certificate and the CSR (Certificate Signing Request) are issued. If these options are omitted, a prompt will be displayed asking you to input DN information.

The options that can be specified for this command are explained below.

-n nickname

This option specifies the nickname of a private key. Specify a character string (1 to 32 characters long) that begins with an alphanumeric character from the character set defined below.

The nickname specified with this option must be used when specifying a nickname in the *scsenter* command to register the site certificate obtained from the Certification Authority (CA). Remember the nickname for this purpose.

Note that an existing nickname cannot be specified. Note also that uppercase and lowercase letters are not distinguished for the nickname.

The characters that can be used for the nickname are listed below:

Table 15.10 Valid Characters for Nickname

Category	Character
Alphabet	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz
Digit	0123456789
Symbol	()-[]_

-f filename

This option specifies the full path of the file in which the certificate signing request (CSR) created is to be stored.

When this option is specified, the command creates a CSR and a pair of RSA keys and registers them in the Interstage certificate environment.

If this option is omitted while the -n option is specified, the command creates a test site certificate and registers it in the Interstage certificate environment.

-c

This option specifies that the certificate of the Certification Authority be registered.

This option must be specified to use a certificate issued by a supported public Certification Authority (CA).

Once the command is executed with this option specified, the option need not be specified again when the command is executed again, unless the CA certificate is deleted by the *scsdelete* command.

-k keysize

This option specifies the length of the created RSA encryption algorithm public key and private key pair.

The valid values are 512, 768, 1024, 2048 and 4096 values. If this option is omitted, the keys will be created as a 2048-bit length.

Note that, due to improvement in machine performance, it can no longer be said with certainty that 512, 768, and 1024 bit RSA encryption algorithm keys are secure. For this reason, it is recommended that you specify at least 2048 bits.

-v valday

This option specifies the number of days (1 to 7300) during which the test site certificate is valid. The default is 365 (days).

The certificate cannot be used after the expiration of the validity term. It is recommended to specify a period in which the test will be completed.

-e

Specifies that the command only configures an Interstage certificate environment. If this option is specified, no Certificate Signing Request (CSR) and site certificate for testing are created.

If this option is specified when the command is executed for the first time in the system, subsequently enter the *scsimppfx* command to import a site certificate and private key.

If this option is specified when an Interstage certificate environment is already configured, the environment can be reconfigured. If this option is specified with the -c option, the CA certificates of VeriSign Inc. and Cybertrust, Inc. are added and registered. Specifying this option with the -g option can change the owner group.

-p password

Registers the password used to access the Interstage certificate environment, or specifies the registered password.

Specify between 6 and 128 characters for the password that is to be registered, using only the character sets described in the Note.

If this option is omitted, a prompt will be displayed asking you to input the password.

The specified password is the authentication information used during access to the Interstage certificate environment.

If this option is defined in a batch file, to prevent the password being exposed, care is advised regarding the file handling, such as its location and privileges.

-g group `Solaris32/64` `Linux32/64`

Specifies the owner group or the ID of such owner group to be permitted to access the Interstage certificate environment.

If this option is omitted when the command is executed for the first time in the system (when an Interstage certificate environment is to be configured), the group to which the user who executed the command belongs is set.

If this option is specified when an Interstage certificate environment is already configured, the owner group of the Interstage certificate environment is changed to the specified group.

If this option is omitted, the owner group is not changed.

-cn CommonName

Specifies the common name of the Trial Site Certificate and the CSR (Certificate Signing Request).

If this option is specified, the prompt asking you to input DN information will no longer be displayed.

If -ou, -or, -lo, -st or -cc are specified, then this option cannot be omitted.

Between 1 and 256 characters can be specified, from the character sets listed in Note.

Note that the value cannot contain only spaces.

-ou OrganizationalUnit

Specifies the organizational unit of the Trial Site Certificate and the CSR (Certificate Signing Request).

If -cn is specified but this option is not, the information that corresponds to the Trial Site Certificate and the CSR (Certificate Signing Request) will not be set.

Between 1 and 1024 characters can be specified, from the character sets listed in Note.

Note that the value cannot contain only spaces.

-or Organization

Specifies the organization of the Trial Site Certificate and the CSR (Certificate Signing Request).

If -cn is specified but this option is not, the information that corresponds to the Trial Site Certificate and the CSR (Certificate Signing Request) will not be set.

Between 1 and 1024 characters can be specified, from the character sets listed in Note.

Note that the value cannot contain only spaces.

-lo Locality

Specifies the locality of the Trial Site Certificate and the CSR (Certificate Signing Request).

If -cn is specified but this option is not, the information that corresponds to the Trial Site Certificate and the CSR (Certificate Signing Request) will not be set.

Between 1 and 1024 characters can be specified, from the character sets listed in Note.

Note that the value cannot contain only spaces.

-st State

Specifies the state of the Trial Site Certificate and the CSR (Certificate Signing Request).

If -cn is specified but this option is not, the information that corresponds to the Trial Site Certificate and the CSR (Certificate Signing Request) will not be set.

Between 1 and 1024 characters can be specified, from the character sets listed in Note.

Note that the value cannot contain only spaces.

-cc CountryCode

Specifies the country code of the Trial Site Certificate and the CSR (Certificate Signing Request).

If -cn is specified but this option is not, the information that corresponds to the Trial Site Certificate and the CSR (Certificate Signing Request) will not be set.

Specify two letters for the country code (ISO3166).

Note that the value cannot contain only spaces.

Note

- If the -e option is omitted and the DN information is not specified, a prompt will be displayed asking you to input the DN information, such as "common name".

Enter the DN information shown below, which is mandatory (if this is omitted, it is assumed that "Unknown" has been specified - note that "Un' will be assumed if country code is omitted).

Table 15.11 Information to Input

Item	Message prompting for omitted DN information	DN information option	Information to input
Common Name (CN)	What is your first and last name?	-cn	Name. For a site certificate, enter the domain name or IP address.

Item	Message prompting for omitted DN information	DN information option	Information to input
Organizational Unit Name (OU)	What is the name of your organizational unit?	-ou	Organization unit name (example: department name)
Organization Name (O)	What is the name of your organization?	-or	Organization name (example: company name)
Locality Name (L)	What is the name of your City or Locality?	-lo	City name or regional name (example: city, town, etc.)
State or Province Name (ST)	What is the name of your State or Province?	-st	State name or provincial name (example: state, province, etc.)
Country (C)	What is the two-letter country code for this unit?	-cc	Country code (two letters, per ISO3166). (example: "jp" for Japan)

The following characters can be used for specification.

Table 15.12 Valid Character Sets to Input

Category	Character
Alphabet	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz
Digit	0123456789
Symbol	(),-./:?'+=#;<> Note: If a symbol other than the above is used, JDK may not operate normally.
Blank	' ' Note: If a blank is specified at the beginning or end, the blank is deleted. If two or more blanks are specified consecutively or if only blanks are specified, JDK may not operate normally.

- If the command is executed with the -p option omitted, the command prompts for a password.

  When the command is executed for the first time, the password is registered as one used to access the Interstage certificate environment. Specify the password using 6 to 128 characters from the password character set defined below. Remember the password because it is required for access the Interstage certificate environment. If this command is to be executed after it has once been executed, enter the password already registered.

Table 15.13 Valid Character Set for Passwords

Category	Character
Alphabet	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz
Digit	0123456789
Symbol	()+,-./<=>[]_
Blank	' '

- When requesting VeriSign Inc. to issue a certificate, select "Secure Site SSL Certificates" certificates or "Secure Site with EV SSL Certificates" certificates.

- When requesting Cybertrust, Inc. to issue a certificate, select "Cybertrust SureServer Certificate" certificates.

- Back up the Interstage certificate environment to protect the private key until a Certificate Signing Request (CSR) is created and a site certificate is obtained and registered. Refer to the Operator's Guide for the backup procedure.

- Remember the password entered when the command was first executed. Otherwise, the *scsmakeenv*, *scsenter*, *scsdelete*, *scslistcrl*, *scsexppfx*, *scsimppfx* and *scslist* commands cannot be executed.

- Protect the confidentiality of the password carefully, keep it secret and do not allow it to be stolen.

  Do not use a name, word, or a character string that can easily be guessed, or that consists of all same characters. It is recommended to specify as long a character string as possible that consists of a mixture of alphanumeric characters and symbols.

- The site certificate created by this command can be used as a certificate for testing. Note that the created certificate is reliable only in the test environment and its reliability cannot be guaranteed for external environments such as the Internet. Be careful not to let it be used for regular service operations.

- If the command executed for the first time ends with an error, an Interstage certificate environment may not have been created properly. If so, delete the current Interstage certificate environment and enter the *scsmakeenv* command to create a new Interstage certificate environment.

  The path of the Interstage certificate environment, and the resource to be deleted before the Interstage certificate environment is re-created, are as follows:

  Windows32/64

```
Interstage certificate environment
C:\Interstage\etc\security
Resource to be deleted before re-creation, stored under
C:\Interstage\etc\security\env
```

  Solaris32/64 Linux32/64

```
Interstage certificate environment
/etc/opt/FJSVisscs/security
Resource to be deleted before re-creation, stored under
/etc/opt/FJSVisscs/security/env
```

  If the Interstage certificate environment is corrupted after it is created, restore the environment. Refer to the Operator's Guide for the restoration procedure.

- When entering this command, specify the JDK or JRE installation path for environment variable JAVA_HOME.

Windows32/64

- Execute this command as a user belonging to the Administrators group.

Solaris32/64 Linux32/64

- Execute this command as a super user.

- When changing the owner group using the -g option, stop all services in advance. Change the owner group in such a way that the users who belong to the group before change belong to the group after change. Otherwise, the service may fail to start.

- For more information about the owner group of the Interstage certificate environment specified by the -g option, refer to Setting and Use of the Interstage Certificate Environment in the Security System Guide.

Example

- To create a CSR

  Note

  The nickname specified when the CSR is created is also required when the site certificate that was obtained from the CA is registered.

  Windows32/64

```
>scsmakeenv -n SiteCert -f C:\my_folder\my_csr.txt -c
Password: (*1)

Input X.500 distinguished names.
What is your first and last name?
  [Unknown]:SiteName.domain (*2)
```

```
What is the name of your organizational unit?
  [Unknown]:Interstage (*2)
What is the name of your organization?
  [Unknown]:Fujitsu Ltd.  (*2)
What is the name of your City or Locality?
  [Unknown]:Yokohama (*2)
What is the name of your State or Province?
  [Unknown]:Kanagawa (*2)
What is the two-letter country code for this unit?
  [Un]:jp (*2)
Is <CN=SiteName.domain, OU=Interstage, O=Fujitsu Ltd., L=Yokohama, ST=Kanagawa, C=jp> correct?
  [no]:yes (*3)
Certificate was added to keystore
Certificate was added to keystore
Certificate was added to keystore
Certificate was added to keystore
Certificate was added to keystore
Certificate was added to keystore
Certificate was added to keystore
Certificate was added to keystore
Certificate was added to keystore
SCS: INFO: scs0101: CSR was issued <C:\my_folder\my_csr.txt>
```

Solaris32/64 **Linux32/64**

```
> scsmakeenv -n SiteCert -f /usr/home/my_dir/my_csr.txt -c -g iscertg
Password: (*1)

Input X.500 distinguished names.
What is your first and last name?
  [Unknown]:SiteName.domain (*2)
What is the name of your organizational unit?
  [Unknown]:Interstage (*2)
What is the name of your organization?
  [Unknown]:Fujitsu Ltd.  (*2)
What is the name of your City or Locality?
  [Unknown]:Yokohama (*2)
What is the name of your State or Province?
  [Unknown]:Kanagawa (*2)
What is the two-letter country code for this unit?
  [Un]:jp (*2)
Is <CN=SiteName.domain, OU=Interstage, O=Fujitsu Ltd., L=Yokohama,
ST=Kanagawa, C=jp> correct?
  [no]:yes (*3)
Certificate was added to keystore
Certificate was added to keystore
Certificate was added to keystore
Certificate was added to keystore
Certificate was added to keystore
Certificate was added to keystore
Certificate was added to keystore
Certificate was added to keystore
Certificate was added to keystore
UX: SCS: INFO: scs0101: CSR was issued </usr/home/my_dir/my_csr.txt>
UX: SCS: INFO: scs0180: The owners group of Interstage certificate
environment was set
```

*1 The entered password is not displayed. The password entered for the first time is processed for registration. For this purpose, the system prompts for the password to be entered again, as shown below. Retype the password for confirmation.

```
New Password:
Retype:
```

*2 Enter required items while referring to Notes on entries.

*3 To create a CSR using the displayed information, type "yes". To reenter information, type "no".

- To create a site certificate for testing

Windows32/64

```
> scsmakeenv -n testCert
Password: (*1)


Input X.500 distinguished names.
What is your first and last name?
  [Unknown]:SiteName.domain (*2)
What is the name of your organizational unit?
  [Unknown]:Interstage (*2)
What is the name of your organization?
  [Unknown]:Fujitsu Ltd.  (*2)
What is the name of your City or Locality?
  [Unknown]:Yokohama (*2)
What is the name of your State or Province?
  [Unknown]:Kanagawa (*2)
What is the two-letter country code for this unit?
  [Un]:jp (*2)
Is <CN=SiteName.domain, OU=Interstage, O=Fujitsu Ltd., L=Yokohama,
ST=Kanagawa, C=jp> correct?
  [no]:yes (*3)
UX: SCS: INFO: scs0102: Self-sign certificate was issued
```

*1 The entered password is not displayed. The password entered for the first time is processed for registration. For this purpose, the system prompts for the password to be entered again. Re-type the password for confirmation.

*2 Enter required items while referring to Notes on entries.

*3 To create a certificate using the displayed information, type "yes". To re-enter information, type "no".

- To create an Interstage certificate environment

Windows32/64

```
> scsmakeenv -e
New Password: (*1)
Password:
SCS: INFO: scs0100: Interstage certificate environment was created
```

*1 The entered password is not displayed. The password entered for the first time is processed for registration. For this purpose, the system prompts for the password to be entered again. Retype the password for confirmation.

- To change the owner group of the existing Interstage certificate environment

Solaris32/64 Linux32/64

```
> scsmakeenv -e -g iscertg2
Password: (*1)
UX: SCS: INFO: scs0181: Interstage certificate environment has already
been created
UX: SCS: INFO: scs0180: The owners group of Interstage certificate
environment was set
```

*1 The entered password is not displayed.

15.29 scslist

Name

scslist

Lists the CSRs (Certificate Signing Requests) not associated with a site certificate and site and CA certificates registered in the Interstage certificate environment.

Synopsis

```
scslist [-p password] {-c, -o, -e}
```

Description

The options and arguments of this command are as follows:

-p password

Specify the password specified in the *scsmakeenv* command for accessing the Interstage certificate environment. If this option is omitted, the user will be prompted for the password.

The options below are mutually exclusive:

-c

Lists the CSRs (Certificate Signing Request) not associated with a site certificate.

-o

Lists the site certificates registered in the Interstage certificate environment.

-e

Lists the CA certificates registered in the Interstage certificate environment.

Note

- An Interstage certificate environment must be configured using the *scsmakeenv* command before this command is executed.

- When specifying the -p option, be careful to keep the password confidential.

- When entering this command, specify the JDK or JRE installation path for environment variable JAVA_HOME.

- Windows32/64

  Execute this command as a user belonging to the Administrators group.

- Solaris32/64 Linux32/64

  Execute this command as a super user.

- When -c is specified, the list of CSRs (Certificate Signing Request) will contain the following:

Item	Description
Nickname	Nickname (in lowercase)
Dn	Information (such as names) set using the *scsmakeenv* command
Modulus(n)	Public key information
Public Exponent(e)	

- When -o or -e as specified, the list of site/CA certificates will contain the following:

Item	Description
Nickname	Nickname
SerialNumber	Certificate serial number
Subject	Information such as owner name
Issuer	Information such as name of the CA that issued the certificate
Validity	Date of validity
FingerPrint	Fingerprint (SHA1)

Example

- Displaying a CSR (Certificate Signing Request):

```
>scslist -c
Password:
--- CSR ---
Nickname: site010

Dn: cn=CN,ou=OU,o=ORG,l=Locality,st=State,c=jp
Modulus(n):
0000  AA8B11AC D9FB6720 DA278EB7 048F0C0F
0010  3D8AAE92 3A8C8248 2ABB8D2D B8A83C14
0020  45FD12C8 2D1AB47C E1240587 0041D3F8
0030  03D5D7C0 AE83A5CA FF1A097E 414720A8
0040  87B9F476 F2FD955A 44F1F581 CA4E4BD0
0050  78C10D4C EB731CFA 9BCE46D4 A6731335
0060  D180CCAF 0F757C07 929E8EDC C991564C
0070  160E9C9B 89328E92 A0D8F980 385E8751
Public Exponent(e):
0000  010001


Nickname: site011
Dn: cn=CN,ou=OU,o=ORG,l=Locality,st=State,c=jp
Modulus(n):
0000  C2F2998C E490D5FE FCD57182 2BF80544
0010  C639C88A 222D4E89 28B21B33 3DC2A1BA
0020  10FF0C71 C7846BB4 88F5EF3A 78EC91C5
0030  CCFF4E5C C9D64881 75CFE3DF 383FD0B1
0040  00933368 52D70773 0C3FBB11 D8C91DD6
0050  57E46A71 7372782C B1B85839 1C6E2BF4
0060  5DE451AE D4A07F97 2D3127CE D32ED07D
0070  E5D5861D A8B91DE6 60F7C56F 77511A1D
Public Exponent(e):
0000  010001
```

- Displaying a site certificate:

```
>scslist -o
Password:
--- Site certificate ---
Nickname: Site001
SerialNumber: 10 11 01
Subject: cn=CN,ou=OU,o=ORG,l=Locality,st=State,c=jp
Issuer: cn=CN,ou=OU,o=ORG,l=Locality,st=State,c=jp
Validity: 2007/07/14 09:55:47 - 2008/07/14 09:00:00
FingerPrint(SHA1): a0 b0 01 0c 0d c7 b5 d9 ec 2e a0 b0 01 0c 0d c7 b5 d9 ec 2e


Nickname: Site002
SerialNumber: 10 11 02
Subject: cn=CN,ou=OU,o=ORG,l=Locality,st=State,c=jp
Issuer: cn=CN,ou=OU,o=ORG,l=Locality,st=State,c=jp
Validity: 2007/07/14 09:55:47 - 2008/07/14 09:00:00
FingerPrint(SHA1): 0a 0b 10 c0 d0 7c 5b 9d ce e2 0a 0b 10 c0 d0 7c 5b 9d ce e2
```

- Displaying a CA certificate

```
>scslist -e
Password:
--- CA certificate ---
Nickname: Root001
SerialNumber: 00 11 01
Subject: cn=CN,ou=OU,o=ORG,l=Locality,st=State,c=jp
```

```
Issuer: cn=CN,ou=OU,o=ORG,l=Locality,st=State,c=jp
Validity: 2007/07/14 09:55:47 - 2009/07/14 09:00:00
FingerPrint(SHA1): b1 a2 3c cc 07 35 b6 d0 2e ce b1 a2 3c cc 07 35 b6 d0 2e ce

Nickname: Root002
SerialNumber: 00 11 02
Subject: cn=CN,ou=OU,o=ORG,l=Locality,st=State,c=jp
Issuer: cn=CN,ou=OU,o=ORG,l=Locality,st=State,c=jp
Validity: 2007/07/14 09:55:47 - 2009/07/14 09:00:00
FingerPrint(SHA1): 1b 2a c3 dd 70 53 6b 0d e2 ec 1b 2a c3 dd 70 53 6b 0d e2 ec
```

Part 7   OLTP System Operation Edition

Chapter 16 Component Transaction Service Operation Commands

This chapter details the Component Transaction Service operation commands.

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
tdinhibitobj Windows32 Solaris32 Linux32	Closes Component Transaction Service objects.	OK	OK
tdlinkapm Windows32 Solaris32 Linux32	Generates the Application Program Manager (APM).	No	OK
tdlinknormapm Solaris32 Linux32	Re-creates the APM (Application Program Manager).	OK	OK
tdpermitobj Windows32 Solaris32 Linux32	Cancels closure of Component Transaction Service objects.	OK	OK
tdsecmode Solaris32 Linux32	Enhances the security of the Component Transaction Service.	OK	OK
tdtransfer Windows32 Solaris32	Transfers and displays attribute information.	OK	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Directory
Windows32	C:\Interstage\bin
Solaris32	/opt/FSUNtd/bin
Linux32	/opt/FJSVtd/bin

16.1 tdinhibitobj

Name

tdinhibitobj

Closes Component Transaction Service objects.

Synopsis

Windows32　Solaris32　Linux32

```
tdinhibitobj  [-M system-name] objname
```

Description

This command closes Component Transaction Service objects being used.

The argument of this command is as follows:

-M system-name　Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

objname

Displays the NAME of the object to be closed.

Notes

  - This command is valid for transaction applications only.

  - This command is not valid for processing continued using the Process Binding function.

Solaris32　Linux32

  - Only the user who started the WorkUnit can close an object.

Example

```
tdinhibitobj TDSAMPLE1/INTF
```

16.2 tdlinkapm

Name

tdlinkapm

Generates the Application Program Manager (APM).

Synopsis

Windows32　Solaris32　Linux32

```
tdlinkapm -l xa_linkpgm [-t{thread|process}] [-p "library" ] -r "library" -o apmname
```

Description

This command generates the Application Program Manager (APM).

Windows32

Execution of this command operates the *link* command of Microsoft® Visual® C++.

The options and arguments of this command are as follows:

-l xa_linkpgm

For xa_linkpgm, specify a file extension "LIB" created by the *otsmkxapgm* command.

-r "library"

Windows32

Specifies the path and filenames of the libraries provided by the database vendor (up to 2048 characters) for XA interface linkage.

The program name for XA cooperation is specified to be xa_linkpgm. The program name for XA cooperation should use the thing which OTS offers, or the thing acquired by the *otsmkxapgm* command.

-t {thread|process}

Links libthread.so when thread is specified.

If process is specified, libthread.so is not linked.

This option defaults to thread when omitted.

Links libpthread.so when thread is specified.

If process is specified, libpthread.so is not linked.

This option defaults to thread when omitted.

-p "library"

The library information (up to 2048 characters) specified in "library" is linked before any other libraries.

-r "library"

Specifies the path and filenames of the libraries provided by the database vendor (up to 2048 characters) for XA interface linkage.

-o apmname

Specifies the name of the APM file to be created, using up to 23 alphanumeric characters.

The APM is created in the C:\Interstage\Extp\bin.

The APM is created in the /opt/FSUNextp/bin.

The APM is created in the /opt/FJSVextp/bin.

If the name of an existing file is specified, the operator is asked whether to overwrite the file (Y or N). Enter "Y" to overwrite the file.

If the applicable APM is already being used, the file cannot be overwritten. TDNORM and TDNORMCNT cannot be specified as an APM name.

Notes

- Only system administrators are authorized to execute this command.

- Do not specify a library other than those provided by the database vendor at the **-r** option.

- This command uses Microsoft® Visual® C++. After the installation of VC++, set the following environment variables before command execution:

  - PATH

  - INCLUDE

  - LIB

- This command uses the C compiler. Before executing the command, add the directory containing the C compiler to the environment variable PATH.

- When using Symfoware/RDB, specify the library of the product required in Symfoware/RDB in the LD_LIBRARY_PATH environment variable, and execute this command.

Examples

[APM creation by Oracle8.0.5]

```
tdlinkapm -l D:\temp\ots\otsoraxa.lib
-r "c:\orant\rdbms80\xa\xa80.lib c:\orant\oci80\msvc\ora80.lib"  -o orardb
```

[APM creation by Symfoware/RDB]

```
tdlinkapm -l D:\temp\ots\otssymxa.lib
-r "c:\SFWSV\ESQL\LIB\F3cwdrv.lib c:\SFWSV\ESQL\LIB\F3cwxa.lib" -o rdb
```

[APM creation by SQL Server]

```
tdlinkapm -l D:\temp\ots\mssqlpgm.lib
-r "XASWITCH.OBJ" -o mssql
```

16.3 tdlinknormapm

Name

tdlinknormapm

Re-creates the APM (Application Program Manager).

Synopsis

Solaris32   Linux32

```
tdlinknormapm [-M system-name] [-t{thread|process}] -p "library" [-o apmname]
```

Description

The *tdlinknormapm* command links any library at the beginning and re-creates the APM (Application Program Manager).

Below are the options and arguments of the *tdlinknormapm* command.

-M system-name   Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

-t {thread|process}

Solaris32

Links libthread.so when thread is specified.

If process is specified, libthread.so is not linked.

This option defaults to thread when omitted.

Linux32

Links libpthread.so when thread is specified.

If process is specified, libpthread.so is not linked.

This option defaults to thread when omitted.

-p "library"

The library information (up to 2048 characters) specified in "library" is linked before any other libraries.

-o apmname

Specify in apmname the name of the APM file to be created using up to 23 alphanumeric characters starting with TDNORM or TDNORMCNT. If omitted, it is assumed that "TDNORM" is specified.

Solaris32

The APM is created in the /opt/FSUNextp/bin.

Linux32

The APM is created in the /opt/FJSVextp/bin.

If this option is omitted, or an existing file name is specified, the operator is asked whether to overwrite the file (Y or N). Enter "Y" to overwrite the file. If that APM is currently in use, it will not be overwritten.

Notes

- Only system administrators are authorized to execute this command.

- This command uses the C compiler. Before executing the command, add the directory containing the C compiler to the environment variable PATH.

Example

```
tdlinknormapm -t thread -p "-L/xxx/xxx/lib -lxxx" -o TDNORMxxx
```

16.4 tdpermitobj

Name

tdpermitobj

Cancels closure of Component Transaction Service objects.

Synopsis

Windows32   Solaris32   Linux32

```
tdpermitobj [-M system-name] objname
```

Description

This command cancels the closure of Component Transaction Service objects being used.

The argument of this command is as follows:

-M system-name   Solaris32

Specify the name of the target system. If this option is omitted, the default system is assumed to be specified.

objname

Specify the name of the object whose closure is to be cancelled.

Note

Solaris32   Linux32

- This command is valid only for transaction applications.

- Only the user that closed the object can cancel the object closure.

Example

```
tdpermitobj TDSAMPLE1/INTF
```

16.5 tdsecmode

Name

tdsecmode

Enhances the security of the Component Transaction Service.

Synopsis

Solaris32   Linux32

```
tdsecmode [-M systemname] ownername [setupdir]
```

Description

This command enhances the security of the operating environment for the component transaction service.

The option and argument for this command is as follows:

-M systemname   Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

ownername

Specify a specific user name. When only the super user executes this operation, specify the user name of the super user.

setupdir

Specify the directory of the operating environment for the component transaction service, which is the path defined in "TD path for system" of the Interstage operating environment definition at initialization of Interstage.

Note

Only superusers are authorized to execute this command.

Example

```
tdsecmode system1 user1
```

16.6 tdtransfer

Name

tdtransfer

Transfers and displays attribute information.

Synopsis

Windows32   Solaris32

```
tdtransfer {-p dpcfpath[-i[id1[id2]...[idn]]] [-c rildname] [-f pildname] [-v rilvseri]
[-w pilvseri] [-m|-d]|-l [id1[id2]...[idn]]}
```

Description

This command transfers and displays attribute information.

The attribute information extracted by the TD compiler is transferred to NETSTAGE/partner. NETSTAGE/partner creates partner attribute information, and record information based on the attribute information. To store both types of information in the partner attribute information library and record information library, specify the dataset name and volume serial number.

Refer to the OS IV NETSTAGE/Partner Handbook for details of partner attribute information and record information.

Attribute information is output to standard output. Items of attribute output information are as shown in the following table.

Table 16.1 Attribute Output Information

Item name	Display value	Meaning
MODULE-NAME	Module name	Module name
INTERFACE-NAME	Interface name	Interface name
OPERATION-NAME	Operation name	Operation name
INATTRIB	Attribute information name	Input attribute information name
OUTATTRIB	Attribute information name	Output attribute information name
REGISTERED-DATE	YYYY/MM/DD	TD compilation date
TIME	HH:MM:SS	TD compilation time
ITEM-NUMBER	Number	Item belonging to applicable attribute information
NO	Number	Sequence number
NAME	parameter name	Parameter name
KIND	NORMAL	Normal item for hierarchical level
ITEM-FORM	V S C 9 X N M	Attribute for input-output item
TYPE	FIXED	Fixed length of item section
LENGTH1	Number	Number of digits in integer part of numeric data
LENGTH2	Number	Number of digits in integer part of numeric data

The options and operands of this command are as follows:

-p dpcfpath

    Specifies the DPCF communication pathname used to transmit attribute information to NETSTAGE/partner. To transmit attribute information, specify the pathname.

-i [id1[id2]...[idn]]

    Specifies the name of the attribute information (id1 to idn) to be transferred. This option can specify multiple attribute information names. If this option is omitted, all attribute information is transferred.

-c rildname

    Specifies the dataset name of the record information library (in rildname) that transfers attribute information to NETSTAGE/partner. If this option is omitted, the NETSTAGE/partner definition is followed.

-f pildname

    Specifies the dataset name of the partner attribute information library (in pildname) that transfers attribute information to NETSTAGE/partner. If this option is omitted, the NETSTAGE/partner definition is followed.

-v rilvseri

    Specifies the volume serial number of the work record information library (in rilvseri) that transfers attribute information to NETSTAGE/partner. If this option is omitted, the NETSTAGE/partner definition is followed.

-w pilvseri

Specifies the volume serial number of the partner attribute information library (in pilvseri) that transfers attribute information to NETSTAGE/partner. If this option is omitted, the NETSTAGE/partner definition is followed.

-m

Transfers attribute information for message files. This option cannot be specified with the **-d** option. If the **-m** and **-d** options are omitted, the **-d** option is assumed.

-d

Transfers attribute information for presentation files. This option cannot be specified with the **-m** option. If the **-m** and **-d** options are omitted, the **-d** option is assumed.

-l [id1[id2]...[idn]]

Specifies the name (id1 to idn) of the attribute information to be displayed. This option can specify multiple attribute information names. If attribute information names are omitted, all attribute information is displayed. If this option is specified with any other option, an error occurs.

Notes

- Only system administrators are authorized to execute this command.

- To execute this command, the following actions must be taken:

    - An IDCM DPCF communication path for TCP/IP communication must be established.

    - The NETSTAGE/partner linked during *tdtransfer* command execution must be started.

- Refer to the IDCM Help for details of how to establish the DPCF communication path. Refer to the OS IV NETSTAGE/Partner Handbook for details of the NETSTAGE/partner linked during *tdtransfer* command execution.

Examples

To transfer attribute information:

```
tdtransfer -p AEXIDCM1 -i TDFORM01 -c F3233.RECORD -f F3233.LIB -v VOL001 -w VOL002
```

To display attribute information:

```
tdtransfer -l TDFORM01

   attribute information
   MODULE-NAME    ==> MODULE1
   INTERFACE-NAME ==> INT1
   OPERATION-NAME ==> ALL101
   INATTRIB       ==> TDFORM01
   REGISTERED-DATE ==> 1998/02/24    TIME ==> 18:47:11
   ITEM-NUMBER ==> 17
   No   NAME   KIND    ITEM-FORM TYPE   LENGTH1   LENGTH2
   1    AIM11  NORMAL  X FIXED          1         -
   2    AIM12  NORMAL  M FIXED          1         -
```

Chapter 17 Database Linkage Service Operation Commands `Windows32/64` `Solaris32` `Linux32/64`

This chapter details the Database Linkage Service operation commands.

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition

otsalive
`Windows32/64`
`Solaris32`
`Linux32/64`
	Outputs Database Linkage Service and resource control program information.	OK	OK

otsmklog
`Windows32/64`
`Solaris32`
`Linux32/64`
	Sets the maximum number of Database Linkage Service transactions and creates the system log file.	OK	OK

otsmonitor
`Windows32/64`
`Solaris32`
`Linux32/64`
	Monitors the status of an OTS system and resource control program.	OK	OK

otspendlist
`Windows32/64`
`Solaris32`
`Linux32/64`
	Collects transactions in the in-doubt state.	OK	OK

otssetrsc
`Windows32/64`
`Solaris32`
`Linux32/64`
	Adds or deletes a Resource Manager.	OK	OK

otssetup
`Windows32/64`
`Solaris32`
`Linux32/64`
	Operating environment setup of Database Linkage Service system.	OK	OK

otsstart
`Windows32/64`
`Solaris32`
`Linux32/64`
	Starts the Database Linkage Service system.	OK	OK

otsstartrsc
`Windows32/64`
`Solaris32`
`Linux32/64`
	Starts the resource management program.	OK	OK

otsstop
`Windows32/64`
`Solaris32`
`Linux32/64`
	Stops the Database Linkage Service system	OK	OK

otsstoprsc
`Windows32/64`
`Solaris32`
`Linux32/64`
	Stop the resource management program.	OK	OK

otstranlist `Windows32/64`	Manages transaction status	OK	OK

Command	Outline	Standard-J Edition	Enterprise Edition
Solaris32 Linux32/64			

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Directory
Windows32/64	C:\Interstage\bin
Solaris32	/opt/FSUNots/bin
Linux32/64	/opt/FJSVots/bin

17.1 otsalive

Name

otsalive

Outputs Database Linkage Service and resource control program information.

Synopsis

Windows32/64　Solaris32　Linux32/64

```
otsalive
```

Description

This command outputs information about the following applications running on the machine on which it was executed:

- OTS system

- Resource Manager

Notes

- Only system administrators are authorized to execute this command.

- "JTSRMP" refers to a resource management command for JTS.

Windows32/64

- The Database Linkage Service (service name: ObjectTransactionService) and CORBA Service (service name: OD_start, Naming Service) must be active before this command is executed. If they are not active, enter this command after manually activating these services.

Examples

Outputs operating information for the Database Linkage Service system and resource control program (when it is running).

```
# otsalive

   ----------------------------------------------------------------
   OTS system                        START-TIME 2000/05/27 16:23:14
   OTS Resource    RESOURCE1         START-TIME 2000/05/27 16:24:56
```

```
    JTS Resource   JTSRMP           START-TIME 2000/05/27 16:24:59
    ----------------------------------------------------------------
```

Outputs Database Linkage Service system operating information and resource control program (when it is not running).

```
# otsalive


    ----------------------------------------------------------------
    Nothing
    ----------------------------------------------------------------
```

17.2 otsmklog

Name

otsmklog

Sets the maximum number of Database Linkage Service transactions and creates the system log file.

Synopsis

Windows32/64 Solaris32 Linux32/64

```
otsmklog -l path of system logfile
```

Description

Usually, this command does not need to be executed because a system log file can be created with the *otssetup* command. Use the *otsmklog* command in the following cases:

- When data is exported to another environment by using a backup/restore command (because system log files cannot be processed using the backup/restore command).

- When a logfile was destroyed

    Usually, use the *otssetup* command in such a case.

Execute the *otsmklog* command on a machine on which the OTS system can run.

When an option is omitted, a system log file is created by the path name specified to be "OTS path for system" for an Interstage operation environmental definition, or "LOGFILE" for a setup information file.

The options of this command are as follows:

-l path of system logfile

Windows32/64

As a system log file, the maximum length of a path name who can specify is 255 bytes, and he specifies a ordinary file name. In this case, it specifies in the form of a "Drive name:\Path name."

Ordinary file names are any file names which do not exist.

Solaris32 Linux32/64

As a system log file, the maximum length of a path name it can specify is 255 bytes, and this specifies a disk partition.

Notes

- Only system administrators are authorized to execute this command.

- Generally, use the *otssetup* command to create a system log file.

- When -l option is specified and performed in the environment where the environment of an OTS system is already built, the system log file specified as -l option becomes effective. Moreover, when you re-use the system log file created before, please reconstruct an OTS system using either the isinit or otssetup-o command.

- The Database Linkage Service (service name: ObjectTransactionService) and CORBA Service (service name: OD_start, Naming Service) must be active before this command is executed. If they are not active, enter this command after manually activating these services.

- This command uses shared memory at file creation. Therefore, the machine must be tuned before this command is executed.

  A shared memory of the following size must be prepared for the OTS Participate (specified with the Interstage operating environment definition), PARTICIPATE (specified with the SETUP information file), OTS Maximum Transaction (specified with the Interstage operating environment definition), or TRANMAX (specified with the SETUPT information file):

  $Z = 1200 + XY + 23.5 X$

  X : Maximum number of transactions

  Y : The number of maximums of the resource that it can participate.

  Z : Memory volume (K byte)

- This command uses shared memory at file creation. Therefore, the machine must be tuned before this command is executed.

  A shared memory of the following size must be prepared for the OTS Participate (specified with the Interstage operating environment definition), PARTICIPATE (specified with the SETUP information file), OTS Maximum Transaction (specified with the Interstage operating environment definition), or TRANMAX (specified with the SETUPT information file):

  $Z = 3600 + XY$

  X : Maximum number of transactions

  Y : The number of maximums of the resource that it can participate.

  Z : Memory volume (K byte)

- Please compute the required domain size of a disk partition in the following formulas.

  The transaction maximum number * P + 1 (K byte)

  It asks for **P** as follows:

  When the number of resources which participates in one transaction is four or less:

  P = 4

  When the number of resources which participates in one transaction is five or more:

  P = The number of resources which participates.

Examples

Creation of a system log file by using the system log file name specified in the previous creation:

```
otsmklog
```

Creation of a system log file by specifying a new system log file name:

```
otsmklog -l D:\ots\logfile
```

```
otsmklog -l /dev/rdsk/c?t?d?s?
```

17.3 otsmonitor

Name

otsmonitor

Monitors the status of an OTS system and resource control program.

Synopsis

Windows32/64   Solaris32   Linux32/64

(1) This command checks that the OTS system starts up. For this check, set the start time-out period to 30 seconds and set the monitoring cycle time to 5 seconds as follows.

```
otsmonitor -t sys -m "startup,timeout=30,cycletime5"
```

(2) This command checks that a resource control program for OTS starts up. Set the start time-out period to the default value, and set the monitoring cycle time to the default value as follows.

```
otsmonitor -t rmp -n resource definition name -m "startup"
```

(3) This command checks that a resource control program for JTS starts up. Set the start time-out period to the default value, and set the monitoring cycle time to the default value as follows.

```
otsmonitor -t rmp -j -m "startup"
```

(4) This command checks that the OTS system stops.

```
otsmonitor -t sys -m "terminate"
```

(5) This command checks that a resource control program for OTS stops.

```
otsmonitor -t rmp -n Resource definition name -m "terminate"
```

(6) This command checks that a resource control program for JTS stops.

```
otsmonitor -t rmp -j -m "terminate"
```

(7) This command checks that the OTS system starts and then stops.

```
otsmonitor -t sys -m "startup,terminate"
```

(8) This command checks that a resource control program starts and then stops.

```
otsmonitor -t rmp -n Resource definition name -m "startup,terminate"
```

Description

This command monitors the status of the OTS system and a resource control program. This command can also be used from a cluster system to monitor the OTS system and resource control program.

The options of this command are as follows:

-t sys|rmp

Specify the target to be monitored. When sys is specified, this command monitors the OTS system. When rmp is specified, this command monitors a resource control program.

-n Resource definition name

Specify the resource definition name. This option must be specified when -t rmp is specified.

-j

Specify to monitor a resource control program for JTS. This option must be specified when -t rmp is specified.

-m "startup,terminate,timeout=nn,cycletime=mm"

A monitoring operation to be executed can be specified by writing the startup, terminate, timeout, and cycletime options by delimiting them with an en-size comma (,) and by enclosing these options in en-size double quotation marks (").

startup: Monitor the processing until startup occurs.

terminate: Monitor the processing until stop occurs.

timeout: Set the startup time-out period. If the startup operation is not completed before time-out, the error is reported and control returns to the command processing. The timeout option does not affect the terminate option. When the timeout option is omitted, a default value of 60 seconds is set. A timeout value up to the maximum value (long type) can be specified.

cycletime: Specify the monitoring cycle time in seconds. When the cycletime option is omitted, a default value of 5 seconds is set. A value up to the maximum value (long type) can be specified.

When the startup option is combined with the terminate option, for example, "startup,terminate", this command checks processing from startup to stop.

The different return values for this command have the following meanings:

0: The monitoring operation is just as specified in **-m**.

1: An error was detected during processing.

2: Startup was not completed within the timeout time of **-m**.

Notes

- Only system administrators are authorized to execute this command.

- This command does not call *otsstart* or *otsstartrsc*, but only executes monitoring processing.

- If the **-m timeout** value is less than the **cycletime** value, the timeout action does not occur until the cycletime terminates.

  Specify the timeout value and cycletime value so that the timeout value is larger than the cycletime value.

Windows32/64

- The Database Linkage Service (service name: ObjectTransactionService) and CORBA Service (service name: OD_start, Naming Service) must be active before this command is executed. If they are not active, enter this command after manually activating these services.

Solaris32   Linux32/64

- CORBA Service and Naming Service must be active.

Examples

Windows32/64

Monitoring the OTS system.

```
otsstart
otsmonitor -t sys -m "startup"
if %ERRORLEVEL% EQU 0 goto :NORMAL_END
if %ERRORLEVEL% EQU 1 goto :ERROR_OCCURRED
if %ERRORLEVEL% EQU 2 goto :TIMEOUT
```

Monitoring the startup of a resource control program for OTS. Set the startup timeout period to 30 seconds.

```
otsstartrsc -pg c:\temp\ots\rdb_resource.exe -n resource1
otsmonitor -t rmp -n resource1 -m "startup,timeout=30"
if %ERRORLEVEL% EQU 0 goto :NORMAL_END
if %ERRORLEVEL% EQU 1 goto :ERROR_OCCURRED
if %ERRORLEVEL% EQU 2 goto :TIMEOUT
```

Monitoring the startup of a resource control program for JTS. Set the monitoring cycletime to 2 seconds.

```
otsstartrsc -j
otsmonitor -t rmp -j -m "startup,cycletime=2"
if %ERRORLEVEL% EQU 0 goto :NORMAL_END
```

```
if %ERRORLEVEL% EQU 1 goto :ERROR_OCCURRED
if %ERRORLEVEL% EQU 2 goto :TIMEOUT
```

Solaris32 Linux32/64

Monitoring the OTS system.

```
otsstart
otsmonitor -t sys -m "startup"
ret = "$?"
if [ $ret -eq 0 ]
then
# normal end
fi
if [ $ret -eq 1 ]
then
# error occurred
fi
if [ $ret -eq 2 ]
then
# timeout occurred
fi
```

Monitoring the startup of a resource control program for OTS. Set the startup timeout period to 30 seconds.

```
otsstartrsc -pg /home/ots/rdb_resource -n resource1
otsmonitor -t rmp -n resource1 -m "startup,timeout=30"
ret = "$?"
if [ $ret -eq 0 ]
then
# normal end
fi
if [ $ret -eq 1 ]
then
# error occurred
fi
if [ $ret -eq 2 ]
then
# timeout occurred
fi
```

Monitoring the startup of a resource control program for JTS. Set the monitoring cycletime to 2 seconds.

```
otsstartrsc -j
otsmonitor -t rmp -j -m "startup,cycletime=2"
ret = "$?"
if [ $ret -eq 0 ]
then
# normal end
fi
if [ $ret -eq 1 ]
then
# error occurred
fi
if [ $ret -eq 2 ]
then
# timeout occurred
fi
```

17.4 otspendlist

Name

otspendlist

Collects transactions in the in-doubt state.

Synopsis

`Windows32/64` `Solaris32` `Linux32/64`

```
otspendlist {-s | -n resource-definition-name }
```

Description

This command collects unresolved transactions on the Resource Manager.

The options of this command are as follows:

-s

> Display a list of the unsolved transactions on the OTS system. To execute this command, the OTS system must be operating.

-n Resource definition name

> Display a list of the unsolved transactions of the resource control program that was started using a specified resource definition name. To execute this command, the related databases and resource control program must be operating.

> To resolve unresolved transactions on the Resource Manager, compare the unresolved transaction lists on both the Database Linkage Service system and Resource Manager.

> Then determine the commit or rollback operation on the Resource Manager, as shown in the following table. Determine the correct operation because a conflict may occur in the database if rollback operation is performed when a commit operation is required.

Table 17.1 Resource Manager Commit/Rollback Operations

Some unresolved transaction found on Database Linkage Service system?	Operation on Resource Manager
Yes	commit
No	rollback

Subcommands

The subcommands of the *otspendlist* command are as follows:

info

> The info subcommand displays a list of transactions being processed.

> The output items are as follows:

> No

>> Transaction list number

> Transaction-ID

>> Identifier assigned to each transaction

> Status

>> Status of the transaction after collection. One of the following statuses is displayed:

Committed:	Committed
Rollback:	Rolled back
Deleted:	Deleted
No display:	No transaction collection is performed

Result

Result of transaction collection. One of the following results are displayed:

Successful collection	Normal
Unsuccessful collection	Error
No display	No transaction collection is performed

commit n [, n1,...]

The commit subcommand commits the transaction specified by n. Substitute a number displayed in the transaction list for n. All transactions can be committed by specifying "all" for n.

This subcommand can be used when a list of unresolved transactions on the Resource Manager is displayed.

rollback n [, n1,...]

The rollback subcommand rolls back the transaction specified by n. Substitute a value displayed in the transaction list for n. All transactions can be rolled back by specifying "all" for n.

This subcommand can be used when a list of unresolved transactions on the Resource Manager is displayed.

delete n [, n1,...]

The delete subcommand deletes the transaction log specified by n. Substitute a value displayed in the transaction list for n. All transaction logs can be deleted by specifying "all" for n.

This subcommand can be used when a list of unresolved transactions on the Database Linkage Service system is displayed.

Normally, unresolved transactions on the Database Linkage Service system need not be deleted because they are deleted when recovery is completed.

Unresolved transactions must be deleted in the following cases:

- When the related Resource Manager is moved to another host.

- When the related Resource Manager is deleted.

scroll

The scroll subcommand scrolls the transaction list screen down.

save filename

The save subcommand saves the displayed unresolved transaction list in the file specified by filename.

help

The help subcommand outputs a list of the subcommands of the *otspendlist* command.

quit

The quit subcommand terminates the *otspendlist* command.

Notes

- Only system administrators are authorized to execute this command.

- When the *otspendlist* command is used, database mismatching may occur. The system should be recovered by recovering the network line and restarting the OTS system and resource control program.

- When the info subcommand is executed, a transaction list 20 lines long (default) is displayed on the screen.

  To change the number of lines a list displays on the screen, set the environment variable OTS_SCROLL_SIZE. This variable specifies the number of lines that can be displayed on the screen for transaction lists displayed by the *otstranlist* and *otspendlist* commands.

- The maximum length of the character sequence containing the save subcommand when the save subcommand is executed is 256.

Windows32/64

- The Database Linkage Service (service name: ObjectTransactionService) and CORBA Service (service name: OD_start, Naming Service) must be active before this command is executed. If they are not active, enter this command after manually activating these services.

Solaris32 Linux32/64

- The CORBA Service must be started.

Example

To output a list of unresolved transactions and rollback all transactions:

```
otspendlist -n resource1
   >info

   No  Transaction-ID   Status   Result
   --  -------------    ------   ------
   1   a155-d0a1-0abb
   2   a156-d0c2-0431
   >rollback all
   >quit
```

17.5 otssetrsc

Name

otssetrsc

Adds or deletes a Resource Manager.

Synopsis

Windows32/64 Solaris32 Linux32/64

(1) To add a Resource Manager:

```
otssetrsc [-a] [-w] [-u UID -g GID] -rf path of resource-definition-file
```

(2) Registration of resource control program in overwrite mode:

```
otssetrsc -o [-w] [-u UID -g GID] -rf path of resource-definition-file
```

(3) To delete a Resource Manager:

```
otssetrsc -d -n resource-definition-name
```

(4) Status reference of Resource Manager:

```
otssetrsc -l
otssetrsc -l [-n resource-definition-name]
```

Description

The *otssetrsc* command executes the following processing:

- Registers or deletes a resource control program of the Database Linkage Service to or from the Implementation Repository of the CORBA Service.

- Associates a resource control program with the resource definition name specified in the resource definition file.

The options of this command are as follows:

-a

Adds a Resource Manager.

-w `Windows32/64` `Solaris32`

Sets up a standby system when the cluster environment is set up.

-o

Registers a resource control program in overwrite mode. The operation of this option is the same as the -d option plus the -a option; that is, a resource control program is deleted and then another resource control program is registered.

-d

Deletes a Resource Manager.

-u UID `Solaris32` `Linux32/64`

Specifies the user name of a database administrator.

When account of the user who started the ObjectTransactionService triggered starting the Resource

Manager becomes effective(OTS only).

When it omits, the user name described by USER of a resource definition file becomes effective. Please be sure to specify by the option or the resource definition file.

It is necessary to specify it as the -g option simultaneously.

-g GID `Solaris32` `Linux32/64`

Specifies the group name of the database administrator(OTS only).

When it omits, the group name described by GROUP of a resource definition file becomes effective. Please be sure to specify by the option or the resource definition file.

It is necessary to specify it as the -u option simultaneously.

-rf path of resource definition file

Specifies the name of a resource definition file. Specify the storage destination of the resource definition file with its full pathname.

-l

Display all the information on the resource definition file assigned to a registered resource control program. The output information is as follows:

`Windows32/64`

The registered resource definition name is displayed in uppercase.

```
% otssetrsc -l
RESOURCE1
RESOURCE2
RESOURCE3
```

`Solaris32` `Linux32/64`

```
% otssetrsc -l
resource1
resource2
resource3
```

-l -n resource definition name

Display the information on the resource definition file assigned to a registered resource control program. This display is made for each resource definition name.

The information below (which is specified when the resource definition is registered) will be displayed - for items omitted when the resource definition is registered, the default value will be displayed:

- Resource definition file information

- Date and time when the resource definition file was registered

A resource definition file can also be created by redirecting the displayed resource definition information to a file.

The output information is as follows (the registration time is appended automatically, and OPENINFO is displayed as asterisks):

Windows32/64

```
% otssetrsc -l -n resource1

$ registration time : 2001/03/27  12:04:30
$ VERSION : 5 (Note 2)
# Basic Information
NAME=resource1
RSCTYPE=OTS
# DB information
RMNAME=Oracle_XA
OPENINFO=*****************************
CLOSEINFO=
THREADS=FALSE
# Others
OTS_RMP_PROC_CONC=5
```

Solaris32 Linux32/64

```
% otssetrsc -l -n resouce1
$ registration time : 2001/03/27 12:04:30
$ VERSION : 4
# Basic Information
NAME=resouce1
RSCTYPE=OTS
# DB information
RMNAME=Oracle_XA
OPENINFO=*****************************
CLOSEINFO=
THREADS=FALSE
USER=user1
GROUP=group1
# Others
OTS_RMP_PROC_CONC=5
```

Note

The resource definition file which was created can be used if the registered resource definition file is lost. However, since "OPENINFO" is replaced by asterisks, replace them with the "open" string which is provided by the database vendor.

Notes

- Only system administrators are authorized to execute this command.

- One additional resource control program is started for recovery. Therefore, when OTS_RMP_PROC_CONC=5 is specified (or this item is omitted) in the resource definition file, six resource control programs are started in total.

- When the CORBA Service is re-installed or re-initialized, the resource management program must be registered again.

- To create a resource definition for JTS, it is recommended that you specify the "definition name" of the connection target resource of the J2EE resource definition which is registered using the *isj2eeadmin* command (for details refer to "Chapter 6 J2EE Operation Commands" > "6.8 isj2eeadmin").

- Resource definitions registered using this command cannot be referenced using the Interstage Management Console.

Windows32/64

- The Database Linkage Service (service name: ObjectTransactionService) and CORBA Service (service name: OD_start, Naming Service) must be active before this command is executed. If they are not active, enter this command after manually activating these services.

Solaris32 Linux32/64

- The CORBA Service must be started.

- When the operating environment for the CORBA Service is set using the *odadmin* command after a resource control program is registered, the previously registered information is invalidated. Delete the registered information by using "*otssetrsc -d -n,*" or register the information again by using "*otssetrsc -o -rf.*"

- The resource management program for JTS is not enabled by specifying the -u and -g options. The resource management program for JTS always required the super user permission.

Examples

Windows32/64

To register a Resource Manager:

```
otssetrsc -a -rf c:\temp\ots\resource1
```

To register a Resource Manager in overwrite mode:

```
otssetrsc -o -rf c:\temp\ots\resource1
```

To delete a Resource Manager:

```
otssetrsc -d -n resource1
```

To reference a specific resource control program that is already registered:

```
otssetrsc -l -n resource1

% otssetrsc -l -n resource1
$ registration time : 2001/03/27  12:04:30
$ VERSION : 5
# Basic Information
NAME=resource1
RSCTYPE=OTS
# DB information
RMNAME=Oracle_XA
OPENINFO=******************************
CLOSEINFO=
THREADS=FALSE
# Others
OTS_RMP_PROC_CONC=5
```

When referring to the already registered Resource definition name:

```
otssetrsc -l

RESOURCE1
RESOURCE2
RESOURCE3
```

Solaris32   Linux32/64

To register a Resource Manager:

```
otssetrsc -a -rf /home/ots/resource1 -u otsuser -g otsgroup
```

To register a Resource Manager in overwrite mode:

```
otssetrsc -o -rf /home/ots/resource1
```

To delete a Resource Manager:

```
otssetrsc -d -n resource1
```

To reference a specific resource control program that is already registered:

```
otssetrsc -l -n resource1
% otssetrsc -l -n resource1
$ registration time : 2001/03/27  12:04:30
$ VERSION : 5
# Basic Information
NAME=resource1
RSCTYPE=OTS
# DB information
RMNAME=Oracle_XA
OPENINFO=*******************************
CLOSEINFO=
THREADS=FALSE
USER=otsuser
GROUP=otsgroup
# Others
OTS_RMP_PROC_CONC=5
```

When referring to the already registered Resource definition name:

```
otssetrsc -l
resource1
resource2
resource3
```

17.6 otssetup

Name

otssetup

Operating environment setup of Database Linkage Service system.

Synopsis

Windows32/64   Solaris32   Linux32/64

```
otssetup {{{[-a] | -o } [-w] -f setup-information-file} | -c | -l | -d }
```

Description

This command executes the following processes:

- OTS system operating environment in Implementation Repository, Naming Service and Interface Repository Service.

- Creates a system log file (only on the machine used for starting the OTS system).

This command can be executed on all machines that use the OTS system.

The options of this command are as follows.

Any of the -a, -o, -l, and -d options can be specified to specify an operation. If none of these options is specified, it is assumed that the -a option is specified.

-a

Set the environment for OTS operation.

-o

Set the OTS system operating environment using overwrite mode. The database linkage service system log files must be stored in the path specified in "LOGFILE" of the setup information file. After the operating environment has been deleted using the -d option, the behavior will be the same as if the -a option had been set. If only the database linkage service system log files still remain for some reason, it is possible to execute a recovery so that an optimal initialized state is achieved.

-c `Windows32/64`

This is a deprecated option.

-w `Windows32/64` `Solaris32`

Set the standby system when a cluster environment is set.

-f setup-information-definition-file

Specify the path to a setup information definition file. For details of the setup information definition file, refer to the Tuning Guide.

-l

Reference the setup information.

-d

Used to delete the registered environment.

Notes

- Only system administrators are authorized to execute this command.

- It is necessary to delete the Database Linkage Service system operating environment using the **-d** option during the uninstalling.

`Windows32/64`

- The Database Linkage Service (service name: ObjectTransactionService) and CORBA Service (service name: OD_start, Naming Service) must be active before this command is executed. If they are not active, enter this command after manually activating these services. Note that this is not necessary if the -l option is specified.

`Solaris32` `Linux32/64`

- It is necessary to start the CORBA Service, Naming Service and Interface Repository Service. Note that this is not necessary if the -l option is specified.

- If after creating the Database Linkage Service system operating environment, the CORBA Service operating environment has been reset with the *odadmin* command, reset the Database Linkage Service system operating environment with this command.

Examples

`Windows32/64`

Register the Database Linkage Service system operating environment

```
otssetup -a -f c:\temp\ots\setup_info.def
```

Register the Database Linkage Service system operating environment using overwrite mode

```
otssetup -o -f c:\temp\ots\setup_info.def
```

Delete the Database Linkage Service system operating environment

```
otssetup -d
```

Register a cluster environment in standby node

```
otssetup -a -w -f c:\temp\ots\setup_info.def
```

Register a cluster environment in standby node using overwrite mode

```
otssetup -o -w -f c:\temp\ots\setup_info.def
```

`Solaris32` `Linux32/64`

Register the Database Linkage Service system operating environment

```
otssetup -a -f /home/ots/setup_info.def
```

Register the Database Linkage Service system operating environment using overwrite mode

```
otssetup -o -f /home/ots/setup_info.def
```

Delete the Database Linkage Service system operating environment

```
otssetup -d
```

Solaris32

Register a cluster environment in standby node

```
otssetup -a -w -f /home/ots/setup_info.def
```

Register a cluster environment in standby node using overwrite mode

```
otssetup -o -w -f /home/ots/setup_info.def
```

17.7 otsstart

Name

otsstart

Starts the Database Linkage Service system.

Synopsis

Windows32/64   Solaris32   Linux32/64

```
otsstart
```

Description

This command starts the Database Linkage Service system. Execute this command on the machine on which the Database Linkage Service system is to be operated. Start only one Database Linkage Service system in a network.

Notes

- Only system administrators are authorized to execute this command.

Windows32/64

- The Database Linkage Service (service name: ObjectTransactionService) and CORBA Service (service name: OD_start, Naming Service) must be active before this command is executed. If they are not active, enter this command after manually activating these services.

Solaris32   Linux32/64

- The CORBA Service and Naming Service must be started.

Example

To start the Database Linkage Service system:

```
Otsstart
```

17.8 otsstartrsc

Name

otsstartrsc

Starts the resource management program.

Synopsis

Windows32/64 Solaris32 Linux32/64

```
otsstartrsc {-pg resource-management-program-path-name -n resource-
definition-name} | -j
```

Description

This command starts the resource management program. Execute this command on the machine on which the resource management program is to be operated.

The arguments for this command are as follows:

-pg resource-control-program-path

Specify the full path to the OTS resource control program to be started.

-n resource-definition-name

Specify the name of a resource definition in which information about an OTS resource control program to be started is described.

-j

Start a resource control program for JTS.

The resource control program that the system supplies is used as the resource control program for JTS. When a resource control program for JTS is started by using this option, all JTS resource definition files among the resource definition files registered with the *otssetrsc* command are automatically applied. Therefore, resource control programs and resource definition names need not be specified.

Notes

- Only system administrators are authorized to execute this command.

- The Database must be started.

- Path names specified as resource-management-programs that contain blank spaces must be enclosed in double quotation marks (" ").

- As for the limitation of the length of a file name to specify as a command argument, a resource management file name is up to 255 bytes.

- The resource control program for OTS must be started before the server application is started.

Windows32/64

- The Database Linkage Service (service name: ObjectTransactionService) and CORBA Service (service name: OD_start, Naming Service) must be active before this command is executed. If they are not active, enter this command after manually activating these services.

Solaris32 Linux32/64

- The CORBA Service and Naming Service must be started.

Examples

To start the resource management program for OTS:

Windows32/64

```
otsstartrsc -pg D:\temp\ots\rdb_resource.exe -n resource1
```

Solaris32 Linux32/64

```
otsstartrsc -pg /home/ots/rdb_resource -n resource1
```

To start the resource management program for JTS:

```
otsstartrsc -j
```

17.9 otsstop

Name

otsstop

Stops the Database Linkage Service system.

Synopsis

Windows32/64   Solaris32   Linux32/64

```
otsstop [-f]
```

Description

This command stops the Database Linkage Service system. Execute this command on the machine on which the Database Linkage Service system is to be operated.

There are two modes to stop Database Linkage Service system:

- Normal stop

- Forced stop

In normal stop mode, the operation mode of the Database Linkage Service system changed to the inhibited state. In the inhibited state, new transactions are not accepted, and only termination processing (commit or rollback) for the transactions being processed is accepted.

The Database Linkage Service system is automatically terminated when all transactions are completed.

When a request to start a new transaction is issued in the system inhibited state, exception information is reported to the source of the transaction start request.

In forced stop mode, the Database Linkage Service system is forcibly stopped during transaction processing.

When the Database Linkage Service system and Resource Manager stopped in forced stop mode are restarted, recovery processing can be performed.

The option of this command is as follows:

-f

Specifies forced stop. If this option is omitted, normal stop mode is assumed.

Notes

- Only system administrators are authorized to execute this command.

Windows32/64

- The Database Linkage Service (service name: ObjectTransactionService) and CORBA Service (service name: OD_start, Naming Service) must be active before this command is executed. If they are not active, enter this command after manually activating these services.

Solaris32   Linux32/64

- The CORBA Service and Naming Service must be started.

Examples

To normally stop the Database Linkage Service system

```
otsstop
```

To forcibly stop the Database Linkage Service system

```
otsstop -f
```

17.10 otsstoprsc

Name

otsstoprsc

Stops the resource management program.

Synopsis

Windows32/64 Solaris32 Linux32/64

(1) Stopping a resource control program for OTS:

```
otsstoprsc -n resource-definition-name [-f]
```

(2) Stopping a resource control program for JTS:

```
otsstoprsc -j [-f]
```

Description

This command stops the resource management program. Execute this command on the machine on which the resource management program is to be operated.

There are two modes to stop the resource management program:

- Normal stop

- Forced stop

In normal stop mode, the operation mode of the Database Linkage Service system is changed to the inhibited state. In the inhibited state, new transactions are not accepted, and only termination processing (commit or rollback) for the transactions being processed is accepted.

The resource management program is automatically terminated when all transactions are completed.

When a request to start a new transaction is issued in the system inhibited state, exception information is reported to the source of the transaction start request.

In forced stop mode, the resource management program is forcibly stopped during transaction processing.

When the resource management program stopped in forced stop mode is restarted, recovery processing can be performed.

The options and arguments of this command are as follows:

-n resource-definition-name

Stops a resource control program for OTS. Specify the name of the resource-definition to set the resource management.

-j

Stops a resource control program for JTS.

-f

Specifies forced stop. If this option is omitted, normal stop mode is assumed.

Notes

- Only system administrators are authorized to execute this command.

- File names specified as resource-definition-files that contain blank spaces must be enclosed in double quotation marks (" ").

Windows32/64

- The Database Linkage Service (service name: ObjectTransactionService) and CORBA Service (service name: OD_start, Naming Service) must be active before this command is executed. If they are not active, enter this command after manually activating these services.

Solaris32   Linux32/64

- The CORBA Service and Naming Service must be started.

Examples

To normally stop the resource management program (Specify the resource definition name assigned to the resource control program):

```
otsstoprsc -n resource1
```

To forcibly stop the resource management program (Specify the resource definition name assigned to the resource control program):

```
otsstoprsc -f -n resource1
```

To normally stop a resource control program for JTS:

```
otsstoprsc -j
```

To forcibly stop a resource control program for JTS:

```
otsstoprsc -f -j
```

17.11 otstranlist

Name

otstranlist

Manages transaction status.

Synopsis

Windows32/64   Solaris32   Linux32/64

```
otstranlist
```

Description

This command manages the status of transactions being processed, and outputs a list of the transactions being executed. Execute this command while the Database Linkage Service system is running.

The user performs commit or rollback for the output transaction list.

The subcommands of the *otstranlist* command are as follows:

info [-tampicr]

The info subcommand displays a list of the transactions being processed. The output items are as follows:

No

Transaction list number

Transaction-ID

An identifier assigned to each transaction

Status

Transaction status (get_status information). One of the following statuses is displayed:

Active:	Being executed
MarkRB:	Marked rollback

Prepared:	Prepared
Unknown:	Unknown
Preparing:	Being prepared
Committing:	Being committed
Committed:	Committed
RingBack:	Being rolled back
RollBack	RollBack complete

Result

Result of the transaction operation. One of the following results are displayed:

successful operation:	Normal
unsuccessful operation:	Error
No display:	No transaction operation is performed

Start

Transaction start time (24-hour format)

Timeout

Transaction time-out value (set_timeout information)

-t

All transactions are displayed. (Default)

-a

The transaction under execution is displayed.

-m

The transaction marked on the rollback is displayed.

-p

The Pripeae transaction displays it.

-i

The transaction in Pripeae is displayed.

-c

The transaction under committing is displayed.

-r

The transaction in the rollback is displayed.

commit n [, n1,...]

The transaction specified by "n" is committed. "No" displayed by the list of transactions is specified to be "n". Moreover, all transactions can be committed by specifying "all" to be "n."

rollback n [, n1,...]

The transaction specified by "n" is rolled back. The value displayed by "No" of a list is specified to be "n." Moreover, all transactions can be rolled back by specifying "all" to be "n."

scroll

A transaction list screen is lower-scrolled.

save filename

It is kept in the file that a transaction list during the indication was specified with filename.

help

The sub command list of *otstranlist* commands is output.

quit

otstranlist command is ended.

Notes

- Only system administrators are authorized to execute this command.

- When the info subcommand is executed, a transaction list 20 lines long (default) is displayed on the screen.

  To change the number of lines of a list displayed on the screen, set the environment variable OTS_SCROLL_SIZE. This variable specifies the number of lines that can be displayed on the screen for transaction lists displayed by the *otstranlist* and *otspendlist* commands.

- The input line of the sub-command is limited to 256 characters with the terminal.

Windows32/64

- The Database Linkage Service (service name: ObjectTransactionService) and CORBA Service (service name: OD_start, Naming Service) must be active before this command is executed. If they are not active, enter this command after manually activating these services.

Solaris32 Linux32/64

- The CORBA Service must be started.

Example

To output a list of transactions being executed, and rollback transaction number 1:

```
otstranlist
    >info

    No    Transaction-ID   Status    Result    Start-Time    Timeout
    --    --------------   ------    ------    ----------    -------
    1     a155d0a10abb     active              20:24:11      0
    2     a156d0c20431     active              20:40:05      60

    >rollback 1
    >quit
```
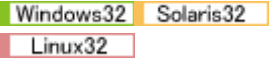
Chapter 18 CORBA Service Operation Commands

This chapter details the CORBA Service operation commands.

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
CosNaming_s Solaris32/64 Linux32/64	Starts the Naming Service.	OK	OK
InterfaceRep_Cache_s Solaris32/64 Linux32/64	Starts the Interface Repository service (standard interface).	OK	OK
InterfaceRep_Cache_e Solaris32/64 Linux32/64	Starts the Interface Repository service (value interface).	OK	OK
K00stopod Solaris32/64 Linux32/64	Terminates the CORBA Service.	OK	OK
OD_impl_inst	This command is used to register and delete a server application, and to display server application information.	OK	OK
OD_kill Solaris32/64 Linux32/64	Terminates the CORBA Service forcibly.	OK	OK
OD_or_adm	Generates and displays object references.	OK	OK
OD_set_env	Sets an IP address to be embedded when an object reference is generated.	OK	OK
OD_stop Solaris32/64 Linux32/64	Terminates the CORBA Service.	OK	OK
S99startod Solaris32/64 Linux32/64	Starts the CORBA Service.	OK	OK
odadmin Solaris32/64 Linux32/64	Initial environment set-up of ObjectDirector.	OK	OK

Command	Outline	Standard-J Edition	Enterprise Edition
odchgservice	Changes the initial service host name/ port	OK	OK
odcntlque	Activates/deactivates the queuing policy. Windows64 Solaris64 Linux64 Activates/deactivates the server application.	OK	OK
odlistir	Lists the registered Interface Repository information.	OK	OK
odlistns	Displays what has been registered with the Naming Service.	OK	OK
odlistque	Displays the queuing policy status. Windows64 Solaris64 Linux64 Displays the server application status.	OK	OK
odrmubncns	Displays and deletes unbinded naming context.	OK	OK
odsethost	Adds, deletes, or displays the host information on a server on which the CORBA Service operates.	OK	OK
odsetque Windows32 Solaris32 Linux32	Registers, deletes and displays the server application in/from the queuing policy.	OK	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Directory
Windows32/64	C:/Interstage/ODWIN/bin
Solaris32/64	/opt/FSUNod/bin
Linux32/64	/opt/FJSVod/bin

18.1 CosNaming_s

Name

CosNaming_s

Starts the Naming Service.

Synopsis

Solaris32/64 Linux32/64

```
CosNaming_s [-M system]
```

Description

This command starts the Naming Service. Any successful application inquiry results in the located registered object reference being returned to the application.

The options and arguments of this command are as follows.

-M system Solaris32

  Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

  This option can be specified with Interstage Application Server Enterprise Edition.

Notes

  Windows32/64

  - CosNaming_s is a service start command for Solaris and Linux systems.

    Choose the following service from the service screen ("Service" from "Control Panel" - "Administrative Tools"), and operate it.

    Naming Service: "Naming Service" service

  Solaris32/64 Linux32/64

  - Only system administrators are authorized to execute this command.

  - If character set conversion of binding names is used, set the OD_CODE_SET environment variable to the code type specified by the *odadmin* command.

Example

```
CosNaming_s &
```

18.2 InterfaceRep_Cache_s

Name

InterfaceRep_Cache_s

Starts the Interface Repository service (standard interface).

Synopsis

  Solaris32/64 Linux32/64

```
InterfaceRep_Cache_s [-M system]
```

Description

The InterfaceRep_Cache_s command starts the Interface Repository service for a standard interface.

The CORBA Service must be running before starting the Interface Repository cache service.

The options and arguments of this command are as follows.

-M system Solaris32

  Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

  This option can be specified with Interstage Application Server Enterprise Edition.

Notes

Windows32/64

- InterfaceRep_Cache_s is the command for starting the service from Solaris and Linux systems.

  To run this service, select "Service" from "Control Panel" - "Administrative Tools", and then select the following service from the Services screen:

  "InterfaceRep_Cache Service" service

Solaris32/64 Linux32/64

- Only system administrators are authorized to execute this command.

- If the value interface was selected in the interface repository service environment settings, use InterfaceRep_Cache_e. For details on the value interface, refer to "odadmin". If the standard interface was selected, use this command.

Messages Solaris32/64 Linux32/64

The following messages are displayed during activation.

(Nothing displayed)

Indicates normal operating conditions.

The interface information to be loaded is not registered in the database.

InterfaceRepository cache service is activated.

Nowloading

Indicates normal operating conditions.

The InterfaceRepository cache server is activated. The registered interface information is now loading to memory from the database.

Completely Loaded

This message may display in normal operating conditions or during an error.

Interface information is completely loaded.

This message is displayed even if the loading process fails.

InterfaceRepository_Err ObjectFile might not be working normally.Please confirm ObjectFile environment

Indicates an error.

Loading failed, but the cache server was started.

Possible causes are as follows:

Insufficient cache memory

The registered Interface Repository is invalid.

When a new database is structured, first delete the registered Interface Repository and then re-register a new one.

Notes

1. The underlined part of the message is the selected database name.

2. The InterfaceRepository_Err message may be displayed twice.

WARNING: Database Destroyed

Indicates an error

The database was destroyed when a shutdown or similar occurred during transaction processing. Restore the CORBA Service resource file and database from the backup files.

Exceptions due to errors in the environment setup and their countermeasures are described below.

Exception code:

IDL:CORBA/StExcep/NO_IMPLEMENT:1.0

Possible causes may be as follows:

The database is not restored, or does not exist.

Measures

Create or restore the database.

Exception Code: IDL:CORBA/StExcep/NO_RESOURCES:1.0

Cause

InterfaceRepository cache server may have been started twice.

Measures

Terminate the CORBA Service. Confirm that the InterfaceRepository cache server is terminated, and then restart the CORBA Service and the Interface Repository.

Exception code: IDL:CORBA/StExcep/UNKNOWN:1.0

Cause

The CORBA Service is not started.

Measures

Start the CORBA Service.

Exception code: IDL:CORBA/StExcep/COMM_FAILURE:1.0

Cause

Possible causes are as follows:

a) The Interface Repository process did not complete within the period_receive_timeout setting (the default value is 60 seconds) in the config file.

b) LAN error

Measures

a) Increase the period_receive_timeout value in the config file.

b) Resolve all LAN environment problems.

Example

```
InterfaceRep_Cache_s &
```

18.3 InterfaceRep_Cache_e

Name

InterfaceRep_Cache_e

Starts the Interface Repository service (value interface).

