Sun Java Enterprise System 5 Update 1 Installation Guide for UNIX

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Preface

The *Java Enterprise System Installation Guide for UNIX* contains instructions for installing the Sun Java™ Enterprise System (Java ES) software in a Sun Solaris™ Operating System (Solaris OS), Linux operating environment. Some instructions in the guide are specific to one platform or are different for each platform, in which case, the information is labeled by platform name. However, most instructions are not labeled by platform name and apply to any UNIX operating system.

Who Should Use This Book

The material here is intended for any evaluator, system administrator, or software technician who wants to install the Java ES software. This guide assumes you are familiar with the following:

- Installation of enterprise-level software products
- System administration and networking on your supported Java ES platform
- Clustering model (if you are installing clustering software)
- Internet and World Wide Web

Java ES Documentation Set

The Java ES documentation set describes deployment planning and system installation. The URL for system documentation is `http://docs.sun.com/coll/1286.3`. For an introduction to Java ES, refer to the books in the order in which they are listed in the following table.

TABLE P–1 Java Enterprise System Documentation

Document Title	Contents
Sun Java Enterprise System 5 Update 1 Release Notes	Contains the latest information about Java ES, including known problems. In addition, components have their own release notes listed in the Release Notes Collection (`http://docs.sun.com/coll/1315.2`).

TABLE P–1 Java Enterprise System Documentation *(Continued)*

Document Title	Contents
Sun Java Enterprise System 5 Update 1 Technical Overview	Introduces the technical and conceptual foundations of Java ES. Describes components, the architecture, processes, and features.
Sun Java Enterprise System Deployment Planning Guide	Provides an introduction to planning and designing enterprise deployment solutions based on Java ES. Presents basic concepts and principles of deployment planning and design, discusses the solution life cycle, and provides high-level examples and strategies to use when planning solutions based on Java ES.
Sun Java Enterprise System 5 Installation Planning Guide	Helps you develop the implementation specifications for the hardware, operating system, and network aspects of your Java ES deployment. Describes issues such as component dependencies to address in your installation and configuration plan.
Sun Java Enterprise System 5 Update 1 Installation Guide for UNIX *Sun Java Enterprise System 5 Installation Guide for Microsoft Windows*	Guides you through the process of installing Java ES. Also shows how to configure components after installation, and verify that they function properly.
Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX	Gives additional information about configuration parameters, provides worksheets to use in your configuration planning, and lists reference material such as default directories and port numbers on the Solaris Operating System and Linux operating environment.
Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX *Sun Java Enterprise System 5 Update 1 Upgrade Guide for Microsoft Windows*	Provides instructions for upgrading to Java ES JavaES 5 Update 1 from previously installed versions.
Sun Java Enterprise System 5 Update 1 Monitoring Guide	Gives instructions for setting up the Monitoring Framework for each product component and using the Monitoring Console to view real-time data and create monitoring rules.
Sun Java Enterprise System Glossary	Defines terms that are used in Java ES documentation.

Default Path Convention

The following table describes the default installation path convention used in this book.

TABLE P–2 Default Path Convention

Example Placeholder	Description	Example Default Value
Application/Server-base	Represents the base installation directory for Application Server.	Solaris OS: `/opt/SUNWappserver/appserver` Linux: `/opt/sun/appserver`

Typographic Conventions

The following table describes the typographic changes that are used in this book.

TABLE P–3 Typographic Conventions

Typeface	Meaning	Example
`AaBbCc123`	The names of commands, files, and directories, and onscreen computer output	Edit your `.login` file. Use `ls -a` to list all files. `machine_name% you have mail.`
`AaBbCc123`	What you type, contrasted with onscreen computer output	`machine_name%` **`su`** `Password:`
AaBbCc123	A placeholder to be replaced with a real name or value	The command to remove a file is `rm` *filename*.
AaBbCc123	Book titles, new terms, and terms to be emphasized (note that some emphasized items appear bold online)	Read Chapter 6 in the *User's Guide*. A *cache* is a copy that is stored locally. Do *not* save the file.

Shell Prompts in Command Examples

The following table shows default system prompts and superuser prompts.

TABLE P–4 Shell Prompts

Shell	Prompt
C shell on UNIX and Linux systems	`machine_name%`
C shell superuser on UNIX and Linux systems	`machine_name#`
Bourne shell and Korn shell on UNIX and Linux systems	`$`

TABLE P–4 Shell Prompts *(Continued)*

Shell	Prompt
Bourne shell and Korn shell superuser on UNIX and Linux systems	#

Symbol Conventions

The following table explains symbols that might be used in this book.

TABLE P–5 Symbol Conventions

Symbol	Description	Example	Meaning
`[ ]`	Contains optional arguments and command options.	`ls [-l]`	The `-l` option is not required.
`{ | }`	Contains a set of choices for a required command option.	`-d {y|n}`	The `-d` option requires that you use either the `y` argument or the `n` argument.
`${ }`	Indicates a variable reference.	`${com.sun.javaRoot}`	References the value of the `com.sun.javaRoot` variable.
-	Joins simultaneous multiple keystrokes.	Control-A	Press the Control key while you press the A key.
+	Joins consecutive multiple keystrokes.	Ctrl+A+N	Press the Control key, release it, and then press the subsequent keys.
→	Indicates menu item selection in a graphical user interface.	File → New → Templates	From the File menu, choose New. From the New submenu, choose Templates.

Documentation, Support, and Training

The Sun web site provides information about the following additional resources:

- Documentation (`http://www.sun.com/documentation/`)
- Support (`http://www.sun.com/support/`)
- Training (`http://www.sun.com/training/`)

Searching Sun Product Documentation

Besides searching Sun product documentation from the docs.sun.com[SM] web site, you can use a search engine by typing the following syntax in the search field:

search-term `site:docs.sun.com`

For example, to search for "broker," type the following:

```
broker site:docs.sun.com
```

To include other Sun web sites in your search (for example, java.sun.com, www.sun.com, and developers.sun.com), use `sun.com` in place of `docs.sun.com` in the search field.

Third-Party Web Site References

Third-party URLs are referenced in this document and provide additional, related information.

Note – Sun is not responsible for the availability of third-party web sites mentioned in this document. Sun does not endorse and is not responsible or liable for any content, advertising, products, or other materials that are available on or through such sites or resources. Sun will not be responsible or liable for any actual or alleged damage or loss caused or alleged to be caused by or in connection with use of or reliance on any such content, goods, or services that are available on or through such sites or resources.

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◆ ◆ ◆ CHAPTER 1

Preparing for Installation

This chapter provides information that will help you install the Sun Java™ Enterprise System (Java ES) software. Before starting the tasks documented in this guide, you should have already planned your installation according to the *Sun Java Enterprise System 5 Installation Planning Guide*. You should also be familiar with the reference material associated with Java ES installation in the *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

This chapter contains the following sections:

How the Java ES Installer Works

Sun Java Enterprise System (Java ES) integrates a number of Sun server-side products to support distributed enterprise applications. In this document, these products are referred to as the *Java ES product components*. A collection of supporting software, called the *shared components*, is also included. The Java ES installer installs the Java ES product components and shared components in various combinations, one host at a time. Because of the complex interrelationships of the components, installation requires more preinstallation and postinstallation effort than is required to install a single product component.

The Java ES installer adds component packages (Solaris OS), RPMs (Linux)on the local host. To uninstall a product component, an uninstallation utility with an unconfiguration interface is provided. During the course of operation, log records are generated and saved into files.

This section contains the following subsections:

Java ES Installation Utilities

The installation utility (`installer`) is located in the platform directory where you are installing Java ES, for example, `/jes5u1install/Solaris_sparc`. You will see a `Product` directory, a text file called `release_info`, and the executable `installer` script. This is the location for invoking the installer unless your installer has been patched.

There is another directory that contains a packaged version of the installer that is used for patching. The patch installation script (`install`) is located in the following directory along with the Log Viewer utility (`viewlog`):

- Solaris (Solaris x86) OS: `/var/sadm/prod/sun-entsys5u1i/Solaris_x86`
- Solaris (sparc) OS: `/var/sadm/prod/sun-entsys5u1i/Solaris_sparc`
- Linux: `/var/sadm/prod/sun-entsys5u1i/Linux_x86`

If there is a bug in the installer, Sun can fix the installer and create a patch for the installer package. After the patch is applied, the packaged version of the installer should thereafter be used for the release, thus launching the version of the installer that contains the fixes from the patch.

Note – You only use the patch utility if your deployment is using a patched version of the Java ES installer.

After installation, the Java ES uninstallation utility (`uninstall`) is located here:

- Solaris OS: `/var/sadm/prod/SUNWentsys5u1`
- Linux : `/var/sadm/prod/sun-entsys5u1`

Syntax and examples for the Java ES installation utilities are contained in Appendix B, "Installation Commands."

Java ES Components Used in This Release

The Java ES software consists of a collection of Sun server-side products and their supporting shared components that work together to support distributed applications across a network. The Java ES 5 Update 1 release presents the following selectable components, many of which have selectable subcomponents.

Any alternate or abbreviated names used in this guide are in parentheses following the component name and version.

Note – . Linux does not support Sun Cluster components, and only supports the BEA WebLogic third-party container for Configure Now.

- Access Manager 7.1
- Application Server 8.2 Enterprise Edition + patches (Application Server)
- Directory Preparation Tool 6.4
- Directory Proxy Server 6.2
- Directory Server Enterprise Edition 6.2 (Directory Server)
- High Availability Session Store 4.4 (HADB)
- Java DB 10.2
- Message Queue 3.7 UR2
- Monitoring Console 1.0
- Portal Server 7.1 Update 2
- Portal Server Secure Remote Access 7.1
- Service Registry 3.1
- Sun Cluster 3.1 8/05 (Sun Cluster software)
- Sun Cluster Agents 3.1
- Sun Cluster Geographic Edition 3.1 2006Q4 (Sun Cluster Geographic)
- Web Proxy Server 4.0.5
- Web Server 7.0

Note – The Directory Preparation Tool is only used with Communications products, and is included with Directory Server in the Java ES release as a convenience. Information on the Directory Preparation Tool can be found in Chapter 8, "Directory Preparation Tool (comm_dssetup.pl)," in *Sun Java Communications Suite 5 Installation Guide*.

To see the full list of services and subcomponents as displayed in the Java ES installer, refer to Appendix A, "Java ES Components for This Release." This appendix also lists the shared components that are provided with this release.

Available Installer Modes

The Java ES installer is an installation framework that uses the Solaris `pkgadd`, Linux `rpm` utility to transfer Java ES software to your system. You can install Java ES interactively or by means of a reusable script.

- **Graphical Mode (Interactive).** Provides an interactive graphical wizard that leads you through the tasks of installing the Java ES software on a graphical workstation.
- **Text-based Mode (Interactive).** Provides the same functionality as that of graphical mode, but you are prompted for responses on a line-by-line basis in a terminal window.
- **Silent Mode.** Provides the ability to run the installer on multiple hosts, using a generated state file to specify input.

Tip – You can run the Java ES installer without installing software. This is useful for surveying existing Java ES software on your hosts.

How Language Selection Works

The interactive Java ES installer runs in the language specified by the operating system locale setting on the host. The following languages are available:

- English
- French
- German
- Japanese
- Korean
- Spanish
- Simplified Chinese
- Traditional Chinese

If your operating system language is not listed, the installer runs in English. The installer automatically installs English versions of all Java ES components. By default, multilingual packages are selected when components are selected for installation.

The installer cannot install additional language packages for previously-installed components. However, you can use the `pkgadd`, `rpm`, utilities to install localization packages at any time. Language packages are list in Chapter 5, "List of Installable Packages," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

How the Installer Checks for Preexisting Components

During installation, the Java ES installer surveys the software that is already installed on the host where you are installing and identifies the following:

- Compatible Java ES product components

  Compatible product components do not need to be reinstalled and will not be available for selection in the installer.

- Incompatible Java ES product components

  If the installer identifies incompatibilities between product components you have selected and product components that are already installed locally, you will need to remove or upgrade the incompatible installed product components. On Solaris OS, some bundled components can be upgraded by the installer (Application Server, Message Queue, HADB). Other incompatible components will need to be removed or upgraded manually. The installer cannot continue until these incompatibilities are resolved. For more information, refer to "How Upgrading Works" on page 27.

- Incompatible Java ES shared components

  It is not uncommon for existing hosts to already contain versions of Java ES shared components, such as NSS. If the installer finds shared components whose version is incompatible with the version of Java ES you are installing, those shared components are listed. If you proceed with installation, the installer automatically upgrades the shared components to compatible versions.

How the Installer Checks Component Dependencies

Many product components depend on the presence of other components to provide their core functions. The installer does extensive cross checking of product components to verify that the components you select during installation will function properly together. For this reason, the installer might prompt you to include certain product components as you make your selections.

In general, the installer uses the following rules for handling dependencies among the Java ES product components:

- **Selecting a Product Component.** In most cases, when you select a product component for installation, the installer automatically selects all its subcomponents.

  The installer also selects the components and subcomponents upon which the selected product component depends. For example, if you select Application Server, the installer automatically selects HADB, Java DB, and Message Queue.

- **Deselecting a Product Component.** In most cases, when you deselect a product component, the installer automatically deselects all its subcomponents.

  If you deselect a product component that is required locally or remotely for another selected product component, the installer displays various warnings when you attempt to proceed.

- **Selecting a Subcomponent.** If you select a subcomponent, the installer automatically selects the product component to which it belongs, but not necessarily the other subcomponents.

  If the selected subcomponent depends on other components or subcomponents, the others are automatically selected.
- **Deselecting a Subcomponent.** If you deselect a subcomponent, the installer deselects only that subcomponent and not the other subcomponents.

