

FUJITSU Software

Interstage AR Processing Server V1.0

A horizontal decorative band with a dark red background and glowing, swirling white and light red lines, creating a sense of motion and technology.

Installation Guide

B1WS-1105-01ENZ0(00)
January 2014

Preface

Purpose of this document

This document explains the operating environment, and how to install, uninstall, set up, and remove the setup for Interstage AR Processing Server.

Intended readers

This document is intended for system operation administrators who will perform tasks on Interstage AR Processing Server, such as installation and setup.

Readers of this document are also assumed to have knowledge of:

- Smart devices
- Operating system that will be used with this product
- Web servers
- Databases

Structure of this document

This document is structured as follows:

[Chapter 1 Installation](#)

Explains how to install Interstage AR Processing Server.

[Chapter 2 Setup](#)

Explains how to set up Interstage AR Processing Server.

[Chapter 3 Setup removal](#)

Explains how to remove the setup for Interstage AR Processing Server.

[Chapter 4 Uninstallation](#)

Explains how to uninstall Interstage AR Processing Server.

Abbreviations

This manual uses the following abbreviations for the operating systems:

Official name	Abbreviation	
Microsoft Windows Server 2012 Foundation	Windows Server 2012	Windows
Microsoft Windows Server 2012 Standard		
Microsoft Windows Server 2012 Datacenter		
Microsoft Windows Server 2008 R2 Standard	Windows Server 2008 R2	
Microsoft Windows Server 2008 R2 Enterprise		
Microsoft Windows Server 2008 R2 Datacenter		
Microsoft Windows Server 2008 R2 Foundation		
Red Hat Enterprise Linux 6 (for Intel 64)	Linux	

Notations

In this manual, text that must be replaced by the user is denoted in *italicsWithMixedCase* (for example, *installDir*).

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Chapter 1 Installation

This chapter explains the installation of Interstage AR Processing Server.

1.1 Server

This section explains how to install AR Processing Server.

1.1.1 Tasks required before installation.

1.1.1.1 Check the port numbers

The port numbers used by Interstage AR Processing Server are shown below. Ensure that none of the ports below is already in use by another program - if this happens, then revise the parameter file before setup (the file is referenced during setup).

Also check the port numbers for the web server, AP server, and DB server that will be used for Models B, C, and D

Item No.	Feature	Details	Port number
1	Database feature	Port that the client connects to	9201
2	Web container features	HTTP listener port for operation management	9101
3		HTTP listener port	9102
4		JMX connector listener port for operation management	9103
5		HTTPS listener port	9104
6		Connection port for the message broker	9105
7		IIOP (ORB) listener port	9106
8		IIOP/SSL listener port for mutual authentication	9107
9		IIOP/SSL listener port	9108

1.1.1.2 Install required packages

If installing the Linux version, ensure that the required packages have been installed. Refer to "Operating environment" in the *Overview* for details on required packages.

1.1.1.3 Check users

Setup and setup removal will not execute normally if the users below exist (if that is the case, take appropriate action, such as changing their names, for example):

- Windows: arsvdmpg, arsvgfad
- Linux: arsvdmpg

1.1.2 Installation in Windows

This section explains how to install the Windows version. If issues arise during installation, refer to "[1.1.2.6 Troubleshooting](#)" and take the corresponding corrective action.

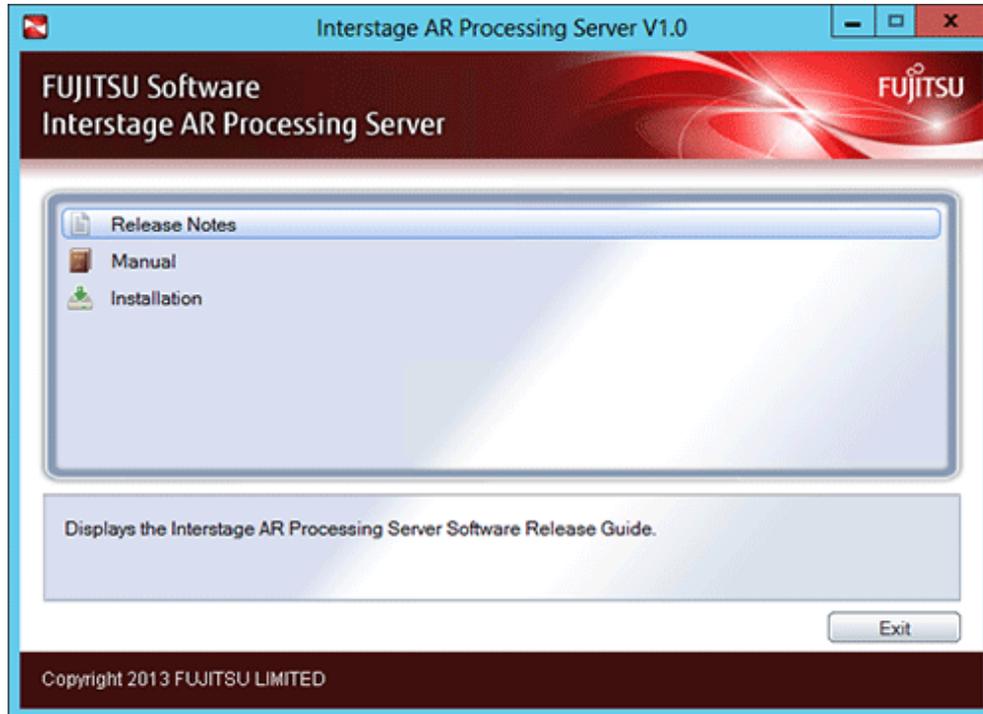
1.1.2.1 Run the installation

1. Log in as a computer administrator or as a member of the Administrators group.
2. Insert the installation DVD in the computer DVD drive.

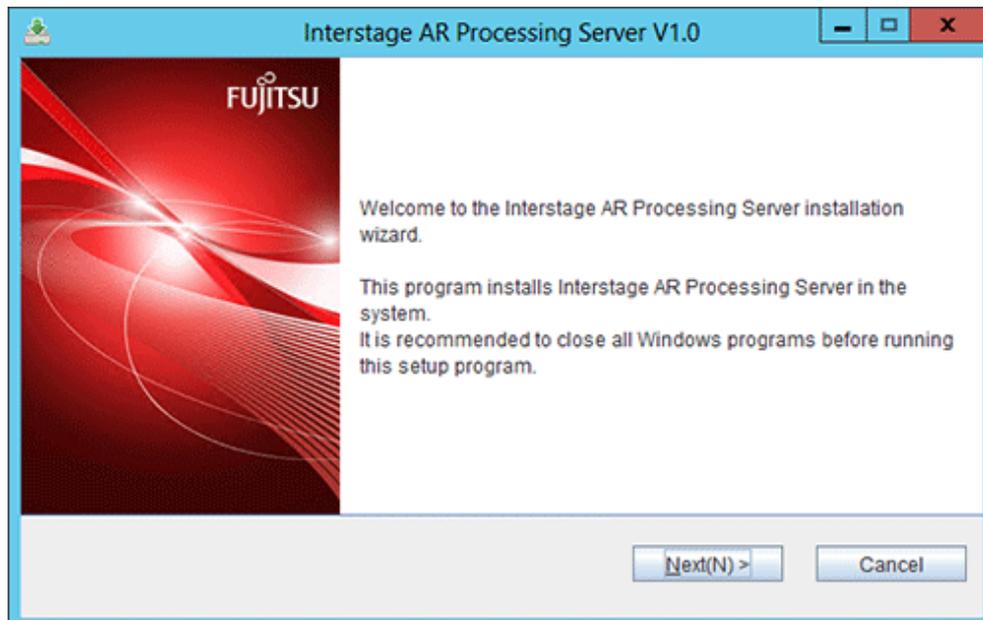
3. The installer will start automatically, displaying a feature selection window. If the installer does not start automatically, execute autorun.exe to start it manually. Select **Installation**.

 **Note**

Always execute autorun.exe as an administrator.



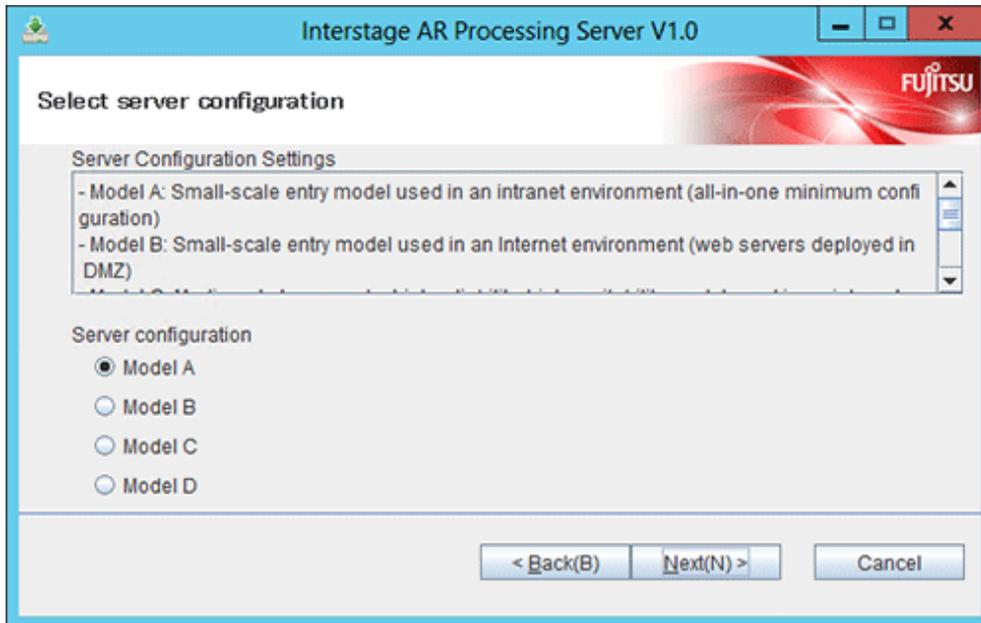
4. In the window below, click **Next**.



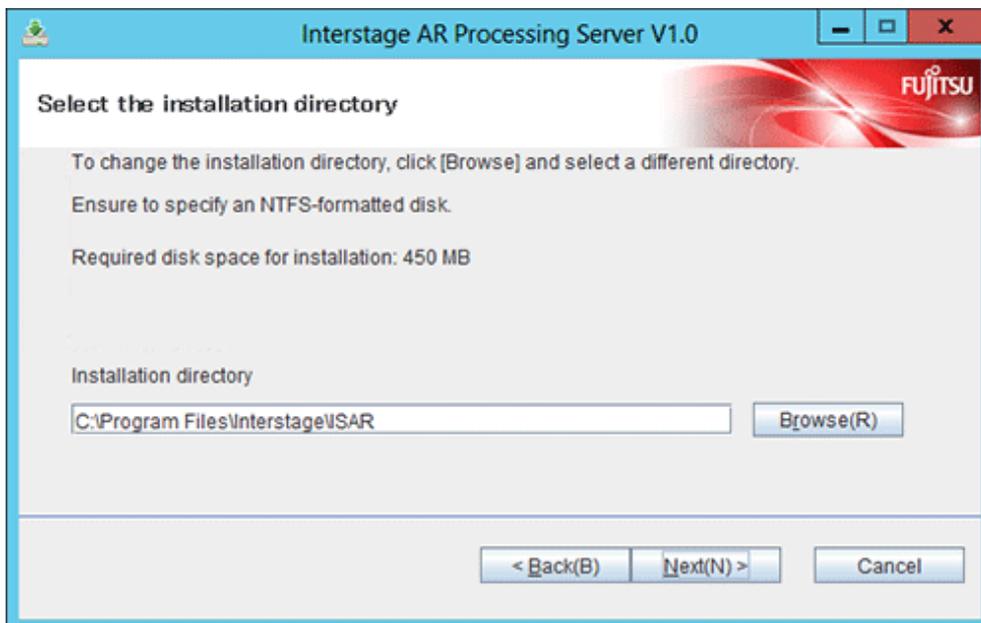
5. In the window to select the server configuration, select the Interstage AR Processing Server model to be installed, and then click **Next**.

 See

Refer to the *Overview* for details on each of the models in Interstage AR Processing Server.



6. Specify the installation directory for Interstage AR Processing Server. To install in the default directory, click **Next**. To change the installation directory, click **Browse**, specify the desired directory, and then click **Next**.



 Note

Note the following regarding the name of the installation directory:

- It can contain the following characters:
 - Alphanumeric characters
 - Spaces

- Hyphens
- Underscores
- Parentheses
- It can be up to 45 characters long.
- If it ends with a space, a formatting error occurs.
- If the user specifies a directory and clicks **Next**, but then clicks **Back** to return to specify a different one, then the directory that was initially specified might still exist - delete it if not required.