Synopsis

Solaris32/64   Linux32/64

```
InterfaceRep_Cache_e  [-M system]
```

Description

The InterfaceRep_Cache_e command starts the Interface Repository service for a value interface.

The CORBA Service must be running before starting the Interface Repository cache service.

The options and arguments of this command are as follows.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

Windows32/64

- InterfaceRep_Cache_e is the command for starting the service from Solaris and Linux systems.

  To run this service, select "Service" from "Control Panel" - "Administrative Tools", and then select the following service from the Services screen:

  "InterfaceRep_e Service" service

Solaris32/64 Linux32/64

- Only system administrators are authorized to execute this command.

- If the value interface was selected in the interface repository service environment settings, use this command. Refer to the *odadmin* command for information concerning the value interface. If the standard interface was selected, use the *InterfaceRep_Cache_s* command.

Messages Solaris32/64 Linux32/64

The following messages are displayed during activation.

(Nothing Displayed)

Indicates normal operating conditions.

The interface information to be loaded is not registered in the database.

InterfaceRepository cache service is activated.

Nowloading

Indicates normal operating conditions.

The InterfaceRepository cache server is activated. The registered interface information is now loading to memory from the database.

Completely Loaded

This message may display in normal operating conditions or during an error.

Interface information is completely loaded.

This message is displayed even if the loading process fails.

InterfaceRepository_Err ObjectFile might not be working normally.Please confirm ObjectFile environment

Indicates an error.

Loading failed, but the cache server was started.

Possible causes are as follows:

Insufficient cache memory

The registered Interface Repository is invalid.

When a new database is structured, first delete the registered Interface Repository and then re-register a new one.

Notes

1. The underlined part of the message is the selected database name.

2. The InterfaceRepository_Err message may be displayed twice.

WARNING: Database destroyed

Indicates an error.

The database was destroyed when a shutdown or similar occurred during transaction processing. Restore the CORBA Service resource file and database from the backup files.

Exceptions due to errors in the environment setup and their countermeasures are described below.

Exception Code: IDL:CORBA/StExcep/NO_IMPLEMENT:1.0

Cause

Possible causes may be as follows:

The database is not restored, or does not exist.

Measures

Create or restore the database.

Exception Code: IDL:CORBA/StExcep/NO_RESOURCES:1.0

Cause

InterfaceRepository cache server may have been started twice.

Measures

Terminate the CORBA Service. Confirm that the InterfaceRepository cache server is terminated, and then restart the CORBA Service and the Interface Repository.

Exception code: IDL:CORBA/StExcep/UNKNOWN:1.0

Cause

The CORBA Service is not started.

Measures

Start the CORBA Service.

Exception code: IDL:CORBA/StExcep/COMM_FAILURE:1.0

Cause

Possible causes are as follows:

a) The Interface Repository process did not complete within the period_receive_timeout setting (the default value is 60 seconds) in the config file.

b) LAN error

Measures

a) Increase the period_receive_timeout value in the config file.

b) Resolve all LAN environment problems.

Example

```
InterfaceRep_Cache_e &
```

18.4 K00stopod

Name

K00stopod

Terminates the CORBA Service.

Synopsis

```
K00stopod
```

Description

The *K00stopod* command terminates the CORBA Service server and the client application under operation, and terminates all CORBA Services.

/etc/rc0.d/K00stopod is executed when the system is shutdown.

The *K00stopod* command terminates the CORBA application under operation, and terminates all CORBA Services.

This command is stored as follows and started as a shutdown script for the system.

Solaris32/64

/etc/rc0.d

Linux32/64

/etc/rc.d/rc0.d

Note

Windows32/64

The above command is a command for the service start with Solaris.

Choose the following service from the service screen ([Control Panel]-[Service]), and operate it in case of Windows(R).

CORBA Service: "OD_start" service

18.5 OD_impl_inst

Name

OD_impl_inst

This command is used to register and delete a server application, and to display server application information.

Synopsis

1. To register a server application

```
OD_impl_inst -a -r ImplID [-t Type] [-f filename] [-u uid] [-g gid] [-M
system]
OD_impl_inst  -ax defname [-M system]
```

2. To delete a server application

```
OD_impl_inst  -d  -r ImplID  [-M system]
```

3. To display the list of registered server applications

```
OD_impl_inst -p [-M system]
```

4. To display the contents of server application registration

```
OD_impl_inst  -p  -r ImplID  [-M system]
```

Description

This command registers and deletes server application information (pathname and type), in or from an Implementation Repository, and displays server application information.

The options and arguments of this command are as follows.

-a

> This parameter specifies that the command registers a server application in an Implementation Repository.
>
> This option can set the following:
>
> - Implementation ID
>
> - Start type
>
> - Path name
>
> - Start-time user ID
>
> - Start-time group ID
>
> If a CORBA application information definition file is used with the -ax option, more detailed information can be set. The -a option uses the default values for the items that can be set only in the definition file.

-ax defname

> This parameter specifies that the command registers a server application in an Implementation Repository, using definition information in the CORBA application information definition file specified by defname. For details on this file, refer to "Registration Using a CORBA Application Information Definition File".

-d

> This parameter specifies that the command deletes a server application from an Implementation Repository.

-p

> This parameter outputs the Implementation Repository server application information. If the -r option is not specified, the list of server application Implementation Repository IDs registered in the Implementation Repository is output. If the -r option is specified, details on the contents registered for the specified Implementation Repository ID server application are output.

-r ImplID

> This parameter specifies the Implementation Repository ID of the target server application. The ID to be specified in ImplID must be a string of up to 255 characters, and unique in the system. Refer to Note 2.

-t Type

> This parameter specifies the server application activation type.
>
> The following types can be specified:
>
> S (shared):
>
> > The server application shares multiple objects.
> >
> > Windows32/64
> >
> > Only users with administrator authority can use this option, however, users without administrator authority can delete shared servers.
>
> U (unshared):
>
> > One object in the server application is always active.
> >
> > Windows32/64
> >
> > Only users with administrator authority can use this option, however, users without administrator authority can delete unshared servers.
>
> P (persistent):
>
> > The server application is activated by a method that is not related to the CORBA Service.
> >
> > For instance, when the user starts a server application from the command line, for a CORBA WorkUnit a persistent server must be used.

Unless there is particular requirement for doing otherwise, it is recommended that you use a persistent server. For details about the startup type characteristics, refer to "Server Application Startup Type" in the chapter "Basic Knowledge for Developing CORBA Applications" of the "Distributed Application Development Guide (CORBA Service Edition)".

-f filename

This parameter specifies the pathname for the server application, and must be specified when "-t S", "-t U" or "-t M" are specified.

-u uid `Solaris32/64` `Linux32/64`

Sets the user ID when the server application is run. If this is omitted, the effective user ID is set.

General users can only specify their own effective user ID.

-g gid `Solaris32/64` `Linux32/64`

Sets the group ID when the server application is run. If this is omitted, the effective group ID is set.

General users can only specify their own effective group ID.

Note

- If "iss_use = yes" has been specified in the config file, note the value specified in the -g option.

  If the value specified in the -u option is not "root(0)", the value specified for iss_group in the config file must be specified in the -g option, otherwise, the startup of the CORBA application in the shared or unshared server may fail.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Registration Using a CORBA Application Information Definition File

Table 18.1 CORBA Application Information Definition File Items and Settings (Windows(R)) to Table 18.3 CORBA Application Information Definition File Items and Settings (Linux) define the format and item settings of the CORBA application information definition file (defname) specified in the -ax parameter:

`Windows32/64`

Table 18.1 CORBA Application Information Definition File Items and Settings (Windows(R))

Item	Value
rep_id	= IDL:test1:1.0
type	= shared
binary	= D:\user\test1_s.exe
param	= -x 100
env	= PATH=D:\user;
IDL:test1/intf1:1.0 IDL:test1/intf2:1.0 :	= D:\user\INTF1.dll = D:\user\INTF2.dll,,IDL:test1/intf1:1.0
proc_conc_max	= 10
thr_conc_init	= 5
thr_conc_maximum	= 30
thr_decrease	= ON
mode	= SYNC_END
iswitch	= OFF
Ior	= 1.1

Item	Value
locale	= NONE
ssl	= AUTO
ssn_timeout	= 0
reply_interceptor_timeout	= 300

Solaris32/64

Table 18.2 CORBA Application Information Definition File Items and Settings (Solaris)

Item	Value
rep_id	= IDL:test1:1.0
type	= shared
binary	= /user/test1_s
param	= -x 100
env	= PATH=/user;
uid	= 0
gid	= 3
IDL:test1/intf1:1.0 IDL:test1/intf2:1.0: :	= /user/libINTF1.so = /user/libINTF2.so,,IDL:test1/intf1:1.0
proc_conc_max	= 10
thr_conc_init	= 5
thr_conc_maximum	= 30
thr_decrease	= ON
mode	= SYNC_END
iswitch	= OFF
ior	= 1.1
locale	= NONE
ssl	= AUTO
ssn_timeout	= 0
reply_interceptor_timeout	= 300

Linux32/64

Table 18.3 CORBA Application Information Definition File Items and Settings (Linux)

Item	Value
rep_id	= IDL:test1:1.0
type	= shared
binary	= /user/test1_s
param	= -x 100
env	= PATH=/user;
uid	= 0
gid	= 3

Item	Value
IDL:test1/intf1:1.0 IDL:test1/intf2:1.0: :	= /user/libINTF1.so = /user/libINTF2.so,,IDL:test1/intf1:1.0
proc_conc_max	= 10
thr_conc_init	= 5
thr_conc_maximum	= 30
thr_decrease	= ON
mode	= SYNC_END
iswitch	= OFF
ior	= 1.1
locale	= NONE
ssl	= AUTO
ssn_timeout	= 0
reply_interceptor_timeout	= 300

rep_id

This item specifies the Implementation Repository ID of the server application. Specify a character string consisting of up to 255 characters in ASCII (printable characters). The character string must be unique in the system. Refer to Notes for more information.

type

The start type of the server application is specified. The following start types can be specified:

- shared, unshared, persistent

When the development language is JAVA, specify "persistent".

For an application that uses WorkUnits, specify "persistent".

Unless there is particular requirement for doing otherwise, it is recommended that you use a persistent server. For details about the startup type characteristics, refer to "Server Application Startup Type" in the chapter "Basic Knowledge for Developing CORBA Applications" of the "Distributed Application Development Guide (CORBA Service Edition)".

Windows32/64

"shared" and "unshared" can only be specified by a user with administrator authority, however, users without administrator authority can delete shared and unshared servers.

binary

This item specifies the pathname for the server application. This item must be specified for all servers except "persistent" servers.

param

This item specifies the activation parameter for the server application.

This item is invalid when "type = persistent" is specified. If omitted, "no parameter" is assumed.

env

This item specifies the environment variables for executing the server application. This item is invalid when "type = persistent" is specified. Each variable must be delimited by a semicolon (;).

Solaris32/64 Linux32/64

If this item is omitted, the system manager (root) environment is used.

uid

Solaris32/64 Linux32/64

This item specifies the user ID for executing the server application. If this is omitted, the effective user ID is set.

General users can only specify their own effective user ID.

Note

Only numbers can be specified for this parameter.

gid

Solaris32/64 Linux32/64

This item specifies the group ID for executing the server application. If this is omitted, the effective group ID is set.

General users can only specify their own effective group ID.

Note

- Only numbers can be specified for this parameter.

- If "iss_use = yes" has been specified in the config file, note the value specified in the -g option.

  If the value specified in the -u option is not "root(0)", the value specified for iss_group in the config file must be specified in the -g option, otherwise the startup of the CORBA application in the shared or unshared server may fail.

intfID

If the server object is created as a library (with the *IDLc -dy* command) and multiple interfaces are installed, this item specifies the corresponding Interface Repository ID. This option is required when the server application is in the library format.

If an interface is inherited, this item also specifies the correspondence to that interface.

The specification format is as follows:

```
intfID = [solib][,prefix[,inherit[,..]]]
```

intfID:

Specifies the Interface Repository ID of the object.

solib:

Specifies the pathname for the library. The default is no library.

prefix:

Specifies "prefix" specified by "IDLc -Sprefix". (C only). If the server application uses a dynamic skeleton interface in COBOL, "DSI" must be specified. It is recommended to specify an absolute path. For the CORBA WorkUnit, applications run in the following directory. Be careful when specifying a relative path.

- Windows(R): "<WorkUnit definition current directory>\<WorkUnit name>\<process ID>"

- Solaris or Linux: "<WorkUnit definition current directory>/<WorkUnit name>/<process ID>"

inherit:

Specifies the Interface Repository ID to be inherited. Specifying this parameter makes it possible to invoke the method of the interface to be inherited using the object reference for which the interface repository ID specified by intfID is set.

If an interface is inherited with the IDL definition as shown below:

```
interface A{
void op1();
};
interface B:A{
void op2();
};
```

To make the server application invoke A#op1 when the client application invokes B#op1, define the following:

```
IDL:B:1.0 = ,,IDL:A:1.0
```

If the -S option is not specified in the *IDLc* command, "prefix" must be omitted. When multiple Interface Repository IDs are to be specified, they must be delimited by a comma (,).

proc_conc_max

This item specifies the maximum concurrent number of processes. If omitted, '1' is assumed. Up to 512 can be specified. If more than 512 is specified, 512 is used.

For process mode, specify 2 or a greater value. However, when 2 or a greater value is specified for thr_conc_init, thr_conc_init is given priority and thread mode is entered.

Note: If the WorkUnit is deployed from the Interstage Management Console, and the WorkUnit configuration is changed, this is set to 512.

thr_conc_init

This item specifies the initial number of concurrent threads. The available range is from 1 to 2147483647 (maximum value of long). If a value outside the range is specified, or if the value is omitted, 16 is the default value.

Note that the number of threads that can actually be activated depends on the OS and memory resource.

If in process mode, specify the value '1'. However, thread mode is used if '1' is set for proc_conc_max.

Solaris32/64 Linux32/64

A server application linked to the library for process mode runs in process mode regardless of the above setting. Additionally, a server application linked to the library for thread mode runs in thread mode regardless of the above setting.

Windows32/64

The relationship between the values set for proc_conc_max and thr_conc_init and the operation mode is shown in the table below.

proc_conc_max	thr_conc_init	Operation mode
1	1	Thread mode
1	2 or more	Thread mode
2 or more	1	Process mode
2 or more	2 or more	Thread mode

thr_conc_maximum

This parameter specifies the maximum number of concurrent threads. Server threads are automatically increased to the number specified here. If automatic extension is not to be used, specify the same value for this parameter as that specified for thr_conc_init.

If automatic extension is used, there is an increase or decrease in the number of server threads between thr_conc_init and thr_conc_maximum according to the load on the server application. If the load is high, the number of server threads is increased. If the load is low, the number of server threads is decreased.

If this parameter is omitted, the value specified for thr_conc_init is also set for this parameter, and automatic increase is disabled. If the Interstage Management Console is used, however, the default is 64 and automatic extension is used. The available range is from the value set for thr_conc_init to 2147483647 (maximum value of long). If a value less than that set for thr_conc_init is specified, an error occurs. If the specified value exceeds 2147483647, the value specified for thr_conc_init is also used for this parameter.

Note that the number of threads that can actually be activated depends on the OS and memory resource.

For process mode, specify 1 or nothing.

The number of server threads specified here is the number of threads used for request processing. The server process activates, in addition to these threads, auxiliary threads for process control. For this reason, when the number of server threads is checked with an OS-provided application or a command, a value greater than that specified for thr_conc_maximum may be indicated. The current number of request processing threads can be checked using the *odlistproc* command.

Note

If the server application executes resource control by associating threads and resources, the events shown below might occur when the automatic thread extension function is used.

1. When load on the server application increases, thread extension is executed. At this time the resources are associated to the additional threads.

2. When load on the server application decreases, thread numbers are decreased. Additional threads created during thread extension are deleted, but the dedicated resources remain.

In such applications, either do not use the automatic thread extension function, or specify 'OFF' for thr_decrease so that thread degeneracy is not used.

thr_decrease

If a value other than thr_conc_init is specified for thr_conc_maximum when using the automatic thread extension function, specify 'ON' or 'OFF' to set thread degeneracy use. If 'ON' is specified, thread degeneracy is used when the server application load is low. If 'OFF' is specified, thread degeneracy is not used even when the server application load is low.

The default is 'ON'.

In server applications in which resource control is used to associate threads and resources, problems may occur. For this reason, specify 'OFF'.

For details on the automatic thread extension function, refer to thr_conc_maximum.

Note

In COBOL/OOCOBOL applications, this problem always occurs internally during runtime when thread degeneracy is used for resource control to associated threads and resources. For this reason, thread degeneracy is not used in COBOL/OOCOBOL applications regardless of the value for thr_decrease.

mode

This item specifies the operation mode to be set when the server application is activated.

[Activation method (function name is in C)]

C, C++, COBOL, OOCOBOL: CORBA_BOA_impl_is_ready(), CORBA_BOA_obj_is_ready()

Java: org.omg.PortableServer.POAManager.activate().

The following operation modes can be specified:

COMPATIBLE :

The activation method returns after the server application is activated. (Default)

SYNC_END:

The activation method does not return, even after the server application is activated. Control is returned when CORBA_BOA_deactive_impl() is issued or the server application is stopped.

The activation method returns when:

- CORBA_BOA_deactive_impl() is issued.

- The *odcntlque* command is issued with the -s option specified.

- The CORBA WorkUnit is stopped.

- The server application is stopped using the *OD_stop* command.

If postprocessing is stated after the activation method, the resource that has been allocated for execution of the server method can be recovered properly. After completion of post processing, use the exit function to terminate the process.

Always specify SYNC_END in the following cases:

- A server application was created in process mode

- A Java server application is used.

- A COBOL server application is used.

- An OOCOBOL server application is used.

Linux32/64

If the initial thread is ended by invoking pthread_exit(), it will cause the process information to be <defunct> and it will not be possible to get process information using the *gcore* and *strace* commands. For this reason, it is recommended that "SYNC_END" is specified in the operation mode.

iswitch

This item specifies if the server application retains instance data for each client application (specify ON, OFF or object).

Specify ON to use the Factory mode or user instance management mode for the application mode.

This parameter is valid when the development language is CPP, JAVA, or OOCOBOL.

To register an object/process bind relationship as the application type for session management, specify "object". This is enabled when CPP is the development language. For details on specifying "object", refer to "Object to Process Bind Function" in the "CORBA Programming" chapter of the "Distributed Application Development Guide (CORBA Service Edition)".

ior

This item specifies the linkage version. The versions below can be specified (for details, refer to "18.7 OD_or_adm"):

- "1.0" (old version: optional)

- "1.1" (New version)

locale

This item specifies the code type of the object reference, which in turn specifies the code type for the server application.

This definition can be specified only for ior = 1.1. If locale is not specified in ior = 1.1, implicit value of code information for the object reference is set. Refer to the 18.8 OD_set_env command for details.

When the code type is set ("locale"), the code type information is incorporated in the Implementation Repository ID or the object reference. However, code type settings apply only in systems that handle multi-byte codes. Do not set code types in other systems.

ssl

When creating a server application Object Reference, specify the rule of adding SSL information.

Note that this definition is enabled only when ior=1.1.

The following values can be specified:

- "ON"

  Always adds SSL information.

- "OFF" (When omitted)

  Does not add SSL information. However SSL information is added to the Object Reference created with the *OD_or_adm* command *-s* option.

- "AUTO"

  SSL information is not added when an object reference is dynamically generated other than by using the interface implementation function.

  When an object reference is dynamically generated by the interface implementation function, the mode in which the client application is connected is checked to decide whether to add SSL information. If the server application dynamically creates an object reference upon invocation from the client application (when SSL communication is performed for connection with the client application that invokes the interface implementation function), SSL information is added to the object reference. When SSL communication is not performed for connection with the client application, SSL information is not added.

The following table shows how the specified values of this parameter and static generation (using the *OD_or_adm* command and so on) / dynamic generation (using the CORBA_BOA_create function and so on) of the Object Reference relate to presence and absence of SSL information.

Table 18.4 SSL Parameter Specified Values

SSL parameter specification	How to generate Object Reference			
	Static generation (OD_or_adm etc.)		Dynamic generation (CORBA_BOA_create function etc.)	
	SSL specification (-s)	None	SSL communication is enabled for the connection being used	SSL communication is disabled for the connection being used, or no connection is used
"ON"	Y	Y	Y	Y
"OFF"	Y	N	N	N
"AUTO"	Y	N	Y	N

Y SSL information is added to the object reference.

N SSL information is not added.

If instance data is retained for each client application or the item iswitch specification is ON, the connections to carry out SSL communication and not to carry out SSL communication cannot be executed concurrently in the same connection between the client and server applications.

Therefore, in the case where iswitch is specified as ON and a server application generates an Object Reference dynamically, we recommend you specify "AUTO" for this parameter in order to avoid different connections.

If an SSL Accelerator such as IPCOM is used, used connections are not recognized as being SSL communication connections. For this reason, specify "ON" for this parameter to generate object references to which SSL information is added.

ssn_timeout

Specify the session timeout (in seconds). This is enabled when iswitch=object. If this is omitted, 0 is used. The maximum value that can be specified is 1000000. If this parameter is omitted, or 0 is specified, session timeout does not occur. If the time specified for access from the client is not exceeded, the session timeout does occur, and the object and process bind relationship registered in the CORBA::ORB::bind_object function is cleared.

The session timeout precision is 5 seconds. For example, if 12 is specified for the ssn_timeout, the session timeout is detected from the occurrence of the final access from the client, in other words from 12.000 seconds to 17.999 seconds.

reply_interceptor_timeout

Set the maximum processing time (in seconds) for the exit function. If the exit function does not return when this time is exceeded, a timeout occurs and the server application that issued the exit function is forcibly stopped.

The init value (default value) is 300. The minimum that can be specified is 0, and the maximum that can be specified is 1000000. The timeout does not occur if 0 is specified.

The session timeout precision is 5 seconds. For example, if 12 is specified for the ssn_timeout, the session timeout is detected from the occurrence of the final access from the client, in other words from 12.000 seconds to 17.999 seconds.

Notes

- Do not delete the following Implementation Repository IDs using the *OD_impl_inst* command unless instructed to do so in the manual. This may cause Interstage to operate incorrectly.

    - FUJITSU-Interstage-NSLBO

    - FUJITSU-Interstage-SMO

    - FUJITSU-Interstage-TDLC

    - FUJITSU-Interstage-TDRC

    - IDL:com.fujitsu.interstage.j2ee.ijserver/"IJServer name":1.0 (*1)

    - IDL:CORBA/InterfaceRep_Cache_Obf:1.0

- IDL:CORBA/InterfaceRep_Obf:1.0

- IDL:CORBA/IrOBF/backup:1.0

- IDL:CORBA/Repository_Cache_Obf:1.0

- IDL:CORBA/Repository_Cache_Obf_e:1.0

- IDL:CORBA/Repository_Obf:1.0

- IDL:CosEventChannelAdmin/EventChannel"Number":1.0 (*2)

- IDL:CosNaming/BindingIterater:1.0

- IDL:CosNaming/Installer:1.0

- IDL:CosNaming/NamingContext:1.0

- IDL:CosTransactions/RecoveryCoordinator:1.0

- IDL:CosTransactions/TransactionFactory:1.0

- IDL:EventDaemon:1.0

- IDL:EventFactory:1.0

- IDL:FJ/ImplementationDef:1.0

- IDL:FJ/ImplementationRep:1.0

- IDL:FJ/Repository:1.0

- IDL:FJNotify/"Event Channel group name":1.0 (*3)

- IDL:FujitsuISMQDComm/ReceiverES:1.0

- IDL:IS/SMM:1.0

- IDL:IS/SMMA:1.0

- IDL:ISTD/ASO:1.0

- IDL:OM_ORB/admin:1.0

- IDL:" Event Channel group name":1.0 (*4)

- OTS_JTSRMP

- OTS_OTSRSC_"Resource definition name" (*5)

*1. Enter the name of the created IJServer for "IJServer name".

*2. Enter 0 or more for 'Number'. Use whole numbers.

*3. Enter the Notification Service Event Channel group name for 'Event Channel group name'.

*4. Enter the Event Service Event Channel group name for 'Event Channel group name'.

*5. Enter an OTS resource definition name for 'resource definition name'.

- When the -ax option is used to define a server application in the CORBA application information definition file, the maximum length of a character string that can be specified on one line is 511 bytes (512 bytes including a termination character).

- If env and intfID are specified in the CORBA application information definition file, add the value, which is obtained by dividing the length of the specified character string by 40, to max_impl_rep_entries.

- Implementation Repository ID and Interface Repository ID

  Any character string can be specified for the implementation repository ID. Although the implementation repository ID and interface repository ID are independent of each other, the same identifier may be specified for both IDs. In this case, the -a option that specifies the implementation repository ID can be omitted when the *OD_or_adm* command is executed (see OD_or_adm for more information).

  Register the implementation repository ID using the *OD_impl_inst* command before executing the *OD_or_adm* command.

When the Implementation Repository ID is same as the Interface Repository ID, the repository ID must be the one that identifies a module/interface defined in IDL. The format and items of the repository ID specification are explained below.

format:identification-information:version

format:"IDL" must be specified.

identification-information:

The module and interface names defined in IDL must be specified, and separated by a slash (/).

version: "1.0"

The version need not be specified, but if it is, "1.0" must be specified.

- Windows32　Solaris32　Linux32

If the relevant Implementation Repository ID has been registered in a queuing policy, the policy must be deleted by the *odsetque* command after deleting the application server by the *OD_impl_inst* command.

Solaris32/64　Linux32/64

- If the start type is persistent, start the server application with administrator authority.

- If the so library start type is other than persistent, specify env = LD_LIBRARY_PATH=(so-library-path) as a startup environment variable in the CORBA application information definition file.

- When executing a server application that recursively calls methods (for example when a server application recursively calls the server's own methods or when server application A calls another server application's method and then calls server application A's method), set proc_conc_max, thr_conc_init to a value equal to or greater than the following value:

Set value = (number of recursive calls + 1) x number of client applications

- If the activation type is other than "persistent," the OS environment variable is invalidated. Specify the OS environment variable in the env definition in the CORBA application information definition file as needed.

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Solaris32/64

- If the COBOL application start type is other than persistent, specify env = LANG=ja_JP.U90 as a startup environment variable in the CORBA application information definition file. Otherwise, "JMP00291-U" will be displayed.

Messages

The following messages can be displayed at command execution:

Error:ObjectDirector not running

CORBA Service has not been started.

Error:RepositoryID is already registered.

The specified RepositoryID has already been registered.

Error:RepositoryID is not registered.

The specified RepositoryID has not been registered.

Error:FJ_ImplementationRep_synch

Registration in the Implementation Repository failed. The disk may be full.

Error:RepositoryID delete fails

Deletion from the Implementation Repository failed. The server application having the specified Implementation Repository ID may be operating.

File not found

The file specified in the -ax option was not found.

Invalid syntax file: line number

A syntax error was found in the line indicated by "number", in the file indicated by "file."

Load Error Impl DB

impl.db cannot be loaded.

Multiply XXX

The XXX option definition was duplicated.

Illegal option [XXX]

The specified option does not exist for the command.

RepositoryID is NULL

The parameter with -r option was not specified.

Type is NULL

The parameter with -t option was not specified.

Filename is NULL

The parameter with -f option was not specified.

Error:FJ_ImplementationRep_create_impl_def

Information on the application server couldn't be registered in Implementation Repository. A conflict may exist between the *ior* version and *locale* information.

Check the CORBA application information definition file to ensure that the ior version and the locale information do not conflict.

This error message is also posted if a Repository ID that is already registered is specified and the command is started with -ax specified.

OD_impl_inst:option requires an argument -- X

The X option parameter was not specified. Set the parameter.

DB:proc_conc_max too large

The value of proc_conc_max exceeds available maximum number 256.

Example

```
> OD_impl_inst -p
IDL:OM_ORB/admin:1.0
IDL:FJ/ImplementationRep:1.0
IDL:FJ/ImplementationDef:1.0
IDL:FJ/Repository:1.0
IDL:CosNaming/Installer:1.0
IDL:CosNaming/NamingContext:1.0
IDL:CosNaming/BindingIterater:1.0
IDL:CORBA/Repository_Cache_Obf:1.0
IDL:CORBA/Repository_Obf:1.0
IDL:CORBA/InterfaceRep_Cache_Obf:1.0
IDL:CORBA/InterfaceRep_Obf:1.0
IDL:CORBA/IrOBF/backup:1.0
IDL:CORBA/Repository_Cache_Obf_e:1.0
IDL:ODsample/anytest:1.0
IDL:ODsample/stringtest:1.0
IDL:test1/intf1:1.0

> OD_impl_inst -p -r IDL:ODsample/stringtest:1.0
rep_id               = IDL:ODsample/stringtest:1.0
type                 = persistent
proc_conc_max        = 16
thr_conc_init        = 16
thr_conc_maximum     = 128
thr_decrease         = ON
```

```
mode                  = SYNC_END
iswitch               = OFF
ior                   = 1.1
ssl                   = OFF
ssn_timeout           = 0
```

18.6 OD_kill

Name

OD_kill

Terminates the CORBA Service forcibly.

Synopsis

Solaris32/64 Linux32/64

```
OD_kill [-M system]
```

Description

The *OD_kill* command forcibly terminates the CORBA Service. It is used to forcibly terminate the CORBA Service if the CORBA Service system has hung for any reason.

Since the service terminates without releasing the system resources acquired by the CORBA Service, the resources must be recovered using the *ipcrm* command.

The options and arguments of this command are as follows.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Note

Windows32/64

The above command is a command for the service start with Solaris.

Choose the following service from the service screen ([Control Panel]-[Service]), and operate it in case of Windows(R).

CORBA Service: "OD_start" service

18.7 OD_or_adm

Name

OD_or_adm

Generates and displays object references.

Synopsis

1. To generate an object reference (Register with the initial service)

```
OD_or_adm -c IntfID [-a ImplID] [-h HostName -p PortNum] [-s]
          [-L Locale|-v version] [-r refdata]  -i service [-M system]
```

2. To delete an object reference created in (1):

```
OD_or_adm -d -i service [-M system]
```

3. To generate an object reference (Register with the naming service)

```
OD_or_adm -c IntfID [-a ImplID] [-h HostName -p PortNum] [-s]
           [-L Locale|-v version] [-r refdata]  -n name [-M system]
```

4. To delete an object reference created in (3):

```
OD_or_adm -d -n name [-M system]
```

5. To generate an object reference (Save in the file)

```
OD_or_adm -c IntfID [-a ImplID] [-h HostName -p PortNum] [-s]
           [-L Locale|-v version] [-r refdata] -o file [-M system]
```

6. Windows32 Solaris32   Linux32
   To generate the object group:

```
OD_or_adm [-c IntfID [-a ImplID] [-h HostName -p PortNum]
           [-L Locale|-v Version]] -g Group -n name [-M system]
```

7. Windows32 Solaris32   Linux32
   To delete the object group created in (6):

```
OD_or_adm -d -n name [-M system]
```

8. To generate the naming context (New document):

```
OD_or_adm -z name [-M system]
```

9. To delete the naming context created in (8):

```
OD_or_adm -d -z name [-M system]
```

10. Creating a binding name(Register with the binding name that specified the existing naming context)

```
OD_or_adm -z name -u URLname [-M system]
```

11. Deleting the binding name created in (10)

```
OD_or_adm -d -z name [-M system]
```

12. Object references created in To display (1)

```
OD_or_adm -l [-M system]
```

Description

This command manages the object reference of the object specified by IntfID, and on all platforms except for Windows (64 bit), Solaris (64 bit) and Linux (64 bit), generates a load balance object group and registers/deletes the object group to/from the Naming Service.

The options and arguments of this command are as follows:

-c IntfID

This parameter specifies that the command generates an object reference with the Interface Repository ID specified in IntfID.

A repository ID (a string less than 256 characters) identifying the module or interface information defined in IDL must be specified as the Interface Repository ID.

The format and items of the repository ID specification are as follows:

- format:identification-information:version

  format: "IDL" must be specified.

- identification-information:

  The module and interface names defined in IDL must be specified, and separated by a slash (/).

- version: "1.0"

  The version need not be specified, unless it is "1.0" which must be specified.

-a ImplID

This parameter specifies an Implementation Repository ID when it must be an identifier other than the Interface Repository ID.

When the registered Implementation Repository ID is different from the Interface Repository ID, this parameter must be specified and must be the same as that specified with the *OD_impl_inst* command -r option. If this parameter is omitted, the object reference is generated using the same Implementation Repository ID as the Interface Repository ID. For details on the *OD_impl_inst* command, refer to "18.5 OD_impl_inst".

-h HostName

This parameter specifies the name or IP address of the host that receives requests. If omitted, the local host is set.

-P PortNum

This parameter specifies the number of the port to receive requests.

If omitted, the port numbers are set as follows:

- SSL communication is enabled:

  "uno_iiop_ssl_port" in the config file

- SSL communication is disabled:

  "IIOP_port" in the config file

-L Locale

Specify the conversion code type of the object reference.

This option cannot be specified with the -v option.

When the code type is set (-L option), the code type information is incorporated in the Implementation Repository ID or the object reference. However, code type settings apply only in systems that handle multi-byte codes. Do not set code types in other systems.

-s

This parameter is specified when SSL communication is carried out to add SSL information to the Object Reference. The SSL encrypted level is based on the SSL environment setup. Refer to the *odsetSSL* command.

Even if this parameter is omitted, if the specified value of SSL information has been set to "ON" in registration of the server application by the *OD_impl_inst* command, SSL information is added. Refer to the OD_impl_inst command.

-v version

This is specified when linking with a system running an earlier version. The following version can be specified:

"1.0" (previous version)

This option cannot be specified with the -L option.

-o file

This parameter specifies that the object reference is generated in character string format and is stored in the file specified by file.

-r refdata

This parameter specifies the identification information in IOR as a character string. The identification information is in octet format, but only character string data can be specified with this command.

-i service

This parameter specifies that the generated object reference is registered in the initial service (init.svc) with the name specified by service.(See Notes)

-n name

The name by which the object is registered in the Naming Service. The naming context can be specified in levels while registering the object in the Naming Service with the specified name in character string binding name format. For further information, refer to information on character string binding names in the Distributed Application Development Guide (CORBA Service Edition).

An error is caused if the naming context does not exist.

-z name

Creates a new naming context, and registers with the Naming Service. Specify as a character string binding name (refer to information on character string binding names in the Distributed Application Development Guide (CORBA Service Edition).

The naming context can be specified with the -n option, and must be specified with the full path, and the starting and terminating characters ("/"). An error occurs if it does not begin or end with "/".

To recreate the naming context, refer to Note 3. Every host that Naming Service is employed can create the naming contexts to 128 maximums.

-u URLname

Naming contexts in Naming Services on other hosts can be registered with the binding name specified in -z name. URLs must be specified in a particular way. Refer to the information on URL schemas in the Distributed Application Development Guide (CORBA Service Edition). Only V3.0 or higher Naming Services can be linked. When this command is entered, the Naming Service must be registered in the machine in which the linked Naming Service operates, and the CORBA Service must be operating.

-d

This parameter specifies that the object reference, the object group, naming context, or a binding name will be deleted.

The table below lists options that can be used with the -d option.

Option	Use
-d -i service	Delete an object reference registered with the initial service
-d -n name	Delete an object reference registered with the naming service
	`Windows32` `Solaris32` `Linux32` Delete an object group (See Note1)
	Delete a binding name (a naming context binding name created using the -z name -u URL name option)
-d -z name	Delete the naming context (See Note 2)

Note1: The default object should not be deleted in an object group. Use the *odadministerlb* command to delete an object under the object group.

Note2: All object references under the naming context which is intended for deletion should be deleted when deleting the naming context.

-l

Displays a list of object references registered with the initial service by specifying the -i option.

An object reference registered with the naming service using the -n option and a list of naming context created using the -z option, can be displayed using the *odlistns* command.

-g Group `Windows32` `Solaris32` `Linux32`

Specify "lb" to indicate the generating object group for load balance. Specify other information for the object reference, required while registering the default object reference for LBG in conjunction with other options.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- Initial service (registered by the use of the -i option) is stored in the initial service definition file (init_svc). Because the init_svc file contains the information that is unique to the server, it cannot move to the other server straightly. In order to move the resource to other server, the *OD_or_adm* command (-i option) must be executed by the destination server. It is recommended to keep the execution script for the preparation for possible damage of resource.

- `Windows32` `Solaris32` `Linux32`

    Start the load balance function before performing an operation for the load balance object group. Delete all objects under the load balancing object group (LBG) before deleting the object group. Delete an object under the object group using the *odadministerlb* command. However, do not delete the default object.

- To delete a Naming Context, use the -d and -z options. Do not use the -d and -n options to delete a Naming Context as this will delete object references, object groups, and binding name.

    If the -d -n option was specified and the binding name of the naming context deleted by mistake when deleting a naming context, and then delete the unbinded naming context using the *odrmubncns* command.

- `Solaris32/64` `Linux32/64`

    The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

- `Windows32` `Solaris32`

    Note the following points concerning manual registration of transaction application objects to the Naming Service:

    - Set the ImplID in accordance with the linkage format, as follows:

If the WorkUnit type is ORB:	FUJITSU-Interstage-TDLC
If the WorkUnit type is WRAPPER:	FUJITSU-Interstage-TDRC

    - When creating object references:

        Host names specified by the -h option and host names set for inithost and hosts must be specified in lowercase characters.

    - The names specified by the -n option are object names (module names or interface names defined in the IDL definitions). Any names can be used, but an object name is mandatory.

    - Also, when an arbitrary name is to be used, an object name must be specified. To use an arbitrary name, the following commands must be issued as a pair:

        Examples:

        OD_or_adm -c IDL:tdsample1/INTF:1.0 -a FUJITSU-Interstage-TDLC -n tdsample1::INTF

        OD_or_adm -c IDL:tdsample1/INTF:1.0 -a FUJITSU-Interstage-TDLC -n any name

    - If inheritance is used, the interface repository ID specified by the -c option must be the ID of the Interface Repository that inherits from the inheritance source. If the inheritance source is specified, the destination for call-outs from the client application cannot be made specific.

    - The Component Transaction Service must be started before this command is executed.

- Code conversion (*1)

- Registering object references to a Naming Service (*2)

*1 Code conversion

Interstage version 1.1 onwards supports the code conversion function, and supports the IOR1.0 and IOR1.1 communications protocols. IOR is an abbreviation of Interoperable Object Reference, and is an object reference in a network. In version 1.1 of IOR, code conversion is supported.

The method of processing the -L and -v options, added by the code conversion function, is as follows:

1. When the -v and -L options are not specified together.

   Defaults according to the information registered in the Implementation Repository. Refer to the *OD_impl_inst* command.

2. When creating common object references for versions earlier than 1.0 and later than 1.1:

   OD_or_adm -c IDL:ODdemo::calculator:1.0 -n ODdemo::calculator -v 1.0

   Note that the Code conversion function cannot be used.

3. When creating an object reference in Interstage version 1.1or later that uses code conversion:

   OD_or_adm -c IDL:ODdemo::calculator:1.0 -n ODdemo::calculator -L EUC

The *OD_or_adm* command cannot be used for V1.0 clients. This object reference cannot be registered in the Naming Service for version 1.0.

Note that if the h option is used to register an object reference of a different host, the default code conversion at the specified host cannot be determined. Therefore, -L or the -v option must be used.

*2 Registering object references to a Naming Service

An example of using the *OD_or_adm* command to register object references and naming contexts to the Naming Service is shown in the following figure.
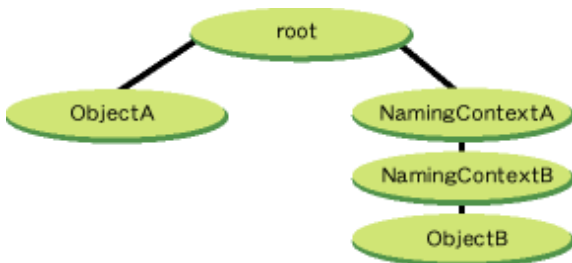
Registering Object References to the Naming Service

1. Creating ObjectA

   OD_or_adm -c xxx -n ObjectA

2. Creating ObjectB

   OD_or_adm -z NamingContextA

   OD_or_adm -z NamingContextA/NamingContextB

   OD_or_adm -c xxx -n NamingContextA/NamingContextB/ObjectB

   Multiple object references and naming contexts cannot be created together. If a parent naming context is created, a child object or naming context must be created.

Messages

The following messages can be displayed at command execution:

Error:CORBA_ORB_init

   The CORBA Service has not been started.

Error:CORBA_ORB_resolve_initial_references

   Acquisition of initial references failed.

Error:CORBA_ORB_set_initial_service

   Registration of the specified service as the initial service failed.

One of:

- **Error:CosNaming_NamingContext_resolve
  id:IDL:CORBA/StExcep/NO_IMPLEMENT:1.0**

- **Error:CosNaming_NamingContext_bind
  id:IDL:CORBA/StExcep/NO_IMPLEMENT:1.0**

- **Error:CosNaming_NamingContext_bind_new_context
  id:IDL:CORBA/StExcep/NO_IMPLEMENT:1.0**

- **Error:CosNaming_NamingContext_unbind
  id:IDL:CORBA/StExcep/NO_IMPLEMENT:1.0**

The Naming Service has not started.

Error:CosNaming_NamingContext_resolve_ObjectGruop
id:IDL:CORBA/StExcep/NO_IMPLEMENT:1.0

   The Naming Service has not started. (-n option)

Error:delete_initial_service

   Deletion of the specified service as the initial service failed.

Error:FJ_ImplementationRep_lookup_id

   The specified Implementation Repository ID has not been registered. This message can appear if the -a option is specified.

Error: admin_synch

   Updating the initial_services failed. The object reference has not been registered in the Naming Service. The file could not be written, or the disk may be full.

One of:

- **Error:CosNaming_NamingContext_bind
  id:IDL:CosNaming/NamingContext/AlreadyBound:1.0**

- **Error:CosNaming_NamingContext_bind_new_context
  id:IDL:CosNaming/NamingContext/AlreadyBound:1.0**

Failed to register the object, the naming context or object group. The Naming Service is already registered.

Error:CosNaming_NamingContext_unbind
id:IDL:CosNaming/NamingContext/NotFound:1.0

   Failed to delete the object, naming context or object group. The Naming Service is not registered.

One of:

- **Error:CosNaming_NamingContext_resolve
  id:IDL:CORBA/StExcep/NO_IMPLEMENT:1.0**

- **Error:CosNaming_NamingContext_bind
  id:IDL:CORBA/StExcep/NO_IMPLEMENT:1.0**

- **Error:CosNaming_NamingContext_bind_new_context
  id:IDL:CORBA/StExcep/NO_IMPLEMENT:1.0**

- **Error:CosNaming_NamingContext_unbind
  id:IDL:CORBA/StExcep/NO_IMPLEMENT:1.0**

The load balance function was not started for Naming Service or object group.

Can't open file name

The file indicated by name cannot be opened. This message can appear if the -o option is specified.

Can't write

Object references cannot be written in a file. This message can appear if the -o option is specified.

Can't find 'name' in initial_services

The service indicated by name was not found among the initial services.

One of:

- **Error:CosNaming_NamingContext_bind
  id:IDL:CosNaming/NamingContext/CannotProceed:1.0**

- **Error:CosNaming_NamingContext_unbind
  id:IDL:CosNaming/NamingContext/CannotProceed:1.0**

The processing is not possible due to insufficient free space in the following directories:

Windows32/64

C:\Interstage\ODWIN\etc\CosNaming

Solaris32/64

/opt/FSUNod/etc/CosNaming

Linux32/64

/opt/FJSVod/etc/CosNaming

By referring to the following example, move the CosNaming directory to a disk partition with larger free space:

Examples

Windows32/64

```
cp -rp C:\Interstage\ODWIN\etc\CosNaming directory-name
rm -rf C:\Interstage\ODWIN\etc\CosNaming
ln -s directory-name C:\Interstage\ODWIN\etc\CosNaming
```

Solaris32/64

```
cp -rp /opt/FSUNod/etc/CosNaming directory-name
rm -rf /opt/FSUNod/etc/CosNaming
ln -s directory-name /opt/FSUNod/etc/CosNaming
```

Linux32/64

```
cp -rp /opt/FJSVod/etc/CosNaming directory-name
rm -rf /opt/FJSVod/etc/CosNaming
ln -s directory-name /opt/FJSVod/etc/CosNaming
```

In addition, it could mean the following:

The target Naming Context does not exist. Use the *OD_or_adm* command (with the -d and -z options) to delete the binding of the target Naming Context, and register the Naming Context again.

The specified character set is wrong

The specified character set is an invalid code type setting.

Multiply XXX

The definition of option XXX was duplicated.

Illegal option [XXX]

The specified option does not exist.

ReferenceData is NULL

The parameter with the -r option was not specified.

Filename is NULL

The parameter with the -o option was not specified.

Service is NULL

The parameter with the -s option was not specified.

Name is NULL

The parameter with the -n option was not specified.

Host is NULL

The parameter with the -h option was not specified.

Port is NULL

The parameter with the -p option was not specified.

Locale is NULL

The parameter with the -L option was not specified.

Version is NULL

The parameter with the -v option was not specified.

The specified port is wrong

Invalid port number setting.

The specified version is wrong

Invalid version setting.

Specify both [-h host] and [-p port]

[-h host] and [-p port] cannot be specified together.

Character set cannot be specified in version 1.0

Code type cannot be set for version 1.0.

Failed to create Object References

Failed to create object reference.

Failed to get locale information

Failed to retrieve code type.

Error:ISOD_LBO_create_LBG
id: IDL:CORBA/StExcep/NO_IMPLEMENT:1.0

The load balance function or Naming Service was not started.

Error:ISOD_LBO_create_LBG
id: IDL:ISOD/LBG/BadObject:1.0

The specified Interface Repository ID is invalid.

Error:ISOD_LBO_create_LBG
id: IDL:ISOD/LBO/AlreadyExist:1.0

The specified object group name is already registered in the Naming Service.

Error:ISOD_LBO_create_LBG
id: IDL:ISOD/LBO/NotFound:1.0

Either the specified object group naming context is not registered, or it is registered as an object or object group.

Error:CosNaming_NamingContext_resolv_ObjectGroup

Failed to find the object group to be deleted.

Error:ISOD_LBO_delete_LBG
id: IDL:ISOD/LBO/NotEmpty:1.0

More than one object is registered in the object group.

Error:ISOD_LBO_delete_LBG
id: IDL:ISOD/LBO/NO_IMPLEMENT:1.0

The load balance function or Naming Service was not started.

Group is NULL

The parameter of the -g option was not specified.

The specified operand is wrong

Operand specification is invalid.

LB Group Name Failed

The object group name specification is invalid.

Error:CosNaming_NamingContext_destroy
id:IDL:CosNaming/NamingContext/NotEmpty:1.0

An object reference exists in the naming context to be deleted. Delete the object reference, and then delete the naming context.

Error:CosNaming_NamingContext_resolve_ObjectGruop
id:IDL:CORBA/StExcep/NO_IMPLEMENT:1.0
Error:CORBA-ORB string_to_object
id:IDL:CORBA/StExcep/UNKNOWN:1.0
id:IDL:CORBA/StExcep/COMM_FAILURE:1.0

There is an error in the URL name specified in the -u option. Otherwise, the Naming Service may not be registered in the machine linked, or the CORBA may not be active.

URLname is NULL

A parameter in the -u option has not been specified.

Example

| Windows32 | Solaris32 | Linux32 |

```
OD_or_adm -l

  ImplementationRepository    IDL:FJ/ImplementationRep:1.0
(r2d2:8002:1.0:)
  FJ_LightInterfaceRepository IDL:FJ/Repository:1.0
(r2d2:8002:1.0:)
  FJ_ORB_admin                IDL:OM_ORB/admin:1.0
(r2d2:8002:1.0:)
  nill_oref
  NameService                 IDL:CosNaming/NamingContext:1.0
(r2d2:8002:1.0:)
  FJ_LoadBalancingOption      IDL:ISOD/LBO:1.0
(r2d2:8002:1.0:)
```

| Windows64 | Solaris64 | Linux64 |

```
OD_or_adm -l
```

```
  ImplementationRepository    IDL:FJ/ImplementationRep:1.0
(r2d2:8002:1.0:)
  FJ_LightInterfaceRepository IDL:FJ/Repository:1.0
(r2d2:8002:1.0:)
  FJ_ORB_admin                IDL:OM_ORB/admin:1.0
(r2d2:8002:1.0:)
  nill_oref
  NameService                 IDL:CosNaming/NamingContext:1.0
(r2d2:8002:1.0:)
```

18.8 OD_set_env

Name

OD_set_env

Sets an IP address to be embedded when an object reference is generated.

Synopsis

1. Setting an IP address or host name:

```
OD_set_env -n {IPaddress|HostName} [-L Locale] [-M system]
OD_set_env -L Locale [-M system]
```

2. Displaying set information:

```
OD_set_env -l [-M system]
```

Description

This command runs on the server, and is used to set an IP address to be embedded in the object reference that is generated.

The options and arguments of this command are as follows:

-n {IPaddress|HostName}

This parameter specifies the IP address or host name of an application server to be set in the object reference. There is no validity checking of the values specified in IPaddress and HostName. Ensure that all values specified are valid.

-L Locale

Sets the object reference conversion code.

-l

This parameter displays the information to be embedded in the object reference of the server application.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- Execute this command with Administrator authority when specifying the -n and -L options (information setting).

- In order to validate the set information, the CORBA Service(ObjectDirector) must be restarted.

- When using this command to set an IP address or host name, the IP address or host name becomes valid when the object reference for the server is generated.

- To change the IP address or host name of the object reference used by each Interstage service, Interstage must be initialized in forced initialization mode by using the *isinit* command. To initialize each service without using the *isinit* command, use the command of each service to re-initialize the service.

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Messages

The following messages can be displayed at command execution:

$OD_HOME is not set

Environment variable "OD_HOME" has not been set.

OD_set_env:option requires an argument -- X

The X option parameter was not specified. Specify the parameter.

ObjectReference create environment error

An error was found in the environment settings.

your unauthorized environment change

You are not authorized to set environmental information.

Multiply XXX

The XXX option definition was duplicated.

locale is NULL

The parameter with the -L option was not specified.

name is NULL

The parameter with the -n option was not specified.

Failed to open boa.env

Failed to open boa.env.

The command may have been executed using general user authority.

18.9 OD_stop

Name

OD_stop

Terminates the CORBA Service.

Synopsis

Solaris32/64 Linux32/64

```
OD_stop [-M system]
```

Description

The *OD_stop* command releases the system resources acquired by the CORBA Service, and then terminates the CORBA Service.

The options and arguments of this command are as follows.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Note

Windows32/64

- This command is used for stopping services on the Solaris system and Linux system.

- Choose the following service from the service screen ([Control Panel]-[Service]), and operate it in case of Windows(R):

  CORBA Service: "OD_start" service

18.10 S99startod

Name

S99startod

Starts the CORBA Service.

Synopsis

Solaris32/64 Linux32/64

```
S99startod
```

Description

The *S99startod* command starts the CORBA Service.

This command is stored as following and started as a system initialization script.

Solaris32/64

/etc/rc2.d

Linux32/64

/etc/rc.d/rc2.d

Note

Windows32/64

The above command is a command for the service start with Solaris.

Choose the following service from the service screen ([Control Panel]-[Service]), and operate it in case of Windows(R).

- CORBA Service: "OD_start" service

Messages

The following messages are displayed during command activation and during ObjectDirector operation (xxx indicates the keywords or size)

Daemon already running

  The ObjectDirector is already activated.

Failed to create key:(xxx)

  Failed to create shared memory key (See Note 1).

Failed to create shared memory(xxx)

  Failed to create shared memory (See Note 1).

Failed to get shared memory(xxx)

  Failed to get shared memory (See Note 1).

Failed to attach (xxx)

  Failed to attach shared memory (See Note 1).

Failed to create/attach to semaphore set

Failed to create and attach semaphores (See Note 1).

Failed to create/attach to message queue

Failed to create and attach message queues (See Note 1).

Failed to create named pipe

Failed to create a named pipe.

Failed to create key file

Failed to create a key file.

Failed to establish IPC link

Exceeded maximum number of processes (max_processes of config file), or failed to create a pipe.

Failure to open initial service file

Failed to open the initial_services file.

Failure to write to initial service file

Failed to write the initial_services file.

Failed to find entry in /etc/services file for name/type

Entry name/type not found in /etc/services file.

Failed to establish IIOP listen on port number

Failed to fix the socket port number.

Too many open files or Too many files

Too many directories are open in the process. Extend the upper limit of directories with the *ulimit* command.

Named pipe error!! ObjectDirector cannot work normally.

An error occurred in the named pipe. The ObjectDirector cannot work normally. The fd limit can be increased with the *ulimit* command, and restart.

Pipe cannot be re-bind. Process pid cannot receive requests any more.

Failed to reconnect the pipe in pid. The upper limit of the number of fd can be increased. Either increase the count with the *ulimit* command and restart the process or terminate unnecessary clients.

Failed to create log file

Failed to create a log file.

Failed to create/open log pipe

Failed to create and open a log pipe.

log level is log_level

Shows the log level log_level (displays only when log settings are ON).

Invalid config file line, number

An error has occurred at the line number specified in the config file.

invalid keyword xxx

Invalid keyword xxx in config file.

trace data loss

Output of data to the log is not possible due to insufficient memory. (Displays only when log settings are ON).

Implementation Repository DB name not found

Implementation Repository definition filename not found.

Invalid syntax Impl DB: line number

Invalid syntax at line number in Implementation Repository definition file.

Load Error Impl DB

The Implementation Repository definition file cannot be loaded.

Implementation Repository DB full

The Implementation Repository is full.

Process pid has vanished

The ObjectDirector has found that the pid process has stopped.

Can't access directory path

The directory path cannot be accessed. Environment variable $OD_HOME is not set, or the settings are invalid.

Over max_impl_rep_entries Queue xxx

Failed to create a queue or queue group xxx. Either increase the value of max_impl_rep_entries in the config file, or restart the ObjectDirector.

queue_policy file is bad format

There is an error in the queuing file policy contents.

Maximum of request is invalid Queue xxx

The upper limit of the queuing file policy queue xxx is invalid.

Queuing capacity is over xxx requests

The total upper limit of the queue defined in the queuing file policy has been exceeded.

OD_QUEUE_BuildQueueSystem failed

Failed to create the queuing policy. The queue policy file is invalid, or the parameter max_impl_rep_entries in the config file is smaller than the implementation information registered in impl.db.

QUEUE: RequestID id(n) was cancelled

The Request id was cancelled by the *odcntlque* command.

QUEUE: OD_stop timed out

The *OD_stop* command was executed, but a request was not completed before time-out. The ObjectDirector detected the time-out, and terminated processing.

Note

If these messages are displayed while executing the *S99startod* command, either tune the system parameter, or delete the unnecessary system source using *odrmipc* command.

If these messages are displayed while executing programs other than S99startod, the ObjectDirector is not activated.

18.11 odadmin

Name

odadmin

Initial environment set-up of ObjectDirector.

Synopsis

Solaris32/64   Linux32/64

```
odadmin
```

Description

The *odadmin* command sets the operation environment after the CORBA Service is introduced. The use or existence of NamingService, InterfaceRepositoryService, and the LoadBalancingOption (*1) is interactively confirmed, and an environment necessary for the operation is set. The database is made immediately when use of the InterfaceRepositoryService is specified.

> *1 Load balancing is not supported for Solaris (64 bit) and Linux (64 bit).

An outline of the set contents for this command is shown below.

- Use or non-use of the interface repository

  Contents of environment setup when the interface repository is used

  - The interface to use (standard interface/Value interface)

  - Database administrator/group/storage location/storage size

- Use or non-use of Naming Service

  Contents of environment setup when remote Naming Service is used

  - Host name

  - Port number

- Solaris32 Linux32

  Use or not use of load balance option

  Contents of environment setup when Naming Service/load balance is used

Notes

- Execute this command when the interface repository service and the Naming Service are both in the stopped state.

- Before executing the *odadmin* command, delete (or add comment to) the host name specified in the initial_hosts file for the interface repository and Naming Services. Wait until *odadmin* is executed before setting a different host for initial_hosts.

- If "quit(q)" is entered in response to a response character string, the environment setting process terminates.

- If the standard and value interfaces are both used, specify the standard interface first, and then the value interface, when setting the environment. If specified in this sequence and the setting process for the value interface environment fails, the standard interface repository service stops.

- If the interface repository and Naming Services and the load balance option (*1) are all used, each service is started from the *odadmin* command. However, if "no initialization" is specified for an interface repository database that is already registered, startup of the interface repository service may take a long time if the database is large. In this situation, start the interface repository service separately, rather than from the *odadmin* command.

- If an interface repository database is already registered but the entered settings indicate that the interface repository service is not used, the database is not initialized.

- If use of a remote Naming Service is specified and the Naming Service or load balance option (*1) is registered at the local host, the database is initialized.

- If the settings entered for the Naming Service and load balance option indicate character set conversion of binding names is not used, the binding name is not converted. However, if the local host Naming Service and load balance options (*1) are used and the settings are changed to specify use of character set conversion of binding names or a different code system, the database must be initialized. After initialization, the required object references must be re-registered.

- The environment setting process sequence is the interface repository service, and then the Naming Service and load balance option (*1). Therefore, if the environment setting process fails for the Naming Service or load balance option, the *odadmin* command terminates abnormally, but the environment setting process for the interface repository service terminates normally.

*1 The load balance option is not supported for Solaris (64 bit) and Linux (64 bit).

Note

- Standard Interface and Value Interface

    - Standard Interface

    This interface is required to operate a CORBA application. It is not necessary to set the standard interface when the server is used only as an EJB runtime environment.

    - Value Interface

    This interface is required when operating the server as an EJB runtime environment. The Value Interface enables the use of the object passing function which is supported by Java RMI.

- Re-initialization of CORBA Service

When the CORBA Service needs to be re-initialized to recover resources in the event of environment damage, the information specified at the time of setting the initial environment of the previous CORBA Service (by the use of the *odadmin* command or an Interstage integrated command such as *isinit*), can be reinitialized.

- odadmin -f environment setup information file

The following can be used as the environment setup information file:

    - When the initial environment setup is performed with the *odadmin* command:

    Solaris32/64

    /var/opt/FSUNod/odenvfile

    Linux32/64

    var/opt/FJSVod/odenvfile

    - When the initial environment setup is performed with the Interstage integrated command:

    Solaris32

    For Default system:

    /var/opt/FJSVisas/system/default/FJSVisas/var/iscom/isei_odenvfile

    For Extended system:/var/opt/FJSVisas/system/(system name)/FJSVisas/var/iscom/isei_odenvfile

    Solaris64   Linux32/64

    /var/opt/FJSVisas/system/default/FJSVisas/var/iscom/isei_odenvfile

    When you want to modify the information that has been set in the initial environment setting or when the environment setup information file does not exist or when the environment setting cannot be performed correctly due to shortage of information on file, execute the *odadmin* command or the Interstage integrated command.

Messages

The message and the meaning displayed when starting are shown below.

The file needed for environment setting does not exist.

    The file needed for environment setting does not exist.

Invalid settings in the environment setting file.
The install directory of database is not specified, or no such directory.

    The install directory of the database is not correct.

18.12 odchgservice

Name

odchgservice

Changes the initial service host name/port

Synopsis

1. Changing the host name:

```
odchgservice -h host [-M system] service
```

2. Changing the port:

```
odchgservice -p port [-M system] service
```

3. Changing the host name and port:

```
odchgservice -h host -p port [-M system] service
```

Description

The *odchgservice* command changes the initial service host name and port of the CORBA Service.

The options and arguments of this command are as follows:

-h host

Specify the host name or IP address using a maximum of 256 characters in an ASCII code (printable character) string.

-p port

Specify the port, using a number between 0 and 65535.

service

Specify the name of the initial service which will be changed, using a maximum of 64 characters in an ASCII code (printable character) string.

For the list of initial services that exist in the system, specify the -l option in the *OD_or_adm* command (for details, refer to "18.7 OD_or_adm").

Note

The host name and port of the services below are set automatically when the CORBA service starts, therefore they must not be changed using this command, otherwise this command will not run:

- ImplementationRepository

- FJ_LightInterfaceRepository

- FJ_ORB_admin

Solaris32/64 Linux32/64

- nill_oref

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- This command must be executed when Interstage has stopped completely, otherwise this command will not run.

- This command does not check if the specified host name/port is valid. If an invalid value is specified, Interstage may fail to start, or a problem such as an abnormal end may occur when the application is executed.

- Only one instance of the commands below can run at the same time - if one of them is running, wait for it to finish, and then execute the command:

    - odchgservice (this command)

- odbackupsys

- odrestoresys

18.13 odcntlque

Name

odcntlque

| Windows32 | Solaris32 | Linux32 |

Activates/deactivates the queuing policy.

| Windows64 | Solaris64 | Linux64 |

Activates/deactivates the server application.

Synopsis

1. | Windows32 | Solaris32 | Linux32 |

   Activating the queuing policy

   | Windows64 | Solaris64 | Linux64 |

   Activating the server application.

   ```
   odcntlque  -a  {[-que] [-dsp]}  groupname [-M system]
   ```

2. | Windows32 | Solaris32 | Linux32 |

   Deactivating the queuing policy

   | Windows64 | Solaris64 | Linux64 |

   Deactivating the server application.

   ```
   odcntlque  -d  {[-que] [-dsp]}  groupname [-M system]
   ```

3. Cancelling queued requests

   ```
   odcntlque  -c  groupname [-M system]
   ```

4. Stopping the server application

   ```
   odcntlque  -s  [-kill]  groupname [-M system]
   ```

Description

| Windows32 | Solaris32 | Linux32 |

This command activates and deactivates the queuing policy registered by the *odsetque* command and the server application being executed.

| Windows64 | Solaris64 | Linux64 |

It activates and deactivates the server application being executed only.

The options and arguments of this command are as follows:

-a

   | Windows32 | Solaris32 | Linux32 |

   Activates the queuing policy.

   | Windows64 | Solaris64 | Linux64 |

   Activates the server application.

-d

Deactivates the queuing policy.

Deactivates the server application.

-c

Cancels queued requests.

-s

Stops the server application. If multiple processes are operating, it stops all processes.

-que

Activates or deactivates request receipt processing.

-dsp

Activates or deactivates request processing.

-kill

Closes the server application after the request that is being processed is complete, even if there are still unprocessed requests in the queue.

groupname

Specify the queue name or queue group name to be activated or deactivated. The implementation repository IDs of server applications that have not been registered in queues (the *odsetque* command has not been run) can also be specified.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Activating the Queuing Policy Windows32 Solaris32 Linux32

The server applications registered in the queuing policy can be activated in units of queues or queue groups. One or both of the -que and -dsp options must be specified to execute a request from a client, for an activated object, as actual processing.

The following example shows the command to start the request receipt and processing:

```
odcntlque -a -que -dsp queue1
```

The following example shows how the command restarts request receipt:

```
odcntlque -a -que queue1
```

The following example shows how the command restarts suspended request processing:

```
odcntlque -a -dsp queue1
```

Activating the Server Application Windows64 Solaris64 Linux64

The server applications can be activated in units of queues or queue groups. One or both of the -que and -dsp options must be specified to execute a request from a client, for an activated object, as actual processing.

The following example shows the command to start request receipt and processing:

```
odcntlque -a -que -dsp queue1
```

The following example shows how the command restarts request receipt:

```
odcntlque -a -que queue1
```

The following example shows how the command restarts suspended request processing:

```
odcntlque -a -dsp queue1
```

Deactivating the Queuing Policy `Windows32` `Solaris32` `Linux32`

The server applications registered in the queuing policy can be deactivated. The assignment of requests to server applications, and request receipt can be stopped. One or both of the -que and -dsp options must be specified.

The following example shows how the command stops request receipt:

```
odcntlque -d -que queue1
```

The following example shows how the command stops assigning requests to server applications:

```
odcntlque -d -dsp queue1
```

Deactivating the Server Application `Windows64` `Solaris64` `Linux64`

The server applications can be deactivated. The assignment of requests to server applications, and request receipt can be stopped. One or both of the -que and -dsp options must be specified.

The following example shows how the command stops request receipt:

```
odcntlque -d -que queue1
```

The following example shows how the command stops assigning requests to server applications:

```
odcntlque -d -dsp queue1
```

Canceling Queued Requests

Unprocessed requests that have been received can be deleted. To delete them, temporarily stop request assignment.

The following example shows how the command stops assigning requests to server applications, and deletes unprocessed requests:

```
odcntlque -d -que queue1
odcntlque -c queue1
```

Stopping the Server Application

The server application being executed can be terminated. Note that the server application will only be terminated after all requests have been processed. When specifying the -kill option, any unprocessed request is cancelled, and the server application is stopped. If the server application is in a loop, it cannot be stopped.

The following example shows how the command stops the server application:

```
odcntlque -s queue_group1
odcntlque -s -kill queue_group1
```

Notes

`Solaris32/64` `Linux32/64`

When invoking this command, do not include $OD_HOME/lib/nt in the environment variable LD_LIBRARY_PATH.

OD_HOME: Package storage directory for CORBA Service

The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Messages

The following messages can be displayed at command execution:

ObjectDirector not active

The CORBA Service is not started.

groupname not found

The groupname could not be found.

groupname is not specified

The groupname is not specified.

18.14 odlistir

Name

odlistir

Lists the registered Interface Repository information.

Synopsis

```
odlistir  [-l|-r RepositoryId] [-f filename] [-M system]
```

Description

The odlistir command displays object interface information registered in the Interface Repository.

This command shows repository objects (route objects) with vertical lines for the inclusive relationships back to the starting point, and displays interface information fetched from the Interface Repository with the CORBA_Contained_describe method.

If no object is specified, interface information for all objects registered in the interface repository is shown.

Refer to information on programming for the Interface Repository service in the Distributed Application Development Guide (CORBA Service Edition). This is provided with Enterprise Edition product for details of the types of object managed by the Interface Repository and for inclusive/inherited relationships of Interface Repository objects.

The following parameters can be specified:

-l

Displays interface information for objects selected in conversational mode.

An object type list is displayed when this command is executed. Select from the list the object type for which you wish to display information, to display a list of repository IDs for each object selected. When a repository ID is selected, the interface information for all objects included within the object is displayed.

-r RepositoryId

Displays interface information for the object specified by the repository ID and all objects included within that object.

-f filename

Outputs interface information to the file specified.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Example

When the following IDL definitions are registered in the Interface Repository:

```
module ExModule{
    interface ExInterface{
        long ExOperation(in long con1);
    };
```

```
    };

odlistir

Root_Repository
  |
  + CORBA_ModuleDef
  | |     name        : ExModule
  | |     id          : IDL:ExModule:1.0
  | |     defined_in  : IR.944786264.0
  | |     version     : 1.0
  | |
  | + CORBA_InterfaceDef
  | | |     name        : ExInterface
  | | |     id          : IDL:ExModule/ExInterface:1.0
  | | |     defined_in  : IDL:ExModule:1.0
  | | |     version     : 1.0
  | | |
  | | |     base_interfaces
  | | |       _maximum    : 0
  | | |       _length     : 0
  | | |       *_buffer    : 00000000
  | | |
  | | |
  | | + CORBA_OperationDef
  | | |     name        : ExOperation
  | | |     id          : IDL:ExModule/ExInterface/ExOperation:1.0
  | | |     defined_in  : IDL:ExModule/ExInterface:1.0
  | | |     version     : 1.0
  | | |     result      : CORBA_tk_long
  | | |     mode        : OP_NORMAL
  | | |
  | | |     contexts
  | | |       _maximum    : 0
  | | |       _length     : 0
  | | |       *_buffer    : 00000000
  | | |
  | | |     parameters
  | | |       _maximum    : 1
  | | |       _length     : 1
  | | |       *_buffer    : 0131349c
  | | |       CORBA_ParameterDescription DATA [1]
  | | |         name        : ::ExModule::ExInterface::ExOperation::con1
  | | |         type        : CORBA_tk_long
  | | |         type_def    : Primitive_long
  | | |         mode        : PARAM_IN
  | | |
  | | |     exceptions
  | | |       _maximum    : 0
  | | |       _length     : 0
  | | |       *_buffer    : 00000000
  | |
  |


odlistir -l

Select the calling interface.


  1.  ModuleDef            2.  InterfaceDef         3.  OperationDef
  4.  ConstantDef          5.  StructDef            6.  UnionDef
  7.  EnumDef              8.  AliasDef             9.  ExceptionDef
```

```
 10.  AttributeDef        11.  END

 Specify the number ==> _

Select 2 (InterfaceDef) from this output screen.  The RespositoryId list for
the InterfaceDef objects registered in the interface repository is then
displayed as below:

InterfaceDef RepositoryId list

 1.  IDL:ExModule/ExInterface:1.0
 Specify the number ==> _

Select a RepositoryId to display interface information from this output
screen.  In this example, select 1.

 |
 + CORBA_InterfaceDef
 | |     name        : ExInterface
 | |     id          : IDL:ExModule/ExInterface:1.0
 | |     defined_in  : IDL:ExModule:1.0
 | |     version     : 1.0
 | |
 | |     base_interfaces
 | |       _maximum    : 0
 | |       _length     : 0
 | |       *_buffer    : 00000000
 | |
 | |
 | + CORBA_OperationDef
 | |     name        : ExOperation
 | |     id          : IDL:ExModule/ExInterface/ExOperation:1.0
 | |     defined_in  : IDL:ExModule/ExInterface:1.0
 | |     version     : 1.0
 | |     result      : CORBA_tk_long
 | |     mode        : OP_NORMAL
 | |
 | |     contexts
 | |       _maximum    : 0
 | |       _length     : 0
 | |       *_buffer    : 00000000
 | |
 | |     parameters
 | |       _maximum    : 1
 | |       _length     : 1
 | |       *_buffer    : 0131349c
 | |       CORBA_ParameterDescription DATA [1]
 | |         name          : ::ExModule::ExInterface::ExOperation::con1
 | |         type          : CORBA_tk_long
 | |         type_def      : Primitive_long
 | |         mode          : PARAM_IN
 | |
 | |     exceptions
 | |       _maximum    : 0
 | |       _length     : 0
 | |       *_buffer    : 00000000
 |


odlistir -r IDL:ExModule/ExInterface/ExOperation:1.0

 |
 + CORBA_OperationDef
```

```
|    name         : ExOperation
|    id           : IDL:ExModule/ExInterface/ExOperation:1.0
|    defined_in   : IDL:ExModule/ExInterface:1.0
|    version      : 1.0
|    result       : CORBA_tk_long
|    mode         : OP_NORMAL
|
|    contexts
|      _maximum    : 0
|      _length     : 0
|      *_buffer    : 00000000
|
|    parameters
|      _maximum    : 1
|      _length     : 1
|      *_buffer    : 00d32e2c
|      CORBA_ParameterDescription DATA[1]
|        name          : ::ExModule::ExInterface::ExOperation::con1
|        type          : CORBA_tk_long
|        type_def      : Primitive_long
|        mode          : PARAM_IN
|
|    exceptions
|      _maximum    : 0
|      _length     : 0
|      *_buffer    : 00000000
```

Notes

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

18.15 odlistns

Name

odlistns

Displays what has been registered with the Naming Service.

Synopsis

```
odlistns [-R] [-l] [name] [-M system]
```

Description

This command displays the content of the object reference registered with the Naming Service by means of the *OD_or_adm* command. The parameters that can be specified are as follows:

-R

Display the root naming context or the specified naming context path recursively.

Once Naming Context is displayed recursively, "[R]" is added to the end of it. For details, refer to "Example" - "Displaying content registered in the naming service".

The Naming Context content is only displayed the first time. In subsequent executions "[R]" is displayed in its place.

-l

Display the details of the registered object reference.

name

If the desired naming context is other than the root naming context, specify in character array binding name format. Refer to information about Character Array Binding Names in the Distributed Application Development Guide (CORBA Service Edition). This is provided with Enterprise Edition product.