  If you deselect a subcomponent that is required locally or remotely for another selected product component, the installer displays various warnings when you attempt to proceed.

How the Installer Checks for System Readiness

After the components you have selected are found to be acceptable for installation and you have indicated their target installation directories, the Java ES installer performs a system check to determine if your host meets the requirements for the components you selected.

The installer checks for disk space, memory, swap space, operating system, patches and operating system resources based on the selected components and the installation directories provided. The following messages inform you about the state of your host:

- `System is ready for installation`. When this message is displayed, the installer can proceed.
- `System is ready for installation, however, a resource, such as memory, is not at the recommended level`. When this message is displayed, the installer can proceed but you should consider providing additional resources.
- `System does not meet the minimum system requirements`. When this message is displayed, in most cases the installer cannot proceed. A typical situation is when patches are missing. You must install most missing patches before proceeding with installation. In some situations, you are allowed to proceed without installing a missing patch. In this case, if you choose to proceed, you are warned that installation might fail or software might malfunction. To continue with installation, you must confirm that you want to proceed without installing the missing patches. For more information on patches, refer to "Patch Requirements" on page 35 or "To Install a Patch" on page 35.

How the Installer Handles Configuration and Parameter Setting

Many Java ES product components are eligible for some degree of installation-time configuration. The extent of installation-time configuration you are required to perform depends on which product components you select and which installation type you choose.

Note – The following components cannot be configured by the Java ES installer, and, therefore, must the configured after installation: Directory Proxy Server, Java DB, Monitoring Console, Service Registry, and Sun Cluster components.

The following configuration types are available in the installer:

- **Configure Later.** During installation, you enter only the minimum values that are necessary for installing, then perform postinstallation configuration.
- **Configure Now.** During installation, you provide configuration information for product components that permit installation-time configuration. The information you specify might be just a few common parameters (common server settings), or it might include detailed component-specific parameters (product component settings).

It is important to keep track of the configuration information values as you proceed through installation-time configuration or postinstallation configuration. Many of the product components rely on the specifics of other component configuration parameters in order to function correctly. At the end of a Configure Now installation, you can view the configuration parameters that were specified by examining the Installation Summary.

Common server settings are parameters that affect multiple product. For example, most product components require that you specify an administrative ID and password. By setting these common values, you are setting default administrative IDs and passwords for the product components you are installing.

Product component configuration settings are parameters that apply to a particular product component. These settings are requested during installation only if you have selected the Configure Now type. Some of these settings are populated from the common server settings.

How Upgrading Works

The Java ES installer automatically upgrades shared components for the selected product components to match the level required for the release of Java ES. If you want to upgrade shared components manually, you must exit the installer, upgrade the shared component, then return to the installer. Shared components can also be installed or upgraded in a dedicated installation session that installs only shared components, enabling them to be synchronized to the current release. If you choose to install the Shared Components item, all required shared components for the Java ES release are installed or upgraded.

Note – If the installer is run in a non-global Solaris zone with a sparse root file system, the Shared Component item is not available for selection.

On Solaris OS, some product components are already installed with the operating system. In this case, you can upgrade these product components using the Java ES installer. In a graphical installation session, if upgradable product components are detected on your host, the Status column of the Choose Software Components page indicates Upgradable. For the text-based installer, a separate list displays the upgradable product components. The components that can be upgraded by the installer are listed in the following table, along with explanation on any Solaris zones issues that might apply.

TABLE 1–1 Upgrade Support Within the Java ES Installer

Component	Situation Where the Java ES Installer Can Upgrade	Solaris Zones Issues
Application Server	Application Server 7.0 bundled with Solaris 9 Application Server 8.0 bundled with Solaris 10 Application Server 8.1.0 installed with Java ES 3 (2005Q1) Application Server 8.1.2 installed with Java ES 4 (2005Q4) Application Server 8.2 installed with Java ES 5(2006Q3)	Before Application Server can be installed into a non-global sparse-root zone, the bundled version must be removed from the global zone. "Upgrading Application Server in the global zone will replace the existing version in the global zone and may remove the bundled versions in whole root or sparse root zones.
HADB	HADB installed with Java ES 2005Q1 (release 3) HADB installed with Java ES 2005Q4 (release 4) HADB installed with Java ES 2006Q3 (release 5)	
Message Queue	Message Queue bundled with Solaris 9 Message Queue bundled with Solaris 10 Message Queue installed with Java ES 3 (2005Q1) Message Queue installed with Java ES 4 (2005Q4) Message Queue installed with Java ES 5 (2006Q3)	Message Queue can only be installed in the global zone, or in a whole root non-global zone. From the global zone, Message Queue always propagates to non-global zones.

If the installer identifies incompatible versions of product components that cannot be upgraded by the installer, you will receive messages saying that certain product components must be removed or manually upgraded before you can continue with installation. Such upgrading is fully documented in the *Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*.

How Logging Works

During the course of installation or uninstallation, log records are generated for the operations that occur. These records are saved into a single file in a format called Unified Logging Format (ULF). The Java ES installer Log Viewer utility (`viewlog`) provides a user-friendly interface for examining these log records. After Java ES installation is complete, the Log Viewer is located here:

- Solaris OS: `/var/sadm/prod/SUNWentsys5u1i`
- Linux: `/var/sadm/prod/sun-entsys5u1i`

After uninstallation, the `viewlog` utility is removed. The ULF logs themselves are not removed, and are located here:

- Solaris x86 Solaris OS: `/var/sadm/prod/sun-entsys5u1i/Solaris_x86`
- Solaris Sparc Solaris OS:`/var/sadm/prod/sun-entsys5u1i/Solaris_sparc`
- Linux: `/var/sadm/prod/sun-entsys5u1i/Linux_x86`

For instructions on using the Java ES logs and Log Viewer, refer to "Examining Installation Log Files" on page 184.

How Java ES Reporter Works

Java ES Reporter is a command-line utility that performs anonymous product registration after a successful interactive Java ES installation session. Immediately after the Java ES components are installed, the Reporter installation starts. On the command line, you are prompted to enter the URL or IP address of a proxy that Reporter will use to access Sun through the internet. The installation proceeds silently and no further action is required.

If you do not want to install Reporter, you can specify the `-noreporter` option to the `installer` command when you start the Java ES installation session. To install only Reporter (after using the `–noreporter` option, or after a silent Java ES installation), there is another option available (`-reporter`) on UNIX platforms. The Reporter options for the Java ES installer are explained in "installer or install Command" on page 213.

After Reporter is installed, you can enable or disable Reporter by editing a configuration file. These instructions are contained in "Java ES Reporter Postinstallation Configuration" on page 126.

Because Reporter is not a Java ES component of the installer, it cannot be uninstalled using the Java ES uninstaller. Instructions for uninstalling Reporter are contained in "Uninstalling Java ES Reporter" on page 177.

How Uninstalling Works

Java ES provides an uninstallation utility (`uninstall`) for removing component products that were installed on the local host using the Java ES installer. The Java ES uninstaller checks product dependencies for the host on which it is running, issuing warnings when it discovers a dependency. For some product components, certain files remain after uninstallation and might need to be removed manually. For uninstallation specifics on each product component, refer to "Reviewing Uninstallation Behavior for Java ES Product Components" on page 158.

The uninstaller can be run in graphical, text-based, or silent mode. After Java ES installation is complete, the uninstaller is located here:

- Solaris OS: `/var/sadm/prod/SUNWentsys5u1`
- Linux: `/var/sadm/prod/sun-entsys5u1`

After uninstallation, the `uninstall` utility is removed from the host. For instructions on using the uninstaller, refer to Chapter 8, "Uninstalling."

Shared components cannot be removed using the Java ES uninstaller. Shared components are upgraded by the Java ES installer when you install a later version of Java ES. Some shared component can be manually upgraded using procedures in the *Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*. Instructions for uninstalling Java ES Reporter are contained in "Uninstalling Java ES Reporter" on page 177.

An installed version of Sun Cluster software cannot be removed using the Java ES uninstaller. For information on uninstalling Sun Cluster software, refer to "Uninstalling Sun Cluster Software" on page 178 and "Sun Cluster Software and Sun Cluster Geographic Edition Uninstallation Behavior" on page 167.

Surveying Existing Hosts

Before installation, it is important to know what resides on the hosts where you plan to install the Java ES software. If you have ordered a new Solaris system with Java ES software preloaded, you do not need to survey your host. However, if your existing hosts have versions of Java ES components already installed, you might need to upgrade or remove some software before running the Java ES installer for the new Java ES release.

This section contains the following subsections:

When Java ES Software Is Preloaded on Solaris OS

If you ordered a Sun Solaris hardware system with preloaded software, the installation image for the Java ES software has already been copied to your system. If Java ES software is preloaded on a host, the following directory exists:

```
/var/spool/stage
```

You will need to expand the installation image and use the Java ES installer to install and configure the preloaded Java ES software as described in this manual. Some Java ES components are bundled with the Solaris OS and will be present on the host. In this case, the installer presents an option of upgrading these components. For more information, refer to "How Upgrading Works" on page 27.

Note – If your preloaded Java ES software is on a Solaris 10 system, refer to "Solaris 10 Zones Examples" on page 60 before expanding the installation image.

When Incompatible Components Are Installed

During installation, the installer verifies that any Java ES components that are already installed on the host are compatible with the release of Java ES you are installing. If some components are not compatible, your installation is likely to be interrupted by incompatibility error messages. Therefore, it is best to survey installed software and do any upgrading before actually installing the Java ES software.

When you run the installer, you can see which incompatible components are on your host. If you want to install Application Server, Message Queue, or HADB, you can let the installer upgrade these components. For other product components, you cannot use the installer to upgrade, but instead must remove or upgrade the incompatible components by following instructions in the *Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*.

The Java ES installer upgrades or installs any shared components that are required for the product components you are installing.

You can use Solaris commands such as `prodreg` and `pkginfo`, the Linux `rpm` command to examine installed software. The following table lists the basic package command equivalencies for the UNIX platforms.

TABLE 1–2 UNIX Package Command Equivalencies

Task	Solaris	Linux
Show installed package	`pkginfo`	`rpm –qa`

TABLE 1–2 UNIX Package Command Equivalencies *(Continued)*

Task	Solaris	Linux
Install package	`pkgadd`	`rpm -i`
Remove package	`pkgrm`	`rpm –e`

You can also use the installer itself to examine package-based software installations as described in the procedures in this section.

Note – Do not rely only on the Java ES installer for information about installed software. You must also perform an independent survey of the host to determine what software is currently installed.

▼ To Provide Access to Your Local Display for the Graphical Installer

1 Set your `DISPLAY` environment variable.

If you are logging in to a remote host, make sure your `DISPLAY` environment variable is properly set to the local display. If the `DISPLAY` variable is not set properly, the installer runs in text-based mode.

- Example for C Shell (host name `myhost`):

```
setenv DISPLAY myhost:0.0
```

- Example for Korn Shell (host name `myhost`):

```
DISPLAY=myhost:0.0
```

2 Grant display authorization.

You might need to grant display authorization to run the installer on your local display. For example, you can use the following command to grant display authority from `myhost` to the root user on `serverhost`:

```
myhost\> xauth extract - myhost:0.0|rsh -l root serverhost xauth merge -
```

For full instructions on granting such authorization safely, refer to the "Manipulating Access to the Server" chapter in the *Solaris X Window System Developer's Guide*.

▼ To Use the Installer for Identifying Upgrade Issues

1 Start the installer using the `-no` option to indicate that no software is to be installed.

For the graphical installer:

```
./installer -no
```

For the text-based installer:

```
./installer -nodisplay -no
```

2 **Proceed to component selection.**

3 **Select the product components you are planning to install on this host.**

The Status column indicates products that are required for the product components you have selected and what components are upgradable.

4 **If an incompatible version of a selectable product component is detected by the installer, you are prompted to upgrade or remove the incompatible version.**

In the case of Solaris bundled Application Server, Message Queue, and HADB, you can have the installer do the upgrading. For further information, refer to "How Upgrading Works" on page 27.

After resolving the problem, you can refresh the selection list, make your selection, and then ask the installer to proceed.

5 **If an incompatible version of a shared component is detected by the installer, the Shared Component Upgrades Required list is displayed.**

For each shared component listed, review the Installed Version against the Required Version to determine if any upgrading will need to be done. You must determine whether the newer Java ES version of a shared component is compatible with other applications on the host that use that shared component.

6 **If necessary, exit the installer and do any upgrading necessary.**

- For product components that the installer cannot upgrade, refer to the *Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*.
- For shared components, most upgrading can be done during installation.

7 **Repeat the procedure for each host.**

Determining If Your Hosts Are Ready

Before you start the installer, review the issues that determine system readiness:

- "Access Privileges" on page 34
- "Memory, Disk Space, and Swap Space Requirements" on page 34
- "System Requirements" on page 34
- "Patch Requirements" on page 35

Access Privileges

To install Java ES software, you must be logged in as `root`, or become superuser.

Memory, Disk Space, and Swap Space Requirements

The installer runs a check to determine if your host has sufficient memory, disk space, and swap space for the components you selected.

- If the disk space found on the host is insufficient, the installer cannot proceed. You must resolve the problem before you can resume the installation.
- If the memory or swap space found on the host do not satisfy Java ES recommendations, the installer displays a warning. Installation can proceed, but you should resolve the problem later.

  The recommendation is, you should resolve the Swap requirements immediately before installing. If the Swap space is not matching the requirement, the Portal Server configuration may fail.

Note – On Solaris 10, memory check is not performed if you are installing into a non-global zone.