1.1.2.2 Configure the web server

1. Enter the FQDN or IP address of the web server, and then click **Next**.

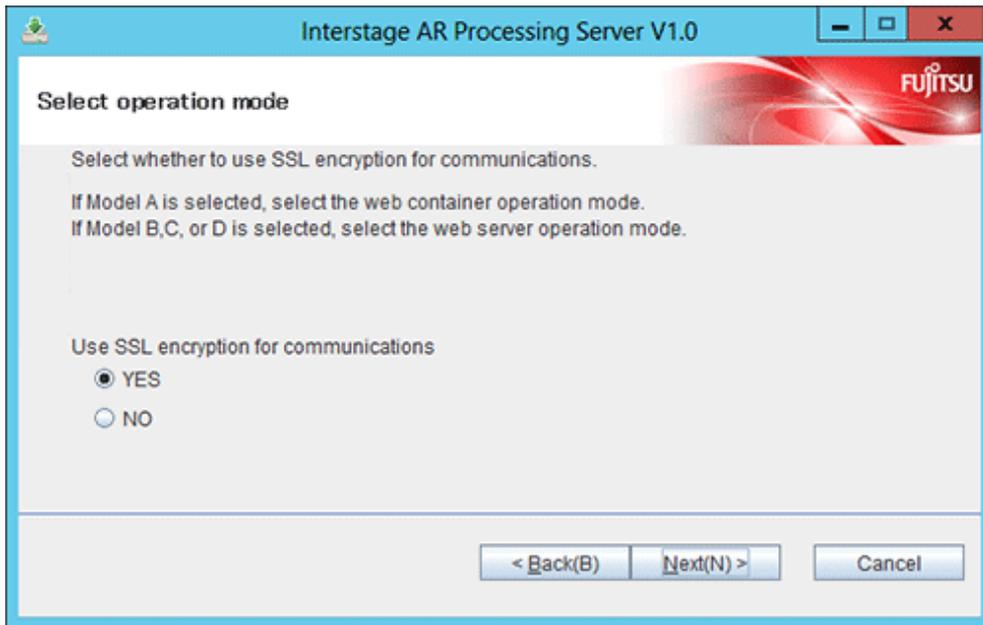
If Model A is selected, enter the FQDN or IP address of the local host. The specified FQDN or IP address can be up to 256 characters long (RFC 2396 format), and is a mandatory field. However, do not enter "localhost", "127.0.0.1", or "::1".

Note

- Notes on the FQDN or IP address
 - The only check performed is to confirm the specified value is in RFC 2396 format.
 - This check does not guarantee communications from the device.

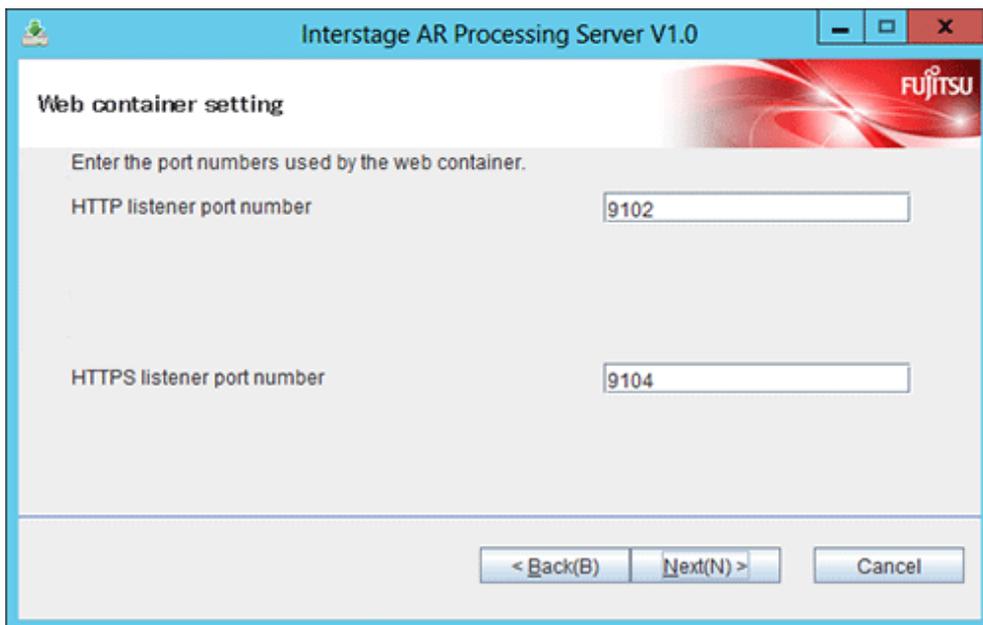
2. Select the operation mode, and then click **Next**.

If Model A is specified, select the web container operation mode. If Model B, C, or D is specified, select the web server operation mode. Select **YES** to enable SSL encryption of communications, or **NO** otherwise.



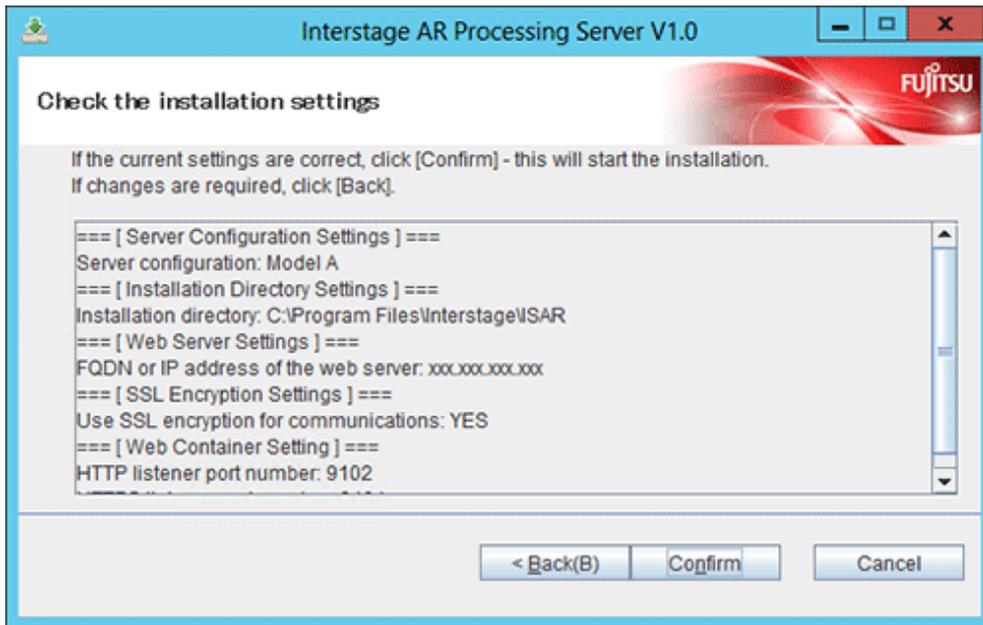
1.1.2.3 Configure the web container

1. Enter the port numbers to be used by the web container, and then click **Next**. Specify values between 1 and 65535.



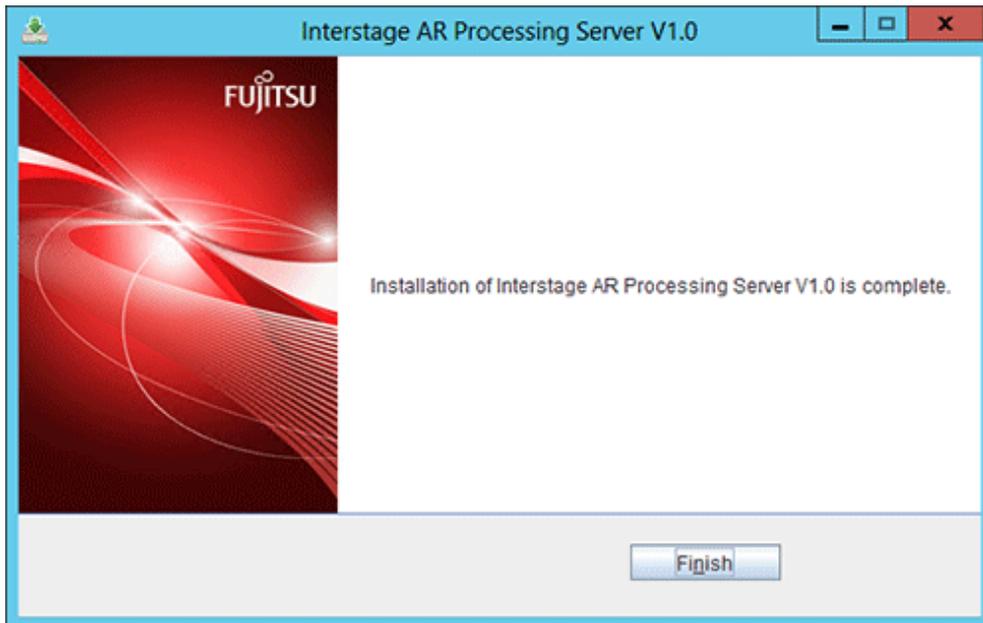
1.1.2.4 Check the installation settings

1. Check the displayed settings, and then click **Confirm**. Do not forcibly quit installation, otherwise results cannot be guaranteed..



1.1.2.5 Check completion

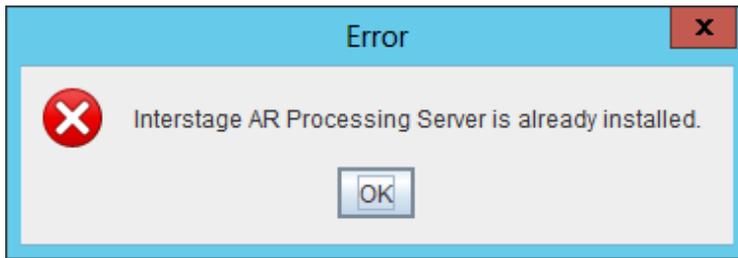
1. Click **Finish**. There is no need to restart the operating system once installation is complete.



1.1.2.6 Troubleshooting

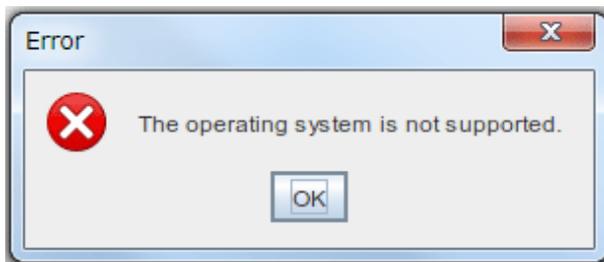
1.1.2.6.1 The installation was run but Interstage AR Processing Server is already installed

The error below is displayed if the user clicks **Next** on the installation start window but Interstage AR Processing Server is already installed. Click **OK** to end the installation.



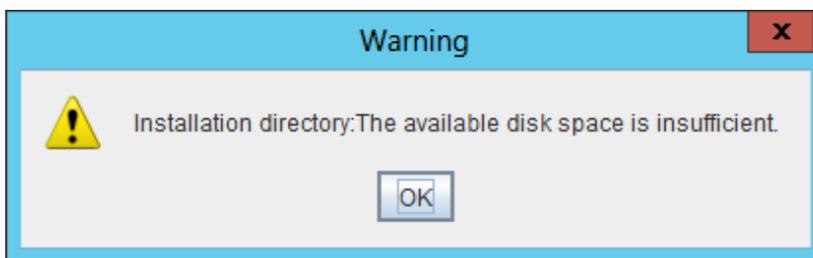
1.1.2.6.2 The installation was run on an unsupported operating system

The error below is displayed if the user clicks **Next** on the installation start window on an operating system not supported by Interstage AR Processing Server. Click **OK** to end the installation.



1.1.2.6.3 The installation was run but disk space was insufficient

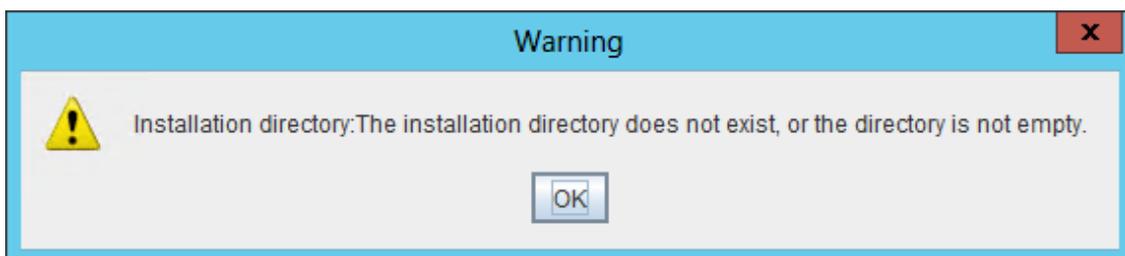
The error below is displayed if the user clicks **Next** on the installation start window but disk space is insufficient. Click **OK** to return to the installation directory configuration window..



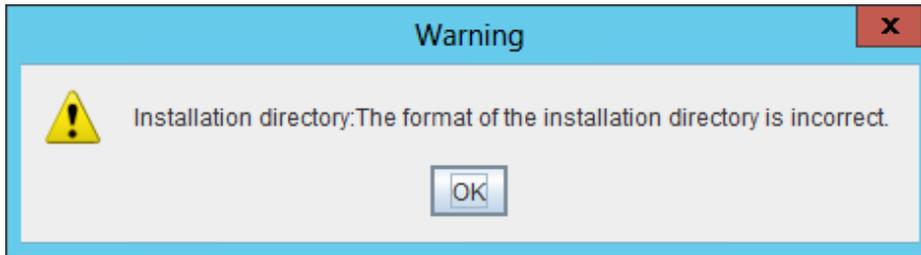
1.1.2.6.4 Installation directory check

The error below is displayed if the specified installation directory is in a non-existent drive, is a non-empty directory, or is an empty directory to which the administrator has not been assigned full control permissions. Click **OK** to return to the installation directory configuration window.