At the same time, the naming context of the Naming Service on the other hosts can be specified using the format of URL schema. (Refer to "URL Schema" in the Distributed Application Development Guide (CORBA Service Edition). This is provided with Enterprise Edition product.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Information on Object Reference

The object reference detail information context displayed using either no option or the -R option, and the meaning of each item displayed, are described below.

```
Name(Type)        IntfID
```

Display Item	Meaning
Name	Name registered in Naming Service
(Type)	Type registered in Naming Service This is displayed as follows: - c: Naming context - o: Object - l: Load balance object group
IntfID	Interface repository name

Detailed Information on Object Reference

The object reference detail information content displayed using the -l option, and the meaning of each item displayed, are described below.

```
Name(Type)        Object information(detail)
                  Default object information(detail)
```

Display Item		Meaning
Name		Name registered in Naming Service
(Type)		Type registered in Naming Service This is displayed as follows: - c: Naming context - o: Object - l: Load balance object group
When Type is "c"	Object information(detail)	Interface repository name, Implementation repository name, (Object host name:Object port number:Object version:), Context ID
	Default object information(detail)	This is not displayed
When Type is "o"	Object information(detail)	Interface repository name, Implementation repository name, (Object host name:Object port number:Object version:)

Display Item		Meaning
	Default object information(detail)	This is not displayed
When Type is "l"	Object information(detail)	Interface repository name, Implementation repository name, (Object host name:Object port number:Object version:)
	Default object information(detail)	Load balance object group name, Load balance object name, (Object host name:Object port number:Object version:)

Notes

- Use this command for naming services implemented by Interstage Application Server.

- On all platforms excluding 64 bit, if 257 or more load balance object groups are registered, it is not possible to back up/export all object groups.

Solaris32/64 Linux32/64

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Messages

The meanings of the messages displayed when this command is started are as follows:

SYSTEM Exception raised:IDL:CORBA/StExcep/COMMFAILURE:1.0

The CORBA Service is not yet started or the Naming Service is not yet registered in the initial service.

SYSTEM Exception raised:IDL:CORBA/StExcep/NO_IMPLEMENT:1.0

The Naming Service is not yet started or the specified binding name is not yet registered as a naming context.

SYSTEM Exception raised:IDL:CORBA/StExcep/UNKNOWN:1.0

There is an error in the specified binding name.

Exception raised:IDL:CosNaming/NamingContext/NotFound:1.0

The specified naming context is not yet registered.

Example

This section displays examples on the command use. This content corresponds to the registration of the naming context and object reference in the naming service using the *OD_or_adm* command.

Displaying content registered in the naming service

Windows32 Solaris32 Linux32

1. Using *OD_or_adm*, register the naming context and object reference in the naming service.

```
OD_or_adm -z NC001
OD_or_adm -c IDL:cnauto/intf:1.0 -n NC001/ior001
OD_or_adm -c IDL:cnauto/intf:1.0 -n cnauto::intf
OD_or_adm -c IDL:cnauto/intf:1.0 -L NONE -g lb -n lbg001
```

2. Using *odlistns*, display the context registered in step 1.

```
odlistns
[Display result]
Name(Type)      IntfID
NC001(c)        IDL:CosNaming/NamingContextExt:1.0
cnauto::intf(o) IDL:cnauto/intf:1.0
lbg001(l)       IDL:ISOD/LBG:1.0
```

```
odlistns NC001
[Display result]
Name(Type)      IntfID
ior001(o)       IDL:cnauto/intf:1.0
```

```
odlistns -l
[Display result]
Name(Type)      Object information(detail)
                Default object information(detail)
NC001(c)        IDL:CosNaming/NamingContextExt:1.0,
                IDL:CosNaming/NamingContext:1.0,
                (host1:8002:1.0:), context.918625395.0
cnauto::intf(o) IDL:cnauto/intf:1.0, IDL:cnauto/intf:1.0,
                (host1:8002:1.0:)
lbg001(l)       IDL:ISOD/LBG:1.0, FUJITSU-Interstage-NSLBO,
                (host1:8002:1.1:NONE)
                IDL:cnauto/intf:1.0, IDL:cnauto/intf:1.0,
                (host1:8002:1.0:)
```

```
odlistns -R
[Display result]
Name(Type)      IntfID
NC001(c)        IDL:CosNaming/NamingContextExt:1.0
NC001/ior001(o) IDL:cnauto/intf:1.0
cnauto::intf(o) IDL:cnauto/intf:1.0
lbg001(l)       IDL:ISOD/LBG:1.0
```

Windows64 Solaris64 Linux64

1. Using *OD_or_adm*, register the naming context and object reference in the naming service.

```
OD_or_adm -z NC001
OD_or_adm -c IDL:cnauto/intf:1.0 -n NC001/ior001
OD_or_adm -c IDL:cnauto/intf:1.0 -n cnauto::intf
```

2. Using *odlistns*, display the context registered in step 1.

```
odlistns
[Display result]
Name(Type)      IntfID
NC001(c)        IDL:CosNaming/NamingContextExt:1.0
cnauto::intf(o) IDL:cnauto/intf:1.0
```

```
odlistns NC001
[Display result]
Name(Type)      IntfID
ior001(o)       IDL:cnauto/intf:1.0
```

```
odlistns -l
[Display result]
Name(Type)      Object information(detail)
                Default object information(detail)
NC001(c)        IDL:CosNaming/NamingContextExt:1.0,
                IDL:CosNaming/NamingContext:1.0,
                (host1:8002:1.0:), context.918625395.0
cnauto::intf(o) IDL:cnauto/intf:1.0, IDL:cnauto/intf:1.0,
                 (host1:8002:1.0:)
```

```
odlistns -R
[Display result]
Name(Type)      IntfID
NC001(c)        IDL:CosNaming/NamingContextExt:1.0
```

```
NC001/ior001(o) IDL:cnauto/intf:1.0
cnauto::intf(o) IDL:cnauto/intf:1.0
```

Recursive display content registered in the naming service

1. Using *OD_or_adm*, register the naming context and object reference in the naming service.

```
OD_or_adm -z NamingContextA
OD_or_adm -z NamingContextA/NamingContextB
OD_or_adm -c xxx -n NamingContextA/NamingContextB/ObjectB
OD_or_adm -z NamingContextC -u NamingContextA/NamingContextB
```

The naming context and object reference should have the structure displayed below:
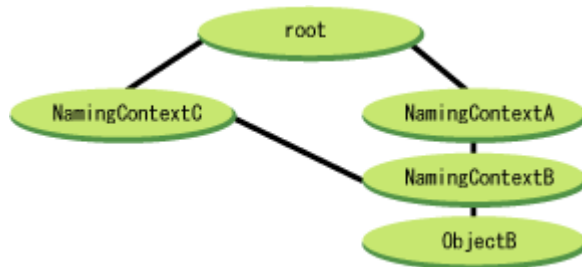
2. Using *odlistns*, display the context registered in step 1.

```
odlistns -R
[Display result]
Name(Type)      IntfID
NamginContextA(c)        IDL:CosNaming/NamingContext:1.0
NamingContextA/NamingContextB(c)        IDL:CosNaming/NamingContext:1.0
NamingContextA/NamingContextB/ObjectB(o)        xxx
NamingContextC(c)        IDL:CosNaming/NamingContext:1.0[R]
```

18.16 odlistque

Name

odlistque

| Windows32 | Solaris32 | Linux32 |

Displays the queuing policy status.

| Windows64 | Solaris64 | Linux64 |

Displays the server application.

Synopsis

```
odlistque [-a] [-M system]
```

Description

The *odlistque* command displays the request receipt status, request processing status, and information about queued requests, with respect to the registered server application and on all platforms excluding 64 bit the queuing policy registered by the odsetque command.

This command accepts the following options and parameters:

-a

> For a queued request, the IP address of the client that issued the request will also be displayed.

Specifies the operation target system name "system" when an extended system is generated. If this option is omitted, any operation using the default system becomes the target.

This option can be specified within Interstage Application Server Enterprise Edition.

Detailed Information

Each item in the information displayed by this command is explained below.

```
> odlistque -a
Queue Name          ImplementationRepositoryID          Queue  /Dispatch
Req/Max Client
OD_ORB_QUEUE        IDL:FJ/ImplementationRep:1.0        DISABLE/ENABLE   0
/16
```

Queue Name

The target queue name. The implementation repository ID will be displayed for any server application that has not been registered in the queue.

ImplementationRepositoryID

The implementation repository ID. If multiple server applications have been registered in the queue, the implementation repository ID is listed.

Queue

The request receipt status. "ENABLE" is displayed if the status is active or "DISABLE" is displayed if the status is inactive. For a server application, "DISABLE" is displayed if the application has not started. When multiple server applications have been registered in the queue, "DISABLE" is displayed if one or more applications have not started.

You can change the status using the -que option of the *odcntlque* command. For a server application that is used as a CORBA WorkUnit, you can change the status by using the isinhibitque or ispermitque commands.

Dispatch

The status of the request processing. "ENABLE" is displayed if the status is active or "DISABLE" is displayed if the status is inactive. For a server application, "ENABLE" is displayed if the application has not started.

You can change the status by using the -dsp option for the *odcntlque* command.

Req

The number of queued requests. This number does not include the requests that are being processed by the server application.

For a server application that is used as a CORBA WorkUnit, this value is equal to the "queue" value displayed by the *isinfobj* command.

Max

The maximum number of requests that can be queued. For a server application that is used as a CORBA WorkUnit, the value of "Maximum Queuing Message" defined in WorkUnit definition is displayed. If "Maximum Queuing Message" is not defined, this maximum value will not be displayed (0 is displayed instead).

Client

For each queued request, the IP address for the client that issued the request is displayed. IP addresses are listed in the order in which the requests were queued. This item is displayed only when the -a option is specified.

Example

```
> odlistque
Queue Name          ImplementationRepositoryID          Queue  /Dispatch
Req/Max
OD_ORB_QUEUE        IDL:FJ/ImplementationRep:1.0        DISABLE/ENABLE   0
/16
                    IDL:FJ/ImplementationDef:1.0
                    IDL:FJ/Repository:1.0
                    IDL:OM_ORB/admin:1.0
```

```
IDL:ODsample/stringtest:1.0 IDL:ODsample/stringtest:1.0        ENABLE
/ENABLE   0  /256


> odlistque -a
Queue Name        ImplementationRepositoryID        Queue  /Dispatch
Req/Max Client
OD_ORB_QUEUE      IDL:FJ/ImplementationRep:1.0       DISABLE/ENABLE   0
/16
                  IDL:FJ/ImplementationDef:1.0
                  IDL:FJ/Repository:1.0
                  IDL:OM_ORB/admin:1.0
IDL:ODsample/stringtest:1.0 IDL:ODsample/stringtest:1.0        ENABLE
/DISABLE   3  /256 10.34.157.107, 10.34.157.118, 10.34.157.107
```

Notes

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

18.17 odrmubncns

Name

odrmubncns

Displays and deletes unbinded naming context

Synopsis

```
odrmubncns -l | -d name [-M system]
```

Description

The drmubncns command displays and deletes unbinded (binding is deleted) naming context.

It displays unbinded naming context and deletes unnecessary naming contexts. For details on the operation procedure, refer to "Example".

The options and arguments of this command are as follows:

-l

Displays the list of context IDs of unbinded naming context (these IDs are managed in the naming service internally).

-d name

Deletes context IDs of unbinded naming context. For "name", specify the context ID of an existing unbinded naming context. Do not specify the context ID of a binded naming context.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, then operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Example

Delete unbinded naming context according to the following procedure.

1. Check whether there is unbinded naming context.

    On "hostA", use *odrmubncns* to display the context IDs of unbinded naming context.

    ```
    odrmubncns -l
    [Display result]
    ContextID
    ```

```
context.1225331896.1
context.1225332200.2
```

The command output shows that the naming context with the context IDs "context.1225331896.1" and "context.1225332200.2" are unbinded in "hostA".

2. Confirm the binded naming context.

   On "hostA", use *odlistns* to display object references registered under the root context.

```
odlistns -l -R
[Display result]
Name(Type)       Object information(detail)
                 Default object information(detail)
NC001(c)         IDL:CosNaming/NamingContextExt:1.0,
                 IDL:CosNaming/NamingContext:1.0,
                 (hostA:8002:1.0:), context.1225331880.0
```

The command output show that the "NC001" naming context with the context ID "context.1225331880.0" is binded in "hostA".

3. Check that naming context registered on "hostA" has not been binded as naming context for another host.

   On "hostB", use *odlistns* to display object references registered under the root context.

```
odlistns -l -R
[Display result]
Name(Type)       Object information(detail)
                 Default object information(detail)
NC00A(c)         IDL:CosNaming/NamingContextExt:1.0,
                 IDL:CosNaming/NamingContext:1.0,
                 (hostA:8002:1.0:), context.1225331896.1
```

The command output shows that the "NC00A" naming context with the context ID "context.1225331896.1" registered for the "hostA" host is binded as the "NC00A" naming context of "hostB".

4. From steps 1, 2 and 3, the following can be determined:

Naming Context	"hostA"	"hostB"	Result
Naming Context of Context ID "context.1225331896.1"	Unbinded	Binded	Cannot be deleted
Naming Context of Context ID "context.1225332200.2"	Unbinded	-	Can be deleted

The table above shows that naming context with the context ID "context.1225332200.2" is unnecessary.

5. Use odrmubncns to delete naming context with the context ID "context.1225332200.2".

```
odrmubncns -d context.1225332200.2
```

Notes

- When the command is executed, the naming service must already be running.

- The -l option might display the list of context IDs of the naming context binded in the local naming service if the *OD_set_env* command is issued with a *HostName* parameter different from the local host name.

  In this case, check whether the naming context is actually unbinded. For details on the method used to check binded naming context, refer to the "Example" section above, step "Confirm the binded naming context".

Messages

The following messages can be displayed at command execution:

Multiply XXX

  Option XXX has a dual definition.

nothing Name of [-d Name].

The -d option parameter was not specified.

If an error occurs when the command is executed, error message od30313 is output and the following message output to detail error information %s1 of [Variable Information].

SYSTEM Exception raised:IDL:CORBA/StExcep/BAD_OPERATION:1.0

The command cannot be executed in the naming service defined as the reference destination. It is supported in naming services of Interstage Application Server V9.2 or later.

If an error occurs when the command is executed, error message od30307 is output and the following message output to detail error information %s4 of [Variable Information].

SYSTEM Exception raised:IDL:CORBA/StExcep/COMM_FAILURE:1.0

The CORBA Service is not yet started. Alternatively, a communication error occurred.

SYSTEM Exception raised:IDL:CORBA/StExcep/NO_IMPLEMENT:1.0

The Naming Service is not yet started.

Exception raised:IDL:CosNaming/NamingContext/NotFound:1.0

The specified naming context is not registered.

Exception raised:IDL:CosNaming/NamingContext/CannotProceed:1.0

The specified naming context is not an unbinded naming context.

Solaris32/64 Linux32/64
SYSTEM Exception raised:IDL:CORBA/StExcep/UNKNOWN:1.0

The CORBA Service is not yet started.

18.18 odsethost

Name

odsethost

Adds, deletes, or displays the host information on a server on which the CORBA Service operates.

Synopsis

1. Adding host information

```
odsethost -a -h host -p port [-M system]
```

2. Deleting host information

```
odsethost -c [-M system]
odsethost -d -h host [-M system]
```

3. Displaying host information

```
odsethost -v [-M system]
```

Description

The *odsethost* command adds, deletes, or displays the host information on a server on which the CORBA Service operates. The specified data is set in the initial_hosts (inithost) file.

The options and arguments of this command are as follows:

-a

This command adds the host information on a server machine on which the CORBA Service operates. Up to 16 host information records can be registered.

-h host

Specifies the name of a host to be added or deleted.

-p port

Specifies the port number to be added.

-c

Deletes all the host information that is already set.

-d

Deletes the host information that is already set.

-v

Displays the host information that is already set.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- The setting sequence of the host information can be changed by using the -d and -a options or by directly editing the initial_hosts (inithost) file.

- An already registered host name cannot be added. The system does not check whether the host name matches the IP address.

- The added or changed host information is validated when the CORBA Service is started next.

- It must be possible to resolve (convert to an IP address) the host name set in the object reference registered in the initial service and the Naming Service on the server machine. To refer to information about the object reference that has been registered, execute the OD_or_adm command (-l option) and odlistns command (-l option) on the server machine.

Messages

The following messages can be displayed at command execution:

You are not super-user and cannot modify.

The host information cannot be added or deleted because you do not have the administrator authority. Execute this command again by using the administrator authority.

Failed to modify initial host file. (Error = error code)

Another application may be using the initial_hosts (or inithost) file. Stop the application that is accessing the initial_hosts (or inithost) file, and then execute this command again.

Invalid inithost file. (line = xxx) `Windows32/64`
Invalid initial_hosts file. (line = xxx) `Solaris32/64` `Linux32/64`

There are incorrect descriptions in the line number, "line" of the inithost file. Directly edit the inithost file.

host not exist: host name

The specified host name is not set in the host information. Check the set host information by using the -v option.

host already registered: host name

The specified host is already set in the host information. Delete the host, and then add it again.

Cannot open file: file name

A file open error occurred. Check that specified file exists.

16 sets of host names are already registered.

There are 16 host names already set in the host information: this is the maximum allowable number. Delete unnecessary host names, and then add the necessary new ones.

18.19 odsetque

Name

odsetque

Registers, deletes and displays the server application in/from the queuing policy.

Synopsis

Windows32   Solaris32   Linux32

1. Registering a server application in the queuing policy:

```
odsetque -a {-q|-w} groupname membername1 [membername2 ...] [-M system]
```

2. Deleting a server application from the queuing policy:

```
odsetque -d {-q|-w} groupname [-M system]
```

3. Displaying the server applications registered in the queuing policy:

```
odsetque  -l [-M system]
```

Description

This command registers, deletes or displays the implementation information of server applications for the queuing policy. Registered server applications process requests from clients according to the queuing policy.

Only the user who belongs to Administrators local group can execute this command. When using the queuing policy for the first time, copy the queue_policy.default from the queuing policy prototype file to create a queue_policy file. Save this file in the following directory:

Windows32

(Default installation path)

```
C:\Interstage\ODWIN\etc
```

Solaris32

(Default installation path)

```
/opt/FSUNod/etc
```

Linux32

```
/opt/FJSVod/etc
```

The options and arguments of this command are as follows:

-a

This parameter specifies that the command registers the server application corresponding to the specified Implementation Repository ID in the queuing policy.

-d

This parameter specifies that the command deletes the server application corresponding to the specified Implementation Repository ID from the queuing policy.

-l

This parameter specifies that the command displays a list of server applications registered in the queuing policy.

-q

This parameter specifies that queue operation is to be performed.

-w

This parameter specifies that a queue group operation is to be performed.

groupname

This parameter specifies a queue name or queue group name for registering or deleting server applications in/from the queuing policy. A character string of up to 255 characters can be specified.

membername

This parameter specifies an Implementation Repository ID or queue name to be registered in a queue group.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Registering Server Applications in the Queuing Policy

To register multiple server applications in the queuing policy, specify multiple Implementation Repository IDs as a queue. Existing queues can be managed as a queue group by using an alias.

Before registering a server application in the queuing policy, register the Implementation Repository ID for the server application using the *OD_impl_inst* command. The following example shows how to register Implementation Repository IDs in a queue group:

```
odsetque -a -q queue1 IDL:test1/intf1:1.0 IDL:test2/intf2:1.0
```

The following example shows how to manage multiple queues registered in the queuing policy as a queue group:

```
odsetque -a -w queue_group1 queue1 queue2 ...
```

Each server application registered in the queuing policy can be activated or deactivated by invoking the *odcntlque* command.

The information registered in the queuing policy becomes valid when the CORBA Service starts up.

Deleting Server Applications from the Queuing Policy

The following examples show how to delete server applications from the queuing policy. Specify a queue name or queue group name.

Register the Implementation Repository ID of the Naming Service or Interface Repository in the queuing policy.

Examples

```
odsetque -d -q queue1
odsetque -d -w queue_group1
```

Display list of the Queuing Policy

Displays a list of the server applications registered in the queuing policy.

```
odsetque -l
```

Displays "No QueueGroup entry" or "No Queue entry" if the entry is not registered.

The Maximum Limit of Receivable Requests

The maximum limit of the receivable requests for the entire system is defined in the config file.

```
Maximum limit = max_IIOP_resp_requests
(If less than 256, it is set to 256.)
```

If a different limit of receivable requests is to be set for each queue, define the limits in the [GUARANTY] section of the queuing policy file.

The following example sets the limit of a queue named queue1 to 64.

```
[GUARANTY]
    queue1 = 64
```

If the maximum limit of a queue is not defined, the maximum system limit will then be used.

Queuing Policy

This is the CORBA Service definition file for queue control actions.

The queuing policy defines dispatching requests to queues.

Notes

- The old command name *queset* remains for the purpose of compatibility with earlier versions, but use of *odsetque* is recommended.

- The following environment variable must be set (unless already set) when *odsetque* is executed:

```
OD_HOME:   CORBA service install directory
```

- The CORBA Service must be restarted for the information registered in a queuing policy to take effect.

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Messages

The following messages can be displayed at command execution:

groupname already exists

The groupname already exists.

groupname not found

The groupname could not be found.

groupname is invalid

The groupname is invalid.

groupname is too long

The groupname is too long.

membername already registered

The membername is already registered.

ImplementationRepositoryID not found

The Implementation Repository ID could not be found.

OD_HOME is not set

The environment variable "OD_HOME" is not set.

cannot open queue_policy file

The queue_policy file cannot be opened.

cannot create queue_policy file

The queue_policy file cannot be created.

writing queue_policy file failed

Failed to write to the queue_policy file.

renaming queue_policy file failed

Failed to rename the queue_policy file.

cannot open impl.db file

The impl.db file could not be opened.

Chapter 19 WorkUnit Management Commands

This chapter details the WorkUnit Management commands.

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
isaddwudef	Adds a WorkUnit definition.	OK	OK
iscancelque	Cancels requests in the queue.	No	OK
isdelwudef	Deletes a WorkUnit definition.	OK	OK
islistwu	Displays a list of WorkUnits.	OK	OK
isstartwu	Starts WorkUnits.	OK	OK
isstopwu	Stops WorkUnits.	OK	OK
islistwudef	Displays a list of WorkUnit names of defined WorkUnits.	OK	OK
isinfwudef	Displays the contents of WorkUnit definitions for registered WorkUnits.	OK	OK
isresetretrycount `Solaris32/64` `Linux32/64`	Resets the retry count of abnormal termination that is already counted.	No	OK
isinfobj	Displays details of an object.	OK	OK
islistobj	Displays a list of objects.	OK	OK
islistaplproc	Displays process information about an application operated with a WorkUnit.	OK	OK
isinhibitque	The blockade of queue.	OK	OK
ispermitque	Blockade release of queue.	OK	OK
ismodifyprocnum	Changes the process concurrency of a WorkUnit	No	OK
isrecoverwu	Restores a WorkUnit whose operation is degenerated.	OK	OK
tdformsnap `Windows32` `Solaris32` `Linux32`	Edits and outputs TD snapshots.	No	OK
tdfreesnap `Windows32` `Solaris32` `Linux32`	Deletes TD snapshots.	No	OK
tdlistwusnap `Windows32` `Solaris32` `Linux32`	Lists the names of WorkUnits that acquired TD snapshots.	No	OK
tdmodifywu `Windows32` `Solaris32` `Linux32`	Performs WorkUnit activation change.	No	OK
tdmodifyprocnum `Windows32`	The multilevel of transaction application process of the server application is changed.	No	OK

Command	Outline	Standard-J Edition	Enterprise Edition
Solaris32 Linux32	Modifies multilevel of process concurrency of server application.		
tdstartsnap Windows32 Solaris32 Linux32	Starts acquiring TD snapshots.	No	OK
tdstopsnap Windows32 Solaris32 Linux32	Terminates TD snapshot acquisition.	No	OK

OK: Support

NO: No support

Up to 97 WorkUnit, management commands can be executed at the same time.

When 98 or more WorkUnit management commands are executed at the same time, the system displays the message EXTP0695, and fails to execute the commands.

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Directory
Windows32/64	C:\Interstage\bin
Solaris32/64	/opt/FSUNtd/bin
Linux32/64	/opt/FJSVtd/bin

19.1 isaddwudef

Name

isaddwudef

Adds a WorkUnit definition.

Synopsis

```
isaddwudef [-M system-name] [-o] work-unit-definition-file-name
```

Description

This command registers a WorkUnit definition.

The option and argument for this command are as follows:

-M system-name Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

-o

Overwrites a WorkUnit definition with the same name when registered. Registers a new WorkUnit definition if no WorkUnit definition has been registered.

If this option is omitted, the WorkUnit definition is only registered if no other WorkUnit definition with the same name is registered.

work-unit-definition-file-name

> Specify the file name of a text file containing the WorkUnit definition. If the file name contains blanks, enclose the file name in single or double quotation marks.

Note

Incomplete definitions will not be registered.

Examples

Register through file 'create-def.wu' that contains the WorkUnit definitions:

```
isaddwudef create-def.wu
```

Register by overwriting file 'create-def.wu' that contains the WorkUnit definitions:

```
isaddwudef -o create-def.wu
```

19.2 iscancelque

Name

iscancelque

Cancels requests in the queue.

Synopsis

```
iscancelque [-M system-name]  wuname quename
```

Description

This command cancels requests that have accumulated in the queue for applications that are running.

This command is only enabled for CORBA WorkUnits.

The options for this command are as follows:

-M system-name Solaris32

> Specify the name of the target system.

> If this option is omitted, the default system is assumed to have been specified.

wuname

> Specify the name of the WorkUnit containing the queue to be canceled.

quename

> Specifies the name of the queue to be canceled. Specify the implementation repository ID for the CORBA application.

Note

This command can be used only in the Enterprise Edition.

Only the user who started the WorkUnit and the super user can cancel requests that have accumulated in the queue.

Examples

Canceling requests that have accumulated in the "IDL:ODsample/intf:1.0" queue of the "ODSAMPLE" WorkUnit:

```
iscancelque ODSAMPLE IDL:ODsample/intf:1.0
```

19.3 isdelwudef

Name

isdelwudef

Deletes a WorkUnit definition.

Synopsis

```
isdelwudef [-M system-name] work-unit-name
```

Description

This command deletes a WorkUnit definition.

The argument for this command is as follows:

-M system-name Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

work-unit-name

Specify each WorkUnit name. Multiple WorkUnit names separated by spaces can be specified.

Wild cards can also be used by specifying asterisks in the WorkUnit name. If using a wild card, enclose the WorkUnit name in single or double quotation marks.

Note

This command cannot be used if automatic startup has been set for the WorkUnit. In the Interstage Management Console, click the [System] > [WorkUnit] > [WorkUnit Name] > [Settings] tab, and then click [WorkUnit Settings [Show]]. Ensure that [Auto Start], is set to "Manual Start", and then use this command.

Examples

Delete WorkUnit definitions for WorkUnits beginning with 'TDSAMPLE':

```
isdelwudef "TDSAMPLE*"
```

Delete WorkUnit definitions for WorkUnits 'TDSAMPLE1' and 'TDSAMPLE2':

```
isdelwudef TDSAMPLE1 TDSAMPLE2
```

19.4 islistwu

Name

islistwu

Displays a list of WorkUnits.

Synopsis

```
islistwu [-a] [-e] [-M system-name]
```

Description

This command displays the operating status of all operating WorkUnits. The following information is displayed:

- WorkUnit name

- WorkUnit type. The following types are listed:

  For Standard-J Edition, only the EJB WorkUnit is displayed.

  Windows32/64

  - CORBA: CORBA WorkUnit

  - TD: Transaction application WorkUnit

  - WRAPPER: Wrapper WorkUnit

  - EJB: EJB WorkUnit

  Solaris32/64

  - CORBA: CORBA WorkUnit

  - TD: Transaction application WorkUnit

  - WRAPPER: Wrapper WorkUnit

  - EJB: EJB WorkUnit

  - UTY: WorkUnit with a load module specified

  Linux32/64

  - CORBA: CORBA WorkUnit

  - TD: Transaction application WorkUnit

  - EJB: EJB WorkUnit

  - UTY: WorkUnit with a load module specified

- Operating status. The following operating statuses are listed:

  - startproc: Starting

  - execute: Started

  - stopproc: Stopping

  - stop: Stopped

  - degenerate: The state of degenerated operation

The following options can be specified:

-a

  Also displays WorkUnits whose definitions have been registered but that have not been started.

-e

  Displays the state of the WorkUnit for which degenerated operation is being performed.

-M system-name Solaris32

  Specify the target system name.

Note

Solaris32/64 Linux32/64

The login user name of the user who executes this command must be 8 bytes or less.

Example

```
islistwu -a
wuname          kind          status
CORBAWU         CORBA         startproc
TDWU            TD            startproc
```

```
EJBWU             EJB           execute
WRAPPERWU         WRAPPER       stop

islistwu -e
  wuname          kind          status
IJServer          IJServer      degenerate
CORBAWU           CORBA         startproc
TDWU              TD            execute
EJBWU             EJB           stopproc
WRAPPERWU         WRAPPER       stop
UTILITYWU         UTY           stop
```

19.5 isstartwu

Name

isstartwu

Starts WorkUnits.

Synopsis

```
isstartwu [-M system-name] wuname
```

Description

This command starts WorkUnits.

The argument of this command is as follows:

-M system-name Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

wuname

Specify the name of the WorkUnit to be started.

When starting an EJB container, specify the EJB container name.

Notes

- The *isstartwu* command will not respond if there is insufficient memory.

Windows32/64

- The *isstartwu* command can only be used to start WorkUnits by users with authority to start the Component Transaction Service. For that reason, users with authority to start the Component Transaction Service must have the following authorities for resources accessed by applications in WorkUnits:

  - Permission to read and write disk partitions in application systems

  - Access authority to use folders and files that specify WorkUnit definitions

  - Authority to use resources used by applications in WorkUnits.

Solaris32/64 Linux32/64

- The WorkUnit started with the *isstartwu* command operates under the authority of the user who entered the command. Therefore, that user must have the following authority over the resources accessed by applications in the WorkUnit:

  - Permission to read and write disk partitions in application systems

  - Authority over the file system required to use the directory and file specified in the WorkUnit definition.

- Authority to use resources used by applications in WorkUnits.

- The login user name of the user who executes this command must be 8 bytes or less.

Example

```
isstartwu ISWU
```

19.6 isstopwu

Name

isstopwu

Stops WorkUnits.

Synopsis

```
isstopwu [-M system-name] [-s|-c] [-t stop-monitoring-time] wuname
```

Description

This command stops WorkUnits. There are two ways of stopping WorkUnits:

- Normal stop

- Synchronous stop

- Forced stop

With normal stop, the WorkUnit stops when no applications defined in the WorkUnit are performing processing. The WorkUnit cannot be stopped while a WorkUnit is processing a task. In such cases, wait until the application has finished processing, and then reenter the command. It is effective for a WorkUnit of a transaction application, a Wrapper WorkUnit, a CORBA WorkUnit and an EJB WorkUnit. For Standard-J Edition, only the EJB WorkUnit is available.

A synchronous stop stops a WorkUnit, after performing any demand which is under processing at the time of command execution. A demand which is in a waiting state is rejected. It is effective for a CORBA WorkUnit and an EJB WorkUnit. For Standard-J Edition, only the EJB WorkUnit is available.

With forced stop, the WorkUnit is stopped even if an application is currently performing processing.

A demand which is in a waiting state is rejected. A compulsive stop can also be performed during processing of a synchronous stop. It is effective for the WorkUnit of transaction application, a wrapper WorkUnit, a utility WorkUnit, a CORBA WorkUnit, and an EJB WorkUnit. For Standard-J Edition, only the EJB WorkUnit is available.

The option and argument of this command are as follows. When the stop mode option is not specified, it is stopped normally.

-M system-name Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

-s

Specifies synchronous stop.

-c

Specifies forced stop.

-t stop-monitoring-time

Specify the stop monitoring time in seconds. The specifiable range is from 300 to 3600 seconds. If this option is omitted, 300 is set as the stop monitoring time. If a WorkUnit does not stop even after the stop monitoring time period elapses, it is considered that an error occurred, and diagnostic information is automatically collected.

wuname

Specify the name of the WorkUnit to be stopped.

When stopping an EJB container, specify the EJB container name.

Notes

- If a WorkUnit is stopped while a transaction application snapshot is being collected, collection of the snapshot is halted automatically. There is no need to use the *tdstopsnap* command to halt collection of the snapshot.

Windows32/64

- When the server application is stopped forcibly while processing is under way, the pop-up dialog of application error may be output. If this dialog is output, terminate the pop-up dialog. When the pop-up dialog is terminated, the stopping process is continued.

Solaris32/64 Linux32/64

- Only the user who started the WorkUnit and the super user can stop the WorkUnit.

- While debugging an application, the WorkUnit started by the *tdstartwu* command using the -d option, cannot be stopped with the -c option.

Example

```
isstopwu TDSAMPLE1
```

19.7 islistwudef

Name

islistwudef

Displays a list of WorkUnit names of defined WorkUnits.

Synopsis

```
islistwudef [-M system-name]
```

Description

This command outputs to standard output a list of names of WorkUnits whose definitions have already been defined.

The option and argument of this command are as follows:

-M system-name Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

Example

```
islistwudef
    TDSAMPLE1
    TDSAMPLE2
```

19.8 isinfwudef

Name

isinfwudef

Displays the contents of WorkUnit definitions for registered WorkUnits.

```
isinfwudef [-M system-name] wuname
```

Description

This command outputs to standard output the contents of WorkUnit definitions in the format in which they were registered for WorkUnits that have been registered.

The argument of this command is as follows:

-M system-name Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

wuname

Specify the name of the WorkUnit to be displayed.

Example

```
isinfwudef TDSAMPLE1
[WORK UNIT]
Name:TDSAMPLE1
Kind:ORB

[APM]
Name:TDNORM

[Control Option]
Path:C:\INTERSTAGE\td\sample\C_SERVER
Current Directory:C:\tmp

[Application Program]
Destination:TDSAMPLE1/INTF
Executable File:libtdsample1.dll
Application Language:C
```

19.9 isresetretrycount

Name

isresetretrycount

Resets the retry count of abnormal termination that is already counted.

Synopsis

Solaris32/64 Linux32/64

```
isresetretrycount [-M systemname] wuname Executablefile
```

Description

This command resets the retry count of abnormal termination that is already counted.

The argument of this command is as follows:

-M system-name Solaris32

Specify the target system name.

If this option is omitted, the default system is assumed to be specified.

wuname

Specify the name of the WorkUnit whose retry count should be reset.

Executablefile

Specify the executable file name that resets the retry count.

Example

```
isresetretrycount -M system1 sample_wu sample
```

19.10 isinfobj

Name

isinfobj

Displays details of an object.

Synopsis

```
isinfobj [-M system-name] [-a] [-e] [wuname] objname
```

Description

This command displays detailed information for operating objects, the EJB application, or the implementation repository of CORBA application. For Standard-J Edition, only an EJB application is displayed.

The information displayed varies depending on the type of object, application or implementation repository.

The following information is output:

Windows32/64   Solaris32/64

Transaction applications or wrapper applications

- Object name

- Object type

 The following object types are displayed:

  - TD: Transaction application object

  - WRAPPER: Wrapper application object

- Object status

 The following object statuses are displayed:

  - active: Operating

  - inhibit: Closed

- Application process multiplicity for object

- Number of client requests queued for object

- Cumulative number of queues for object (*1)

- WorkUnit name defining object.

Linux32/64

Transaction applications

- Object name

- Object type

  The following object types are displayed:

  - TD: Transaction application object

- Object status

  The following object statuses are displayed:

  - active: Operating

  - inhibit: Closed

- Application process multiplicity for object

- Number of client requests queued for object

- Cumulative number of queues for object (*1)

- WorkUnit name defining object

*1 This becomes the number of accumulation of demands from the client to an object.

Windows32/64 Solaris32/64 Linux32/64

EJB applications

- Application name

- Application type

  The following application type is displayed:

  - EJB: EJB application

- Application form

  The following application forms are displayed:

  - stateless: STATELESS session

  - stateful: STATEFUL session

  - BMP-Entity: Bean-managed persistence Entity Bean

  - CMP-Entity: Container-managed persistence Entity Bean

  - Message Driven Ben: Message-Driven Bean

  - EJB Container: Light EJB Container

- Application status

  The following is displayed when application is applying.

  - active: Operating

  - inhibit: Closed

- Application process multiplicity

- Number of client requests queued for object

  0 is displayed for the Message Driven Bean.

- Cumulative number of queues for application (*1)

  *1 This becomes the number of accumulation of demands from the client to application.

- Number of instances for application

  The following information is displayed for every form of application.

  - stateless: The number of initial starting instances set up by the execution environmental definition of the EJB application of a customize tool is displayed.

- stateful: 0 is displayed.

- BMP-Entity: The number of instances set up by the high-speed call definition of a customize tool is displayed.

- CMP-Entity: The number of instances set up by the high-speed call definition of a customize tool is displayed.

- Message Driven Bean: The number of instances set up by the customization tool is displayed.

  1 is set except when NotSupported is specified as a transaction attribute.

- EJB Container: Indicates 0.

- WorkUnit name defining object

Implementation repository corresponding to CORBA applications

- Implementation repository ID

- Application type

  The following application type is displayed:

  - CORBA: Implementation repository corresponding to CORBA applications

- Implementation repository status

  There are the following states as a state of an object.

  - active: The state under employment

  - inhibit: The state under blockade

  - degenerate: The state of degenerated operation

- The object name set up in implementation repository

- The degree of process multiplex of the application corresponding to implementation repository

- The number of demands from the client which is piling up in implementation repository

- The accumulation processing number of cases in implementation repository

- The number of threads which is operating by implementation repository

- The WorkUnit name by which implementation repository is defined

The argument for this command is as follows:

-M system-name Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

-a

When implementation repository ID is specified to be objname, the interface list in implementation repository ID and a state are displayed.

-e

Displays the state of the WorkUnit for which degenerated operation is being performed.

wuname

The name of the WorkUnit in which objname which displays detailed information is contained is specified. When displaying the information on implementation repository of a CORBA WorkUnit, specification of this parameter is indispensable.

objname

Specify the name of the object or application for which detailed information is to be displayed.

Notes

- If an EJB application has terminated abnormally, the number of queues at the application is deleted.

- Do not execute this command when the *isstopwu* or *tdstopwu* command is running.

Solaris32/64 Linux32/64

- The login user name of the user who executes this command must be 8 bytes or less.

Examples

Windows32/64 Solaris32/64

Transaction application or wrapper application

```
isinfobj TDSAMPLE1/INTF
     objectname      :TDSAMPLE1/INTF
     kind            :TD
     status          :active
     procnum         :1
     queue           :10
     accumulation    :10
     wuname          :TDSAMPLE1
```

Linux32/64

Transaction application

```
isinfobj TDSAMPLE1/INTF
     objectname      :TDSAMPLE1/INTF
     kind            :TD
     status          :active
     procnum         :1
     queue           :10
     accumulation    :10
     wuname          :TDSAMPLE1
```

Windows32/64 Solaris32/64 Linux32/64

EJB application

```
isinfobj EJBAPL
     applicationname    :EJBAPL
     kind               :EJB
     type               :stateless
     status             :active
     procnum            :10
     queue              :10
     accumulation       :85
     instance           :2
     wuname             :EJBWU
```

Implementation repository corresponding to CORBA applications

```
isinfobj corbawu IDL:FJ/ImplementationRep:1.0
     implID          : IDL:FJ/ImplementationRep:1.0
     kind            : CORBA
     status          : active
     procnum         : 1
     queue           : 10
     accumulation    : 10
     thread          : 3
     wuname          : TDSAMPLE1

isinfobj -a corbawu IDL:FJ/ImplementationRep:1.0
     implID          : IDL:FJ/ImplementationRep:1.0
     kind            : CORBA
     status          : active
```

```
     procnum          : 1
     queue            : 10
     accumulation     : 10
     thread           : 3
     wuname           : TDSAMPLE1
  -----------
     object           : IDL:test1/intf1
     status           : active
  -----------
     object           : IDL:test2/intf2
     status           : inhibit

isinfobj -e corbawu IDL:FJ/ImplementationRep:1.0
     implID           : IDL:FJ/ImplementationRep:1.0
     kind             : CORBA
     status           : degenerate
     procnum          : 1
     queue            : 10
     accumulation     : 10
     thread           : 3
     wuname           : corbawu
```

19.11 islistobj

Name

islistobj

Displays a list of objects.

Synopsis

```
islistobj [-e] [-M system-name]
```

Description

This command displays the operating status of all the active objects, the EJB application or implementation repository. The following details are displayed (for Standard-J Edition, only an EJB application is displayed).

- Object name, EJB application name, or implementation repository ID corresponding to the CORBA application which is operating by the WorkUnit subordinate.

- Type

  Shown below are the types of objects, an EJB application, or implantation repository ID:

  - CORBA: Implementation repository ID corresponding to CORBA application

  - EJB: EJB application

  - TD: Transaction application object

  - WRAPPER: Wrapper application object

- Operation status

  The following operation statuses are displayed:

  - active: Operating

  - inhibit: Closed

  - degenerate: The state of degenerated operation

- WorkUnit name for which an object, EJB application or implementation repository ID is defined.

The argument for this command is as follows:

-e

Displays the state of the WorkUnit for which degenerated operation is being performed.

Solaris32

-M system-name

Specify the name of the target system.

- If this option is omitted, the default system is assumed to be specified.

Note

Solaris32/64 Linux32/64

- The login user name of the user who executes this command must be 8 bytes or less.

Example

Windows32/64 Solaris32/64

```
islistobj
    objectname/applicationname    kind      status     wuname
    IDL:FJ/ImplementationRep:1.0   CORBA    active     CORBAWU
    TDAPL/INTF                     TD       inhibit    TDWU
    WRAPAPL/INTF                   WRAPPER  active     WRAPPERWU
    EJBAPL                         EJB      active     EJBWU

islistobj -e
  objectname/applicationname      kind          status     wuname
  IJServer001                     IJServer/1VM  degenerate IJServer001
  IDL:FJ/ImplementationRep:1.0    CORBA         degenerate CORBAWU
  TDAPL/INTF                      TD            inhibit    TDWU
  WRAPAPL/INTF                    WRAPPER       active     WRAPPERWU
  EJBAPL                          EJB           active     EJBWU
```

Linux32/64

```
islistobj
    objectname/applicationname    kind      status     wuname
    IDL:FJ/ImplementationRep:1.0   CORBA    active     CORBAWU
    TDAPL/INTF                     TD       inhibit    TDWU
    EJBAPL                         EJB      active     EJBWU

islistobj -e
  objectname/applicationname      kind          status     wuname
  IJServer001                     IJServer/1VM  degenerate IJServer001
  IDL:FJ/ImplementationRep:1.0    CORBA         degenerate CORBAWU
  TDAPL/INTF                      TD            inhibit    TDWU
  EJBAPL                          EJB           active     EJBWU
```

19.12 islistaplproc

Name

islistaplproc

Displays process information about an application operated with a WorkUnit.

Synopsis

```
islistaplproc [-M system-name] [wuname]
```

Description

The *islistaplproc* command displays all process information for all the operating WorkUnits. The following contents appear as display information. For Standard-J Edition, only EJB is displayed.

- Process ID

- WorkUnit name

- WorkUnit type. The WorkUnit types are shown below:

    - CORBA: CORBA WorkUnit

    - EJB: EJB WorkUnit

    - TD: Transaction application WorkUnit

    `Solaris32/64` `Linux32/64`

    - UTY: Utility WorkUnit

- Application name. The following information is displayed for each WorkUnit type:

    - CORBA: Implementation repository ID

    - EJB: EJB application name

    - TD: Object name.

    `Solaris32/64` `Linux32/64`

    - UTY: Application execution file name

The argument of this command is as follows:

-M system-name `Solaris32`

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

wuname

Specify the name of a WorkUnit for which process information is to be displayed. When this option is specified, the system only displays the information about a process that is operating for the specified WorkUnit subordinate.

Notes

`Solaris32/64` `Linux32/64`

- The login user name of the user who executes this command must be 8 bytes or less.

Example

```
Islistaplproc
  PID       wuname                   kind       objectname/applicationname
  1001      TDSAMPLE1                TD         TDSAMPLE1/INTF
  1002      TDSAMPLE2                TD         TDSAMPLE2/INTF
  1003      TDSAMPLE2                TD         TDSAMPLE2/INTF
  2001      EJBWU1                   EJB        EJBAPL
  3001      SAMPLEWU                 CORBA      IDL:test1/intf1:1.0
  4001      UTYWU1                   UTY        utyapl1.exe
```

19.13 isinhibitque

Name

isinhibitque

The blockade of queue.

Synopsis

```
isinhibitque [-M system-name] wuname quename1 [quename2]
```

Description

The *isinhibitque* command blockades the queue of the demand to the application under employment.

The argument of this command is as follows:

-M system-name Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

wuname

The WorkUnit name in which the queue which blockades is contained is specified.

quename1

The name of the queue which blockades is specified. As a queue name, the following is specified by classification of application.

- CORBA: Implementation repository ID corresponding to CORBA application

- EJB: EJB application name

- TD: object name

quename2

The name of the queue which blockades is specified. The following is specified by application classification specified by quename1. This option is omissible.

- CORBA: The interface in implementation repository ID specified by quename1

Notes

- This command can be used only in the Enterprise Edition.

- This command is effective for CORBA applications, EJB applications, and transaction applications.

- The process bind function of a transaction application is used, and it does not become effective for the processing in progress.

  Solaris32/64 Linux32/64

- Only the user who started the WorkUnit can blockade an object.

Example

```
isinhibitque TDSAMPLE1 TDSAMPLE1/INTF
```

19.14 ispermitque

Name

ispermitque

Blockade release of queue.

Synopsis

```
ispermitque [-M system-name] wuname quename1 [quename2]
```

Description

The *ispermitque* command carries out blockade release of the queue of the demand to the application under employment.

The argument of this command is as follows:

-M system-name Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

wuname

The WorkUnit name in which the queue which performs blockade release is contained is specified.

quename1

The name of the queue which performs blockade release is specified. As a queue name, the following is specified by classification of application.

- CORBA: Implementation repository ID corresponding to CORBA application

- EJB: EJB application name

- TD: object name.

quename2

The name of the queue which performs blockade release is specified. The following is specified by application classification specified by quename1. This option is omissible.

- CORBA: The interface in implementation repository ID specified by quename1

Notes

- This command can be used only in the Enterprise Edition.

- This command is effective to CORBA application, EJB application, and transaction application.

Solaris32/64 Linux32/64

- Only the user who started the WorkUnit can blockade an object.

Example

```
ispermitque TDSAMPLE1 TDSAMPLE1/INTF
```

19.15 ismodifyprocnum

Name

ismodifyprocnum

Changes the process concurrency of a WorkUnit

Synopsis

```
ismodifyprocnum  [-M system-name] [-r] wuname  aplname  [procnum]
```

Description

The *ismodifyprocnum* command changes the process concurrency of a WorkUnit.

The WorkUnit types whose process concurrency can be changed are as follows:

- CORBA WorkUnit

- Transaction application WorkUnit Windows32 Solaris32 Linux32

The following explains the arguments of the *ismodifyprocnum* command:

-M system-name `Solaris32`

> Specify the name of the target system.
>
> If this option is omitted, the default system is assumed to be specified.

-r

> Specify this option to restore the number of processes to the value defined by the WorkUnit definition. In this case, the number of processes (procnum) cannot be specified.

wuname

> Specify the name of the WorkUnit to which the server application being changed belongs.

aplname

> Specify the following application names for the server application to be changed:
>
> - For CORBA WorkUnit: Implementation Repository (IDImpl ID)
>
> - For Transaction application WorkUnits: Object name (Destination)
>
> For details on WorkUnit definition, refer to the "WorkUnit Definition" appendix of the OLTP Server User's Guide.

procnum

> Specify the number of server applications after the change. A value from 1 to 255 can be specified (a value outside this range is rejected).
>
> When specifying the -r option, omit this argument. Even if specified, this argument is ignored.

Notes

- This command can only be used in the Enterprise Edition.

- The registered contents of a WorkUnit definition cannot be changed with this function.

- For WorkUnits of transaction applications, this command cannot be used for an object that uses the process binding function.

- For WorkUnits of transaction applications, this command cannot be used during execution of the activation change command (*tdmodifywu*).

- If the HA function has been used, modifications made using this command will not be reflected in the standby system.

- If the process concurrency is repeatedly increased and decreased using this command, a directory with the process ID name will remain. This directory is located under a directory with the WorkUnit name in the current directory defined in the WorkUnit definition and can use disk space resources unnecessarily. When deleting directories, use the *ps* command to check the process IDs of the applications currently running and delete the directories of processes that are not currently running.

- For WorkUnits of transaction applications, if this command is used for a non-resident or multi-object resident type object, the process concurrency of objects operating as non-resident types or multi-object resident types will be changed.

- Only the user who started the WorkUnit and the super user can change its process concurrency.

- The process concurrency of applications that use the session continuation function cannot be decreased.

Example

Changing the process concurrency

```
ismodifyprocnum WU001 IDL:test1/intf1:1.0  3
```

Restoring to the WorkUnit definition value

```
ismodifyprocnum -r WU001 IDL:test1/intf1:1.0
```

19.16 isrecoverwu

Name

isrecoverwu

Restores a WorkUnit whose operation is degenerated.

Synopsis

```
isrecoverwu [-M system-name] wuname
```

Description

The *isrecoverwu* command performs restoration processing for WorkUnits whose operation is degenerated.

The following explains the arguments of the *isrecoverwu* command:

-M system-name Solaris32

    Specify the name of the target system.

    If this option is omitted, the default system is assumed to be specified.

wuname

    Specify the WorkUnit to be restored.

    When starting IJServer, specify the IJServer name.

Notes

Solaris32/64 Linux32/64

  - Only the user who started the WorkUnit and the super user can restore the WorkUnit.

Example

```
isrecoverwu WU001
```

19.17 tdformsnap

Name

tdformsnap

Edits and outputs TD snapshots.

Synopsis

Windows32 Solaris32 Linux32

```
tdformsnap  [-M system-name] wuname
```

Description

This command outputs TD snapshots.

The argument of this command is as follows:

-M system-name Solaris32

    Specify the name of the target system.

    If this option is omitted, the default system is assumed to be specified.

wuname

    Specifies the name of the WorkUnit defining the application for which a snapshot is to be output.

- Snapshots are output in units of WorkUnits. Therefore, the snapshots of other applications defined in the same WorkUnit are also output.

- To issue this command, the following conditions must be satisfied:

    - The transaction system must be started.

    - The applicable WorkUnit must not acquire a snapshot.

- The *tdformsnap* command is effective only for the Component Transaction Service.

Example

```
tdformsnap TDSAMPLE1
```

19.18 tdfreesnap

Name

tdfreesnap

Deletes TD snapshots.

Synopsis

Windows32   Solaris32   Linux32

```
tdfreesnap [-M system-name] wuname
```

Description

This command deletes the Component Transaction Service snapshot acquired in shared memory using the *tdstartsnap* command.

The argument of this command is as follows:

-M system-name   Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

wuname

Specifies the name of the WorkUnit defining the application for which a snapshot is to be deleted.

Notes

- Snapshots are deleted in units of WorkUnits. Therefore, the snapshots of other applications defined in the same WorkUnit are also deleted.

- To issue this command, the following conditions must be satisfied:

    - The transaction system must be started.

    - The applicable WorkUnit must not acquire a snapshot.

    - The snapshot of the applicable WorkUnit must be acquired in shared memory.

- The *tdfreesnap* command is effective only for the Component Transaction Service.

Example

```
tdfreesnap TDSAMPLE1
```

19.19 tdlistwusnap

Name

tdlistwusnap

Lists the names of WorkUnits that acquired TD snapshots.

Synopsis

Windows32　Solaris32　Linux32

```
tdlistwusnap [-M system-name]
```

Description

This command lists the names and operational status of WorkUnits that acquired Component Transaction Service snapshots using the *tdstartsnap* command.

The following operational statuses are available:

- getting: Snapshot acquisition start status

- non getting: Snapshot acquisition end status

The argument of this command is as follows:

-M system-name　Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

Note

The *tdlistwusnap* command is effective only for the Component Transaction Service.

Example

```
tdlistwusnap

   block number    wuname      status
   1               TDSAMPLE1   non getting
   2               TDSAMPLE2   getting
```

19.20 tdmodifywu

Name

tdmodifywu

Performs WorkUnit activation change.

Synopsis

Windows32　Solaris32　Linux32

```
tdmodifywu  [-M system-name] wuname
```

Description

This command modifies the Component Transaction Service WorkUnit definition and registers it in the TransactionDirector environment. Definition change does not stop the TD system, but allows modification of the WorkUnit definition, and starts and operates the WorkUnit according to the modified definition of the WorkUnit.

Activation change can be used in the following cases:

  - When modifying the server application

  - When changing server application environment variables

The argument of this command is as follows:

-M system-name Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

wuname

Specify the WorkUnit name where the activation change is to be performed.

Notes

  - This command can be used only in the Enterprise Edition.

  - A conflict can occur in the application if operating parameters are changed, in which case, do not perform the activation change.

  - Backup the WorkUnit definition file before the activation change.

  - If the activation change fails due to an incorrect definition, the WorkUnit returns to its original status.

  - If a system uses the HA function (high reliability function) and this command is used to make a change at the operating node, the change is not reflected at the standby node. This command cannot be used at the standby node.

  - This command cannot be used to the WorkUnit which uses a process bind function.

  - This command can be started only in a WorkUnit whose WorkUnit type is "ORB".

Solaris32 Linux32

  - Only the user who started the WorkUnit can use the *tdmodifywu* command.

19.21 tdmodifyprocnum

Name

tdmodifyprocnum

The multilevel of transaction application process of the server application is changed.

Modifies multilevel of process concurrency of server application.

Synopsis

Windows32 Solaris32 Linux32

```
tdmodifyprocnum  [-M system-name] wuname  objname  procnum
```

Description

This command modifies the multilevel concurrency of the server application for transaction applications.

The arguments of this command are as follows:

-M system-name Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

wuname

Specifies the name of the WorkUnit to which the server application to be modified belongs.

objname

Specifies the name of the object corresponding to the server application to be modified.

procnum

Specifies the number of processes for the server application after modification. A number between 1 and 255 can be set (a number outside this range will be checked out on the command side).

Notes

- This command can be used only in the Enterprise Edition.

- The registered WorkUnit definition cannot be modified using this function.

- This command cannot be used on objects on which the process bind function is to be used.

- This command cannot be used while the activation modification command (*tdmodifywu*) is being executed.

- If the HA function has been used, modifications made using this command will not be reflected in the standby system.

- This command cannot be used at the standby node.

- If you have exceeded the number of characters that can be executed from the command line, execute the command using a shell script or some other means.

- If this command has been used to repeatedly increase or decrease process multilevel concurrency, the directories created by the process ID names will be left behind under the WorkUnit name folder created under the current folder specified in the WorkUnit definition.

   This can clog up the hard disk or other media. Therefore, to delete the leftover directories, check the process IDs of APM processes currently in operation, using the *ps* command, for example, and then delete the directories other than those of the currently operational process IDs.

- This command can be started only in a WorkUnit whose WorkUnit type is "ORB".

Solaris32   Linux32

- When the number of characters which can be performed from a command line is exceeded, please use a shell script etc. and execute a command.

- Only the user who has started the WorkUnit and the super user can change its process concurrency.

19.22 tdstartsnap

Name

tdstartsnap

Starts acquiring TD snapshots.

Synopsis

Windows32   Solaris32   Linux32

```
tdstartsnap [-M system-name] wuname
```

Description

This command starts acquiring TD snapshots in shared memory, and outputs them using the *tdformsnap* command.

The argument of this command is as follows:

-M system-name   Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

wuname

> Specifies the name of the WorkUnit that defines the application for which a snapshot is to be acquired.

Notes

Snapshots are acquired in units of WorkUnits. Therefore, acquisition of snapshots of other applications defined in the same WorkUnit is also started.

To issue this command, the following condition must be satisfied:

- The specified WorkUnit must be started.

If the WorkUnit stops while acquiring snapshots, acquisition terminates automatically. Therefore, there is no need to stop acquisition with the *tdstopsnap* command.

This command is effective only for the Component Transaction Service.

Example

```
tdstartsnap TDSAMPLE1
```

19.23 tdstopsnap

Name

tdstopsnap

Terminates TD snapshot acquisition.

Synopsis

Windows32　Solaris32　Linux32

```
tdstopsnap [-M system-name] wuname
```

Description

This command terminates the acquisition of TD snapshots. After terminating the acquisition of information with this command, use the *tdformsnap* command to output the snapshots.

The argument of this command is as follows:

-M system-name　Solaris32

> Specify the name of the target system.

> If this option is omitted, the default system is assumed to be specified.

wuname

> Specifies the name of the WorkUnit that defines the application for which snapshot acquisition is to be terminated.

Notes

Snapshots are acquired in units of WorkUnits. Therefore, acquisition of snapshots of other applications defined in the same WorkUnit is also terminated.

To issue this command, the following condition must be satisfied:

- The specified WorkUnit must be started.

If the WorkUnit stops while acquiring snapshots, acquisition terminates automatically. Therefore, there is no need to stop acquisition with the *tdstopsnap* command.

This command is effective only for the Component Transaction Service.

Example

```
tdstopsnap TDSAMPLE1
```

Chapter 20 Event Service Operation Commands

This chapter explains Event Service commands.

Supported Commands

Table 20.1 Commands supported by Each Product

Command	Outline	Standard-J Edition	Enterprise Edition
eschgblock	Block/Unblock Event Channels.	OK	OK
esgetchnlior	Gets Event Channel object reference.	OK	OK
esmkchnl	Creates Event Channels.	OK	OK
esmkunit	Generates a unit.	OK	OK
esmonitor	Displays Event Service status.	OK	OK
esmonitorchnl	Displays connection information for the Event Channel.	OK	OK
esrmchnl	Deletes Event Channels.	OK	OK
esrmipc Solaris32/64 Linux32/64	Recovery of communication resources between processes obtained by the Event Service.	OK	OK
esrmunit	Deletes a unit.	OK	OK
essecmode Solaris32/64 Linux32/64	Enhancement of Event Service security.	OK	OK
essetchnlior	Registers Event Channnel object reference.	OK	OK
essetcnf	Controls Event Service configuration information.	OK	OK
essetcnfchnl	Displays and sets Event Channel operating environments.	OK	OK
essetup	Sets up an Event Service.	OK	OK
esstart	Starts an Event Service.	OK	OK
esstartchnl	Starts an Event Channels.	OK	OK
esstartfctry	Starts an event factory.	OK	OK
esstartunit	Starts a unit.	OK	OK
esstop	Stops an Event Service.	OK	OK
esstopchnl	Stops Event Channels.	OK	OK
esstopfctry	Stops an event factory.	OK	OK
esstopunit	Stops a unit.	OK	OK
esunsetup	Deletes an Event Service.	OK	OK

OK: Support

NO: No support

Location of Commands

Table 20.2 Location of Commands

Platform	Directory
Windows32/64	C:\Interstage\bin
Solaris32/64	/opt/FJSVes/bin

Platform	Directory
Linux32/64	/opt/FJSVes/bin

20.1 eschgblock

Name

eschgblock

Block/Unblock Event Channels.

Synopsis

```
eschgblock -g group -c channel -b on|off [-M system]
```

Description

This blocks or unblocks an Event Channel that is running. It can be operated to block and unblock the Event Channel units.

The following options and parameters can be specified:

-g group

Specify an Event Channel group name.

To create a volatile Event Channel, specify a string of up to 64 characters.

To create a persistent Event Channel, specify a string of up to 32 characters.

-c channel

Specify a maximum of 64 characters for the name of the Event Channel contained in the Event Channel group.

-b on|off

Specify this to block or unblock the Event Channel.

on : Specify this to block the Event Channel.

off : Specify this to unblock the Event Channel.

-M system Solaris32

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- This command affects the Event Channel which can use the block function.

Check the environment of the Event Channel according to the following procedures:

Using the Event Service operation command

Check that the block function can be used in the Event Channel.

The block function can be used with the Event Channel if 'EventChannel blockade function' displays as 'available' when 'essetcnfchnl -g (Event Channel Group name) -d' is executed.

The 'available' display means the Event Channel was generated by specifying the following at the time of static generation of the Event Channel (at esmkchnl execution).

- Notification service / JMS(-notify)

- To run the local transaction operation (-tran) ,or
  the global transaction operation (-ots) Windows32/64 Solaris32 Linux32/64

- Messaging model: Point-To-Point model (-ptp)

Using the Interstage Management Console

Check that the block function can be used in the Event Channel.

In the JMS and the Event Service Event Channel Status View window, check that the [Block]/[Unblock] button is displayed in [Control].

If the button is displayed, it means that the following are specified to create the Event Channel when a static generation operating the Event Channel is created:

- [Notification Service]: 'Enable'

- [Local Transactions]: 'Enable' ,or
  [Global Transactions]: 'Enable' Windows32/64 Solaris32 Linux32/64

- [Model]: 'Point-To-Point'

- Execute this command after the Event Channel has been started.

- If the Event Channel has been blocked, it is not unblocked until the automatic unblock value, even if the Event accumulated data is recovered. To unblock an Event Channel that has been blocked, this command must be used. When the Event Channel is restarted, this indicates that the Event Channel is unblocked.

- When the Event Channel is blocked using automatic block, this command can be used to unblock it.

Examples

Blocking an Event Channel group with the name 'EVENT1', and an Event Channel with the name 'CHNL1'

```
eschgblock -g EVENT1 -c CHNL1 -b on
```

20.2 esgetchnlior

Name

esgetchnlior

Gets Event Channnel object reference.

Synopsis

```
esgetchnlior -g group -p path [-M system]
```

Description

Obtains the Event Channel object reference from the Naming Service and creates and stores the file in the specified path. The file name is created using the group name (extension: ".ior") specified by the -g option. If there is a file with the same name, processing is stopped.

The following options and parameters can be specified:

-g group

Specify the Event Channel group name for obtaining the object reference.

An Event Channel group name that has not yet been created cannot be specified.

-p path

Specify the storage path for the created file using the absolute path. The file name is created using the group name (extension: ".ior") specified by the -g option.

If there is already a file with the same name, the file is not created. In this case, either delete the file or specify a different path.

The created file can be checked according to the es11500 information message that is output once the command exits normally.

-M system `Solaris32`

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- The Naming Service must be active.

- The Event Channel created dynamically cannot be specified.

- Delete the file that was created using this command after running the *essetchnlior* command.

- Execute this command on the server used to set up the Event Service.

- To recreate the Event Channel group, this command and the *essetchnlior* command must be re-executed, and the Event Channel object reference must be re-registered in the Naming Service of other servers that have already been registered. If a connection is made to the Event Channel without registering it, the NO_IMPLEMENT exception is returned.

Examples

`Windows32/64`

Obtaining all the Event Channel object references in the 'GROUP' Event Channel group registered in the Naming Service and storing them in the 'C:\temp' file.

```
esgetchnlior -g GROUP -p C:\temp
```

The created file can be checked according to the es11500 information message that is output once the command exits normally.

UX:ES: INFO: es11500: [tttttt] The EventChannel Group (GROUP) object reference was obtained from the Naming Service and stored in the file (C:\temp\GROUP.ior).

`Solaris32/64` `Linux32/64`

Obtaining all the Event Channel object references in the 'GROUP' Event Channel group registered in the Naming Service and storing them in the '/temp' file.

```
esgetchnlior -g GROUP -p /tmp
```

The created file can be checked according to the es11500 information message that is output once the command exits normally.

UX:ES: INFO: es11500: [tttttt] The EventChannel Group (GROUP) object reference was obtained from the Naming Service and stored in the file (/temp/GROUP.ior).

20.3 esmkchnl

Name

esmkchnl

Creates Event Channels.

Synopsis

1. Creating an Event Channel (for the Event Service)

```
esmkchnl -g group -c channel ... [-m number] [-l locale] [-autodiscon]
        [-ssl] [-w] [-host HostName -port PortNum] [-M system]
```

2. Creating an Event Channel (for the Notification Service / JMS)

```
esmkchnl -g group -c channel ... [-m number] [-l locale] [-autodiscon]
        [-ssl] [-w] [-host HostName -port PortNum] [-M system]
        -notify [-persist mode] [-unit unitid] [-tran | -ots] [-ptp]
```

Description

Creates Event Channels (static generation application). This function creates one or more Event Channels and gives them a group name.

The following options and parameters can be specified:

Options Common to the Event Service, Notification Service and JMS

-g group

Specify a group name.

To create a volatile channel, specify a string of up to 64 characters.

To create a persistent channel operation (when this option is specified together with the -persist option), specify a string of up to 32 characters. Spaces cannot be specified - leading and trailing spaces will be deleted.

When an Event Channel using the JMS function is to be created, specify a character string consisting of alphanumeric characters and the following symbols. (The string must begin with an alphanumeric character.)

- Hyphen (-)

- Period (.)

- Slash (/)

- Underscore (_)

If a character string containing a symbol other than the above is specified, it will not be included in the Event Channels lists that appears when the user selects [System] > [Services] > [JMS] > [EventChannels] > [View Status] on the Interstage Management Console.

-c channel

Names of the Event Channels within the group. Specify a string of up to 64 characters. Multiple assignment is possible. Spaces cannot be specified - leading and trailing spaces will be deleted.

When an Event Channel using the JMS function is to be created, specify a character string consisting of alphanumeric characters and the following symbols. (The string must begin with an alphanumeric character.)

- Hyphen (-)

- Period (.)

- Slash (/)

- Underscore (_)

If a character string containing a symbol other than the above is specified, it will not be included in the Event Channels lists that appears when the user selects [System] > [Services] > [JMS] > [EventChannels] > [View Status] on the Interstage Management Console.

-m number

Specifies the total number (maximum number) of consumers and suppliers that can connect to the Mixed model Event Channels contained in the group. A value from 1 to 9999 can be specified. The default value of this option is 16.

To perform persistent channel non-volatile operations, first estimate the value of this option. For details on how to do that, refer to the "Tuning Guide", section "Appendix D - Event Service Environment Definition" > "Estimating the Total Number of Suppliers and Consumers".

-l locale

You must set this option if you are using character set conversion. Specify the code for the machine which is running the Event Channels.

The code does not need to be set if the supplier and consumer use the same code. If either the supplier or consumer use Java or both use the same code, however, the event channel code must be set.

-autodiscon

When this option is specified, the process to automatically recover connection information remaining in the Event Channel is effective if the consumer and supplier are terminated from a statically generated Event Channel, without the disconnect command being issued, due to the abnormal termination of an application etc. The function is only effective if this option is specified.

Local transactions still incomplete during automatic collection of connection information will be rolled back if -tran and this option are specified.

Do not specify this option if any of the following is true:

- Supplier/consumer object references were saved in the Naming Service.

- The supplier/consumer do not reconnect to the EventChannel when they are restarted.

- Send/receive processing was performed using an object reference saved in the file/Naming Service.

When this option is specified, the connection may close if the CORBA Service client non-communication monitoring time is exceeded. To resume communication, use the Event Channel connection.

-ssl

Specify this option when you use SSL with a statically generated Event Channel. Refer to the Security System Guide for details.

-w

Specify this option to set up a standby server in cluster service function operation. If this option is specified, the object reference of the Event Channel is not registered in the Naming Service. To execute persistent channel operation, no data storage area is created in the unit.

-host HostName

Specify a host name (or an IP address) which is the communication path of an Event Channel in the system that has multiple IP addresses.

However, do not specify this option when 'Corba Host Name' is set (or when 'IIOP_hostname' of the config file (CORBA Service) i.e., the hostname used by CORBA Service is specified) in the Interstage operating environment definition. (If a hostname other than 'Corba Host Name' is specified in this option, starting of an Event Channel will fail.)

If this option is omitted, a hostname of 'Corba Host Name' will be used when it is set, but the hostname of the main system will be used if 'Corba Host Name' is not set.

-port PortNum

Specify the port number (PortNum) of the communication path of an Event Channel in a system having two or more IP addresses.

Specify either of the following for a port number of the CORBA Service.

- When -ssl option is not specified

  'Corba Port Number' in the Interstage operating environment definition ('IIOP_port' of the config file (CORBA Service))

- When -ssl option is specified

  'SSL Port Number' in the Interstage operating environment definition ('UNO_IIOP_ssl_port' of the config file (CORBA Service))

-M system Solaris32

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notification Service and JMS Options

-notify

When this option is specified, an Event Channel of the notification service or JMS is generated. Specify this option to generate an Event Channel using the notification service or JMS. The notification service function or JMS can only be used if this option is specified.

-persist mode

Specify this option to execute persistent channel operation on the Event Channel to be created. With JMS, specify this option when the following function is used.

- Durable Subscription function

- Event Channel make persistent function

- Local transaction function

- Global transaction [Windows32/64] [Solaris32] [Linux32/64]

One of the following modes can be specified:

- all: Make event data and connection information persistent. (only all can be specified for JMS)

- con: Make only connection information persistent.

To specify this option, a unit must be previously created using the *esmkunit* command.

The -notify option must be specified together with this option.

-unit unitid

Specify the unit in which an Event Channel for persistent channel operation is to be created. If the -persist option is specified without this option, the Event Channel is created in the standard unit.

-tran

Specify this option to execute the local transaction operation in the Event Channel to be created. This option must be specified if inter-server linkage is performed or if global transaction operation is not performed with JMS.

-ots [Windows32/64] [Solaris32] [Linux32/64]

Specify this option to execute the global transaction operation in the Event Channel to be created. This option can create only one Event Channel group for one unit. However, creating two or more channels in one Event Channel group is possible. This Event Channel cannot be created in the standard unit.

This option is valid when 'all' is specified in the -persist option.

-ptp

Set the messaging model to point-to-point, and create an Event Channel. If this option is omitted, the notification service creates an Event Channel using the MultiCast model as a messaging model and JMS uses the Publish/Subscribe model as a messaging model.

The -notify option must be specified together with this option. In addition, for a persistent channel operation (when the -persist option is specified together with this option), the point-to-point model requires a transaction operation. This means the -tran option or -ots option must be specified together with this option.

Notes

- Execute this command with administrator authority.

- Execute this command in a directory that has write authority.

- The Naming Service must be active.

- If Interstage is initialized after this command has been used to create an Event Channel, use the *esrmchnl* command to delete the Event Channel before initializing Interstage.

  If Interstage is initialized without first deleting the Event Channel, Event Channels generated before initialization must be deleted with the *esrmchnl* command.

Use the *essetcnfchnl* command with the -l option to check the list of Event Channels that have been created.

- To execute persistent channel operation, the Event Service must be started in advance.

- If an EventChannel object reference has been registered in the naming service of another machine using the *esgetchnlior* and the *essetchnlior* commands, then re-register the EventChannel object reference when the EventChannel is rebuilt. If there is communication with an EventChannel for which the object reference was not registered, then the NO_IMPLEMENT exception is returned.

- Do not include characters other than those in the following table in the Event Channel group name specified with the -g option or the Event Channel name specified with the -c option. Otherwise, if the Interstage Management Console is used to list Event Channels, processing fails and error message 'es39996' or 'es39999' is output. When the Interstage Management Console is used, use the characters from the table in the Event Channel group name and Event Channel name. A hyphen (-) cannot be used as the first character.