System Requirements

Before you install Java ES, ensure that the hosts in your deployment meet the minimum hardware and operating system requirements. For the latest information on the supported platforms and software and hardware requirements, refer to "Hardware and Software Requirements" in the *Sun Java Enterprise System 5 Update 1 Release Notes*. If the operating system found on the host does not satisfy Java ES requirements, the installer cannot proceed. You must resolve this problem before installation.

As a convenience, recommended Java ES patch clusters are provided for the Solaris OS on the Sunsolve site: `http://sunsolve.sun.com`. A Java ES patch cluster contains all the Solaris patches required for the particular release of Java ES. These patch clusters might contain Solaris kernel patches, so be sure to read the patch cluster Readme file carefully, and especially any Readme files for kernel patches. A patch cluster must be installed in single-user mode, and the host must be rebooted after installation.

Tip – If you apply the patch cluster for your platform before running the Java ES installer, you can avoid delays when the installer performs the system check on your host and finds patches missing. However, if you are running a recent version of Solaris OS, you might prefer to run the Java ES installer first and only update those patches that the installer identifies as missing.

Patch Requirements

During installation, the Java ES installer identities any missing software patches and asks you to install these patches on the host. You must install most missing patches before proceeding with installation. However, in some cases, you are allowed to proceed without installing a missing patch. In this case, if you choose to proceed, you are warned that installation might fail or software might malfunction. To continue with installation, you must confirm that you want to proceed without installing the missing patches.

For information on patches required for this release of Java ES, refer to the *Sun Java Enterprise System 5 Update 1 Release Notes*.

▼ To Install a Patch

The following example procedure provides instructions for installing a Solaris OS patch.

1. **Go to the Sunsolve site:** `http://sunsolve.sun.com`
   Location for Linux patches: `http://www.redhat.com`)
2. **Click Patches and Updates.**
3. **Enter the patch number in the PatchFinder text box, and click Find Patch.**
4. **Download the zip file for the patch.**
5. **Expand the zip file. For example:**
   ```
   unzip 112785-44.zip
   ```
   A directory is created for the patch files.
6. **Apply the patch. For example:**
   ```
   patchadd 117885-44
   ```
7. **Back in the Java ES installer, click Check Again. All system requirements are rechecked.**

Determining If You Can Use an Installation Sequence Example

The order in which you install the Java ES product components on the hosts of your system is crucial to installation success. You might be able to use one or more of the sequence examples provided in Chapter 2, "Example Installation Sequences" to guide you. These sequences include the high-level tasks that are required for some typical Java ES installations.

Full instructions for planning your installation are contained in the *Sun Java Enterprise System 5 Installation Planning Guide*.

Verifying Installation Prerequisites

The following table lists the tasks that you should perform before beginning any type of installation. The left column lists the order in which you should perform the tasks, and the right column contains the location of instructions and other useful information. Not all tasks are required for all installations.

Note – Linux does not support Sun Cluster components, and only supports BEA WebLogic as a third party container for Configure Now.

TABLE 1–3 Preinstallation Checklist

Task	Instructions and Helpful Information
1. Plan your JavaES installation.	Refer to the *Sun Java Enterprise System 5 Installation Planning Guide*. If installing Sun Cluster software, see "Sun Cluster Software Example" on page 66. If installing Monitoring Console, see *Sun Java Enterprise System 5 Update 1 Monitoring Guide*
2. Determine if any release noted issues affect your installation.	Before performing any of the procedures described in the Installation Guide, you should read the *Sun Java Enterprise System 5 Update 1 Release Notes*. These notes address installation issues that might affect your deployment.
3. Survey your hosts for existing software.	Refer to "Surveying Existing Hosts" on page 30. If you need to upgrade, refer to the *Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*

TABLE 1–3 Preinstallation Checklist *(Continued)*

Task	Instructions and Helpful Information
4. Upgrade any existing components that are incompatible with the Java ES 5 release. Note: On Solaris OS, existing versions of Application Server and Message Queue can usually be upgraded by the Java ES installer.	Refer to "When Incompatible Components Are Installed" on page 31. Refer to the *Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*. For information on using the platform package commands, refer to their respective man pages.
5. Verify that system requirements are met.	Refer to "Determining If Your Hosts Are Ready" on page 33. Refer to "Platform Requirements and Issues" in *Sun Java Enterprise System 5 Update 1 Release Notes*,
6. Determine if an installation sequence example can be used.	Refer to Chapter 2, "Example Installation Sequences."
7. For a Configure Now installation, gather configuration information for product components.	Chapter 3, "Configuration Information," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX* provides product component configuration information. Chapter 4, "Configuration Worksheets," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX* provides worksheets for gathering your data.
8. Make a copy of the product registry file. A backup copy is helpful in recovering if installation fails.	Solaris OS: `/var/sadm/install/productregistry` Linux: `/var/opt/sun/install/productregistry`
9. To run as a non-root user for Directory Server, create system accounts before configuring.	Create the necessary system accounts required for non-root.
10. If installing product components that depend on servers or services that are already installed, ensure that the existing servers and services are accessible.	For example, If you are installing a Portal Server Secure Remote Access subcomponent, Secure Remote Access Core must be running and accessible.
11. If installing Directory Server, verify that Perl is installed.	Solaris OS: Perl packages (`SUNWperl5*`) can be found on the Solaris media. Linux: `/usr/bin/perl` Perl must be present before installation. If Perl is not present, use `pkgadd`, `rpm -i`, to add the packages.
12. Verify that the second column returned by `getent hosts` for your target system contains the FQDN rather than the simple hostname.	Run this command: `getent hosts` *ip-address*

TABLE 1–3 Preinstallation Checklist *(Continued)*

Task	Instructions and Helpful Information
13. If installing the Load Balancing Plugin with Apache Web Server, Apache Web Server must be installed and configured before beginning Java ES installation. On Linux only, you must first install Application Server, then install Apache Web Server, and finally install the Load Balancing Plugin.	If not already done, install and configure Apache Web Server. For more information, see Configuring Web Servers for HTTP Load Balancing in the *Sun Java System Application Server Enterprise Edition 8.2 High Availability Administration Guide*.
14. If installing Access Manager for deployment on a third-party web container, you must choose the Configure Later type and run a postinstallation configuration script.	For more information, see the *Sun Java System Access Manager 7.1 Postinstallation Guide*.
15. If this is a reinstallation, verify that the Web Server installation directory does *not* exist. If it does, remove or rename the directory.	Default installation directory for Web Server: Solaris OS: `/opt/SUNWwbsvr7` Linux: `/opt/sun/webserver7`
16. If you are upgrading J2SE software, verify that you have stopped other products that depend on the J2SE component during installation.	For further information, refer to the *Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*.
17. If your host does not have direct connectivity to the Internet, an HTTP proxy needs to be specified.	An Application Server example can be found in the *Sun Java System Application Server Enterprise Edition 8.2 Administration Guide* .
18. On Linux, remove the `/usr/share/bdb/db.jar` link if it exists.	
19. On Linux, verify that Ant 1.5.2 is not on the host: `rpm –qa | grep ant`	To remove it: `rpm –e ant-1.5.2-23 ant–libs-1.5.2-23`
20. On Linux, verify that Korn shell is installed.	If Korn shell is not installed , go to the RPM directory and run the `rpm –i pdksh` command.
23. Follow any installation sequence guidelines that apply to your installation.	Refer to Table 2–1

In addition to these prerequisites, refer to Table 2–1 for information that might be helpful before installing Java ES.

Getting the Java ES Software

You can get the Java ES software in the following ways:

- **As a web download**

  You can download Java ES software in several formats from the Sun Download Center at `http://www.sun.com/download`. These formats are available:

  - Compressed archive of all installation files for a single operating system
  - Compressed archive of all installation files for a suite

- **Preloaded or preinstalled on your system**

  If you ordered a Sun hardware system with preloaded or preinstalled software, Java ES software might already be loaded on your system. If the following directory exists on your system, Java ES software is preinstalled:

  ```
  /var/spool/stage
  ```

  where *architecture* is the system's hardware architecture; for example, `solaris-sparc`.

  Note – Sun Cluster software can only be preloaded, not preinstalled.

- **From a file server on your network**

  Depending on the operations procedures at your company, the Java ES installation files might be available on your internal network. Contact your system operations or administration staff to find out if this is the case.

  If you are responsible for making the Java ES installation files available, see "Making an Installation Image on Your Network" on page 39.

For a listing of the distribution bundles for this release, refer to Chapter 1, "Java ES Distribution Bundles," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

Making an Installation Image on Your Network

The Java ES distribution is designed so that you can put the installation files in a shared location. The benefit of this is that the installation files can then be run from this shared location as often as needed.

▼ To Create an Image from the Compressed Archive

1 **Log in as `root` or become superuser.**

2 **Create a shared directory on your network. For example:**

```
mkdir shared-location/java_es-5u1
```

3 **Access your installation files from the web site.**

4 **Create an installation image from the compressed archive. For example:**

```
cd shared-location/java_ent_sys_5u1
unzip pathname/java_es-5u1-ga-solaris-sparc.zip
```

5 **Repeat this step for any other compressed archive files.**

Note – If you copy files for multiple platforms to the shared location, you will receive a query similar to the following in relation to the `README` file and the `COPYRIGHT` file:

```
File already exists. OK to overwrite?
```

Type **`Yes`**. These files are identical for all platforms.

◆ ◆ ◆ CHAPTER 2

Example Installation Sequences

This chapter provides high-level sequencing guidelines for some common Sun Java™ Enterprise System (Java ES) installations. These are not literal procedures, but instead provide the sequential steps required to implement particular deployment scenarios.

This chapter contains the following sections:

How to Use This Chapter

The single-session examples describe typical steps for installing one or a number of Java ES product components on a single host in a single installation session. All other examples in this chapter describe situations where multiple installation sessions are performed on multiple hosts, for a variety of solutions. For the most part, the sequences in this chapter are based on the relationships among the product components as shown in *Sun Java Enterprise System 5 Installation Planning Guide*.

At component selection, the Java ES installer identifies incompatible versions of components as well as unmet requirements. You receive warning messages that identify the problem and tell you what you need to do. Many of these messages tell you about requirements that are not yet met. Other messages tell you that incompatible versions of some or all of the components you

are trying to install are already on the local host. You can use the Java ES installer to identify components that are already on your local host. For instructions, refer to "When Incompatible Components Are Installed" on page 31.

Tip – Installation goes most smoothly if any incompatible versions of Java ES components are identified and removed or upgraded before starting the installer.

The following table describes some common situations that might influence the sequence in which you should install the components, or the order in which tasks should be performed on multiple hosts or in multiple installation sessions. The left column lists the situation, and the right column explains how to handle the situation.

TABLE 2–1 Installation Sequence Guidelines

Situation	Description
Monitoring is included.	Monitoring Console cannot be run on the same host as the Java ES product components that it monitors. Therefore, Monitoring Console should be installed on another host.
Installation-time configuration is not possible for all components.	The following components can be installed in a Configure Now installation, but configuration cannot be done during installation: Sun Cluster components, Monitoring Console, and Service Registry. During installation, you will receive a message telling you to configure after installation.
Upgrading components is required.	You might receive messages asking you to remove or upgrade product components that are already on the host. On Solaris OS, some bundled components (Application Server, Message Queue, and HADB), can be upgraded during installation. For all other components, refer to the upgrading procedures in the *Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*
Solaris 10 zones are used.	In a Solaris 10 zones environment, shared components must be installed separately in the global zone before installing into a local zone. Message Queuecan only be installed in the global zone. Message Queuecan not be installed in sparse root NGZ, but it can be installed in Whole Root NGZ. Refer to "Solaris 10 Zones Examples" on page 60 for further guidelines.
Sun Cluster software is included. (Solaris OS only)	If Sun Cluster software is part of your deployment, you must perform a precise series of tasks before installing any Java ES product components. Java ES components that can be configured for Sun Cluster are Application Server, Directory Server, HADB, Message Queue, and Web Server. Refer to "Sun Cluster Software Example" on page 66 to see Sun Cluster guidelines.

TABLE 2–1 Installation Sequence Guidelines *(Continued)*

Situation	Description
Remote components are used.	If you are using a remote product component to fulfill dependencies, the remote product component must be installed and running before installing any Java ES product components that depend on it.
Third-party components are used.	If you are using a third-party product as your web container, the third-party product must be installed and running before installing any Java ES product component that depends on it. Note:For Configure Now, Linux only supports the BEA WebLogic third-party container.
Access Manager modes	When you are installing Access Manager with Portal Server, you can select either Realm (7.x) mode or Legacy (6.x) mode for Access Manager. However, Portal Server supports Realm mode only if Access Manager is configured with Directory Server, with AM SDK configured for the data store.

Single-Session Installation Examples

The following examples apply to installing on a single host in a single session:

Evaluation Example

An evaluation installation is generally considered a trial deployment, that is, a quick installation to see how things go. This example uses the graphical interface and the Configure Now type When you are presented with configuration pages, you accept defaults wherever possible.

This example installs all the Java ES product components (except Sun Cluster software and Monitoring Console) on a single host in a single installation session. Because Web Server is used as the web container, Application Server is not installed.

▼ To Develop a Sequence for Java ES Evaluation

The following high-level tasks are required:

1. **Checking the installation sequence guidelines**

   Check to see what sequence guidelines apply. Refer to Table 2–1.

2. **Checking the installation prerequisites**

   Check to see what installation prerequisites apply. Refer to Table 1–3.

3. **Starting the Java ES graphical installer**

   Use either the graphical or text-based installer.

4. **At component selection, choosing Select All, then deselecting the Application Server, Sun Cluster software, and Monitoring Console product components**

   The installer verifies software on your host and provides guidance if incompatibilities are identified.