Either change the installation directory, or delete all directories and files contained in the specified installation directory. If required, back up resources before deleting.

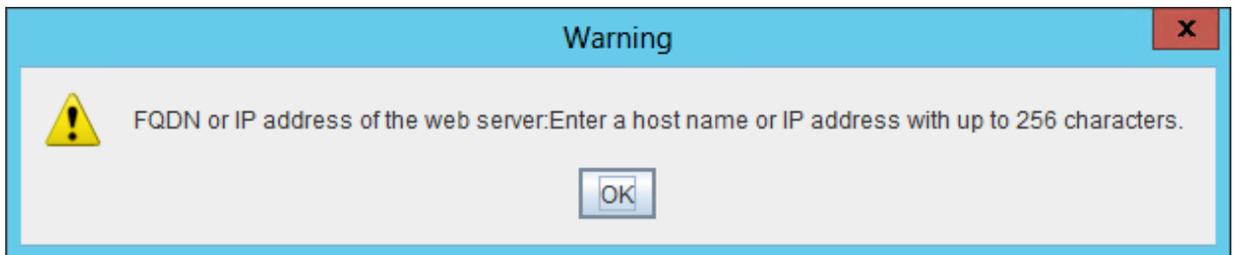


The error below is displayed if the specified installation directory contains invalid characters or is more than 45 characters long. Click **OK** to end the installation (note that no error will occur if Program Files/Program Files (x86) is selected).

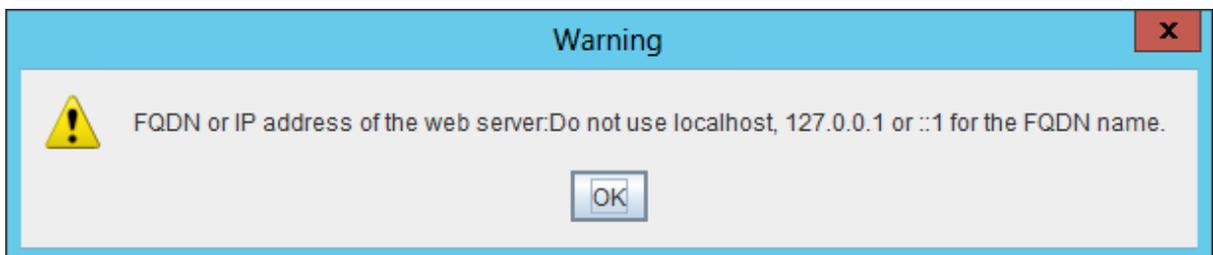


1.1.2.6.5 Invalid values in the FQDN or IP address of the web server

The error below is displayed if the specified FQDN or IP address of the web server is more than 256 characters long, or if an invalid value is specified as the host name or literal IP address. Click **OK** to return to the web server configuration window.

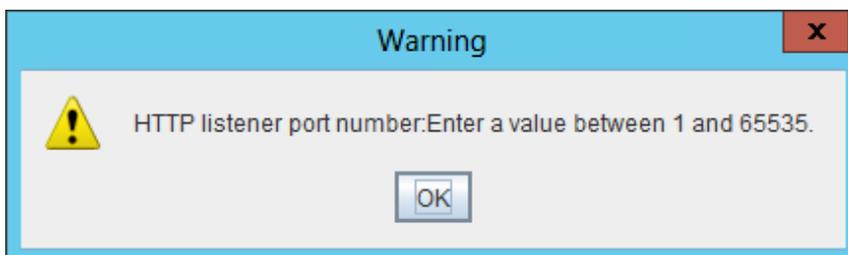


The error below is displayed if "localhost", "127.0.0.1", or ":::1" is specified. Click **OK** to return to the web server configuration window.



1.1.2.6.6 Invalid values in the port number of the web container

The error below is displayed if the specified HTTP listener port number is not between 1 and 65535. Click **OK** to return to the web container configuration window.

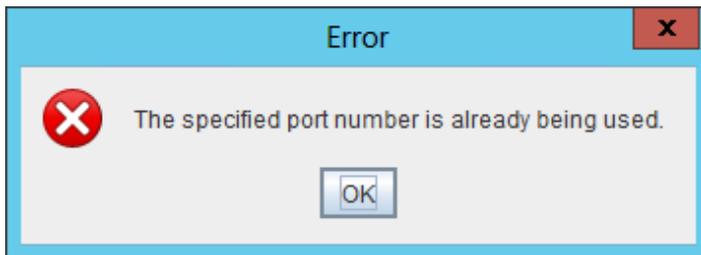


The error below is displayed if the specified HTTPS listener port number is not between 1 and 65535. Click **OK** to return to the web container configuration window.



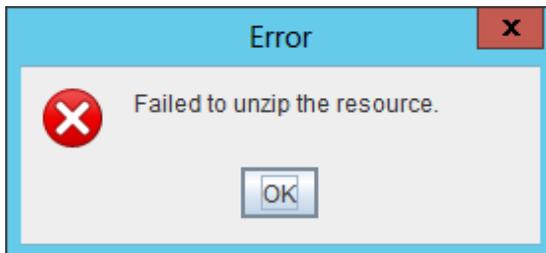
1.1.2.6.7 Port numbers already in use

The error below is displayed if the user clicks **Next** in the **Web Container Settings** window after specifying a port number that is already being used in Interstage AR Processing Server. Click **OK** to end the installation.



1.1.2.6.8 Failed to extract resources

The error below is displayed if the specified installation directory exists, but the administrator has not been assigned full control permissions to it. Click **OK** to end the installation.



1.1.3 Installation in Linux

1.1.3.1 Run the installation

1. Log in as a superuser (root) to the server on which Interstage AR Processing Server will be installed.
2. Insert the product DVD in the computer DVD drive, and mount it.

```
mount -t iso9660 -r /dev/deviceFileName dvdRomMountPoint
```

3. Execute the installation command.

```
# cd dvdRomMountPoint  
# ./setup.sh
```

4. In the installation start screen, enter "y" to start the installation, or "n" to end it.

```
Interstage AR Processing Server V1.0 Install Wizard  
Product Name : Interstage AR Processing Server Standard Edition  
Version : V1.0.0  
Manufacture : Fujitsu Limited.  
Do you want to start install?
```

```
[y,n]
=>
```

5. In the Server Configuration Settings screen, check the description, and then press Enter.

```
=== [ Server Configuration Settings ] ===
- Model A: Small-scale entry model used in an intranet environment (all-in-one minimum
configuration)
- Model B: Small-scale entry model used in an Internet environment (web servers
deployed in DMZ)
- Model C: Medium- to large-scale, high reliability, high availability model used in
an intranet environment (multiple-server configuration)
- Model D: Medium- to large-scale, high reliability, high availability model used in
an Internet environment (in addition to above, web servers are deployed in DMZ)
Refer to the Overview for information on models and system configurations.
[Press ENTER key]
=>
```

6. Enter the number of the server configuration to be installed.

```
=== [ Server Configuration Settings ] ===
Input Server configuration
[1:Model A,2:Model B,3:Model C,4:Model D][ENTER:1]
=>
```

7. Enter the FQDN or IP address of the web server (this is mandatory).

```
=== [ Web Server Settings ] ===
If Model A is selected, enter the FQDN or IP address for the host.
Input FQDN or IP address of the web server
=>
```

8. Select the operation mode.

```
=== [ SSL Encryption Settings ] ===
If Model A is selected, select the web container operation mode.
If Model B, C, or D is selected, select the web server operation mode.
Input Use SSL encryption for communications
[1:YES,2:NO][ENTER:1]
=>
```

9. Enter the port number for the web container. Specify a port number between 1 and 65535.

```
=== [ Web Container Settings ] ===
Enter the port number to be used by the web container feature (HTTP listener port).
Input HTTP listener port number
[ENTER:9102]
=>

=== [ Web Container Settings ] ===
Enter the port number to be used by the web container feature (HTTPS listener port).
Input HTTPS listener port number
[ENTER:9104]
=>
```

10. In the installation confirmation screen, enter "y" to start the installation using the displayed settings.

To reconfigure a setting, enter the item number of the relevant setting (for example, enter "1" to change the setting for the server configuration - this will cause the Server Configuration Settings screen to be displayed again).

```
=== [ Installation Directory Settings ] ===
Installation directory(Can't Change): /opt/FJSVar
=== [ Server Configuration Settings ] ===
1.Server configuration: Model A
```

```
=== [ Web Server Settings ] ===
2.FQDN or IP address of the web server: f
=== [ SSL Encryption Settings ] ===
3.Use SSL encryption for communications: YES
=== [ Web Container Settings ] ===
4.HTTP listener port number: 9102
5.HTTPS listener port number: 9104

Do you install it by this setting? Please input the item number when setting it again.
[y,q,number]
=>
```

11. Start the installation.

Do not forcibly quit installation, otherwise results cannot be guaranteed.

```
installing...

Interstage AR Processing Server Standard Edition is being installed now.
 100% #####

Interstage AR Processing Server Standard Edition install completed.
```

1.1.3.2 Troubleshooting

1.1.3.2.1 AR is already installed

The error below is displayed and installation ends if the user enters "y" in the installation start screen.

```
Interstage AR Processing Server is already installed.
```

1.1.3.2.2 The installation was run on an unsupported operating system

The error below is displayed and installation ends if the user enters "y" in the installation start screen on an operating system not supported by Interstage AR Processing Server.

```
The operating system is not supported.
```

1.1.3.2.3 The installation was run but disk space was insufficient

The error below is displayed and installation ends if the user enters "y" in the installation start screen.

```
The available disk space is insufficient.
```

1.1.3.2.4 Installation directory check

The error below is displayed if the installation directory is not empty. Delete the opt/FJSVar, /etc/opt/FJSVar, and /var/opt/FJSVar directories, or delete all the directories and files contained in these directories. If required, back up resources before deleting.

```
The installation directory does not exist, or the directory is not empty.
```

1.1.3.2.5 Server configuration selection

The error below is displayed and the user is prompted for a new value if the specified server configuration is not 1, 2, 3, or 4.

```
Specify 'Model A', 'Model B', 'Model C', or 'Model D'.

=== [ Server Configuration Settings ] ===
Input Server configuration
```

```
[1:Model A,2:Model B,3:Model C,4:Model D][ENTER:1]
=>
```

1.1.3.2.6 Operation mode selection

The error below is displayed and the user is prompted for a new value if the specified operation mode is not 1 or 2.

```
Specify 'YES' or 'NO'.

=== [SSL Encryption Settings] ===
If Model A is specified, select the web container operation mode.
If Model B, C, or D is specified, select the web server operation mode.
Specify whether to use SSL encryption for communications.
[1:YES,2:NO][ENTER:1]
=>
```

1.1.3.2.7 Invalid values in the FQDN or IP address of the web server

The error below is displayed and the user is prompted for a new value if the specified FQDN or IP address of the web server is more than 256 characters long, or if an invalid value is specified as the host name or literal IP address.

```
Enter a host name or IP address with up to 256 characters.
```

The error below is displayed and the user is prompted for a new value if "localhost", "127.0.0.1", or "::1" is specified.

```
Do not use localhost, 127.0.0.1 or ::1 for the FQDN name.
```

1.1.3.2.8 Web container port number

The error below is displayed and the user is prompted for a new value if the specified HTTP listener port number for operation management is not between 1 and 65535.

```
Enter a value between 1 and 65535.
```

The error below is displayed and the user is prompted for a new value if the specified HTTPS listener port number for operation management is not between 1 and 65535.

```
Enter a value between 1 and 65535.
```

1.1.3.2.9 Port numbers already in use

The error below is displayed and installation ends if the port number specified during installation is already being used in Interstage AR Processing Server.

```
The specified port number is already being used.
```

1.1.4 Silent installation

This section explains the silent installation of Interstage AR Processing Server.

Interstage AR Processing Server is usually installed by entering the required information in dialog format as the installation is run. However, silent installation allows the installation to be performed without entering any information in dialog format. Note that silent installation can be used for new installations of Interstage AR Processing Server. However, as with normal installations (using dialog format), an overwrite installation will still result in an error.

Silent installation is executed using the following procedure:

1. Create an installation parameter CSV file
2. Run the silent installation

1.1.4.1 Create an installation parameter CSV file

Consider the required information in accordance with "1.1.1 Tasks required before installation." and then create an installation parameter CSV file using the following format:

A sample of the installation parameter CSV file is stored in the directory shown below.



```
dvd\ISAR\Disk1\sample
```



```
# su -<RETURN>
# mount -t iso9660 -r /dev/mnt dvdRomMountPoint <RETURN>
# dvdRomMountPoint/installer/ConfigFiles/sample
```

1.1.4.1.1 Specification format

Enter data in the installation parameter CSV file using CSV format with three columns per line.

```
sectionName, parmName, value
sectionName, parmName, value
:
```

Configure the information below in each column.