Table 20.3 Characters Available for Use on the Interstage Management Console

Name	Characters Available for Use on the Interstage Management Console
The Event Channel group name	Windows32/64 Alphanumeric characters, exclamation mark (!), number sign (#), dollar sign ($), apostrophe ('), left parenthesis ((), right parenthesis ()), plus sign (+), hyphen (-), period (.), slash (/), semicolon (;), at mark (@), left bracket ([), right bracket (]), underscore (_), backward quote (`), left brace ({), right brace (}), tilde (~)
	Solaris32/64 Alphanumeric characters, exclamation mark (!), plus sign (+), hyphen (-), period (.), slash (/), at mark (@), left bracket ([), right bracket (]), underscore (_), left brace ({), right brace (}), tilde (~)
	Linux32/64 Alphanumeric characters, plus sign (+), hyphen (-), period (.), slash (/), at mark (@), left bracket ([), right bracket (]), caret (^), underscore (_), left brace ({), right brace (})
The Event Channel name	Windows32/64 Alphanumeric characters, exclamation mark (!), number sign (#), dollar sign ($), apostrophe ('), left parenthesis ((), right parenthesis ()), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), slash (/), colon (:), semicolon (;), equal sign (=), question mark (?), at mark (@), left bracket ([), right bracket (]), underscore (_), backward quote (`), left brace ({), right brace (}), tilde (~)
	Solaris32/64 Alphanumeric characters, exclamation mark (!), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), slash (/), colon (:), equal sign (=), question mark (?), at mark (@), left bracket ([), right bracket (]), underscore (_), left brace ({), right brace (}), tilde (~)
	Linux32/64 Alphanumeric characters, percent sign (%), asterisk (*), plus sign (+), comma (,), hyphen (-), period (.), slash (/), colon (:), equal sign (=), question mark (?), at mark (@), left bracket ([), right bracket (]), caret (^), underscore (_), left brace ({), right brace (})

- The -persist, -unit, -tran, -ots, and -ptp options have a dependent or exclusive relation to other options. Specify these options by referencing the following table.

For example, the -persist option must be specified together with the -notify option:

Option	Dependent option	Exclusive option
-persist	-notify	none
-unit	-notify -persist	none
-tran	-notify	-ots
-ots	-notify -persist (all only)	-tran
-ptp	-notify	none

Option	Dependent option	Exclusive option
-persist -ptp	-notify -tran or -notify -ots	none

- To specify both -autodiscon and -persist options, the -tran or -ots option must also be specified.

- Before the Event Channel block function can be used, it is necessary to specify the -notify -tran -ptp option or the -notify -ots -persist all -ptp option to create the Event Channel.

Examples

Create the Event Channels of the Event Service 'CHNL1' and 'CHNL2' while setting the name of the Event Channel group to 'EVENT1' and setting the maximum number of connected suppliers and consumers to 100.

```
esmkchnl -g EVENT1 -c CHNL1 CHNL2  -m 100
```

Create the Event Channels of the Notification Service or the JMS 'CHNL3' and 'CHNL4' while setting the name of the Event Channel group to 'EVENT2' and setting the maximum number of connected suppliers and consumers to 100.

```
esmkchnl -g EVENT2 -c CHNL3 CHNL4  -m 100 -notify
```

Create the CHNL5 Event Channel for persistent channel operation or local transaction operation.

```
esmkchnl -g EVENT3 -c CHNL5 -notify -persist all -tran
```

Set the messaging model to point-to-point mode, and create the Event Channel 'CHNL6' for persistent or local transaction operation.

```
esmkchnl -g EVENT4 -c CHNL6 -notify -persist all -tran -ptp
```

To use the Event Channel block function, create the following Notification Service/JMS Event Channel.

- Group name: EVENT9

- Event Channel name: CHNL11

- Execute local transaction operations

- Messaging model: Point-To-Point

```
esmkchnl -g EVENT9 -c CHNL11 -notify -tran -ptp
```

20.4 esmkunit

Name

esmkunit

Generates a unit.

Synopsis

```
esmkunit [-uf unitfile] [-w] [-M system]
```

Description

This command generates a unit for persistent channel operation according to the contents of a unit definition file.

The following options and parameters can be specified:

-uf unitfile

Specify the 'unitfile' unit definition file. For details about a unit definition file description format and setting details of each item, refer to "Coding Format of Unit Definition File".

-w

Specify this option to set up a standby server for cluster service function operation.

-M system `Solaris32`

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Coding Format of Unit Definition File

The following shows the format and items of the unit definition file:

The extension of the unit definition file must be 'def.'

Notes

- The 'esunit01.def' prototype of a unit definition file is stored in the following directory. Edit the prototype when necessary.

`Windows32/64`

```
C:\Interstage\eswin\etc\def\esunit01.def
```

`Solaris32/64` `Linux32/64`

```
/opt/FJSVes/etc/def/esunit01.def
```

- If -uf option is omitted, create a unit using the unit definition file (with the def extension) which is located under the directory where the above template file is saved. If there is more than one unit definition file, create a unit for each file.

Unit Definition File Format

`Windows32/64`

```
unitid      = unit01
unitmode    = std
trandir     = D:\NOTIFY_DIR
tranmax     = 1024
sysdir      = D:\NOTIFY_DIR
syssize     = 10
sysqnum     = 100
syswarning  = 70 - 90
userdir     = D:\NOTIFY_DIR
usersize    = 30
userqnum    = 50
userwarning = 70 - 90
shmmax      = 80
```

`Solaris32/64` `Linux32/64`

```
unitid      = unit01
unitmode    = std
trandir     = /NOTIFY_DIR
tranmax     = 100
tranmax     = 1024
sysdir      = /NOTIFY_DIR
syssize     = 10
sysqnum     = 100
syswarning  = 70 - 90
userdir     = /NOTIFY_DIR
usersize    = 30
userqnum    = 50
userwarning = 70 - 90
shmmax      = 80
```

Table 20.4 Unit Definition File Items

Item	Description	Default value	Specifiable range
unitid	Unit name (Only alphanumeric characters can be used. Upper-case letters are not distinguished from lower-case letters.)	Not omissible	String of up to 6 characters
unitmode	Unit mode - std: Standard unit - ext: Extended unit	std	std, ext

trandir	`Windows32/64`
	Specify the directory on the NTFS file system for storing the transaction file.
	
	`Solaris32/64` `Linux32/64`
	Specify the directory on the normal file system or raw device for storing the transaction file. (Fujitsu recommends specification of a raw device to facilitate rapid processing.)
	
	Note1) The following capacity is required:
	
	((tranmax*4)+256+(tranunitmax*2))*16(Kbyte)
	
	Note2) If specifying a raw device, this raw device must already have been created, with a maximum partition size of two gigabytes.
	
	Note3) Files for two or more units cannot be specified. Specify separate directories when storing files for two or more units.
	
	Note4) Specify the directory using the full path. A path that uses environment variables cannot be specified.
	
	Note5) When operating a cluster system, specify the storage directory on the same shared disk as *sysdir* and *userdir*. Do not specify a raw device.
		Not omissible	String of up to 240 characters

tranmax	Number of concurrent transactions
	
	Specify the number of transactions that can be concurrently performed for Event Channels in the unit.
		`Windows32/64`
		1024
		`Solaris32/64`
		`Linux32/64`
		100
			1 to 1024

`Solaris32/64`
`Linux32/64`
tranunitmax
	Specify the maximum message size that can be operated in a transaction by the number of blocks (one block: 16k bytes (fixed)).
	
	Example) If 1024 is specified
	
	1024*16K bytes = 16M bytes
		1024	1 to 4096

sysdir	Directory for storing system (for unit control) files In the Windows® system, specify the directory on the NTFS file system. Note1) Files for two or more units cannot be specified. Specify separate directories when storing files for two or more units. Note2) Specify the directory using the full path. A path that uses environment variables cannot be specified.	Not omissible	String of up to 240 characters

Item	Description	Default value	Specifiable range
syssize	Capacity of system (for unit control) file Estimate with the following equation as a guide. Fixed area + channel use area + proxy use area + index area Fixed area: 32K Channel use area: (n: number of persistent channels) $(16K + (2K * (n-1))) * 1.5$ Proxy use area: ((number of consumers + number of suppliers)/32 + 1) * 16 * 1.5 Index area: (5 + (Maximum number of messages accumulated / 340) + 2) * 2 * 16K	10	1 to 2047 (M byte)
sysqnum	Number of system (for unit control) data storage areas (queues) Note: The required value must be: number of persistent channels * 2 + 2 or a larger value	100	4 to 32768
syswarning	Safety value and warning value of system (for unit control) file capacity. (Delimit the safety value from the warning value using a hyphen.) Safety value: Reference value for canceling the warning state Warning value: Reference value for setting the data storage area to the warning state Note: When the use rate of a message storage area reaches a specific value, the message storage area is set to the warning state (warning message: es20003). Then, when the use rate of the message storage area falls to a specific value, the warning state of the message storage area is canceled (notification message: es20004).	Safety value: 70 Warning value: 90	Safety value: 1 to 99 (%) Warning value: 2 to 100 (%) (Warning value > Safety value)
userdir	Directory for storing an event data file (In the Windows® system, specify the directory on the NTFS file system.) Note1) Files for two or more units cannot be specified. Specify separate directories when storing files for two or more units. Note2) Specify the directory using the full path. A path that uses environment variables cannot be specified.	Not omissible	String of up to 240 characters
usersize	Capacity of event data file Estimate this value using the formulae below. This value will depend on 'message length'. [For Event Service] If the message length average is:	30	1 to 2047 (M byte)

Item	Description	Default value	Specifiable range
	- <= 512 bytes: (maximum number of messages accumulated / 32 + 1) * 16K * 1.5 + 16K - > 512 bytes and <= 1Kbyte: (maximum number of messages accumulated / 16 + 1) * 16K * 1.5 + 16K - > 1Kbyte and <= 2Kbyte: (maximum number of messages accumulated / 8 + 1) * 16K * 1.5 + 16K - > 2Kbyte: ((maximum number of messages accumulated / 8 + 1) * 16K + (message length - 2K) * (maximum number of messages accumulated)) * 1.5 + 16K [For JMS (if the message selector feature is used)] If the message length average is: - <= 200 bytes: (maximum number of messages accumulated) * 16K * 1.5 + 16K - > 200 bytes: (maximum number of messages accumulated) * 16K * ((message length - 2K + 16K) / 16K + 1) * 1.5 + 16K [For JMS (if the message selector feature is not used)] If the message length average is: - <= 200 bytes: (maximum number of messages accumulated / 8 +1) * 16K * 1.5 + 16K - > 200 bytes: ((maximum number of messages accumulated / 8 +1) * 16K + (message length - 2K) * (maximum number of messages accumulated)) * 1.5 + 16K		
userqnum	Number of event data storage areas (queues) Note: If only the connection information is to be used in persistent channel operation mode, the event data storage area is not necessary. To use the connection information and event data in persistent channel operation mode, this item must specify one value for each persistent channel to be created.	50	0 to 32768
userwarning	Safety value and warning value of event data file capacity. (Delimit the safety value from the warning value using a hyphen.) Safety value: Reference value for canceling the warning state Warning value: Reference value for setting the data storage area to the warning state Note:	Safety value: 70 Warning value: 90	Safety value: 1 to 99(%) Warning value: 2 to 100(%) (Warning value > Safety value)

Item	Description	Default value	Specifiable range
	When the use rate of a message storage area reaches a specific value, the message storage area is set to the warning state (warning message: es20003). Then, when the use rate of the message storage area falls to a specific value, the warning state of the message storage area is canceled (notification message: es20004).		
shmmax	Size of shared memory to be used by unit ((The maximum value of the length of a message that the application handled in one transaction) multiplied by (a channel number using the same unit) multiplied by 2.)	80	1 to 1024(M byte)

Notes

- Execute this command with administrator authority.

- Only one standard unit can be created in each system.

- Do not include any of the characters listed below in the storage directory (trandir, sysdir, userdir) specified with the unit definition file. Otherwise, if the Interstage Management Console is used to list units, processing fails and error message 'es39996' or 'es39999' is output. When the Interstage Management Console is used, do not include any of the following characters in the storage directory.

    - Ampersand (&)

    - Less-than (<)

- Do not update resources under the storage directories (trandir, sysdir, userdir) specified in the unit configuration file after the unit is created.

Procedure to create the raw device Linux32/64

1. Using the parted or fdisk command of the operating system, create the raw device partition.

   An example of the parted command execution is shown below.

   For RHEL5

```
# parted /dev/sda
(parted) p
     :

Number Start    End    Size    Type      File system      Flags
1     32.3kB  107MB  107MB    primary   ext3             boot
2     107MB   9656MB 9550MB   primary                    lvm
3     9656MB  10.7GB 1078MB   primary                    lvm

(parted) q
# udevinfo -q path -n /dev/sda3
/block/sda/sda3
# udevinfo -q env -p /block/sda/sda3 | grep ID_PATH
ID_PATH=pci-0000:00:10.0-scsi-0:0:0:
# udevinfo -q env -p /block/sda/sda3 | grep ID_SERIAL
ID_SERIAL=SFUJITSU_MAN3367MC_UFD8P2602PTJ
```

   For RHEL6

```
# parted /dev/sda
(parted) p
     :

Number Start    End    Size    Type      File system      Flags
 1    1049kB  525MB  524MB    primary   ext4             boot
 2    525MB   21.5GB 20.9GB primary                      lvm
```

```
         :
 8    77.5GB  78.5GB  974MB   logical    ext2


(parted) q
# udevadm info --query=path --name=/dev/sda8
/devices/pci0000:00/0000:00:1f.2/host0/target0:0:0/0:0:0:0/block/sda/sda
# udevadm info --query=property --path=/devices/pci0000:00/0000:00:1f.2/host0/
target0:0:0/0:0:0:0/block/sda/sda8 | grep ID_PATH
ID_PATH=pci-0000:00:1f.2-scsi-0:0:0:0
# udevadm info --query=property --path=/devices/pci0000:00/0000:00:1f.2/host0/
target0:0:0/0:0:0:0/block/sda/sda8 | grep ID_SERIAL
ID_SERIAL=FUJITSU_MHY2080BH_K41XT84279M1
```

2. Edit the udev configuration file (/etc/udev/rules.d/60-raw.rules) and bind the created partition.

   Examples for each of the specified access methods (by-path and by-id) are shown below.

   For RHEL5

```
 [For specified access method (by-path)]
ACTION=="add", KERNEL=="sda3", ENV{ID_PATH}=="pci-0000:00:10.0-scsi-0:0:0:0", RUN+="/bin/
raw /dev/raw/raw1 %N"

[For specified access method (by-id)]
ACTION=="add", KERNEL=="sda3", ENV{ID_SERIAL}=="SFUJITSU_MAN3367MC_UFD8P2602PTJ", RUN+="/bin/
raw /dev/raw/raw1 %N"
```

   For RHEL6

```
 [For specified access method (by-path)]
ACTION=="add", KERNEL=="sda8", ENV{ID_PATH}=="pci-0000:00:1f.2-scsi-0:0:0:0", RUN+="/bin/
raw /dev/raw/raw1 %N"

[For specified access method (by-id)]
ACTION=="add", KERNEL=="sda8", ENV{ID_SERIAL}=="FUJITSU_MHY2080BH_K41XT84279M1", RUN+="/bin/
raw /dev/raw/raw1 %N"
```

3. So that the raw device access privileges will be set correctly using udev, if necessary edit the permissions rules file in /etc/udev/rules.d/ that will be added.

Notes

- Specify the partition for the block device that will bind the raw device. Hard disk devices without a partition ID (such as /dev/sdg) contain disk labels (partition tables), and therefore should not be used as raw devices.

- The raw command will successfully bind to the character device even when a mounted system device is specified. Specify a valid device name in the second parameter of the raw command, otherwise the system and user resources could be destroyed.

- Although it is possible to execute operations where the device name is specified directly, the system and user resources could be destroyed if the hardware configuration is changed. For this reason, the setting shown in the specified access method is recommended.

20.5 esmonitor

Name

esmonitor

Displays Event Service status.

Synopsis

1. Displaying the status of a statically generated Event Channel:

```
esmonitor -g group [-c channel] [-num] [-db] [-M system]
```

2. Displaying the status of a dynamically generated Event Channel:

```
esmonitor -f [-c channel | -id channelID] [-M system]
```

3. Displaying the status of a unit:

```
esmonitor -unit [-M system]
```

4. Displaying the status of all Event Channels:

```
esmonitor [-db] [-M system]
```

Description

Uses standard output to display Event Channel operating status. The available options and parameters are shown below. If no arguments are specified, it will display the operating status of all active Event Channels.

When the -unit option is specified, the unit status is displayed to the standard output.

The following options and parameters can be specified:

-g group

Use group to display the status of statically generated Event Channels.

-f

Use this to display the status of dynamically generated Event Channels.

-c channel

Use channel to specify the Event Channels you want to display.

-id channelID

Specify the ID to display the status of a dynamically generated Event Channel of the notification service or the JMS.

-num

Specify this if the Monitoring accumulated data ratio (threshold ratio), Monitoring restart accumulated data ratio, and Automatic unblock ratio are displayed as the maximum accumulated data value and the value is requested from each ratio.

-unit

Specify this option to display the unit status.

-M system ▕ Solaris32 ▏

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- The Event Service must be active.

▕ Solaris32/64 ▏ Linux32/64

- When you specify the -unit option, execute this command with administrator authority.

- If the *essecmode* command has been used to set the security level to 'level2' (administrator's authority), execute the *esmonitor* command with the administrator's authority.

Examples

Displays the status of the statically generated Event Channel group 'group01'.

```
esmonitor -g group01
```

Displays the status of dynamically generated Event Channel 'channel02'.

```
esmonitor -f -c channel02
```

Displays the status of dynamically generated Event Channel ID '1' of the notification service or the JMS.

```
esmonitor -f -id 1
```

Displays the status of the unit.

```
esmonitor -unit
```

Displays the status of all active Event Channels.

```
esmonitor
```

20.6 esmonitorchnl

Name

esmonitorchnl

Displays connection information for the Event Channel.

Synopsis

```
esmonitorchnl [-l size] [-M system]
```

Description

Displays the IP addresses (IP address), host names (HOST), connection times (Connected Time) and final access times (Final Access Time) for consumers and suppliers connected to the Event Channel.

Specify the information required in conversational mode after the command has been started.

When information is displayed, connection information that was terminated abnormally can be recovered.

The following options and parameters can be specified:

-l size

Specify the number of lines of consumer and user information to be displayed. The default value is 20 lines.

-M system   Solaris32

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- The Event Service must be active.

- Execute this command on the server machine running the Event Channel.

- If there is connection data for which commit or rollback has not been issued because the application terminated abnormally during a local transaction operation, commit processing is automatically performed. In this case, the event data is processed as follows:

  - The event data that has been sent from the supplier is stored in the Event Channel.

- If the messaging model is MultiCast, all event data or Event Channels are deleted.

- If the messaging model is point-to-point, all the events that had been received are deleted from the Event Channel.

Examples

Operations up to Display of Connection Information

The following example is of the display of connection information for consumers connected to the statically generated Event Channel with group name EVENT1 and Event Channel name CHNL1.

1. Run the esmonitorchnl command

```
esmonitorchnl
```

2. Select the start type for the Event Channel. Enter 1 for a static channel and 2 for a dynamic channel. Select the channel type.

```
Select channel type you want to use.
1.static channel  2.dynamic channel > 1
```

3. Enter the group name.

```
Please input group name. > EVENT1
```

4. Enter the channel name.

```
Please input channel name. > CHNL1
```

5. Enter the information to be displayed. Enter '1' for consumer or '2' for supplier. Select the information to be displayed.

```
Select display information you want to use.
1.consumer  2.supplier > 1
```

6. The connection information for the specified Event Channel is displayed.

Sample of Display of Event Channel Connection Information

```
group name      : EVENT1
channel name    : CHNL1
count/all count : 4/4
----------------------------------------------------------------------
No.  IP address[HOST]
     Connected Time          Final Access Time
----------------------------------------------------------------------
0001 192.168.0.1[event]
     Wed Aug 31 13:49:45 2005  Wed Aug 31 18:59:35 2005
0002 192.168.0.2[fujitsu]
     Wed Aug 31 13:29:25 2005  Wed Aug 31 13:59:25 2005
0003 192.168.0.2[fujitsu] (2)
     Wed Aug 31 13:19:15 2005          -
0004 192.168.0.3[notify]
     Wed Aug 31 13:19:15 2005  Wed Aug 31 18:59:21 2005
>
```

Note

- If '-' is displayed in the hostname (HOST), it might not be possible to resolve the hostname from the IP address. Check the contents of the hosts file.

- Since Final Access Time is not a target of Persistent Channel, it is initialized following a channel or system crash and displayed as '-'. This indicates that there is no communication from the application after the Event Channel is restarted when Persistent Channel is used.

- The IP address of the IPv4 client is output as IPv4 projection address when operating in the IPv6 environment. (For ' No 0001': '::ffff:192.168.0.1') For details about the setting that is operated in the IPv6 environment, refer to the Tuning Guide.

In an application that uses global transactions, Final Access Time is not updated if the Current interface is used.

Operations after Display of Connection Information

After the Event Channel connection information has been displayed, connection information can be recovered, next connection information can be displayed, connection information can be redisplayed, and the command can be terminated.

- Recovering connection information

  To select specific connection information from the information displayed and recover the selected information, enter 'discon -n line number'. The line number is the number indicated by 'No.'.

  ```
  >discon -n line-number
  ```

  To recover all Event Channel connection information, enter 'discon -all'.

  ```
  >discon -all
  ```

  The information displayed is not changed when the connection information is recovered. To display the current connection information, redisplay the connection information.

- Display next connection information

  To display a greater number of lines, enter 'next'. This displays the connection information for the next number of line numbers specified.

  ```
  >next
  ```

- Redisplay connection information

  To display the current connection information, enter 'reload'. The data is redisplayed from Line 1.

  ```
  >reload
  ```

- Terminate command

  To terminate the esmonitorchnl command, enter 'quit' or 'q'.

  ```
  >quit
  ```

  or

  ```
  >q
  ```

Note

If the error message (es10055) is output and it fails in the recovering connection information, execute this command again.

20.7 esrmchnl

Name

esrmchnl

Deletes Event Channels.

Synopsis

```
esrmchnl -g  group [-M system]
```

Description

Deletes Event Channels. Delete Event Channels by specifying their group names.

The following options and parameters can be specified:

-g group

Specifies the group name of the Event Channels you want to delete.

-M system Solaris32

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- Execute this command in a directory that has write authority.

- The Naming Service must be active.

- For an Event Channel in persistent channel operation, execute this command in states where the unit belonging to the Event Channel is started.

- If Interstage is initialized after the *esmkchnl* command has been used to create an Event Channel, use this command to delete the channel before initialization. If Interstage is initialized before the Event Channel is deleted, this command must be used to delete the Event Channel that was created before initialization. Use the *essetcnfchn* command to check the list of Event Channels that have been created.

- If an EventChannel object reference has been registered in the naming service of another machine using the *esgetchnlior* and the *essetchnlior* command, then re-register the EventChannel object reference when the EventChannel is rebuilt. If there is communication with an EventChannel for which the object reference was not registered, then the NO_IMPLEMENT exception is returned.

Example

Delete the group 'GROUP'.

```
esrmchnl -g GROUP
```

20.8 esrmipc

Name

esrmipc

Recovery of communication resources between processes obtained by the Event Service.

Synopsis

Solaris32/64 Linux32/64

```
esrmipc -rmipc [-M system]
```

Description

This command recovers surviving interprocess communication resources (such as semaphores, shared memory, message queue) that are obtained by the Event service. These are remaining in the system because of an abnormal exit.

If for some reason an abnormal exit occurs in the Event service, or the Event service is stopped forcibly, this command can be executed to restart it without having to restart the OS.

The following options and parameters can be specified:

-rmipc

This recovers interprocess communication resources obtained by the Event Service.

-M system `Solaris32`

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- If this command is executed while the Event service is running, it will cause the Event service to stop running.

    To check whether the Event service is running as shown below.

    1. Use the ps command to check whether the esdmnmain processes exist.

    ```
    ps -afe | grep esdmnmain
    ```

    2. Use the ps command to check whether the eslogdaemon processes exist.

    ```
    ps -afe | grep eslogdaemon
    ```

    3. Use the ps command to check whether the eschannel processes exist.

    ```
    ps -afe | grep eschannel
    ```

    4. Use the ps command to check whether the persistent operation processes exist.

    ```
    ps -afe | grep es_momo
    ps -afe | grep esqmtmpproc
    ```

- This command recovers interprocess communication resources obtained by the following Event service processes:

    - esdmnmain

    - eslogdaemon

    - eschannel

    - es_momo

    - es_momo_func

    - esqmtmpproc

Example

Deleting interprocess communication resources obtained by the Event Service.

```
esrmipc -rmipc
```

20.9 esrmunit

Name

esrmunit

Deletes a unit.

Synopsis

```
esrmunit [-unit unitid] [-M system]
```

Description

This command deletes a unit in persistent channel operation.

The following options and parameters can be specified:

-unit unitid

Specify the unit name (unitid) of the unit to be deleted. If this option is omitted, all the units are deleted.

The unit name unitid can be checked with the *esmonitor* command.

-M system Solaris32

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- This command can be executed when the unit is stopping and has no Event Channels.

Example

Delete the unit 'UNIT.'

```
esrmunit -unit UNIT
```

20.10 essecmode

Name

essecmode

Enhancement of Event Service security.

Synopsis

Solaris32/64 Linux32/64

```
essecmode {-l level | -d} [-M system]
```

Description

Enhances the security of the Event Service operation command.

The following options and parameters can be specified:

-level

Specify the security level in the Event Service operation command. Allowable levels are as follows:

Specified Value	Explanation
level1 (Initial Value)	Uses the Event Service operation command with the conventional authority.
level2	Uses the Event Service operation command with the administrator's authority (for enhanced security).

-d

Displays the current security level to the standard output.

-M system `Solaris32`

　　Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

　　This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- Execute this command while the Event Service is stopped.

Example

　　The Event Service operation command is made executable only with the administrator's authority in order to enhance the security.

```
essecmode -l level2
```

20.11 essetchnlior

Name

esgetchnlior

Registers the Event Channnel object reference.

Synopsis

```
essetchnlior -f filename [-M system]
```

Description

　　Obtains the Event Channel object reference from the specified file and creates and registers it in the Naming Service. If the name used to register the object reference is already stored in the Naming Service, processing is stopped and the command reverts to the pre-execution status.

　　The following options and parameters can be specified:

-f filename

　　Specifies the file name for the Event Channel object reference, registered in the Naming Service using the absolute path. Use the *esgetchnlior* command to create the file.

-M system `Solaris32`

　　Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

　　This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- The Naming Service must be active.

- After registering the Event Channel object reference in the Naming Service, delete the file if it is no longer needed for Naming Service registration.

- To re-create the Event Channel group, this command and the *esgetchnlior* command must be re-executed, and the Event Channel object reference must be re-registered in the Naming Service of other servers that have already been registered. If a connection is made to the Event Channel without registering it, the NO_IMPLEMENT exception is returned.

Examples

Specifying the 'C:\temp\GROUP.ior' file used to store the object reference information for the 'GROUP' Event Channel group and registering it in the Naming Service.

```
essetchnlior -f C:\temp\GROUP.ior
```

Specifying the '/temp/GROUP.ior' file used to store the object reference information for the 'GROUP' Event Channel group and registering it in the Naming Service.

```
essetchnlior -f /tmp/GROUP.ior
```

20.12 essetcnf

Name

essetcnf

Controls Event Service configuration information.

Synopsis

```
essetcnf -r [-M system]
essetcnf -d [-M system]
essetcnf -s list [-M system]
essetcnf -f  path  [-w] [-M system]
essetcnf -cr [-M system]
```

Description

Controls Event Service configuration information.

The following options and parameters can be specified:

-r

Sets configuration information to Initial values.

-d

Uses standard output to display configuration information.

-s list

Sets configuration information. Specify in a list the options and option settings for the configuration information. The following table shows the configuration information that can be specified for Event Service:

These options can be omitted. If these options are omitted, the most recently set values are used.

Table 20.5 Event Service Configuration Information

Option	Configuration information	Initial value	Valid range
-schmax	Maximum number of statically generated Event Channels to be started	50	1 to 10000
-dchmax	Maximum number of dynamically generated Event Channels to be started	50	1 to 10000
-edinit	Initial number of event data items that can be stored in an Event Channel	1000	1 to 10000
-edmax	Maximum number of event data items that can be stored in an Event Channel	3000	1 to 10000000
-ltime	Lifetime of event data stored in Event Channel (seconds)	0	1 to 1000000

Option	Configuration information	Initial value	Valid range
	Set the Lifetime with -pltime at persistent channel operation.		0: Unlimited
-wtime	Wait time for event data in mixed model (seconds) When setting a value of less than ten seconds, configure operations that do not wait for event data using the try_pull() method. Set the same value as -dtime when you set a value of less than five seconds. The time-out time is checked at intervals specified with -dtime. After this interval elapses, errors with the time-out time may be detected.	40	1 to 1000000 0 : (*1)
-dtime	Error detection interval (seconds) It is recommended that this value is not changed from the Initial value (five seconds). The process load of the Event Channel may increase and performance may deteriorate if a value smaller than the Initial value is set.	5	1 to 600
-sthinit	Initial number of send threads in push model	4	1 to 100
-sthmax	Maximum number of send threads in push model	100	1 to 100
-coninit	Initial number of consumers who can be connected to Event Channel (If statically generated, number of Event Channel groups. If dynamically generated, number of processes.)	50	1 to 1000
-conext	Number of consumers in one extension after initial number of consumers exceeded	50	1 to 1000
-conenum	Number of extension repeats if consumer number is extended	100	1 to 100
-supinit	Initial number of suppliers that can connect to Event Channel. (If statically generated, number of Event Channel groups. If dynamically generated, number of processes.)	50	1 to 1000
-supext	Number of suppliers in one extension after initial number of suppliers exceeded	50	1 to 1000
-supenum	Number of extension repeats if supplier number is extended	100	1 to 100
-discon	Call to suppliers and consumers for disconnect method when Event Channel terminates. (yes: Calls for disconnect, then Event Channel terminates.)	yes	yes,no
-oneway	In push model, do not wait for response from consumer. (yes: Do not wait.)	no	yes,no
-chksend	In push model when a communication error is issued for a consumer, reroute transmissions to the consumer. (Valid only if '-oneway no' is specified.)	yes	yes,no
-logsize	Size of log files used for error information output (in Kilobytes)	1024	1 to 512000
-loglevel	Error information level for log output 1: Error events only 2: List of consumers who did not receive data because it was deleted due to expiry of lifetime 3: Information in level 2 and deleted event data contents	1	1,2,3
-logdump	Output size of log output event data (Valid only if 'loglevel 3' specified. In bytes.)	256	1 to 512
Windows32/64 Solaris32	Number of global transactions that can be concurrently executed	256	1 to 1024

Option	Configuration information	Initial value	Valid range
Linux32/64 -gtrnmax			
-ltrntime	Time-out period (seconds) of local transaction (*2)	300	1 to 1000000
Windows32/64 Solaris32 Linux32/64 -2pctime	2-phase commit time-out monitor time (seconds) (*3)	60	1 to 20000
Windows32/64 Solaris32 Linux32/64 -retrytime	Retry interval (seconds) for recovery	30	1 to 1000
Windows32/64 Solaris32 Linux32/64 -retrymax	Number of retry operations for recovery	60	1 to 100
-pltime	Existing time (seconds) of event data stored in Event Channel at persistent channel operation of event data and connection information	0	1 to2000000000 0 : Unlimited
-chkcon	Error return mode when there is no consumer connection (*4) yes: Return with error no: Normal end If 'yes' is specified, the exception below is generated if the consumer connected to the EventChannel does not exist when the 'push' method, 'local_commit' method, or the 'commit' method of the 'Current' interface is called for the Channel: Exception information: BAD_OPERATION Minor code: 0x464a09e9	no	yes,no
-threshold (*5)	Monitor repository data ratio (threshold ratio). Specify this to establish a ratio with the value set for -edmax (the maximum number for repository data). Specify a value that exceeds the value set for -safety. If the value set for -safety is 1 or more, this option cannot be omitted. If the value set for -threshold is 0, the monitoring function is disabled.	0	1 to 100 0 : (*6)
-safety (*5)	Monitor restart repository data ratio. Specify this to establish a ratio with the value set for -edmax (the maximum number for repository data). If the value set for -threshold is any value other than 0, specify a value that is less than the -threshold.	0	0 to 99
-blockade (*5)	Using the Event Channel block function: 0: It is not used 1: The Event Channel bloc/unblock operation is enabled. 2: The Event Channel bloc/unblock operation and the automatic block function are enabled.	0	0, 1, 2
-unblock (*5)	Automatic unblock ratio	0	0 to 99

Option	Configuration information	Initial value	Valid range
	Specify this to establish a ratio with the value set for -edmax (the maximum number for repository data). This option is enabled when 2 is specified in -blockade.		
-autostart	Specifies whether to automatically activate the Event Channel when the Event Service starts. yes: Activate automatically no: Do not activate automatically	yes	yes,no
-ptpstop	When the inhibited stop mode is used to stop the Event Channel in the Point-To-Point model, the Event Channel is stopped when the number of connected Consumers reaches 0.	yes	yes,no

*1 Dependent on the value of period_receive_timeout in the CORBA Service operating environment file (config).

*2 Specify a value that is less than the value set for '-ltime', '-pltime', and the value set for the lifetime of the event data in StructuredEvent type data.

*3. Specify a value that is less than the value set for '-pltime', and the value set for the lifetime of the event data in StructuredEvent type data.

*4 This mode is enabled if the communication model is Mixed and the messaging model is MultiCast, or the messaging model is Point-To-Point. In JMS, it is enabled if the messaging model is Publish/Subscribe or Point-To-Point.

*5 This option is enabled when esmkchnl is executed (when the Event Channel is created) and the following options are specified:

  - Notification service/JMS (-notify)

  - Execute local transaction operations (-tran) ,or
    global transaction operations (-ots) Windows32/64 Solaris32 Linux32/64

  - Messaging model: Point-To-Point model (-ptp)

*6 Specify 0 when you do not monitor the number for repository data of the Event Channel.

-f path

To make an Event Channel persistent for cluster service function operation, specify the path of the shared disk in which the file related to the persistent information is to be stored. Specify a string of up to 256 characters.

-w

Specify this option to set up the standby server.

-cr

Restores the cluster environment settings to the ordinary environment settings.

-M system Solaris32

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

  - Execute this command with administrator authority.

  - Restart the Event Service using the -r option when you set configuration information to the default values.

  - The following configuration information options set by this command are validated after they are set and the Event Service is restarted. Other options are validated when the Event Channel is created and started:

  If the configuration information is set while the Event Channel is running, the settings are enabled after the Event Channel is restarted.

    - -schmax (Maximum number of statically generated Event Channels to be started)

- -dchmax (Maximum number of dynamically generated Event Channels to be started)

- -logsize (Size of log files used for error information output)

- -loglevel (Error information level for log output)

- -logdump (Output size of log output event data)

- -gtrnmax (Number of global transactions that can be concurrently executed) `Windows32/64` `Solaris32` `Linux32/64`

- -2pctime (2-phase commit time-out monitor time) `Windows32/64` `Solaris32` `Linux32/64`

- -retrytime (Retry interval for recovery) `Windows32/64` `Solaris32` `Linux32/64`

- -retrymax (Number of retry operations for recovery) `Windows32/64` `Solaris32` `Linux32/64`

- If an Event Channel already exists for persistent channel operation, the following configuration information cannot be changed. In this case, delete the Event Channel then recreate it.

    - -edmax (Maximum number of event data items that can be stored in an Event Channel)

    - -pltime (Existing time of event data stored in Event Channel at persistent channel operation of event data and connection information)

If the above configuration information is changed, the operating environment of that Event Channel for persistent channel operation may be changed, causing inconsistencies in persistent information.

However, if the above configuration information is specified during environment setting for the Event Channel by the essetcnfchnl command, the setting of the essetcnfchnl command is valid and the setting of this command is invalidated. In this case, therefore, the Event Channel need not be recreated.

Recreate the Event Channel operating in persistent channel operation mode as follows:

1. Stop the Event Channel (esstopchnl)

2. Delete the Event Channel (esrmchnl)

3. Stop the Event Service (esstop)

4. Set the configuration information (essetcnf)

5. Start the Event Service (esstart)

6. Create an Event Channel (esmkchnl)

7. Start the Event Channel (esstartchnl)

- The -f, -cr, and -w options can be used only when the Event Service is stopped and the unit is not set up.

- To change the environment by -f and -w options after the cluster environment is constructed, delete the Event Channel and unit to stop the Event Service, and then return to an ordinary environment setting with the -cr option before changing the environment.

- To delete the Event Channel or unit in the cluster environment, delete the standby node first.

Example

Sets up the inventory service environment, specifying 100 as the maximum number of statically generated Event Channels to be started and 200 as the maximum number of dynamically generated Event Channels to be started.

```
essetcnf -s -schmax 100 -dchmax 200
```

20.13 essetcnfchnl

Name

essetcnfchnl

Displays and sets Event Channel operating environments.

Synopsis

1. List channels and groups

```
essetcnfchnl -g group -c channel -s list [-M system]
```

2. Sets the operating environment for group(s)

```
essetcnfchnl -g group -s list [-M system]
```

3. Display operating environments for group(s)

```
essetcnfchnl [-g group] -d [-M system]
```

4. Lists group names

```
essetcnfchnl -l [-M system]
```

Description

Sets Event Channel operating environments. You can set Event Channel environments either on a group or individual basis.

The following options and parameters can be specified:

-g group

Specifies the Event Channels- group name.

-c channel

Specifies Event Channel names.

-s list

Sets the operating environment for an Event Channel or for an entire Event Channel group. Specify in a list the options and option settings that indicate the operating environment settings. Refer to the following table for details of the items to be set.

-d

Uses standard output to display operating environment contents for Event Channels contained in groups specified by -g. If no group name is specified, it will display Event Channel operating environments for all groups registered in the system.

-l

Lists group names.

-M system   Solaris32

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Operating environment settings items

Table 20.6 Operating Environment Settings Items

Option	Operating environment items	Default (*1)	Valid range
-edinit	Initial number of event data items that can be stored in an Event Channel	Default	1 to 10000
-edmax	Maximum number of event data items that can be stored in an Event Channel	Default	1 to 10000000
-type	Event channel model	- (none)	push pull mixed none (not specified)

Option	Operating environment items	Default (*1)	Valid range
			(*2)
-ltime	Lifetime of event data stored in Event Channel (seconds) Set the Lifetime with -pltime at persistent channel operation.	Default	1 to 1000000 0: Unlimited
-sthinit	Initial number of send threads in push model (*3)	Default	1 to 100
-sthmax	Maximum number of send threads in push model (*3)	Default	1 to 100
-coninit	Initial number of consumers who can be connected to Event Channel group (*3)	Default	1 to 1000
-conext	Number of consumers in one extension after initial number of consumers exceeded (*3)	Default	1 to 1000
-conenum	Number of extension repeats if consumer number is extended (*3)	Default	1 to 100
-supinit	Initial number of suppliers that can connect to Event Channel group. (*3)	Default	1 to 1000
-supext	Number of suppliers in one extension after initial number of suppliers exceeded (*3)	Default	1 to 1000
-supenum	Number of extension repeats if supplier number is extended (*3)	Default	1 to 100
-discon	Call to suppliers and consumers for disconnect method when Event Channel terminates. (yes: Calls for disconnect, then Event Channel terminates.)	Default	yes,no
-oneway	In push model, do not wait for response from consumer. (yes: Do not wait.)	Default	yes,no
-chksend	In push model when a communication error is issued for a consumer, reroute transmissions to the consumer. (Valid only if '-oneway no' is specified.)	Default	yes,no
-wtime	Wait time (seconds) of event data of Mixed model When setting a value of less than ten seconds, configure operations that do not wait for event data using the try_pull() method. Set the same value as -dtime of essetcnf when you set a small value of les than five seconds. The time out time is checked at intervals specified with -dtime of essetcnf. After this interval elapses, errors with the time-out time may be detected.	Default	1 to 1000000 0: (*4)
-ltrntime	Time-out period (seconds) of local transaction (*5)	Default	1 to 1000000
-pltime	Existing time (seconds) of event data stored in the Event Channel at persistent channel operation of event data and connection information	Default	1 to 2000000000 0: Unlimited
-chkcon	Control return mode when there is no consumer connection (*6) yes: Return with error no: Normal end If 'yes' is specified, the exception below is generated if the consumer connected to the EventChannel does not exist when the 'push' method, 'local_commit' method, or the 'commit' method of the 'Current' interface is called for the Channel: Exception information: BAD_OPERATION Minor code: 0x464a09e9	Default	yes,no
-threshold	Monitor repository data ratio (threshold ratio).	Default	1 to 100

Option	Operating environment items	Default (*1)	Valid range
(*7)	Specify this to establish a ratio with the value set for -edmax (the maximum number for repository data). Specify a value that exceeds the value set for -safety. If the value set for -safety is 1 or more, this option cannot be omitted. If the value set for -threshold is 0, the monitoring function is disabled.		0: (*8)
-safety (*7)	Monitor restart repository data ratio. Specify this to establish a ratio with the value set for -edmax (the maximum number for repository data). If the value set for -threshold is any value other than 0, specify a value that is less than the -threshold.	Default	0 to 99
-blockade (*7)	Using the Event Channel block function 0: It is not used 1: The Event Channel bloc/unblock operation is enabled. 2: The Event Channel bloc/unblock operation and the automatic block function are enabled.	Default	0, 1, 2
-unblock (*7)	Automatic unblock ratio Specify this to establish a ratio with the value set for -edmax (the maximum number for repository data). This option is enabled when 2 is specified in -blockade.	Default	0 to 99
-autostart	Specifies whether to automatically activate the Event Channel when the Event Service starts. yes: Activate automatically no: Do not activate automatically	Default	yes,no
-ptpstop	When the inhibited stop mode is used to stop the Event Channel in the Point-To-Point model, the Event Channel is stopped when the number of connected Consumers reaches 0.	Default	yes,no

*1 If the default is used, the Event Service configuration information is applied. Refer to 20.11 essetchnlior.

*2 Only 'mixed' and 'none' are valid for the notification service or JMS(-notify specified).

*3 Can be set only for an entire channel group (cannot be specified if '-c channel' is specified).

*4 Dependent on the value of period_receive_timeout in the CORBA Service operating environment file (config).

*5 Specify a value that is less than the value set for '-ltime', '-pltime', and the value set for the lifetime of the event data in StructuredEvent type data.

*6 This mode is enabled if the communication model is Mixed and the messaging model is MultiCast, or the messaging model is Point-To-Point. In JMS, it is enabled if the messaging model is Publish/Subscribe or Point-To-Point.

*7 This option is enabled when esmkchnl is executed (when the Event Channel is created) and the following options are specified:

  - Notification service/JMS (-notify)

  - Execute local transaction operations (-tran), or
    global transaction operations (-ots) Windows32/64 Solaris32 Linux32/64

  - Messaging model: Point-To-Point model (-ptp).

*8 Specify 0 when you do not monitor the number for repository data of the Event Channel.

Notes

  - Execute this command with administrator authority.

- If an Event Channel already exists for persistent channel operation, the following operating environment cannot be changed. In this case, delete the Event Channel then recreate it.

    - -edmax (Maximum number of event data items that can be stored in an Event Channel)

    - -pltime (Existing time of event data stored in Event Channel at persistent channel operation of event data and connection information)

  If the above operating environment is changed, the operating environment of that Event Channel for persistent channel operation may be changed, causing inconsistencies in persistent information.

- If the operating environment is set while the Event Channel is running, the settings are enabled after the Event Channel is restarted.

Examples

In the group 'GROUP', this sets the data storage initial value to 1,000 and the maximum to 10,000.

```
essetcnfchnl -g GROUP -s -edinit 1000 -edmax 10000
```

In the group 'GROUP', this makes the Event Channel 'EVENT1' a pull model.

```
essetcnfchnl -g GROUP -c EVENT1  -s -type pull
```

20.14 essetup

Name

essetup

Sets up an Event Service.

Synopsis

```
essetup [-f [-p number] [-m number ] [-l locale] [-autodiscon] [-ssl]] [-M system]
```

Description

Set up an Event Service in the system.

The following options and parameters can be specified:

-f

  Sets up an Event factory. If an Event Service has not been set up, this will set one up.

-p number

  Specify the maximum number of processes for an Event Channel that can operate on the system when an event factory is used. A value from 1 to 256 can be specified. The default value of this option is 2.

-m number

  Specify the total number of consumers and suppliers (i.e., the maximum number of connections) to be connected to a process unit in which the Event Channel of the dynamically generated Mix model is operating. A value from 1 to 9999 can be specified. The default value of this option is 16.

-l locale

  You must set this option if you are using character set conversion. Specify the code type for the machine which is running the dynamically generated Event Channels.

  The code does not need to be set if the supplier and consumer use the same code.

-autodiscon

  Specify this option to make the function to automatically recover connection information remaining in the Event Channel when consumers and suppliers are terminated from a dynamically generated Event Channel without the disconnect method being issued, due to abnormal termination of an application program etc. The function is only effective if this option is specified.

Local transactions still incomplete during automatic collection of connection information will be rolled back.

Do not specify this option if any of the following is true:

- Supplier/consumer object references were saved in the Naming Service.

- The supplier/consumer do not reconnect to the EventChannel when they are restarted.

- Send/receive processing was performed using an object reference saved in the file/Naming Service.

When this option is specified, the connection may close if the CORBA Service client non-communication monitoring time is exceeded. To resume communication, use the Event Channel connection.

-ssl

Specify this option when you use SSL with a statically generated Event Channel. Refer to the Security System Guide for details.

-M system ▏ Solaris32 ▏

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- This command should not be used by the Interstage Setup Command if the event service was added to the Interstage operation environment using the ismodifyservice, For details about the ismodifyservice command, refer to "ismodifyservice".

- This command should not be used by the Interstage management console after setting the event service to "Enable" using the Interstage management console.

Example

Sets up an Event factory. In the following example the maximum number of Event Channel processes is set to 4, the maximum number of connected consumer/suppliers is set to 50, and the automatic recovery of connection information is set to 'on'. If an Event Service has not been set up, this will set one up.

```
essetup -f -p 4 -m 50 -autodiscon
```

20.15 esstart

Name

esstart

Starts an Event Service.

Synopsis

```
esstart [-M system]
```

Description

Starts an Event Service. The Event Service controls the starting of Event Channels and event factories running on its machine. The standard unit is also started if the standard unit was created for persistent channel operation.

The following options and parameters can be specified:

-M system ▏ Solaris32 ▏

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- The Naming Service must be active.

Windows32/64

- The Event Service can be also started using 'Service' from 'Control Panel' - 'Administrative Tools'. Select 'EventService' and push 'Start'.

Example

Start an Event Service.

```
esstart
```

20.16 esstartchnl

Name

esstartchnl

Starts Event Channels.

Synopsis

```
esstartchnl -g group [-r mode ] [-M system]
```

Description

Starts Event Channels. To start the Event Channels, specify their group name.

The following options and parameters can be specified:

-g group

Specifies the group name of the Event Channels you want to start.

-r mode

Forced to successfully start a channel if a recovery in the Database Linkage Service fails with error message es11017.

One of the following modes can be specified:

- r: Forcibly roll back an unsolved transaction.

- c: Forcibly commit an unsolved transaction.

-M system   Solaris32

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- The Naming Service must be active.

- The Event Service must be active.

Example

Starts Event Channel group 'GROUP'.

```
esstartchnl -g GROUP
```

20.17 esstartfctry

Name

esstartfctry

Starts an event factory.

Synopsis

```
esstartfctry [-M system]
```

Description

Start an event factory.

The following options and parameters can be specified:

-M system Solaris32

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- The Event Service must be active.

- This command should not be executed simultaneously in multiple sessions.

- If the error message "es10014" (system exception "NO_RESOURCES", minor code "0x464a0073") is output while Event Factory is starting and the attempt to start Event Factory fails, Event Factory stop processing is not completed, and is restarted. A contradiction may occur in the internal information. In this case, since Event Factory cannot be started or stopped, Interstage should be restarted.

  To prevent the occurrence of this problem, verify that Event Factory has stopped according to the following procedure, and then start Event Factory.

  1. Verify the status of Event Factory. If it is stopped, it means there is no problem.

     Windows32/64
     Verify the list of processes in Task Manager. If the "esfactory.exe" process is listed under [Image Name], it means Event Factory is starting.

     Solaris32/64 Linux32/64
     Execute the ps command as shown below. If the "esfactory" process is listed, it means Event Factory is starting.

     ```
     ps -afe | grep esfactory
     ```

  2. If Event Factory is starting in step 1 above, stop it using the esstopfctry command.

     ```
     esstopfctry -o off
     ```

  3. Verify the status of Event Factory again as outlined in step 1 above.

Windows32/64

- Event Factory can be also started using 'Service' from 'Control Panel' - 'Administrative Tools'. Select 'Eventfactory' and push 'Start'.

Solaris32/64 Linux32/64

- Execute this command with administrator authority.

Starts an event factory.

```
esstartfctry
```

20.18 esstartunit

Name

esstartunit

Starts a unit.

Synopsis

```
esstartunit -unit unitid [-M system]
```

Description

This command starts a unit. Use the unit name specified when the unit was generated to start the unit.

The following options and parameters can be specified:

-unit unitid

Specify the unit name (unitid) of the unit to be started.

-M system   Solaris32

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- The Event Service must be active.

Example

Starting a unit with unit name 'UNIT'

```
esstartunit -unit UNIT
```

20.19 esstop

Name

esstop

Stops an Event Service.

Synopsis

```
esstop [-o orderly] [-M system]
```

Description

Stops an Event Service.

The following options and parameters can be specified:

-o orderly

Specifies the stopping method. If you do not input a parameter, the system will assume on.

- on: Stops in inhibited stop mode.

- off: Stops in forced stop mode.

If the inhibited stop mode is specified, the Event Service does not stop if there is event data in the Event Channel when a consumer is connected. Either deploy the event data to the consumer that is already connected and then delete it, or stop the Event Service when the lifetime is exceeded and the data is deleted.

For Event Channels using the Point-To-Point messaging model, when 'no' is specified for the -ptpstop option using the *essetcnf* and *essetcnfchnl* commands, the Event Service is not stopped even if there is event data in the Event Channel and no consumers are connected.

-M system   Solaris32

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- Set '0 (unlimited)' in 'Lifetime of the event data which accumulates in the Event Channel' (*essetcnf* command ltime option or *essetcnfchnl* command ltime option), and execute this command in the forced ending mode while data is being accumulated in the Event Channel. For details, refer to the *essetcnf* and *essetcnfchnl* commands and to EventFactory interface (or EventFactory class).

  The *esmonitor* command can be used to check the event data lifetime setting and the accumulated data status. For details, refer to the *esmonitor* command.

- If the Event Service is stopped again after it has already been stopped in inhibited stop mode, the error message es10305 may be output even if the Event Service is normally stopped. For more information, refer to Messages.

Windows32/64

- The Event Service can be also stopped using 'Service' from 'Control Panel' - 'Administrative Tools'. Select 'EventService' and push 'Stop'.

Example

Stop an Event Service forcibly.

```
esstop -o off
```

20.20 esstopchnl

Name

esstopchnl

Stops Event Channels.

Synopsis

```
esstopchnl -g group [-c channel] [-o orderly] [-M system]
```

Description

Stops Event Channels.

The following options and parameters can be specified:

-g group

Specifies the group name of the Event Channels you want to stop.

-c channel

Specifies which Event Channel to stop.

-o orderly

Specifies the stopping method. If you do not input a parameter, the system will assume on.

- on: Stops in inhibited stop mode.

- off: Stops in forced stop mode.

If the inhibited stop mode is specified, the Event Service does not stop if there is event data in the Event Channel when a consumer is connected. Either deploy the event data to the consumer that is already connected and then delete it, or stop the Event Service when the lifetime is exceeded and the data is deleted.

For Event Channels using the Point-To-Point messaging model, when 'no' is specified for the -ptpstop option using the *essetcnf* and *essetcnfchnl* commands, the Event Service is not stopped even if there is event data in the Event Channel and no consumers are connected.

-M system [Solaris32]

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- The Naming Service must be active.

- The Event Service must be active.

- Set '0 (unlimited)' in 'Lifetime of the event data which accumulates in the Event Channel' (*essetcnf* command ltime option or *essetcnfchnl* command ltime option), and execute this command in the forced ending mode while data is being accumulated in the Event Channel. For details, refer to the *essetcnf* and *essetcnfchnl* commands and to EventFactory interface (or EventFactory class).

  The *esmonitor* command can be used to check the event data lifetime and the data accumulation status. For details, refer the *esmonitor* command.

Examples

Stops Event Channels with the group name 'GROUP' forcibly.

```
esstopchnl -g GROUP -o off
```

In the group 'GROUP', it only stops Event Channel 'CHNL2' forcibly.

```
esstopchnl -g GROUP -c CHNL2 -o off
```

20.21 esstopfctry

Name

esstopfctry

Stops an event factory.

Synopsis

```
esstopfctry {[-c channel] | [-id channelID]} [-o orderly] [-M system]
```

Description

Stops an event factory.

The following options and parameters can be specified:

-c channel

> Specifies which Event Service Event Channel to stop.

-id channelID

> Specifies the ID of the Notification Service or the JMS Event Channel to stop.

-o orderly

> Specifies the stopping method. If you do not input a parameter, the system will assume on.
>
> > - on: Stops in inhibited stop mode.
> >
> > - off: Stops in forced stop mode.
>
> When stopping in inhibited stop mode, the event factory will not stop while there is still event data in the Event Channels. It will stop after the data is deleted, either after having been delivered to consumers, or after exceeding its lifetime.

-M system `Solaris32`

> Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.
>
> This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- The Event Service must be active.

- This command should not be executed in multiple sessions simultaneously.

- This command should not be executed in forced stop mode immediately after executing this command in an inhibited stop mode. And vice versa, this command should not be executed in inhibited stop mode immediately after executing this command in a forced stop mode.

- Set '0 (unlimited)' in 'Lifetime of the event data which accumulates in the Event Channel' (*essetcnf* command ltime option or *essetcnfchnl* command ltime option), and execute this command in the forced ending mode while data is being accumulated in the Event Channel. For details, refer to the *essetcnf* and *essetcnfchnl* commands and to information about the EventFactory interface (or EventFactory class).

  The *esmonitor* command can be used to check the event data lifetime and the data accumulation status. For details, refer to the *esmonitor* command.

- If this command is executed using the -c option, the od10939 error message may be output to the event log (Windows(R)) or system log (Solaris/Linux). If the attempt to stop Event Factory failed, it may mean the host name or port number specified for the interfaces shown below is invalid.

  - For Event Service

    - C: EventFactory_create()

    - C++: EventFactory::create()

    - Java: com.fujitsu.ObjectDirector.EventService.EventFactory.create()

    - COBOL: EVENTFACTORY-CREATE

  - For Notification Service

    - C: CosNotifyChannelAdmin_EventChannelFactory_create_channel()

    - C++: CosNotifyChannelAdmin::EventChannelFactory::create_channel()

- Java: org.omg.CosNotifyChannelAdmin.EventChannelFactory.create_channel()

- COBOL: COSNOTIFYCHANNELADMIN-EVENTCHANNELFACTORY-CREATE-CHANNEL

Verify that the host name and port number specified for the interfaces shown above in the application program are valid.

When stopping Event Factory, execute the esstopfctry command using the option shown below to stop all dynamic Event Channels.

```
esstopfctry -o off
```

Examples

Stop an Event factory forcibly.

```
esstopfctry -o off
```

Stop dynamically generated Event Channel 'CHNL1' forcibly.

```
esstopfctry -c CHNL1 -o off
```

Stop dynamically generated Event Channel ID '1' of the notification service or JMS forcibly.

```
esstopfctry -id 1 -o off
```

20.22 esstopunit

Name

esstopunit

Stops a unit.

Synopsis

```
esstopunit -unit unitid [-o orderly] [-M system]
```

Description

This command stops a unit.

The following options and parameters can be specified:

-unit unitid

Specify the unit name (unitid) of the unit to be stopped. The unit name unitid can be checked with the *esmonitor* command.

-o orderly

Specifies the stopping method. If you do not input a parameter, the system will assume on.

- on: Stops in inhibited stop mode.

- off: Stops in forced stop mode.

Windows32/64 Solaris32 Linux32/64

When a unit is stopped in inhibited stop mode during the execution of commit processing in global transaction operation, terminating processing is not performed until the commit processing is completed. The terminating processing starts at a point where the commit processing is completed.

-M system Solaris32

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- This command can be executed when all the events assigned to the unit are stopped.

Example

Stop the unit 'UNIT' forcibly.

```
esstopunit -unit UNIT -o off
```

20.23 esunsetup

Name

esunsetup

Deletes an Event Service.

Synopsis

```
esunsetup [-f] [-M system]
```

Description

Deletes an Event Service from the system. If an event factory has been set up and you delete an Event Service, both of them will be deleted from the system.

The following options and parameters can be specified:

-f

Deletes an Event factory from the system.

-M system `Solaris32`

Specify the operation target system name 'system' when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with the Interstage Application Server Enterprise Edition.

Notes

Execute this command with administrator authority.

Example

Delete an Event Service from the system.

```
esunsetup
```

Chapter 21 Portable-ORB Environment Setup Commands

This chapter describes the Portable-ORB environment setup command.

Supported commands

Table 21.1 Commands Supported by Each Product

Command	Outline	Standard-J Edition	Enterprise edition
porbeditenv	Edit environment file.	OK	OK

OK: Support

NO: No support

Location of commands

Table 21.2 Location of Commands

Platform	Directory
Windows32/64	C:\Interstage\porb\bin
Solaris32/64	/opt/FJSVporb/bin
Linux32/64	/opt/FJSVporb/bin

21.1 porbeditenv

Name

porbeditenv

Edit environment file.

Synopsis

Windows32/64

```
java -classpath %PORB_HOME%\bin\porbeditenv.jar;%CLASSPATH% porbeditenv
```

Solaris32/64 Linux32/64

```
java -classpath $CLASSPATH:$PORB_HOME/bin/porbeditenv.jar porbeditenv
```

Notes

- The environment variable PORB_HOME is the install directory for Portable-ORB.

- If the environment variable *CLASSPATH* includes space characters, as in the string "Program Files", enclose it in double quotation marks as follows: "%*CLASSPATH*%".
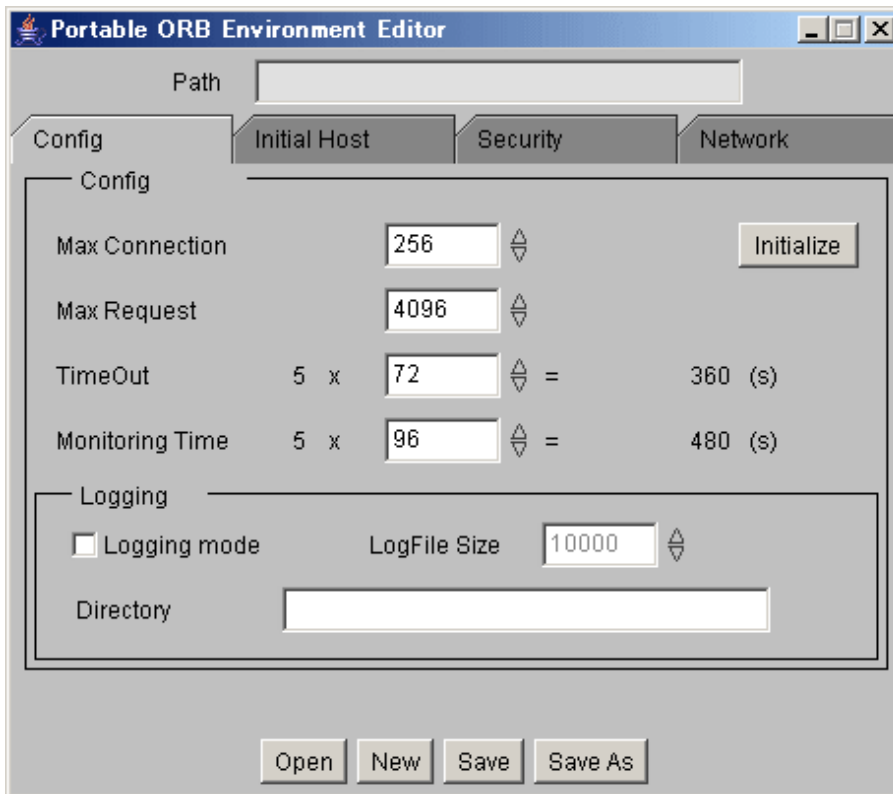
Solaris32/64 Linux32/64

- Set the directory of the JDK/JRE that will be used to the environment variable PATH:

```
PATH=<JDK/JRE installation path>/bin:$PATH
export PATH
```

Description

The *porbeditenv* command is used to edit the environment file when Portable-ORB is to be run. When the *porbeditenv* command is started up, the dialog shown in the following figure will be displayed.

Portable ORB Environment Editor Dialog (Config)

Note

- The environment settings window view can be switched by clicking the tabs in the top of the window. Environment settings are configured for each of the following according to this method: [Config], [Initial Host], [Security], [Network].

- Click [Open], [New], [Save], [Save As] to read in and save the operating environment file.

Open

Click *Open* to read in and display the operating environment file from the specified storage location. When *Open* is clicked, the dialog shown below is displayed. Use this dialog to specify the storage location.

For the storage directory, specify the storage location of the operating environment files.

If commands use the files, omit the etc subdirectory from the file system path format when specifying the directory path. To open the operating environment files stored under C:\Interstage\PORB\etc in Windows(R) systems, specify C:\Interstage\PORB as the storage directory.
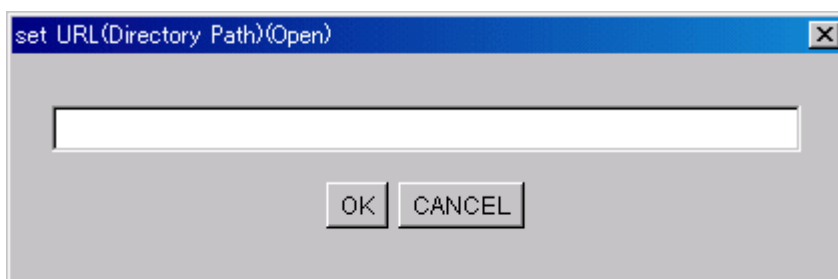
Set URL(Directory Path) dialog

New

Click the *New* button if you want to create a new environment file. When you have edited the environment file, another dialog will appear, asking you to confirm where you want to store it. The new environment file is then created.

Click *Save* to save the new operating environment file. This displays the same storage location specification dialog as the one displayed when *Open* is clicked. Specify the storage directory in the format described above under *Open*. This format is valid only when commands use the files.

Save

Click this button to save the environment file displayed in the dialog.

Save As

Click this button to save the environment file displayed in the dialog, to a different directory. A storage location specification window will appear, like the one that appears when *Open* is clicked. The environment file is then saved to the directory you have specified displayed in this dialog.

The storage directory specification format is the same as described above under Open. This format is valid only when commands use the files.

Path

This displays the name of the storage directory for the environment file currently displayed. The environment file is stored in the sub-directory etc under the directory name shown here.

Config

Click the [Config] tab to access the environment settings. Specify the Portable ORB environment settings as follows:

Max Connection

Specify the maximum number of connections from the client to the server machine.

Specify a value from 1 to 99999999.

The initial value is 256.

Max Request

Specify the maximum number of requests that can be issued concurrently by the client application to the same server.

Specify a value from 1 to 99999999.

The initial value is 4096.

TimeOut

Specify the response time (in seconds) until the server method is returned to the client. The actual response time is the value specified here multiplied by 5.

Specify a value from 0 to 20000000.

The initial value is 72 (360 seconds).

Note

- When 0 is specified, the response time is not monitored.

Monitoring Time

Specify the monitoring time between when the server method is returned to the client and another message is sent using the same connection. The actual monitoring time (in seconds) is 5 times the value specified here. If no requests have been sent to the server when the Monitoring Time elapses, the connection with the server is closed and re-opened the next time a request is sent.

Specify a value from 0 to 20000000.

The initial value is 96 (480 seconds).

Note

- If 0 is specified, idle monitoring is not used.

Logging mode

Check this option to keep a log.

The initial value is "Do not collect a log".

Note

- Application (applet) performance is affected when log information is collected.

LogFile Size

If you have not checked the [Logging mode], this will be disabled. Specify the maximum size of the log file in KB.

Specify a value from 1 to 2000000.

Directory

If you have not checked the [Logging mode], this will be disabled. Specify the storage directory to be used if the log is to be stored on the client.

This setting is valid only if the client application is run as an applet. If the client application is run as an application, logs are stored in the *var* directory under the Portable- ORB install directory.

Note: The string may contain spaces, but cannot start with one, otherwise it will not be possible to recognize the [Directory].

Initialize

Click this button if you want to restore the environment file to its initial state.

Initial Host

Click the [Initial Host] tab to display the following host information. The host information settings are configured in this window.
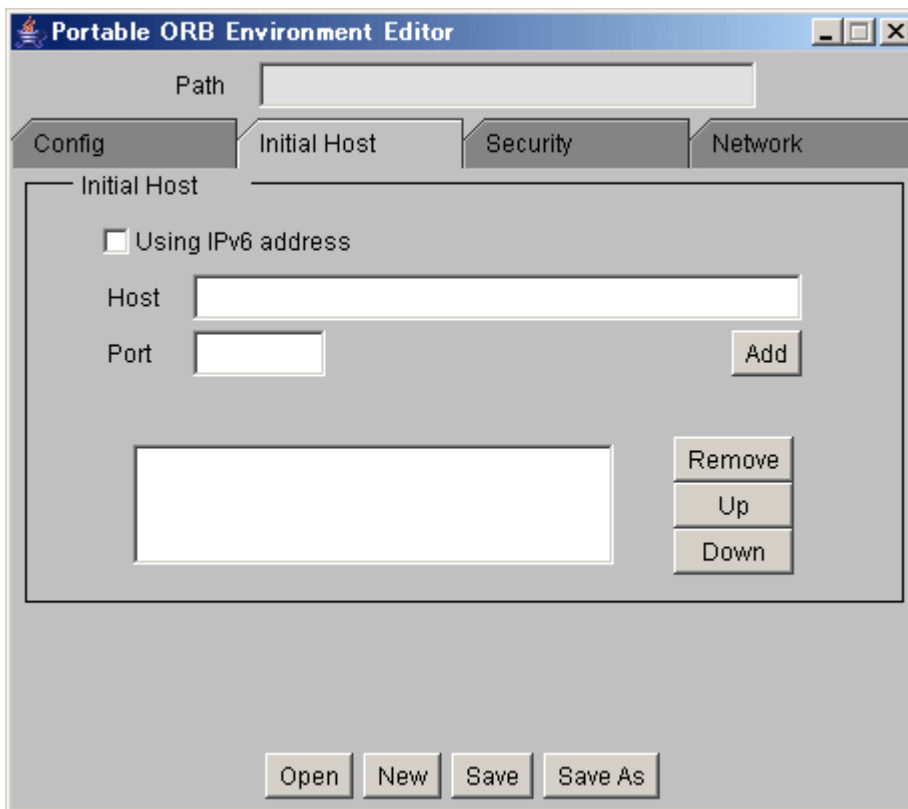
Portable ORB Environment Editor Dialog (Initial Host)

Using IPv6 address

Select this to enable the IPv6 format IP address notation specified in the [Host] field.

Host

Specify the host name where the Naming Service and Interface Repository to be used will be started up.

Port

Specify the port number where the Naming Service and Interface Repository will be used.

Add

Add the information you input for *Host* and *Port* to *Host list*.

Remove

Remove the selected host name and port number from the *Host list* box.

Up

Substitute the selected host name and port number in the *Host list* box for the information on the line above (i.e. move it one line up). Set search order to "upwards".

Down

Substitute the selected host name and port number in the *Host list* box for the information on the line below (that is, move it one line down). Set search order to "downwards".

Host list

Portable-ORB searches for the host where the Naming Service has been started up, among the hosts displayed in the *Host list* box. In operation, the search is carried out in order from the host displayed at the top.

Security

Click the [Security] tab to display the following security settings window. The security environment settings are configured in this window.
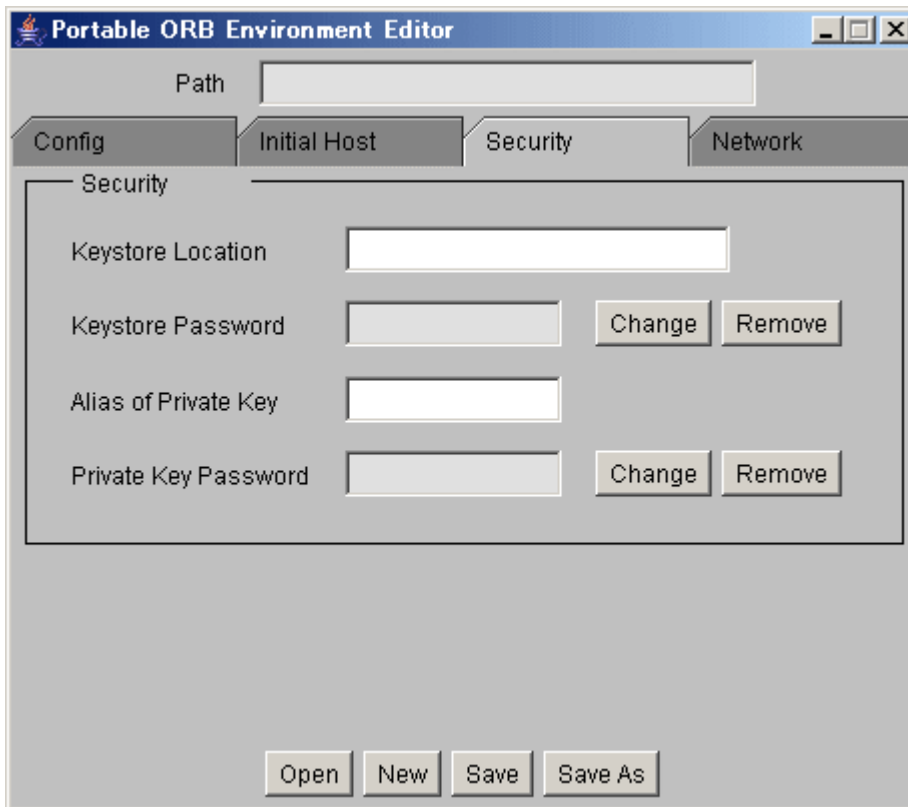
Portable ORB Environment Editor Dialog (Security)

Keystore Location

Specify the directory for storing the keystore using the file system path or URI format.

Note: The string may contain spaces, but cannot start with one, otherwise it will not be possible to recognize the [Keystore Location].

Example

For path format:

```
C:\Interstage\PORB\etc\keystore
```

For URI format:

```
http://host.domain/porb/etc/keystore
```

For URI format:

```
file://C:/Interstage/PORB/etc/keystore
```

Keystore Password

The keystore password cannot be entered directly.

Click the following buttons to set or delete the keystore password. Once set, the password is displayed as "*".

[Change]

Click this button to set the keystore password. In the [Keystore Password] dialog, specify the new password. If a password already been set, this password must also be entered.

[Remove]

Click this button to delete the keystore password. In the [Keystore Password] dialog, enter the current password, and then delete the password.

Alias of Private Key

Specify an alias for the non-public key.

Note

- This does not have to be set if the client certificate is not registered.

Private Key Password

The non-public key password cannot be entered directly.

Click the following buttons to set or delete the non-public key password. Once set, the password is displayed as "*".

Note

- This does not have to be set if the client certificate is not registered.

[Change]

Click this button to set the non-public key password. In the [Private Key Password] dialog, specify the new password. If a password already been set, this password must also be entered.

[Remove]

Click this button to delete the non-public key password. In the [Private Key Password] dialog, enter the current password, and then delete the password.