5. **Verifying installation directories**

6. **Selecting the Configure Now type**

   Messages indicate which product components cannot be configured during installation.

7. **Accepting configuration defaults when they are offered**

   If you want to use non-default information, review the appropriate configuration tables in Chapter 3, "Configuration Information," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

8. **Viewing the Installation Summary and Log**

9. **Completing postinstallation configuration**

   Chapter 6, "Completing Postinstallation Configuration" contains instructions for postinstallation configuration.

10. **Starting the product components**

    "Verifying After Postinstallation Configuration" on page 139 contains the preferred Java ES startup sequence. Startup procedures follow the table.

Access Manager and Portal Server Example

This example installs Portal Server with Access Manager on a single host, using Web Server as the web container. Portal Server and Access Manager should use the same type of web container.

You can use Access Manager Core Services, Access Manager Administration Console, and Common Domain Services for Federation on another host by deselecting these subcomponents of Access Manager.

When you are installing Access Manager with Portal Server, you can select either Realm (7.x) mode or Legacy (6.x) mode for Access Manager. However, Portal Server supports Realm mode only if Access Manager is configured with Directory Server, with AM SDK configured for the data store.

▼ To Develop a Sequence for Access Manager and Portal Server

The following high-level tasks are required:

1. **Checking the installation sequence guidelines**

   Check to see what sequence guidelines apply. Refer to Table 2–1.

2. **Checking the installation prerequisites**

   Check to see what installation prerequisites apply. Refer to Table 1–3.

3. **Running the Java ES installer**

4. **At component selection, choosing Portal Server and Web Server**

   Access Manager, Directory Server, Directory Preparation Tool, Java DB, and Service Registry are automatically selected.

   - To use a remote copy of Directory Server, deselect Directory Server and specify a remote copy when prompted.

     Note – The remote Directory Server must be running before installing any other product components. For instructions on installing Directory Server, refer to "Directory Server Only Example" on page 50.

   - To use a remote copy of Access Manager, deselect Access Manager and specify a remote copy during postinstallation configuration.

5. **Resolving incompatibilities**

   The installer verifies software on your host and provides guidance if incompatibilities are identified.

6 Selecting the Configure Now or Configure Later type

- For the Configure Now type configuration pages are displayed for those product components that allow installation-time configuration. Do not accept defaults for product components that are remote; use the remote information.
- For the Configure Later type, configuration pages are not displayed.

7 Running the installation

8 Viewing the Installation Summary and Log

9 Completing postinstallation configuration

- "Web Server Postinstallation Configuration" on page 129
- "Access Manager Postinstallation Configuration" on page 122
- "Portal Server and Portal Server Secure Remote Access Postinstallation Configuration" on page 128

10 Starting product components

- "Starting and Stopping Directory Server" on page 145
- "Starting and Stopping Web Server" on page 150 (Access Manager and Portal Server start automatically with Web Server.

11 Accessing the default Access Manager login page

For Legacy mode: `http://`*webserver-host*`:`*port*`/amconsole`

For Realm mode: `http://`*webserver-host*`:`*port*`/amserver`

The following table contains additional Access Manager information.

Task	Relevant Information
Configuration information for the installer	"Access Manager Configuration Information" in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*
Postinstallation configuration	"Access Manager Postinstallation Configuration" on page 122
Starting and stopping	"Starting and Stopping Access Manager" on page 142
Uninstalling	"Access Manager Uninstallation Behavior" on page 159
Troubleshooting	"Access Manager Troubleshooting Tips" on page 201
Upgrading	*Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*

The following table contains additional Portal Server information.

Task	Relevant Information
Configuration information for the installer	"Portal Server Configuration Information" in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*
Postinstallation configuration	"Portal Server and Portal Server Secure Remote Access Postinstallation Configuration" on page 128
Starting and stopping	"Accessing the Portal Server Desktop by Starting the Web Container" on page 140
Uninstalling	"Portal Server Uninstallation Behavior" on page 164
Troubleshooting	"Portal Server Troubleshooting Tips" on page 204
Upgrading	*Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*

Application Server Only Example

This example provides guidelines for installing Application Server on a single host.

Requirements

Application Server requires a local copy of HADB, Java DB, and Message Queue. If you are using load balancing, a local copy of a web server is required.

▼ To Develop a Sequence for Application Server

The following high-level tasks are required:

1 Checking the installation sequence guidelines

Check to see what sequence guidelines apply. Refer to Table 2–1.

2 Checking the installation prerequisites

Check to see what installation prerequisites apply. Refer to Table 1–3.

3 Running the Java ES installer

4 At component selection, choosing Application Server

Message Queue, HADB, and Java DB are automatically selected. The Load Balancing Plugin and the Application Server Node Agent are not selected.

(Optional) If you are going to implement load balancing, expand Application Server and select the Load Balancing Plugin subcomponent. Select Web Server if you want to install Web Server in the same session. If you want to use Web Server 6.0 or Apache Web Server, Web Server 6.0 or Apache Web Server must already be installed.

5 Resolving incompatibilities

The installer verifies software on your host and provides guidance if incompatibilities are identified.

6 Verifying installation directories

7 Selecting the Configure Now or Configure Later type

a. For the Configure Now type, configuration pages are displayed for the local product components that can be configured during installation.

Gather your Application Server configuration information from the tables in "Application Server Configuration Information" in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

b. For the Configure Later type, configuration pages are not displayed.

8 Running the installation

9 Viewing the Installation Summary and Log

10 Completing postinstallation configuration

- "To Configure Application Server After a Configure Later Installation" on page 123
- (Optional) "To Configure Web Server After a Configure Later Installation" on page 129
- (Optional) "Message Queue Postinstallation Configuration" on page 127
- "HADB Postinstallation Configuration" on page 126

11 Starting Application Server (automatically starts Message Queue)

- "Starting and Stopping Application Server" on page 143
- (Optional) "Starting and Stopping Web Server" on page 150

The following table contains additional Application Server information.

Task	Relevant Information
Configuration information for the installer	"Application Server Configuration Information" in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*
Postinstallation configuration	"To Configure Application Server After a Configure Later Installation" on page 123
Starting and stopping	"Starting and Stopping Application Server" on page 143
Uninstalling	"Application Server Uninstallation Behavior" on page 160

Task	Relevant Information
Troubleshooting	"Application Server Troubleshooting Tips" on page 201
Upgrading	*Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*

Directory Proxy Server Only Example

This example provides guidelines for installing Directory Proxy Server on a single host.

▼ To Develop a Sequence for Directory Proxy Server

The following high-level tasks are required:

1. **Checking the installation sequence guidelines**

   Check to see what sequence guidelines apply. Refer to Table 2–1.

2. **Checking the installation prerequisites**

   Check to see what installation prerequisites apply. Refer to Table 1–3.

3. **Running the Java ES installer**

4. **At component selection, selecting Directory Proxy Server**

5. **Resolving incompatibilities**

   The installer verifies software on your host and provides guidance if incompatibilities are identified.

6. **Verifying installation directories**

7. **Selecting the Configure Now or Configure Later option**

8. **Running the installation**

9. **Viewing the Installation Summary and Log**

10. **Creating an instance of Directory Proxy Server**

11. **Starting Directory Proxy Server**

    "Starting and Stopping Directory Proxy Server" on page 145

    The following table contains additional Directory Proxy Server information.

Task	Relevant Information
Starting and stopping	"Starting and Stopping Directory Proxy Server" on page 145
Uninstalling	"Directory Proxy Server Uninstallation Behavior" on page 161
Upgrading	*Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*

Directory Server Only Example

With Directory Server Enterprise Edition, you can install Directory Server Core, Directory Proxy Server, and the tools for administering your directory service remotely. Directory Server provides LDAP and DSML directory services, managing client access to your directory database. Directory Proxy Server offers proxy LDAP service with configurable load balancing and routing. Directory Proxy Server also enables data distribution for high scalability, and virtual directory access to both LDAP and relational databases. Remote administration tools include the web based Directory Service Control Center, and command line remote configuration tools.

In production deployments, you typically deploy each Directory Server Enterprise Edition component on a different host. Before deploying Directory Server Enterprise Edition software in production, read the *Sun Java System Directory Server Enterprise Edition 6.2 Deployment Planning Guide*.

This example provides guidelines for installing Directory Server on a single host.

Requirements and Sequence Issues

Directory Server has no dependencies on other Java ES product components.

- If you are using this product component with Sun Cluster software, you must perform a precise series of tasks before installing any product components. Refer to "Sun Cluster Software Example" on page 66
- Directory Server must be running before installing other product components that depend on Directory Server.
- If your deployment calls for Schema 2, you must configure Directory Server for Schema 2 before implementing any other product components.

▼ To Develop a Sequence for Directory Server

The following high-level tasks are required:

1 Checking the installation sequence guidelines

Check to see what sequence guidelines apply. Refer to Table 2–1.

2. **Checking the installation prerequisites**

   Check to see what installation prerequisites apply. Refer to Table 1–3.

3. **Planning your schema**

   For guidelines, refer to "LDAP Schema and LDAP Directory Tree Structure" in *Sun Java Enterprise System 5 Installation Planning Guide*.

4. **Running the Java ES installer**

5. **At component selection, selecting Directory Server**

   Directory Preparation Tool is automatically selected.

6. **Resolving incompatibilities**

   The installer verifies software on your host and provides guidance if incompatibilities are identified.

7. **Verifying installation directories**

8. **Selecting the Configure Now or Configure Later type**

   a. **For the Configure Now type, configuration pages are displayed for the local product components that can be configured during installation.**

      Gather your configuration information from the tables in Chapter 3, "Configuration Information," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

   b. **For the Configure Later type, configuration pages are not displayed.**

9. **Running the installation**

10. **Viewing the Installation Summary and Log**

11. **Starting Directory Server**

    "Starting and Stopping Directory Server" on page 145

    The following table contains additional Directory Server information.

Task	Relevant Information
Configuration information for the installer	"Directory Server Configuration Information" in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*
Starting and stopping	"Starting and Stopping Directory Server" on page 145

Task	Relevant Information
Uninstalling	"Directory Server Uninstallation Behavior" on page 161
Troubleshooting	"Directory Server Troubleshooting Tips" on page 202
Upgrading	*Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*

Message Queue Only Example

Note – On Solaris 10, Message Queue can only be installed in the global zone, after which it is propagated to all non-global zones.

This example provides guidelines for installing Message Queue on a single host.

Requirements

Message Queue has no dependencies on other Java ES product components.

▼ To Develop a Sequence for Message Queue

The following high-level tasks are required:

1. **Checking the installation sequence guidelines**

   Check to see what sequence guidelines apply. Refer to Table 2–1.

2. **Checking the installation prerequisites**

   Check to see what installation prerequisites apply. Refer to Table 1–3.

3. **Running the Java ES installer**

4. **At component selection, selecting Message Queue**

5. **Resolving incompatibilities**

   The installer verifies software on your host and provides guidance if incompatibilities are identified.

6. **Selecting the Configure Later type**

   Message Queue cannot be configured during installation

7. **Running the installation**

8 Viewing the Installation Summary and Log

9 Starting Message Queue

"Starting and Stopping Message Queue" on page 146

The following table contains additional Message Queue information.

Task	Relevant Information
Postinstallation configuration	"Message Queue Postinstallation Configuration" on page 127
Starting and stopping	"Starting and Stopping Message Queue" on page 146
Uninstalling	"Message Queue Uninstallation Behavior" on page 162
Troubleshooting	"Message Queue Troubleshooting Tips" on page 202
Upgrading	*Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*

Monitoring Console Only Example

If your product components will use Java ES monitoring, you need to install the Monitoring Console component on another host where no other product components are installed. Monitoring Console cannot run on the same host as any of the Java ES components.

▼ To Develop a Sequence for Monitoring Console

1 Checking the installation sequence guidelines

Check to see what sequence guidelines apply. Refer to Table 2–1.

2 Checking the installation prerequisites

Check to see what installation prerequisites apply. Refer to Table 1–3.

3 Running the Java ES installer

Be sure that no other Java ES component products are installed on the same host as Monitoring Console.

4 At component selection, choosing Monitoring Console

5 Resolving incompatibilities

The installer verifies software on your host and provides guidance if incompatibilities are identified.

6 Selecting the Configure Later type

Monitoring Console cannot be configured during installation.

7 Running the installation

8 Viewing the Installation Summary and Log

9 Completing postinstallation configuration

After installing all the components that will use monitoring, configure for monitoring using instructions in the *Sun Java Enterprise System 5 Update 1 Monitoring Guide*. This document also contains instructions for administering and using Java ES monitoring.

The following table contains additional Monitoring Console information.

Task	Relevant Information
Postinstallation configuration	"Monitoring Console Postinstallation Configuration" on page 120
Starting and stopping	*Sun Java Enterprise System 5 Update 1 Monitoring Guide*
Uninstalling	"Monitoring Console Uninstallation Behavior" on page 163
Troubleshooting	"Monitoring Console Troubleshooting Tips" on page 203
Upgrading	*Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*

Portal Server Secure Remote Access Example

This example describes installation of only Portal Server Secure Remote Access with Access Manager on a single host, using Web Server as the web container.

Requirements

Portal Server Secure Remote Access requires a local copy of Access Manager or Access Manager SDK. Portal Server Secure Remote Access Core requires a local copy of Portal Server except in case of Gateway, where Portal Server Secure Remote Access does not require a local copy of Portal Server and can be installed on a separate host. Portal Server Secure Remote Access must be installed in the same location as Portal Server. Directory Server is required by Portal Server, but not necessarily a local copy. Access Manager requires a local web container, which in this example is Web Server.