Item	Description
<i>sectionName</i>	Section name. The following two types are available: "installInfo": Sets product information. "parameters": Sets parameter information for this product.
<i>parmName</i>	Parameter name. Each section has a valid parameter.
<i>value</i>	Setting value.



- Blank lines cannot be included.
- When performing tasks in Linux, use LF(\n) as the line feed for CSV files.
- The section name and parameter name cannot be omitted.
- Undefined parameters cannot be configured in lines with the section name "installInfo". Also, the same parameter cannot be specified more than once.
- Undefined parameters configured in lines with the section name "parameters" will be ignored when executed. Also, if the same parameter is defined more than once, then the one defined last will be used.

1.1.4.1.2 List of parameters

This section describes the parameters that can be configured in each section.

1. installInfo section

Parameter name	Description
Name	Configures the installer name. This parameter setting is mandatory. The fixed value below should be configured for this product:

Parameter name	Description
	isarinst

Point

The parameters "softwareName", "OS", "Version", and "Edition" can be used in the "installInfo" section. Values set in these parameters do not affect silent installation.

Valid values for the above parameters are strings comprising at least one alphanumeric character or symbol, excluding double quotation marks and commas.

2. parameters section

Parameter name	Description
InstallPath	Configures the installation directory.
InstallModel	Configures the server configuration to be installed.
WebServerHost	Configures the FQDN or IP address of the web server.
WebServerSSL	Configures whether to use SSL encryption for communications.
WebContainerHttpListenerPort	HTTP listener port number for the web container
WebContainerHttpsListenerPort	HTTPS listener port number for the web container

1.1.4.1.3 Parameter details

This section explains the configuration details for each parameter.



InstallPath

Description	Configures the installation directory for the product.
Valid values	Path string - Specify a path containing up to 45 characters (including the drive name). - It can contain the following characters: Alphanumeric characters Spaces Hyphens Underscores Parentheses Note: Colons can be used as the character that follows the drive name.
Default value	%ProgramFiles%\Interstage\ISAR
Remarks	Only valid in Windows. In Linux, the installation directory is fixed as /opt/FJSVar.

InstallModel

Description	Configures the server configuration to be installed.
Valid values	Model A Model B

	Model C Model D
Default value	Model A
Remarks	L Enclose the value in single quotation marks. For example, 'Model A'. If the value is not enclosed, an error will occur.

WebServerHost

Description	Configures the FQDN or IP address of the web server.
Valid values	Specify the FQDN or IP address in RFC 2396 format. Note, however, that "localhost", "127.0.0.1", and "::1" cannot be used.
Default value	myhost
Remarks	If "myhost" is specified, input will be required during setup.

WebServerSSL

Description	Configures whether to use SSL encryption for communications.
Valid values	YES NO
Default value	YES
Remarks	

WebContainerHttpListenerPort

Description	Configures the HTTP listener port number for the web container.
Valid values	Numbers between 1 and 65535
Default value	9102
Remarks	

WebContainerHttpsListenerPort

Description	Configures the HTTPS listener port number for the web container.
Valid values	Numbers between 1 and 65535
Default value	9104
Remarks	

1.1.4.1.4 Configuration notes

This section describes settings that require particular attention when creating an installation parameter CSV file.

Even if valid values have been specified for individual parameters in the installation parameter CSV file, a certain combination of features or the runtime environment itself can sometimes cause these set values to become invalid, or lead to failed silent installation, or failed construction or operation of the environment following silent installation. Exercise caution accordingly.

All parameters

If an unrelated parameter is configured in a feature that will be installed, appropriate values must still be set to ensure that basic checks can be performed, such as the range of strings or numeric values that can be input. Note, however, that this will not affect the installation.

"InstallPath"

W

For the installation directory, do not specify a path that ends in a space followed by a number, since this will result in an error.

Parameters in "XXXPath" or "XXXDirectory" format

W

If either of the following conditions is satisfied, silent installation will fail. Check the installation environment in advance.

- A directory that cannot be written to is specified
- The capacity of the specified directory or drive is insufficient

Parameters in "XXXPort" format

The specified port number will not be checked to detect if it is already being used. Confirm the installation environment in advance. If the installation parameter CSV file format is incorrect, the silent installation command will end in an error.

```
CSV file error:code = returnValue, detailedMessage
```

Check the return value and correct the CSV file.

Meaning of the return value

Return value	Meaning	Action
1	CSV format check error <ul style="list-style-type: none">- There are spaces before and after field(s) enclosed in double quotation marks.- The number of fields is different.- Some fields are enclosed in double quotation marks and others are not.- Only one of the double quotation mark is escaped.	<ul style="list-style-type: none">- Do not use double quotation marks.- Correct the number of fields so that all lines contain three fields.
2	No installInfo, Name error	<ul style="list-style-type: none">- Ensure that installInfo, Name is specified.
3	installInfo invalid value specification error	<ul style="list-style-type: none">- Only specify acceptable values in the section name and parameter name.
4	installInfo duplication error	<ul style="list-style-type: none">- Ensure that only one installInfo, Name is specified.
5	Value length error	<ul style="list-style-type: none">- Ensure that isarinst is specified.
8	No parameters error	<ul style="list-style-type: none">- At least one parameter must be specified.

"InstallModel"

L

Enclose the value in single quotation marks. For example, 'Model A'. If the value is not enclosed, an error will occur.

1.1.4.1.5 Run the silent installation

Refer to "Operating environment" in the *Overview* before running the silent installation.

Also check the file against the issues mentioned in "[1.1.4.1.4 Configuration notes](#)", and then store this file in any directory.

W

Log in as an administrator, insert the installation DVD-ROM in the computer DVD-ROM drive, and execute the following command from the command prompt (note that if the installer window is displayed by automatic startup, the installer must be ended before executing the command).

```
dvdRomDrive\ISAR\Disk1\isarsilentinstall.bat -s installParmCsvFile -l errLogFile [-c]
```

Note

- Specify the full name of the installation parameter CSV file and of the error log file. Enclose the value in double quotation marks if it contains spaces.
- Specify an existing directory with write permissions as the error log file directory. Note that if a file with the same name as the specified error log file already exists, it will be overwritten during execution.
- Note that a User Account Control (UAC) warning message may be displayed when silent installation is executed in Windows Server 2008 R2 - if this happens, allow installation to proceed. This warning message can be prevented by disabling User Account Control.
- If `-c` is specified, the batch file will only check the content of the installation parameter CSV file - it will not perform installation.
- The error log file will only contain entries if an error occurs.



Insert the installation DVD-ROM in the computer DVD-ROM drive, and execute the `isarsilentinstall.sh` shell script. This operation must be executed as a superuser.

```
# su -<RETURN>
# mount -t iso9660 -r /dev/mnt dvdRomMountPoint <RETURN.>
# dvdRomMountPoint installer/ConfigFiles/isarsilentinstall.sh -s installParmCsvFile -l
errLogFile [-c]
```

Note

- Specify the full name of the installation parameter CSV file and of the error log file.
- Specify an existing directory with write permissions as the error log file directory. Note that if a file with the same name as the specified error log file already exists, it will be overwritten during execution.

1.1.4.1.6 Check the installation results

Check the command return value and the message in the error log file. The command return values are explained below.

Meaning of the return value

Return value	Meaning	Action
0	Installation was successful	-
32	Ended in an error: Other	Collect the data listed below and contact Fujitsu technical support. <ul style="list-style-type: none"> - %TEMP% ISARinst.log - %ProgramData%\Fujitsu\FujitsuF4CR\cir\logs\cirlogX.log[.X] (where X is a number) - Error log file specified in <code>-l</code> option
33	Ended in an error: Parameter check error	Command line argument error.
34	Ended in an error: CIR-related error Duplicate startup or similar	Check "Uninstall (middleware)", or ensure that the installer of another product has not started. If a different product installer is running, end it and then reexecute the silent installation.

Return value	Meaning	Action
35	Ended in an error: Installation cannot be run due to conflicting installation	Check "Incomplete Install" in "Uninstall (middleware)" and remove the conflicting installation. Alternatively, remove according to " 4.2.3 Installation resources deletion (Windows) " and then reexecute the silent installation.
36	Error during silent installation: If the installation process cannot continue due to input value checks or if a prerequisite condition has not been satisfied.	Review the content of the installation parameter CSV file.
38	Error in the error log file path	Review the error log file path specified in -l option. - Is it in path format? - Does the error log file directory exist? - Have write permissions for the error log file been configured correctly?

If the return value is 36, open the error log file and check the detailed error information. Error information is explained below.

Error information	Remarks
ui.requirement.id=ISAR_exclusiveCheck ui.errorMessage=Interstage AR Processing Server is already installed.	
ui.requirement.id=ISAR_OSCheck ui.errorMessage=The operating system is not supported.	
ui.requirement.id=ISAR_reqEnoughDiskSpace ui.errorMessage=The available disk space is insufficient.	
ui.requirement.id=ISAR_reqValidPath ui.errorMessage=The installation directory does not exist, or the directory is not empty.	
ui.input.id=ISAR_PARAM_InstallPath ui.errorMessage=The format of the installation directory is incorrect.	Occurs in Windows only
ui.input.id=ISAR_PARAM_WebServerHost ui.errorMessage=Enter a host name or IP address with up to 256 characters.	
ui.artifact.id=checkHostNameCmd_ISAR_PARAM_WebServerHost ui.errorMessage=Do not use localhost, 127.0.0.1 or ::1 for the FQDN name..	
ui.input.id=ISAR_PARAM_WebContainerHttpListenerPort ui.errorMessage=Enter a value between 1 and 65535.	
ui.input.id=ISAR_PARAM_WebContainerHttpsListenerPort ui.errorMessage= Enter a value between 1 and 65535.	
ui.artifact.id=checkOverlappingPortCmd ui.errorMessage=The specified port number is already being used.	

If no error information was output to the error log file, check the points below:

- Has a non-numeric value been specified as the port number?
- Has an invalid configuration value been specified as the installation model?
- Has an invalid configuration value been specified for SSL encryption?
- Has a path name ending in a space followed by a number been specified for the installation directory?

1.1.5 If Model B, C, or D is selected

If Model B, C, or D is selected, install the products listed below. Refer to each product manual for information on how to install it.

For small-scale entry models used in an Internet environment:

- Interstage Web Server Express V11 or later
- Load balancer

For medium- to large-scale, high reliability, high availability models used in an intranet environment:

- Interstage Application Server V11 or later
- Symfoware Server Standard Edition V12 or later
- Load balancer

For medium- to large-scale, high reliability, high availability models used in an Internet environment:

- Interstage Web Server Express V11 or later
- Interstage Application Server V11 or later
- Symfoware Server Standard Edition V12 or later
- Load balancer

1.2 Smart devices

An application must be installed to use the client authoring tool provided by Interstage AR Processing Server on a smart device.

1.2.1 Installing the Android version

An application to execute client authoring is provided with Interstage AR Processing Server.

W

```
%installDir%\mobileclient/android/ARClientAuthoring.apk
```

L

```
/opt/FJSVar/mobileclient/android/ARClientAuthoring.apk
```

When installing on a smart device, select an installation method that is suited to the style of business and user.



Example

The example below installs the application on the smart device by connecting to a PC via USB (the USB connection method varies between smart devices - refer to the smart device manual for details).

1. Copy the native application to the PC.
2. Select **Unknown sources** on the smart device, to allow installation of the application obtained via USB.
 - Android 3.2
On the **Settings** screen, tap **Applications**, and then select **Unknown sources**.

- Android 4.x (4.0/4.1)

On the **Settings** screen, tap **Security**, and then select **Unknown sources**.

3. Connect the smart device to the PC using a USB cable.
If the PC does not recognize the driver, then install it.
 4. On the PC, select the smart device using Windows Explorer - if the PC does not recognize the smart device, refer to the smart device manual.
 5. Copy the native application from the PC to the mounted smart device.
 6. On the PC taskbar, select **Safely remove hardware and eject media** and release the mounted device.
 7. On the smart device:
 1. Start the application with the file management feature and select the native application. If there is no application with a file management feature, then install one.
 2. In the installation screen, start the installation.
 3. Upon completion, on the **Settings** screen, **Security** menu, clear **Unknown sources**.
-

1.2.2 Installing the iOS version

The executable file for the client authoring tool (iOS) is not offered as a product, because Apple Inc. does not permit distribution of executable files. To execute the client authoring tool on iOS, the client company must enter into a contract with Apple Inc. and build the client authoring tool before it can be used.

Refer to the *Developer's Guide* for details on how to build the client authoring tool.

Chapter 2 Setup

This chapter explains how to setup Interstage AR Processing Server on servers and smart devices.

2.1 Server

2.1.1 Tasks required before setup

Ensure that the following tasks are performed before setup.

2.1.1.1 Check the port number

Interstage AR Processing Server uses port numbers for its database and web container features.

Before installing, ensure that none of the ports is already in use by another program (refer to "[1.1.1.1 Check the port numbers](#)" for details on the port numbers used by this product) - if this happens, then revise the parameter file before setup (the file is referenced during setup).

2.1.1.2 Check the setup parameters

This section describes the content of the parameter file referenced during setup, as well as details of input checks. The parameter file stores parameters input from the window during installation, as well as parameters that can be changed by the user during setup.