Network

Click the [Network] tab to display the following network environment settings window. The network environment settings are configured in this window.
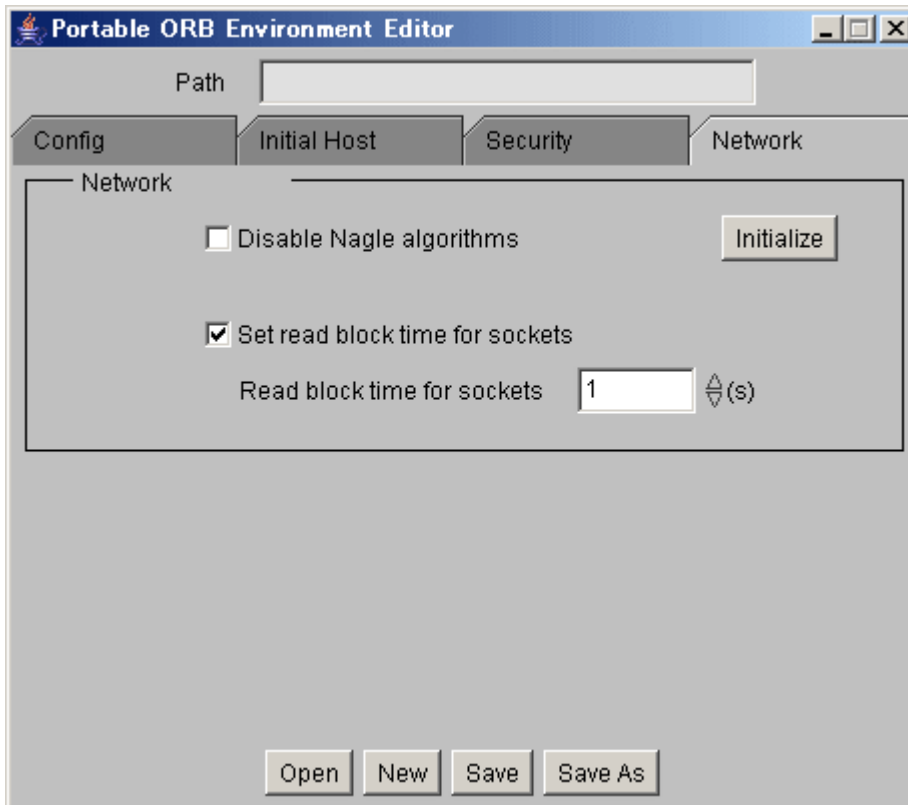
Portable ORB Environment Editor Dialog (Network)

Disable Nagle algorithms

Clear the checkbox to disable the Nagle algorithm when the e-text is sent.

If the checkbox is checked, the Nagle algorithm is enabled and the network efficiency to perform buffering for the send data improves.

If the checkbox is unchecked, the Nagle algorithm is disabled and the network efficiency to perform buffering for the send data decreases. Although the overall communication performance might decrease in this case, time lags that occur when data is sent and received also decrease, meaning an improvement in response efficiency.

The Nagle algorithm is enabled by default.

Set read block time for sockets

Check this checkbox to set the socket operation block time for receiving data from the server.

If the checkbox is unchecked, the socket operation block time is disabled.

The block time is set by default.

Read block time for sockets

This is enabled if the [Set read block time for sockets] checkbox is checked.

Set the block time for socket operations in seconds. When the read block time for sockets is set, the system determines whether socket is valid for the set time, and closes the socket if it is invalid.

Specify a number from 0 to 2000000 for the read block time for the socket.

The default is 1 (seconds).

If 0 is specified, it is the same as clearing the [Set read block time for sockets] checkbox. In both cases, the socket operation block time is disabled.

Note: If the connection is lost when data is received from the server, the socket operation is blocked until the set time is exceeded. In this case, it is not possible to notify a timeout. The value set for [Read block time for sockets] must be less than the value set for [Timeout].

Initialize

Click this button if you want to restore the environment file to its initial state.

Notes

- *porbeditenv.jar* is stored in the *bin* directory under the Portable-ORB install directory.

- Execute this command as a user with authority to access to the operating environment files and the directory where operating environment files are stored.

Solaris32/64 Linux32/64

If the operating environment file is stored under /etc/opt/FJSVporb, execute this command as a user with administrator authority.

- If changes are made to the operating environment, but the changes are not saved when *New* or *Open* is selected, the save changes confirmation window is displayed.
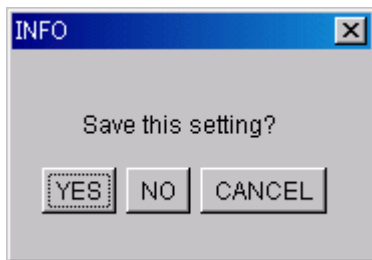
Save Changes Confirmation Window

Subsequent processing depends on which button is selected, as follows:

YES: The changes are saved, then the *New* or *Open* processing proceeds.

NO: The changes are not saved, and the *New* or *Open* processing proceeds.

CANCEL: The changes are not saved, and the display reverts to the screen status before *New* or *Open* was selected.

- The password set in the Security tab is saved in an encrypted format in the Portable ORB environment file. The current password is required to set or delete the password.

Solaris32/64 Linux32/64

- Use the commands to edit the Portable ORB environment file on the client Host.

Solaris32/64

- If this command is executed under Solaris, the following warning may be displayed, but operations are not affected:

```
Warning
  Name:slist
  Class:XmList
  Invalid item(s) to delete.
```

- When Using Command

When using command, creating the following batch file is recommended.

Example

Windows32/64

```
set PORB_HOME=C:\Interstage\PORB
java -classpath "%PORB_HOME%"\bin\porbeditenv.jar;"%CLASSPATH%" porbeditenv
```

Set PORB_HOME as the installation directory of Portable-ORB.

The batch file described above is porbeditenv.bat under "C:\Interstage\PORB\bin".

Solaris32/64 Linux32/64

```
PORB_HOME=/opt/FJSVporb; export PORB_HOME
java -classpath $PORB_HOME/bin/porbeditenv.jar:$CLASSPATH porbeditenv
```

Set PORB_HOME as the installation directory of Portable-ORB.

The batch file described above is porbeditenv.sh under "/opt/FJSVporb/bin".

- Log Files

If you specify *Get log* and then execute the applet, the log files will be stored with the name *xxxyyy.log* and *xxxyyy.old* (where *xxx* is the applet class name specified in HTML, and *yyy* is the host name of the client machine on which the applet was executed) under the directory you specified for *Logging directory*.

If digital signing has not been implemented, or if the path is wrong, the log file will not be created.

Messages

The execution result of the command is output to the screen where the command was executed.

Refer to the Messages Manual for the content of the message.

Chapter 22 Performance Analysis Monitoring Commands

This chapter details the Performance Analysis Monitoring commands.

The following table describes the commands supported by each product.
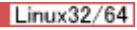
Command	Outline	Standard-J Edition	Enterprise edition
ispmakeenv	Create performance monitoring environment and start up performance monitoring logger.	OK	OK
ispdeleteenv	Stop performance monitoring logger and delete performance monitoring environment.	OK	OK
ispstart	Start performance monitoring	OK	OK
ispstop	Stop performance monitoring	OK	OK
ispstatus	Display performance monitoring status	OK	OK
ispreport	Report output.	OK	OK
Ispsetautostart Windows32/64	Registers the automatic start definition for the performance monitoring tool.	No	OK
Ispunsetautostart Windows32/64	Deletes the automatic start definition for the performance monitoring tool.	No	OK
Ispinfautodef Windows32/64	Displays the contents of the automatic start definition for a performance monitoring tool.	No	OK
Ispsetagt Windows32/64	Registers the performance monitoring tools as SNMP service subagents.	OK	OK
ispunsetagt Windows32/64	Deletes the performance monitoring tools from the SNMP service.	OK	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Directory
Windows32/64	C:\Interstage\bin
Solaris32/64	/opt/FSUNtd/isp/bin
Linux32/64	/opt/FJSVtd/isp/bin

22.1 ispmakeenv

Name

ispmakeenv

Create performance monitoring environment and start up performance monitoring logger.

Synopsis

```
ispmakeenv [-M system-name] [-m size] [-i interval1] [-r interval2] [-d
directory]
```

Description

This command creates the performance monitoring environment and starts up the performance monitoring logger.

The options and arguments of the *ispmakeenv* command are explained below.

-M system-name   Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

-m size

Specify the shared memory size. Use spaces as delimiters between -*m* and *size*. Specify the shared memory size in MB. If you fail to specify a value, it will default to 1MB. The minimum value that can be specified is 1, and the maximum value is the maximum value (in MB) for the size of the shared memory defined by the system, or 2046, whichever is the smaller. The performance monitoring tool uses the shared memory to log performance information. Before you make your specification, work out the amount of shared memory needed from the amount of performance information to be logged. Refer to the Tuning Guide for instructions on estimating the amount of performance information.

-i interval1

Specify the time interval for which the performance information is held in the performance log files. The interval can be specified in hours or minutes. The following values can be set:

Hours:	1, 2, 3, 4 (1 to 4 hours)
Minutes:	1m, 5m, 10m, 20m, 30m (1, 5, 10, 20 or 30 minutes)

The default is 1 hour.

-r interval2   Windows32/64 Solaris32/64

Time interval for real-time monitoring.

Specify the time interval to collect performance information to be reported to the network manager. Specify the time interval in the range of 1 to 60 minutes.

If this operand is omitted, the default value is 5 minutes.

-d directory

Specify the absolute pathname of the folder where performance log files are created. The default is the folder specified by the ISP_LOG environment variable. If a folder name is not specified by this argument (or in the ISP_LOG environment variable), the following default directory names are used.

Windows32/64

```
C:\INTERSTAGE\td\isp\log
```

Solaris32/64

```
/opt/FSUNtd/isp/log
```

Linux32/64

```
/opt/FJSVtd/isp/log
```

Performance log files are created in the specified folder and with the following naming style:

Performance log file name

ispYYYYMMDD.log

where, YYYYMMDD is the file creation date.

YYYY:	Western year
MM:	Month (01 to 12)
DD:	Day (01 to 31)

Notes

- Only system administrators are authorized to execute this command.

- Execute this command before you use the *ispstart* command and start the WorkUnit of the target object that you are going to monitor the performance of.

- Do not delete performance log files after the *ispmakeenv* command is executed. If deleted, the performance information may not be saved correctly. If performance log files are to be deleted, use the *ispdeleteenv* command.

Examples

Use this command to specify a folder name and create a performance monitoring environment:

```
ispmakeenv -d c:\temp\isplog
```

Windows32/64 Solaris32/64

Use this command to create a performance monitoring environment in which the real-time monitoring function is used:

```
ispmakeenv -r 10
```

Acquire 5M of shared memory and create the performance monitoring environment:

```
ispmakeenv -m 5
```

Acquire 1M of shared memory and create a performance monitoring environment that retains the performance information for a period of 10 minutes.

```
ispmakeenv -i 10m
```

22.2 ispdeleteenv

Name

ispdeleteenv

Stop performance monitoring logger and delete performance monitoring environment.

Synopsis

```
ispdeleteenv [-M system-name]
```

Description

This command stops the performance monitoring logger and deletes the performance monitoring environment.

The options and arguments of the *ispdeleteenv* command are explained below.

-M system-name   Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

Notes

- Only system administrators are authorized to execute this command.

- Once you have deleted the performance monitoring environment and stopped the performance monitoring logger, performance monitoring cannot be carried out. If you want to reinstate performance monitoring, re-create the performance monitoring environment and restart the performance monitoring logger to restart Interstage.

- The performance monitoring logger should not be stopped while performance monitoring is in progress. If the performance monitoring logger is stopped while performance monitoring is in progress, then no further performance data will be logged.

Example

To delete the performance monitoring environment and stop the performance monitoring logger:

```
ispdeleteenv
```

22.3 ispstart

Name

ispstart

Start performance monitoring

Synopsis

Windows32　Solaris32　Linux32

```
ispstart [-M system-name] -f FileName | -o ObjectName
```

Windows64　Solaris64　Linux64

```
ispstart -f FileName
```

Description

This command starts performance monitoring.

The options and arguments of the *ipstart* command are explained below.

-M system-name　Solaris32

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

-f FileName

Specify the name of the specification file that contains the performance monitoring targets.

For information about the specification file for performance monitoring, refer to "Performance Monitoring Target Specification File (ispstart command)" in the "Performance Monitoring" chapter of the Operator's Guide.

The following can be specified to be a candidate for performance monitoring.

- Object name of transaction application　Windows32　Solaris32　Linux32

- Object name of wrapper　Windows32　Solaris32　Linux32

- EJB application name

- Light EJB container name　Windows32　Solaris32　Linux32

- Implementation repository ID of CORBA application.

A maximum of 1000 performance monitoring targets can be specified.

For Standard-J Edition, only an EJB application name and Light EJB container name can be specified.

Windows32　Solaris32　Linux32

If this option is omitted, the -o option must be specified.

-o ObjectName `Windows32` `Solaris32` `Linux32`

This is used to specify the object names for the transaction application or wrapper objects to be measured. Use spaces as delimiters between *-o* and *ObjectName*. Between 1 and 1000 object names can be specified.

When specifying more than one object name, use spaces as delimiters between them. If this option is omitted, the -f option must be specified.

This option is available for the Enterprise Edition only.

Notes

- Only system administrators are authorized to execute this command.

- Do not start performance monitoring until you have used the *ispmakeenv* command to create the performance monitoring environment. If the performance monitoring environment has not been created, performance monitoring will fail to start.

`Solaris32/64` `Linux32/64`

- Performance monitoring fails to start if the specified object is not registered.

Examples

The following examples show how performance monitoring is started.

`Windows32` `Solaris32` `Linux32`

When there is 1 object:

```
ispstart  -o object001
```

When there are 3 objects:

```
ispstart  -o object001 object002 object003
```

When the specification file for performance monitoring is specified:

```
ispstart  -f objfile
```

`Windows32` `Solaris32` `Linux32`

```
ispstart  -f objfile
```

22.4 ispstop

Name

ispstop

Stop performance monitoring

Synopsis

```
ispstop [-M system-name]
```

The argument of the *ispstop* command is explained below.

-M system-name `Solaris32`

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

Description

This command stops performance monitoring.

Only system administrators are authorized to execute this command.

Example

To stop performance monitoring:

```
ispstop
```

22.5 ispstatus

Name

ispstatus

Display performance monitoring status

Synopsis

```
ispstatus [-M system-name]
```

Description

This command displays performance monitoring status.

The argument of the *ispstatus* command is explained below.

-M system-name `Solaris32`

Specify the name of the target system.

If this option is omitted, the default system is assumed to be specified.

Display Information

The format in which the performance monitoring status is output is explained below.

- Amount of shared memory (shm)

Indicates the amount of shared memory that is used to acquire the performance information. Unit of display is Mega bytes.

- Time of interval (time)

The time of interval to save the performance information in the performance log file. Unit of display is "hour" and "minute". Unit is displayed as follows.

- Hour:hour(s)

- Minute:minute(s)

- Name of folder that creates the performance log file(dir)

The name of folder that creates the performance log file. It is displayed with the absolute path.

- Performance monitoring status (status)

It is under the performance monitoring status.

- active:Under monitoring

- inactiveUnder stopping

`Windows32/64`

- Performance monitoring tool operating mode (mode)

(Enterprise Edition only)

Displays the operating status of the performance monitoring tool.

- manual : Manual operation

- auto : Automatic operation

- Name of the object that is the target of measurement (obj)

  List of names of objects that are the target of measurement.

- EJB application names to be measured (ejp-apl)

  List of EJB application names to be measured

- Light EJB container names to be measured (ejp-cont)

  List of Light EJB container names to be measured

- Implementation Repository ID to be measured (impl-ID)

  List of Implementation Repository ID to be measured

For Standard-J Edition, only the EJB application name and Light EJB container name are displayed.

Notes

- Only system administrators are authorized to execute this command.

- If the performance monitoring environment has not been created, an error message will appear, and the performance monitoring status will not be displayed.

Examples

Windows32/64

The following example shows the performance monitoring status in a case where performance monitoring with one hour intervals was started with 1MB of shared memory and c:\INTERSTAGE\td\isp\log was specified as the folder name.

```
ispstatus
shm    : 1
time   : 1 hour(s)
dir    : c:\INTERSTAGE\td\isp\log
status : active
obj    : object001
       : object002
ejb-apl:ejbapl1
ejb-cont:ejbcont1
impl-ID:IDL:FJ/ImplementationRep:1.0
```

The following example shows the performance monitoring status in a case where shared memory of 2MB and a folder name of c:\INTERSTAGE\td\isp\log were specified for performance monitoring with five-minute intervals and performance monitoring was stopped.

```
ispstatus
shm    : 2
time   : 5 minute(s)
dir    : c:\INTERSTAGE\td\isp\log
status : inactive
```

Solaris32/64

```
ispstatus
shm    : 1
time   : 1 hour(s)
dir    : /opt/FSUNtd/isp/log
status : active
obj    : object001
       : object002
ejb-apl:ejbapl1
```

```
ejb-cont:ejbcont1
impl-ID:IDL:FJ/ImplemetationRep:1.0
```

The following example shows the performance monitoring status in a case where shared memory of 2MB and a folder name of /opt/
FSUNtd/isp/log were specified for performance monitoring with five-minute intervals and performance monitoring was stopped.

```
ispstatus
shm    : 2
time   : 5 minute(s)
dir    : /opt/FSUNtd/isp/log
status : inactive
```

Linux32/64

The following example shows the performance monitoring status in a case where performance monitoring with one hour intervals was
started with 1MB of shared memory and /opt/FJSVtd/isp/log was specified as the folder name.

```
ispstatus
shm    : 1
time   : 1 hour(s)
dir    : /opt/FJSVtd/isp/log
status : active
obj    : object001
       : object002
ejb-apl:ejbapl1
ejb-cont:ejbcont1
impl-ID:IDL:FJ/ImplemetationRep:1.0
```

The following example shows the performance monitoring status in a case where shared memory of 2MB and a folder name of /opt/
FJSVtd/isp/log were specified for performance monitoring with five-minute intervals and performance monitoring was stopped.

```
ispstatus
shm    : 2
time   : 5 minute(s)
dir    : /opt/FJSVtd/isp/log
status : inactive
```

22.6 ispreport

Name

ispreport

Report output.

Synopsis

```
ispreport [-b begin_time] [-e end_time] [-k kind] file_name
```

Description

This command reads performance information, one record at a time, from the performance log files where performance information is
stored as binary data. This command converts the data to text format (CSV format), then sends it to the standard output.

The *ispreport* options and arguments are explained below:

When the -k option is omitted, output the performance information on transaction application and a wrapper. The information about the
wrapper is output only in the Windows(R) and Solaris editions.

-b begin_time

This specifies the start time for report output. Performance information stored after the specified time is extracted from the specified performance log file to output the report. If the start time is not specified, performance information starting from the start of the specified file is output in the report.

Times are specified as follows:

```
Format:   {YYYY}MMDDhhmm
YYYY:     Western year (4 digits)
MM:       Month (01 to 12)
DD:       Day (01 to 31)
hh:       Hour (00 to 23)
mm:       Minutes (00 to 59)
```

-e end_time

This specifies the end time for report output. Performance information stored before the specified time is extracted from the specified performance log file to output the report. If the end time is not specified, performance information up to the end of the specified file is output in the report.

The time specification method is the same as the -b option.

-k kind

This specifies the performance information for which surveillance is displayed. The following can be specified to be kind.

kind specification character sequence	Operation
TDOBJ	The report of the performance information on the object of transaction application is output. The information on wrapper is output only in the Windows(R) and Solaris editions.
EJBAPL	The report of the performance information on the EJB application or Light EJB container is output.
IMPLID	The report of the performance information on implementation repository of CORBA application is output.

For Standard-J Edition, only EJBAPL can be specified.

file_name

This specifies the absolute pathname of the performance log file where the performance information is stored. Use spaces as delimiters to specify multiple file names.

Specify the file names of performance log files as shown below:

"folder name\file name" Windows32/64

Folder name:

The folder specified when the *ispmakeenv* command was executed, or the folder specified in the ISP_LOG environment variable

File name:

isp YYYYMMDD.log

where, YYYYMMDD is the file creation date.

YYYY:	Western year
MM:	Month (01 to 12)
DD:	Day (01 to 31)

"/directory name/file name" Solaris32/64 Linux32/64

directory name:

The directory specified when the *ispmakeenv* command was executed, or the directory specified in the ISP_LOG environment variable.

File name:

isp YYYYMMDD.log

where, YYYYMMDD is the file creation date.

YYYY:	Western year
MM:	Month (01 to 12)
DD:	Day (01 to 31)

Report Output Format

The report output format is explained below.

The performance information records are converted to text format one record at a time, and each record is displayed in a separate row of the report. Each line displays up to 22 information items depending on the application type. Those items are separated by a comma (,) as follows:

"D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14, D15, D16, D17, D18, D19, D20, D21, D22"

The items displayed in each row are:

For transaction application or wrapper

The information about the wrapper is output only in the Enterprise Edition of Windows(R) and Solaris editions.

The information about the transaction application is output only in the Enterprise Edition.

D1: Data collection start date

D2: Data collection start time

D3: Data collection end date

D4: Data collection end time

D5: Object name

D6: Operation name

D7: Process number

D8: Maximum request processing time (milliseconds)

D9: Minimum request processing time (milliseconds)

D10: Average request processing time (milliseconds)

D11: Maximum request processing wait time (milliseconds)

D12: Minimum request processing wait time (milliseconds)

D13: Average request processing wait time (milliseconds)

D14: Number of processes

D15: Number or requests received

D16: Number of requests waiting for processing.

For EJB application

D1: Data collection start date

D2: Data collection start time

D3: Data collection end date

D4: Data collection end time

D5: EJB application name

D6: Method name + Signature

D7: Process ID

D8: Thread ID

D9: Maximum request processing time (milliseconds)

D10: Minimum request processing time (milliseconds)

D11: Average request processing time (milliseconds)

D12: Maximum request processing wait time (milliseconds)

D13: Minimum request processing wait time (milliseconds)

D14: Average request processing wait time (milliseconds)

D15: Number of processes

D16: Number or requests received

D17: Number of requests waiting for processing

D18: Number of EJB objects (Session)

D19: Maximum number of Passivate items for entity

D20: Maximum size of memory area used in VM

D21: Average size of memory area used in VM.

For Light EJB container

D1: Data collection start date

D2: Data collection start time

D3: Data collection end date

D4: Data collection end time

D5: Light EJB container name/EJB application name

D6: Method name + Signature

D7: Process ID

D8: Thread ID

D9: Maximum request processing time (milliseconds)

D10: Minimum request processing time (milliseconds)

D11: Average request processing time (milliseconds)

D12: Maximum request processing wait time (milliseconds)

D13: Minimum request processing wait time (milliseconds)

D14: Average request processing wait time (milliseconds)

D15: Number of processes

D16: Number or requests received

D17: Number of requests waiting for processing

D18: Number of EJB objects (Session)

D19: Maximum number of Passivate items for entity

D20: Maximum size of memory area used in VM

D21: Average size of memory area used in VM.

For CORBA application

The items below are output only in the Enterprise Edition.

D1: Data collection start date

D2: Data collection start time

D3: Data collection end date

D4: Data collection end time

D5: Implementation Repository ID

D6: Object name

D7: Operation name

D8: Process ID

D9: Thread ID

D10: Maximum request processing time (milliseconds)

D11: Minimum request processing time (milliseconds)

D12: Average request processing time (milliseconds)

D13: Maximum request processing wait time (milliseconds)

D14: Minimum request processing wait time (milliseconds)

D15: Average request processing wait time (milliseconds)

D16: Maximum data length (byte)

D17: Minimum data length (byte)

D18: Average data length (byte)

D19: Number of processes

D20: Number or requests received

D21: Number of requests waiting for processing.

Notes

- Only system administrators are authorized to execute this command.

- If the performance log files do not contain any performance information, reports are not output.

Examples

Windows32/64

- Output a report based on the performance information stored in the performance log file c:\INTERSTAGE\td\isp\log\isp19981026.log.

```
ispreport c:\INTERSTAGE\td\isp\log\isp19981026.log.
19981026, 0900, 19981026, 1000, obj01, ope01, 13, 150, 100, 120, 400,
300, 360, 121, 28, 19
19981026, 0900, 19981026, 1000, obj02, ope02, 18, 150, 100, 120, 400,
300, 360, 104, 28, 19
19981026, 0900, 19981026, 1000, obj03, ope03, 26, 150, 100, 120, 400,
300, 360, 89, 28, 19
...
```

- Output a report based on the performance information stored in the performance log file c:\INTERSTAGE\td\isp\log\isp19981026.log, starting from 26/10/98 at 13:00 hours and ending at 26/10/98 at 15:00 hours.

```
ispreport -b 199810261300 -e 199810261500
c:\INTERSTAGE\td\isp\log\isp19981026.log.
19981026, 1300, 19981026, 1400, obj01, ope01, 13, 150, 100, 120, 400,
300, 360, 121, 28, 19
19981026, 1300, 19981026, 1400, obj02, ope02, 18, 150, 100, 120, 400,
300, 360, 104, 28, 19
```

```
19981026, 1300, 19981026, 1400, obj03, ope03, 26, 150, 100, 120, 400,
300, 360, 89, 28, 19
...
```


Solaris32/64

- Output a report based on the performance information stored in the performance log file /opt/FSUNtd/isp/log/isp19981026.log.

```
ispreport /opt/FSUNtd/isp/log/isp19981026.log.
19981026, 0900, 19981026, 1000, obj01, ope01, 13, 150, 100, 120, 400,
300, 360, 121, 28, 19
19981026, 0900, 19981026, 1000, obj02, ope02, 18, 150, 100, 120, 400,
300, 360, 104, 28, 19
19981026, 0900, 19981026, 1000, obj03, ope03, 26, 150, 100, 120, 400,
300, 360, 89, 28, 19
...
```

- Output a report based on the performance information stored in the performance log file /opt/FSUNtd/isp/log/isp19981026.log, starting from 26/10/98 at 13:00 hours and ending at 26/10/98 at 15:00 hours.

```
ispreport -b 199810261300 -e 199810261500
/opt/FSUNtd/isp/log/isp19981026.log.
19981026, 1300, 19981026, 1400, obj01, ope01, 13, 150, 100, 120, 400,
300, 360, 121, 28, 19
19981026, 1300, 19981026, 1400, obj02, ope02, 18, 150, 100, 120, 400,
300, 360, 104, 28, 19
19981026, 1300, 19981026, 1400, obj03, ope03, 26, 150, 100, 120, 400,
300, 360, 89, 28, 19
...
```


Linux32/64

- Output a report based on the performance information stored in the performance log file /opt/FJSVtd/isp/log/isp19981026.log.

```
ispreport /opt/FJSVtd/isp/log/isp19981026.log.
19981026, 0900, 19981026, 1000, obj01, ope01, 13, 150, 100, 120, 400,
300, 360, 121, 28, 19
19981026, 0900, 19981026, 1000, obj02, ope02, 18, 150, 100, 120, 400,
300, 360, 104, 28, 19
19981026, 0900, 19981026, 1000, obj03, ope03, 26, 150, 100, 120, 400,
300, 360, 89, 28, 19
...
```

- Output a report based on the performance information stored in the performance log file /opt/FJSVtd/isp/log/isp19981026.log, starting from 26/10/98 at 13:00 hours and ending at 26/10/98 at 15:00 hours.

```
ispreport -b 199810261300 -e 199810261500
/opt/FJSVtd/isp/log/isp19981026.log.
19981026, 1300, 19981026, 1400, obj01, ope01, 13, 150, 100, 120, 400,
300, 360, 121, 28, 19
19981026, 1300, 19981026, 1400, obj02, ope02, 18, 150, 100, 120, 400,
300, 360, 104, 28, 19
19981026, 1300, 19981026, 1400, obj03, ope03, 26, 150, 100, 120, 400,
300, 360, 89, 28, 19
...
```

22.7 ispsetagt

Name

ispsetagt

Registers the performance monitoring tools as SNMP service subagents.

Synopsis

Windows32/64

```
ispsetagt InterstageFolder
```

Description

This command registers performance monitoring tools as subagents of the SNMP service.

The arguments of the *ispsetagt* command are explained below.

InterstageFolder

Specify the absolute path for the Interstage install folder.

This option is mandatory. If omitted, registration of the performance monitoring tools fails.

Notes

- Only system administrators are authorized to execute this command.

- Install the SNMP service before executing this command. If the service has not been installed, registration of the performance monitoring tools fails.

- After this command is executed, restart the SNMP service.

Example

Register the performance monitoring tools as SNMP service subagents. The Interstage install folder is c:\INTERSTAGE.

```
ispsetagt c:\INTERSTAGE
```

22.8 ispunsetagt

Name

ispunsetagt

Deletes the performance monitoring tools from the SNMP service.

Synopsis

Windows32/64

```
ispunsetagt
```

Description

This command deletes the performance monitoring tools from the SNMP service.

Notes

- Only system administrators are authorized to execute this command.

- After this command is executed, restart the SNMP service.

Example

Delete the performance monitoring tools from the SNMP service.

```
Ispunsetagt
```

22.9 ispsetautostart

Name

ispsetautostart

Registers the automatic start definition for the performance monitoring tool.

Synopsis

Windows32/64

```
ispsetautostart file_name
```

Description

The *ispsetautostart* command registers the automatic start definition for performance monitoring tool. The performance monitoring tool is started by starting Interstage after this command is executed.

The arguments of the *ispsetautostart* command are explained below:

file_name

Specifies the name of a performance monitoring tool automatic start definition file with a full path. This option is mandatory; therefore, it cannot be omitted.

For details about the performance monitoring tool automatic start definition, refer to "Performance Monitoring Tool Automatic Startup Definition File (ispsetautostart command)" in the "Performance Monitoring" chapter of the Operator's Guide.

Notes

- Only system administrators are authorized to execute this command.

- The performance monitoring tool is automatically started at activation of Interstage by executing this command. When manually operating the performance monitoring tool, do not execute this command.

- This command cannot be executed during activation of the performance monitoring tool.

- After this command is executed, the performance monitoring tool cannot be started or stopped with the *ispmakeenv* or *ispdeleteenv* command. The performance monitoring tool can be started and stopped only by activating or terminating Interstage.

Example

```
ispsetautostart c:\temp\ispauto.txt
```

22.10 ispunsetautostart

Name

ispunsetautostart

Deletes the automatic start definition for the performance monitoring tool.

Synopsis

Windows32/64

```
ispunsetautostart
```

Description

The *ispunsetautostart* command deletes the automatic start definition for the performance monitoring tool.

Notes

- Only system administrators are authorized to execute this command.

- This command cannot be executed during activation of the performance monitoring tool.

Example

```
ispunsetautostart
```

22.11 ispinfautodef

Name

ispinfautodef

Displays the contents of the automatic start definition for a performance monitoring tool.

Synopsis

Windows32/64

```
ispinfautodef
```

Description

The *ispinfautodef* command outputs the contents of the registered automatic start definition for the performance monitoring tool to the standard error output file.

Notes

- Only system administrators are authorized to execute this command.

Example

```
ispinfautodef
[Control]
Shmsize = 10
Auto_Start = yes
Log_Path = c:\temp

[Interval]
local_interval = 30m
real_interval = 5

[TD-OBJECT]
TYPLNG/INTF
[EJB-APPLICATION]
ejbful
[CORBA-IMPLID]
IDL:ODsample/stringtest:1.0
IDL:ODsample/anytest:1.0
[EJBCONT]
Server0001
```

Part 8   Cluster Service Operation Edition
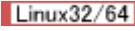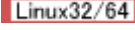
Chapter 23 Cluster Service Operation Commands

This chapter details the Cluster Service commands.

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
isgetstatus Solaris32/64 Linux32/64	Checks the operation status of Interstage.	No	OK
isrelease Solaris32/64 Linux32/64	Activates the prestarted Interstage.	No	OK
isreleasewu	Activates the prestarted WorkUnit.	No	OK
isstandby Solaris32/64 Linux32/64	Prestarts up Interstage	No	OK
isstandbywu	Prestarts up WorkUnit.	No	OK
odinspect Solaris32/64 Linux32/64	Monitors the CORBA Service.	No	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Command	Directory
Windows32/64	isreleasewu	C:\Interstage\bin
	isstandbywu	
Solaris32/64	odinspect	/opt/FSUNod/bin
	Other	/opt/FSUNtd/bin
Linux32/64	odinspect	/opt/FJSVod/bin
	Other	/opt/FJSVtd/bin

23.1 isgetstatus

Name

isgetstatus

Checks the operation status of Interstage.

Synopsis

Solaris32/64 Linux32/64

```
isgetstatus [-M system-name]
```

Description

This command checks the operation status of Interstage.

The operation status of Interstage is reported with the end code of the command.

The option and end code for this command and its meaning are as follows:

-M system-name ▐ Solaris32 ▌

    Specify the name of the target system. If this option is omitted, the default system is assumed to be specified.

End code of command

    100 : Started

    101 : Not started

    102 : Being started

    103 : Being stopped

    104 : Being prestarted

    1 : Parameter error

    2 : Other errors (A message indicating the error cause is output to the event log).

Notes

- Only the superuser is authorized to execute this command.

- Use this command only in cluster systems.

Example

```
isgetstatus
```

23.2 isrelease

Name

isrelease

Activates the prestarted Interstage.

Synopsis

▐ Solaris32/64 ▌ Linux32/64 ▌

```
isrelease [-M system-name]
```

Description

This command enables Interstage that is activated beforehand in the standby node when a switch event occurs in the operation standby type cluster system.

The argument for this command is as follows:

-M system-name ▐ Solaris32 ▌

    Specify the name of the target system. If this option is omitted, the default system is assumed to be specified.

Notes

- Only the superuser is authorized to execute this command.

- This command must be used only for prior-start operation in the standby node of the cluster system.

Example

```
isrelease
```

23.3 isreleasewu

Name

isreleasewu

Activates the prestarted WorkUnit.

Synopsis

```
isreleasewu [-M system-name] wuname
```

Description

This command activates a WorkUnit pre-started in a standby node at switching for a cluster service.

The argument for this command is as follows:

-M system-name   Solaris32

Specify the name of the target system. If this option is omitted, the default system is assumed to be specified.

wuname

Specifies the name of a WorkUnit to be activated. The type of the WorkUnit to be specified must be ORB, WRAPPER, or EJB.

Notes

- Specify this command only when the cluster service is used.

Solaris32/64 Linux32/64

- Only the user who pre-started a WorkUnit can activate the WorkUnit.

Example

```
isreleasewu TDSAMPLE1
```

23.4 isstandby

Name

isstandby

Prestarts up Interstage.

Synopsis

Solaris32/64 Linux32/64

```
isstandby [-M system-name]
```

Description

This command prestarts Interstage at a standby node when the system includes a cluster system of standby operation.

The argument for this command is as follows:

-M system-name `Solaris32`

> Specify the name of the target system. If this option is omitted, the default system is assumed to be specified.

Notes

- Only the superuser is authorized to execute this command.

- Use this command to prestart the system at a standby node only when the system includes a standby operation of cluster system.

Example

```
isstandby
```

23.5 isstandbywu

Name

isstandbywu

Prestarts up WorkUnit.

Synopsis

```
isstandbywu [-M system-name] wuname
```

Description

This command pre-starts a WorkUnit in a standby node when the cluster service is used.

The argument for this command is as follows:

-M system-name `Solaris32`

> Specify the name of the target system.

> If this option is omitted, the default system is assumed to be specified.

wuname

> Specify the name of a WorkUnit to be pre-started. The type of the WorkUnit to be specified must be ORB, WRAPPER, or EJB.

Notes

- Specify this command only when the cluster service is used.

- A WorkUnit started with the *isstandbywu* command operates using a qualification of the user who entered the command. The user who enters the command must have the authorizations indicated below for resources accessed by applications on the WorkUnit:

    - Read permission and write permission for disk partition in business system area

    - Authorizations for a file system required to use a directory and file specified in the WorkUnit definition

    - Permission for using resources used by an application on the WorkUnit.

- When memory is insufficient, the *tdstandbywu* command may return no response.

Example

```
isstandbywu TDSAMPLE1
```

23.6 odinspect

Name

odinspect

Monitors the CORBA Service.

Synopsis

Solaris32/64 Linux32/64

```
odinspect [-t second] {[od] [ns] [lbo] [ir] [ire]} [-M system]
```

Description

The *odinspect* command monitors a specified service for a specified period, and terminates if the service stops or cannot be used due to an error or similar reason.

It is possible to verify that a service has stopped or generated an error by means of the system log. If more than one service stops or generates an error, only the service detected first is output to the system log.

The parameters that can be specified are explained below.

-t second

Specify the time to monitor the service (1 to 99999 seconds). If omitted, the period is assumed to be 60 (seconds).

od

Monitors the CORBA Service (Implementation Repository Service).

ns

Monitors the Naming Service.

lbo Solaris32 Linux32

Monitors the Load Balancing function.

ir

Monitors the Interface Repository Service (for standard interface).

ire

Monitors the Interface Repository Service (for value interface).

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

Part 9   Development Edition

Chapter 24 Application Development Commands

This chapter explains the Application Development commands.

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
IDLc	IDL Compiler.	OK	OK
otslinkrsc Windows32/64 Solaris32 Linux32/64	Creates a Resource Manager.	No	OK
otsmkxapgm Windows32/64 Solaris32 Linux32/64	Creates a program for XA linkage.	No	OK
tdc Windows32 Solaris32 Linux32	The TD Compiler	No	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Command	Directory
Windows32/64	IDLc	C:\Interstage\ODWIN\bin
	otslinkrsc	C:\Interstage\bin
	otsmkxapgm	
	tdc Windows32	
Solaris32/64	IDLc	/opt/FSUNod/bin
	otslinkrsc Solaris32	/opt/FSUNots/bin
	otsmkxapgm Solaris32	
	tdc Solaris32	/opt/FSUNtd/bin
Linux32/64	IDLc	/opt/FJSVod/bin
	otslinkrsc	/opt/FJSVots/bin
	otsmkxapgm	
	tdc Linux32	/opt/FJSVtd/bin

24.1 IDLc

Name

IDLc

IDL Compiler.

Synopsis

```
IDLc [-C | -cpp | -cobol | -oocob | -java | -vcpp] [-mss[SS]]
 [-a [-create | -update | -delete] | -R [-create | -update | -delete]] [-poa]
 [-tie] [-lc] [-ls] [-javaee] [-noex] [-Idir] [-Dname] [-noinclude] [-dy]
 [-o prefix] [-Sname] [-Tdir] [-mapinfo] [-f] [-nolog] [-M system] [IDLfile]
```

Description

This command creates stubs and skeletons mapped in the specified language (C, C++, Java, COBOL, OOCOBOL, or Visual C++) from an IDL file specified by IDLfile. The default of IDLfile is foo.idl. The file name must be "XX.idl" (XX is an arbitrary character string, and the extension "idl" must be specified using lower-case letters).

The options of this command are as follows. If two exclusive options are specified, only the last option is valid.

Windows64

- The OOCOBOL option (-oocob) cannot be used.

Solaris64   Linux64

- The OOCOBOL options (-oocob, -unic) can only be used in a Windows(R) client.

Mapping Language Options

The following language mapping options can be specified. The default is -C.

-C

Stub and skeleton files are created in C.

-cpp

Stub and skeleton files are created in C++.

-cobol

Stub and skeleton files are created in COBOL.

-oocob

Stub and skeleton files are created in OOCOBOL (Object Oriented COBOL).

-java

Stub and skeleton files are created in Java.

-vcpp

Stub and skeleton files are created for Visual C++.

-mss[SS]

Skeleton files are created in a different development language from that used for stub files. "c" (C), "cpp" (C++), "cobol" (COBOL), "oocob" (OOCOBOL), or java (Java) can be specified as the language mapping for skeleton files in SS.

The language mapping for stub files follows the same specification as those listed above: (-C, -cpp, -cobol, -oocob, -java, and -vcpp). When "SS" is specified, the skeleton file extension can be changed. When "SS" is not specified, "SS=c" is assumed for "- mc", or "SS=cpp" is assumed for "-mcpp". For "-mcobol" , "-moocob" or -mjava, "SS" is ignored.

Names of files created

Tables Table 24.1 Created Stub and Skeleton Files (C) to Table 24.6 Created Stub and Skeleton Files (VC++) list the names of the stub and skeleton files created ("xx.idl" indicates an IDL filename. MM a module, and "yy" and "zz" indicate the interface and data type name defined in the IDL file, respectively.)

Programming language C

Table 24.1 Created Stub and Skeleton Files (C)

-m specified	-m not specified		File type
Stub and skeleton	Stub	Skeleton	
xx.h	xx.h	xx_cdr.h	Common header file
xx_cdr.h	xx_cdr.h	xx_cdr_SS.h	CDR header file
xx_cdr.c	xx_cdr.c	xx_cdr_SS.c	CDR source file
xx_stub.c	xx_stub.c		Stub file
xx_skel.c		xx_skel.c	Skeleton file
yy_skel.c		yy_skel.c	Skeleton file (when -dy is specified)

Programming language C++

Table 24.2 Created Stub and Skeleton Files (C++)

-m specified	-m not specified		File type
Stub and skeleton	Stub	Skeleton	
xx.H	xx.H	xx.H	Common header file
xx.h		xx_SS.h	Common header file
xx_cdr.h	xx_cdr.h	xx_cdr_SS.h	CDR header file
xx_cdr.c	xx_cdr.c	xx_cdr_SS.c	CDR source file
xx_c++.C	xx_c++.C	xx_c++.C	Class method
xx_stub_c++.C	xx_stub_c++.C		Stub file
xx_skel_c++.C		xx_skel_c++.C	Skeleton file
yy_skel_c++.C		yy_skel_c++.C	Skeleton file(when -dy is specified)

Programming language COBOL

Table 24.3 Created Stub and Skeleton Files (COBOL)

-m specified	-m not specified		File type
Stub and skeleton	Stub	Skeleton	
xx_cdr.cbl	xx_cdr.cbl	xx_cdr.cbl	CDR source file
xx_stub.cbl	xx_stub.cbl		Stub file
xx_yy_skel.cbl		xx_yy_skel.cbl	Skeleton file
xx_skel.cbl		xx_skel.cbl	Skeleton for area allocation (See Note 1)
xx_h.cbl	xx_h.cbl	xx_h.cbl	Data type definition file (See Note 2)

Programming language OOCOBOL (See Note 3)

Table 24.4 Created Stub and Skeleton Files (OOCOBOL)

-m specified	-m not specified		File type
Stub and skeleton	Stub	Skeleton	
xx--REP.cbl	xx--REP.cbl	xx--REP.cbl	Repository level declaration registry
xx--CONST.cbl	xx--CONST.cbl	xx--CONST.cbl	Constant declaration registry
xx--COPY.cbl	xx--COPY.cbl	xx--COPY.cbl	TYPEDEF type declaration registry
yy.cob	yy.cob	yy.cob	Interface file
yy--helper.cob	yy--helper.cob	yy--helper.cob	Helper class file
yy--stub.cob	yy--stub.cob		Stub class file

-m specified	-m not specified		File type
Stub and skeleton	Stub	Skeleton	
yy--NarrowStub.cob	yy--NarrowStub.cob		Narrow stub file
yy--NarrowSkel.cob		yy--NarrowSkel.cob	Narrow skeleton file
yy--tie.cob		yy--tie.cob	Tie class file
yy--NEW.cob		yy--NEW.cob	Implementation registration file
zz.cob	zz.cob	zz.cob	Data type class file (See Note 4)
zz--helper.cob	zz--helper.cob	zz--helper.cob	Data type helper file (See Note 4)

Programming language Java (See Note 5)

Table 24.5 Created Stub and Skeleton Files (Java)

-m specified	-m not specified		File type
Stub and skeleton	Skeleton	Stub	
MM/yy.java		MM/yy.java	Interface class file
MM/yyOperations.java		MM/yyOperations.java	Interface operations file
MM/yyHelper.java		MM/yyHelper.java	Helper class file
MM/yyHolder.java		MM/yyHolder.java	Holder class file
MM/_yyStub.java		MM/_yyStub.java	Stub class file
MM/yyPOA.java	-		Skeleton class file (See Note 6)
MM/yyPOATie.java	-		tie class file (See Note 6)
MM/yyPackage/zz.java		MM/yyPackage/zz.java	Data type class file
MM/yyPackage/zzHelper.java		MM/yyPackage/zzHelper.java	Data type Helper file
MM/yyPackage/zzHolder.java		MM/yyPackage/zzHolder.java	Data type Holder file

Programming language Visual C++

Table 24.6 Created Stub and Skeleton Files (VC++)

-m specified	-m not specified		File type
Stub and skeleton	Stub	Skeleton	
xx.h	xx.h		Common header file
xx_cdr.h	xx_cdr.h		CDR header file
xx_cdr.cpp	xx_cdr.cpp		CDR source file
xx_c++.cpp	xx_c++.cpp		Class method definition file
xx_stub.cpp	xx_stub.cpp		Stub file
xx_skel.cpp			Skeleton file
yy_skel.cpp			Skeleton file (when -dy is specified)

Notes

1. The area allocation functions for the IDL definitions that are not a basic data type are incorporated into this skeleton. If the IDL definitions are a basic data type, this skeleton is not created.

2. This file defines the data types to be used for stubs and skeletons, and must be referenced when creating applications.

3. Full scope names used for 'yy' (interface name) and 'zz' (data type name).

4. Generates files for the following declarations: typedef, string (with size specified), wstring (with size specified), enum, sequence, struct, union, fixed, and exception

5. Mapping with the Java language maps files by creating a directory structure (Java packages) that corresponds to the IDL structure.

   If separate data definitions are included in the data definitions (zz), further sub directories are generated for the zzPackage name, and the class files related to these new data definitions are stored under the sub directories.

6. This file will not be generated if the -javaee option was specified.

Operation Mode Options

Use the **-a** option to create stubs and skeletons and to register interface information in the Interface Repository. Use the **-R** option to register interface information in the Interface Repository without creating stubs and skeletons. Either option can be specified.

If neither of the two options are specified, this command creates stubs and skeletons only. Interface information is not registered in the Interface Repository.

-a

This option specifies that the command creates stubs and skeletons, and registers interface information in the Interface Repository. This option must be specified with the **-create**, **-update**, or **-delete** options.

-R

This option specifies that the command only registers interface information in the Interface Repository, without creating stubs and skeletons. This option must be specified with the **-create**, **-update**, or **-delete** options.

Interface Repository Registration Options

The **-create**, **-update**, or **-delete** options can be specified. If omitted, the **-create** option is assumed. Specify one of the above operation mode options with one of the following Interface Repository registration options:

-create

This option specifies that interface information is to be registered in the Interface Repository. If the same identifier has already been registered, an error occurs and current processing is invalidated.

-update

This option specifies that interface information is to be registered in the Interface Repository. If the same identifier has already been registered, the relevant interface information is updated. Specify this option when the relevant IDL file has been changed.

-delete

This option specifies that interface information is to be deleted from the Interface Repository. If the specified identifier has not been registered, an error occurs.

To modify IDL files, or modify or delete IDL definition information previously registered in the **Interface Repository**, use the unmodified IDL files (registered in the **Interface Repository**) and delete the information registered with the **-delete** option. Then re-register the modified IDL files.

Stub and skeleton creation mode options

-poa

When the mapping language is C++ (-cpp or -mcpp) or Visual C++ (-vcpp), POA (Portable Object Adapter) method files are generated. When this is omitted, the method used will be BOA (Basic Object Adapter).

-tie

Generates files in TIE class. If this option is omitted, files are generated in impl class. This option is valid when the mapping language is C++ (-cpp, mcpp) or Visual C++ (-vcpp). For further details, refer to information about the Interface Installation Function in the Distributed Application Development Guide (CORBA Service Edition).

-lc

-ls

These options are used to link the stubs and skeletons created by the *IDLc* command, to form a module. The XX_alloc function (the area allocation function for non basic data types) is usually invoked in both the created stub and skeleton. This option is used when

the function is invoked in the stub or skeleton only, or in neither. Refer to the explanation of the mapping for each data type in the Distributed Application Development Guide (CORBA Service Edition).

To link stub and skeleton, specifying "-D_MULTI_LINK_" invoking C++ compiler when mapping language is C++ (-cpp), or specifying "_MULTI_LINK_" macro using Visual C++ (-vcpp).

-ls

    Creates the function in the skeleton only.

-lc

    Creates the function in the stub only.

-ls -lc

    Creates the function in neither the stub nor the skeleton.

This option is valid when the language mapping is for the C language (**-C** or **-mc** is specified), or COBOL (**-cobol** or **-mcobol** is specified).

When the mapping language is C++ (-cpp), "-D_MULTI_LINK_" can be specified when the C++ compiler is executed to link the stub and skeleton.

When the mapping language is Visual C++ (-vcpp), the "_MULTI_LINK_" macro can be specified when the C++ compiler is executed to link the stub and skeleton. (If so, the skeleton area allocation function becomes invalid.)

-javaee

CORBA application files which run on Java EE are generated. This option is valid when the language mapping is for the Java (**-java** is specified). For details on CORBA applications which run on Java EE, refer to the "Java EE Operator's Guide".

-noex

This option specifies that exception processing is invoked by the CORBA::Environment method. If this option is omitted, exception processing is invoked by the try catch method. This option is valid when the language mapping is for the C++ (**-cpp** or **-mcpp** is specified).

Other Options

-Idir

This option specifies that the file specified by an #include statement is searched for, and the directory specified by "dir" is added in the directories. This can be specified more than once.

The directories are searched in the order of specification.

-Dname[=val]

This option defines a macro name. Specifying this option is the same as specifying "#define name val" at the beginning of the IDL file. If "=val" is omitted from "-Dname[=val]", it is equivalent to specifying "#define name."

-noinclude

This option specifies that the file specified in an #include statement is not mapped. This option cannot be specified with the **-create** or **-delete** options. To delete interface information from the Interface Repository, invoke the *IDLc* command with "-R -delete" once.

This option is valid when the language mapping is for the C, C++, COBOL, or Visual C++ languages.

-dy

This option specifies that a skeleton file is created for each interface definition. This option must be used to create a server application in library format. The option is always valid when the skeleton language mapping is for COBOL or OOCOBOL. Refer to the "Names of files created" section above for filenames.

-oprefix

This option specifies that the "xx" in the filename invoked from xx.idl is changed to the prefix specified by prefix. This option is invalid when the language mapping is for Java.

-Sname

When using this option, the **name** specified is attached to the beginning of a function name. This option is valid when the skeleton language mapping is for the C language. If using this option, specify a prefix for the object (interface repository ID) when the server application information is registered using the OD_impl_inst command.

-Tdir

This option specifies the location at which to create a compiler work file. If this option is omitted, the value set as the TEMP or TMP environment variable is assumed.

-mapinfo

This option creates a mapping information file, and is valid when the mapping language is OOCOBOL (-oocob). Refer to the "Mapping Information File" section below for details.

-f

Enables the inconsistency detection function of interface information and stub. This option is enabled when the mapping language is as follows:

- C (-C or -mc)

- C++ (-cpp or -mcpp)

- COBOL (-cobol or -mcobol)

- Java (-java)

    Note: This is disabled when the -javaee option is specified.

When this option is specified, the compiler execution time increases slightly. If the compiler processing fails, specify a longer wait time (period_receive_timeout parameter of config file) before the server method returns to the client.

-nolog

Invalidate the trace acquisition function of the CORBA Service. When this option is omitted, the trace information is not acquired by the stub skeleton.

-M system   Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Mapping Information File

Mapping information file is the file which class names of interface, data type and user exception declared in IDL file are output in. The file name's suffix is "inf". When a class name exceeds 30 characters, it is shortened. and this file is used to confirm the shortened class name. Use the classes in this file when describing class in application programs, or specifying file name to be linked invoking compiler. Refer to the following table.

Table 24.7 Mapping Information File Names

Item	Tag name	Content	Name	Use
1	<interface> - </interface>	Interface information (*1)	-	-
2	<typedef> - </typedef >	Data type information (*1)	-	-
3	<exception> - </exception>	User exception information (*1)	-	-
4	<map name="a" type="b"> - </map>	Mapping information for each declaration (*2) a: Full scope name b: Type (See Note)	-	-
5	<name> - </name>	Data type name	-	-

Item	Tag name	Content	Name	Use
6	<class> - </class>	Class name	-	*3
7	<class-file> - </class- file>	Class file name	"class name".cob	*4
8	<helper> - </helper>	Helper class name	"class name"--H/ "data type name"--H	*3
9	<helper- file> - </helper-file>	Helper class file name	"class name"--helper.cob/ "data type name"--helper.cob	*4
10	<stub> - </stub>	Stub class name	"class name"--S	*3
11	<stub-file> - </stub- file>	Stub class file name	"class name"--stub.cob	*4
12	<narrow- stub> - </narrow- stub>	Narrow stub file name	"class name"--NarrowStub.cob	*4
13	<narrow- skel> - </narrow-skel>	Narrow skeleton file name	"class name"--NarrowSkel.cob	*4
14	<new-impl> - </new- impl>	Implementation registration file name	"class name"--NEW.cob	*4
15	<tie> - </tie>	tie class name	"class name"--T	*3
16	<tie-file> - </tie-file>	tie class file name	"class name"--tie.cob	*4

*1 Includes information in Item 4

*2 Includes information in Item 5

*3 Class name to be specified in application programs

*4 File name to be linked during compilation

Note

The targeted IDL declarations and types are as shown in the following table.

Table 24.8 Targeted IDL Declarations and Types

Declaration	Type
Interface	interface
typedef	typedef
Exception	exception
struct (fixed)	struct-fixed
struct (variable)	struct-variable
Union	union
Enum	enum
Sequence	sequence
string (size specified)	string
wstring (size specified)	wstring
Fixed	fixed

Notes

- The IDL file extension "idl" must be entered in small letters. If it is entered in capital letter in case when it is imported by the use of the *ftp* command, change the name into the small letter and then execute the *IDLc* command.

- The following words are used as keywords in the *IDLc* command, and must not be used when creating IDL files:

  cdr, con, env, failed, method, object, reply_status, request, response_expected, result, type

- When the *IDLc* command is forcibly terminated with [ctrl]+[c], work file (generated under the **-T** option, or TEMPERATURE or TMP environment variable settings) may remain. In this case, delete the following files:

  Windows(R): Windows(R) system directory\temp\IDLc.*

  Solaris/Linux: /tmp/IDLc.*

- Any parameter not beginning with a hyphen will be treated as an IDL file name.

- When making a sequence type inheritance declaration in C and C++ mapping, a typedef warning message will be displayed at compile, but this can be ignored.

- Do not perform registration and update at the same time to the interface repository of the same IDL definition from two or more command entry displays or two or more clients.

- In Java mapping, the IDL definition must be performed inside the module declaration if you are developing an application. If there is an IDL definition outside the module declaration, an error occurs in the Java compiler.

Solaris32/64

- Execution of the *IDLc* command uses /usr/ccs/lib/cpp. Therefore, during operating system installation, specify developer's system support or higher as the install mode.

Linux32/64

- Software products required for developing the application are required.

Solaris32/64 Linux32/64

- The user authority for this command may vary based on the security mode selected during installation. For details, refer to 'Notes on Using Commands' at the beginning of this manual.

Error Messages

Compilation Error Messages

Can't open file :n

Error

The file indicated by "file" cannot be opened.

System error number: n

Read failed file

Error

Reading of the file indicated by "file" failed.

Write failed file

Error

Output to the file indicated by "file" failed.

MALLOC:name: n Bytes: Not enough memory

Error

There is insufficient memory to allocated "n" bytes for "name".

Syntax error:string

Error

A syntax error was found in the definition of "string," or an error was found in the content indicated by "string."

Structure member redeclaration of name

Error

The structure member "name" was redefined.

Union-switch member redeclaration of name

Error

The union-switch member "name" was redefined for a union.

Duplicate case in union-switch, label

Error

A duplicate label indicated by "label" was defined for a union.

Out of array dimension

Error

An array dimension is outside the specified range.

Identifier redeclaration of name

Error

The identifier "name" was redefined.

Illegal scoping name

Error

The name indicated by "name" is invalid for this scope.

name undefined data type

Error

"name" has not been defined as a data type.

name is not data type

Error

"name" is not a data type.

Illegal union-switch data type, name

Error

"name" is not a valid union-switch data type.

Identifier too long.max(n)

Error

The identifier length exceeded the maximum limit. The maximum limit is n.

name undefined exception

Error

"name" has not been defined as an exception.

name is not exception

Error

"name" is not an exception definition.

Warning:duplicate raises name exception

Warning

The definition of the "name" exception was duplicated in a Raises clause.

name undefined interface

Error

The "name" interface has not been defined.

name is not interface

Error

"name" is not an interface.

Warning:duplicate inheritance name interface

Warning

Inheritance of "name" interface was duplicated.

name undefined constant

Error

"name" has not been defined as a constant.

name is not constant

Error

"name" is not a constant.

Illegal constant type, name

Warning

"name" is not a valid constant type.

Warning:operator operator, out of range

Warning

The operand on the right of the shift operator "operator" is outside the valid range.

Operator operator, division by zero

Error

The second expression of operator "operator" is zero.

Overflow, Floating point value

Error

A floating-point value overflowed.

Bad assignment values, type1 : type2

Error

Values cannot be assigned because "type1" and "type2" are different types.

Warning:overflow signed long

Warning

A signed long value overflowed.

Illegal expression, type

Error

"type" is not a valid exception definition.

Syntax error hexadecimal, string

Error

Characters that cannot be specified as a hexadecimal number were specified in "string."

Syntax error octal, string

Error

Characters that cannot be specified as an octal number were specified in "string."

Undefined escape character, string

Error

"string" has not been defined as an escape character. Unsupported multiple source file.

Unsupported multiple sourcefile

Error

Multiple definition of an IDL file.

Positive-integer constant only

Error

Only positive integer constants can be specified.

Ambiguous variable usage

Error

Variable declaration is ambiguous.

Can't close "file-name"

Error

The file indicated by "file" cannot be closed.

REALLOC:"name" : n Bytes

Error

The memory allocation indicated by "name" with the size n-bytes failed.

CORBA_ORB_init ERROR

Error

CORBA Service (ObjectDirector) is not started.

CORBA_ORB_BOA_init ERROR

Error

CORBA Service (ObjectDirector) is not started.

can't make temp list

Error

The working files can't be created because it is short of the disk resources.

Unsupported data type : "type"

Error

The data type defined as "type" is not supported.

Directory Create Failed : "name"

Error

The directory which class files are stored in can't be created.

Other Messages

If the Interface Repository and Naming Service are used during language mapping by the *IDLc* command and an environment setting or communication error causes IDL file compilation to fail, an error message will be displayed, as follows:

Table 24.9 Process Name and Function Name

Processing phase (I/R):	Process name and function name
IDL:	Exception code
IDLc:	Stop.processing-phase status = termination status

Processing phase (I/R):	Process name and function name
Processing Phase	
IDLparser:	Syntax analysis on IDL file
IDLcg:	Mapping in C language
IDLcppg:	Mapping in C++ or Visual C++ language
IDLjavacg:	Mapping in Java
IDLcobolcg:	Mapping in COBOL
IDLoocobcg:	Mapping in OOCOBOL
IDLinst:	Registration, change, or deletion of information in or from Interface Repository
destroy_rep	Termination processing

Process Name and Function Name

Information is displayed indicating where the *IDLc* command error was detected.

Exception Code

The following exception codes can be displayed to indicate a system exception:

IDL:CORBA/StExcep/UNKNOWN:1.0

An unknown exception occurred.

IDL:CORBA/StExcep/BAD_PARAM:1.0

An invalid parameter was found.

IDL:CORBA/StExcep/NO_MEMORY:1.0

Memory shortage occurred.

IDL:CORBA/StExcep/IMP_LIMIT:1.0

The number of concurrently activated server applications reached the maximum limit.

IDL:CORBA/StExcep/COMM_FAILURE:1.0

A communication error occurred. Communication with the Interface Repository service was disabled.

IDL:CORBA/StExcep/INV_OBJREF:1.0

Object reference is invalid.

IDL:CORBA/StExcep/NO_PERMISSION:1.0

The user is not authorized for method execution.

IDL:CORBA/StExcep/INTERNAL:1.0

An internal error occurred in ObjectDirector.

IDL:CORBA/StExcep/MARSHAL:1.0

A marshaling error was detected in a parameter or result.

IDL:CORBA/StExcep/INITIALIZE:1.0

Initialization of ObjectDirector failed.

IDL:CORBA/StExcep/NO_IMPLEMENT:1.0

Interface Repository service has not been activated.

IDL:CORBA/StExcep/BAD_TYPECODE:1.0

Type code is invalid.

IDL:CORBA/StExcep/BAD_OPERATION:1.0

Operation is invalid.

IDL:CORBA/StExcep/NO_RESOURCES:1.0

Resources are not enough for requests.

IDL:CORBA/StExcep/NO_RESPONSE:1.0

Interface Repository service does not respond.

IDL:CORBA/StExcep/PERSIST_STORE:1.0

Persistent storage failed.

IDL:CORBA/StExcep/BAD_INV_ORDER:1.0

Routine calling is abnormal.

IDL:CORBA/StExcep/TRANSIENT:1.0

An error occurred during transition. The request is reissued.

IDL:CORBA/StExcep/FREE_MEM:1.0

Memory release failed.

IDL:CORBA/StExcep/INV_IDENT

Syntax of identifier is invalid.

IDL:CORBA/StExcep/INV_FLAG:1.0

Flag is invalid.

IDL:CORBA/StExcep/INTF_REPOS:1.0

An error occurred during access to the Interface Repository.

IDL:CORBA/StExcep/CONTEXT:1.0

An error occurred in a context object.

IDL:CORBA/StExcep/OBJ_ADAPTER:1.0

An error occurred in the object adapter.

IDL:CORBA/StExcep/DATA_CONVERSION:1.0

A data conversion error occurred.

Handling the Exception Codes

The system exceptions due to environment setting errors, and their corrective actions are as follows:

Exception code

IDL:CORBA/StExcep/NO_MEMORY:1.0

Cause

A shortage of system memory was detected.

Measures

Expand the system and swap memory.

Exception code

IDL:CORBA/StExcep/COMM_FAILURE:1.0

Cause

Communication with the Interface Repository service failed due to one of the following causes:

a) Communication with the server is disabled because it has not been turned on, or the CORBA Service has not been started.

b) The interface repository processing is not completed within the irconfig ir_timeout period (default value: 1,800 seconds).

c) An attempt was made to process data that exceeded the size specified by max_UNO_IIOP_msg_size in config (on the server or client). The default is 65,536 bytes.

d) The number of requests to the server has exceeded the maximum limit specified by max_IIOP_resp_con in config. The default is 8.

e) An error occurred in the network environment.

f) An error was found in the inithost/initial_hosts setting.

g) The Interface Repository service for the value interface is not started (for EJB application development).

Measures

Corrective action is as follows:

a) Connect power to the server and turn it on, then start the Interface Repository server.

b) Set a larger value in the ir_timeout parameter of irconfig, and restart the interface repository.

c) Set a larger value in the max_UNO_IIOP_msg_size parameter of config for the server and client, and restart the CORBA Service.

d) Set a larger value in the max_IIOP_resp_con parameter of config, and restart the CORBA Service.

e) Check the network environment. If there is a problem, correct it.

f) Check the inithost/initial_hosts file.

g) For EJB application development, specify the EJB option in the Interstage initialization processing.

Note

There are cases when the interface repository fails its startup after the measure of the above item b) is implemented. Take an appropriate measure by referring to the message that is output. For details of the messages, refer to Messages.

Exception code

IDL:CORBA/StExcep/NO_IMPLEMENT:1.0

Cause

The Interface Repository server has not been started.

Measures

Start the Interface Repository server. If startup fails, review the environment setup and retry startup. For EJB application development, specify the EJB option in the Interstage initialization processing.

Exception code

IDL:CORBA/StExcep/NO_RESOURCE:1.0

Cause

The object used to call the Interface Repository service cannot be invoked, or a server with the same implementation ID has already been started.

Measures

Retry processing later, or stop the server with the duplicate implementation ID, and review implementation IDs.

Termination Status

2 = A syntax error occurred.

3 = An unsupported process was invoked.

4 = Another error was detected.

Examples

The following *IDLc* command example compiles the sample.idl file, with the macro "DEBUG = 1" specified. A work file is created as follows.

Windows32/64

```
IDLc  -DDEBUG  -TC:\tmp1  sample.idl
```

```
IDLc  -DDEBUG  -T/tmp1  sample.idl
```

The following *IDLc* command example compiles the foo.idl file (default). Files to be included are searched for in C:\home\ORB\include \IDL. Information is not registered in the Interface Repository.

```
IDLc  -IC:\home\ORB\include\IDL
```

```
IDLc  -I/home/ORB/include/IDL
```

24.2 otslinkrsc

Name

otslinkrsc

Creates a Resource Manager.

Synopsis

```
otslinkrsc -l xa_linkpgm [-t { process|thread }] -r "library" [-c] -o name
```

Description

This command creates a Resource Manager. Specify the name of an XA linkage program at xa_linkpgm. Specify the library information (provided by the database vendor) required to link the XA at library. Specify the name of a Resource Manager to be created at name.

Execution of this command operates the *link* command of Microsoft(R) Visual(R) C++.

The options of this command are as follows:

-l

Specify a file extension "LIB" created by the *otsmkxapgm* command.

Specify a file extension "o" created by the *otsmkxapgm* command.

When the program for XA cooperation is in the current directory at the time of command execution, a command can be executed by specification of only a file name.

The maximum path name length that can be specified for an XA linkage program is 255 bytes.

-t { process|thread }

When process is specified, it is created in process mode.

When thread is specified, it is created in thread mode.

Assumed to be process if omitted.

-r

The library which the database vendor opens to the public is specified within 1024 bytes.

The library which the database vendor opens to the public is specified within 2048 bytes.

Specify a command depending on the database:

Database	Library
Symfoware/RDB	**Windows32** "/libpath:'library storage path' F3CWXA.LIB F3CWDRV.LIB"
	Windows64 "/libpath:'library storage path' F3CWXA_x64.LIB F3CWDRV_x64.LIB"
	Solaris32 Linux32 "-L'library storage path' -lrdbxa -lsqldrv"
	Linux64 "-L'library storage path' -lrdbxa64 -lsql64drv"
Oracle	**Windows32/64** [For Oracle 10g] "/libpath:'library storage path' ORAXA10.LIB" [For Oracle 11g] "/libpath:'library storage path' ORAXA11.LIB"
	Solaris32 Linux32/64 "-L'library storage path' -lclntsh"

Note

- It is necessary to enclose library information and object information with normal-width double quote (").

- It is necessary to enclose the storage passing in the library with normal- width single quote (').

-c

Makes the resource management program specified in the -o option the backup target. The resource management programs are created in the following folders:

Windows32/64

```
C:\Interstage\ots\var\clone
```

Solaris32

```
/opt/FSUNots/var/clone
```

Linux32/64

```
/opt/FJSVots/var/clone
```

-o

Specifies the name of a Resource Manager to be created.

The maximum path name length that can be specified for a Resource Manager name is 255 bytes.

Windows32/64

The file name which attached the extension "EXE" is specified. Specification never cares about neither the absolute path nor the file name. But, in file name specification, it is created by the current directory at the time of command execution.

Notes

- At the **-r** option, do not specify any library other than those provided by the database vendor.

Windows32/64

- When using the *otslinkrsc* command, Microsoft(R) Visual(R) C++ is needed.

- If the *otslinkrsc* command has resulted in an error, there can be a case when the message that outputs the Microsoft(R) Visual Studio(R), is output. In such a case, take an appropriate measure referring to the Microsoft(R) Visual Studio(R) Manual.

- When Microsoft(R) Visual Studio(R) 2005 is used, a manifest is generated, which will be required when the created resource management program is executed. Either place the manifest in the resource management program folder, or embed it in the resource management program (for details on the latter, refer to the Microsoft(R) Visual Studio(R) 2005 manuals).

- The following resource management programs are provided in (Interstage install path)\ots\program\rsc. There is no need to create further resource management programs if operation remains within the limits of the following programs.

    - Resource management program for Oracle10g (fjotsrsc_ora10g.exe)

    - Resource management program for Oracle11g (fjotsrsc_ora11g.exe)

    - Resource management program for Symfoware/RDB (fjotsrsc_symfo.exe)

    - | Windows32 |
      Resource management program for MQD (fjotsrsc_mqd.exe)

| Solaris32 |

- Do not overwrite an executable file of the activated resource management program. If a file already exists at execution of the command, the system asks if the file can be overwritten. Confirm whether the file operates as a process.

- The following resource management programs are provided in /opt/FSUNots/program/xa. There is no need to create further resource management programs if operation remains within the limits of the following programs.

    - Resource management program for Oracle10g (fjotsrsc_ora10g) (Process mode)

    - Resource management program for Oracle11g (fjotsrsc_ora11g) (Process mode)

    - Resource management program for Symfoware/RDB (fjotsrsc_symfo) (Process mode)

    - Resource management program for MQD (fjotsrsc_mqd) (Process mode)

- When using Symfoware/RDB on Solaris, specify the library of the product required in SymfoWARE/RDB in the environment variable LD_LIBRARY_PATH, and execute this command.

| Linux32/64 |

- The C compiler is required to use the *otslinkrsc* command.

- The following resource management program is provided in /opt/FJSVots/program/rsc. There is no need to create further resource management programs if operation remains within the limits of the following program.

    - Resource management program for Oracle10g (fjotsrsc_ora10g) (Thread mode)

    - Resource management program for Oracle11g (fjotsrsc_ora11g) (Thread mode)

    - Resource management program for Symfoware/RDB (fjotsrsc_symfo) (Process mode)

Examples

| Windows32 |
When resource control program "rdb_resource.exe" which uses Symfoware/RDB is created.

```
otslinkrsc -l D:\temp\ots\otssymxa.lib
 -r "/libpath:'C:\Program Files\SFWSV\ESQL\LIB' F3CWXA.LIB F3CWDRV.LIB"
 -o rdb_resource.exe
```

| Windows64 |
When resource control program "rdb_resource.exe" which uses Symfoware/RDB is created.

```
otslinkrsc -l D:\temp\ots\otssymxa.lib
 -r "/libpath:'C:\SFWSV\ESQL\LIB' F3CWXA_x64.LIB F3CWDRV_x64.LIB"
 -o rdb_resource.exe
```

When creating a Resource Manager (rdb_resource) that uses Symfoware/RDB, specify the Symfoware/RDB library directory in the environment variable RDB2LIB.

```
otslinkrsc -l libotssymxa.o -r "-L$(RDB2LIB) -lrdbxa -lsqldrv"
 -o rdb_resource
```

When the resource control program "rdb_resource.exe" which uses Oracle Version 10.2.0 is created.

```
otslinkrsc -l D:\temp\ots\otsoraxa.lib
 -r "/libpath:'C:\oracle\product\10.2.0\db_1\RDBMS\XA' ORAXA10.LIB "
 -o rdb_resource.exe
```

When creating a Resource Manager (rdb_resource) that uses Oracle, specify the Oracle library directory in the ORALIB environment variable.

```
otslinkrsc -l libotsoraxa.o -r "-L$(ORALIB) -lclntsh" -o rdb_resource
```

24.3 otsmkxapgm

Name

otsmkxapgm

Creates a program for XA linkage.

Synopsis

```
otsmkxapgm [-java] | [-t {process|thread}] -s switch_name...  -r "library" [-c] -o name
```

```
otsmkxapgm [-java -r "library"] | [-t {process|thread}] -s switch_name... [-c] -o name
```

Description

This command considers the program for server application enabling XA linkage with a database as a library file, and creates it two.

Input the name of the database structure xa_switch_t and output filename with the *otsmkxapgm* command.

Moreover, the library which a database vendor exhibits is also specified. Specify the -java option to create XA link programs for Java server applications.

In addition, execution of this command operates the compile command and the link command of Microsoft(R) Visual Studio(R).

This command considers the program for the server application enabling XA linkage with a database as an object file.

Input the name of the database structure xa_switch_t and output filename with the *otsmkxapgm* command.

In creating the program for XA cooperation for multi-resource linkage, it specifies a xa_switch_t structure object name by the number which cooperates.

The options and arguments of this command are as follows:

-s

　　Specifies an XA linkage database xa_switch_t structure name.

Multiple options and arguments can also be specified. It should not be omitted.

-java

The program for XA linkage using the Java language for server applications (Java server) is created. Specify this option only when creating the program for XA linkage for Java servers.

`Solaris32`

libthread.so is linked to the XA linkage program for Java servers.

`Linux32/64`

libpthread.so is linked to the XA linkage program for Java servers.

-r

`Windows32/64`

Specify the libraries provided by the database vendor (up to 1024 bytes).

`Solaris32` `Linux32/64`

Specify the libraries provided by the database vendor (up to 2048 bytes).

Specify a command by the following agreement.

Database	Library
Symfoware/RDB	`Windows32` "/libpath:'library storage path' F3CWXA.LIB F3CWDRV.LIB"
	`Windows64` "/libpath:'library storage path' F3CWXA_x64.LIB F3CWDRV_x64.LIB"
	`Solaris32` `Linux32` "-L'library storage path' -lrdbxa -lsqldrv"
	`Linux64` "-L'library storage path' -lrdbxa64 -lsql64drv"
Oracle	`Windows32/64` [For Oracle 10g] "/libpath:'library storage path' ORAXA10.LIB" [For Oracle 11g] "/libpath:'library storage path' ORAXA11.LIB"
	`Solaris32` `Linux32/64` "-L'library storage path' -lclntsh"

Notes

- It is necessary to enclose library information and object information with normal-width double quote (").