▼ To Develop a Sequence for Portal Server Secure Remote Access

The following high-level tasks are required:

1. **Checking the installation sequence guidelines**

   Check to see what sequence guidelines apply. Refer to Table 2–1.

2. **Checking the installation prerequisites**

   Check to see what installation prerequisites apply. Refer to Table 1–3.

3. **Running the Java ES installer**

4. **At component selection, choosing Portal Server Secure Remote Access, Portal Server, and Web Server**

   Portal Server, Access Manager and Directory Server are automatically selected, as well as Java DB and Service Registry.

   - To use a remote copy of Directory Server, deselect Directory Server and specify a remote copy when prompted.
   - To use a remote copy of Access Manager, deselect Access Manager and specify a remote copy when prompted because the installer provides appropriate panels allowing to use a remote Access Manager.

5. **Resolving incompatibilities**

   The installer verifies software on your host and provides guidance if incompatibilities are identified.

6. **Selecting the Configure Now or Configure Later type**

   a. **For the Configure Now type, configuration pages are displayed for those product components that allow installation time configuration.**

      Do not accept defaults for product components that are remote; use the remote information.

      You will need to gather your configuration information from the tables in Chapter 3, "Configuration Information," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

   b. **For the Configure Later type, configuration pages are not displayed.**

7. **Running the installation**

8. **Viewing the Installation Summary and Log**

9 Completing any postinstallation configuration

For Configure Now:

- "Configuring Access Manager After a Configure Now Installation" on page 122
- "Portal Server and Portal Server Secure Remote Access Postinstallation Configuration" on page 128

For Configure Later:

- "Configuring Access Manager After a Configure Later Installation" on page 122
- "To Configure Web Server After a Configure Later Installation" on page 129
- "Portal Server and Portal Server Secure Remote Access Postinstallation Configuration" on page 128

10 Starting the product components

- "Starting and Stopping Directory Server" on page 145
- "Starting and Stopping Web Server" on page 150 (Access Manager and Portal Server start automatically.)
- "Starting and Stopping Portal Server Secure Remote Access" on page 147

11 Accessing the default Access Manager login page

`http://`*webserver-host*`:`*port*`/amserver`

12 Accessing the portal

`http://`*webserver-host*`:`*port*`/portal/dt`

13 Enabling Portal Server Secure Remote Access in the Portal Server Deployment page

This allows Portal Server Secure Remote Access subcomponents to be started.

14 Accessing the Portal Gateway

`https://`*gateway-server*`:`*port*`/`

The following table contains additional Portal Server Secure Remote Access information.

Task	Relevant Information
Configuration information for the installer	"Portal Server Secure Remote Access Configuration Information" in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*
Starting and stopping	"Starting and Stopping Portal Server Secure Remote Access" on page 147
Uninstalling	"Portal Server Secure Remote Access Uninstallation Behavior" on page 165

Task	Relevant Information
Troubleshooting	"Portal Server Secure Remote Access Troubleshooting Tips" on page 204
Upgrading	*Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*

Service Registry Only Example

This example provides guidelines for installing Service Registry on a single host.

Requirements

Service Registry requires a local copy of Application Server and at least two Application Server subcomponents: Domain Administration Server and Command Line Administration Tool. Message Queue, HADB, and Java DB are also required.

Note – For installation on Solaris 10, Service Registry should be installed in a separate non-global zone. For more information, refer to "Solaris 10 Zones Examples" on page 60.

▼ To Develop a Sequence for Service Registry

The following high-level tasks are required:

1. **Checking the installation sequence guidelines**

   Check to see what sequence guidelines apply. Refer to Table 2–1.

2. **Checking the installation prerequisites**

   Check to see what installation prerequisites apply. Refer to Table 1–3.

3. **Running the Java ES installer**

4. **At component selection, selecting Service Registry**

   Application Server and its required subcomponents as well as HADB, Java DB, and Message Queue are automatically selected.

5. **Resolving incompatibilities**

   The installer verifies software on your host and provides guidance if incompatibilities are identified.

6. **Verifying installation directories**

7. **Selecting the Configure Now or Configure Later type**

   Service Registry cannot be configured during installation.

   a. **For the Configure Now type, the Application Server and HADB configuration pages are displayed by the installer.**

      Gather your configuration information from the tables in Chapter 3, "Configuration Information," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*

   b. **For the Configure Later type, configuration pages are not displayed.**

8. **Running the installation**

9. **Viewing the Installation Summary and Log**

10. **Completing postinstallation configuration, in this order**

    Postinstallation configuration of Application Server and HADB are necessary only if those services are to be used separately or if Configure Later was chosen for Application Server.

    a. **"Application Server Postinstallation Configuration" on page 123**

    b. *Service Registry 3.1 Update 1 Administration Guide*

    c. **"HADB Postinstallation Configuration" on page 126**

11. **Starting Service Registry**

    Refer to the *Service Registry 3.1 Update 1 Administration Guide* for instructions.

    The following table contains additional information for installing Service Registry.

Task	Relevant Information
Postinstallation configuration	"Service Registry Postinstallation Configuration" on page 128
Uninstalling	"Service Registry Uninstallation Behavior" on page 166
Troubleshooting	"Service Registry Troubleshooting Tips" on page 205

Web Server Only Example

This example provides guidelines for installing Web Server on a single host.

Requirements

Web Server has no dependencies on other product components.

▼ To Develop a Sequence for Web Server

The following high-level tasks are required:

1. **Checking the installation sequence guidelines**

   Check to see what sequence guidelines apply. Refer to Table 2–1.

2. **Checking the installation prerequisites**

   Check to see what installation prerequisites apply. Refer to Table 1–3.

3. **Running the Java ES installer**

4. **At component selection, selecting Web Server**

5. **Resolving incompatibilities**

   The installer verifies software on your host and provides guidance if incompatibilities are identified.

6. **Verifying installation directories**

7. **Selecting the Configure Now or Configure Later type**

   a. **For the Configure Now type, the Web Server configuration pages are displayed by the installer.**

      You are asked to select the Web Server configuration type, either Server or Node. Server is the default.

      Gather your configuration information from the tables in Chapter 3, "Configuration Information," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*

   b. **For the Configure Later type, configuration pages are not displayed.**

8. **Running the installation**

9. **Viewing the Installation Summary and Log**

10. **Completing any postinstallation configuration**

    "Web Server Postinstallation Configuration" on page 129

11 Starting Web Server

"Starting and Stopping Web Server" on page 150

The following table contains additional information for installing Web Server.

Task	Relevant Information
Postinstallation configuration	"Web Server Postinstallation Configuration" on page 129
Starting and stopping	"Starting and Stopping Web Server" on page 150
Uninstalling	"Web Server Uninstallation Behavior" on page 168
Troubleshooting	"Web Server Troubleshooting Tips" on page 206
Upgrading	*Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*

Solaris 10 Zones Examples

This section contains a brief description of Solaris 10 zones support for the current release of Java ES. Installation sequence examples are included. The following topics are addressed in this section:

Overview of Solaris Zones

The Solaris 10 zones feature (also known as Solaris containers) provides a means of creating virtualized operating system environments within an instance of Solaris OS. This allows one or more processes to run in isolation from other activities on the host. For example, a process running in a zone will only be able to send signals to other processes in the same zone, regardless of user ID and other credential information.

Every Solaris 10 host contains a single *global zone*. The global zone is both the default zone for the host and the zone used for system-wide administrative control. All processes run in the global zone if no non-global zones are created by the global administrator. Some Java ES product components, such as Sun Cluster software, can only be installed in the global zone. A *non-global zone* can be thought of as a box. One or more applications can run in this box without interacting with the rest of the host. Each non-global zone has what appears to be its

own instance of an installed Solaris 10 operating system with configuration and other information unique to that non-global zone. When a package is installed in the global zone, it is, by default, propagated to all non-global zones. In other words, the package is installed in the non-global zones as well as in the global zone. This propagation provides non-global visibility and availability to packages that are installed in the global zone. This propagation behavior can optionally be suppressed when the package is added, thus restricting the package to the global zone only. The default configuration for a non-global zone is to share portions of the global zone's file system. Two types of non-global zones are supported: whole root zone and sparse root zone.

A *whole root zone* contains a read/write copy of the file system that exists in the global zone. When a whole root zone is created, all packages that are installed in the global zone are made available to the whole root zone. A package database is created and all packages are copied onto the whole root zone, creating a dedicated and independent copy of all files.

A *sparse root zone* contains a read/write copy of only a portion of the file system that exists in the global zone, while other file systems are mounted read-only from the global zone as loopback virtual file systems, for example, `/usr`. The global administrator selects which file systems to share with a sparse root zone at the time the sparse root zone is created.

Note – For Java ES, it is assumed that for sparse root zones the `/opt` file system is not inherited from the global zone and is, therefore, writable.

For your zones deployment to succeed, it is crucial that you plan the tasks and sequence of those tasks very carefully. Java ES components can potentially be installed in any type of zone in an almost unlimited set of combinations, and in almost any order. In some cases, the order in which Java ES product components are installed, and the order in which non-global zones are created, can be very important. For a full description of planning for implementing Java ES in a Solaris zones environment, refer to the Appendix A, "Java ES and Solaris 10 Zones," in *Sun Java Enterprise System 5 Installation Planning Guide*.

Zones Support for This Release of Java ES

The following list describes the level of zones support for this release of Java ES:

1. Both whole root zones and sparse root zones are supported.
2. Java ES can be installed in the global zone when non-global zones already exist.
3. Non-global zones can be created after Java ES is installed in the global zone.
4. All shared components in a zone must be from the same release of Java ES.
5. Whole root and sparse root deployments of Java ES should not be mixed on a single computer.

6. The Java ES installer can install Java ES components in sparse root zones with the following exceptions:
   - Sun Cluster software, Sun Cluster Geographic Edition, and Sun Cluster Agents can only be installed in the global zone.
   - Message Queue can only be installed or upgraded in the global zone, or in a whole root zone.
   - Shared components can only be installed or upgraded in the global zone, or in a whole root zone.
   - Before Application Server can be installed into the sparse root zone, any version of Application Server that is bundled with the operating system must be manually removed from the global zone.
7. The Java ES installer controls propagation of the packages it installs in the global zone:
   - Shared components are always propagated.
   - Message Queue and Java DB are always propagated.
   - All other product components are never propagated.
8. If you have a previous version of Java ES installed in a whole root zone, you should not install Java ES in the global zone.

Special Situation: Installing Shared Components in a Whole Root Zone

Installation of shared components in a whole root zone can be blocked if specific versions of Sun Java Web Console are already installed in the zone. This, in turn, can block installation of product components in the whole root zone.

Note – This situation is addressed in Bug 6451030 in the *Sun Java Enterprise System 5 Update 1 Release Notes*.

Some earlier versions of the Sun Java Web Console packages contain an incorrect attribute setting that prevents Sun Java Web Console from being upgraded in whole root zones. The Sun Java Web Console packages that contain the incorrect attribute setting were shipped with Solaris 10, Solaris 10 Update 1 (1/06), Solaris 10 Update 2 (6/06), and Java ES 4 (2005Q4). The packages are correct in Solaris 10 Update 3 (11/06) and Java ES 5. To determine if your host contains the defective packages, run the following command in the global zone:

```
pkgparam -v SUNWmcon SUNW_PKG_ALLZONES
```

If you receive the following response, your host contains the defective packages:

```
SUNW_PKG_ALLZONES='true'
```

If you want to install Java ES 5U1 in a whole root zone, you will first need to upgrade the Sun Java Web Console packages in the global zone. You have the following options:

- Option 1: Run the Java ES installer in the global zone and install only All Shared Components. This will upgrade the Sun Java Web Console packages and fix the zones attribute. This will also install all the other Java ES 5U1 shared components into the global zone and propagate them into all non-global zones. This might not be acceptable for your situation and is not recommended if you have a previous version of Java ES installed in a whole root zone.
- Option 2: Upgrade only the Sun Java Web Console packages in the global zone. To do this, log into the global zone and navigate to the Java ES 5U1 installation directory for Solaris. As root, do the following:
  ```
  cd Product/sunwebconsole
  ./setup
  ```
  The setup script will upgrade Sun Java Web Console to version 3.0.3, which contains the repaired zones attributes.

After you apply one of these options, you can install Java ES 5U1 components in a whole root zone.

Solaris 10 Whole Root Zones Example

This example provides guidelines for installing Java ES software in a Solaris 10 whole root zone.

▼ To Develop a Sequence for Solaris 10 Whole Root Zones

The following high-level tasks are required:

1 Verifying that Solaris 10 is installed on your host

The global zone is automatically created.

2 Verifying that all your whole root zones are in the running state

A zone is in the running state when it has been configured, installed, and booted. For information on whole root zones, refer to Chapter 18, "Planning and Configuring Non-Global Zones (Tasks)," in *System Administration Guide: Solaris Containers-Resource Management and Solaris Zones*.

3 Checking the installation sequence guidelines

Check to see what sequence guidelines apply. Refer to Table 2–1.

4 Checking the installation prerequisites

Check to see what installation prerequisites apply. Refer to Table 1–3.

5 Starting the Java ES installer in the desired whole root zone

6. **At component selection, choosing the components you want**

   If a component cannot be installed in a whole root zone, then it will be unavailable for component selection.

7. **Viewing the Installation Summary and Log**

8. **Completing postinstallation configuration as needed**

   Chapter 6, "Completing Postinstallation Configuration" provides postinstallation configuration instructions.

9. **Starting product components**

   Chapter 7, "Verifying Installed Product Components" provides procedures for starting and stopping the Java ES product components.