The directory is shown below:



`installDir\setup_parameter\arsv_setup_parameters.txt`



`/etc/opt/FJSVar/setup_parameter/arsv_setup_parameters.txt`

Item No.	Description	Parameter file		Window input	Input check		
		Key	Default value		Possible characters	Lower limit	Upper limit
1	Installation directory	ISAR_HOME	%ProgramFiles %Interstage\ISAR /opt/FJSVar	Y (*1)	Alphanumeric characters, commas, underscores, hyphens, spaces	-	-
2	Installation model	INSTALL_MODEL	Model A	Y	Model A, Model B, Model C, Model D	-	-
3	Database port number	PGPORT	9201	N	Numbers	1	65535
4	Web server FQDN/IP	WEBSERVER_HOST	None	Y	Characters that can be used in the host name or IP address. Note that "localhost", "127.0.0.1", and "::1" cannot be used.	-	-
5	Operation mode	WEBSERVER_SSL	YES	Y	YES, NO	-	-
6	HTTP listener port for	DOMAIN_AD_MINPORT	9101	N	Numbers	1	65535

Item No.	Description	Parameter file		Window input	Input check		
		Key	Default value		Possible characters	Lower limit	Upper limit
	operation management						
7	HTTP listener port	DOMAIN_INSTANCEPORT	9102	Y	Numbers	1	65535
8	JMX connector listener port for operation management	DOMAIN_JMXPORT	9103	N	Numbers	1	65535
9	HTTPS listener port	HTTP_SSL_PORT	9104	Y	Numbers	1	65535
10	Connection port for the message broker	JMS_PORT	9105	N	Numbers	1	65535
11	IOP (ORB) listener port	ORB_LISTENER_PORT	9106	N	Numbers	1	65535
12	IOP/SSL listener port for mutual authentication	ORB_MUTUALAUTH_PORT	9107	N	Numbers	1	65535
13	IOP/SSL listener port	ORB_SSL_PORT	9108	N	Numbers	1	65535
14	Web server HTTPS port	WEB_SSL_PORT	443	N	Numbers	1	65535
15	Web server HTTP port	WEB_PORT	80	N	Numbers	1	65535
16	Backup directory	BACKUP_DIR	 <i>installDirbackup</i>  /var/opt/FJSVarbackup	N	-	-	-



*1: Parameters cannot be input from the window in Linux.

Note

- During setup, no error is generated, even if an incorrect path is specified for the backup directory.
- If the backup directory was not created during setup, then you must remove the setup, specify the correct path in the parameter file, and perform the setup again.

2.1.2 Setup required for each model

The setup command can be used to set up Interstage AR Processing Server according to the selected model.

If Model A or B is selected

If Model A or B is selected, the setup for the database and web container required to use the AR server will be executed automatically and at the same time.

- Database setup
 - Creates the AR database
 - Registers and starts the AR services
- Web container setup
 - Integrated settings for the web container and AR database
 - Deploys the AR server feature module to the web container, creates tasks, and starts

Obtain a backup of the module that will be used by the product. The module directories are shown below:

W

```
%ProgramFiles(x86)%\Fujitsu\common\fjje6_32\glassfish\modules
```

L

```
/opt/fjje6_32/glassfish/modules
```

Modules that require backup are listed below:

```
org.eclipse.persistence.antlr.jar
org.eclipse.persistence.asm.jar
org.eclipse.persistence.core.jar
org.eclipse.persistence.jpa.jar
org.eclipse.persistence.jpa.modelgen.jar
org.eclipse.persistence.moxy.jar
org.eclipse.persistence.oracle.jar
```

If Model C or D is selected

If Model C or D is selected, information for the web server and web container of the parameter file will be specified in the configuration file.



The AR server environment will be initialized when setup is executed. If required, backup resources before reexecuting the setup.

2.1.3 Setup (Windows)

2.1.3.1 Executing the setup

1. Log in as administrator to the server on which Interstage AR Processing Server will be set up.
2. Execute the setup batch script.

```
"installDir\bin\setup\arsv_setup.bat"
```

3. Setup will start.

```
Interstage AR Processing Server SETUP START.
```

4. Ensure that the setup is complete.

```
Interstage AR Processing Server SETUP END.
```



- Ensure that the installation process is complete before starting the command prompt window to execute the setup command. The command prompt must be started by a user with administrator privileges. To do that, from the context menu, select **Run as administrator**.

- Creating operating system users

If Model A or B is selected, two users will be automatically added: arsvdmpg (to access the database features), and arsvgfad (to access the web container features). Do not change or delete any settings such as the password. If settings are changed or deleted, the product may not operate correctly.

- Completing the setup

It may take some time to setup the web container features. If an error occurs during access immediately following setup, wait for a few moments before reconnecting.

2.1.3.2 Troubleshooting measures during setup

If an error occurs during setup, return to the pre-setup state, and check if there are any issues with the parameter file referenced during setup.

A log file is output with the execution progress of the setup. If setup fails, check the log file below:

```
"installDir\logs\ISARinst.setup.log"
```

Incorrect specification of the parameter file

A continuously output message such as the one below indicates that the parameter file may have been specified incorrectly:

```
** cmd execute failure number  
*** FAILURE featureName setup **
```

Check the content of the parameter file.

- Are any keys missing or incorrect?
- Do the values contain invalid characters?
- Is the specified port number already being used?

The automatically generated user (arsvdmpg) already exists

An output message such as the one below indicates that the automatically generated user (arsvdmpg) already exists:

```
net user arsvdmpg ***** /add The account already exists
```

Ensure that the automatically generated user does not exist, and then execute the setup again.

2.1.4 Setup (Linux)

2.1.4.1 Executing the setup

1. Log in as a superuser (root) to the server on which Interstage AR Processing Server will be set up.
2. If Model A or B is selected, configure /etc/hosts as shown below:

```
arServerIpAddress hostName
```

Example

Example /etc/hosts:

```
192.0.2.0 hostname
```

3. Execute the setup script.

```
/opt/FJSVar/bin/setup/arsv_setup.sh
```

4. Setup will start.

```
Interstage AR Processing Server SETUP START.
```

5. Ensure that the setup is complete.

```
Interstage AR Processing Server SETUP END.
```

2.1.4.2 Troubleshooting measures during setup

If an error occurs during setup, return to the pre-setup state, and check if there are any issues with the parameter file referenced during setup.

A log file is output with the execution progress of the setup. If setup fails, check the log file below:

```
/var/opt/FJSVar/logs/ISARinst.setup.log
```

Required packages are not installed

An output message such as the one below indicates that packages required for setup have not been installed - if this occurs, install the required packages (refer to "Operating environment" in the *Overview* for details).

```
error while loading shared libraries: libreadline.so.5: cannot open shared object file:
No such file or directory
```

Failed web container startup

An output message such as the one below indicates that web container startup has failed - if this occurs, add *webContainerIpAddress* and *hostName* to */etc/hosts*:

```
There is a process already using the admin port 9101 -- it probably is another instance
of a GlassFish server.
```

Example

Example */etc/hosts*:

```
192.0.2.0 hostname
```

Incorrect specification of the parameter file

A continuously output message such as the one below indicates that the parameter file may have been specified incorrectly:

```
** cmd execute failure number
*** FAILURE featureName setup **
```

Check the content of the parameter file.

- Are any keys missing or incorrect?
- Do the values contain invalid characters?
- Is the specified port number already being used?

The automatically generated user (arsvdmpg) already exists

An output message such as the one below indicates that the automatically generated user (arsvdmpg) already exists.

```
groupadd: group 'arsvdmpg' already exists
```

Ensure that the automatically generated user does not exist, and then execute the setup again.

2.1.5 If Model A is selected (for small-scale entry models used in an intranet environment)

Install and build the following product to configure basic authentication and to issue SSL server certificates using Model A:

- Interstage Web Server Express V11.1

Refer to "2.1.6.1 Interstage Web Server Express V11.1 (web server layer)" for details on how to configure an environment for integrating the web server (Interstage Web Server Express) with an AR processing server (such as the data management console).



Under **Select operation mode**, set **Use SSL encryption?** to **YES** if you want to use SSL encryption for communications between the web server and the AR processing server, or **NO** otherwise.

2.1.6 If Model B is selected (for small-scale entry models used in an Internet environment)

Install and build the following product to build Model B:

- Interstage Web Server Express V11.1 (web server layer)



Note that communications will not use SSL encryption between the web server and web container if Model B is used, even if under **Select operation mode**, **Use SSL encryption?** is set to **YES**.

2.1.6.1 Interstage Web Server Express V11.1 (web server layer)

In addition to the AP server and DB server layers built as a result of the AR server setup process, a web server layer must be built for Model B. Refer to the product manual for details on how to install and set up the web server.

Use Web Server Express to configure the connection to the AR processing server. Configure the AR processing server access directories as shown below when configuring the web server:

```
http://arServerFqdnOrIpAddress:httpListenerPortNumber/arsvdmc/  
http://arServerFqdnOrIpAddress:httpListenerPortNumber/arsvdm/  
http://arServerFqdnOrIpAddress:httpListenerPortNumber/arsvfdm/
```

Also configure settings in the web server for integration with web applications created by the user.



The data management console (arsvdmc) provided by the AR server has built-in operating system authentication. Configure the settings to suit your environment if authenticating users on the web server.

Refer to the product manual for details on the configuration procedure.

2.1.7 If Model C is selected (for medium- to large-scale, high reliability, high availability models used in an intranet environment)

Install and build the following products to build Model C:

- Symfoware Server Standard Edition V12 (DB server layer)

- Interstage Application Server V11 (AP server layer)
- Load balancer

Note

- Interstage AR Processing Server supports open source interfaces such as the Symfoware Server SQL interface. Support for native interfaces is not offered.

The load balancer enables access to AR processing servers deployed to multiple AP servers. Build the DB server for shared use by the AP servers. The settings for each product are described below. Refer to the relevant product manual for details on the configuration procedure. Note that environment settings must be configured for each AP server.

The AR server settings for products to be built are described below.

2.1.7.1 Symfoware Server Standard Edition V12 (DB server layer)

Configure the DB server. The user information for the databases created here will be used in AP server settings described later in the document. Refer to the product manual for details on how to install and set up the DB server. When setup is complete, configure settings using the procedure below.

1. Create the following databases, which will be used by the AR processing server:
 - Database name: arsvdm
Used by data management features.
 - Database name: arsvfdm
Used by file data management features.
2. Create the tables for each of the databases. Execute the SQL statements stored in the directory shown below:

W

`installDir\bin\setup\data`

L

`/var/opt/FJSVar/bin/setup/data`

- Database name: arsvdm
Execute createDataManagerTable.sql to create the tables (lock, qtype, qattribute, qentity, qvalue).
 - Database name: arsvfdm
Execute createFileDataManagerTable.sql to create the tables (filelock, fileproperties).
3. For tables that require the arsvdm database default values, import the data. Use the data stored in the directory below to import:

W

`installDir\bin\setup\data`

L

`/var/opt/FJSVar/bin/setup/data`

- Table name: qtype
Imports defaultQTypeStructure.txt.
 - Table name: qattribute
Imports defaultQAttributeStructure.txt.
 - Table name: qentity
Imports defaultQEntityData.txt.
 - Table name: qvalue
Imports defaultQValueData.txt.
4. Configure the client authentication settings to allow connection from the client (AP server) to the database. If multiple AP servers are used, configure the settings for each of them.

2.1.7.2 Interstage Application Server V11 (AP server layer)

Refer to the product manual for details on how to install and set up the AP server. When setup is complete, configure settings using the procedure below.