- It is necessary to enclose the storage passing in the library with normal-width single quote (').

`Windows32/64`

- This option is not omissible.

- when creating the XA linkage program for multi-resources, a blank character is divided and two or more information specified by the following agreement is specified as a character.

```
-r "/libpath:'librarypathname' /libpath:'librarypathname'... libraryname..."
```

librarypathname: Library path name

librarypath: The library name which each database vendor exhibits

-t {process|thread}

When process is specified, it is created in process mode.

When thread is specified, it is created in thread mode.

Assumed to be process if omitted.

-c

Makes the XA linkage program specified in the -o option the backup target. The XA linkage programs are created in the following folders:

Windows32/64

```
C:\Interstage\ots\var\clone
```

Solaris32

```
/opt/FSUNots/var/clone
```

Linux32/64

```
/opt/FJSVots/var/clone
```

-o

Specifies the name of a XA linkage program to be output. The maximum path name length that can be specified for an XA linkage program is 255 bytes.

This option is not omissible.

Windows32/64

Moreover, give the extension of a file as a "DLL." Extension of the specified file "DLL" and the library file of "LIB" are created as a result of a command. Specification never cares about neither the absolute path nor the file name. But, In file name specification, it is created by the current directory at the time of command execution.

Solaris32   Linux32/64

Usually, please give the extension of a file as "o." Moreover, when you specify it as -java simultaneously, please give the extension of a file as "so." In file name specification, it is created by the current directory at the time of command execution although a path name or a file name is sufficient as specification absolutely.

Notes

- The XA linkage program for multiple resource linkage can be used only when creating server applications.

- To use the multi resource access function, an XA linkage program and definition (WorkUnit definition and definition information for Implementation Repository registration) must be created (Tables Table 24.10 XA Linkage Program - Single and Multiple Resource Access and Table 24.11 XA Linkage Program - Single and Multiple Resource Access). While doing this, the Database Linkage Service WorkUnit invoke or init methods can be terminated abnormally.

Table 24.10 XA Linkage Program - Single and Multiple Resource Access   Windows32/64

XA linkage program	Register the WorkUnit definition or the CORBA Service	Invoke the WorkUnit and Database Linkage Service Init method
For one resource access	One resource definition file specification	Completes successfully
	Specification of the resource definition file of the same resource classification is plurality.	Completes successfully
	Specification of the resource definition file of a different resource classification is plurality.	Terminates abnormally
For multiple resource access	One resource definition file specification	Terminates abnormally
	Multiple resource definition file specifications	If the RM name exists, then completes successfully, otherwise, terminates abnormally

Table 24.11 XA Linkage Program - Single and Multiple Resource Access `Solaris32` `Linux32/64`

XA linkage program	Register the WorkUnit definition or the CORBA Service	Invoke the WorkUnit and Database Linkage Service Init method
For one resource access	One resource definition file specification	Completes successfully
	Multiple resource definition file specifications	Terminates abnormally
For multiple resource access	One resource definition file specification	Terminates abnormally
	Multiple resource definition file specifications	If the RM name exists, then completes successfully, otherwise, terminates abnormally

`Windows32/64`

- The following XA linkage programs are provided in (Interstage install path)\ots\program\rsc. There is no need to create further XA linkage programs if operation remains within the limits of the following programs.

  - XA linkage program for Oracle10g (otsxaora10g.dll/otsxaora10g.lib)

  - XA linkage program for Oracle10g (otsxaora10g_java.dll/otsxaora10g_java.lib) (for Java server applications)

  - XA linkage program for Oracle11g (otsxaora11g.dll/otsxaora11g.lib)

  - XA linkage program for Oracle11g (otsxaora11g_java.dll/otsxaora11g_java.lib) (for Java server applications)

  - XA linkage program for Symfoware/RDB (otsxasym.dll/otsxasym.lib)

  - XA linkage program for Symfoware/RDB (otsxasym_java.dll/otsxasym_java.lib) (for Java server applications)

  - XA linkage program for Symfoware/RDB (otsxasym_mt.dll/otsxasym_mt.lib) (this provides the link with the thread library)

  - XA linkage program for Symfoware/RDB (otsxasym_mt_java.dll/otsxasym_mt_java.lib) (this is for Java server applications that link with the thread library)

- The library file of two extensions, "DLL" and "LIB", is made. The file of extension "LIB" of a file becomes the input information of *otslinkrsc* command and *tdlinkapm* command. Moreover, the library file of extension "DLL" of a file should set the storing place of a file as system environment variable PATH, when you employ a resource control program.

- Microsoft(R) Visual Studio(R) is required in order to use the *otsmkxapgm* command.

- The XA linkage program for Java server applications can be used only when creating server application.

- When a command carries out an unusual end at the time of *otsmkxapgm* command execution, momentary work files (file name:otsenvxamkpgm.c) may not be collected. In this case, please delete the directory and the temporary work file created by the following environmental subordinates. The directory name created is otsmkxapgmnnnnnn_nn. (nnnnnn: Process ID of command, nn: The arbitrary numerical values of 2 figures)

  - It is the subordinate if there is an environment variable TMP.

  - It is the subordinate, if there is no environment variable TMP and there is TEMP.

  - If there are no environment variables TMP and TEMP, it is a current directory subordinate at the time of command execution.

`Solaris32`

- The following XA linkage programs are provided in /opt/FSUNots/program/xa. There is no need to create further XA linkage programs if operation remains within the limits of the following programs.

  - XA linkage program for Oracle (libotsxaora.o) (Process mode)

  - XA linkage program for Symfoware/RDB (libotsxasym.o) (Process mode)

  - XA linkage program for MQD (libotsxamqd.o) (Process mode)

  - XA linkage program when using Oracle and MQD (libotsxamqd_ora.o) (Process mode)

  - XA linkage program when using Symfoware/RDB and MQD (libotsxamqd_sym.o) (Process mode)

- A SPARCompiler is needed when using the *otsmkxapgm* command.

- The following XA linkage program is provided in /opt/FJSVots/program/xa. There is no need to create further XA linkage programs if operation remains within the limits of the following program.

  - XA linkage program for Oracle (libotsxaora.o) (Process mode)

  - XA linkage program for Symfoware/RDB (libotsxasym.o) (Process mode)

- A compiler is needed when using the *otsmkxapgm* command.

Examples

Windows32

When the XA linkage program for Symfoware "otssymxa.dll" is created

```
otsmkxapgm -s RDBII_xa_switch -r "/libpath:'c:\SFWSV\ESQL\LIB'F3CWXA.LIB
 F3CWDRV.LIB" -o D:\temp\ots\otssymxa.dll
```

Windows64

When the XA linkage program for Symfoware "otssymxaj.dll" is created

```
otsmkxapgm -s RDBII_xa_switch -r "/libpath:'c:\SFWSV\ESQL\LIB'F3CWXA_x64.LIB
 F3CWDRV_x64.LIB" -o D:\temp\ots\otssymxa.dll
```

Solaris32

When the XA linkage program for Symfoware "otssymxa.o" is created in thread mode.

```
otsmkxapgm -t thread  -s RDBII_xa_switch -o otssymxa.o
```

Windows32

When the XA linkage program for Symfoware (for Java server applications) "otssymxaj.dll" is created

```
otsmkxapgm -java -s RDBII_xa_switch -r "/libpath:'C:\SFWSV\ESQL\LIB'
 F3CWXA.LIB F3CWDRV.LIB" -o D:\temp\ots\otssymxaj.dll
```

Windows64

When the XA linkage program for Symfoware (for Java server applications) "otssymxaj.dll" is created

```
otsmkxapgm -java -s RDBII_xa_switch -r "/libpath:'C:\SFWSV\ESQL\LIB'
 F3CWXA_x64.LIB F3CWDRV_x64.LIB" -o D:\temp\ots\otssymxaj.dll
```

Solaris32

When the XA linkage program for Symfoware (For Java Server Application) "libsymxaj.o" is created.

The Symfoware/RDB library directories must be specified in the RDB2LIB environment variable.

```
otsmkxapgm -java -r "-L$(RDB2LIB) -lrdbxa -lsqldrv" -s RDBII_xa_switch
 -o libsymxaj.so
```

Windows32

When one program for XA cooperation which cooperates with Symfoware and two Oracle databases is created (when accessing two databases on one application)

```
otsmkxapgm -s RDBII_xa_switch -s xaosw -r "/libpath:'C:\SFWSV\ESQL\LIB'
 /libpath:''C:\oracle\product\10.2.0\db_1\RDBMS\XA' F3CWXA.LIB
 F3CWDRV.LIB ORAXA10.LIB" -o D:\temp\ots\otsmultixa.dll
```

Solaris32

When one program for XA cooperation "otsmultixa.o" which cooperates with Symfoware and two Oracle databases is created (when accessing two databases on one application)

```
otsmkxapgm -s RDBII_xa_switch -s xaosw -o otsmultixa.o
```

When creating the XA linkage program "otsoraxa.dll" for Oracle 10.2.0.

```
otsmkxapgm -s xaosw -r "/libpath:'C:\oracle\product\10.2.0\db_1\RDBMS\XA'
 ORAXA10.LIB " -o D:\temp\ots\otsoraxa.dll
```

When creating the XA linkage program "otsoraxa.o" for Oracle.

```
otsmkxapgm -s xaosw -o otsoraxa.o
```

24.4 tdc

Name

tdc

The TD Compiler

Synopsis

```
tdc  [{-c | -cpp | -cobol | -java | -vcpp|-oocob}]
[{-mc | -mcpp | -mcobol | -mvcpp}]
[{-create | -update | -delete}]
[-D<name>=<Value>] [-I<includedir>] [-T<tmpdir>]
[{-www | -wwwex}] [-R] [-F] [-cdecl] [-noex] [-f] [-M Systemname]
[-W<WrapperDefinitionFilename>]
[IDLDefinitionFilename]
```

Description

This command generates source files of stub and skeleton from the specified IDL definition file.

The options and arguments of this command are as follows:

[Mapping language option (Stub generation)]

Any of the following options can be specified to specify a mapping language. Two or more of these options cannot be specified simultaneously.

If no option is specified, **-cobol** is assumed.

If no option is specified, **-c** is assumed.

-c

   Generates a stub file mapped to C.

-cpp

   Generates a stub file mapped to C++.

-cobol

   Generates a stub file mapped to COBOL.

-oocobol

   Generates a stub file mapped to OOCOBOL (object oriented COBOL).

-java

   Generates a stub file mapped to Java (OMG mapping).

-vcpp

> Generates a stub file mapped to Microsoft(R) Visual(R) C++.

[Mapping language option (Skeleton generation)]

Any of the following options can be specified to specify a mapping language. Two or more of these options cannot be specified simultaneously.

Windows32   Solaris32

If no option is specified, **-mcobol** is assumed.

Linux32

If no option is specified, **-mc** is assumed.

-mc

> Generates a skeleton file mapped to C.

-mcpp

> Generates a skeleton file mapped to C++.

-mcobol   Windows32   Solaris32

> Generates a skeleton file mapped to COBOL.

-mvcpp   Windows32   Solaris32

> Generates a skeleton file mapped to Visual C++.

[Handling of interface information]

These options specify how to handle interface information generated by the TD compiler. If all are omitted, **-create** is assumed.

The options are detailed as follows:

-create

> Registers interface information with the Interface Repository. If the same identifier is already registered, an error occurs and the TD compiler stops.

-update

> Registers interface information with the Interface Repository. If the same identifier is already registered, the interface information is updated. This option must be specified when changing the IDL file.

-delete

> Deletes interface information from the Interface Repository. Note that an unregistered identifier causes the delete option to fail.

[Client linkage mode]   Windows32   Solaris32

Specifies the client linkage mode provided by the TD. If both options are omitted, the use of CORBA client linkage (basic function) is assumed.

Details of each option are explained below.

This option is intended for compatibility with Interstage V2.1 and earlier.

-www

> When this option is specified, the use of Web basic linkage (basic function) is assumed.

-wwwex

> When this option is specified, the use of Web simple application linkage (extended function) is assumed.

[Other options]

-D<name>=<Value>

Defines the macro specified in name. This is the same as the #define name Value defined at the beginning of the IDL definition file. When =value is omitted, it is generated as #define name.

-I<includedir>

Adds the directory specified in includedir to the directory list searched for in the file specified at #include. This option can be defined more than once. In that case, the directories are searched for in the order in which they were specified.

-T<tmpdir>

Specifies the location of the temporary work file to be created by the compiler.

<kbd>Windows32</kbd>
If this option is omitted, c:\temp is assumed.

<kbd>Solaris32</kbd> <kbd>Linux32</kbd>
If this option is omitted, /temp is assumed.

-R

When this option is specified, stub and skeleton files are not generated and only the Interface Repository is registered.

-F

This option specifies that stub and skeleton files are generated without registering the Interface Repository.

-cdecl

This option specifies that the INTRA_PROCESS function is called according to C syntax. This option is valid for mapping language C++ (-cpp).

-noex

This option specifies that exception processing is invoked by the CORBA::Environment method. If this option is omitted, exception processing is invoked by the try catch method.

<kbd>Windows32</kbd>
When the mapping language is C++ language and Visual C++ language, it is effective.

What is specified is recommended when using C++ language and Visual C++ language.

<kbd>Solaris32</kbd> <kbd>Linux32</kbd>
When the mapping language is C++ language, it is effective.

What is specified is recommended when using C++ language.

-f

Specify this option to use the interface check function.

-M<system-name> <kbd>Solaris32</kbd>

Define a target system name to use an extended system. A default system is applicable when this option is omitted.

-W<WrapperDefinitionFilename> <kbd>Windows32</kbd> <kbd>Solaris32</kbd>

Specify the wrapper definition file for AIM linkage. If this option is omitted, the CORBA client is assumed.

This option cannot be specified together with the -R option.

IDLDefinitionFilename

Specifies the name of the IDL definition file. If this filename is omitted, Foo.idl is assumed.

The names of the files generated by the TD compiler are shown in Tables Table 24.12 CORBA Client Linkage Files Generated by TD Compiler to Table 24.28 CORBA Client Linkage Files Generated by TD Compiler.

Server Application (COBOL) <kbd>Windows32</kbd> <kbd>Solaris32</kbd>

Table 24.12 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
AIM Linkage		
File name		
Stub	-	-
Skeleton	TD_object name_skel.def	def file for skeleton (See Note 9 and 15)
	TD_object name_skel.cbl	Skeleton file (See Note 4)
	TD_object name-H.cbl (See Note 1)	Header file
	TD_object name_skel_h.cbl	Data definition type file (See Note 6)
	TD_object name_skel_alloc.cbl	alloc program file (See Note 11)
	TD_object name_skel_allocbuf.cbl	allocbuf program file (See Note 17)
-		

Server Application (C) `Windows32` `Solaris32`

Table 24.13 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
AIM Linkage		
File name		
Stub:	-	-
Skeleton:	TD_object name_skel.c	Skeleton file (See Note 4)
	TD_object name.h	Header file
-		

Server Application (C) `Linux32`

Table 24.14 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
Stub:	-	-
Skeleton:	TD_object name_skel.c	Skeleton file
	TD_object name.h	Header file

Server Application (C++) `Windows32` `Solaris32`

Table 24.15 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
AIM Linkage		
File name		
Stub:	-	-
Skeleton:	TD_object name_skel_c++.C	Skeleton file (See Note 4)
	TD_aa.h	Header file
	TD_aa_c++.C	Class method definition file

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
AIM Linkage		
File name		
	TD_object name_proto.h	Header file
-		

Server Application (C++) Linux32

Table 24.16 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
Stub:	-	-
Skeleton:	TD_object name_skel_c++.C	Skeleton file
	TD_aa.h	Header file
	TD_aa_c++.C	Class method definition file
	TD_object name_proto.h	Header file

Server Application (Visual C++) Windows32

Table 24.17 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
AIM Linkage		
File name		
Stub:	-	-
Skeleton:	TD_object name_skel_c++.cpp	Skeleton file (See Note 4)
	TD_aa.h	Header file
	TD_aa_c++.cpp	Class method definition file
	TD_object name_proto.h	Header file
-		

Client Application (C) Windows32 Solaris32

Table 24.18 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
AIM Linkage		
File name		
Stub:	aa.h	Common Header file
	aa_cdr.h	CDR Header file
	aa_cdr.c	CDR Source file
	aa_stub.c	Stub file (See Note 4)
Skeleton:	-	-
Attribute information (See Notes 2, 3 and 4)		

Client Application (C) `Linux32`

Table 24.19 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
Stub:	aa.h	Common Header file
	aa_cdr.h	CDR Header file
	aa_cdr.c	CDR Source file
	aa_stub.c	Stub file
Skeleton:	-	-

Client Application (C++) `Windows32` `Solaris32`

Table 24.20 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
AIM Linkage		
File name		
Stub:	aa.H	Common Header file
	aa.h	Common Header file
	aa_cdr.h	CDR Header file
	aa_cdr.c	CDR Source file
	aa_c++.C	Class method definition file
	aa_stub_c++.C	Stub file (See Note 4)
Skeleton:	-	-
Attribute information (See Notes 2, 3 and 4)		

Client Application (C++) `Linux32`

Table 24.21 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
Stub:	aa.H	Common Header file
	aa.h	Common Header file
	aa_cdr.h	CDR Header file
	aa_cdr.c	CDR Source file
	aa_c++.C	Class method definition file
	aa_stub_c++.C	Stub file
Skeleton:	-	-

Client Application (COBOL) `Windows32` `Solaris32`

Table 24.22 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
AIM Linkage		
File type		
Stub:	aa_h.cbl	Common Header file
	aa_cdr.cbl	CDR Header file
	aa_cdr.def	def file
	aa_stub.cbl	Stub file (See Note 4)
Skeleton: (See Note 10)	-	-
Attribute information (See Notes 2, 3 and 4)		

Client Application (COBOL) `Linux32`

Table 24.23 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
Stub:	aa_h.cbl	Common Header file
	aa_cdr.cbl	CDR Header file
	aa_cdr.def	def file
	aa_stub.cbl	Stub file
Skeleton: (See Note 10)	-	-

Client Application (Java) (See Note 5) `Windows32` `Solaris32`

Table 24.24 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
AIM Linkage		
File type		
Stub:	bb.java	Interface class file (See Note 7)
	bbOperations.java	Interface Operations file (See Note 7)
	bbHelper.java	Helper class file (See Note 7)
	bbHolder.java	Holder class file (See Note 7)
	_bbStub.java	stub file (See Note 7)
	bbPOATie.java	tie class file (See Note 8)
	bbPOA.java	Skeleton class file (See Note 8)
	cc.java	Data type class file (See Note 12 and 13)
	ccHelper.java	Data type Helper file (See Note 12 and 13)
	ccHolder.java	Data type Holder file (See Note 12 and 13)
	sequence_dd_eeHelper.java	sequence type Helper file (See Note 14)
	sequence_dd_eeHolder.java	sequence type Holder file (See Note 14)
Skeleton:	-	-

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
AIM Linkage		
File type		
Attribute information (See Notes 2, 3 and 4)		

Client Application (Java) (See Note 5) Linux32

Table 24.25 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
Stub:	bb.java	Interface class file (See Note 7)
	bbOperations.java	Interface Operations file (See Note 7)
	bbHelper.java	Helper class file (See Note 7)
	bbHolder.java	Holder class file (See Note 7)
	_bbStub.java	stub file (See Note 7)
	bbPOATie.java	tie class file (See Note 8)
	bbPOA.java	Skeleton class file (See Note 8)
	cc.java	Data type class file (See Note 12 and 13)
	ccHelper.java	Data type Helper file (See Note 12 and 13)
	ccHolder.java	Data type Holder file (See Note 12 and 13)
	sequence_dd_eeHelper.java	sequence type Helper file (See Note 14)
	sequence_dd_eeHolder.java	sequence type Holder file (See Note 14)
Skeleton:	-	-

Client Application (Visual C++) Windows32 Solaris32

Table 24.26 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
AIM Linkage		
File type		
Stub:	aa.h	Common Header file
	aa_cdr.h	CDR Header file
	aa_cdr.cpp	CDR Source file
	aa_c++.cpp	Class method definition file
	aa_stub.cpp	Stub file (See Note 4)
Skeleton:	-	-
Attribute information (See Notes 2, 3 and 4)		

Client Application (Visual C++) Linux32

Table 24.27 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
Stub:	aa.h	Common Header file

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
	aa_cdr.h	CDR Header file
	aa_cdr.cpp	CDR Source file
	aa_c++.cpp	Class method definition file
	aa_stub.cpp	Stub file
Skeleton:	-	-

Client Application (OOCOBOL) Windows32 Solaris32

Table 24.28 CORBA Client Linkage Files Generated by TD Compiler

CORBA Client Linkage		
Stub/ Skeleton	**File name**	**File type**
AIM Linkage		
File type		
Stub:	aa-REP.cbl	Repository module declaration registry
	aa-CONST.cbl	Constant declaration registry
	aa-COPY.cbl	TYPEDEF type declaration registry
	object name.cob	Interface file
	object name-Helper.cob	Helper class file
	object name-stub.cob	stub class file
	object name-NarrowStub.cob	Narrow stub file
	object name-cc.cob	Data type class file (See Note 16)
	object name-cc--Helper.cob	Data type Helper file (See Note 16)
	CORBA-STRING-dd-Helper.cob	Data type Helper file (See Note 16)
	CORBA-WSTRING-dd-Helper.cob	Data type Helper file (See Note 16)
Skeleton:	-	-
Attribute information (See Notes 2, 3 and 4)		

aa, bb, cc, dd, ee are variables, where aa is the IDL filename, bb is an interface defined in the IDL file, cc is the data type name, dd is the number of bound, and ee is the class name.

Note 1:	TD-ObjectName-H.cbl is generated when the const IDL definition is provided.	
Note 2:	Each filename is detailed below.	
	Attribute information	
	Specified value of the inattrib or outattrib operands in the wrapper definition file	
	Template HTML file	
	TDTmpHTMLmoduleName_InterfaceName_OperationName.html	
	Parameter block class file	
	Name of the block class file for any input parameters	
	TDInputmoduleName_InterfaceName_OperationName.java	
	Name of the block class file for any output parameters	
	TDOutputmoduleName_InterfaceName_OperationName.java	

Note 3:	Since the attribute information is controlled by the system, it will not be created in the directory where the *tdc* command was executed, or where the IDL file exists.
Note 4:	Generated files depend on the following options:
	When the -wwwex option is specified:
	The template HTML file and parameter block class files are generated.
	The name of block class file for any input parameters
	If -www and -wwwex are omitted:
	A stub file is generated.
	When the -W option is specified:
	Attribute information is generated.
	When the -W option is omitted:
	A skeleton file is generated.
Note 5:	In Java language mapping, files corresponding to the interface and data type within an interface are created in separate sub directories.
Note 6:	The data type definition is stored. If necessary, refer to it while developing the application.
Note 7:	A sub directory is created in the *tdc* command directory with the name of the module defined in the IDL file. Files are generated in the same sub directory.
Note 8:	The file is not used though it is generated.
Note 9:	The object name is registered in the skeleton definition file as a default library name. It can be changed, if necessary.
Note 10:	The IDL file name_cdr.def file is generated, however, do not use it.
Note 11:	Structure data type including variable length is generated if it is defined.
Note 12:	The files are generated if the following data types are defined:
	cc.java : structure type, exceptions
	ccHelper.java : structure type, array type, sequence type, data types defined by typedef, exceptions
	ccHolder.java : structure type, array type, sequence type, exceptions
Note 13:	Each file, it is the current directory which supplied *tdc* command when a data type definition was described besides a module definition, it is the directory carried out by note 7 when described by module definition, when described by interface definition, a sub directory is created by the name of interface name + Package which IDL file defined, and it is generated under it.
Note 14:	If the sequence style is defined, it is generated in the directory from which the *tdc* command was input.
Note 15:	In Windows(R), it is generated.
Note 16:	The files are generated if the following data types are defined:
	object name-cc.cob:
	Structure data type including variable length string or wstring and exception declarations
	object name-cc-Helper.cob:
	typedef declaration for fixed or variable length strings, typedef declaration for fixed or variable length wstrings, structure data type including fixed or variable length string and exception declarations, structure data type including fixed or variable length wstring and exception declarations
	CORBA-STRING-dd-Helper.cob:
	typedef declaration for fixed length strings, structure data type including fixed length string and exception declarations
	CORBA-WSTRING-dd-Helper.cob:

	typedef declaration for fixed length wstrings, structure data type including fixed length wstring and exception declarations
Note 17:	Generated when sequence type is specified.

Notes

- Before activating the TD compiler, it is necessary to set the TD install directory in the environment variable TD_HOME, and the CORBA Service install directory in the environment variable OD_HOME.

- Do not use the following words when generating an IDL definition file, since they are reserved as keywords:

  cdr, con, env, failed, method, object, reply_status, request, response_expected, result, type, TD_RTNVAL

- When compiling the stub created with the **-cpp** option, specify -D_MULTI_LINK when using the C++ compiler.

- A maximum of 255 characters can be specified for each filename generated by the TD compiler.

- Do not separate the *tdc* command option and its option argument with a space.

- When specifying the **-delete** option, specify the mapping language option to that specified during registration.

- Do not perform registration and update at the same time to the interface repository of the same IDL definition.

- When fulfilling the following two conditions at the time of cooperation between applications, the double definition error of a function occurs at the time of compile.

    - From one client application, a call of two or more server applications is enabled.

    - The data type (except for a basic data type) of the same classification is declared to the IDL definition used with each server application.

  In this case, please change the outputted function name or generate a stub file using the IDLc command (-lc or -ls option is specified). Please refer to IDLc for details of the *IDLc* command.

Error Messages

There are two types of message synopsis output from the TD compiler. The source of reference of the detailed information is different depending on the message synopsis that is output.

- When the messages are output with the synopsis of "tdc: Stop. Processing phase status = end status", refer to other messages that are described.

- When the messages are output with the synopsis of "tdc: Type of Messages:Messages Number:Messages Contents", refer to Messages.

Examples

Windows32

```
tdc IDl0001.idl
```

Solaris32

```
TD_HOME=/opt/FSUNtd
export TD_HOME
OD_HOME=/opt/FSUNod
export OD_HOME
tdc IDL0001.idl
```

Linux32

```
TD_HOME=/opt/FJSVtd
export TD_HOME
OD_HOME=/opt/FJSVod
```

```
export OD_HOME
tdc IDL0001.idl
```

Part 10 Maintenance Edition
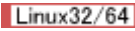
Chapter 25 Backup Commands

This chapter details the Backup commands.

Supported commands

The following table describe the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
esbackupsys	Backup and export of resources for the Event Service	OK	OK
esrestoresys	Restore and import of resources for the Event Service	OK	OK
ihsbackup	Backup and export of resources for the Interstage HTTP Server	OK	OK
ihsrestore	Restore and import of resources for the Interstage HTTP Server	OK	OK
ijsbackup	Backup and export of IJServer resources.	OK	OK
ijsrestore	Restore and import of the IJServer resources.	OK	OK
irepbacksys	Backs up and exports Interstage Directory Service resources.	OK	OK
ireprestsys	Restores and imports Interstage Directory Service resources.	OK	OK
iscbackupsys	Backs up and export the Interstage setup resources.	OK (*1)	OK
ischangesiteinfo Windows32/64 Solaris32 Linux32/64	Change Interstage site information.	NO	OK
iscrestoresys	Restores and imports Interstage setup resources	OK (*1)	OK
isguibackup Windows32/64 Solaris32/64	Backup and export of Interstage Management Console resources.	OK	OK
isguirestore Windows32/64 Solaris32/64	Restore and import of Interstage Management Console resources.	OK	OK
isjmxbackup	Backs up/exports Interstage JMX service resources.	OK	OK
isjmxrestore	Restores/imports Interstage JMX service resources.	OK	OK
isprintbackuprsc	Displays backup target resources.	OK	OK
j2eebackup	Backs up and exports the common J2EE resources.	OK	OK
j2eerestore	Restores and imports the common J2EE resources.	OK	OK
jmsbackup	Backs up and exports the Interstage JMS resources.	OK	OK
jmsrestore	Restores and imports the Interstage JMS resources.	OK	OK
odbackupsys	Backup/Export of CORBA Service resource files.	OK	OK
odexportir	Exports interface information.	OK	OK
odexportns	Exports Naming Service registration information.	OK	OK
odimportir	Imports the interface information.	OK	OK
odimportns	Imports Naming Service registration information.	OK	OK

Command	Outline	Standard-J Edition	Enterprise Edition
odrestoresys	Restores/Imports CORBA Service resource files.	OK	OK
otsbackupsys `Windows32/64` `Solaris32` `Linux32/64`	Backup/Export of Database Linkage Service resources.	OK	OK
otsrestoresys `Windows32/64` `Solaris32` `Linux32/64`	Restores/Imports Database Linkage Service resources.	OK	OK
ssobackup	Backup/export of Interstage Single Sign-on resources.	OK	OK
ssorestore	Restores/imports Interstage Single Sign-on resources.	OK	OK
tdbackupsys	Backs up/Exports Component Transaction Service resources.	OK	OK
tdrestoresys	Restores/Imports Component Transaction Service resources.	OK	OK

OK: Support

NO: No support

*1 If J2EE compatibility has been installed

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Command	Directory
`Windows32/64`	isguibackup	C:\Interstage\gui\bin
	isguirestore	
	odbackupsys	C:\Interstage\ODWIN\bin
	odexportir	
	odexportns	
	odimportir	
	odimportns	
	odrestoresys	
	Other	C:\Interstage\bin
`Solaris32/64`	esbackupsys	/opt/FJSVes/bin
	esrestoresys	
	ihsbackup	/opt/FJSVihs/bin
	ihsrestore	
	ijsbackup	/opt/FJSVj2ee/bin
	ijsrestore	
	j2eebackup	
	j2eerestore	
	irepbacksys	/opt/FJSVirep/bin

Platform	Command	Directory
	ireprestsys	
	iscbackupsys	/opt/FSUNtd/bin
	iscrestoresys	
	isguibackup	/opt/FJSVisgui/bin
	isguirestore	
	ischangesiteinfo `Solaris32`	/opt/FJSVisjmx/bin
	isjmxbackup	
	isjmxrestore	
	isprintbackuprsc	/opt/FJSVisas/bin
	jmsbackup	/opt/FJSVjms/bin
	jmsrestore	
	odbackupsys	/opt/FSUNod/bin
	odexportir	
	odexportns	
	odimportir	
	odimportns	
	odrestoresys	
	otsbackupsys `Solaris32`	/opt/FSUNots/bin
	otsrestoresys `Solaris32`	
	ssobackup	/opt/FJSVssocm/bin
	ssorestore	
	tdbackupsys	/opt/FSUNtd/bin
	tdrestoresys	
`Linux32/64`	esbackupsys	/opt/FJSVes/bin
	esrestoresys	
	ihsbackup	/opt/FJSVihs/bin
	ihsrestore	
	ijsbackup	/opt/FJSVj2ee/bin
	ijsrestore	
	j2eebackup	
	j2eerestore	
	irepbacksys	/opt/FJSVirep/bin
	ireprestsys	
	iscbackupsys	/opt/FJSVtd/bin
	iscrestoresys	
	ischangesiteinfo	/opt/FJSVisjmx/bin
	isjmxbackup	
	isjmxrestore	
	isprintbackuprsc	/opt/FJSVisas/bin

Platform	Command	Directory
	jmsbackup	/opt/FJSVjms/bin
	jmsrestore	
	odbackupsys	/opt/FJSVod/bin
	odexportir	
	odexportns	
	odimportir	
	odimportns	
	odrestoresys	
	otsbackupsys	/opt/FJSVots/bin
	otsrestoresys	
	ssobackup	/opt/FJSVssocm/bin
	ssorestore	
	tdbackupsys	/opt/FJSVtd/bin
	tdrestoresys	

25.1 esbackupsys

Name

esbackupsys

Backup and export of resources for the Event Service

Synopsis

```
esbackupsys  -d directory [-M system]
```

Description

This command backs up and exports resources files used by the Event Service.

The following explains the arguments for this command.

-d directory

Specify the storage directory name (full pathname) of Event Service resources for backup/export with up to 1024 bytes.

The following directory is created under the specified directory and Event Service resources are backed up under the following directory. If the following directory already exists, delete the directory.

Windows®: ES

Solaris/Linux: FJSVes

-M system   Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- Stop the Event Service before backup.

- If persistent files have been stored on a shared disk, execute the command in a state where the shared disk can be accessed.

- Backup CORBA Service resources beforehand.

- Persistent data cannot be backed up/restored

Example

Windows32/64

Event Service resources are backed up to the "X:\Backup\ES" directory.

```
C:\Interstage\bin\esbackupsys  -d  X:\Backup
```

Solaris32/64 Linux32/64

Event Service resources are backed up to the "/backup/FJSVes" directory.

```
/opt/FJSVes/bin/esbackupsys  -d  /backup
```

25.2 esrestoresys

Name

esrestoresys

Restore and import of resources for the Event Service

Synopsis

```
esrestoresys  -d directory [-v3]  [-e]  [-M system]
```

Description

This command restores and imports Event Service resources backed up/exported by the *esbackupsys* command.

The following explains the arguments for this command.

-d directory

Specify the storage directory name (full pathname) of Event Service resources with up to 1024 bytes. Specify the directory name specified by the *esbackupsys* command.

-v3 Windows32 Solaris32

Restores Event Service resources of the Interstage V3 environment backed up by using the *esbackup* command (provided in the Interstage V3 environment).

-e Windows32 Solaris32

Specify -e to restore Event Service resources of the Interstage Application Server Standard Edition V3.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- Execute this command with administrator authority.

- Stop the Event Service before restoring.

- Restore CORBA Service resources beforehand.

- Persistent data cannot be backed up/restored

Examples

Backup resources of the Event Service are restored.

Windows32/64

```
C:\Interstage\bin\esrestoresys  -d  X:\Backup
```

Solaris32/64 Linux32/64

```
/opt/FJSVes/bin/esrestoresys  -d  /backup
```

25.3 ihsbackup

Name

ihsbackup

Backup and export of resources for the Interstage HTTP Server

Synopsis

```
ihsbackup  -d  directory  [-t pass|all]
```

Description

This command backs up and exports resources files used by the Interstage HTTP Server.

The following explains the arguments for this command.

-d directory

Windows32/64

Specify the storage directory name of the Interstage HTTP Server resources for backup/export (the name can be up to 256 bytes).

Backups of the Interstage HTTP Server resources are saved at the level below the specified directory in the "IHS" directory.

If this directory already exists, delete it before using the command. Also delete the directory if the backup and export terminates abnormally.

Solaris32/64 Linux32/64

Specify the storage directory name (full pathname) of the Interstage HTTP Server resources for backup/export (the name can be up to 256 bytes).

Backups of the Interstage HTTP Server resources are saved at the level below the specified directory in the "FJSVihs" directory:

If this directory already exists, delete it before using the command. Also delete the directory if the backup and export terminates abnormally.

-t pass|all

Specify the backup/export target resources from those shown in the table below. Select the resources according to the environment that is used.

Backup/export target resources	-t option is specified		
	-t option is omitted	-t pass	-t all
Environment definition file	OK	OK	OK
Password file (arbitrary)	No	OK	OK
Public root directory	No	No	OK

OK: backup/export is performed.

No: backup/export is not performed.

- Interstage HTTP Server environment definition file

Windows32/64

```
C:\Interstage\F3FMihs\etc\.servers.conf
All file under [C:\Interstage\F3FMihs\servers\(Web Server name)\conf] directory
```

Solaris32/64 **Linux32/64**

```
/etc/opt/FJSVihs/etc/.servers.conf
/etc/opt/FJSVihs/boot/FJapache
All files under [/var/opt/FJSVihs/servers/(Web Server name)/conf] directory
```

- Password file (arbitrary)

    File specified in the environment definition file (httpd.conf) AuthGroupFile directive and AuthUserFile directive

- Public root directory

    Directory specified in the environment definition file (httpd.conf) DocumentRoot directive

Notes

- Execute this command with administrator authority.

- For the contents that do not belong to the directory specified by the DocumentRoot directive and CGI resources, separately back up and export the corresponding files.

- If the SSL of the Interstage Certificate Environment established with the Interstage Management Console is used, the Interstage Certificate Environment resources need to be backed up and exported.

- If the SSL of the certificate/key management environment established with the SMEE command is used, back up and export the following resources, each of which is specified by the corresponding directive in the environment definition file (httpd.conf):

    - Slot information directory (directory specified in SSLSlotDir directive)

    - Operation control directory (directory specified in SSLEnvDir directive)

    - User PIN control file (directory specified in SSLUserPINFile directive)

- All files including those starting with a period (.) must be the target for operations when performing compressions and copies on backup and import resources.

Windows32/64 **Solaris32** **Linux32/64**

- To restore/import to the Managed Server, back up/export when there is just one "FJapache" Web server.

Solaris32/64 **Linux32/64**

- The root directory (/) cannot be specified as the storage directory of the Interstage HTTP Server resources, which is specified by the -d option.

Example

Windows32/64

The Interstage HTTP Server resources are backed up to the "X:\Backup\IHS" directory.

```
C:\Interstage\bin\ihsbackup  -d X:\Backup  -t all
```

Solaris32/64 **Linux32/64**

The Interstage HTTP Server resources are backed up to the "/backup/FJSVihs" directory.

```
/opt/FJSVihs/bin/ihsbackup  -d /backup  -t all
```

25.4 ihsrestore

Name

ihsrestore

Restore and import of resources for the Interstage HTTP Server

Synopsis

```
ihsrestore  -d directory [-t pass|all]  [-h host_table]
```

Description

This command restores and imports the Interstage HTTP Server resources backed up/exported by the *ihsbackup* command.

When an environment definition file backed up/exported from V7/V8 is restored/imported, it is automatically converted from an Apache HTTP Server 1.3-based definition to a definition supported by Apache HTTP Server 2.0-based Web servers. For details, refer to 25.4.1 Converting Environment Definition Files.

The following explains the arguments for this command.

-d directory

Windows32/64

Specify the storage directory name of the Interstage HTTP Server resources (the name can be up to 256 bytes). Specify the directory name specified by the *ihsbackup* command.

Solaris32/64 Linux32/64

Specify the storage directory name (full pathname) of the Interstage HTTP Server resources (the name can be up to 256 bytes). Specify the directory name specified by the *ihsbackup* command.

-t pass|all

Specify the restore/import target resources. This argument depends on the options specified when the ihsbackup command is executed. For details on the restore/import target resources, refer to the ihsbackup command.

	What is specified when the ihsbackup command is executed		
	-t option is omitted	-t pass	-t all
Options that can be specified in this command	-t option is omitted	-t pass -t option is omitted	-t all -t pass -t option is omitted

-h host_table

This option allows you to change host names and IP addresses at the time of import. By specifying the full path to a file in which the new and old host names and IP addresses are written, names and addresses can automatically be converted at the time of import.

The file with the new host names and IP addresses should be written as follows:

- A hash mark (#) is placed at the beginning of each comment line.

- Halfwidth space characters and tab characters are ignored.

```
### Host IP conversion table ###

# IP address conversion definition
(IP address before conversion) > (IP address after conversion)
                   :
# Host name conversion definition
(Host name before conversion) > (Host name after conversion)
                    :
```

Example

When the host name and IP address are to be converted as follows:

IP address before conversion: "192.168.0.1", IP address after conversion: "192.168.0.3"

IP address before conversion: "192.168.0.2", IP address after conversion: "192.168.0.4"

Host name before conversion: "www.fujitsu.com", Host name after conversion: "www.interstage.com"

Host name before conversion: "host1.fujitsu.com", Host name after conversion: "host2.fujitsu.com"

```
### Host IP conversion table ###

# IP address conversion definition
  192.168.0.1 > 192.168.0.3
  192.168.0.2 > 192.168.0.4

# Host name conversion definition
  www.fujitsu.com > www.interstage.com
  host1.fujitsu.com > host2.fujitsu.com
```

Note that the host names and IP addresses are not converted if this option is omitted.

Notes

- Execute this command with administrator authority.

- Stop all Web Servers before restoring.

- If the restore and import destinations contain files, those files will be overwritten.

- The system where restore and import is performed needs to have the same disk configuration as the system where backup and export has been performed.

- The host name/IP address converted with the -h option are specified in the directives below.

    - Listen

    - ServerName

    - VirtualHost

    - NameVirtualHost

- For the contents that do not belong to the directory specified by the DocumentRoot directive and CGI resources, separately restore and import the corresponding files.

- If the SSL of the Interstage Certificate Environment established with the Interstage Management Console is used, the Interstage Certificate Environment resources that have been backed up and need to be restored and imported.

  If the SSL of the certificate/key management environment established with the SMEE command is used, restore and import the following resources, to the paths specified with the corresponding directives of the environment definition file (httpd.conf):

    - Slot information directory (directory specified in SSLSlotDir directive)

    - Operation control directory (directory specified in SSLEnvDir directive)

    - User PIN control file (directory specified in SSLUserPINFile directive)

- To restore/import V9 or later backup/export target resources (Apache HTTP Server 2.0-based), execute the command in one of the following circumstances according to the restore/import destination server type:

    - For Standalone Server

        - The number of Web servers and Web server names matches the backed up/exported operating environment

        - All Web servers have been deleted

        - There is just one "FJapache" Web server, and the Interstage Single Sign-on business server, authentication server, and repository server environment has not been set up in the "FJapache" Web server

- For Admin Server `Windows32/64` `Solaris32` `Linux32/64`

  - The number of Web servers and Web server names all match the backed up operating environment

  - All Web servers have been deleted

  - There is just one "FJapache" Web server

- For Managed Server `Windows32/64` `Solaris32` `Linux32/64`

  - There is just one "FJapache" Web server, and there is just one "FJapache" Web server in the operating environment that was backed up.

- If V8/V7 backup/export target resources (Apache HTTP Server 1.3-based) are restored/imported, the Web server name that is used is "FJapache". Accordingly, if the "FJapache" Web server does not exist it is created, and if it does exist the settings are overwritten.

- Backup/export target resources (Apache HTTP Server 1.3-based) in V6 and earlier cannot be restored/imported.

Examples

`Windows32/64`

Backup resources of the Interstage HTTP Server are restored.

```
C:\Interstage\bin\ihsrestore  -d X:\Backup  -t all
```

`Solaris32/64` `Linux32/64`

Backup resources of the Interstage HTTP Server are restored.

```
/opt/FJSVihs/bin/ihsrestore  -d /backup  -t all
```

25.4.1 Converting Environment Definition Files

Environment definition files (httpd.conf) backed up/exported from V7/V8 are supported by Apache HTTP Server 1.3-based Web servers. These definition files are converted automatically to definitions supported by Apache HTTP Server 2.0-based Web servers. The conversion method and details are shown below.

Conversion Method

For definitions that require conversion, "#!" is placed in front of the definition so that the line becomes a comment line. The conversion adds the definition to the next line. If a definition is deleted, the next line is empty. The following example shows definitions before and after conversion.

Example

Conversion operation	Definition V8 or V7 prior to conversion	Definition after conversion (V9)
Add definition	There is no ThreadsPerChild directive	#! ThreadsPerChild 40
Delete definition	IHSAcceptQueueSize 512	#!IHSAcceptQueueSize 512 (Empty)
Modify definition	ServerRoot C:/Interstage/F3FMihs	#!ServerRoot C:/Interstage/F3FMihs ServerRoot C:/Interstage/F3FMihs/servers/FJapache

Conversion Details

Conversion details for adding, deleting, and modifying definitions are shown below.

Adding Definitions (Default Installation Path)

Add conditions	Directive name after conversion (V9)	Conversion details

Unconditional	IHSTraceLog	Adds the following definition to the next line of the ErrorLog directive definition.
		
		`Windows32/64`
		
		IHSTraceLog "|ihsrlog.exe -s logs/tracelog 2 5"
		
		`Solaris32/64` `Linux32/64`
		
		IHSTraceLog "|/opt/FJSVihs/bin/ihsrlog -s logs/tracelog 2 5"

Unconditional	ServerLimit	`Solaris32/64` `Linux32/64` Adds the following definition to the previous line of the MaxClients directive. ServerLimit 4096
The ThreadsPerChild directive is undefined	ThreadsPerChild	`Windows32/64` Adds the following definition to the last line of the environment definition file (httpd.conf). ThreadsPerChild 40
The MaxClients directive is undefined	MaxClients	`Solaris32/64` `Linux32/64` Adds the following definition to the last line of the environment definition file (httpd.conf). MaxClients 4096
The following conditions are all satisfied - The SSLConfName directive is undefined in the main host/virtual host - The SSLExec directive is defined in the same main host/ virtual host - SSLVersion is undefined in the same main host/ virtual host	SSLVersion	Adds the following definition to the line after the SSLExec definition. SSLVersion 2

Deleting a definition

Directive name before conversion (V8/V7)	Directive name after conversion (V9)	Conversion details
ClearModuleList	None	Deletes the ClearModuleList directive.
`Windows32/64` IHSAcceptQueueSize	None	Deletes the IHSAcceptQueueSize directive.
ServerType	None	Deletes the ServerType directive.

Directive name before conversion (V8/V7)	Directive name after conversion (V9)	Conversion details
ScoreBoardFile	None	Deletes the ScoreBoardFile directive.

Modifying a definition (Default installation path)

Directive name before conversion (V8/V7)	Directive name after conversion (V9)	Conversion details
AddModule LoadModule	LoadModule	(*1)

Alias
AliasMatch
AuthGroupFile
AuthUserFile
CacheRoot
CoreDumpDirectory
<Directory>
DocumentRoot
MimeMagicFile
ScriptAlias
ScriptAliasMatch
TypesConfig
UserDir
	Alias
	AliasMatch
	AuthGroupFile
	AuthUserFile
	CacheRoot
	CoreDumpDirectory
	<Directory>
	DocumentRoot
	MimeMagicFile
	ScriptAlias
	ScriptAliasMatch
	TypesConfig
	UserDir
		Modifies the file path of the current value as follows:
		
		`Windows32/64`
		
		Before conversion
		C:/Interstage/F3FMihs
		After conversion
		C:/Interstage/F3FMihs/servers/FJapache
		
		`Solaris32/64` `Linux32/64`
		Before conversion
		/opt/FJSVihs
		After conversion
		/opt/FJSVihs/servers/FJapache

CustomLog ErrorLog TransferLog	CustomLog ErrorLog TransferLog	Modifies the file path of the set value as shown above. `Windows32/64` Adds the file extension (.exe) if ihsrlog or rotatelogs was set for the value and no file extension was specified.
ErrorDocument	ErrorDocument	Modifies the file path of the set value as shown above. If value set species output of a text message, the format is modified to place the text message in double quotation marks (").
CacheMaxExpire	CacheMaxExpire	Modifies the validity period unit of measurement from hours to seconds (*3600).

PidFile	PidFile	Modifies the value as follows:
		
		`Windows32/64`
		
		C:/Interstage/F3FMihs/var/.pid/FJapache.pid
		`Solaris32/64` `Linux32/64`
		/opt/FJSVihs/var/.pid/FJapache.pid

Port	Listen	Replaces Port with Listen in the Port directive. The value is not modified.
ServerRoot	ServerRoot	The value is modified as follows: `Windows32/64`

Directive name before conversion (V8/V7)	Directive name after conversion (V9)	Conversion details
		C:/Interstage/F3FMihs/servers/FJapache `Solaris32/64` `Linux32/64` /opt/FJSVihs/servers/FJapache

*1 The values of the AddModule and LoadModule directives are modified as shown in the following tables. AddModule and LoadModule directives not shown are not converted.

`Windows32/64`

Table 25.1 AddModule and LoadModule directive conversion

Definition before conversion (V8/V7)	Definition after conversion (V9)
LoadModule jsvlt_module "C:/Interstage/F3FMjs2/gateway/jsgw_apapi_is.dll" LoadModule jk2_module "C:/Interstage/F3FMjs4/gateway/mod_jk2.dll"	LoadModule ihs2_redirector2_module "C:/Interstage/F3FMjs5/gateway/ihs2/mod_ihs2_redirector2.so"
LoadModule ssoatcsv_module "C:/Interstage/F3FMsso/ssoatcsv/lib/F3FMssoatcsv.dll" AddModule ssoatcsv.c	LoadModule ssoatcsv_module "C:/Interstage/F3FMsso/ssoatcsv/lib/F3FMssoatcsv.dll"
LoadModule ssoatcag_module "C:/Interstage/F3FMsso/ssoatcag/lib/F3FMssoatcag.dll" AddModule ssoatcag.c	LoadModule ssoatcag_module "C:/Interstage/F3FMsso/ssoatcag/lib/F3FMssoatcag.dll"
LoadModule ssoatzihs_module "C:/Interstage/F3FMsso/ssoatzag/lib/F3FMssoatzihs.dll" AddModule ssoatzihs.c	LoadModule ssoatzihs_module "C:/Interstage/F3FMsso/ssoatzag/lib/F3FMssoatzihs.dll"
LoadModule ODhttp_module modules/ODhttpAp.dll AddModule mod_ODhttp.c	LoadModule ODhttp_module "C:/Interstage/ODWIN/bin/httpgw/ODhttpAp.dll"
AddModule mod_ihs_ssl.c	LoadModule ihs_ssl_module "C:/Interstage/F3FMihs/modules/mod_ihs_ssl.so"
LoadModule mod_ldap_module modules/mod_ldap.dll AddModule mod_ldap.c	LoadModule ldap_module "C:/Interstage/F3FMihs/modules/util_ldap.so" LoadModule auth_ldap_module "C:/Interstage/F3FMihs/modules/mod_auth_ldap.so"
AddModule mod_access.c	LoadModule access_module "C:/Interstage/F3FMihs/modules/mod_access.so"
AddModule mod_actions.c	LoadModule actions_module "C:/Interstage/F3FMihs/modules/mod_actions.so"
AddModule mod_alias.c	LoadModule alias_module "C:/Interstage/F3FMihs/modules/mod_alias.so"
AddModule mod_asis.c	LoadModule asis_module "C:/Interstage/F3FMihs/modules/mod_asis.so"
AddModule mod_auth.c	LoadModule auth_module "C:/Interstage/F3FMihs/modules/mod_auth.so"
LoadModule anon_auth_module modules/mod_auth_anon.so AddModule mod_auth_anon.c	LoadModule auth_anon_module "C:/Interstage/F3FMihs/modules/mod_auth_anon.so"

Definition before conversion (V8/V7)	Definition after conversion (V9)
LoadModule digest_auth_module modules/ mod_auth_digest.so LoadModule digest_module modules/mod_digest.so AddModule mod_auth_digest.c AddModule mod_digest.c	LoadModule auth_digest_module "C:/Interstage/F3FMihs/ modules/mod_auth_digest.so"
LoadModule dbm_auth_module modules/ mod_auth_dbm.so AddModule mod_auth_db.c AddModule mod_auth_dbm.c	LoadModule auth_dbm_module "C:/Interstage/F3FMihs/ modules/mod_auth_dbm.so"
AddModule mod_autoindex.c	LoadModule autoindex_module "C:/Interstage/F3FMihs/ modules/mod_autoindex.so"
LoadModule cern_meta_module modules/ mod_cern_meta.so AddModule mod_cern_meta.c	LoadModule cern_meta_module "C:/Interstage/F3FMihs/ modules/mod_cern_meta.so"
AddModule mod_cgi.c	LoadModule cgi_module "C:/Interstage/F3FMihs/modules/ mod_cgi.so"
AddModule mod_dir.c	LoadModule dir_module "C:/Interstage/F3FMihs/modules/ mod_dir.so"
AddModule mod_env.c	LoadModule env_module "C:/Interstage/F3FMihs/modules/ mod_env.so"
LoadModule expires_module modules/mod_expires.so AddModule mod_expires.c	LoadModule expires_module "C:/Interstage/F3FMihs/modules/ mod_expires.so"
LoadModule headers_module modules/ mod_headers.so AddModule mod_headers.c	LoadModule headers_module "C:/Interstage/F3FMihs/modules/ mod_headers.so"
AddModule mod_imap.c	LoadModule imap_module "C:/Interstage/F3FMihs/modules/ mod_imap.so"
AddModule mod_include.c	LoadModule include_module "C:/Interstage/F3FMihs/modules/ mod_include.so"
LoadModule info_module modules/mod_info.so AddModule mod_info.c	LoadModule info_module "C:/Interstage/F3FMihs/modules/ mod_info.so"
AddModule mod_isapi.c	LoadModule isapi_module "C:/Interstage/F3FMihs/modules/ mod_isapi.so"
AddModule mod_log_config.c	LoadModule log_config_module "C:/Interstage/F3FMihs/ modules/mod_log_config.so"
AddModule mod_mime.c	LoadModule mime_module "C:/Interstage/F3FMihs/modules/ mod_mime.so"
LoadModule mime_magic_module modules/ mod_mime_magic.so AddModule mod_mime_magic.c	LoadModule mime_magic_module "C:/Interstage/F3FMihs/ modules/mod_mime_magic.so"
AddModule mod_negotiation.c	LoadModule negotiation_module "C:/Interstage/F3FMihs/ modules/mod_negotiation.so"
LoadModule proxy_module modules/mod_proxy.so AddModule mod_proxy.c	LoadModule proxy_module "C:/Interstage/F3FMihs/modules/ mod_proxy.so"

Definition before conversion (V8/V7)	Definition after conversion (V9)
	LoadModule proxy_connect_module "C:/Interstage/F3FMihs/modules/mod_proxy_connect.so" LoadModule proxy_http_module "C:/Interstage/F3FMihs/modules/mod_proxy_http.so" LoadModule proxy_ftp_module "C:/Interstage/F3FMihs/modules/mod_proxy_ftp.so" LoadModule cache_module "C:/Interstage/F3FMihs/modules/mod_cache.so" LoadModule disk_cache_module "C:/Interstage/F3FMihs/modules/mod_disk_cache.so" LoadModule mem_cache_module "C:/Interstage/F3FMihs/modules/mod_mem_cache.so"
LoadModule rewrite_module modules/mod_rewrite.so AddModule mod_rewrite.c	LoadModule rewrite_module "C:/Interstage/F3FMihs/modules/mod_rewrite.so"
AddModule mod_setenvif.c	LoadModule setenvif_module "C:/Interstage/F3FMihs/modules/mod_setenvif.so"
LoadModule speling_module modules/mod_speling.so AddModule mod_speling.c	LoadModule speling_module "C:/Interstage/F3FMihs/modules/mod_speling.so"
LoadModule status_module modules/mod_status.so AddModule mod_status.c	LoadModule status_module "C:/Interstage/F3FMihs/modules/mod_status.so"
LoadModule unique_id_module modules/mod_unique_id.so AddModule mod_unique_id.c	LoadModule unique_id_module "C:/Interstage/F3FMihs/modules/mod_unique_id.so"
AddModule mod_userdir.c	LoadModule userdir_module "C:/Interstage/F3FMihs/modules/mod_userdir.so"
LoadModule usertrack_module modules/mod_usertrack.so AddModule mod_usertrack.c	LoadModule usertrack_module "C:/Interstage/F3FMihs/modules/mod_usertrack.so"
LoadModule vhost_alias_module modules/mod_vhost_alias.so AddModule mod_vhost_alias.c	LoadModule vhost_alias_module "C:/Interstage/F3FMihs/modules/mod_vhost_alias.so"

Solaris32/64 Linux32/64

Table 25.2 AddModule and LoadModule directive conversion

Definition before conversion (V8/V7)	Definition after conversion (V9)
LoadModule jsvlt_module /opt/FJSVjs2/gateway/jsgw_apapi_is.so LoadModule jk2_module /opt/FJSVjs4/gateway/mod_jk2.so	LoadModule ihs2_redirector2_module /opt/FJSVjs5/gateway/ihs2/mod_ihs2_redirector2.so
LoadModule ssoatcsv_module /opt/FJSVssosv/lib/ssoatcsv.so AddModule ssoatcsv.c	LoadModule ssoatcsv_module /opt/FJSVssosv/lib/ssoatcsv.so
LoadModule ssoatcag_module /opt/FJSVssoac/lib/ssoatcag.so	LoadModule ssoatcag_module /opt/FJSVssoac/lib/ssoatcag.so

Definition before conversion (V8/V7)	Definition after conversion (V9)
AddModule ssoatcag.c	
LoadModule ssoatzihs_module /opt/FJSVssoaz/lib/ssoatzihs.so AddModule ssoatzihs.c	LoadModule ssoatzihs_module /opt/FJSVssoaz/lib/ssoatzihs.so
Solaris32/64 LoadModule ODhttp_module libexec/libOMhttpAp.so AddModule mod_ODhttp.c	LoadModule ODhttp_module /opt/FSUNod/lib/libOMhttpAp.so
Linux32/64 LoadModule ODhttp_module libexec/libOMhttpAp.so AddModule mod_ODhttp.c	LoadModule ODhttp_module /opt/FJSVod/lib/libOMhttpAp.so
AddModule mod_ihs_ssl.c	LoadModule ihs_ssl_module /opt/FJSVihs/modules/mod_ihs_ssl.so
LoadModule mod_ldap_module libexec/mod_ldap.so AddModule mod_ldap.c	LoadModule ldap_module /opt/FJSVihs/modules/mod_ldap.so LoadModule auth_ldap_module /opt/FJSVihs/modules/mod_auth_ldap.so
LoadModule access_module libexec/mod_access.so AddModule mod_access.c	LoadModule access_module /opt/FJSVihs/modules/mod_access.so
LoadModule action_module libexec/mod_actions.so AddModule mod_actions.c	LoadModule actions_module /opt/FJSVihs/modules/mod_actions.so
LoadModule alias_module libexec/mod_alias.so AddModule mod_alias.c	LoadModule alias_module /opt/FJSVihs/modules/mod_alias.so
LoadModule asis_module libexec/mod_asis.so AddModule mod_asis.c	LoadModule asis_module /opt/FJSVihs/modules/mod_asis.so
LoadModule auth_module libexec/mod_auth.so AddModule mod_auth.c	LoadModule auth_module /opt/FJSVihs/modules/mod_auth.so
LoadModule anon_auth_module libexec/mod_auth_anon.so AddModule mod_auth_anon.c	LoadModule auth_anon_module /opt/FJSVihs/modules/mod_auth_anon.so
LoadModule digest_auth_module libexec/mod_auth_digest.so LoadModule digest_module libexec/mod_digest.so AddModule mod_auth_digest.c AddModule mod_digest.c	LoadModule auth_digest_module /opt/FJSVihs/modules/mod_auth_digest.so
LoadModule db_auth_module /libexec/mod_auth_db.so LoadModule dbm_auth_module /libexec/mod_auth_dbm.so AddModule mod_auth_db.c AddModule mod_auth_dbm.c	LoadModule auth_dbm_module C:/Interstage/F3FMihs/modules/mod_auth_dbm.so
LoadModule autoindex_module libexec/mod_autoindex.so	LoadModule autoindex_module /opt/FJSVihs/modules/mod_autoindex.so

Definition before conversion (V8/V7)	Definition after conversion (V9)
AddModule mod_autoindex.c	
LoadModule cern_meta_module modules/ mod_cern_meta.so AddModule mod_cern_meta.c	LoadModule cern_meta_module /opt/F3FMihs/modules/ mod_cern_meta.so
LoadModule cgi_module libexec/mod_cgi.so AddModule mod_cgi.c	LoadModule cgi_module /opt/FJSVihs/modules/mod_cgi.so
LoadModule dir_module libexec/mod_dir.so AddModule mod_dir.c	LoadModule dir_module /opt/FJSVihs/modules/mod_dir.so
LoadModule env_module libexec/mod_env.so AddModule mod_env.c	LoadModule env_module /opt/FJSVihs/modules/mod_env.so
LoadModule expires_module libexec/mod_expires.so AddModule mod_expires.c	LoadModule expires_module /opt/FJSVihs/modules/ mod_expires.so
LoadModule headers_module libexec/mod_headers.so AddModule mod_headers.c	LoadModule headers_module /opt/FJSVihs/modules/ mod_headers.so
LoadModule imap_module libexec/mod_imap.so AddModule mod_imap.c	LoadModule imap_module /opt/FJSVihs/modules/mod_imap.so
LoadModule includes_module libexec/mod_include.so AddModule mod_include.c	LoadModule include_module /opt/FJSVihs/modules/ mod_include.so
LoadModule info_module libexec/mod_info.so AddModule mod_info.c	LoadModule info_module /opt/FJSVihs/modules/mod_info.so
LoadModule config_log_module libexec/ mod_log_config.so AddModule mod_log_config.c	LoadModule log_config_module /opt/FJSVihs/modules/ mod_log_config.so
LoadModule mime_module libexec/mod_mime.so AddModule mod_mime.c	LoadModule mime_module /opt/FJSVihs/modules/mod_mime.so
LoadModule mime_magic_module libexec/ mod_mime_magic.so AddModule mod_mime_magic.c	LoadModule mime_magic_module /opt/FJSVihs/modules/ mod_mime_magic.so
LoadModule negotiation_module libexec/ mod_negotiation.so AddModule mod_negotiation.c	LoadModule negotiation_module /opt/FJSVihs/modules/ mod_negotiation.so
LoadModule proxy_module libexec/libproxy.so AddModule mod_proxy.c	LoadModule proxy_module /opt/FJSVihs/modules/mod_proxy.so LoadModule proxy_connect_module /opt/FJSVihs/modules/ mod_proxy_connect.so LoadModule proxy_http_module /opt/FJSVihs/modules/ mod_proxy_http.so LoadModule proxy_ftp_module /opt/FJSVihs/modules/ mod_proxy_ftp.so LoadModule cache_module /opt/FJSVihs/modules/mod_cache.so LoadModule disk_cache_module /opt/FJSVihs/modules/ mod_disk_cache.so

Definition before conversion (V8/V7)	Definition after conversion (V9)
	LoadModule mem_cache_module /opt/FJSVihs/modules/ mod_mem_cache.so
LoadModule rewrite_module libexec/mod_rewrite.so AddModule mod_rewrite.c	LoadModule rewrite_module /opt/FJSVihs/modules/ mod_rewrite.so
LoadModule setenvif_module libexec/mod_setenvif.so AddModule mod_setenvif.c	LoadModule setenvif_module /opt/FJSVihs/modules/ mod_setenvif.so
LoadModule speling_module libexec/mod_speling.so AddModule mod_speling.c	LoadModule speling_module /opt/FJSVihs/modules/ mod_speling.so
LoadModule status_module libexec/mod_status.so AddModule mod_status.c	LoadModule status_module /opt/FJSVihs/modules/mod_status.so
LoadModule unique_id_module libexec/ mod_unique_id.so AddModule mod_unique_id.c	LoadModule unique_id_module /opt/FJSVihs/modules/ mod_unique_id.so
LoadModule userdir_module libexec/mod_userdir.so AddModule mod_userdir.c	LoadModule userdir_module /opt/FJSVihs/modules/ mod_userdir.so
LoadModule usertrack_module libexec/ mod_usertrack.so AddModule mod_usertrack.c	LoadModule usertrack_module /opt/FJSVihs/modules/ mod_usertrack.so
LoadModule vhost_alias_module libexec/ mod_vhost_alias.so AddModule mod_vhost_alias.c	LoadModule vhost_alias_module /opt/FJSVihs/modules/ mod_vhost_alias.so

25.5 ijsbackup

Name

ijsbackup

Backup and export of IJServer resources.

Synopsis

```
ijsbackup -d directory
```

Description

The *ijsbackup* command backs up and exports IJServer resources.

The following explains the arguments for this command:

-d directory

Specify the absolute path of the directory where the resources are going to be backed up.

It is necessary to create the specified directory before execution of this command. An error message appears when a directory does not exist, or when the path does not lead to a directory.

Backup resources

The resources of the IJServer to be backed up are shown below.

Windows32/64

Common resources

- Data under C:\Interstage\F3FMjs5\conf\jk2

IJServer resources after V9

- Environment definition file under [J2EE common directory]\ijserver\[IJServer name] directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\conf directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\apps directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\distribute directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\Shared directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\ext directory

IJServer resources before V7/V8

- Environment definition file under [J2EE common directory]\ijserver\[IJServer name] directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\apps directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\distribute directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\Shared directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\ext directory

IJServer resources for V6

- Environment definition file under [J2EE common directory]\ijserver\[IJServer name] directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\webapps directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\ejbapps directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\client directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\common directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\distribute directory

- Data under [J2EE common directory]\ijserver\[IJServer name]\ext directory

`Solaris32/64` `Linux32/64`

Common resources

- Data under /etc/opt/FJSVjs5/conf/jk2

IJServer resources after V9

- Environment definition file under [J2EE common directory]/ijserver/[IJServer name] directory

- Data under [J2EE common directory]/ijserver/[IJServername]/conf directory

- Data under [J2EE common directory]/ijserver/[IJServername]/apps directory

- Data under [J2EE common directory]/ijserver/[IJServername]/distribute directory

- Data under [J2EE common directory]/ijserver/[IJServername]/Shared directory

- Data under [J2EE common directory]/ijserver/[IJServername]/ext directory

IJServer resources before V7/V8

- Environment definition file under [J2EE common directory]/ijserver/[IJServer name] directory

- Data under [J2EE common directory]/ijserver/[IJServername]/apps directory

- Data under [J2EE common directory]/ijserver/[IJServername]/distribute directory

- Data under [J2EE common directory]/ijserver/[IJServername]/Shared directory

- Data under [J2EE common directory]/ijserver/[IJServername]/ext directory

IJServer resources for V6

- Environment definition file under [J2EE common directory]/ijserver/[IJServer name] directory

- Data under [J2EE common directory]/ijserver/[IJServername]/webapps directory

- Data under [J2EE common directory]/ijserver/[IJServername]/ejbapps directory

- Data under [J2EE common directory]/ijserver/[IJServername]/client directory

- Data under [J2EE common directory]/ijserver/[IJServername]/common directory

- Data under [J2EE common directory]/ijserver/[IJServername]/distribute directory

- Data under [J2EE common directory]/ijserver/[IJServername]/ext directory

Notes

- This command requires Administrator authority.

- Execute this command while the Interstage is stopped.

- When executing this command, follow the procedure in " Maintenance (Resource Backup)" of the "Operator's Guide".

- At the same time as this command is executed, backup and export the backup target service resources displayed in the *isprintbackuprsc* command.

- Web applications anywhere on the server are not backed up using the "*ijsbackup*" command. These must be backed up separately.

Example

Windows32/64

Save the IJServer resources in the directory "X:\backup":

```
C:\Interstage\bin\ijsbackup -d X:\Backup
```

Solaris32/64 Linux32/64

Save the IJServer resources in the directory "/backup":

```
/opt/FJSVj2ee/bin/ijsbackup -d /backup
```

25.6 ijsrestore

Name

ijsrestore

Restore and import of the IJServer resources.

Synopsis

```
ijsrestore -d directory [-h host_table]
```

Description

The i*jsrestore* command restores and imports IJServer resources.

If the resources already exist in the specified restore location, they are deleted before the command restores and imports the current resources. Therefore, the log file is also deleted.

The following explains the arguments for this command:

-d directory

Specify the absolute path of the directory where the resources are going to be backed up.

An error message appears when a directory does not exist, or when the path does not lead to a directory.

-h host_table

In the following cases, it is necessary to convert the IP address:

- The server is a standalone server; and

- The IJServer and the Web server operate separately; and

- The IP addresses of the Servlet container and Web server at the import source and the import destination are different.

In such cases, specify the absolute path of the file that contains the original and new IP addresses.

This specification makes it possible to automatically convert the IP address of a Web server or Servlet container during the import process.

The IP addresses to be converted are the following items of Interstage Management Console:

- [WorkUnit] > [WorkUnit name] > [Environment setup] tab > [Web server connector] > [Web server IP address for accepting requests]

- [WorkUnit] > [WorkUnit name] > [Environment setup] tab > [Servlet container setting] > [Servlet Container IP address]

- [Services] > [Web Server Name] > [Web Server] > [Web Server Connector] > [IJServer WorkUnit name] > [Servlet container setting] > [Servlet Container IP address:Port number]

The specified file includes the following conventions:

- A hash mark (#) is placed at the beginning of each comment line.

- Fullsize space characters and tab characters are ignored.

```
before-IP-addresses > after-IP-addresses [IJServer-WorkUnit-name]
        .
        .
        .
```

- before-IP-addresses

Specifies the IP addresses of the Servlet container and the Web server in the import source environment.

- after-IP-addresses:

Specifies the IP addresses of the Servlet container and the Web server in the import destination environment.

- IJServer-WorkUnit-name:

When IP address conversion is required only for a particular IJServer, specify the target IJServer WorkUnit name. When it is omitted, IP address conversion is performed for the IP addresses of all the IJServers.

Example

When the IP addresses are to be converted as follows:

- before-IP-addresses : "192.168.0.1", after-IP-addresses : "192.168.0.3"

- before-IP-addresses : "192.168.0.2", after-IP-addresses : "192.168.0.4", IJServer to be converted : "IJServer01"

```
192.168.0.1 > 192.168.0.3
192.168.0.2 > 192.168.0.4 IJServer01
```

Notes

- Execute this command with Administrator authority.

- Execute this command while the Interstage is stopped.

- When executing this command, follow the procedure in " Maintenance (Resource Backup)" of the "Operator's Guide".

- At the same time as this command is executed, restore and import the backup target service resources displayed in the *isprintbackuprsc* command.

- If you are restoring from an environment that runs using Interstage HTTP Server, restore the Interstage HTTP Server resources before executing this command.

- If you are importing resources from an environment in which the Web server connector log output destination is the default in Interstage version 8.0 and earlier, the log output destination is as follows:

Windows32/64

```
Interstage installation directory\F3FMjs5\logs\jk2\FJapache
```

Solaris32/64 Linux32/64

```
/opt/FJSVjs5/logs/jk2/FJapache
```

- This command must be executed under the environment where Interstage is installed in the same directory as that when the *ijsbackup* command is executed.

- If the -h option is specified to change the IP address, and the original IP address is entered on more than one line, an error occurs when the IP address is converted.

- If the -h option is specified to change the IP address, and the specified IP address is not used by the Web server or Servlet container , the IP address is not found, and is not converted.

- If the -h option is specified to change the IP address, the IJServer10141 update information message is output after conversion has been executed normally.

- Web applications anywhere on the server are not restored using the "*ijsrestore*" command. These must be restored separately. The Web application deployment directory is configured in the IJServer configuration information. For this reason, restore the Web application using the path used for the backup source directory.

- When the session recovery function is used, the following items are not the target of IP address conversion, so the value must be updated separately if necessary.

  - In the Interstage Management Console, [WorkUnit] > "WorkUnit Name" > [Settings] > [Session Recovery Settings] > [Session backup destination Session Registry Server address:Port]

Example

Windows32/64

To restore the IJServer resources from the directory "X:\backup":

```
C:\Interstage\bin\ijsrestore -d X:\Backup
```

Solaris32/64 Linux32/64

To restore the IJServer resources from the directory "/backup":

```
/opt/FJSVj2ee/bin/ijsrestore -d /backup
```

25.7 irepbacksys

Name

irepbacksys

Backs up and exports Interstage Directory Service resources.

Synopsis

Windows32/64

To use a standard database as the repository database:

```
irepbacksys -d backup_directory -R repository [-confonly | -dataonly] [-y]
```

To use an RDB as the repository database:

```
irepbacksys -d backup_directory -R repository [-confonly] [-y]
```

Solaris32/64 Linux32/64

To use a standard database as the repository database:

```
irepbacksys -f backup_file -R repository [-confonly | -dataonly] [-y]
```

To use an RDB as the repository database:

```
irepbacksys -f backup_file -R repository [-confonly] [-y]
```

Description

This is not valid for Standard-J Edition on Windows (64 bit).

This is not valid for Standard-J Edition on Linux (64 bit).

The *irepbacksys* command backs up or exports Interstage Directory Service resources.

The options and arguments of the *irepbacksys* command are explained below.

-d backup_directory Windows32/64

Specify the path of a backup directory to be created. Specification is not case-sensitive.