10. **Repeating this process in additional whole root zones as needed**

Solaris 10 Sparse Root Zones Example

This example provides guidelines for installing Java ES software in a Solaris 10 sparse root zone.

▼ To Develop a Sequence for Solaris 10 Sparse Root Zones

1. **Verifying that Solaris 10 is installed on your host**

   The global zone is automatically created.

2. **Verifying that all your sparse root zones are in the running state**

   A zone is in the running state when it has been configured, installed, and booted. For information on sparse root zones, refer to Chapter 18, "Planning and Configuring Non-Global Zones (Tasks)," in *System Administration Guide: Solaris Containers-Resource Management and Solaris Zones*.

3. **Checking the installation sequence guidelines**

   Check to see what sequence guidelines apply. Refer to Table 2–1.

4. **Checking the installation prerequisites**

   Check to see what installation prerequisites apply. Refer to Table 1–3.

5. **Starting the Java ES installer in the global zone, and selecting only shared components**

   Select only All Shared Components at component selection; no other components should be selected. When shared component installation is complete, the shared component are in the global zone and are also propagated to all non-global zones.

Note – For shared components that use multilingual packages, the Java ES multilingual packages must be present in the global zone.

6 **If Message Queue or Application Server are being used, upgrading Message Queue in the global zone**

Message Queue is often installed during Solaris 10 installation and does not support installation into a sparse root zone. Therefore, Message Queue must be installed in the global zone, after which it is propagated to all non-global zones.

7 **If Application Server is being used, removing the bundled Application Server from the global zone**

If Application Server is being used in the deployment, the Application Server that is bundled in Solaris 10 must be removed from the global zone. In the global zone on the host, list the Application Server packages as follows:

```
pkginfo -i | grep -i "application server"
```

If Application Server packages are present, remove them from the global zone. Because these packages are automatically removed from all the non-global zones, you will need go to each sparse root zone and reinstall Application Server.

8 **Starting the Java ES installer in the desired sparse root zone**

9 **At component selection, choosing the components you want**

If a component cannot be installed in a sparse root zone, then it will be unavailable for component selection.

10 **Viewing the Installation Summary and Log**

11 **Completing postinstallation configuration as needed**

Chapter 6, "Completing Postinstallation Configuration" provides postinstallation configuration instructions.

12 **Starting product components**

Chapter 7, "Verifying Installed Product Components" provides procedures for starting and stopping the Java ES product components.

13 **Repeating this process in additional sparse root zones as needed**

Sun Cluster Software Example

Product components that can be configured to run in a cluster instead of on a single server include Application Server, Directory Server, HADB, Message Queue, and Web Server. Communications Suite components that can be configured to run in a cluster include Calendar Server, Instant Messaging, and Messaging Server.

Note – Linux do not support Sun Cluster components.

This example provides guidelines for installing Messaging Server in a Sun Cluster framework.

Before you install or configure Sun Cluster software, ensure that the combination of hardware and software that you choose for your cluster is currently a supported Sun Cluster configuration. For guidelines on implementing Sun Cluster software within a Java ES environment, refer to Chapter 2, "Installing and Configuring Sun Cluster Software," in *Sun Cluster Software Installation Guide for Solaris OS* and *Sun Cluster 3.1 8/05 With Sun Java Enterprise System 5 Special Instructions*.

Requirements and Sequencing Issues

Messaging Server requires Directory Server, but not necessarily a local copy. You will need the Sun Cluster Core component as well as the Sun Cluster Agents for Directory Server and Messaging Server. If a remote Directory Server is used, then the Sun Cluster Agent for Directory Server is not required.

Installing, configuring, and starting the product components in the correct order is crucial for a successful Sun Cluster implementation.

1. Installing the Java ES Sun Cluster product component
2. Configuring the Sun Cluster framework
3. Installing and configuring Messaging Server using instructions in the *Sun Java Communications Suite 5 Installation Guide*
4. Installing additional Java ES product components that are required
5. Configuring the Sun Cluster data services using the agents for the relevant Java ES product components

At least three installation sessions are performed on each node in the cluster, one using the Communications Services installer and two using the Java ES installer. For instructions on using the Communications Services installer, refer to *Sun Java Communications Suite 5 Installation Guide*.

Phase I. Installing and Configuring the Sun Cluster Framework

The following tasks must be performed on all nodes in the cluster.

▼ To Develop a Sequence for the Sun Cluster Framework

1 Verifying that the hardware is connected correctly for the cluster

- *Sun Cluster 3.0–3.1 Hardware Collection for Solaris OS (SPARC Platform Edition)* `http://docs.sun.com/coll/1024.1`
- *Sun Cluster 3.0–3.1 Hardware Collection for Solaris OS (x86 Platform Edition)* `http://docs.sun.com/coll/1142.1`

2 Checking the installation sequence guidelines

Check to see what sequence guidelines apply. Refer to Table 2–1.

3 Checking the installation prerequisites

Check to see what installation prerequisites apply. Refer to Table 1–3.

4 Running the Java ES installer

On Solaris 10, Sun Cluster software can only be installed in the global zone.

5 At component selection, choosing only the Sun Cluster product component

---

Tip – During a Configure Now installation, you are prompted whether to enable support for remote Sun Cluster configuration. If you select Yes, postinstallation configuration for Sun Cluster software will be easier.

---

6 Selecting the Configure Later type

7 If needed, manually installing the Sun Cluster support for additional features: RSMAPI (`SUNWscrif`), SCI-PCI adapters (`SUNWsci`), RSMRDT drivers (`SUNWscrdt`)

Refer to the *Sun Cluster Software Installation Guide for Solaris OS* for further information.

8 Following the instructions to configure the Sun Cluster Framework for each host in the cluster

Follow instructions in Chapter 2, "Installing and Configuring Sun Cluster Software," in *Sun Cluster Software Installation Guide for Solaris OS*. When the Sun Cluster documentation refers to a Sun Cluster CD-ROM, substitute the name of the equivalent Java ES CD-ROM.

For documentation on creating resource groups and configuring data services, refer to the *Sun Cluster Data Services Planning and Administration Guide for Solaris OS*.

Phase II. Installing and Configuring Product Components and Agents

The following tasks must be performed on all nodes in the cluster.

▼ To Develop a Sequence for Configuring Product Components and Agents

1 Installing and configuring non-Java ES products

For instructions on installing and configuring Messaging Server, refer to *Sun Java Communications Suite 5 Installation Guide*, including the appropriate Sun Cluster Agents.

2 Running the Java ES installer

3 In the Java ES installer, selecting needed Java ES components that were not installed with Messaging Server

a. **(Optional) If you are using a remote copy of Directory Server, deselect Directory Server and specify a remote copy when prompted.**

b. **Sun Cluster Agents**

4 Resolving incompatibilities

The installer verifies software on your node and provides guidance if incompatibilities are identified.

5 Verifying installation directories

6 Selecting the Configure Now or Configure Later type

Sun Cluster Agents cannot be configured during installation.

7 Configuring all the selected product components except Sun Cluster Agents

8 Starting all the product components except Sun Cluster Agents, in this order:

a. **"Starting and Stopping Directory Server" on page 145**

b. **Starting Messaging Server**

For instructions on starting Messaging Server, refer to "Starting and Stopping Messaging Server" in *Sun Java Communications Suite 5 Installation Guide*.

9 **Configuring the data services for the product components you have installed and configured**

"Sun Cluster Data Services Configuration" on page 130

The following table contains additional Sun Cluster information.

Task	Relevant Information
Postinstallation configuration information	"Phase I. Sun Cluster Framework" on page 121 "Sun Cluster Data Services Configuration" on page 130
Starting and stopping	"Stopping and Rebooting Sun Cluster Software" on page 148
Uninstalling	"Sun Cluster Software and Sun Cluster Geographic Edition Uninstallation Behavior" on page 167
Troubleshooting	"Sun Cluster Software Troubleshooting Tips" on page 205
Upgrading	*Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*

Access Manager SDK With Container Configuration Example

This example provides guidelines for installing Access Manager SDK, using a copy of Access Manager that is already installed on a remote host.

Note – To use this sequence example, also refer to known issue 6293225 in the *Sun Java Enterprise System 5 Update 1 Release Notes*.

Requirements

Before you install Access Manager SDK, the Access Manager Services Core must be installed and running on a remote host. The web container information and Directory Server configuration information that you provide in this installation example must match the web container and Directory Server configuration information that you provided during installation of Access Manager Services Core.

Note – When the installer asks for information about the remote web container and Directory Server, default values are displayed based on the local host. Do not accept the default values; use them only as examples of format. Instead, you must supply the correct information for the remote host.

The Java ES installer does not allow you to configure the web container when you are installing only the Access Manager SDK.

To Develop a Sequence for Host A

The following high-level tasks are required:

1. **Checking the installation sequence guidelines**
   Check to see what sequence guidelines apply. Refer to Table 2–1.
2. **Checking the installation prerequisites**
   Check to see what installation prerequisites apply. Refer to Table 1–3.
3. **Installing and starting Access Manager core services**
   "Identity Management Example" on page 72

To Develop a Sequence for Host B

The following high-level tasks are required:

1. **Checking the installation sequence guidelines**
   Check to see what sequence guidelines apply. Refer to Table 2–1.
2. **Checking the installation prerequisites**
   Check to see what installation prerequisites apply. Refer to Table 1–3.
3. **Running the Java ES installer to install a web container**
   The web container must be configured and started.
4. **Running the Java ES installer to install Access Manager SDK**
5. **Resolving incompatibilities**
   The installer verifies software on your host and provides guidance if incompatibilities are identified.
6. **Selecting the Configure Later type**

7 Running the installation

8 Viewing the Installation Summary and Log

9 Verifying that your web container is installed and running

10 Editing the `amsamplesilent` file in the *AccessManager-base* directory

Solaris OS: `/opt/SUNWam/bin`

Linux: `/opt/sun/identity/bin`

a. Copy the `amsamplesilent` file to `am.sdk_install`.

b. Edit the `am.sdk_install` file by modifying the following parameters:

- `SERVER_NAME`
- `SERVER_HOST`
- `SERVER_PORT`
- `ADMIN_PORT`
- `DS_HOST`
- `DS_DIRMGRPASSWD`
- `ROOT_SUFFIX`
- `ADMINPASSWD`
- `AMLDAPUSERPASSWD`
- `COOKIE_DOMAIN`
- `AM_ENC_PWD`
- `NEW_OWNER`
- `NEW_GROUP`
- `PAM_SERVICE_NAME`
- `WEB_CONTAINER`

c. Modify only the following parameters in the `am.sdk_install` file:

- `DEPLOY_LEVEL` should be set to 4.
- `SERVER_HOST` and `SERVER_PORT` should be set to the host and port of the full server which will be used by Access Manager SDK.
- `DS_HOST`, `DS_DIRMGRPASSWD`, and `ROOT_SUFFIX` should be set to the hostname, directory manager password, and root suffix of the Host A Directory Server.
- `ADMINPASSWD` and `AMLDAPUSERPASSWD` should be set to the amadmin and amldapuser passwords used on Host A.
- `AM_ENC_PWD` should be set to the password encryption key used on Host A. For the Access Manager SDK, use the same encryption key for `AM_ENC_PWD` as the encryption key specified during the remote installation of Access Manager on Host B. Use the following command to obtain this value on Solaris OS: `grep pwd`

`/etc/opt/SUNWam/config/AMConfig.properties`. On Linux: use `grep pwd /etc/opt/sun/identity/config/AMConfig.properties`

- `WEB_CONTAINER` should be set to the corresponding value for the web container being used.
- `BASEDIR` should be set to the install directory used during the Configure Later installation of Access Manager SDK.
- `AM_REALM` should be set to Enabled if realm mode is used on Host A, and Disabled if legacy mode is used on Host A.
- Find the settings corresponding to the web container that will be used for the SDK and modify these settings with the details of the web container. For example, if `WEB_CONTAINER` is set to `WS` (Sun Java System Web Server), then you should modify the settings which are prefixed by `WS_` (`WS_INSTANCE` , `WS_HOME`, `WS_PROTOCOL` and so on.)

11 As root, deploying Access Manager using the edited `am.sdk_install` file:

```
./amconfig -s ./am.sdk_install
```

12 Restarting your web container

Identity Management Example

In this example, identity management is implemented by installing Access Manager and Directory Server, with Directory Server on a remote host.

Requirements

Access Manager requires Directory Server, but not necessarily a local copy. Access Manager requires a web container, which in this example is Web Server. The remote Directory Server must be running before installing any other product components.

▼ To Develop a Sequence for Host A

The following high-level tasks are required:

1 Checking the installation sequence guidelines

Check to see what sequence guidelines apply. Refer to Table 2–1.

2 Checking the installation prerequisites

Check to see what installation prerequisites apply. Refer to Table 1–3.

3 Installing and starting Directory Server

"Directory Server Only Example" on page 50

To Develop a Sequence for Host B

The following high-level tasks are required:

1. **Checking the installation sequence guidelines**

   Check to see what sequence guidelines apply. Refer to Table 2–1.

2. **Checking the installation prerequisites**

   Check to see what installation prerequisites apply. Refer to Table 1–3.

3. **Running the Java ES installer**

4. **At component selection, choosing Access Manager and Web Server**

   Directory Server and the Directory Preparation Tool are automatically selected.

5. **Deselect Directory Server and specify a remote copy when prompted.**

6. **Resolving incompatibilities**

   The installer verifies software on your host and provides guidance if incompatibilities are identified.