1. Deploy the following war files, which are provided by Interstage AR Processing Server, to the AP server(s):

W

```
installDir\webapps\arsvdm.war
installDir\webapps\arsvdm.war
installDir\webapps\arsvfdm.war
```

L

```
/var/opt/FJSVar/webapps/arsvdm.war
/var/opt/FJSVar/webapps/arsvdm.war
/var/opt/FJSVar/webapps/arsvfdm.war
```

2. Web applications created by the user should also be deployed to the AP server(s).
3. Create a script based on the one below to configure a connection to the database - the example below shows a batch file in Windows:

```
set DOMAIN_ADMINPORT=httpListenerPortForOperationManagementOfTheApServer
set ARSVDMDB=arsvdm
set ARSVFDMDB=arsvfdm
set PGPORT=dbServerPortNumber
set PGUSER=usernameOfDatabaseBuiltUsingDbServer
set PGPASSWORD=passwordForUserOfDatabaseBuiltUsingDbServer
set ARDB=bbServerIpAddress
set APSDIR=interstageApplicationServerInstallDir

call %APSDIR%\F3FMisje6\glassfish\bin\asadmin.bat --port %DOMAIN_ADMINPORT% create-
jdbc-connection-pool --datasourceclassname org.postgresql.ds.PGSimpleDataSource --
restype javax.sql.DataSource --property portNumber=%PGPORT%:password=%PGPASSWORD
%:user=%PGUSER%:databaseName=%ARSVDMDB%:SocketTimeout=60:ServerName=%ARDB% %ARSVDMDB%

call %APSDIR%\F3FMisje6\glassfish\bin\asadmin.bat --port %DOMAIN_ADMINPORT% create-
jdbc-connection-pool --datasourceclassname org.postgresql.ds.PGSimpleDataSource --
restype javax.sql.DataSource --property portNumber=%PGPORT%:password=%PGPASSWORD
%:user=%PGUSER%:databaseName=%ARSVFDMDB%:SocketTimeout=60:ServerName=%ARDB%
%ARSVFDMDB%

call %APSDIR%\F3FMisje6\glassfish\bin\asadmin.bat --port %DOMAIN_ADMINPORT% set
resources.jdbc-connection-pool.%ARSVDMDB%.max-pool-size=16

call %APSDIR%\F3FMisje6\glassfish\bin\asadmin.bat --port %DOMAIN_ADMINPORT% set
resources.jdbc-connection-pool.%ARSVFDMDB%.max-pool-size=16

call %APSDIR%\F3FMisje6\glassfish\bin\asadmin.bat --port %DOMAIN_ADMINPORT%
"%FJGFSERVPASSFILE%" create-jdbc-resource --connectionpoolid %ARSVDMDB% jdbc/
ARDataManager

call %APSDIR%\F3FMisje6\glassfish\bin\asadmin.bat --port %DOMAIN_ADMINPORT% create-
jdbc-resource --connectionpoolid %ARSVFDMDB% jdbc/ARFileDataManager
```

4. Modify the settings of the configuration file used by Interstage AR Processing Server (arsvdmwebapi.properties) to suit the environment - the configuration file directory is shown below:

W

```
installDir\conf
```

L

```
installDir/conf
```

The directory contains the configuration files below:

```
arsvadmui.properties
arsvdm.properties
arsvdm_mimetype.properties
arsvdmwebapi.properties
arsvlogging.properties
```

To manage shared files on each AP server, the FILE_STORE_BASEDIR descriptor in arsvdmwebapi.properties and all AP servers must reference the same directory. Create a shared directory and configure permissions settings to allow full control access from the AP server(s) being used.

Example

Modification example (Windows)

```
- arsvdmwebapi.properties
  "FILE_STORE_BASEDIR = sharedDir\arsvdm_data"
```

Refer to "2.1.1.2 Check the setup parameters" for details on other configuration information.

5. Copy all configuration files to the web container library directory below:

W

```
webContainerDir\lib\classes
```

L

```
webContainerDir/lib/classes
```

6. Copy the JDBC data source library published by the DB server to the library used by the web server - the target directory is listed below:

W

```
webContainerDir\lib
```

L

```
webContainerDir/lib
```

The directory of the Symfoware client JDBC data source module to be added to the library is listed below:

W

```
symfowareClientInstallDir\JDBC\lib\postgresql-jdbc4.jar
```

L

```
/opt/symfoclient64/jdbc/lib/postgresql-jdbc4.jar
```

7. Copy the library below, which is used by Interstage AR Processing Server, to the web container library directory (the directory to which the JDBC data source has been deployed). The library provided by Interstage AR Processing Server is installed in the directory below:

W

```
installDir\lib
```

L

```
/opt/FJSVar/lib
```

The modules to be added are listed below:

```
arsvadmui.jar
arsvcmn.jar
arsvdm.jar
arsvdm.jar
arsvdm.jar
arsvnativelibloader.jar
```

8. If the web container has already been started, it will need to be restarted. Restarting it enables the modules that were added to the web container library to be loaded, and enables the deployed web applications to operate.



- When the web container is restarted, the libraries and configuration files added to the web container may be deleted. Add the libraries and configuration files once more, and then check operations.

2.1.7.3 Load balancer

To distribute the load across the AP servers, configure settings according to the manual.

2.1.8 If Model D is selected (for medium- to large-scale, high reliability, high availability models used in an Internet environment)

Install and build the following products to build Model D:

- Symfoware Server Standard Edition V12 (DB server layer)
- Interstage Application Server V11 (AP server layer)
- Interstage Web Server Express V11.1 (web server layer)
- Load balancer

Model D comprises the Model C configuration with an added web server layer construction. This section describes only the web server layer construction. Refer to "2.1.7 If Model C is selected (for medium- to large-scale, high reliability, high availability models used in an intranet environment)" for details on other configurations. The AR server settings for products to be built are described below. If multiple web servers are used, configure the environment settings for each of them.

2.1.8.1 Interstage Web Server Express V11.1 (web server layer)

Refer to the product manual for details on how to install and set up the web server.

Configure the environment for integrating the web server and AR processing server. The AR processing server can be accessed as described below:

```
http://apServerFqdnOrIpAddress:portNumberConfiguredInApServer/arsvdmc/  
http://apServerFqdnOrIpAddress:portNumberConfiguredInApServer/arsvdm/  
http://apServerFqdnOrIpAddress:portNumberConfiguredInApServer/arsvfdm/
```

Also configure settings in the web server for connecting to web applications created by the user.

2.1.9 Tasks required after setup

To check if Interstage AR Processing Server has been set up correctly, access the data management console from the AR data management client and ensure that login is possible.

1. Access the data management console from the browser -the URL varies depending on the configuration:



- Model A with SSL encryption

```
https://arServerName:httpsListenerPortNumber/arsvdmc/
```

- Model A without SSL encryption

```
http://arServerName:httpListenerPortNumber/arsvdmc/
```

- Model B, C, or D with SSL encryption

```
https://webServerName:webServerHttpsPort/arsvdmc/
```

- Model B, C, or D without SSL encryption

`http://webServerName:webServerHttpPort/arsvdmc/`

2. Ensure that the login window is displayed, and log in using an account that can be authenticated by the operating system.



3. Ensure that the scenario management window is displayed.

Note

- If logging in to the data management console, do not use an account that contains spaces in the ID or password.
- If accessing from the server, the data management console can be called from the **Start** menu.
- When confirming access, adequately configure firewalls to suit the environment used.
- If accessing from the data management console, register the site as a trusted website using your browser security settings.
- If the login window is not displayed, check if the AR processing server can be accessed from the AR data management client.

2.2 Smart devices

Information for connecting to the servers below may need to be configured in order to use the overlay application:

- AR server account
Configure information to connect to a server running Interstage AR Processing Server.
- Other accounts
Configure information to connect to external file management servers.

2.2.1 Account settings for AR servers

Configure an account for a server running Interstage AR Processing Server.

Note

- An account must be created for the AR server if performing client authoring or similar tasks.
- Multiple accounts cannot be configured for a single AR server.

Follow the procedure below to configure an account:

1. Start the relevant tool to display the **Settings** window (for overlay applications developed by a system developer, check with the developer directly).

- Android version

In the list of smart device applications, tap the **InterstageAR Authoring** or **InterstageAR Dev** icon to start the native tool.

In the status bar, tap the menu icon, and then select **Settings** - the appearance of the menu icon differs between smart devices.

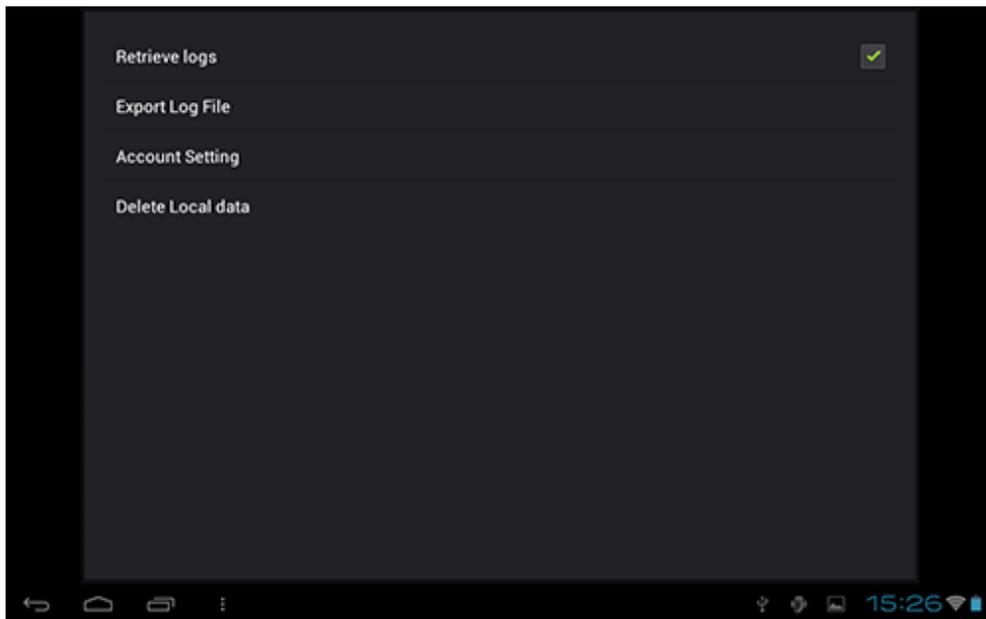


- iOS version

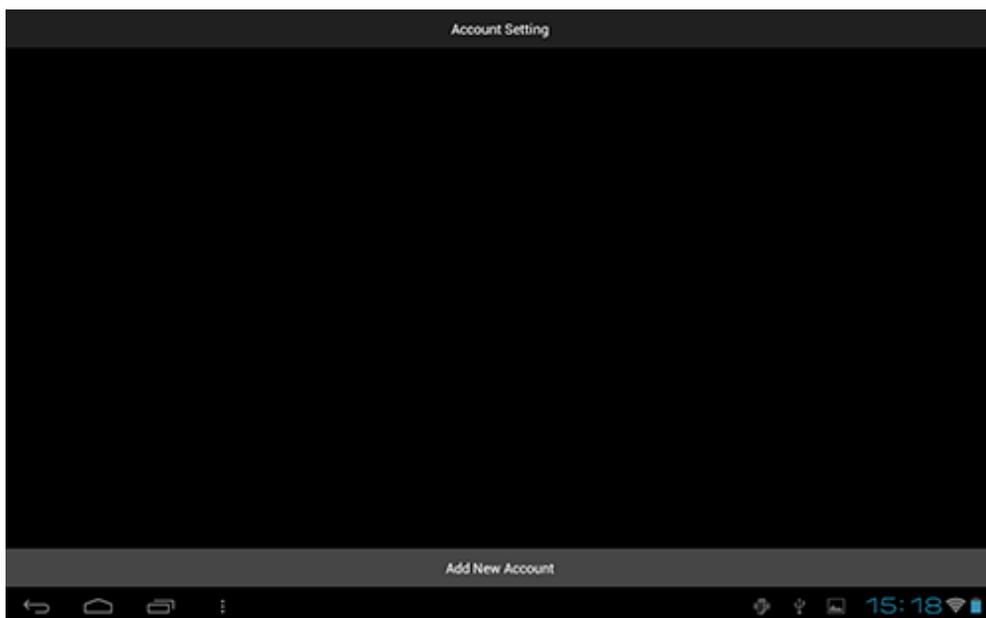
In the list of smart device applications, tap the **InterstageAR Authoring** or **InterstageAR Dev** icon to start the application.

From the displayed menu, select **Settings**.

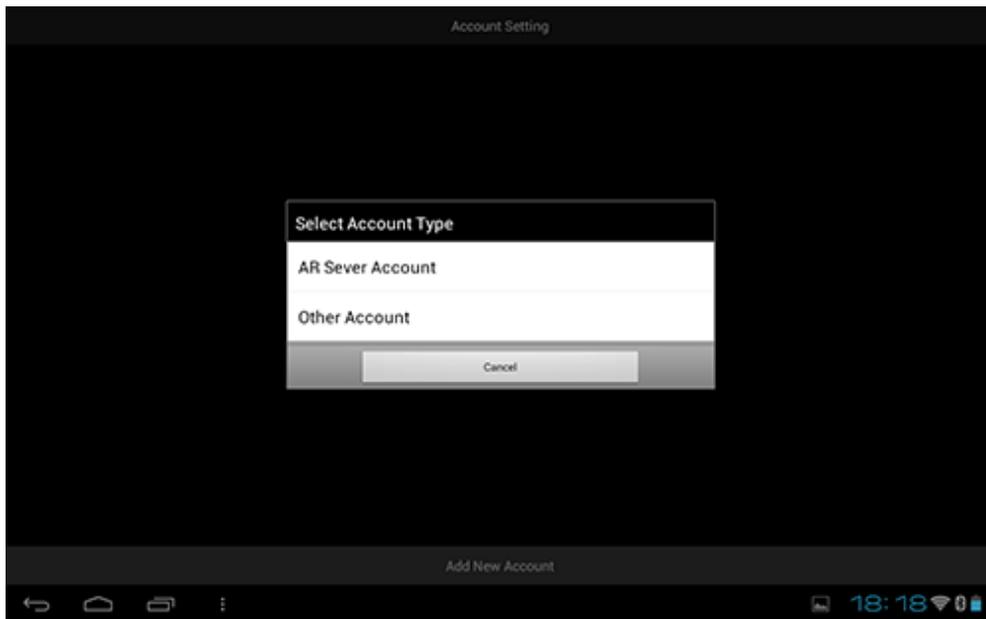
2. From the menu list, tap **Account Setting**.