If the path is not specified, the current path will be used.

Specify the path within 128 bytes.

If the path includes blank characters, enclose the path with double quotes (").

For a backup directory name, the following characters cannot be used. However, a colon (:) used to specify a drive letter and a backslash (\) used as a separator for directory names are both valid. The "." (period) cannot be specified as a directory name.

```
: ; / * ? \ < > | " ,
```

-f backup_file Solaris32/64 Linux32/64

Specify the path of a backup file to be created (excluding the file extension).

If the path is not specified, the current path will be used.

Specify the path within 128 bytes.

For the file name, "numeric characters (0 to 9), alphabetic characters(a to z and A to Z), periods (.), and underscores (_)" are valid.

-R repository

Specify the repository name of Interstage Directory Service resources.

The specification is not case-sensitive.

-confonly

This option backs up the repository environment only. Specify this option if the repository environment is to be copied from operation node to standby node in a cluster system.

-dataonly

This option backs up repository data only. When you use an RDB as the repository database, this option cannot be specified because repository data is not targeted by the backup process. (Use the backup functionality of the RDB product instead.)

-y

Specify this option to suppress message output during command execution. This processing is also performed when 'y' or 'Y' is entered when the response message is output.

The relationship between backup/restore command options and targeted resources that are supplied by Interstage Directory Service is shown as the following:

To use a standard database as the repository database:

Target resources	Command options		
	No specification with "-dataonly" and "-confonly"	-confonly	-dataonly
Repository environment	Y	Y	
Repository data	Y		Y
Access log	Y		

To use an RDB as the repository database:

Target resources	Command options	
	No specification with "-dataonly" and "-confonly"	-confonly
Repository environment	Y	Y
Repository data		
Access log	Y	

Y: Targeted

Messages

The command execution result is displayed on the same screen where the command was executed. For the meaning of messages, refer to "Messages Beginning with 'irep'" in the Interstage Application Server Messages.

Notes

- Use the administrator authority to execute this command.

- The Connection Information Settings of the Entry Administration Tool are not backed up.

Windows32/64

- The settings for the relationship between the repository and the RDB set in the *irepadmin* command are not a target of the backup.

Solaris32/64 Linux32/64

- The automatic start settings of the irepadmin command are not backed up.

- Repository data will not be backed up when an RDB is used as the repository database. This information should be backed up using the backup functionality of the RDB product itself.

- The -dataonly option cannot be specified when an RDB is used as the repository database.

Windows32/64

- Before executing the *irepbacksys* command, stop the target backup repository.

Solaris32/64 Linux32/64

- Before executing the *irepbacksys* command, stop the target backup repository. If the backup is executed without stopping the repository, entries that are updated during execution may not be backed up. To ensure that all the entries will be backed up completely, stop the repository.

  If the repository cannot be stopped, use the latest file which has been backed up, and output the backup information using the command "ireprestsys -f backup-file -l."

Example

Solaris32/64

```
ireprestsys -f /backup/irep/rep001_back.tar.gz -l

Date 2006-02-06,09:39:16
irepVL 3.0
OSname SunOS
HostName host01
Option none
Repository rep001
Database symfoware
```

```
ireprestsys -f /backup/irep/rep001_back.tar.gz -l

Date 2006-02-06,09:39:16
irepVL 3.0
OSname Linux
HostName host01
Option none
Repository rep001
Database symfoware
```

The line beginning with "Database" is output when an RDB is used as the repository database. Confirm the time in the "Date" line of the output information, and refer to the access log in the access log storage directory of the target repository. Confirm that no entry updates took place after the time that has been confirmed. If updates did occur, reexecute the backup command. For information about the access log, refer to "Logs" in the Directory Service Operator's Guide.

- During a backup or restore operation, another backup operation cannot be performed on the same server. Once the current backup or restore operation is complete, you can perform the other backup.

- If multiple options of parameters are specified, an error message is output.

- Backup or restore operation only can be performed between the same operating systems.

- When the backed up repository is restored, the repository name, database storage directory, and access log storage directory will be the same as the backed up repository. If the database storage directory path or access log storage directory path does not exist, create the path and then execute the restore.

- The -confonly option is used for copying the repository environment from the operation node to the standby node during setup of a cluster environment. In an ordinary configuration, do not use this function because the repository may not be started on the recovered environment.

- The -confonly and -dataonly options cannot be specified at the same time.

- If the -confonly and -dataonly option have been specified when backing up, specify the same option for restoring. Additionally, if the -confonly and -dataonly option have not been specified when backing up, they still can be specified for restoring.

- If the -y option is specified, an error message will be output to the system log (or the event log in Windows(R) environment).

- If a backup directory already exists when it is specified, an error occurs.

- If a backup file already exists when it is specified, the following message is displayed to confirm that the backup file will be overwritten:

```
Backup file already exists.  (%s)
Overwrite it? (y/n):
```

  %s: Backup file path

To overwrite the backup file and continue the backup operation, enter 'y' or 'Y'. To stop the backup operation, enter 'n' or 'N.' If any other keys are input, the message will be redisplay and await valid input.

If -y option is specified, the backup file will be overwritten without displaying any messages:

- The backup file name is specified by the -f option with the extension (.tar.gz). If a file with the same name exists, it is recommended that you save this file.

- Each Interstage Directory Service version cannot restore the backed up repository resource to an environment that is older than the backed up environment.

Example

If the resources of the repository "rep001" are backed up to a directory named "X:\Backup\irep\rep001_back":

```
irepbacksys -d X:\Backup\irep\rep001_back -R rep001
IREP: INFO: irep11000: Backup has completed.  X:\Backup\irep\rep001_back
[rep001]
```

If the resources of the repository "rep001" are backed up to a file named "/backup/irep/rep001_back.tar.gz":

```
# irepbacksys -f /backup/irep/rep001_back -R rep001
UX:IREP: INFO: irep11000: Backup has completed.  /backup/irep/rep001_back.tar.gz [rep001]
```

25.8 ireprestsys

Name

ireprestsys

Restores and imports Interstage Directory Service resources.

Synopsis

1. Restores and imports resources

   To use a standard database as the repository database:

   ```
   ireprestsys -d backup_directory -R repository
               [[-confonly] [-S] | -dataonly] [-y]
   ```

   To use an RDB as the repository database:

   ```
   ireprestsys -d backup_directory -R repository [-confonly] [-y]
   ```

   To use a standard database as the repository database:

   ```
   ireprestsys -f backup_file -R repository [ [-confonly] [-S] | -dataonly] [-y]
   ```

   To use an RDB as the repository database:

   ```
   ireprestsys -f backup_file -R repository [-confonly] [-y]
   ```

2. Displays the backup directory (or file) information

   ```
   ireprestsys -d backup_directory -l
   ```

```
ireprestsys -f backup_file -l
```

Description

This is not valid for Standard-J Edition on Windows (64 bit).

This is not valid for Standard-J Edition on Linux (64 bit).

The *ireprestsys* command restores or imports Interstage Directory Service resources.

The options and arguments of the *ireprestsys* command are explained below.

-d backup_directory

Windows32/64

The name of the backup directory to be restored is specified by the absolute path. The specification is not case-sensitive.

If the path is not specified, the current path will be used.

Specify the path within 128 bytes.

If the path includes blank characters, enclose it with double quotes (").

If the backup directory has been compressed, specify it only after extracting the files to the required location.

For a backup directory name, the following characters cannot be used. However, the colon (:) used to specify a drive letter and a backslash (\) used as a separator for directory names are both valid. The "." (period) cannot be specified as a directory name.

```
: ; / * ? \ < > | " ,
```

-f backup_file Solaris32/64 Linux32/64

Specify the absolute path and file name (including the extension) of the backup file to be restored.

If the path is not specified, the current path will be used.

Specify the path within 128 bytes.

For the file name, "numeric characters (0 to 9), alphabetic characters (a to z and A to Z), periods (.), and underscores (_)" are valid.

-R repository

Specify repository name in the backup file.

The specification is not case-sensitive.

-confonly

This option restores the repository environment only. Specify this option if the repository environment is to be copied from operation node to standby node in a cluster system.

-S

Specify this option for restoring and rewriting repository environment to standalone. This option cannot be specified when an RDB is used as the repository database because repository data is not restored. (Data should be restored using the restore functionality of the RDB product.)

-dataonly

Specify this option for restoring repository data only. This option cannot be specified when an RDB is used as the repository database because repository data is not restored. (Data should be restored using the restore functionality of the RDB product.)

-y

Specify this option to suppress message output during command execution. This processing is also performed when 'y' or 'Y' is entered when the response message is output.

-l

Windows32/64

Specify this option for displaying the information in the backup directory.

Solaris32/64 Linux32/64

Specify this option for displaying the information in the backup file.

Output information provides the following information about the back up:

Date: Day and time

irepVL: Version level of Interstage Directory Service

OSname: Operating system name

HostName: Host name

Option: Specified option(-confonly/-dataonly)

Repository: Repository name

Database: Database name (when an RDB is used as the repository database)

Messages

The command execution result is displayed on the same screen where the command was executed. For an explanation of the messages, refer to "Messages Beginning with 'irep'" in the Interstage Application Server Messages.

Notes

- Use administrator authority to execute this command.

- The Connection Information Settings of the Entry Administration Tool must be set up after restoration.

Windows32/64

- The relationship between the repository and the RDB must be set using the *irepadmin* command after the restore operation.

Solaris32/64 Linux32/64

- The automatic start settings must be entered with the irepadmin command after restoration.

- Repository data is not restored when an RDB is used as the repository database. Use the restore functionality of the RDB product to restore this data.

- During a backup or restore operation, another restore operation cannot be performed on the same server. Once the backup or restore is complete, you can perform the next backup or restore.

- When the backed up repository is restored, the repository name, database storage directory, and access log storage directory will be the same as the backed up repository. If the database storage directory path or access log storage directory path does not exist, create the path and then execute the restore.

- If multiple options of parameters are specified, an error message is output.

- Backup or restore operation can only be performed between the same operating systems.

Windows32/64

- Must specify the -d option when the -l option is specified.

Solaris32/64 Linux32/64

- Must specify the -f option when the -l option is specified.

- The -confonly option is used for copying the repository environment from the operation node to the standby node during setup of a cluster environment. In an ordinary configuration, do not use this function because the repository may not be started on the recovered environment.

- The -confonly and -dataonly options cannot be specified at the same time.

- If the -confonly and -dataonly option have been specified when backing up, specify the same option for restoring. Additionally, if the -confonly and -dataonly options have not been specified for backing up, they still can be specified for restoring.

- If the -y option is specified, an error message will be output to the system log (or the event log in Windows(R) environment).

  If any data exists in the database storage directory when the -dataonly option is specified, the following message displays, asking for confirmation to delete data currently in the data store.:

```
Data already exists in database store.  (%s)
Are you sure of deleting data in database store? (y/n):
```

  %s: Path of database storage directory

  To restore the data, enter 'y' or 'Y'. To stop the restore, enter 'n' or 'N.' If other keys are input, the message will be redisplay and wait for valid input.

  If -y option is specified, the database will be replaced without displaying any messages.

- For the following cases, restore operation with the -dataonly option specified cannot be performed:

  - A repository with a status of not stopped.

  - The repository is undefined (the backed up repository name does not match the restoring repository name.)

  - The backed up database storage directory does not match the restoring database storage directory.

  - The backed up public directory is does not match with the restoring public directory.

  - The backed up user password encryption method does not match the restoring user password encryption method.

  - An RDB is being used as the repository database

- If the restore operation has been performed with the -dataonly option during replication operation, refer to "Setting Up an Environment for the Replication Mode" in the Directory Service Operator's Guide, and then perform the replication setup again.

Windows32/64

- The restore operation with a compressed backup file cannot be performed. Extract the backup file, and then restore it.

- Each Interstage Directory Service version cannot restore the backed up repository resource to an environment that is older than the backed up environment.

Example

Windows32/64

If the backup directory "X:\Backup\irep\rep001_back" is restored by a repository named "rep001"

```
ireprestsys -d X:\Backup\irep\rep001_back -R rep001
IREP: INFO: irep11001: Restore has completed.  X:\Backup\irep\rep001_back
[rep001]
```

Reference with the information of backed up

```
ireprestsys -d X:\Backup\irep\rep001_back -l
Date 2006-09-12,15:22:35
irepVL 3.0
OSname Win
HostName host01
Option dataonly
Repository rep001
```

Solaris32/64

If the backup file "/backup/irep/rep001_back.tar.gz" is restored by a repository named "rep001"

```
# ireprestsys -f /backup/irep/rep001_back.tar.gz -R rep001
UX:IREP: INFO: irep11001: Restore has completed.  /backup/irep/rep001_back.tar.gz [rep001]
```

Reference with the information of backed up.

```
# ireprestsys -f /backup/irep/rep001_back.tar.gz -l
Date 2006-09-12,15:22:35
irepVL 3.0
OSname SunOS
HostName host01
Option dataonly
Repository rep001
```

Linux32/64

If the backup file "/backup/irep/rep001_back.tar.gz" is restored by a repository named "rep001"

```
# ireprestsys -f /backup/irep/rep001_back.tar.gz -R rep001
UX:IREP: INFO: irep11001: Restore has completed.
/backup/irep/rep001_back.tar.gz [rep001]
```

Reference with the information backed up (when a standard database is used as the repository database).

```
# ireprestsys -f /backup/irep/rep001_back.tar.gz -l
Date 2006-09-12,15:22:35
irepVL 3.0
OSname Linux
HostName host01
Option dataonly
Repository rep001
```

Reference with the information backed up (when an RDB is used as the repository database).

```
# ireprestsys -f /backup/irep/rep001_back.tar.gz -l
Date 2006-09-12,15:22:35
irepVL 3.0
OSname Linux
HostName host01
Option none
Repository rep001
Database symfoware
```

25.9 iscbackupsys

Name

iscbackupsys

Backs up and export the Interstage setup resources.

Synopsis

```
iscbackupsys [-M system] backupdir
```

Description

The *iscbackupsys* command backs up and exports the Interstage initialization resources using the Interstage Management Console, or the Interstage integrated command.

The argument of the *iscbackupsys* command is explained below.

-M system   Solaris32

Specify the system name. If this option is omitted, operation using the default system becomes the target.

This option can be specified with Interstage Application Server Enterprise Edition.

backupdir

Specify the storage directory for backup resources.

Notes

- Execute this command with Administrator authority.

- Be sure to stop Interstage before executing this command.

- If the previous backup resources still remain in the backup resources directory, delete those backup resources or change to another directory, and then execute this command.

Solaris32/64 Linux32/64

- Allocate the necessary disk space to store the backup resources in the backup directory. Refer to the Tuning Guide for information on the method of estimating the necessary amount of disk space required to store the backup resources.

Example

Windows32/64

```
iscbackupsys X:\Backup
```

Solaris32/64 Linux32/64

```
iscbackupsys /backup
```

25.10 ischangesiteinfo

Name

ischangesiteinfo

Change the Interstage site information

Synopsis

Windows32/64 Solaris32 Linux32/64

```
ischangesiteinfo siteinfofile
```

Description

The *ischangesiteinfo* command is used to change the site information.

The arguments of the *ischangesiteinfo* command are explained as follows.

siteinfofile

The definition of the site information can be changed by specifying the site information definition file name. To use the nulls as the file name, enclose the file name with double quotation marks.

The following site information can be changed in the site information definition files.

- Management LAN IP address

- Business LAN IP address

- Business LAN host name

Site information definition must be divided into sections and entered.

Section	Setting value
[ManageIP]	Management LAN IP address

Section	Setting value
[BusinessIP]	Business LAN IP address
[BusinessHost]	Business LAN host name

Definitions not being changed may be omitted. If a section contains no definition to be changed, omit the entire section.

Enter as follows to change the definitions of Management LAN IP address or Business LAN IP address:

```
(IP address before changing) > (IP address after changing)
```

- IPv6 is not supported.

- Enter here if the Web server IP address or virtual host IP address is being changed.

Enter as follows to change the definitions of the Business LAN host name:

```
(Host name before changing) > (Host name after changing)
```

- Specify a character string of 64 characters or less.

- Use the following characters for the host name.

Windows32/64

A character string of 64 or less characters consisting of the following characters and starting with an alphabet:

- Upper case alphabet ("A" to "Z")

- Lower case alphabet ("a" to "z")

- Numeric ("0"~"9")

- Hyphen("-")

- Period (".")

A minus (-) or a period (.) cannot be specified as the last character.

Solaris32/64 Linux32/64

A character string of 64 byte or less

- Enter here to change the host name of the Web server or the virtual host.

- Use one-byte characters for "[" and "]"in the section.

- Enter the comment following a one-byte hash mark (#).

- One-byte blank space and tabs are ignored.

Example 1

When the IP address and/or host name of Management LAN and Business LAN are differentiated.

	Before change	After change
Management LAN IP address	192.168.0.1	200.168.0.1
	192.168.0.2	200.168.0.2
Business LAN IP address	192.168.1.1	200.168.1.1
	192.168.1.2	200.168.1.2
Business LAN host name	host01	host11
	host02	host12

Site information definition files

```
#  Enter Management LAN IP address
[ManageIP]
```

```
192.168.0.1 > 200.168.0.1     # Managed server 1
192.168.0.2 > 200.168.0.2     # Managed server 2

#  Enter Business LAN IP address
[BusinessIP]
192.168.1.3 > 200.168.1.1     # Managed server 1
192.168.1.4 > 200.168.1.2     # Managed server 2

#  Enter Business LAN host name
[BusinessHost]
host01 > host11               # Managed server 1
host02 > host12               # Managed server 2
```

Example 2

To change the IP address of Business LAN only.

	Before change	After change
Management LAN IP address	192.168.0.1	192.168.0.1
	192.168.0.2	192.168.0.2
Business LAN IP address	192.168.1.1	200.168.1.1
	192.168.1.2	200.168.1.2
Business LAN host name	host01	host11
	host02	host12

Site information definition files

```
#  Enter Business LAN IP address
[BusinessIP]
192.168.0.1 > 200.168.0.1     # Managed server 1
192.168.0.2 > 200.168.0.2     # Managed server 2

#  Enter Business LAN host name
[BusinessHost]
host01 > host11               # Managed server 1
host02 > host12               # Managed server 2
```

Return value

0: Normal ending

1: Warning ending

2 or more: Abnormal ending (interrupts the processing when an error is generated and termiantes)

Notes

- The command must be executed with the administrator's authority.

- The admin server must be backed up before executing the command.

- An IP address or a host name in a section cannot be changed to two IP addresses or host names.

- Two IP addresses or two host names in a section cannot be changed to one IP address or one host name.

- Even if the IP addres of Management LAN and Business LAN are the same, each IP address must be defined as the IP address to change.

- Start the Interstage JMX service before executing this command.

  Windows32/64

Start the "Interstage Operation Tool" service.

Start the Interstage JMX service using the *isjmxstart* command.

Example

Windows32/64

```
ischangesiteinfo  C:\tmp\siteinfo_table
```

Solaris32　Linux32/64

```
ischangesiteinfo  /tmp/siteinfo_table
```

25.11 iscrestoresys

Name

iscrestoresys

Restores and imports Interstage setup resources

Synopsis

```
iscrestoresys [-M system][-h hostname | -f restorefile] backupdir
```

Description

The *iscrestoresys* command restores and imports Interstage initialization resources using the Interstage Management Console, or the Interstage setup command.

The options and arguments of the *iscrestoresys* command are explained below.

-M system　Solaris32

Specify the system name. If this option is omitted, operation using the default system becomes the target.

This option can be specified with Interstage Application Server Enterprise Edition.

-h hostname

Specify the name of the host used for the CORBA communication at the import destination server.

In the following condition, this option cannot be omitted.

- Importing to or exporting from the same system of another server

-f restore-file　Solaris32

Specify the restore definition file.

This option is used when one of the following import operations is performed while the multi system is running:

- Default system export resources are imported to an extended system on the same server

- Default system export resources are imported to an extended system on another server

- Extended system export resources are imported to a default system on the same server

- Extended system export resources are imported to a default system on another server

- Extended system export resources are imported to an extended system with a system name alias on another server

When importing Interstage setup resources, the definition items of the Interstage operation environment definition as shown below can be customized by using the restore definition file.

- Corba Host Name (Host name operating the CORBA Service)

- Corba Port Number (Port number used for CORBA communication)

- IR Path for DB file (Directory creating the database used in the Interface Repository)

- TD path for system (Directory creating the operation environment of the Component Transaction Service)

- SSL Port Number (Port number used for SSL Linkage)

For the definition items to be changed out of the above items, create a restore definition file in which the definition information after change is described and specify the file with -f option of the *iscrestoresys* command. The method for describing the restore definition file is the same as that for the Interstage operation environment definition.

backupdir

Specify the storage directory of backup resources.

Notes

- Execute this command with Administrator authority.

- Be sure to stop Interstage before executing this command.

- Do not access files under the Interstage install directory during the execution of this command.

- This command cannot be used in systems with a feature configuration different from that of the Backup/Export resources. Check whether the features below have been installed in the Restore/Import target system, then execute Restore/Import in a system with the same feature configuration.

    - For Interstage Application Server Enterprise Edition: Multilanguage service or J2EE compatibility

    - For Interstage Application Server Standard-J Edition: J2EE compatibility

The availability of this command depending on whether the above features have been installed is shown below.

Backup/Export resources		Restore/Import destination system	
		Installed	**Not installed**
V10.0 or later	Installed	Support	No support
	Not installed	No support	Support
V9.3 or earlier		Support	No support

- When this command is executed, the default value may be set as a parameter that is not used in the Interstage operating environment definition file (a non-backup target parameter), however this will have no impact on Interstage operations.

Example

Windows32/64

```
iscrestoresys -h host1 X:\Backup
```

Solaris32/64

```
iscrestoresys -f restfile /backup
```

Linux32/64

```
iscrestoresys -h host1 /backup
```

25.12 isguibackup

Name

isguibackup

Backup and export of Interstage Management Console.

Synopsis

`Windows32/64` `Solaris32/64`

```
isguibackup isdir backupdir
```

Description

The *isguibackup* command performs backup and export of Interstage Management Console resources.

The arguments of the *isguibackup* backup command are described below.

isdir `Windows32/64`

Specify the Interstage install directory.

backupdir

Specify the backup resources storage directory.

Messages

The messages that are displayed during execution of this command are explained as follows.

`Windows32/64`

isguibackup: INFO: Backup process finished.

Execution of this command has ended.

If any message is already output before this message is output, execution of this command has failed. In such a case, reexecute this command by referring to the contents of the output message and notes accompanying this command.

isguibackup: ERROR: Invalid parameter.

The specified parameter is invalid.

isguibackup: ERROR: INTERSTAGE was started.

Interstage has been started up. Stop Interstage.

isguibackup: ERROR: There is no permission to execute the command.

The user does not belong to the administrator local group. Execute this command from the user that belongs to the administrator local group.

isguibackup: ERROR: %s does not exist.

The install directory %s of Interstage that is specified with the parameter of the command does not exist.

isguibackup: ERROR: %s already exists.

The storage directory %s of Interstage that is specified with the parameter of the command already exists.

isguibackup: ERROR: Backup data already exist.

The backup resources already exist in the storage directory of backup resources that is specified with the parameter of the command.

isguibackup: ERROR: A required file does not exist.

Backup resources do not exist. There is an error in specifying the install directory of Interstage.

isguibackup: ERROR: %s is not installed.

The package %s is not installed. It is necessary to install the package %s to back up the resources.

`Solaris32/64`

isguibackup: ERROR: Backup process failed.

The command has ended abnormally. Refer to the notes issued when this command was executed, and check if there were any errors in the execution method. If there were any errors in the execution method, execute the command again according to the notes. Otherwise

see the error information showing the causes of the errors of the command which is output at the end of the following file and process the errors accordingly.

/var/opt/FSUNtd/trc/backup_restore/backup_error.log

Notes

- Execute this command with Administrator authority.

- Be sure to stop Interstage before executing this command.

Solaris32/64

- Allocate the necessary disk space to store the backup resources in the backup directory. Refer to the Tuning Guide for information on the method of estimating the necessary amount of disk space required to store the backup resources.

Example

Windows32/64

```
isguibackup C:\Interstage  X:\Backup\isgui
```

Solaris32/64

```
isguibackup /backup/isgui
```

25.13 isguirestore

Name

isguirestore

Restore and import of the resources of Interstage Management Console.

Synopsis

Windows32/64 Solaris32/64

```
isguirestore isdir backupdir
```

Description

The *isguirestore* command performs restore and import of the resources of the Interstage Management Console.

The arguments of the *isguirestore* command are explained below.

isdir Windows32/64

Specify the Interstage install directory.

backupdir

Specify the backup resources storage directory.

Messages

The meaning of the messages that are displayed during execution of this command is explained as follows.

Windows32/64

isguirestore: INFO: Restore process finished.

Execution of this command has ended.

If any message has already been output before this message is output, execution of this command has failed. In such a case, reexecute this command by referring to the contents of the output message and notes accompanying this command.

isguirestore: ERROR: Invalid parameter.

The specified parameter is invalid.

isguirestore: ERROR: INTERSTAGE was started.

Interstage has already been started up. Stop Interstage.

isguirestore: ERROR: There is no permission to execute the command.

The user does not belong to the administrator local group. Execute this command from the user that belongs to the administrator local group.

isguirestore: ERROR: %s does not exist.

The Interstage install directory that is specified with the parameter of the command or the storage directory %s of the backup resources do not exist.

isguirestore: ERROR: A required file does not exist.

Backup resources do not exist. There is an error in specifying the backup resource storage directory, or the resource backup work has not been executed correctly.

isguirestore: ERROR: Restore process failed.

The command finished abnormally. If the following detailed error information is output before this message, take action according to the information:

Failed to restore the isjmx definition. errcode=E%d1:M%d2:O%d3:F%d4:D(line:%d5 code:%d6)

- %d4 = 108 :

There may have been insufficient memory. Wait for a while and reexecute the command.

- %d5 = Number :

The isjmx.xml configuration description may be incorrect.

Check whether there was an error in the description displayed in the appropriate line in line:%d.

If there was an error, correct it and reexecute the command.

Solaris32/64

isguirestore: INFO: Restore process finished.

Execution of this command has ended.

isguirestore: ERROR: Invalid parameter.

The specified parameter is invalid.

isguirestore: ERROR: INTERSTAGE was started.

Interstage has already been started up. Stop Interstage.

isguirestore: ERROR: %s does not exist.

The storage directory %s of the backup resources that is specified with the parameter of the command does not exist.

isguirestore: ERROR: A required file does not exist.

Backup resources do not exist. There is an error in specifying the backup resource storage directory, or the resource backup work has not been executed correctly.

isguirestore: ERROR: %s is not installed.

The package %s is not installed. It is necessary to install the package %s to back up the resources.

isguirestore: ERROR: Backup process failed.

The command has ended abnormally. Refer to the notes issued when this command was executed, and check if there were any errors in the execution method. If there were any errors in the execution method, execute the command again according to the notes. Otherwise

see the error information showing the causes of errors for the command which is output at the end of the following file and process the errors accordingly.

/var/opt/FSUNtd/trc/backup_restore/backup_error.log

isssvrestore: ERROR: Improper Java Execution environment.

The Java executable environment was incorrect. Make sure that the installation path of JDK/JRE used by the Interstage JMX Service is set correctly.

isssvrestore: ERROR: Improper Interstage environment.

The Interstage environment was incorrect. Check that the IS_HOME environment variable was set correctly. If there was a problem, set the environment variable in the correct Interstage installation directory. If IS_HOME was set correctly, it means that the status of the Interstage environment is invalid. In this case, reinstall Interstage.

Notes

- Execute this command with Administrator authority.

- Be sure to stop Interstage before executing this command.

- Do not access the files under the Interstage install directory during execution of this command.

Windows32/64

- Be sure to stop the service "Interstage Operation Tool" before executing this command.

Example

Windows32/64

```
isguirestore C:\Interstage X:\Backup\isgui
```

Solaris32/64

```
isguirestore /backup/isgui
```

25.14 isjmxbackup

Name

isjmxbackup

Backs up/exports Interstage JMX service resources.

Synopsis

Windows32/64

```
isjmxbackup isdir backupdir
```

Solaris32/64 Linux32/64

```
isjmxbackup backupdir
```

Description

The *isjmxbackup* command backs up/exports Interstage JMX service resources.

Use this command for system maintenance, for transferring Interstage resources to other servers, and for backing up Interstage resources in case they become damaged.

The arguments of this command are as follows:

isdir `Windows32/64`

Specify the Interstage installation directory.

backupdir

Specify the storage directory for backup resources.

Messages

The meaning of the messages that are displayed during execution of this command is as follows.

isjmxbackup: INFO: Backup process finished.

Explanation

The command terminated normally.

If any kind of message has been output before this message, then command execution has failed. In this case, execute the command again, following the content of the message that has been output and the notes on executing this command.

isjmxbackup: ERROR: Invalid parameter.

Explanation

A command parameter was specified incorrectly.

System Action

Stops processing the command.

User Action

Specify the correct parameters and execute the command again.

isjmxbackup: ERROR: There is no permission to execute the command.

Explanation

The user does not have the permissions needed to execute the command.

System Action

Stops processing the command.

User Action

Execute the command again as a user with administrator privileges.

isjmxbackup: ERROR: Invalid path is specified. (%s)

Variable Information

%s: The Interstage installation directory or backup resources storage directory that is specified by the command parameters

Explanation

The directory %s specified by the command parameters does not exist.

System Action

Stops processing the command.

User Action

Specify the correct Interstage installation directory or backup resources storage directory and then execute the command again.

isjmxbackup: ERROR: Backup data already exist.

Explanation

The storage folder for backup resources specified in the command parameter already contains backup resources.

System Action

Stops processing the command.

User Action

Specify a directory that does not contain backup resources as the backup resources storage directory and execute the command again.

isjmxbackup: ERROR: A required file does not exist.

Explanation

Backup resources do not exist. There is an error with the specification for the Interstage installation directory.

System Action

Stops processing the command.

User Action

Specify the correct Interstage installation directory and then execute the command again.

Solaris32/64 Linux32/64

Check whether the FJSVisjmx package has been installed. Install this package if it has not been installed, and then execute the command again.

isjmxbackup: ERROR: FJSVisjmx is not installed.

Explanation

The Interstage JMX service installation directory does not exist.

System Action

Stops processing the command.

User Action

Check whether the FJSVisjmx package has been installed. Install this package if it has not been installed, and then execute the command again.

isguibackup: ERROR: Backup process failed.

Explanation

The command terminated abnormally.

User Action

Refer to the notes on executing this command and check the execution method. If the execution method was incorrect, execute the command correctly according to the notes. In other cases, check the error information indicating the cause of the command error (recorded at the end of the following file) and take corrective action.

Windows32/64

backupdir\backup.log

Solaris32/64 Linux32/64

/var/opt/FJSVisjmx/trc/backup_restore/backup_error.log

Notes

- This command must be executed with Administrator authority.

- Before executing this command, stop Interstage and the Interstage JMX service.

- Reserve sufficient disk space for storing backup resources in the backup directory. Refer to the Tuning Guide for details on estimating required disk space for backup resource storage.

Example

Windows32/64

```
isjmxbackup C:\Interstage X:\backup
```

Solaris32/64 Linux32/64

```
isjmxbackup C:\Interstage X:\backup
```

25.15 isjmxrestore

Name

isjmxrestore

Restores/imports Interstage JMX service resources.

Synopsis

Windows32/64

```
isjmxrestore isdir backupdir [ipaddress] [-r] [-s]
```

Solaris32/64 Linux32/64

```
isjmxrestore backupdir [ipaddress] [-r] [-s]
```

Description

The *isjmxrestore* command restores/imports Interstage JMX service resources.

Execute this command when restoring backed up resources or transferring Interstage resources to other servers.

The arguments of this command are as follows:

isdir Windows32/64

Specify the Interstage installation directory.

backupdir

Specify the storage directory for backup resources.

When importing resources from an Interstage Application Server V7.0 (or earlier) environment, specify the backup resources storage directory specified by the *isguibackup* command for "backupdir".

ipaddress

Specify the IP address of the server to which the resources are restored.

In the following cases, specify the IP address used in the Interstage JMX service:

- The IP address is specified in the file isjmx.xml on the server in which the resources are backed up,

- The server in which the resources are restored to has more than one IP address, and the LAN used for system operation management in the Interstage JMX service and the LAN used for business are different.

If the IP address is not specified, the IP address edit is not performed.

Specify the IP address of the machine used to execute the command for the specified IP address.

-r

Use this option when the authentication protocol for the management console used on the server is not to be restored or imported.

Unless this option is specified, the authentication protocol for the server where the backup was taken will be inherited.

If this option is specified, the authentication protocol for the server where resources are being restored or imported will be left unchanged.

-s Windows32/64 Solaris32 Linux32/64

Use this option when migrating sites. Do not use this option for restorations or imports other than site migration.

If this option is specified, the site participation status of the server where the backup was taken will be inherited by the server where resources are being restored or imported.

If this option is not specified, the site participation status of the server where resources are being restored or imported will be left unchanged.

Messages

The meaning of the messages that are displayed during execution of this command is as follows.

isjmxrestore: INFO: Restore process finished.

Explanation

The command has terminated. If any kind of message has been output before this message, then command execution has failed. In this case, execute the command again, following the content of the message that has been output and the notes on executing the command.

isjmxrestore: ERROR: Invalid parameter.

Explanation

The command parameter was specified incorrectly.

System Action

Stops processing the command.

User Action

Specify the correct parameters and execute the command again.

isjmxrestore: ERROR: There is no permission to execute the command.

Explanation

The user does not have the permissions needed to execute the command.

System Action

Stops processing the command.

User Action

Execute the command again as a user with administrator privileges.

isjmxbackup: ERROR: Invalid path is specified. (%s)

Variable Information

%s: The Interstage installation directory or backup resources storage directory that is specified by the command parameters

Explanation

The directory %s specified by the command parameters does not exist.

System Action

Stops processing the command.

User Action

Specify the correct Interstage installation directory or backup resources storage directory and then execute the command again.

isjmxrestore: ERROR: A required file does not exist.

Explanation

Backup resources do not exist. The directory that stores the backup resources was not specified correctly, or the resources were not backed up correctly.

System Action

Stops processing the command.

User Action

If there is an error with the specification for the backup resources storage directory, specify the correct backup resources storage directory and then execute the command again.

If the resource backup operation has not been performed correctly, take another backup and then execute the command again.

isjmxrestore: ERROR: FJSVisjmx is not installed.

Explanation

The Interstage JMX Service installation directory does not exist.

System Action

Stops processing the command.

User Action

Check whether the FJSVisjmx package has been installed. Install this package if it has not been installed, and then execute the command again.

isjmxrestore: ERROR: Restore process failed.

Explanation

The command has terminated abnormally.

User Action

If any of the detailed error information has been output before this message, take action according to the following detailed error message.

Failed to restore the isjmx definition. errcode=E%d1:M%d2:O%d3:F%d4:D(line:%d5 code:%d6)

- If the value for %d4 is 108

  There may be a memory shortage. Wait for a while and then reexecute the command.

- If a number was specified for %d5

  Check line %d in the isjmx.xml definition file is correct, then reexecute the command.

isssvrestore: ERROR: Improper Java Execution environment.

Explanation

The Java execution environment is incorrect.

User Action

Set the correct installation path for the JDK/JRE used by the Interstage JMX service.

isssvrestore: ERROR: Improper Interstage environment.

Explanation

The Interstage environment is incorrect.

User Action

Check that the IS_HOME environment variable has been set to the Interstage installation destination.

If IS_HOME is already correctly set, it means that the Interstage environment is invalid. In this case, reinstall Interstage.

Notes

- This command must be executed with Administrator authority.

- Before executing this command, stop Interstage and the Interstage JMX service.

- Do not access any files in the Interstage installation directory during execution of this command.

- When resources are imported to a server other than the backup server, use an environment with the same package configuration.

Example

Windows32/64

```
isjmxrestore C:\Interstage X:\backup
```

Solaris32/64 Linux32/64

```
isjmxrestore/backup
```

25.16 isprintbackuprsc

Name

isprintbackuprsc

Displays backup target resources

Synopsis

```
isprintbackuprsc
```

Description

Lists the resources for which the backup/export operation is required.

The displayed items are described below:

Item (*1)	Backup target service resource
ISCOM	Interstage setup resources
GUI	Interstage Management Console resources
JMX	Interstage JMX Service resources
OD	CORBA Service resources
ES	Event Service resources
PORB	Portable-ORB resources
TD	Component Transaction Service resources
Windows32/64 Solaris32 Linux32/64 OTS	Database Linkage Service resources
JMS	Interstage JMS resources
J2EE	J2EE common resources
IHS	Interstage HTTP Server resources
AHS	Interstage HTTP Server 2.2 resources
WSC	Web Server Connector(for Interstage HTTP Server 2.2) environment definition files
SSOsv	Interstage Single Sign-on resource (Repository server)
SSOac	Interstage Single Sign-on resource (Authentication server)
SSOaz	Interstage Single Sign-on resource (Business server)
IJServer	IJServer resources
ISSCS	Interstage Certificate Environment resources
IREP	Interstage Directory Service resources
ISCM	Job configuration manager repository resources

Item (*1)	Backup target service resource
JavaEE	IJServer cluster resources
JavaEE6	Java EE 6 resources

*1 This corresponds to the section name of the backup target resource specified in the sample collective procedures (for details, refer to "Maintenance (Resource Backup)" - "Collective Maintenance" in the Operator's Guide).

Notes

- Execute this command as a user with administrator privileges.

- For details on how to execute the Interstage resource backup/restore/import/export operations, refer to "Maintenance (Resource Backup)" - "Collective Maintenance" in the Operator's Guide.

- This command determines whether the resources are backup targets based on the installation and setup status of each feature. Therefore, features that have been installed but not used may also be displayed.

- If the multiserver management feature has been used, the CORBA Service resources are not displayed when the server types are as follows:

  - Servers in which the admin server and the standalone server coexist

  - Servers in which the CORBA Service and the admin server coexist

Example

```
> isprintbackuprsc
  ISCOM
  OD
  TD
  OTS
```

25.17 j2eebackup

Name

j2eebackup

Backs up and exports the common J2EE resources.

Synopsis

```
j2eebackup -d backupdir
```

Description

The *j2eebackup* command backs up and exports the common J2EE resources. This command backs up the files under the directory specified by backupdir.

The argument of the *j2eebackup* command is as follows:

-d backupdir

Specify the storage directory for backup resources.

Messages

The execution results of the command are displayed on the command execution screen. For the contents of the messages, refer to Messages with Message Number beginning isj2ee in the Messages Manual.

Notes

- Execute this command with administrator authority.

- Stop the Interstage before backup.

- The *j2eebackup* command should confirm that the directory in which the *jar* command is stored is included in the environment variable PATH because the *jar* command is used for internal processing.

- This command cannot be used on an extended multi-system.

25.18 j2eerestore

Name

j2eerestore

Restores and imports the common J2EE resources.

Synopsis

```
j2eerestore -d backupdir
```

Description

The *j2eerestore* command restores and imports the common J2EE resources.

The argument of the *j2eerestore* command is as follows:

-d backupdir

Specify the storage directory of backup resources.

Messages

The execution results of the command are displayed on the command execution screen. For the contents of the messages, refer to Messages with Message Number beginning isj2ee in the Messages Manual.

Notes

- Execute this command with administrator authority.

- Stop the Interstage before backup.

- This command must be executed under the environment where Interstage is installed in the same directory as that when the *j2eebackup* command is executed.

- The *j2eerestore* command should confirm that the directory in which the *jar* command is stored is included in the environment variable PATH because the *jar* command is used for internal processing.

- This command cannot be used on an extended system.

25.19 jmsbackup

Name

jmsbackup

Backs up and exports the Interstage JMS resources.

Synopsis

```
jmsbackup -d <backup-directory> [-M system]
```

Description

The *jmsbackup* command backs up and exports the Interstage JMS resources.

The option and parameter of this command are shown below.

-d <backup-directory>

Specify the directory in which the resource files are stored.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- Solaris32/64 Linux32/64

Execute this command with Administrator authority.

- Nonexistence of the specified directory results in an error.

- Ensure that the JMS application is in stop state before executing this command.

Example

Windows32/64

To save the environment definition in the directory "D:\backup":

```
C:\Interstage\bin\jmsbackup -d D:\backup
```

Solaris32/64 Linux32/64

To save the environment definition in the directory "/backup":

```
/opt/FJSVjms/bin/jmsbackup -d /backup
```

25.20 jmsrestore

Name

jmsrestore

Restores and imports the Interstage JMS resources.

Synopsis

```
jmsrestore -d <backup-directory> [-all] [-M system]
```

Description

The *jmsrestore* command restores/imports Interstage JMS resource files backed up/exported by the *jmsbackup* command.

The options and parameter of this command are shown below.

-d <backup-directory>

Specify the directory in which the resource files are stored.

-all

With this option specified, all resources (JMS definition information and JMS nonvolatile information) are restored.

When this option is omitted, only JMS definition information is restored.

-M system   Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- Solaris32/64 Linux32/64

Execute this command with Administrator authority.

- The -all option should be specified when the Event Service (notification service) environment is not recreated.

- Confirm that the JMS application is in stop state before executing this command.

Example

Windows32/64

To restore the environment definitions from the directory "D:\backup" (at recreation of Event Service):

```
C:\Interstage\bin\jmsrestore -d D:\backup
```

Solaris32/64 Linux32/64

To restore the environment definitions from the directory "/backup" (at recreation of Event Service):

```
/opt/FJSVjms/bin/jmsrestore -d /backup
```

25.21 odbackupsys

Name

odbackupsys

Backup/Export of CORBA Service resource files.

Synopsis

```
odbackupsys  backupdir  [-M system]
```

Description

This command backs up and exports resources files used by the CORBA Service. CORBA Service resource files include the following resources.

- CORBA Service (ORB) resources

- Naming Service resources

- interface repository resources

- Load balance resources   Windows32   Solaris32   Linux32

The following explains the argument for this command.

backupdir

Specify the storage directory of CORBA Service resources to be backed up/exported. The following directory is created under the specified directory and CORBA Service resources are backed up under the following directory. If the following directory already exists, delete the directory.

Windows®: OD

Solaris: FSUNod

Linux: FJSVod

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- Execute this command with Administrator authority.

- Be sure to stop Interstage before executing this command.

- Do not access CORBA Service resources while executing this command.

- Only one of commands below can be executed at the same time (if more than one them is running, wait for it to finish, and then execute the command again):

    - *odbackupsys* (this command)

    - *odrestoresys*

    - *odchgservice*

Windows32 Solaris32 Linux32

- If 129 load balance object groups or more are registered, it is not possible to back up/export all object groups. In that case, all information can be backed up or exported by editing the operation environment file (nsconfig) of the Naming Service. For details of the operation environment file (nsconfig) of the Naming Service, refer to nsconfig in the Tuning Guide.(*1)

    *1 This is not valid for Windows Server(R) x64 Editions and Linux for Intel64.

25.22 odexportir

Name

odexportir

Exports interface information.

Synopsis

```
odexportir   [-e] [-r RepositoryId[,..]] filename  [-M system]
```

Description

The *odexportir* command extracts the interface object contained in the specified module or interface, from the Interface Repository, and generates an interface definition information registration file (referred to below as an interface information file).

The interface definition information stored in the interface information file generated using this command can be registered with the Interface Repository on another server by using the *odimportdir* command.

-e

This is an option for previous versions. It cannot be used in this product.

-r RepositoryId

Specify the module to be exported and the repository ID of the interface. If more than one is to be exported, delimit the characters with commas. If this option is not specified, it is assumed that all the objects registered in the Interface Repository are to be exported.

filename

Specify the name of the interface information file. If another file with the same name already exists, the command will terminate abnormally.

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- The Interface Repository needs to be started before the export command is executed.

- When extracting part of an interface, if the specified interface inherits a different interface, the inheriting interface or the object containing the inheriting interface should also be specified for export. Also, if an object from a hierarchical level other than the highest level has been partially extracted, a new object for the object extracted to the import destination will be required. This should not be used unless the object is to be overwritten.

  An example is shown below.

  ```
  Module test1 {                       // module declaration
     Interface  intf1 {                // interface declaration
         Long add (in long a, in long b); // operation declaration.
     };
  }
  ```

  In the example above, when the interface "intf1" is partially extracted, the module "test1" is needed at the import destination.

- If exporting from an Interface Repository of a different version of the CORBA Service (ObjectDirector) (when using the Interface Repository of a remote server), information cannot be exported from the later version on the local server.

  Moreover, even if the versions are the same, export may not be possible between different systems.

Windows32/64

- When you want to execute the *export* command, the time zone must be set in the TZ environment variables.

  TZ = "JST-9"

  If the above setting is not performed, the export time information of the created interface information file may not be set correctly.

Linux32/64 Solaris32/64

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

25.23 odexportns

Name

odexportns

Exports Naming Service registration information.

Synopsis

```
odexportns  -o  filename  [-M system]
```

Description

This command exports registration information of object references managed by the following function.

- Naming Service
- Load Balance option Windows32   Solaris32   Linux32

When this command is executed, a filename file is created. This file is needed when information is exported using the *odimportns* command.

Also, a filename_list file is created in which the registration information list of exported object references is stored.

The following shows the specifiable parameters:

-o filename

Stores registration information of object references managed by the following function in the file specified by filename. Also the registration information list is stored in filename_list.

- Naming Service

- Load Balance option Windows32 Solaris32 Linux32

The following shows how to view the registration information list (filename_list).

```
cnauto::intf(o)  IDL:cnauto/intf:1.0, IDL:cnauto/intf:1.0, (r2d2:8002:1.1:NONE:ON)
  (a)    (b)               (c)                  (d)          (e) (f)  (g) (h)  (i)
```

a) Name registered with the Naming Service

b) Registered type

c) Interface repository ID

d) Implementation repository ID

e) Object host name

f) Object port number

g) Object version

h) Code system

i) SSL information

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated.. If this option is omitted, operation using the default system becomes the target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- When executing this command, the Naming Service must be active. If the load balance function is used, the load balance function must also be active.
  Windows32 Solaris32 Linux32

  If the load balance function is used, the load balance function must also be active.

Windows32 Solaris32 Linux32

- If 257 Load Balance object groups or more are registered, it is not possible to export all object groups. (*1)

  *1 This is not valid for Linux (64 bit).

Solaris32/64 Linux32/64

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

25.24 odimportir

Name

odimportir

Imports the interface information.

Synopsis

```
odimportir  [-e] [-a | -v | -i] filename  [-M system]
```

Description

The *odimportir* command uses the interface information file generated using the *exportdir* command to import the interface information.

Before carrying out the import, by default, this command checks whether interface information with the same name is present at the import destination. If interface information having the same repository ID is present in the interface information file at the import destination, it reports an error.

-e

> Normally, there is no need to specify this option. In previous versions, specify the -e option in the odexportir command when exporting the interface information.

-a

> Specify this option if you do not want the command to check the interface information at the import destination when performing the import. If interface information having the same repository ID is present in the interface information file at the import destination, it will be overwritten by the new interface information to be imported.

-v

> Specify this option if you do not want the command to check the interface information at the import destination when performing the import. If interface information having the same repository ID is present in the interface information file at the import destination, it will be overwritten by the new interface information to be imported. The overwritten interface information will be displayed on the standard output.

-i

> Specify this option if you want to display the information for the interface information file.

filename

> Specifies the name of the interface information file to be imported.

-M system   `Solaris32`

> Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

> This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- The Interface Repository needs to be started before the *import* command is executed. A database backup should also be carried out without fail, using the *obfbkup* command, before an import is carried out.

- If importing from an interface information file that was generated using information exported from an Interface Repository of a different version of the CORBA Service (ObjectDirector), information cannot be imported from the export address server to the earlier version.

  In an environment that uses the Interface Repository of a remote server, information cannot be imported if the version at the remote server is earlier than the version at the local server.

  Even if the versions are the same, interface information files generated at different systems may not be able to be imported.

  `Solaris32/64` `Linux32/64`

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Example

```
odimportir -i filename

  Time:      Fri Mar 26  08:01:20  2010   /* import time (GMT)            */
  File V/L: 01/02                         /* Interface info file version */
  IR V/L:   04/00                         /* Interface Repository version */
  File size: 000000000000b910            /* file size (16 hex digits)    */
  OS:        Windows NT 5.2 /* OS info of machine export command executed on */
```

```
IMPORT OBJECT INFORMATION               /* object information (title)  */
ID:  IDL: ARRtest1:1.0                   /* Repository ID              */
Name:      ARRtest1                      /* name                       */
VERSION: 1.0                             /* version name               */
```

Note

If a (full export) interface information file is generated without specifying the repository ID at the time of export, the displayed object information will be the module or interface directly below root. If the repository ID is specified at the time of export, the displayed object information will be the information for the specified repository ID.

25.25 odimportns

Name

odimportns

Imports Naming Service registration information.

Synopsis

```
odimportns  [-g]  -i filename  [-h Hostlistfile] [-M system]
```

 Linux64

```
odimportns  -i filename  [-h Hostlistfile] [-M system]
```

Description

This command imports object reference information managed by the following function.

- Naming Service

- Load Balance option Windows32 Solaris32 Linux32

If this command is executed, object references are registered with the Naming Service using a file created by the *odexportns* command.

The following shows the specifiable parameters:

-g Windows32 Solaris32 Linux32

Specify -g if the load balance option was used in the export environment. If this option is specified, object groups managed by the load balance option are also imported.

-i filename

Imports the Naming Service. Specify the file created by the *odexportns* command in filename.

-h Hostlistfile

Changes the host name or port number of the object references during import. Specify a file containing change information of the host names in Hostlistfile.

Enter the old host name before change to be described in the host name change information file in the format (host name / host IP address) registered during export. The format of the old host name before change can be checked by the filename_list file created by the *odexportns* command.

The following shows the coding format of the host name change information file.

Coding format

Old host name before change: port number new host name after change: port number

Example

```
fromhost1:8002 tohost1:8002
fromhost2:8002 tohost2:8003
fromhost3:8003 tohost3:8002
```

-M system

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- When executing this command, the Naming Service must be active. If the -g option is specified, the load balance function must also be active.

Windows32   Solaris32   Linux32

If the -g option is specified, the load balance function must also be active.

- If the same binding name is already registered, an error occurs.

- If the naming contents were linked in the export environment, a naming context is created at the local host instead of links when this command is executed.

Solaris32/64 Linux32/64

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

25.26 odrestoresys

Name

odrestoresys

Restores/Imports CORBA Service resource files.

Synopsis

1. Restoring of CORBA Service resource files

```
odrestoresys  -r  [-od]  [-ns]  [-ir]  backupdir  [-M system]
```

2. Import of CORBA Service resource files

```
odrestoresys [-u] [-h hostname -p portnum]  [-irpath path]  backupdir  [-
M system]
```

Windows32/64 Solaris32/64

3. Restoring of CORBA Service resource files of Interstage V3 or earlier

```
odrestoresys  -r  -v3  backupdir  [-M system]
```

Description

This command restores/imports CORBA Service resource files backed up/exported by the *odbackupsys* command. CORBA Service resource files include the following resources.

- CORBA Service (ORB) resources

- Naming Service resources

- interface repository resources

- Load balance resources   Windows32   Solaris32   Linux32

"(1) Restoring of CORBA Service resource files" is used when restoring resource files on the same machine. The host name and port number in the CORBA Service resource files are not changed.

"(2) Import of CORBA Service resource files" is used when restoring resource files on different machines. The host name and port number in the CORBA Service resource files are changed.

"(3) Restoring of CORBA Service resource files in the Interstage V3 environment" is used to restore resources of V3 or earlier to the V4 environment or later when upgrading the V3 environment or earlier to the V4 environment or later.

The following explains the arguments for this command:

-u

> Not supported in this version.

-h hostname

> Imports resource files after changing the host name set in the CORBA Service resource files (IIOP_hostname parameter of the config, initial_hosts/inithost, initial_services/init_svc, impl.db, and CosNaming directories) to the one specified in hostname.
>
> If the IIOP_hostname parameter of the config of the export source has not been configured and the -u option is specified at the same time, the IIOP_hostname parameter of the config of the import destination will not be set up.

-p portnum

> Imports resource files after changing the port number set in the CORBA Service resource files (IIOP_port parameter of the config, initial_hosts/inithost, initial_services/init_svc, impl.db, and CosNaming directories) to the one specified in portnum.

-irpath path

> Imports a database in the interface repository service to the path specified by path.
>
> Windows32/64
>
> > Specify with the absolute path containing the drive name. It is a character string excluding control characters (0x00 to0x1F and 0x7F of the ShiftJIS code). It is not case-sensitive for both en-size and em-size letters. Up to 255 characters may be specified.
> >
> > Solaris32/64 Linux32/64
> >
> > Set with character string excluding a blank character starting with a slash "/" and en-size kana characters. The maximum length is the value of MAXPATHLEN in /usr/include/sys/param.h, including NULL characters at the end.
>
> The following will take place if this option is not specified:
>
> - When the interface repository service is run on a local host of the destination server the database will be imported to the same storage location as specified in the source server.
>
> - When the interface repository service is run on a remote host of the destination server the database will be imported to th same storage location as specified in the destination server, and this directory must also exist on the source server otherwise an error will occur.

-r

> Restores resource files without changing information about CORBA Service resources. To restore resources, specify normally this option.

-od

> Restores CORBA Service (ORB) resources only.

-ns

> Restores Naming Service resources only. If this option is not specified simultaneously with the -od option, only Naming Service databases are restored.

-ir

> Restores interface repository resources only. If this option is not specified simultaneously with the -od option, only interface repository databases are restored.

-v3 Windows32 Solaris32

> Restores CORBA Service resources of the Interstage V3 environment backed up by using the *odbkup*, *irbkup*, or *obkbkup* command (provided by the Interstage V3 environment).

backupdir

Specify the storage directory of CORBA Service resources. Specify the directory name specified in the *odbackupsys* command. If this option is specified simultaneously with the -v3 option, specify the directory specified in the *odbkup*, *irbkup*, or *obfbkup* command (provided by the Interstage V3 environment).

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- Execute this command with Administrator authority.

- Be sure to stop Interstage before executing this command.

- Do not access CORBA Service resources while executing this command.

- Only one of commands below can be executed at the same time (if more than one them is running, wait for it to finish, and then execute the command again):

    - *odrestoresys* (this command)

    - *odbackupsys*

    - *odchgservice*

- There is no problem with operation if the od40301 message is output while the import of environment resources set for the SSL linkage function is being processed.

- When the resources are imported, the host information set in the *OD_set_env* command will be cleared. If the host information embedded in the object reference using the *OD_set_env* command has been set in the import source, complete the import operation then set the host information for the import destination environment using the *OD_set_env* command.

- When one of the conditions is satisfied while the resources are imported, the IP-version value in the config file may be changed.

    - The setting value at the import source is v6, but IPv6 is not supported at the import destination.

    - The setting value at the import source is v6, but an IP address of IPv4 is specified as a host name.

    - The setting value at the import source is v4, but an IP address of IPv6 is specified as a host name.

    - The setting value at the import source is v4, a name resolvable host name for IPv6 is specified.

    When the IP-version value is changed, the message od16272 is output.

`Solaris32/64` `Linux32/64`

- If the resources have been imported, execute this command then configure the security privilege settings using the *issetsecuritymode* command.

25.27 otsbackupsys

Name

otsbackupsys

Backup/Export of Database Linkage Service resources.

Synopsis

`Windows32/64` `Solaris32` `Linux32/64`

```
otsbackupsys  backupdir
```

Description

This command backs up and exports Database Linkage Service resources.

The following explains the argument for this command.

backupdir

    Specify the storage directory name of Database Linkage Service resources for backup/export.

    The following directory is created under the specified directory and Database Linkage Servic resources are backed up under the following directory. If the following directory already exists, delete the directory.

    Windows®: OTS

    Solaris: FSUNots

    Linux: FJSVots

Notes

- Execute this command with Administrator authority.

- Be sure to stop Interstage before executing this command.

- Allocate sufficient free disk space required to store backup resources in the storage directory of backup resources.

- Check that no backup copy of Database Linkage Service resources is made at the backup/export destination.

- If the backup resource storage path contains any blank character, the path must be encircled with " " (double quotation marks) when specifying command parameters.

Example

`Windows32/64`

```
otsbackupsys X:\Backup\
```

`Solaris32`　`Linux32/64`

```
otsbackupsys /backup/
```

25.28 otsrestoresys

Name

otsrestoresys

Restores/Imports Database Linkage Service resources.

Synopsis

`Windows32/64`　`Solaris32`　`Linux32/64`

```
otsrestoresys  backupdir
```

Description

This command restores/imports Database Linkage Service resources.

The following explains the argument for this command:

backupdir

    Specify the storage directory name of Database Linkage Service resources. Specify the directory name specified by the *otsbackupsys* command.

Notes

- Execute this command with Administrator authority.

- Be sure to stop Interstage before executing this command.

- Do not access files under the Interstage installation directory.

- If the restore resource storage path contains any blank character, the path must be encircled with " " (double quotation mark) when specifying command parameters.

Example

Windows32/64

```
otsrestoresys  X:\Backup\
```

Solaris32   Linux32/64

```
otsrestoresys  /backup/
```

25.29 ssobackup

Name

ssobackup

Backs up/exports Interstage Single Sign-on resources.

Synopsis

```
ssobackup -f filepath {-sv, -ac, -az}
```

Description

Performs backup/export of the resource files used for Interstage Single Sign-on.

The options and arguments for the ssobackup command are described below.

-f filepath

Specify the absolute path of the resource storage file for the Interstage Single Sign-on resources to be backed up/exported.

-sv

Performs backup/export of Interstage Single Sign-on repository server resources.

-ac

Performs backup/export of Interstage Single Sign-on authentication server resources.

-az

Performs backup/export of Interstage Single Sign-on business server resources.

Notes

- Execute this command with Administrator authority.

- Do not specify the Interstage installation directory for filepath. If the Interstage installation directory is specified, the resource storage file may not be created correctly.

- This command only backs up/exports Interstage Single Sign-on resources. The resources shown below must be backed up/exported using a different method.

  For details on backup/export of target resources, refer to "Backing Up and Restoring Resources" in the "Operator's Guide".

- SSO repository resources

  Follow the Interstage Directory Service backup/export procedure.

- Interstage certificate environment resources

  Follow the Interstage certificate environment backup/export procedure.

- Web server (Interstage HTTP Server) resources

  Follow the Interstage HTTP Server backup/export procedure.

- Web server (not Interstage HTTP Server) resources

  Follow the backup/export procedure provided in the Web server.

- Business system contents

  Contents created by a user should be backed up/exported by the user him/herself.

- If you are using Integrated Windows Authentication, specify the -ac option to perform backup/export. Then back up/export the Integrated Windows Authentication application deployed to the servlet container as the servlet application. Follow the IJServer backup/export procedure for this.

- If you are using Single Sign-on JavaAPI, specify the -az option to perform backup/export. Then back up/export the servlet application. Follow the IJServer backup/export procedure for this.

- More than one option can be specified to backup/export resources of more than one server at the same time. For example, to back up/export repository server and authentication server resources, specify "-ac -sv".

- If none of the -sv, -ac and -az options are specified, an error message is output and command execution stops.

- If the server resources specified for this option do not exist on the machine on which this command is executed, an error message is output and command execution stops.

- The following authority is set for the resource storage file.

  Windows32/64

  Only the Administrators group and SYSTEM can access this file.

  Solaris32/64 Linux32/64

  The owner of the file is treated as a superuser. Only a superuser can access this file.

- Use a portable external storage device, network forwarding or other method to transfer the resource storage file to the machine to be used for restore/import. If network forwarding is used, ensure that the file is not intercepted by a third party. When transferring the resource storage file, do not change the file format (binary format) or authority.

- After the resource storage file has been transferred, delete the transfer source file.

- If the resource storage file specified in filepath already exists, an error message is output and command execution stops.

Examples

Windows32/64

Backing up the business server resources in the "C:\temp\ssoazfile"

```
ssobackup -f C:\temp\ssoazfile -az
```

Solaris32/64 Linux32/64

Backing up the business server resources in the "/tmp/ssoazfile"

```
/opt/FJSVssocm/bin/ssobackup -f /tmp/ssoazfile -az
```

Windows32/64

Backing up the following server resources in the "C:\temp\ssosvacfile"

- Repository server

- Authentication server

```
ssobackup -f C:\temp\ssosvacfile -sv -ac
```

Solaris32/64 Linux32/64

Backing up the following server resources in the "/tmp/ssosvacfile"

- Repository server

- Authentication server

```
/opt/FJSVssocm/bin/ssobackup -f /tmp/ssosvacfile -sv -ac
```

25.30 ssorestore

Name

ssorestore

Restores/Imports Interstage Single Sign-on resources.

Synopsis

```
ssorestore -f filepath
```

Description

Restores/imports Interstage Single Sign-on resources that were backed up/exported using the ssobackup command.

The options and arguments for the ssorestore command are described below.

-f filepath

Specify the absolute path for the Interstage Single Sign-on resource storage file. Specify the resource storage file that was specified using the ssobackup command.

Messages

When this command is executed, the list of resources that were backed up/exported to the resource storage file specified in the -f option is displayed as shown in the table below. After this, a message asking you to confirm that you want to restore/import the resources is output. Check the list of resources, and enter "yes" to continue restore/import.

For details on the display format of the message, refer to the examples.

Backed up/exported resources	Message output
Repository server resources	Repository server
Authentication server resources	Authentication server
Business server resources	Business server

Notes

- Execute this command with Administrator authority.

- The machine used to perform restore/import must have the same disk configuration as the machine used to perform backup/export.

- This command only restores/imports Interstage Single Sign-on resources backed up/exported using the ssobackup command. The resources shown below must be restored/imported using a different method.

    For details on restore/import of target resources, refer to "Backing Up and Restoring Resources" in the "Operator's Guide".

- SSO repository resources

  Follow the Interstage Directory Service restore/import procedure.

- Interstage certificate environment resources

  Follow the Interstage certificate environment restore/import procedure.

- Web server (Interstage HTTP Server) resources

  Follow the Interstage HTTP Server restore/import procedure.

- Web server (not Interstage HTTP Server) resources

  Follow the restore/import procedure provided with the Web server.

- Business system contents

  Contents created by a user should be restored/imported by the user him/herself.

- If you are using Integrated Windows Authentication, restore/import the backed up/exported Integrated Windows Authentication application that was deployed to the servlet container as the servlet application. Follow the IJServer restore/import procedure for this.

- If you are using Single Sign-on JavaAPI, the servlet application that was used to perform backup/export must be restored/imported. Follow the IJServer restore/import procedure for this.

- If the server used to perform restore/import has not been installed on the machine used to execute this command, an error message is output and command execution stops.

- If the file already exists in the restore/import destination, it is overwritten.

- A message asking you to confirm that you want to restore/import the resources is output while the command is running. Enter "yes" to continue the restore/import.

- After the resource storage file has been used, it must be deleted.

Example

`Windows32/64`

Using "C:\temp\ssoazfile" used to back up the business server resources to restore the business server environment

```
ssorestore -f C:\temp\ssoazfile
Business server
Is restored ? (yes/no)                                          (*1)
```

`Solaris32/64` `Linux32/64`

Using "/tmp/ssoazfile" used to back up the business server resources to restore the business server environment

```
/opt/FJSVssocm/bin/ssorestore -f /tmp/ssoazfile
Business server
Is restored ? (yes/no)                                          (*1)
```

`Windows32/64`

Using "C:\temp\ssosvacfile" used to back up the following resources to restore the environment for each server

- Repository server

- Authentication server

```
ssorestore -f C:\temp\ssosvacfile
Authentication server
Repository server
Is restored ? (yes/no)                                          (*1)
```

`Solaris32/64` `Linux32/64`

Using the "/tmp/ssosvacfile" used to back up the following resources to restore the environment for each server

- Repository server

- Authentication server

```
/opt/FJSVssocm/bin/ssorestore -f /tmp/ssosvacfile
Authentication server
Repository server
Is restored ? (yes/no)                                      (*1)
```

*1 After this command is executed, enter "yes" or "no" in the dialog. If anything else is entered, it is assumed that "no" was entered. If "yes" is entered in the dialog, the command closes normally and no further message is output. If "no" is entered in the dialog, the following message is output:

- "Command canceled."

25.31 tdbackupsys

Name

tdbackupsys

Backs up/Exports Component Transaction Service resources.

Synopsis

```
tdbackupsys  [-M sysname] backupdir
```

Description

This command backs up/exports Component Transaction Service resources.

The following explains the arguments for this command:

backupdir

Specify the storage directory of backup resources.

-M sysname `Solaris32`

Specify the backs up/exports target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

Notes

- Execute this command with Administrator authority.

- Be sure to stop Interstage before executing this command.

- Reserve sufficient free disk space required for backup resource storage in the backup resource storage directory. For the method to estimate the required capacity of disk to store backup resources, refer to "Backup procedure" or "Resource export procedure" in "Maintenance (Resource backup)" in the Operator's Guide.

- Check that no backup copy of Component Transaction Service resources is made at the backup/export destination.

- If the backup resource storage path contains any blank character, the path must be encircled with " " (double quotation mark) when specifying command parameters.

Example

`Windows32/64`

```
tdbackupsys  X:\Backup\
```

`Solaris32/64` `Linux32/64`

```
tdbackupsys  /backup/
```

25.32 tdrestoresys

Name

tdrestoresys

Restores/Imports Component Transaction Service resources.

Synopsis

```
tdrestoresys  [-M sysname] backupdir
```

Description

This command restores/imports Component Transaction Service resources.

The following explains the argument for this command:

backupdir

Specify the storage directory of restore resources.

-M sysname   Solaris32

Specify the backs up/exports target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

Notes

- Execute this command with Administrator authority.

- Be sure to stop Interstage before executing this command.

- Do not access files under the Interstage installation directory.

- If the restore resource storage path contains any blank character, the path must be encircled with " " (double quotation mark) when specifying command parameters.

Example

Windows32/64

```
tdrestoresys  X:\Backup\
```

Solaris32/64 Linux32/64

```
tdrestoresys  /backup/
```

Chapter 26 Maintenance Commands

This chapter details the Maintenance commands.

Supported commands

Table 26.1 Commands Supported by Each Product.

Command	Outline	Standard-J Edition	Enterprise Edition
esdump	Outputs the Event Service shared-memory information.	OK	OK
eslogdump	Outputs the Event Service trace information.	OK	OK
ihsrlog	Log file rotation	OK	OK
iscollectinfo	Batch information collection tool.	OK	OK
irlogdump	Invokes Interface Repository log data output or continuous Interface Repository log data output, or stops Interface Repository log data output.	OK	OK
odcvttrace	Conversion of trace information to text format.	OK	OK
oddumpresp	Display the statuses of server-side connections.	OK	OK
odformsnap	Edits and outputs snapshot information.	OK	OK
odformtrace	Output of the trace file.	OK	OK
odfreesnap	Clears snapshot information.	OK	OK
odprtcurparam	Displays the consumption of parameters of the config file.	OK	OK
odprthdrtrace	Display of the header information of the trace information.	OK	OK
odprtsetparam	Display the values assigned to config parameters.	OK	OK
odstartsnap	Starts collection of snapshot information.	OK	OK
odstopsnap	Stops collection of snapshot information.	OK	OK
otsgetdump Windows32/64 Solaris32 Linux32/64	Collects the dump file of the Database Linkage Service being executed.	OK	OK
tdalllog Windows32 Solaris32 Linux32	Outputs the internal information of the Component Transaction Service business system.	NO	OK

OK: Support

NO: No support

The following table describes the location of the commands, if the product is installed by default.

Table 26.2 Location of Commands

Platform	Command	Directory
Windows32/64	iscollectinfo	C:\Interstage\bin
	esdump	
	eslogdump	
	otsgetdump	

Platform	Command	Directory
	tdalllog `Windows32`	
	ihsrlog	C:\Interstage\F3FMihs
	irlogdump	C:\Interstage\ODWIN\bin
	odcvttrace	
	oddumpresp	
	odformsnap	
	odformtrace	
	odfreesnap	
	odprtcurparam	
	odprthdrtrace	
	odprtsetparam	
	odstartsnap	
	odstopsnap	
`Solaris32/64`	esdump	/opt/FJSVes/bin
	eslogdump	
	ihsrlog	/opt/FJSVihs/bin
	iscollectinfo	/opt/FJSVisas/bin
	irlogdump	/opt/FSUNod/bin
	odcvttrace	
	oddumpresp	
	odformsnap	
	odformtrace	
	odfreesnap	
	odprtcurparam	
	odprthdrtrace	
	odprtsetparam	
	odstartsnap	
	odstopsnap	
	otsgetdump `Solaris32`	/opt/FSUNots/bin
	tdalllog `Solaris32`	/opt/FSUNtd/bin
`Linux32/64`	esdump	/opt/FJSVes/bin
	eslogdump	
	ihsrlog	/opt/FJSVihs/bin
	iscollectinfo	/opt/FJSVisas/bin
	irlogdump	/opt/FJSVod/bin
	odcvttrace	
	oddumpresp	
	odformsnap	
	odformtrace	

Platform	Command	Directory
	odfreesnap	
	odprtcurparam	
	odprthdrtrace	
	odprtsetparam	
	odstartsnap	
	odstopsnap	
	otsgetdump	/opt/FJSVots/bin
	tdalllog ☐ Linux32	/opt/FJSVtd/bin

26.1 esdump

Name

esdump

Outputs the Event Service shared-memory information

Synopsis

```
esdump  [-M system]
```

Description

The esdump command outputs shared-memory information.

Shared-memory information is output to the following location:

Windows32/64 (Default installation path)

```
C:\Interstage\eswin\var\ES.XXX (XXX is a decimal value of treble.).
```

Solaris32/64 (Default installation path) Linux32/64

```
/var/opt/FJSVes/ES.XXX (XXX is a decimal value of treble.).
```

-M system Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

Execute this command with Administrator authority.

Examples

```
esdump
```

26.2 eslogdump

Name

eslogdump

Outputs the Event Service trace information.

Synopsis

```
eslogdump [-b file | [-g group | -x]] [-M system]
```

Description

The eslogdump command outputs trace information, which was collected in memory, to the trace information file (binary file).

The trace information file is allocated to the following location:

Windows32/64 (Default installation path)

```
C:\Interstage\eswin\var\ESLOGXXX (XXX is a decimal value of treble.)
```

The maximum number of trace information files can be specified in the traceconfig file. If all trace information files are full, older files are overwritten.

For information on the traceconfig file, refer to "Event Service Environment Definition" in the Tuning Guide.

Solaris32/64 (Default installation path)

```
/var/opt/FJSVes/ESLOGXXX (XXX is a decimal value of treble.)
```

The maximum number of trace information files can be specified in the traceconfig file. If all trace information files are full, older files are overwritten.

For information on the traceconfig file, refer to "Event Service Environment Definition" in the Tuning Guide.

Linux32/64

Inner trace collection is set for each Event Service ('system' is specified for the traceconfig file 'trace_buffer' parameter)

```
/var/opt/FJSVes/ESLOGXXX (XXX is a decimal value of treble.)
```

The maximum number of trace information files can be specified in the traceconfig file. If all trace information files are full, older files are overwritten.

For information on the traceconfig file, refer to "Event Service Environment Definition" in the Tuning Guide.

Inner trace collection is set for each process ('process' is specified for the traceconfig file 'trace_buffer' parameter)

- Event Service daemon process log information

```
/var/opt/FJSVes/ESLOGDUMPDAEMON
```

- Event Factory process log information

```
/var/opt/FJSVes/ESLOGDUMPFACTORY
```

- Static Event Channel process log information

```
/var/opt/FJSVes/ESLOGDUMP group name
```

- Dynamic Event Channel process log information

```
/var/opt/FJSVes/ESLOGDUMP implementation name
```

Two generations of the trace information file are maintained. If there is already a trace information file, '_old' is added to the existing file name and the new trace information file is output.

For information on the traceconfig file, refer to 'Event Service Environment Definition' in the Tuning Guide.

Available options and parameters are shown below:

-b file

This option converts the trace file (binary file) specified by file into the text format.

The text format file is output with name 'trace information file name.txt' to the location where the trace file is stored.

-g group `Linux32/64`

The contents of the static Event Channel process log buffer for the specified group are output to the file. If -g option is omitted, the contents of all the static Event Channel process log buffers are output to separate files.