7. **Selecting the Configure Now or Configure Later type**

   a. **For the Configure Now type, configuration pages are displayed for those product components that allow installation-time configuration.**

      Do not accept defaults for product components that are remote; use the remote information. You will need to gather your configuration information from the tables in Chapter 3, "Configuration Information," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

   b. **For the Configure Later type, configuration pages are not displayed.**

8. **Running the installation**

9. **Viewing the Installation Summary and Log**

10. **Completing any postinstallation configuration**

    For Configure Now:

    "Configuring Access Manager After a Configure Now Installation" on page 122

    For Configure Later:

    - "Web Server Postinstallation Configuration" on page 129
    - "Configuring Access Manager After a Configure Later Installation" on page 122

11 Starting the product components

"Starting and Stopping Web Server" on page 150 (Access Manager starts automatically.)

12 Accessing the default Access Manager login page for Realm Mode

`http://`*webserver-host*`:`*port*`/amserver`

13 Establishing an initial user and setting up single sign-on

Portal Server Using a Remote Access Manager Example

This example provides guidelines for installing Portal Server and its required product components on one host, using a copy of Access Manager that is already installed with Directory Server on another host. Access Manager and Portal Server must use the same type of web container on a host.

Requirements

Portal Server requires Access Manager. Access Manager requires a local or remote copy of Directory Server and a local web container. You can run Portal Server on a separate host from Access Manager, in which case Portal Server requires a local copy of the Access Manager SDK and a local web container. When you install Portal Server and the Access Manager SDK, you need to deselect the unneeded subcomponents of Access Manager. (The installer automatically selects all Access Manager subcomponents when you select Portal Server.)

▼ To Develop a Sequence for Host A

The following high-level tasks are required:

1 Checking the installation sequence guidelines

Check to see what sequence guidelines apply. Refer to Table 2–1.

2 Checking the installation prerequisites

Check to see what installation prerequisites apply. Refer to Table 1–3.

3 Verifying that Access Manager and Directory Server are installed and running

"Identity Management Example" on page 72

To Develop a Sequence for Host B

The following high-level tasks are required:

1. **Checking the installation sequence guidelines**

   Check to see what sequence guidelines apply. Refer to Table 2–1.

2. **Checking the installation prerequisites**

   Check to see what installation prerequisites apply. Refer to Table 1–3.

3. **Running the Java ES installer**

4. **At component selection, selecting Portal Server**

   Access Manager SDK, Access Manager Core Services, Administration Console, and Federation Management are automatically selected as well as Directory Server Core Server, the Directory Preparation Tool, Java DB, and Service Registry. The web container is not selected. The Web Container Selection page prompts you to select a web container.

5. **Deselecting Directory Server and all subcomponents of Access Manager except Access Manager SDK**

   Dependency messages guide you to do the following:

   a. **Select Application Server, Web Server, or a previously installed local web container.**

   b. **Select a remote instance of Access Manager.**

6. **Resolving incompatibilities**

   The installer verifies software on your host and provides guidance if incompatibilities are identified.

7. **Selecting the Configure Now type**

   The configuration pages are displayed.

8. **In the Access Manager: Specify Configuration Information page, supplying the following values for the remote Access Manager:**

   Note – Passwords must be different for `amAdmin` and `amladpuser`.

   - Administrator (`amAdmin`) Password (retyped)
   - LDAP user (`amldapuser`) Password (retyped)
   - Password Encryption Key (must match the encryption key entered for Host A)

9. **In the Access Manager: Directory Server Information page, specifying the information for the Directory Server on Host A.**

   - Directory Server Information
   - Directory Manager Password
   - Suffix

10. **In the Access Manager: Web container for running Sun Java System Access Manager Services, specifying the information about the remote Access Manager on Host A**

    Host name should be the fully qualified name on Host A.

11. **In the Portal Server: *webcontainer* page, specifying the web container (and any configuration parameters) that Portal Server is running within**

12. **Running the installation**

13. **Viewing the Installation Summary and Log**

14. **Completing any required postinstallation configuration:**

    "Portal Server and Portal Server Secure Remote Access Postinstallation Configuration" on page 128

Web and Application Services Example

HADB (used for high availability session storage) works with Application Server to provide failover capabilities that include session persistence.

This example provides guidelines for implementing a two-node HADB cluster with load balancing. However, a preferred solution is to install HADB on four hosts with nothing else installed on them. The domain administration server (DAS) with a copy of HADB for administration and a load balancer and Web Server would be installed on a separate machine.

On a partitioned operating system, a preferred solution is that two servers be installed (either host or zone) with at least one HADB instance running on each.

Requirements and Sequence Issues

Application Server requires a local copy of HADB, Java DB, and Message Queue. Application Server and HADB must be on the same host so you can use the integrated management tools provided by Application Server. The Load Balancing Plugin subcomponent of Application Server requires a web server.

The general tasks include:

1. Installing the Java ES product components
2. Starting the servers
3. Configuring HADB
4. Configuring load balancing

You can use the following guidelines to install all product components on a node or zone. On subsequent nodes, install the product components required by your deployment. A minimum of two installation sessions are required.

▼ To Develop a Sequence for Web and Application Services

The following high-level tasks are required:

1 Checking the installation sequence guidelines

Check to see what sequence guidelines apply. Refer to Table 2–1.

2 Checking the installation prerequisites

Check to see what installation prerequisites apply. Refer to Table 1–3.

3 Verifying that the hardware is connected correctly for your cluster

4 Running the Java ES installer

5 At component selection, choosing Application Server

Message Queue, HADB, Java DB, and all the subcomponents of Application Server except the Application Server Node Agent and Load Balancing Plugin are automatically selected.

6 Expanding the Application Server product component and selecting Load Balancing Plugin.

Note – You must install Web Server and Load Balancing Plug-in using the same file system access permissions.

---

7 Resolving incompatibilities

The installer verifies software on your host and provides guidance if incompatibilities are identified.

8 Selecting the Configure Now type

Message Queue requires no configuration.

The configuration pages are displayed for product components that can be configured during installation. Gather your configuration information from the table in "HADB Configuration Information" in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

9 Running the installation

10 Viewing the Installation Summary and Log

11 Starting the product components:

- "Starting and Stopping Application Server" on page 143 (Message Queue automatically starts.)
- "Starting and Stopping Web Server" on page 150

12 Completing HADB postinstallation configuration

Refer to "Configuring HADB After a Configure Later Installation" on page 126.

13 Completing load balancing configuration

Refer to the Chapter 5, "Configuring HTTP Load Balancing," in *Sun Java System Application Server Enterprise Edition 8.2 High Availability Administration Guide*.

Non-Root Examples

Although the Java ES installer is designed to run as root, you might want to install some components as non-root. This is not a trivial process, but some deployments require it. To install either Access Manager or Portal Server as a non-root user on either Solaris OS or Linux, refer to the following instructions:

- **Access Manager.** To install Access Manager as a non-root user, follow the instructions contained in Chapter 9, "Configuring Access Manager to Run as a Non-root User," in *Sun Java System Access Manager 7.1 Postinstallation Guide*.
- **Portal Server.** To install Portal Server as a non-root user, follow the instructions contained in *Sun Java System Portal Server 7.1 Configuration Guide*.

For additional non-root information in this document, see "Configuring Product Components With Non-root Identifiers" on page 134

◆ ◆ ◆ CHAPTER 3

Installing With the Graphical Interface

This chapter provides instructions for using the interactive graphical interface to install the Sun Java™ Enterprise System (Java ES) software.

This chapter includes the following sections:

Before Installing

Before beginning the tasks in the chapter, you should have developed an installation sequence and ensured that any general installation requirements and prerequisites are met. After completing these tasks, you are ready to install.

This section addresses the following topics:

Verifying Prerequisites and Requirements

Refer to "Verifying Installation Prerequisites" on page 36 for specific information on prerequisites for this release of Java ES.

You can find system requirements listed in "Platform Requirements and Issues" in *Sun Java Enterprise System 5 Update 1 Release Notes*.

Information on some common situation that might affect the order of installation can be found in Table 2–1.

(Optional) Setting Your Local Display for a Remote Host

If you are logging in to a remote host, make sure your `DISPLAY` environment variable is properly set to the local display. If the `DISPLAY` variable is not set properly, the installer runs in text-based mode.

- Example for C Shell (host name `myhost`):

  ```
  setenv DISPLAY myhost:0.0
  ```

- Example for Korn Shell (host name `myhost`):

  ```
  DISPLAY=myhost:0.0
  ```

You might need to grant display authorization to run the installer on your local display. For example, you can use the following command to grant display authority from `myhost` to the root user on `serverhost`:

```
myhost\> xauth extract - myhost:0.0 | rsh -l root serverhost xauth merge -
```

For full instructions on granting such authorization safely, refer to the "Manipulating Access to the Server" chapter in the *Solaris X Window System Developer's Guide*.

Getting the Software

- **For Download.** Navigate to the directory where you downloaded the Java ES installation bundle and expand the bundle. For example:

  ```
  unzip java_es-5u1–solaris-sparc.zip
  ```

  You will see a `Copyright` file, a `README` directory and the operating system directory, such as `Solaris_sparc`. In the operating system directory, you will see the `Product` directory, the `release_info` file, and the `installer` script.

For additional information on getting the Java ES software, refer to "Getting the Java ES Software" on page 39.

Running the Installer in Graphical Mode

A full description of the options for the `installer` command is contained in Appendix B, "Installation Commands."

If you have problems during installation, refer to the troubleshooting information in Chapter 9, "Troubleshooting."

To Begin Installation

1. **If you are not logged in as `root`, become superuser.**

2. **Start the graphical installer:**

   ```
   ./installer
   ```

   The Welcome page is displayed.

   Note – If you click Cancel at any time, the installer exits after you have confirmed that you want to terminate the installation session.

3. **Click Next to continue.**

   The Software License Agreement page is displayed.

4. **If you accept all the terms of the License, click Yes, Accept License.**

   If you do not accept all the terms of the License, select Decline. This ends the installation session.

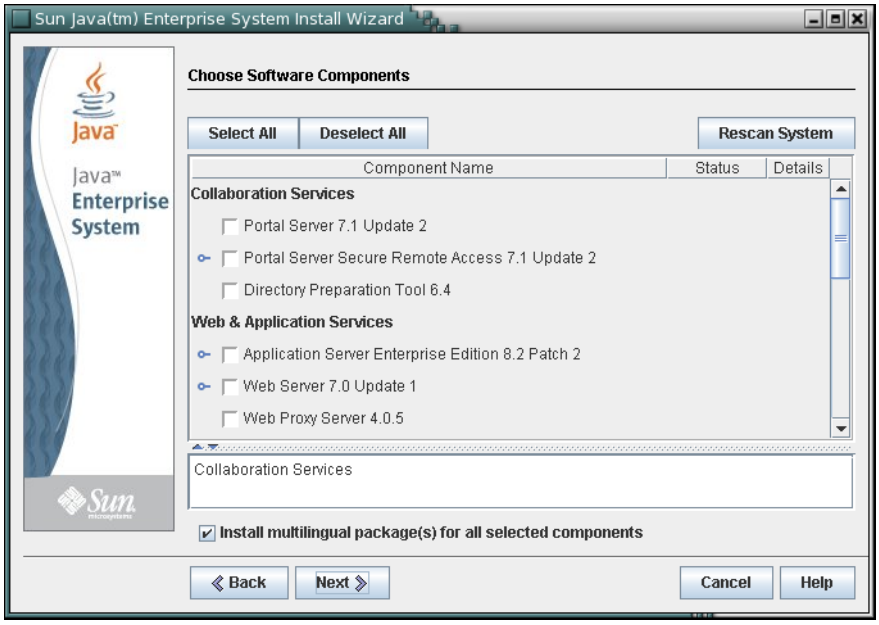
To Select Components and Languages

After you have accepted the terms of the license, the Java ES installer surveys the software on your host and displays the Choose Software Components page.

1. **Select the software you want to install.**

   Note – Linux does not support Sun Cluster components, and only supports the BEA WebLogic third-party container for Configure Now installations.

   The following example screen shows the Choose Software Components page.



Note – Monitoring Console cannot be run on any host where its monitored Java ES components are located. Because the installer does not prevent you from installing them together, it is important that you always run a separate installation session to install Monitoring Console on a host separate from the other Java ES components.

- If your installer window is too small to view all the text, you might need to resize the window manually by dragging the corner.
- To see information about an individual product component, hold the cursor over the item. A description of that item is displayed in the text box at the bottom of the page.
- To see information on the compatibility status of a product component, click the ellipsis (...) in the Details column, if available.
- Product components that are already installed are disabled (grayed out). If they can be upgraded by the installer, their Status is Upgradable.

  Note – Application Server, Message Queue, Java DB, and HADB are the only product components that can be upgraded by the installer (Solaris OS only). For instructions on upgrading Java ES components, refer to *Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*.

- Click the Help button to view online help for the page.

- **On Solaris 10.** If you are running the installer in a non-global zone, any components that cannot be installed into a non-global zone will be disabled.

Tip – There are some specific issues to be aware of when installing or upgrading in Solaris 10 zones. For guidelines, refer to "Solaris 10 Zones Examples" on page 60.

On the Choose Software Components page, you can select components for installation as follows:

- **All components.** To select all product components and their required shared components, choose Select All.
- **Some components.** To select some product components, individually select the product components. As you make each selection, the installer automatically selects any product components that the component you selected depends on.
- **Subcomponents.** To select subcomponents, expand the subcomponent list by clicking the expansion turner to the left of the component. As you make each selection, the installer automatically selects or deselects any product subcomponents that the component you selected depends on.
- **Shared components.** To upgrade all shared components to the current Java ES release, select All Shared Components. If you do not select this item, only shared components for the product components you selected will be installed or upgraded.
- **Language packages.** By default, multilingual packages are selected for the components you selected. Each additional component you select causes additional multilingual packages to be installed, adding to the disk space required for installation. If you choose not to install multilingual packages, you will be queried to confirm this choice and warned that you will not be able to install localization packages later.