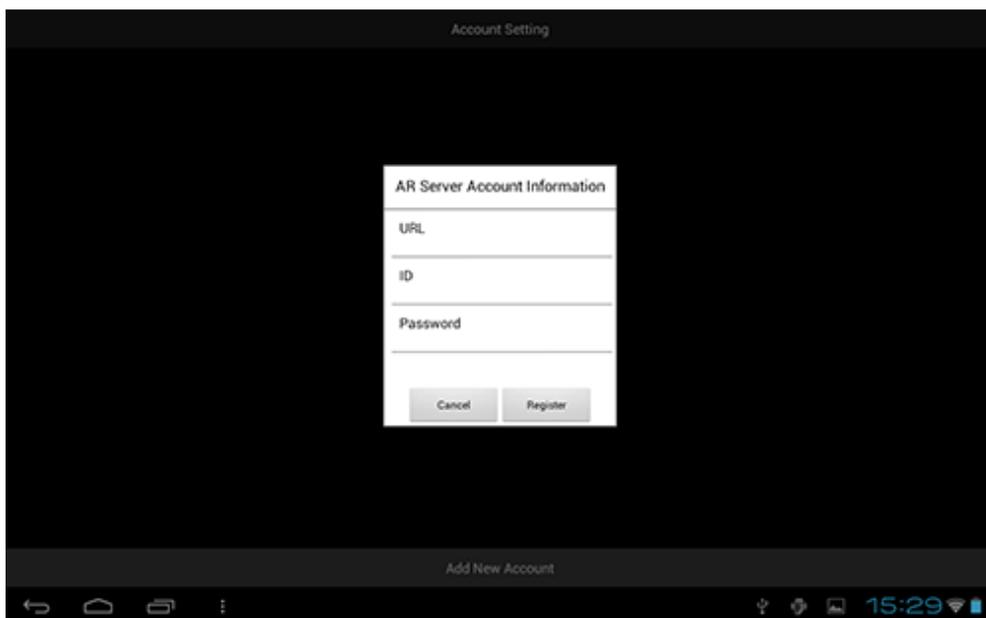
3. In the **Account List** window, select **Add New Account**.



4. In the **Account Type Selection** window, select **AR Server Account**.



5. Input the account information to the AR server, and then select **Register**.



- URL
Enter the server URL, according to the server configuration.

Example

- Model A with SSL encryption - `https://arServerName:httpsListenerPort`
- Model A without SSL encryption - `http://arServerName:httpListenerPortNumber`
- Model B, C, or D with SSL encryption - `https://webServerName:webServerHttpsPort`
- Model B, C, or D without SSL encryption - `http://webServerName:webServerHttpPort`

- ID and password
If the server uses basic authentication, then enter the account information (no input is required if basic authentication is not used).

Point

AR processing server account names are prefixed with an asterisk (*) in the **Account List** window.

2.2.2 Other accounts

If obtaining resources from a file management server other than Interstage AR Processing Server, configure the connection information required for basic authentication, in accordance with the system configuration.

Point

For servers with no basic authentication, this is not necessary, since there is no need to store the individual account settings.

Follow the procedure below to configure an account:

1. Start the relevant tool to display the **Settings** window.
 - In Android, tap the **InterstageAR Authoring** or **InterstageAR Dev** icon in the list of smart device applications and start the client authoring tool. In the status bar, tap the menu icon, and then select **Settings**.
 - In iOS, tap the **InterstageAR Authoring** or **InterstageAR Dev** icon in the list of smart device applications and start the application. From the displayed menu, select **Settings**.
 - For overlay applications developed by a system developer, check with the developer directly.
2. From the menu list, tap **Account Setting**.
3. In the **Account List** window, select **Add New Account**.
4. From the **Account Type Selection** window, select **Other Account**.
If an AR server account has already been created, there is no need to select the account type.
5. Enter the account information to a file management server other than an Interstage AR Processing Server and select **Register**.
 - URL:
Enter the URL of a file management server other than an Interstage AR Processing Server.
 - ID and password:
Enter the account information of a file management server other than an Interstage AR Processing Server.

Note

Up to ten accounts can be configured as "other accounts".

2.2.3 Account information modification and deletion

Follow the procedure below to edit or delete information for registered AR server accounts of for other accounts.

Editing account information

1. Start the relevant tool to display the **Settings** window.
 - In Android, in the list of smart device applications, tap the **InterstageAR Authoring** or **InterstageAR Dev** icon to start the client authoring tool, then in the status bar, tap the menu icon and select **Settings**.

- In iOS, in the list of smart device applications, tap the **InterstageAR Authoring** or **InterstageAR Dev** icon to start the application, and from the displayed menu, select **Settings**.
 - For overlay applications developed by a system developer, check with the developer directly.
2. From the menu list, tap **Account Setting**.
 3. Information for registered accounts will be displayed - tap the account to be edited.
 4. In the **Account Information Input** window, edit the account, and then click **Register**.

Deleting account information

1. Start the relevant tool to display the **Settings** window.
 - In Android, in the list of smart device applications, tap the **InterstageAR Authoring** or **InterstageAR Dev** icon to start the client authoring tool, then in the status bar, tap the menu icon and select **Settings**.
 - In iOS, in the list of smart device applications, tap the **InterstageAR Authoring** or **InterstageAR Dev** icon to start the application, and from the displayed menu, select **Settings**.
 - For overlay applications developed by a system developer, check with the developer directly.
2. From the menu list, tap **Account Setting**.
3. Tap and hold the account to be deleted from the registered account information.
4. In the confirmation dialog box, click **Yes**.

2.2.4 Log retrieval

Configure the settings below to retrieve the maintenance logs for a smart device.

1. Start the relevant tool to display the **Settings** window.
 - In Android, in the list of smart device applications, tap the **InterstageAR Authoring** or **InterstageAR Dev** icon to start the client authoring tool, then in the status bar, tap the menu icon and select **Settings**.
 - In iOS, in the list of smart device applications, tap the **InterstageAR Authoring** or **InterstageAR Dev** icon to start the application, and from the displayed menu, select **Settings**.
 - For overlay applications developed by a system developer, check with the developer directly.
2. In the status bar, tap the menu icon, and then select **Settings**.
3. Select the **Retrieve logs** check box.

Chapter 3 Setup removal

This chapter explains how to remove the setup of Interstage AR Processing Server from a server.

3.1 Tasks required before setup removal

There are no tasks required before removing the setup.

3.2 Setup removal (Windows)

1. Log in as administrator to the server you want to remove Interstage AR Processing Server setup from.
2. Remove the setup.

```
"%installDir%\bin\setup\arsv_unsetup.bat"
```

3. Setup removal will begin.

```
Interstage AR Processing Server UNSETUP START.
```

4. Ensure that setup removal is complete.

```
Interstage AR Processing Server UNSETUP END.
```



- Starting the command prompt
The command prompt must be started by a user with administrator privileges. To do that, from the context menu, select **Run as administrator**.

3.3 Setup removal (Linux)

1. Log in as a superuser (root) to the server you want to remove Interstage AR Processing Server setup from.
2. Remove the setup.

```
/opt/FJSVar/bin/setup/arsv_unsetup.sh
```

3. Setup removal will begin.

```
Interstage AR Processing Server UNSETUP START.
```

4. Ensure that setup removal is complete.

```
Interstage AR Processing Server UNSETUP END.
```

3.4 Tasks required after setup removal

Confirm the directories below have been deleted:

W

- %installDir%\fjsvpgs_data

- %installDir%\fjje6_domainsroot

L

- /var/opt/FJSVar/fjsvpgs_data

- /var/opt/FJSVar/fjje6_domainsroot

If the above directories still exist when reexecuting setup, delete them before performing setup operations.

Chapter 4 Uninstallation

This chapter explains how to uninstall Interstage AR Processing Server from a server.

4.1 Tasks required before uninstallation

Ensure that the setup is removed before uninstallation, otherwise uninstallation may fail, or unnecessary resources may remain.



Refer to "[4.2.3 Installation resources deletion \(Windows\)](#)" and "[4.2.4 Installation resources deletion \(Linux\)](#)" if uninstallation is accidentally performed before removing the setup.

4.2 Server

Uninstalling Interstage AR Processing Server also uninstalls other packages installed with it.



Packages installed with this product are not uninstalled if they are used by other products.

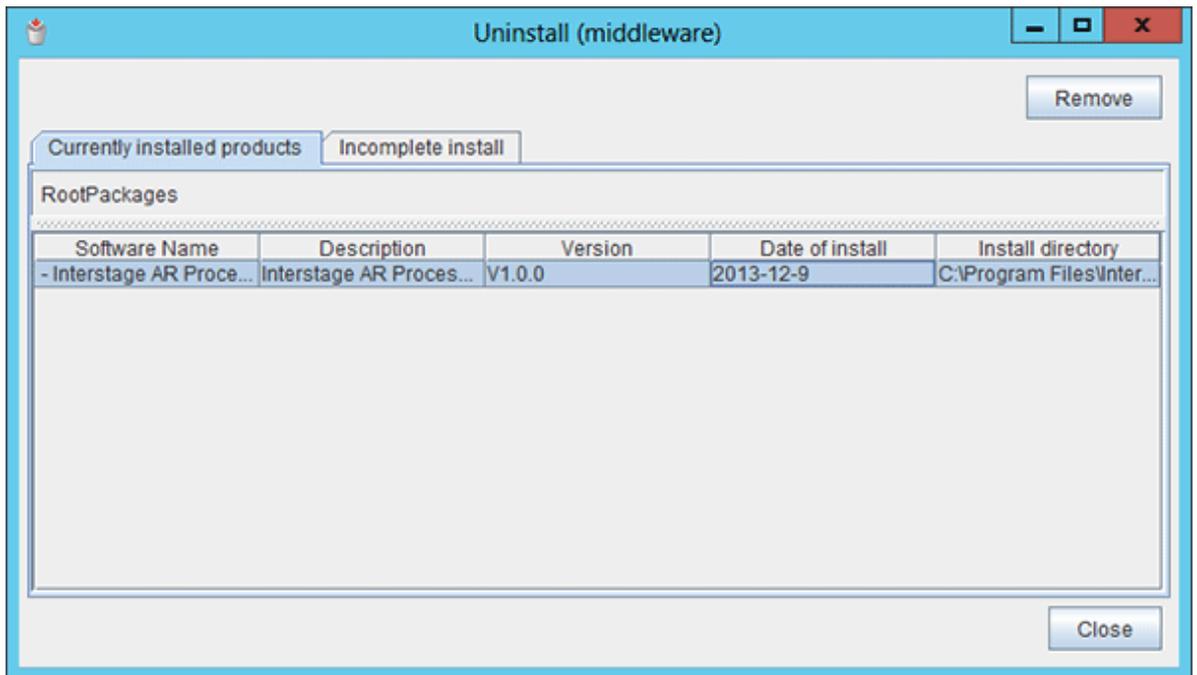
4.2.1 Uninstallation (Windows)

4.2.1.1 Uninstallation procedure (Windows)

Uninstallation should be performed by a computer administrator, or by a member of the Administrators group.

1. Log in as administrator to the server from which Interstage AR Processing Server will be uninstalled.
2. Select **Uninstall (middleware)**.
 - Windows Server 2008
Select **Start, All Programs, Fujitsu**, and then **Uninstall (middleware)**.
 - Windows Server 2012
Right-click the **Start** window and select **All Apps, Fujitsu**, and then **Uninstall (middleware)**.

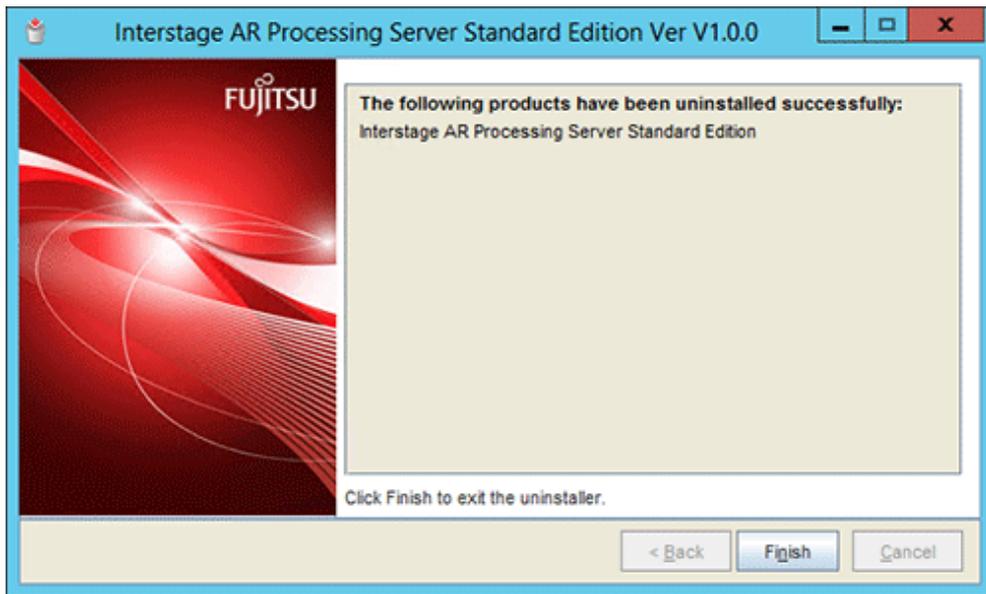
3. Select **Interstage AR Processing Server** and then click **Remove**.