If a file with the same name as the text format file used to convert the specified trace file already exists, it is overwritten.

-x `Linux32/64`

The output of all the dynamic Event Channel process log information is prevented.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- Execute this command with Administrator authority.

- The Event Service must be active.

- If this command is executed, trace information is collected and output to the trace information file regardless of whether or not the trace information automatic collection settings have been specified for the traceconfig file 'trace_auto' parameter.

Examples

`Windows32/64`

```
eslogdump
  LOGFILE=C:\Interstage\eswin\var\ESLOG001
```

```
eslogdump  -b  C:\Interstage\eswin\var\ESLOG001
  The binary was changed into the text.
  FILE=C:\Interstage\eswin\var\ESLOG001.txt
```

`Solaris32/64` `Linux32/64`

```
eslogdump
  LOGFILE=/var/opt/FJSVes/ESLOG001
```

```
eslogdump  -b  /var/opt/FJSVes/ESLOG001
  The binary was changed into the text.  FILE=/var/opt/FJSVes/ESLOG001.txt
```

26.3 ihsrlog

Name

ihsrlog

Log file rotation

Synopsis

1. Rotating through log files in units of time

   ```
   ihsrlog -T logfile time[,...] count [-l maxsize] [-m mode] [-r]
   ```

2. Rotating through log files in units of date/time

   ```
   ihsrlog -C logfile date[,...] count [-t time] [-l maxsize] [-m mode] [-r]
   ```

3. Rotating through log files in units of days of week/time

```
ihsrlog -W logfile week[,...] count [-t time] [-l maxsize] [-m mode] [-r]
```

4. Rotating through log files in units of days

```
ihsrlog -d logfile days count [{-c|-m mode}]
```

5. Rotating through log files in units of file sizes

```
ihsrlog -s logfile size count [{-c|-m mode}]
```

Description

This command specifies whether a log file to which access log or error log information is output is created in units of file size or units of days.

This command is used to specify the ErrorLog directive parameter, CustomLog directive parameter, TransferLog directive parameter, and IHSTraceLog directive parameter in the environment definition file (httpd.conf).

The available options and parameters are shown below:

-T

Rotating through log files in units of time and file size is performed according to the following timing.

- At time specified for 'time'.

- When the file size specified for the -l option is exceeded once the log file is updated.

- When the -r option is specified, the log file (*filename-prefix*) specified for 'logfile' already exists and the file size is 1 byte or more when the Web server starts up.

If no log is output, a 0-byte log file is created at the time specified for 'time'.

-C

Rotating through log files in units of date and file size is performed according to the following timing.

- At date specified for 'date' and 'time' specified for the -t option.

- When the file size specified for the -l option is exceeded once the log file is updated.

- When the -r option is specified, the log file (*filename-prefix*) specified for 'logfile' already exists and the file size is 1 byte or more when the Web server starts up

If no log is output, a 0-byte log file is created at the time specified for the -t option.

-W

Rotating through log files in units of days of week and file size is performed according to the following timing.

- At days of week specified for 'week' and 'time' specified for the -t option.

- When the file size specified for the -l option is exceeded once the log file is updated.

- When the -r option is specified, the log file (*filename-prefix*) specified for 'logfile' already exists and the file size is 1 byte or more when the Web server starts up

If no log is output, a 0-byte log file is created at the time specified for the -t option.

-d

Rotating through log files in units of number of days is performed according to the following timing.

- When the next log is output after number of days specified for 'days' starting from 0:00 on the Web server startup date * 24 hours.

Rotating through log files is also performed according to the following conditions, but there are no changes at the timings mentioned above.

- If the following file size upper limit is exceeded when the log file is updated

  Windows32/64

  2G bytes

  Solaris32/64 Linux32/64

  If the file size set by the *ulimit* command (Bourne shell type) or the *limit* command (C shell type) is at least 2G bytes, the file size is 2G bytes. If the file size set in the *ulimit* command or *limit* command is smaller, then that size is used.

- When the first log is output after the Web server starts up, the log file (*filename-prefix*) specified for 'logfile' already exists and "Date modified" for that log file is different to "Date started up" for the Web server

-s

Rotating through log files in units of file size is performed according to the following timing.

- When the size specified for the *size* parameter is exceeded once the log file is updated

logfile

Specifies the directory where the log file is stored and the prefix for the log file name (the name can be up to 192 bytes).

An existing directory name is specified using the absolute path, or the relative path from the ServerRoot directive in the environment definition file (httpd.conf).

The log file is output in the following format:

- Latest file: *filename-prefix*

- Rotated file: *filename-prefix*.N

  N: Serial number

  N is a serial number beginning at 0. The serial numbers are assigned in order from the latest file, whose serial number is ".0". The serial number of the Nth file is ".(N-1)".

time[,...]

Specify the time at which rotating through log files is performed using the format below. Up to 24 times can be specified, each separated by a comma (,).

- Format: "hhmm" (numeric value from 0000 to 2359)

  - hh: hours (00 to 23)

  - mm: minutes (00 to 59)

date[,...]

Specify the date on which rotating through log files is performed as a numeric value between 1 and 31. Up to 31 dates can be specified, each separated by a comma (,).

week[,...]

Specify the day of the week on which rotating through log files is performed as one of the following character strings. Up to 7 days of the week can be specified, each separated by a comma (,). The values are not case-sensitive.

- Sunday: "Sun"

- Monday: "Mon"

- Tuesday: "Tue"

- Wednesday: "Wed"

- Thursday: "Thu"

- Friday: "Fri"

- Saturday: "Sat"

days

Specify the interval at which rotating through log files is performed as number of days between 1 and 365.

size

Specify the maximum log file size in MB as a numeric value between 1 and the following value.

`Windows32/64`
2047

`Solaris32/64` `Linux32/64`
If the file size set by the *ulimit* command (Bourne shell type) or the *limit* command (C shell type) is at least 2047M bytes, the file size is 2047M bytes. If the file size set in the *ulimit* command or *limit* command is small, that file size is used.

count

Specify the maximum number of log files as a number between 0 and 999.

If the file count has reached the upper limit, then the oldest log file is deleted and a new one created according to the option specified for determining rotating through log files.

If "0" or "1" was specified, the log file (*filename-prefix*) specified for 'logfile' is used.

-t time

Specify the time at which rotating through log files is performed using the format below.

- Format: "hhmm" (numeric value from 0000 to 2359)

  - hh: hours (00 to 23)

  - mm: minutes (00 to 59)

If this option is omitted, then the log files will be rotated through at "0000" (00hh 00mm).

-l maxsize

Specify the file size file in MB that will cause the log file to rotate. Specify a numeric value between 1 and the following value. If the file size exceeds this value when the log file is updated, then rotating will be performed.

`Windows32/64`
2047

`Solaris32/64` `Linux32/64`
If the file size set by the *ulimit* command (Bourne shell type) or the *limit* command (C shell type) is at least 2047M bytes, the file size is 2047M bytes. If the file size set in the *ulimit* command or *limit* command is small, that file size is used.

If this option is omitted, the maximum log file size will be the following numerical value:

`Windows32/64`
2G bytes

`Solaris32/64` `Linux32/64`
If the file size set by the *ulimit* command (Bourne shell type) or the *limit* command (C shell type) is at least 2G bytes, the file size is 2G bytes. If the file size set in the *ulimit* command or *limit* command is small, that file size is used.

-m mode `Solaris32/64` `Linux32/64`

Specify the log file access authority. The values in the table below can be specified for "mode".

If this option is omitted, then the log file access authority is set to "644", which means that the administrator will have read and write authority, whereas groups and general users will only have read authority.

Mode	Administrator authorities		Group authorities		General Users authorities	
	Read	**Write**	**Read**	**Write**	**Read**	**Write**
600	Y	Y	N	N	N	N
640	Y	Y	Y	N	N	N
644	Y	Y	Y	N	Y	N
660	Y	Y	Y	Y	N	N

Mode	Administrator authorities		Group authorities		General Users authorities	
	Read	Write	Read	Write	Read	Write
664	Y	Y	Y	Y	Y	N
666	Y	Y	Y	Y	Y	Y

Y There is access authority.

N There is no access authority.

-r

When the log file (*filename-prefix*) specified for 'logfile' already exists and the file size is 1 byte or more, rotating through log files is performed when the Web server starts up.

If this option is omitted, rotating through log files will not be performed when the Web server starts up.

-c

A log file is output in the format of an old version (V6.0 or earlier) for the following types of processing by this command:

- Output file name

If this option is specified, a log file is output in the following format:

filename-prefix-specified-in-the-logfile-parameter.YYMMDDhhmmss[.N]

 - YYMMDDhhmmss: The date and time when the file was created.

 YY: Year (04 represents the year 2004.)

 MM: Month (1 to 12)

 DD: Date (1 to 31)

 hh: Hour (0 to 23)

 mm: Minute (0 to 59)

 ss: Second (0 to 59)

 - N: Serial number (when the sizes of files exceed the specified size at the same time while the -s option is specified)

 N is a serial number beginning at 0. The serial numbers are assigned in order from the oldest file, whose serial number is ".0". The serial number of the Nth file is ".(N-1)".

If this option is not specified, a log file is output in the following format:

 - Latest file: filename-prefix-specified-in-the-logfile-parameter

 - Rotated file: filename-prefix-specified-in-the-logfile-parameter.N

 N: Serial number

 N is a serial number beginning at 0. The serial numbers are assigned in order from the latest file, whose serial number is ".0". The serial number of the Nth file is ".(N-1)".

- Rotation processing

If this option is specified, the maximum number of files specified by count is valid only while the Interstage HTTP Server is running. Therefore, if the Interstage HTTP Server is restarted, the log file created while the Interstage HTTP Server was active previously is not deleted. If necessary, delete the log file manually.

Note:

If the Interstage HTTP Server is restarted repeatedly without deleting the log file, the disk may become full.

If this option is not specified, the maximum number of files specified by the count parameter is valid for all files, regardless of whether the Interstage HTTP Server is started and stopped. Therefore, even when the Interstage HTTP Server is restarted, the oldest log files, including ones created during previous operation, are first deleted.

If both -d and this option are specified, then log rotation is performed in units of number of days, according to the following timing.

- When the next log is output after number of days specified for 'days' starting from the time (hhmmss) at which the latest log file (filename-prefix.YYMMDDhhmmss[.N]) was output * 24 hours

Notes

- Specify the options and parameters for this command in the order shown in "Synopsis".

- If the Web server or operating system is restarted periodically, then log file rotation may not be performed.

- If the following cases apply, specify the -r option to start the Web server.

  - If the Web server or operating system was not running when the -T option was specified and at the time specified for 'time'

  - If the Web server or operating system was not running when the -C option was specified and at the time specified for the -t option of the date specified for 'date'

  - If the Web server or operating system was not running when the -W option was specified and at the time specified for the -t option of the day of the week specified for 'week'

- Do not copy/move/delete/edit the log file (*filename-prefix*) specified for 'logfile'.

- Do not specify the same log file (*filename-prefix*) in the main host and virtual host, or in a different directory.

- If multiple Web servers are running, do not specify the same log file (*filename-prefix*) as another Web server.

- For months not containing 31 days, rotating through log files will not be performed on the 31st, even if "31" is specified for the -C option. If you want rotating through log files to be performed at the end of the month, investigate setting rotating through log files to be performed at 00hh 00mm on the 1st.

- The timestamp of the old log file is the date when the last log file was written.

- For details on the *ulimit* command (Bourne shell type) and *limit* command (C shell type), refer to each OS document.

- When the following options are set in the *ihsrlog* executable statement of the ErrorLog/CustomLog directive in the configuration file (httpd.conf), they are deleted after being changed to the following rotation types using the Interstage Management Console.

ihsrlog executable statement of the ErrorLog/CustomLog directive in the configuration file (httpd.conf)		Interstage Management Console rotation type
-T(Unit: Time)	-l	- Log file size
	-r	- Time interval
-C(Unit: Date)	-t	
-W(Unit: Day of Week)	-l	
	-r	
-d(Unit: Number of days)	-c	- Time
-s(Unit: File Size)		- Date
		- Day of Week

Examples

Windows32/64

When access log file rotation is performed in units of time according to the conditions below:

- Rotation time: 09hh 00mm, 17hh 00mm

- File Name: C:\Interstage\F3FMihs\servers\FJapache\logs\accesslog

- File count upper limit: 5

```
CustomLog "|ihsrlog.exe -T logs/accesslog 0900,1700 5" ihs-analysis
```

When access log file rotation is performed in units of date/time according to the conditions below:

- Dates: 1st, 11th, 21st of every month

- Rotation time: 00hh 00mm

- File Name: C:\Interstage\F3FMihs\servers\FJapache\logs\accesslog

- File count upper limit: 5

```
CustomLog "|ihsrlog.exe -C logs/accesslog 1,11,21 5" ihs-analysis
```

When access log file rotation is performed in units of days of the week/time according to the conditions below:

- Days of Week: Monday and Saturday of every week

- Rotation time: 00hh 00mm

- File Name: C:\Interstage\F3FMihs\servers\FJapache\logs\accesslog

- File count upper limit: 5

```
CustomLog "|ihsrlog.exe -W logs/accesslog Mon,Sat 5" ihs-analysis
```

When access log file rotation is performed in units of number of days according to the conditions below:

- Number of days: 1 day

- Rotation time: When the next log is output after "number of days (1 day) starting from 0:00 on the Web server startup date * 24 hours"

- File Name: C:\Interstage\F3FMihs\servers\FJapache\logs\accesslog

- File count upper limit: 5

```
CustomLog "|ihsrlog.exe -d logs/accesslog 1 5" ihs-analysis
```

When access log file rotation is performed in units of file size according to the conditions below:

- File Size: 1M byte

- File Name: C:\Interstage\F3FMihs\servers\FJapache\logs\accesslog

- File count upper limit: 5

```
CustomLog "|ihsrlog.exe -s logs/accesslog 1 5" ihs-analysis
```

Solaris32/64 Linux32/64

When access log file rotation is performed in units of time according to the conditions below:

- Rotation time: 09hh 00mm, 17hh 00mm

- File Name: /var/opt/FJSVihs/servers/FJapache/logs/accesslog

- File count upper limit: 5

```
CustomLog "|/opt/FJSVihs/bin/ihsrlog -T logs/accesslog 0900,1700 5" ihs-analysis
```

When access log file rotation is performed in units of date/time according to the conditions below:

- Dates: 1st, 11th, 21st of every month

- Rotation time: 00hh 00mm

- File Name: /var/opt/FJSVihs/servers/FJapache/logs/accesslog

- File count upper limit: 5

```
CustomLog "|/opt/FJSVihs/bin/ihsrlog -C logs/accesslog 1,11,21 5" ihs-analysis
```

When access log file rotation is performed in units of days of the week/time according to the conditions below:

- Days of Week: Monday and Saturday of every week

- Rotation time: 00hh 00mm

- File Name: /var/opt/FJSVihs/servers/FJapache/logs/accesslog

- File count upper limit: 5

```
CustomLog "|/opt/FJSVihs/bin/ihsrlog -W logs/accesslog Mon,Sat 5" ihs-analysis
```

When access log file rotation is performed in units of number of days according to the conditions below:

- Number of days: 1 day

- Rotation time: When the next log is output after "number of days (1 day) starting from 0:00 on the Web server startup date * 24 hours"

- File Name: /var/opt/FJSVihs/servers/FJapache/logs/accesslog

- File count upper limit: 5

```
CustomLog "|/opt/FJSVihs/bin/ihsrlog -d logs/accesslog 1 5" ihs-analysis
```

When access log file rotation is performed in units of file size according to the conditions below:

- File Size: 1M byte

- File Name: /var/opt/FJSVihs/servers/FJapache/logs/accesslog

- File count upper limit: 5

```
CustomLog "|/opt/FJSVihs/bin/ihsrlog -s logs/accesslog 1 5" ihs-analysis
```

26.4 irlogdump

Name

irlogdump

Invokes Interface Repository log data output or continuous Interface Repository log data output, or stops Interface Repository log data output.

Synopsis

1. To invoke log data output:

```
irlogdump [-M system]
```

2. To invoke continuous log data output:

```
irlogdump -p [-M system]
```

3. To stop log data output:

```
irlogdump -s [-M system]
```

Description

This command outputs the Interface Repository log data.

Log data output is only invoked when logging (log collection) = 'yes' is specified in irconfig (See the following for storage directory details.). The log file is output to the space specified by logfile path in irconfig.

Windows32/64

Storage directory (Default installation path)

```
C:\Interstage\ODWIN\etc\irconfig
```

Solaris32/64

Storage directory (Default installation path)

```
/etc/opt/FSUNod/irconfig
```

Storage directory

```
/etc/opt/FJSVod/irconfig
```

The options and arguments of this command are as follows:

-p

This parameter specifies that the command outputs log data from memory, and subsequently to a log file, continuously.

-s

This parameter specifies that the command stops continuous log data output.

Continuous log data output continues until the Interface Repository is deactivated.

-M system　Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Note

-　Execute this command with Administrator authority.

26.5 iscollectinfo

Name

iscollectinfo

Batch information collection tool.

Synopsis

```
iscollectinfo [-M system] [-d directory]
```

Description

The iscollectinfo command collects Interstage investigation data. If a problem occurs, use this command to collect investigation data before calling your Fujitsu SE.

The options and parameters that can be specified with this command are explained below:

-d

This option specifies the directory in which investigation data is to be stored. Investigation data is stored in the following format:

Windows32/64

<Specified directory>\collect\<YYYYMMDDHHMMSS>

Solaris32/64　Linux32/64

<Specified directory>/collect/<YYYYMMDDHHMMSS>

Note

<YYYYMMDDHHMMSS> consists of four characters for the year, two for the month, two for the day, two for hours, two for minutes, and two for seconds. For instance, 20030123123456 means 12:34:56 January 23, 2003.

If this option is not specified, the system prompts for the storage destination directory in interactive mode. The default is the current directory. In response to the system prompt, specify the storage destination directory.

-M system Solaris32

> This option specifies the name of the applicable system when an extended system is generated. If this option is omitted, the default system is applicable.
>
> This option can be specified with the following product:
>
> Interstage Application Server Enterprise Edition

Notes

- Execute this command immediately after a problem occurs.

- Execute this command with administrator authority.

- The following messages may be output when investigation data is collected, no response is necessary and they may be ignored:

  For messages qff32022u and qff32301i, refer to the IDCM User's Guide when the platform is Solaris, or refer to the IDCM Help when the platform is Windows.

  IJServer10007, IJServer10008, IJServer10134

  es10924

  od10712, od10713, od10717, od10719, od10723, od10724, od10725, od10726, od10727, od10728, od10900, od10901, od10905, od10966

  ots9343, ots9378

  qff32022u, qff32301i

- The directory name specified for resource storage cannot exceed 1024 characters. If a directory name that exceeds 1024 characters is specified, an "is30893" message is output and an error occurs.

- If <YYYYMMDDHHMMSS> already exists, an "is30892" message is output and an error occurs. For example, this error may occur as follows.

  - When the iscollectinfo command is executed simultaneously at another terminal.

  - When the clock of OS is not correct.

- If the location of the log file to which Interstage HTTP Server access logs and error logs are output is changed from the default value given below, logs cannot be collected using the *iscollectinfo* command. In this case, collect logs to a different log file.

  Windows32/64

  (Default installation path)

  C:\Interstage\F3FMihs\logs

  Solaris32/64 Linux32/64

  (Default installation path)

  /var/opt/FJSVihs/logs

Windows32/64

- The Interstage installation directory cannot be specified as the resource storage directory. If the Interstage installation directory is specified as the resource storage directory, an "is30896" message is output and an error occurs.

Solaris32/64

- A directory name containing a "/FSUN" or "/FJSV" string cannot be specified as the resource storage directory.. If a directory name containing a "/FSUN" or "/FJSV" string is specified as the resource storage directory, an "is30896" message is output and an error occurs.

Linux32/64

- A directory name containing a "/FJSV" string cannot be specified as the resource storage directory. If a directory name containing a "/FJSV" string is specified as the resource storage directory, an "is30896" message is output and an error occurs.

- The time taken for data collection is about 5 minutes, this may vary depending on the machine environment.

- If the command is executed with default settings, the size of disk space required for data collection is about 100 megabytes. If the default settings are changed to increase the sizes of various log files, more free disk space is required. Allow for a sufficient size of free space on the disk on which investigation data is to be stored.

Note

FJQSS (Information Collection Tool) collects the same information as the *iscollectinfo* command.

Windows32/64

For details on FJQSS, refer to the manual that is displayed from the following menu items:

[Start] > [All Programs] > [FJQSS (Information Collection Tool)] > [FJQSS User's Guide]

Solaris32/64 Linux32/64

For details on FJQSS, refer to the manual stored in the "FJQSS" directory of the Manual package.

26.6 odcvttrace

Name

odcvttrace

Conversion of trace information to text format.

Synopsis

```
odcvttrace -f tracefile
```

Description

The odcvttrace command converts the trace file (binary) that is output with the odformtrace command, to the readable text file. File name of the text file becomes the tracefile that is specified with the -f option to which ".txt" is added.

The options of this command are as follows:

-f tracefile

    Specifies the file name of the trace file that is output with the odformtrace command.

Notes

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Example

```
odcvttrace -f trace0012.log
```

26.7 oddumpresp

Name

oddumpresp

Display the statuses of server-side connections.

Synopsis

```
oddumpresp [-a | -s] [-M system]
```

Description

The oddumpresp command displays the statuses of the server-side connections that are currently used for the CORBA service.

This command accepts the following options and parameters:

-a

The request statuses will also be displayed.

-s

The statuses of unused connections and requests will also be displayed.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

This option can be specified with Interstage Application Server Enterprise Edition.

Detailed Information

The output format is as follows:

```
resp_con
 [%c1,%c2]: in_use=%c3, reuse=%c4, broken=%c5, requests=%c6, ip_addr=%c7
resp_requests
 [%r1,%r2]: resp_con=%r3, request_id=%r4, pid=%r5, state=%r6, rep_exp=%r7,
operation=%r8, server_impl=%r9
```

resp_con

Information on the server-side connection.

%c1

Identifies an entry in the CORBA service internal table. Combined with %c2, this value is used as the connection identification number.

%c2

Identifies an entry in the CORBA service internal table. Combined with %c1, this value is used as the connection identification number.

%c3

The status of the connection usage. For this item, a "1" is displayed if the connection is being used or a "0" otherwise. This item is displayed only when the -s option is specified.

%c4

The number of times the connection was reused.

%c5

Displays "no" if the client using the connection is connected or "yes" otherwise. "yes" will be displayed, for example, if the client terminated while request processing was being performed on the server.

%c6

The number of requests that use the connection.

%c7

The IP address of the client that is connected through the connection. For a connection that has been established under IPv4 in an environment where IPv6 is effective, the address projected in IPv4 will be output. If the connection is not used, "NULL" will be output.

resp_requests

Information on server-side requests. This item is displayed only when the -a or -s option is specified.

%r1

Identifies an entry in the CORBA service internal table. Combined with %r2, this value is used as the request identification number.

%r2

Identifies an entry in the CORBA service internal table. Combined with %r1, this value is used as the request identification number.

%r3

The connection used by the request. This value corresponds to [%c1,%c2] under resp_con.

%r4

The request ID.

%r5

The process ID of the server application that received the request.

%r6

The status of receipt processing for the request. For this item, "HEADER" is displayed if the request is being received or "COMPLETE" if receipt processing has already been completed.

%r7

Indicates whether the request falls in one of the following conditions. For this item, "no" is displayed if the request falls in one of the conditions or "yes" otherwise.

- The operation is defined as oneway.

- CORBA_INV_NO_RESPONSE is assigned to invoke_flags in CORBA_Request_send() or CORBA_send_multiple_requests()

- CORBA::Request::send_oneway(), CORBA::ORB::send_multiple_requests_oneway(), org.omg.CORBA.Request.send_oneway(), org.omg.CORBA.ORB.send_multiple_requests_oneway() is used.

%r8

The operation name for the request. If receipt processing for the request has not been completed, "(not read)" will be displayed.

%r9

The implementation repository ID of the server application that received the request. "(unknown)" will be displayed instead if the request receipt processing has not been completed.

Note

- Since this command obtains connection statuses by referring to the CORBA service internal table, the command output format depends on the internal table format. Therefore, the output format may vary depending on the version and level.

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Example

Some examples of using this command are provided below, together with a description of how to read the output.

```
oddumpresp
 resp_con
  [0,0]: reuse=2, broken=yes, requests = 1, ip_addr=::ffff:10.34.157.107
  [0,1]: reuse=1, broken=no, requests = 3, ip_addr=::ffff:10.34.157.107
```

This output information indicates that two connections [0,0] and [0,1] are currently used. This means that max_IIOP_resp_con is used twice. For max_IIOP_resp_con, see "config" in "CORBA Service Operating Environment File" in the Tuning Guide.

```
oddumpresp -a
 resp_con
  [0,0]: reuse=2, broken=yes, requests=1, ip_addr=::ffff:10.34.157.107
  [0,1]: reuse=1, broken=no, requests=3, ip_addr=::ffff:10.34.157.107
```

```
resp_requests
  [0,0]: resp_con=[0,1], request_id=905, pid=22237, state=COMPLETE,
         rep_exp=yes, operation=op1, server_impl=IDL:ODsample/stringtest:1.0
  [0,1]: resp_con=[0,1], request_id=906, pid=22237, state=COMPLETE,
         rep_exp=yes, operation=op1, server_impl=IDL:ODsample/stringtest:1.0
  [0,2]: resp_con=[0,0], request_id=901, pid=22237, state=COMPLETE,
         rep_exp=yes, operation=op1, server_impl=IDL:ODsample/stringtest:1.0
  [0,3]: resp_con=[0,1], request_id=907, pid=22237, state=COMPLETE,
         rep_exp=yes, operation=op1, server_impl=IDL:ODsample/stringtest:1.0
```

This output information indicates that there are four requests [0,0] to [0,3]. This means that max_IIOP_resp_requests is used four times. For max_IIOP_resp_requests, see "config" in "CORBA Service Operating Environment File" in the Tuning Guide.

The output information also indicates, for example, that request [0,0] uses connection [0,1] for communication. This is because ip_addr for the connection [0,1] is ::ffff:10.34.157.107, request [0,0] has been issued from 10.34.157.107 ("::ffff:10.34.157.107" is a projected address in IPv4 of "10.34.157.107").

```
oddumpresp -a
 resp_con
  [0,0]: in_use=1, reuse=2, broken=yes, requests=1,
         ip_addr=::ffff:10.34.157.107
  [0,1]: in_use=1, reuse=1, broken=no, requests=3,
         ip_addr=::ffff:10.34.157.107
  [0,2]: in_use=0, reuse=0, broken=no, requests=0, ip_addr=NULL
  [0,3]: in_use=0, reuse=0, broken=no, requests=0, ip_addr=NULL
  [0,4]: in_use=0, reuse=0, broken=no, requests=0, ip_addr=NULL
  [0,5]: in_use=0, reuse=0, broken=no, requests=0, ip_addr=NULL
  [0,6]: in_use=0, reuse=0, broken=no, requests=0, ip_addr=NULL
  [0,7]: in_use=0, reuse=0, broken=no, requests=0, ip_addr=NULL
 resp_requests
  [0,0]: resp_con=[0,1], request_id=905, pid=22237, state=COMPLETE,
         rep_exp=yes, operation=op1, server_impl=IDL:ODsample/stringtest:1.0
  [0,1]: resp_con=[0,1], request_id=906, pid=22237, state=COMPLETE,
         rep_exp=yes, operation=op1, server_impl=IDL:ODsample/stringtest:1.0
  [0,2]: resp_con=[0,0], request_id=901, pid=22237, state=COMPLETE,
         rep_exp=yes, operation=op1, server_impl=IDL:ODsample/stringtest:1.0
  [0,3]: resp_con=[0,1], request_id=907, pid=22237, state=COMPLETE,
         rep_exp=yes, operation=op1, server_impl=IDL:ODsample/stringtest:1.0
```

This output information indicates that there are eight connections [0,0] to [0,7] and, of the eight connections, two connections [0,0] and [0,1] are currently used. This means that max_IIOP_resp_con is assigned 8 times and used twice. For max_IIOP_resp_con, see "config" in "CORBA Service Operating Environment File" in the Tuning Guide.

26.8 odformsnap

Name

odformsnap

Edits and outputs snapshot information.

Synopsis

```
odformsnap [-i ImplId] ...  [-p pid] ...  [-M system]
```

Description

This command outputs snapshot information. Snapshot information is output as a file to the current directory. The name of the file output is odsnap_all.

When this command is executed without options specified, snapshot information is output for all CORBA applications. When an option is specified, the snapshot information for the specified process ID or implementation repository ID is output.

The options of this command are as follows:

-i ImplID

Outputs the snapshot information for the process corresponding to the implementation repository ID specified by ImplID. Information for multiple implementation repository IDs can be output by specifying -i ImplID multiple times.

The output file name is odsnap,ImplID.

-p pid

Outputs the snapshot information for the process corresponding to the process ID specified by pid. Information for multiple process IDs can be output by specifying **-p pid** multiple times.

The output file name is odsnap,pid.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- If characters other than alphanumerics (a - z, A -Z, 0 - 9) are used in an implementation repository ID, the file name output by the -i option will show these characters as underscores. For example, the output file for interface repository ID IDL:intf1/test1:1.0" would be odsnap.IDL_intf1_test1_1_1_0".

- If implementation information is updated after the *odstartsnap* command is executed, no snapshot information will be output, even if the implementation repository ID is specified in the -i option.

- If process information specified by the -i, -p options are not present in memory, no snapshot information will be output.

- Specify process ID displayed by the odlistsnap command for process ID specified by -p option.

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Examples

```
odformsnap
odformsnap -p 203
odformsnap -i IDL:test1/intf1:1.0 -p 507
```

26.9 odformtrace

Name

odformtrace

Output of the trace file.

Synopsis

```
odformtrace  [-p pid]  [-d dir]  [-M system]
```

Description

The odformtrace command outputs the trace information that was acquired from the memory to the trace file (binary).

When option is not specified in this command, the trace information of the all CORBA applications is output. The trace information is output as follows.

`Windows32/64` (Default installation path)

C:\Interstage\ODWIN\var\trace\traceXXXX.log (XXXX is a hexadecimal value).

(Default installation path)

/opt/FSUNod/var/trace/traceXXXX.log (XXXX is a hexadecimal value).

/opt/FJSVod/var/trace/traceXXXX.log (XXXX is a hexadecimal value).

If an old directory having the same name exists in the output target file of the trace information, suffix of the old file is changed from "log" to "old" and is stored in the same directory.

Options of the odformtrace command are explained as follows.

-p pid

The trace information of the process that corresponds to the process ID that was specified with pid is output to the trace file.

-d dir

The directory in which trace file is stored is changed to the directory that is specified with dir.

-M system

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- During processing for the output of trace information collected on the memory, it may be that the trace information on the memory is updated while the application is running. In this case, an inconsistency is detected in the trace information used for file output, the od15067 message is output and the trace file output fails. If trace file output fails, re-execute the *odformtrace* command.

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Examples

```
odformtrace
```

```
odformtrace -p 203
```

```
odformtrace -p 203 -d C:\TEMP\TRACE
```

```
odformtrace -p 203 -d /tmp/trace
```

26.10 odfreesnap

Name

odfreesnap

Clears snapshot information.

Synopsis

```
odfreesnap  [-M system]
```

Description

This command clears snapshot information collected with the *odstartsnap* command. Refer to the *odstartsnap* command.

The options of this command are as follows:

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Example

```
odfreesnap
```

26.11 odprtcurparam

Name

odprtcurparam

Displays the resource usage corresponding to parameters in the config file.

Synopsis

```
odprtcurparam [-M system]
```

Description

The *odprtcurparam* command displays the resource usage corresponding to the following parameters in the config file (the operating environment file of the CORBA service). For details on parameters in the config file, refer to config in the Tuning Guide.

- max_IIOP_resp_con

  (Total number of client application processes that can connect.)

- max_IIOP_resp_requests

  (Total number of requests from the client application connected)

- number_of_common_buffer

  (Number of buffers for queue control)

- max_processes

  (Maximum number of processes.)

- max_exec_instance

  (Maximum number of threads (or processes) used for server application request execution.)

- max_bind_instances

  (Maximum number of "server process and object bind relationships" that can be registered in the CORBA service)

This command directly references shared memory the CORBA service uses and displays the current resource usage corresponding to the above parameters. By using this function, the user can compare the estimate at system design (which are included in the settings of the config file) with the actual resource usage and check whether the estimate is correct in advance. In addition, the user can also check the resource usage periodically during operation.

How the resource usage is displayed is shown below. The time when the command is executed appears at the top followed by other information items (name, value, max, and limit).

```
odprtcurparam

Thu Jan 23 20:20:36 2003
    name                  value      max      limit
---------------------------------------------------
IIOP_resp_con               32        80        120
IIOP_resp_requests         203       160        280
number_of_common_buffer     64        32        280
processes                   51       300          -
exec_instance              320       960          -
bind_instances              30     65535          -
```

name

    A parameter name.

    For the parameters other than number_of_common_buffer, "max_" is omitted.

value

    Current resource usage value.

max

    Maximum value defined in the config file.

limit

    Maximum value for automatic expansion

    If the value is defined in the config file, the value is output. If not, the default value is output.

    This item is displayed only for max_IIOP_resp_con, max_IIOP_resp_requests, and number_of_common_buffer.

The options of this command are as follows:

-M system   Solaris32

    Specifies the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

    This option can be specified with Interstage Application Server Enterprise Edition.

Note

  - This command cannot display the resource usage for an application which uses a client library and Portable-ORB.

  - The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Example

```
odprtcurparam
```

26.12 odprthdrtrace

Name

odprthdrtrace

Display of the header information of the trace information.

Synopsis

```
odprthdrtrace -f tracefile
```

Description

The *odprthdrtrace* command displays the process ID (ProcessID) and the command execution synopsis (CommandLine) from the trace file that is output with the *odformtrace* command.

The options of this command are as follows:

-f tracefile

Specifies the file name of the trace file that is output with the *odformtrace* command.

Note

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Example

```
odprthdrtrace -f trace0012.log
```

26.13 odprtsetparam

Name

odprtsetparam

Display the values assigned to config parameters.

Synopsis

```
odprtsetparam [parameter] [-M system]
```

Description

The odprtsetparam command displays the values assigned to the following parameters in the config file:

<Network-environment-related parameters>

- con_accept

- IP-version

- read_interval_timeout

- write_interval_timeout

<Application-resource-related parameters>

- max_IIOP_local_init_con

- max_IIOP_local_init_requests

- max_IIOP_resp_con

- limit_of_max_IIOP_resp_con

- max_IIOP_resp_con_extend_number

- max_IIOP_resp_requests

- limit_of_max_IIOP_resp_requests

- max_IIOP_resp_requests_extend_number

- number_of_common_buffer

- limit_of_number_of_common_buffer

- number_of_common_buffer_extend_number

- max_processes

- max_exec_instance

- max_impl_rep_entries

- max_bind_instances

<Timeout-monitoring-related parameters>

- period_client_idle_con_timeout

- period_idle_con_timeout

- period_receive_timeout

- period_server_timeout

<Security-related parameters>

- http_proxy

- http_proxy_port

- http_proxy_use

- UNO_IIOP_ssl_use

- UNO_IIOP_ssl_port

This command directly references the shared memory used by the CORBA service, and then outputs the values actually assigned to the above parameters in the CORBA service. For details of each parameter, see "config" in "CORBA Service Operating Environment File" in the Tuning Guide.

This command accepts the following options and parameters:

parameter

Specifies the name of one of the above parameters. Only the value of the specified parameter will be output.

-M system `Solaris32`

Specifies the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Note

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Example

```
odprtsetparam

<Network>
con_accept          = all
IP-version          = IP4-dual
read_interval_timeout  = 30
write_interval_timeout = 30


<Application source>
max_IIOP_local_init_con            = 512
max_IIOP_local_init_requests       = 4096
max_IIOP_resp_con                  = 64
limit_of_max_IIOP_resp_con         = 96
max_IIOP_resp_con_extend_number    = 1
max_IIOP_resp_requests             = 128
limit_of_max_IIOP_resp_requests    = 156
```

```
max_IIOP_resp_requests_extend_number  = 1
number_of_common_buffer               = 48
limit_of_number_of_common_buffer      = 156
number_of_common_buffer_extend_number = 1
max_processes                         = 51
max_exec_instance                     = 960
max_impl_rep_entries                  = 512
max_bind_instances                    = 65535


<Timeout>
period_client_idle_con_timeout = 0
period_idle_con_timeout        = 120
period_receive_timeout         = 72
period_server_timeout          = 120

<Security>
http_proxy_use    = yes
http_proxy        = proxy_host
http_proxy_port   = 8080
UNO_IIOP_ssl_use  = no
UNO_IIOP_ssl_port = 4433

> odprtsetparam period_receive_timeout
120
```

26.14 odstartsnap

Name

odstartsnap

Starts collection of snapshot information.

Synopsis

```
odstartsnap [-i ImplId] ...  [-p pid] ...  [-M system]
```

Description

This command starts the collection of snapshot information.

This command collects snapshot information in common memory. The *odformsnap* command outputs snapshot information. Refer to the *odformsnap* command.

When this command is executed without options specified, snapshot information is collected for all CORBA applications. When an option is specified, the snapshot information for the specified process ID or implementation repository ID is collected.

The options of this command are as follows:

-i ImplID

Starts the collection of snapshot information for the process corresponding to the implementation repository ID specified by ImplID.

-p pid

Starts the collection of snapshot information for the process corresponding to the process ID specified by pid.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- The implementation repository ID specified in the -i option must be registered.

- Collection of snapshot information is automatically halted if the implementation repository ID specified in the -i option is deleted by the *OD_impl_inst* command.

- The CORBA application corresponding to the process ID specified in the -p option must be active.

- Specify process ID displayed by the odlistsnap command for process ID specified by -p option.

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Examples

```
odstartsnap
```

```
odstartsnap -p 203
```

```
odstartsnap -i IDL:test1/intf1:1.0 -p 507
```

26.15 odstopsnap

Name

odstopsnap

Stops collection of snapshot information.

Synopsis

```
odstopsnap [-i ImplId] ...  [-p pid] ...  [-M system]
```

Description

This command stops the collection of snapshot information. The *odformsnap* command outputs snapshot information. Refer to the *odformsnap* command.

When this command is executed without options specified, collection of snapshot information is stopped for all CORBA applications. When an option is specified, the collection of snapshot information for the specified process ID or implementation repository ID is stopped.

The options of this command are as follows:

-i ImplID

Stops the collection of snapshot information for the process corresponding to the implementation repository ID specified by ImplID.

-p pid

Stops the collection of snapshot information for the process corresponding to the process ID specified by pid.

-M system   Solaris32

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes target.

This option can be specified with Interstage Application Server Enterprise Edition.

Notes

- The implementation repository ID specified in the -i option must be registered.

- The CORBA application corresponding to the process ID specified in the -p option must be active.

- Specify process ID displayed by the *odlistsnap* command for process ID specified by -p option.

- The user authority required to execute this command may change depending on the environment in which this product is installed. For details, refer to "Notes on Using Commands" at the beginning of this manual.

Examples

```
odstopsnap
```

```
odstopsnap -p 203
```

```
odstopnap -i IDL:test1/intf1:1.0 -p 507
```

26.16 otsgetdump

Name

otsgetdump

Collects the dump file of the Database Linkage Service being executed.

Synopsis

Windows32/64   Solaris32   Linux32/64

```
otsgetdump  {[-get]|[-on|-off]} {[-all]|[-c]  [-s]  [-n resource-definition-
name1,resource-definition-name2 ...] [-w] [-e] [-t]}
```

Description

When an error occurs in the Database Linkage Service, the system operating status is output for maintenance. This command is executed on the machines where the dump is output.

The following two collection modes are available:

Temporary Collection:

When the **-get** option is specified, perform dumping in temporary collection mode. When the **-get**, **-on** and **-off** options are all omitted, the **-get** option is presumed to have been specified.

Permanent Collection:

If the **-on** option is specified, the command begins collecting the dump, and stops when the **-off** option is specified.

The options of this command are as follows:

-get

A dumping file is extracted in temporary collection mode.

-on

Declares the start of the dump collection.

-off

Declares the end of the dump collection.

-all

Dump of all the following:

Control table status, Database Linkage Service system trace, Resource Manager trace, monitor process trace, recovery process trace, and internal control.

-c

Dump of the control table status.

Regardless of the mode, it is always extracted in temporary collection mode.

A dump file is created with the name otsctl.nnn in the Database Linkage Service install folder\var.

A dump file is created with the name otsctl.nnn in the product storage directory/var.

-s

Dump of the Database Linkage Service system trace.

A dump file is created with the name TranFactorynnn in the Database Linkage Service install folder\var.

A dump file is created with the name TranFactorynnn in the product storage directory/var.

-n

Dump of trace of specified Resource Manager.

Multiple filenames can be specified by separating each filename with a comma (",").

A dump file is created with the name nnn in the Database Linkage Service install folder\var.

A dump file is created with the name nnn in the product storage directory/var.

-w

Dump of trace of monitor process

A dump file is created with the name otsmngernnn in the Database Linkage Service install folder\var.

A dump file is created with the name otsmngernnn in the product storage directory/var.

-e

Dump of recovery process

A dump file is created with the name otsrecoverynnn in the Database Linkage Service install folder\var.

A dump file is created with the name otsrecoverynnn in the product storage directory/var.

-t

Dump of internal control

Regardless of collection mode, it is always extracted in temporary collection mode.

A dump file is created with the name TACE.nnn in the Database Linkage Service install folder\var.

A dump file is created with the name TACE.nnn in the product storage directory/var.

Notes

- Execute this command with Administrator authority.

- The size of the dump file can be increased. Therefore allocate a sufficient size.

- A number is assigned to the nnn component of each collected dump filename.

- When collecting dumps of the resource Manager for JTS, all dumps must be collected by specifying no option or -all.

Examples

Collects all dump.

```
otsgetdump -all

Dump file name of management table :C:\PROGRA~1\ots\var\otsctl.001
Dump file name of OTS System trace :C:\PROGRA~1\ots\var\TranFactory001
Dump file name of Resource trace  :C:\PROGRA~1\ots\var\def_rsc001 \
(Resource Name : C:\ots\sample\def_rsc): C:\ots\sample\def=rsc
Dump file name of inside control  : C:\PROGRA~1\ots\var\TACE.001
Dump file name of observation process : C:\PROGRA~1\ots\var\otsmnger001
Dump file name of Recovery trace : C:\PROGRA~1\ots\var\otsrecovery001
```

Collects Database Linkage Service system trace and resource.

```
otsgetdump -s -n resourcedef1,resourcedef2
Dump file name of OTS System trace : C:\PROGRA~1\ots\var\TranFactory001
Dump file name of Resource trace  : C:\PROGRA~1\ots\var\resourcedef1001 \
(Resource Name : \home\ots\resourcedef1)
Dump file name of Resource trace   : C:\PROGRA~1\ots\var\resourcedef2001 \
(Resource Name : \home\ots\resourcedef2)
```

Starts collecting all dumps in permanent collection mode.

```
otsgetdump -on

Dump file name of management table : C:\PROGRA~1\ots\var\otsctl.000
Dump file name of inside control   : C:\PROGRA~1\ots\var\TACE.001
```

Stops collecting all dumps in permanent collection mode.

```
otsgetdump -off

Dump file name of management table :C:\PROGRA~1\ots\var\otsctl.001
Dump file name of OTS System trace : C:\PROGRA~1\ots\var\TranFactory001
Dump file name of Resource trace   : C:\PROGRA~1\ots\var\resourcedef1001 \
(Resource Name : \home\ots\resourcedef1)
Dump file name of inside control : C:\PROGRA~1\ots\var\TACE.002
Dump file name of observation process : C:\PROGRA~1\ots\var\otsmnger001
Dump file name of Recovery trace : C:\PROGRA~1\ots\var\otsrecovery001
```

Collects all dump.

```
#otsgetdump -all

Dump file name of management table    : /ots/FSUNots/var/otsctl.001
Dump file name of OTS System trace    : /ots/FSUNots/var/TranFactory001
Dump file name of Resource trace      : /ots/FSUNots/var/def_rsc001 \
(Resource Name : /ots/sample/def_rsc)
Dump file name of inside control      : /ots/FSUNots/var/TACE.001
Dump file name of observation process : /ots/FSUNots/var/otsmnger001
Dump file name of Recovery trace      : /ots/FSUNots/var/otsrecovery001
```

Collects Database Linkage Service system trace and resource.

```
#otsgetdump -s -n resourcedef1, resourcedef2
Dump file name of OTS System trace    : /ots/FSUNots/var/TranFactory001
Dump file name of Resource trace      : /ots/FSUNots/var/resourcedef1001 \
```

```
(Resource Name : /home/ots/resourcedef1)
Dump file name of Resource trace     : /ots/FSUNots/var/resourcedef2001 \
(Resource Name : /home/ots/resourcedef2)
```

Starts collecting all dumps in permanent collection mode.

```
#otsgetdump -on

Dump file name of management table    : /opt/FSUNots/var/otsctl.000
Dump file name of inside control      : /opt/FSUNots/var/TACE.001
```

Stops collecting all dumps in permanent collection mode.

```
#otsgetdump -off

Dump file name of management table    : /opt/FSUNots/var/otsctl.001
Dump file name of OTS System trace    : /opt/FSUNots/var/TranFactory001
Dump file name of Resource trace      : /opt/FSUNots/var/resourcedef1001 \
(Resource Name : /home/ots/resourcedef1)
Dump file name of inside control      : /opt/FSUNots/var/TACE.002
Dump file name of observation process : /opt/FSUNots/var/otsmnger001
Dump file name of Recovery trace      : /opt/FSUNots/var/otsrecovery001
```

Linux32/64

Collects all dump.

```
#otsgetdump -all

Dump file name of management table    : /ots/FJSVots/var/otsctl.001
Dump file name of OTS System trace    : /ots/FJSVots/var/TranFactory001
Dump file name of Resource trace      : /ots/FJSVots/var/def_rsc001 \
(Resource Name : /ots/sample/def_rsc)
Dump file name of inside control      : /ots/FJSVots/var/TACE.001
Dump file name of observation process : /ots/FJSVots/var/otsmnger001
Dump file name of Recovery trace      : /ots/FJSVots/var/otsrecovery001
```

Collects Database Linkage Service system trace and resource.

```
#otsgetdump -s -n resourcedef1, resourcedef2
Dump file name of OTS System trace    : /ots/FJSVots/var/TranFactory001
Dump file name of Resource trace      : /ots/FJSVots/var/resourcedef1001 \
(Resource Name : /home/ots/resourcedef1)
Dump file name of Resource trace      : /ots/FJSVots/var/resourcedef2001 \
(Resource Name : /home/ots/resourcedef2)
```

Starts collecting all dumps in permanent collection mode.

```
#otsgetdump -on

Dump file name of management table    : /opt/FJSVots/var/otsctl.000
Dump file name of inside control      : /opt/FJSVots/var/TACE.001
```

Stops collecting all dumps in permanent collection mode.

```
#otsgetdump -off

Dump file name of management table    : /opt/FJSVots/var/otsctl.001
Dump file name of OTS System trace    : /opt/FJSVots/var/TranFactory001
Dump file name of Resource trace      : /opt/FJSVots/var/resourcedef1001 \
(Resource Name : /home/ots/resourcedef1)
Dump file name of inside control      : /opt/FJSVots/var/TACE.002
Dump file name of observation process : /opt/FJSVots/var/otsmnger001
Dump file name of Recovery trace      : /opt/FJSVots/var/otsrecovery001
```

26.17 tdalllog

Name

tdalllog

Outputs the internal information of the Component Transaction Service business system.

Synopsis

Windows32 **Solaris32** **Linux32**

```
tdalllog  [-M systemname]
```

Description

The *tdalllog* command outputs the internal information of the Component Transaction Service business system.

Execute this command if a system error occurs, or as indicated by your software supplier.

Options of this command are explained as follows.

-M system **Solaris32**

Specify the system name. If this option is omitted, operation using the default system becomes target.

Windows32

Internal information is output to the following folder:

Component Transaction Service internal information1: C:\Interstage\td\trc\

Component Transaction Service internal information2:

If the *isinit* command was used to generate the Component Transaction Service operating environment:

TD_SETUPPATH\td001\sys\log.

If the *tdsetup* command was used to generate the Component Transaction Service operating environment:

The folder specified by *tdsetup* command \td001\sys\log

* TD_SETUPPATH: The "TD path for system" value entered in C:\Interstage\td\etc\isreg\isinitdef.txt. The default is C:\Interstage\td\var.

Solaris32

Internal information is output to the following directory:

Component Transaction Service internal information1: /var/opt/FSUNtd/trc/

Component Transaction Service internal information2: Setup directory /sys/log/

Linux32

Internal information is output to the following directory:

Component Transaction Service internal information1: /var/opt/FJSVtd/trc/

Component Transaction Service internal information2: Setup directory /sys/log/

Note

Execute this command with Administrator authority.

Appendix A Load Balancing Operation Commands Windows32
Solaris32   Linux32

This is not supported in Interstage Application Server for Windows (64 bit) and Linux (64 bit).

This appendix details the Load Balancing operation commands.

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise edition
odadministerlb	Generates, registers, and deletes object references controlled by the load balance function.	NO	OK
oddisplaylbobj	Displays the load balance object group.	NO	OK
odnotifydown	Notifies the load balance function that the server is down.	NO	OK
odnotifyrecover	Notifies the load balance function that the down server has been restored.	NO	OK
odsetlbo	Sets operating environment for the load balance function.	NO	OK
odstartlbo Solaris32 Linux32	Starts the load balance function.	NO	OK
odstoplbo Solaris32 Linux32	Stops the load balance function.	NO	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Directory
Windows32	C:/Interstage/ODWIN/bin
Solaris32	/opt/FSUNod/bin
Linux32	/opt/FJSVod/bin

A.1 odadministerlb

Name

odadministerlb

Generates, registers, and deletes object references controlled by the load balance function.

Synopsis

Windows32   Solaris32   Linux32

1. Generate and register an object reference:

```
odadministerlb -c IntfID [-a ImplID] [-h HostName -p PortNum] -n name
                         [-L Locale] | [-v version] [-M system]
```

2. Delete an object reference:

```
odadministerlb -d -c IntfID [-a ImplID] [-h HostName -p PortNum] -n name
               [-M system]
```

3. Change the default object:

```
odadministerlb -c IntfID [-a ImplID] [-h HostName -p PortNum] -n name -r
                         [-L Locale] | [-v version] [-M system]
```

Description

This command generates and registers object references controlled by the load balance function. In addition, it deletes the reference from the object group. It also modifies the properties of the generated object reference.

The options and arguments of this command are as follows:

-c IntfID

Creates an object reference with the Interface Repository ID specified in IntfID. Specify the Repository ID (within 256 characters), that identifies the module, and interface defined in IDL, in Interface Repository ID. The repository ID format is described as follows.

Format: Identification Information:Version

Format: Specify IDL.

Identification Information: Use "/" as delimiter for module name and interface name defined in IDL.

Version: Specify "1.0". Version is optional.

-a ImplID

Specify this option when the identifier is different for Implementation Repository ID and Interface Repository ID. Specify the string specified in the *OD_impl_inst* command -r option. If this option is omitted, the Implementation Repository ID creates an object with the same identifier as that of the Interface Repository.

-h HostName

Specify the address information of the request receiving server for the host name, DNS name or IP address. When manually registering the object for the transaction application, only the host name can be specified.

-p PortNum

The port number which receives a request is specified.

-n name

Registers the specified name with the Naming Service when creating an object reference. The naming context can also be specified in name. A hierarchy of naming contexts can be specified in name, specified in character array binding name format.

An error is caused in a non-existent naming context is specified.

-d

Deletes an object reference.

-r

Changes the default object.

-v version

Specify the version to be set in the object reference.

Refer to "*OD_or_adm*" in the 〝CORBA Service Operation Commands" chapter for details of the version that can be specified.

-L Locale

Specify the server application conversion code type to be set in the object reference of the default object. Refer to "*OD_or_adm*" in the *"*CORBA Service Operation Commands" chapter for details of codes that can be specified.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

Notes

- When executing this command, the object group specified in name must already be registered.

- Object references with the same port name, but different port numbers, cannot be registered.

- Multiple objects operating on the same server can be registered as an object group by modifying their Implementation Repository ID.

- If the default object is modified by specifying the -r option, the registered default object is deleted from the object group.

- The default object cannot be deleted.

- With the exception of the default object, delete all objects in the object group to be deleted before deleting the object group.

A.2 oddisplaylbobj

Name

oddisplaylbobj

Displays the load balance object group.

Synopsis

`Windows32` `Solaris32` `Linux32`

```
oddisplaylbobj -n Name [-M system]
```

Description

The argument of this command is as follows:

-n Name

Specifies the name of the load balance object group to be displayed in character array binding name format.

This command displays information about the load balance object group.

Load Balance Group Name

Displays object group name to be displayed.

Load Balance Type

Displays "roundrobin".

The following information is displayed for each object registered in the object group.

Address

The host name and port number separated by a colon (:).

For the default object, "DEFAULT" is displayed after the port number.

Stat

The status of the server controlled by the load balance function.

UP :	Indicates the running server
DOWN :	Indicates the down server

ImplID

The object's Implementation Repository ID is displayed.

IntfID

The object's Interface Repository ID is displayed.

Version

The object's IOR version is displayed.

Locale

The object's code type is displayed.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

Note

If UNKNOWN is displayed in Stat, check whether the server address is set correctly. For details, refer to the High Availability System Guide.

Example

```
OD_or_adm -g lb -c IDL:intf01:1.0 -a IDL:TEST:1.0 -n GROUP01
odadministerlb -c IDL:intf01:1.0 -a IDL:TEST2:1.0 -n GROUP01

UX:odadministerlb: INFO: od31101:Command is executed successfully.

oddisplaylbobj -n GROUP01

Load Balance Group Name : GROUP01
Load Balance Type       : roundrobin
  Address : r2d2:8002 (DEFAULT)
    Stat   : UP
    ImplID : IDL:TEST:1.0
    IntfID : IDL:intf01:1.0
    Version: 1.1
  Address : r2d2:8002
    Stat   : UP
    ImplID : IDL:TEST2:1.0
    IntfID : IDL:intf01:1.0
    Version: 1.1
```

A.3 odnotifydown

Name

odnotifydown

Notifies the load balance function that the server is down.

Synopsis

`Windows32` `Solaris32` `Linux32`

```
odnotifydown hostname [-M system]
```

Description

This command notifies the load balance function that the server is down. It stops sending requests to the server object of the down server.

The argument of this command is as follows:

hostname

Specify the host name or IP address of the down server.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

A.4 odnotifyrecover

Name

odnotifyrecover

Notifies the load balance function that the down server has been restored.

Synopsis

`Windows32` `Solaris32` `Linux32`

```
odnotifyrecover hostname [-M system]
```

Description

This command notifies the load balance function that the down server has been restored. It restarts sending requests to the server object of the restored server.

The argument of this command is as follows:

hostname

Specify the host name or IP address of the recovered server.

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

A.5 odsetlbo

Name

odsetlbo

Sets operating environment for the load balance function.

Synopsis

`Windows32` `Solaris32` `Linux32`

```
odsetlbo {-l [-m ThreadMax] | -r -h HostName -p PortNum | -d} [-M system]
```

Description

This command registers the LBO for initial service. Execute this command each time LBO is to be used.

The arguments and options of this command are as follows:

-l

Add the LBO to the Implementation Repository.

Registers the LBO operating on the local server for initial service.

And, registers load balance function in the service.

-m ThreadMax

Register the maximum thread concurrency of the object group register, search, and delete processes. Specify a value equal to double the maximum multi-processes. A number between 16 and 1000 can be specified. The default value is 16.

-r

Register the LBO operating on another server for initial service.

In the load balance environment, specify the server where the LBO is running, from the machine where the LBO is not running.

And, it is deleted when a load balance function is registered in the service.

-h HostName

Specify the hostname of another server.

-p PortNum

Specify the port number of another server.

-d

Deletes the load balance function from the Implementation Repository. The load balance function is deleted from the initial service. The load balance function is deleted from the service.

-M system ` Solaris32 `

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

Notes

- Registration of an initial service has to be performed on each machine where the load balance function is to be used before using the load balance function. However, it is not required for clients that only use the Naming Service function. It is required only for the machines using API or load balance function commands.

- Execute this command with administrator authority.

- The value specified at ThreadMax depends on the max_exec_instance parameter of the ORB core environment definition, obtained using the following equation.

  max_exec_instance - Total number of multiple level threads of the other server application. The default value is 512.

- Do not use the following command while using this command:

  odadmin_ex/odadmin

A.6 odstartlbo

Name

odstartlbo

Starts the load balance function.

Synopsis

` Solaris32 ` ` Linux32 `

```
odstartlbo [-M system]
```

Description

This command starts the load balance function.

The arguments and options of this command are as follows:

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

Notes

`Windows32`

- *odstartlbo* is a command for service start with Solaris. In the case of service start with Windows®, a load balance function is provided with the start of the "NS LoadBalancingOption" service.

`Solaris32` `Linux32`

- Execute this command with administrator authority.

A.7 odstoplbo

Name

odstoplbo

Stops the load balance function.

Synopsis

`Solaris32` `Linux32`

```
odstoplbo [-M system]
```

Description

This command stops the load balance function.

The arguments and options of this command are as follows:

-M system `Solaris32`

Specify the operation target system name "system" when an extended system is generated. If this option is omitted, operation using the default system becomes the target.

Notes

`Windows32`

- Use the *odstoplbo* command to stop the service under Solaris. Under Windows®, stop the NS Load Balancing Option to stop the load balancing function.

`Solaris32` `Linux32`

- Execute this command with administrator authority.

Appendix B Server Machine Monitor Agent Commands

| Windows32 | Solaris32 | | Linux32 |

This appendix details the Server Machine Monitor Agent Commands.

Supported commands

The following table describes the commands supported by each product.

Command	Outline	Standard-J Edition	Enterprise Edition
isaddtarget Windows32 Solaris32 Linux32	Adds an IP address to be monitored to a started SMM agent.	No	OK
isdeletetarget Windows32 Solaris32 Linux32	Deletes the IP address of the server being monitored from the started SMM agent	No	OK
isdisplaysmm Windows32 Solaris32 Linux32	Displays the monitor status of SMM.	No	OK
issetsmm Windows32	Registers the SMM for service of Windows®.	No	OK
issetsmma Windows32	Registers the SMM agent for service of Windows®	No	OK
isunsetsmm Windows32	Deletes the SMM from service of Windows®.	No	OK
isunsetsmma Windows32	Deletes the SMM agent from service of Windows®.	No	OK
isstopsmm Solaris32 Linux32	Stops SMM	No	OK
isstartsmm Solaris32 Linux32	Starts the SMM.	No	OK
isstartsmma Solaris32 Linux32	Starts SMM agent.	No	OK
isstopsmma Solaris32 Linux32	Stops the SMM agent on the monitored server	No	OK

OK: Support

NO: No support

Location of commands

The following table describes the location of the commands, if the product is installed by default.

Platform	Directory
Windows32	C:\Interstage\bin
Solaris32	/opt/FSUNtd/bin
Linux32	/opt/FJSVNtd/bin

B.1 isaddtarget

Name

isaddtarget

Adds an IP address to be monitored to a started SMM agent.

Synopsis

Windows32　Solaris32　Linux32

```
isaddtarget ip-address
```

Description

This command adds an IP address to be monitored to an already started SMM agent. Execute this command at the monitored server.

The argument for this command is as follows:

ip-address

Specify the IP address of the SMM to be monitored.

Notes

- The SMM agent must be started to execute this command.

- The validity of the IP address is not checked.

Windows32

- A change by this command becomes invalid due to the stop of the "ServerMachineMonitorAgent" service. Specify an IP address with an *issetsmma* command when you want to change it steadily.

Example

```
isaddtarget 172.16.71.1
```

B.2 isdeletetarget

Name

isdeletetarget

Deletes the IP address of the server being monitored from the started SMM agent

Synopsis

Windows32　Solaris32　Linux32

```
isdeletetarget ip-address
```

Description

This command removes the IP address to be monitored from the started SMM agent. Execute this command at the monitored server.

The argument for this command is as follows:

ip-address

Specify the IP address of the SMM to be monitored.

Notes

- The SMM agent must be started to execute this command.

- Specify the IP address of the server being monitored by this command.

- A change by this command becomes invalid due to the stop of the "ServerMachineMonitorAgent" service. Specify an IP address with an *issetsmma* command when you want to change it steadily.

Windows32

- Even if the IP address to be monitored is lost while this command is executing, the SMM agent does not stop. To stop the SMM agent on Windows NT, execute the *isstopsmma* command. If the "ServerMachineMonitorAgent" stops, the SMM agent stops.

Example

```
isdeletetarget 172.16.71.1
```

B.3 isdisplaysmm

Name

isdisplaysmm

Displays the monitor status of SMM.

Synopsis

Windows32   Solaris32   Linux32

```
isdisplaysmm
```

Description

This command displays the monitor status of the SMM, and is executed at the monitored server.

Displays the following information while starting the SMM:

HBI:

The time interval required for the SMM agent to communicate with SMM.

It is the value specified at the *issetsmm* command **-h** option.

DT:

The time interval required for the SMM to recognize that the SMM agent is down.

It is the value specified at the *issetsmm* command **-t** option.

Down Shell:

The process name to be executed when the monitored server is found to be down.

SMM (pathname of down shell):

The path specified at the **-D** option of *issetsmm* is displayed.

SMMA:

The path name of the down shell to be executed on the SMM agent.

NONE:

When reporting a down state to the load balance function.

Recover Shell:

The process name to be executed when the monitored server is recovered.

SMM (pathname of recover shell):

The path specified at the **-R** option of *issetsmm* is displayed.

SMMA:

The path name of the recovery shell to be executed on the SMM agent.

NONE:

When reporting recovery to the load balance function.

Server IP

The IP address of the monitored server for the SMM. If the SMM agent is not running, the IP address is not displayed.

Note

Before executing the *isdisplaysmm* command, start the SMM.

Example

Windows32

```
isdisplaysmm

HBI:10
DT:30
Down Shell:SMM(C:\IS\DSHELL.BAT )
Recover Shell:SMM(C:\IS\RSHELL.BAT )
Server IP
172.16.71.1
172.16.71.22
```

Solaris32   Linux32

```
isdisplaysmm

HBI:10
DT:30
Down Shell:SMM(/IS/DSHELL.BAT )
Recover Shell:SMM(/IS/RSHELL.BAT )
Server IP
172.16.71.1
172.16.71.22
```

B.4 issetsmm

Name

issetsmm

Registers the SMM for service of Windows®.

Synopsis

Windows32

```
issetsmm [-h HBI] [-t DT] [{-D down shell | -d}] [{-R recover shell| -r}]
```

Description

This command registers the SMM for service of Windows®. This command is executed on the monitored server.

The options and arguments of this command are as follows:

-h HBI

Specify (at HBI) the time interval required for the SMM agent to communicate with SMM. The SMM agent sends its operating status to the SMM at time intervals specified by the HBI value.

An integer value from 1 to 3599 can be specified in seconds for HBI. The default value is 5.

-t DT

Specify (at DT) the time interval required for the SMM to recognize that the SMM agent is down. If no operating status is reported from the SMM agent after the specified time interval, the SMM interprets that the SMM agent is down.

An integer value from 2 to 3600 can be specified in seconds for DT.

The default value is 10.

-D down shell

When the SMM agent is found to be down, specify the absolute path of the batch file to be executed from the SMM (within 255 bytes). This batch file is called the down shell.

If options **-D** or **-d** are omitted, the SMM notifies the load balance function about the down agent of the monitored server.

-R recover shell

When the SMM agent is found to have recovered, specify the absolute path of the batch file to be executed from the SMM (within 255 bytes). This batch file is called the recover shell.

If options **-R** or **-r** are omitted, the SMM notifies the load balance function about the restored agent of the monitored server.

-d

When the SMM agent is found to be down, specify this option if a batch file is to be executed from the SMM.

-r

When the SMM agent is found to have recovered, specify this option if a batch file is to be executed from the SMM agent.

Notes

- The Administrator of the local group can execute this command.

- When re-registering the SMM for service of Windows®, use the *isunsetsmm* command before this command.

- Execute this command first, when starting the SMM service.

- SMM should start with the machine that "Naming Service" service surely works because "Naming Service" service is the service related to dependence of the start of SMM.

- DT should be greater than HBI. Considering the delay in sending working status from the SMM agent to the SMM, set the difference as large as possible.

- The monitored server's IP address is returned from the SMM as the first parameter (%1). Specify this IP address when executing the *odnotifydown* command from the down shell.

- The recovered server's IP address is returned from the SMM as the first parameter (%1). Specify this IP address when executing the *odnotifyrecover* command from the recover shell.

- Specify the down shell and recover shell on the machine where the SMM is running.

- The down shell and recover shell are executed successively.

- Since standard output cannot be used in a down shell or recover shell, write any information to a file.

- Specify the batch file as a down shell and recover shell. And don't omit a file extension (.BAT).

- To run the SMM, start load balance function on the same machine.

Examples

To start the down shell and recover the shell from the SMM:

```
issetsmm -h 10 -t 30 -D C:\IS\DSHELL.BAT -R C:\IS\RSHELL.BAT
```

To start the down shell from the SMM agent:

```
issetsmm -d
```

B.5 issetsmma

Name

issetsmma

Registers the SMM agent for service of Windows®

Synopsis

Windows32

```
issetsmma [-d down shell] [-r recover shell] ip-address ...
```

Description

This command registers the SMM agent for service of Windows®. This command is executed at the monitored server.

The arguments and options of this command are as follows:

-d down shell

When down notification is received from the SMM, specify the absolute path of the batch file to be executed from the SMM agent (within 255 bytes). Don't include a blank in batch file name specified as a going down shell, or the path name.

-r recover shell

When recover notification is received from the SMM, specify the absolute path of the batch file to be executed from the SMM agent (within 255 bytes). Don't include a blank in batch file name specified as a going recover shell, or the path name

ip-address

Specify the IP address of the monitored server.

Notes

- The Administrator of the local group can execute this command.

- When re-registering the SMM agent for service of Windows®, use the *isunsetsmma* command before this command.

- Execute this command first, when starting the SMM agent as a service.

- The IP address of the down monitored server is passed from the SMM as the first parameter (%1). Specify this IP address when executing the *odnotifydown* command from the down shell.

- The IP address of the recover monitored server is passed from the SMM as the first parameter (%1). Specify this IP address when executing the *odnotifyrecover* command from the recover shell.

- Specify the down shell and recover shell on the machine where the SMM agent is running.

- The down shell and recover shell are executed successively.

- Since standard output cannot be used in the down shell or recover shell, write any information to a file.

- Specify the batch file as a down shell and recover shell. And, don't omit a file extension (.BAT).

```
issetsmma -d C:\IS\DSHELL.BAT -r C:\IS\RSHELL.BAT 172.16.71.1
```

B.6 isstopsmm

Name

isstopsmm

Stops SMM.

Synopsis

Solaris32   Linux32

```
isstopsmm
```

Description

The *isstopsmm* command stops SMM. This command is executed in the monitored server.

Note

Do not stop the CORBA Service before running this command.

B.7 isstartsmm

Name

isstartsmm

Starts the SMM.

Synopsis

Solaris32   Linux32

```
isstartsmm [-h HBI] [-t DT] [{-D down shell | -d}] [{-R recover shell| -r}]
```

Description

This command starts the SMM. It is executed at the monitored server. The options and arguments of this command are as follows:

-h HBI

Specify the time interval required for the SMM agent to communicate with the SMM at HBI. The SMM agent sends the working status to the SMM at each time interval specified at HBI. An integer value between 1 and 3599 can be specified at HBI, in seconds. The default is 5.

-t DT

Specify the time interval required for the SMM to recognize that the SMM agent is down at DT. The SMM recognizes that the SMM is down when the working status is not received from the SMM agent, after the time interval specified at DT.

Between 2 and 3600 can be specified at DT, in seconds. The default is 10.

-D down-shell

When the SMM agent is found to be down, specify the absolute path of the shell script to be executed from the SMM (within 255 bytes). This shell script is called the down shell.

If the -D or -d options are omitted, the SMM notifies the load balance function about the down agent of the monitored server. The -D and -d options cannot be specified together.

-R recover-shell

When the SMM agent is found have recovered, specify the absolute path of the shell script to be executed from the SMM (within 255 bytes). This shell script is called the recover shell.

If the -R or -r options are omitted, the SMM notifies the load balance function about the recover agent of the monitored server. The -R and -r options cannot be specified together.

-d

When the SMM agent is found to be down, specify this option to execute the shell script from the SMM agent

-r

When the SMM agent is found to have recovered, specify this option to execute the shell script from the SMM agent.

Notes

- This command is for Solaris only. The CORBA service needs to be triggered in the advance

- Multi execution for one shared Naming Service is not possible.

- Start the Naming Service before starting the SMM.

- While operating the SMM, it is recommended to start the Naming Service and the load balance function on the same machine.

- The IP address of the down monitored server is returned as the first down shell parameter from SMM (received as "$1" in the shell script). Specify this IP address while executing the *odnotifydown* command from the down shell.

- The IP address of the recovered monitored server is passed as the first parameter of the recover shell from the SMM (received as "$1" in the shell script). Specify this IP address while executing the *odnotifyrecover* command from the recover shell.

- Specify the down shell and recover the shell that exists in the machine on which the SMM agent is running.

- The down shell and the recover shell are executed successively.

- Since standard output cannot be used in the down shell or recover shell, write any information to a file.

Example

1. When starting the down shell and recover shell from the SMM side:

```
isstartsmm -h 10 -t 30 -D /IS/DSHELL -R /IS/RSHELL
```

2. When starting the down shell from the SMM agent:

```
isstartsmm -d
```

B.8 isstartsmma

Name

isstartsmma

Starts SMM agent.

Synopsis

Solaris32   Linux32

```
isstartsmma [-d down-shell] [-r recover-shell] ip-address ...
```

Description

This command starts the SMM agent. It is executed at the monitored server.

The options and arguments of this command are as follows:

-d down-shell

When down notification is received from the SMM, specify the absolute path of the shell script to be executed from the SMM agent (within 255 bytes).

-r recover-shell

When down notification is received from the SMM, specify the absolute path of the shell script to be executed from the SMM agent (within 255 bytes).

ip-address

Specify the IP address for the monitored server.

Notes

- The CORBA service needs to be triggered in the advance.

- Multiple SMM agents cannot be started on the same monitored server.

- The specified IP address is not validated.

- The IP address of the down monitored server is returned as the first parameter from SMM (%1). Specify this IP address when executing the *odnotifydown* command from the down shell.

- The IP address of the recovered monitored server is returned as the first parameter of the recover shell from SMM (%1).

  Specify this IP address when executing the *odnotifyrecover* command from the recover shell.

- Specify the down shell and recover shell that exists on the machine on which the SMM agent is running.

  The down shell and recover shell are executed successively.

- Since standard output cannot be used in the down shell or recover shell, write any information to the file.

Example

```
isstartsmma -d /IS/DSHELL -r /IS/RSHELL 172.16.71.1
```

B.9 isstopsmma

Name

isstopsmma

Stops the SMM agent on the monitored server

Synopsis

Solaris32   Linux32

```
isstopsmma
```

Description

This command stops the SMM agent. Execute this command for the monitored server.

Note

Do not terminate the OD before executing this command.

B.10 isunsetsmm

Name

isunsetsmm

Deletes the SMM from service of Windows®.

Synopsis

`Windows32`

```
isunsetsmm
```

Description

This command deletes the SMM from service of Windows®. This command is executed on the monitored server.

Notes

- The Administrator of the local group can execute this command.

- Stop the SMM service before executing this command.

B.11 isunsetsmma

Name

isunsetsmma

Deletes the SMM agent from service of Windows®.

Synopsis

`Windows32`

```
isunsetsmma
```

Description

This command deletes the SMM agent from service of Windows®. This command is executed at the monitored server.

Notes

- The Administrator of the local group can execute this command.

- Stop SMM agent service before executing this command.