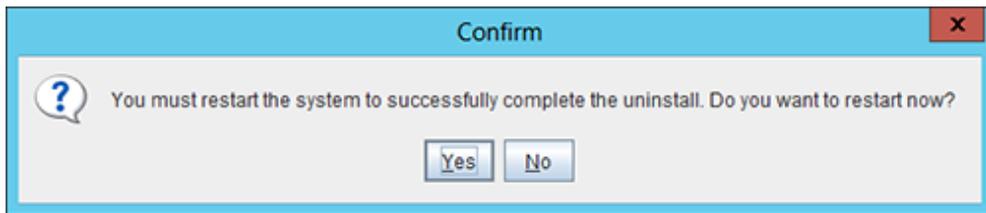
4. Click **Uninstall** to proceed, or **Cancel** to quit.



5. The completion message will be displayed - click **Finish**.



6. To restore the computer to a normal state after uninstallation, it must be restarted - click **Yes** to restart automatically, or **No** to restart later (in this case, close the uninstallation window and end **Uninstall (middleware)** before restarting).



Note

If uninstallation is forcibly quit before completion, it may not be possible to complete it later. If this occurs, refer to the *Message Guide* and contact Fujitsu technical support.

4.2.1.2 Tasks required after uninstallation (Windows)

1. User resources will remain in the installation directory - if they are not necessary after reinstallation, then delete the directory.
2. Delete the contents of the user directories below - if they are suffixed with a string such as ".DD.000", they still must be deleted.

```
C:\Users\arsvdmpg  
C:\Users\arsvgfad
```

3. This product uses Microsoft Visual C++ 2010 Redistributable Package (x86) and Microsoft Visual C++ 2008 Redistributable Package (x64) - delete the redistributable packages if necessary (this can be done using the **Add or Remove Programs** feature in Windows).

4.2.2 Uninstallation (Linux)

4.2.2.1 Uninstallation procedure (Linux)

1. Log in as a superuser (root) to the server from which Interstage AR Processing Server will be uninstalled.

2. Execute the uninstallation command.

```
/opt/FJSVcir/cimanager.sh -c
```

3. Enter the number of the product to be uninstalled.
For example, in the screen below, enter "1" (Interstage AR Processing Server Standard Edition V1.0.0).
To uninstall multiple products, enter the number of each product separated by comma.

```
Loading Uninstaller...

Currently installed products
1. Interstage AR Processing Server Standard Edition V1.0.0

Type [number] to select the software you want to uninstall.
[number,q]
=>
```

4. The uninstallation confirmation screen will be displayed - enter "y" to proceed or "q" to quit.
To return to the previous screen, enter "b".

```
Interstage AR Processing Server Standard Edition
  Description: Interstage AR Processing Server
  Version: V1.0.0
  Manufacturer: Fujitsu Limited.
  Install directory: /opt/FJSVar
  Date of install: 2013-12-12

Starting the uninstall of the software. Are you sure you want to continue?
[y,b,q]
=>
```

5. Uninstallation will begin - upon successful completion, the following screen will be displayed.

```
Uninstalling...

Interstage AR Processing Server Standard Edition is being uninstalled now.
  100% #####

The following products have been uninstalled successfully:
  Interstage AR Processing Server Standard Edition

You must restart the system to successfully complete the uninstall. Do you want to
restart now?
[y,n]
=>
```

6. To restore the computer to a normal state after uninstallation, it must be restarted - enter "y" to restart automatically, or "n" to restart later.

4.2.2.2 Tasks required after uninstallation (Linux)

1. User resources will remain in /var/opt/FJSVar (note also that if a user has added files or directories to /opt/FJSVar or to /etc/opt/FJSVar, then user resources will remain) - if they are not necessary after reinstallation, then delete the directory.
2. Delete the contents of the user directory below.

```
/home/arsvdmpg
```

4.2.3 Installation resources deletion (Windows)

This section describes how to proceed if reinstallation or uninstallation cannot be performed normally, due to issues that may have occurred during the initial installation or uninstallation. These emergency tasks should not be performed at any other time.

The previous environment can be restored by following the procedure below (that is, to delete resources and information relating to this product from the current environment). However, if mixed related products have already been installed on the same system, these will need to be uninstalled before the tasks below can be performed.

Note that some of the registry keys, directories and environment variables listed in these procedures may not exist, depending on which features have been installed. If this is the case, ignore and proceed with the tasks.

4.2.3.1 Related products uninstallation

If related products (such as individual software) for this product are already installed, they should be uninstalled.

4.2.3.2 Interstage AR Processing Server resources deletion

Follow the steps below to delete the installation environment for various components of this product.

1. Delete the product registry keys.

Open the Registry Editor (regedit.exe in the Windows directory) and delete everything under the relevant key from the following keys.

- Under HKEY_LOCAL_MACHINE\SOFTWARE\Fujitsu:
ISAR
- Under HKEY_LOCAL_MACHINE\SOFTWARE\Fujitsu\Install:
ISAR

2. Delete the environment variable.

Follow the steps below to edit or delete the environment variable ISAR_HOME defined in this product:

- Windows Server 2008 R2
In the **Control Panel**, select **System**, and then **Advanced system settings** - the **System Properties** window will be displayed.
Click the **Advanced** tab, and then click **Environment variables**.
In the **System variables** list, select the relevant environment variable, and then click **Edit** or **Delete**.
- Windows Server 2012
Point the cursor to the bottom-left of the window and when **Start** appears, click it to display the **Control Panel**.
In the **Control Panel**, select **System**, and then **Advanced system settings** - the **System Properties** will be displayed.
Click the **Advanced** tab, and then click **Environment variables**.
In the **System variables** list, select the relevant environment variable, and then click **Edit** or **Delete**.

3. On **Administrative Tools**, select **Services**, and then stop the service below:

- Interstage AR Processing Server DB Service

4. Open the Registry Editor and delete everything under the relevant key from the following registry keys.

- Under HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\services:
Interstage AR Processing Server DB Service

5. If the task below is defined, then delete it.

Interstage AR Processing Server (Start domain)

- Windows Server 2008 R2 and Windows Server 2012
 1. In the **Control Panel**, select **Administrative Tools**, and then **Task Scheduler**.
 2. In **Task Scheduler** Library, right-click the task, and then select **Delete**.

6. Delete permissions for the user arsvdmpg.
 - Windows Server 2008 R2 and Windows Server 2012
 1. In the **Control Panel**, select **Administrative Tools**, and then **Local Security Policy**.
 2. In **Security Settings**, select **Local Policies**, and then **User Rights Assignment**.
 3. In the right pane, under **Policy** heading, double-click **Log on as a service**.
In the **Log on as a service** list, select **arsvdmpg**, click **Remove**, and then click **OK**.
 4. In the right pane, under **Policy** heading, double-click **Deny log on through Remote Desktop Services**.
In the **Deny log on through Remote Desktop Services**, select **arsvdmpg** and **arsvgfad**, click **Remove**, and then click **OK**.
7. Delete users.
If users arsvdmpg or arsvgfad remain, then delete them.
 - Windows Server 2008 R2
Select **Start**, **Administrative Tools**, and then **Computer Management**.
In **System Tools**, select **Local Users and Groups**, and then **Users**.
In the right pane, under **Name** heading, right-click the user, and then select **Delete**.
 - Windows Server 2012
On **Server Manager**, select **Tools**, and then **Computer Management**.
In **System Tools**, select **Local Users and Groups**, and then **Users**.
In the right pane, under **Name** heading, right-click the user, and then select **Delete**.
8. Restart the computer.
9. Delete the contents of the Interstage AR Processing Server installation directory.
10. Delete the contents of the user directories below - if they are suffixed with a string such as ".DD.000", they still must be deleted.


```
C:\Users\arsvdmpg
C:\Users\arsvgfad
```
11. Delete the Start menu icons and groups.
 - Windows Server 2008 R2
 1. Select **Start**, **All Programs**, and then point to **Interstage AR Processing Server** and delete it.
 2. Select **Start**, **All Programs**, **FJQSS (Information Collection Tool)**, and then point to **Information collection (ISAR)** and delete it.
 - Windows Server 2012
Delete the following directory from %ProgramData%\Microsoft\Windows\Start Menu\Programs:
Interstage AR Processing Server
12. Delete the following file from the FJQSS installation directory:
C:\Program Files (x86)\Fujitsu\FJQSS\product\cnf_ISAR.txt
13. Uninstall Interstage AR Processing Server.
Refer to "[4.2.1.1 Uninstallation procedure \(Windows\)](#)" for details.

4.2.4 Installation resources deletion (Linux)

This section describes how to proceed if reinstallation or uninstallation cannot be performed normally, due to issues that may have occurred during the initial installation or uninstallation. These emergency tasks should not be performed at any other time.

The previous environment can be restored by following the procedure below (that is, to delete resources and information relating to this product from the current environment). However, if mixed related products have already been installed on the same system, these will need to be uninstalled before the tasks below can be performed.

1. Stop the web container process.

1. Check which PID is using the web container port - if default values were used for installation, use the command below to check which PID is using the web container port.

```
netstat -nap|grep 910
```

2. If an applicable PID is returned, then kill it.

```
kill pid
```

2. Stop the database process.

1. List the processes, and check if there is a process with PPID (parent process ID) "1" .

```
ps -ef|grep postgres
```

2. If a process matches the criteria above, then kill it (note that it will also kill children processes).

```
kill pid
```

3. Delete the database user.

```
userdel arsvdmpg
```

4. Delete the service.

```
/sbin/chkconfig --del FJSVardas  
/sbin/chkconfig --del FJSVardb  
rm -f /etc/rc.d/init.d/FJSVardas  
rm -f /etc/rc.d/init.d/FJSVardb
```

5. Delete the service lock file.

```
rm -f /var/lock/subsys/FJSVardas  
rm -f /var/lock/subsys/FJSVardb
```

6. Restart the computer.

7. Delete the installation directory.

```
rm -rf /opt/FJSVar /etc/opt/FJSVar /var/opt/FJSVar /home/arsvdmpg
```

8. Uninstall Interstage AR Processing Server.

Refer to "[4.2.2.1 Uninstallation procedure \(Linux\)](#)" for details.

4.2.5 Notes on Uninstall (middleware)

The Uninstall (middleware) tool is a common tool for Fujitsu middleware products. It manages information about installed Fujitsu middleware products, and launches the product uninstaller.



Note

- Use Uninstall (middleware) to uninstall Interstage AR Processing Server.
- This tool manages information for other Fujitsu middleware products as well as for Interstage AR Processing Server. Do not uninstall this tool unless it is absolutely necessary (if uninstallation fails, contact Fujitsu technical support).

If this tool is uninstalled accidentally, follow the steps below to install it again.

[Windows]

1. Log in to the machine to be installed using a user name belonging to the Administrators group, or switch to an account with administrator privileges.

2. Insert the product media in the drive.
3. Execute the installation command.

```
productMedia\ISAR\CIR\cirinst.exe
```

[Linux]

1. Log in to the machine to be installed as a superuser, or switch to a user with administrator privileges.
2. Insert the product media in the drive.
3. Execute the installation command.

```
# dvdMountPoint/installer/CIR/cirinst.sh
```

- To uninstall this tool, follow the steps below (if uninstallation fails, contact Fujitsu technical support).

1. Start Uninstall (middleware) and check whether there are any other Fujitsu middleware products left on the system.

[Windows]

Select **Start, All Programs, Fujitsu**, and then **Uninstall (middleware)**.

[Linux]

```
/opt/FJSVcir/cir/bin/cimanager.sh -c
```

-c: Command interface

2. If no Fujitsu middleware products have been installed, execute the uninstallation command.

[Windows]

```
C:\Program Files (x86)\Fujitsu\FujitsuF4CR\bin\cirremove.exe
```

[Linux]

```
# /opt/FJSVcir/bin/cirremove.sh
```

3. The message below will be displayed - enter "y" to continue (uninstallation will finish in a few seconds).

```
This software is a common tool of Fujitsu products.  
Are you sure you want to remove it?[y/n]:
```

4. Upon successful completion, if the directories below remain, then delete them and any files they may contain.

[Windows]

```
%SystemDrive%\FujitsuF4CR
```

```
%ProgramData%\Fujitsu\FujitsuF4CR
```

[Linux]

```
/var/opt/FJSVcir/
```

4.3 Smart devices

To uninstall the native application or client authoring tools installed on a smart device, refer to the smart device manual.

This section describes a typical uninstallation.

4.3.1 Deletion procedure from the application management screen (Android)

Follow the steps below to uninstall from the application management screen:

1. Tap **Settings**.
2. Tap **Applications**.
3. On the **Applications** menu, tap **Manage applications**.
4. Select the relevant application from the listed applications.
5. On the application management screen, tap **Uninstall**.
6. On the confirmation screen, tap **OK**.



The option names may differ depending on the smart device and version used.

4.3.2 Deletion procedure from the Home screen (iOS)

Follow the steps below to uninstall from the Home screen:

1. On the Home screen, tap and hold the application icon - the icons will start wiggling.
2. Tap **X** in the top-left corner of the icon.
3. On the confirmation dialog box, tap **Delete**.