2 If applicable, select a web container.

- If you are not sure which product component to use for your web container, you can select both Application Server and Web Server, then choose Configure Now when prompted for configuration type. You will be offered a choice of web container on a configuration page later in the installation session.
- Access Manager and Portal Server must use the same type of web container on a host.
- To use Web Server as the web container, the Web Server Configuration Type mode must be set to Server, not Node, when you are queried during Web Server configuration. The default value is Server.

3 If applicable, select a third-party web container.

Note – For Configure Now, Linux only supports the BEA WebLogic third-party container.

To use a third-party web container, do the following:

a. **Deselect Application Server and Web Server at the Choose Software Components page.**
   When you click Next, the Web Container Selection page is displayed.

b. **Choose Use Third-Party Web Container.**

c. **Click OK.**

4 **If applicable, specify any remote dependencies.**

To satisfy dependencies by using product components installed on other hosts, do the following:

a. **After you select your product components, expand to display subcomponents and scan the entire list of components.**
   Examine the selected components to see what the installer has automatically selected that you might not be aware of.

b. **Deselect any product component that you are planning to access on a remote host.**
   For example, a previously-installed and configured Directory Server is commonly accessed remotely.

c. **Click Next, to see the Dependency Warning popup.**
   You are presented with choices.

d. **Choose Use a Version Installed on a Remote Host.**

e. **Click OK.**

▼ To Resolve Dependency and Compatibility Issues

The installer performs a dependency check of the selected product components and their associated shared components. If there is a problem, the installer might display one or more messages informing you of the problem and directing you to take action.

1 **Resolve product component dependency issues.**

On Solaris OS, the installer can only upgrade Application Server, Message Queue, Java DB, or HADB. For instructions on upgrading Java ES components, refer to *Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*.

2 **Click Next.**

3 Repeat steps 1 and 2 until you are allowed to proceed.

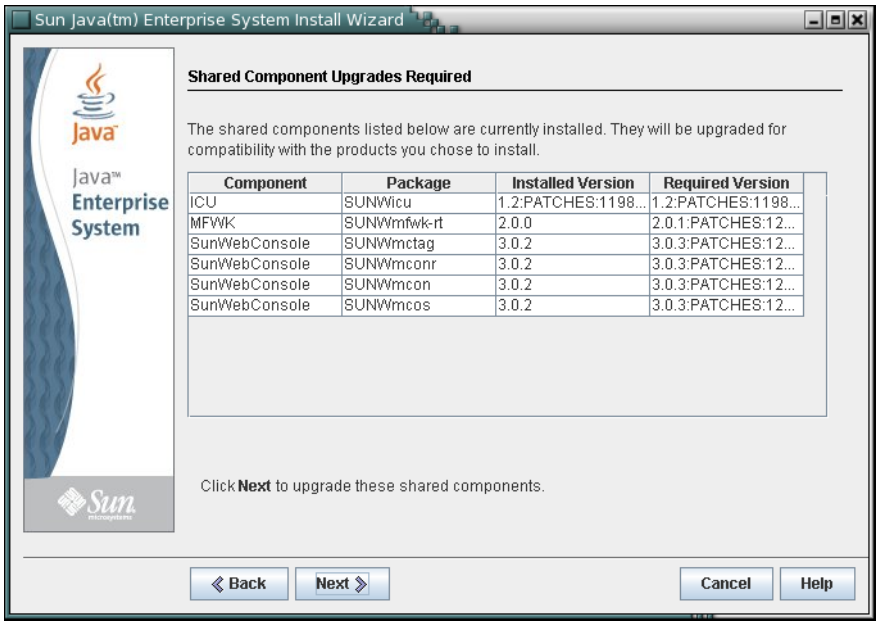
4 On Solaris OS, resolve J2SE SDK incompatibility.

On Solaris OS, if an incompatible system-wide version of the J2SE SDK is detected, the J2SE Software Development Kit Upgrade Required page is displayed. You are presented with choices about what to do: (1) automatically upgrade the SDK version, or (2) manually upgrade the SDK version. Read the page and decide whether to upgrade automatically or manually. The default value is Automatically.

If a higher version of the JDK is encountered, with one or more JDK packages missing (for example, the 64–bit JVM), the installer treats this version as incompatible. In the case, choosing either option (1) or (2) results in the JDK being downgraded to the version of the JDK required by Java ES.

5 Resolve shared component incompatibilities.

After the product component issues have been resolved, the installer performs a compatibility check of any shared components already installed. If incompatible versions of shared components are detected, the Shared Components Upgrade Required page is displayed.



Caution – Do not upgrade shared components without checking the dependencies that exist on the host for non-Java ES applications. First verify that these existing applications are compatible with the required Java ES versions of the shared components.

a. Click Cancel to prevent the installer from upgrading.

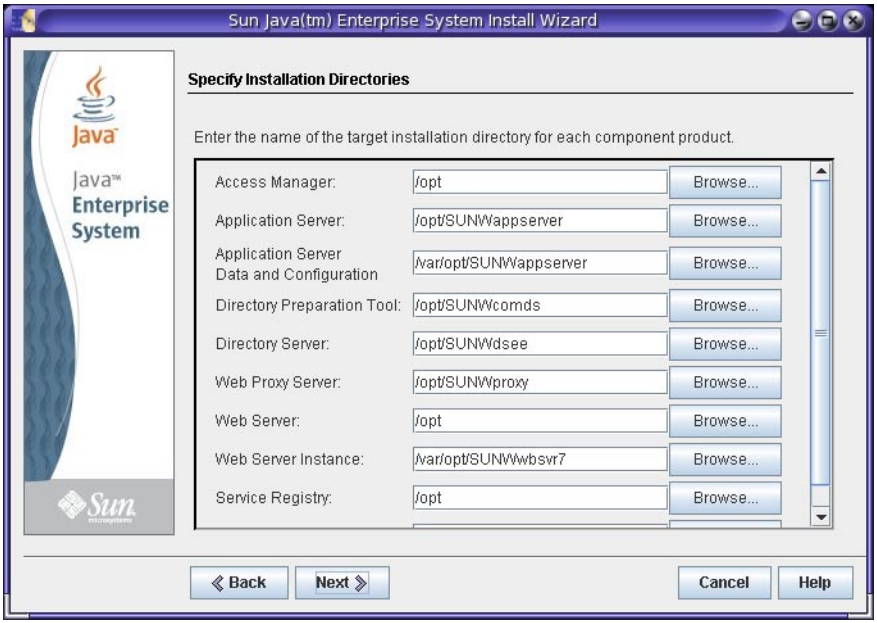
If you select Cancel, you must remove the incompatible shared components manually or the installer will not be able to continue past this point in the installation.

b. Click Next to have the installer upgrade the incompatible shared components during this installation session.

The Installation Directories page is displayed. The following example screen shows the default locations for installation directories.

▼ To Specify Installation Directories and Initiate the System Check

A default installation directory is displayed for each selected product component.



1 Examine the default installation directories.

To see a complete list of all the default directories and ports, refer to Chapter 2, "Default Installation Directories and Ports," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

- Verify that the directories are correct for your deployment.
- If the default directories are not acceptable, browse for alternate paths and change as needed.

Note – If you choose to enter alternate values instead of accepting the default values, you will need to be sure to specify your chosen alternate values whenever the item is requested by the installer or a configurator.

2 Click Next to initiate the system check.

The installer checks for disk space, memory, swap space, operating system patches, and operating system resources based on the components you selected. The left column of the following table lists the possible results of the system check and the right column specifies what action you should take for each result.

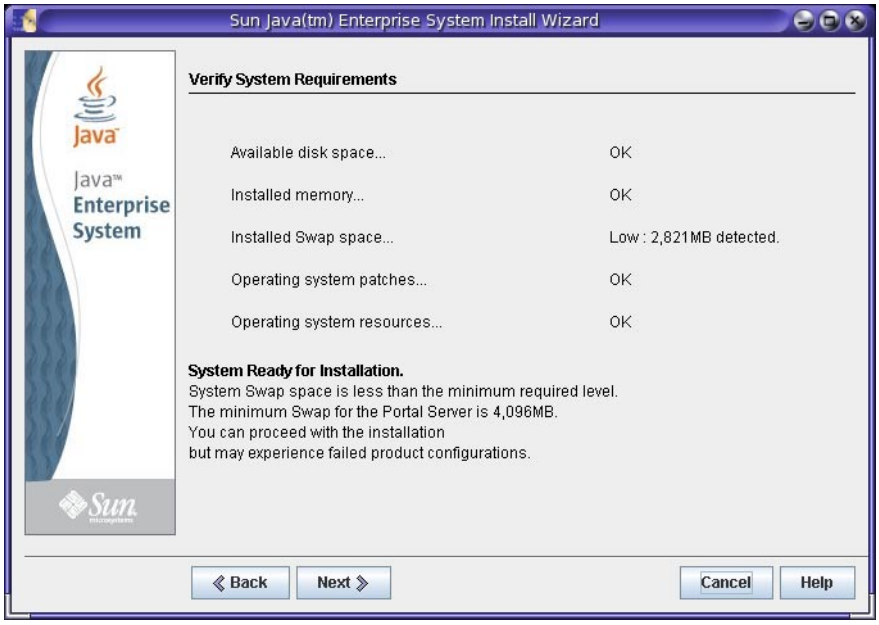
Message Displayed	Your Action
`System ready for installation`	Click Next to continue.
`System ready for installation`	Includes a warning that memory or swap space is not at the recommended level. Click Next to continue, but add memory or swap space when installation is complete. If you do not add memory or swap space, performance might be seriously affected.
`System not ready for installation`	Click View Report for information on the problems that the installer found. If any patches are missing, the patch numbers appear in this report. If you can fix the reported problems without stopping the installer, do so and then click Check Again to recheck the system.

Solaris 10. If the installer is running in a non-global zone, you will receive a message telling you that memory information is not available.

For some issues, such as low memory, you can proceed with installation, but for others, such as insufficient disk space, you must resolve the issue before the installer can proceed.

3 Install any missing operating system patches.

You must install most missing patches before proceeding with installation. For guidelines, refer to "To Install a Patch" on page 35. In some cases, you are allowed to proceed without installing a missing patch. In this case, if you choose to proceed, you are warned that installation might fail or software might malfunction. To continue with installation, you must confirm that you want to proceed without installing the missing patches.



4 **When the system check is complete and you are satisfied with the state of the system, click Next.**

▼ To Specify a Configuration Type and Common Settings

If some of the product components you have chosen can be configured during installation, the Configuration Type page is displayed. You have the following configuration choices:

1 **Specify a configuration type from the following options:**

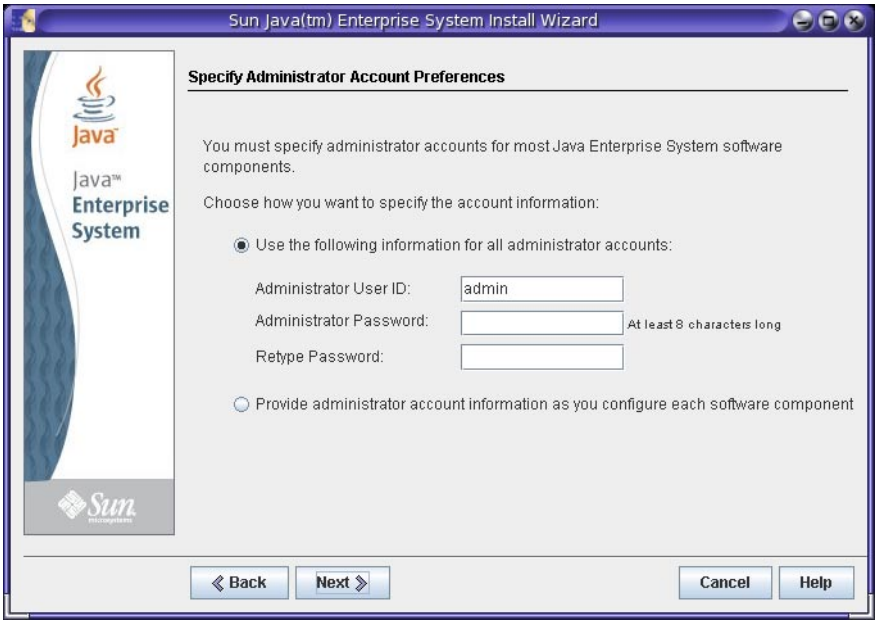
- **Configure Now (the default).** Allows you to configure product components that permit configuration at installation time. Your Configure Now tasks include specifying the common server settings, and entering the configuration information for the product components selected.

  Note – Some product components cannot be configured during installation. If any of these product components were selected, you receive a message saying that you will need to configure these product components after installation.

- **Configure Later.** You enter only the minimum values that are necessary for copying the packages. The installer proceeds without doing further configuration. If you chose the Configure Later type, skip to "To Install the Software" on page 93.

2 For Configure Now, choose how your administrator user ID and password should be entered.

If you selected more than one product component that uses administrator user ID and password, the Password Choice Panel is displayed.



- **Use a single administrator account and password. (default)** If you accept the default, you enter the administrator user ID and password once, and these fields will not be displayed again on the configuration pages.
- **Use different administrator account for each product.** If you select this option, you will be asked to enter administrator user ID and password on the configuration pages for each of the selected components that use administrator ID and password.

Note – For the Java ES installer, white space cannot be used in admin passwords, nor can the following symbols: `; & ( ) ! | < > ' " $ ^ \ # / , @ %`

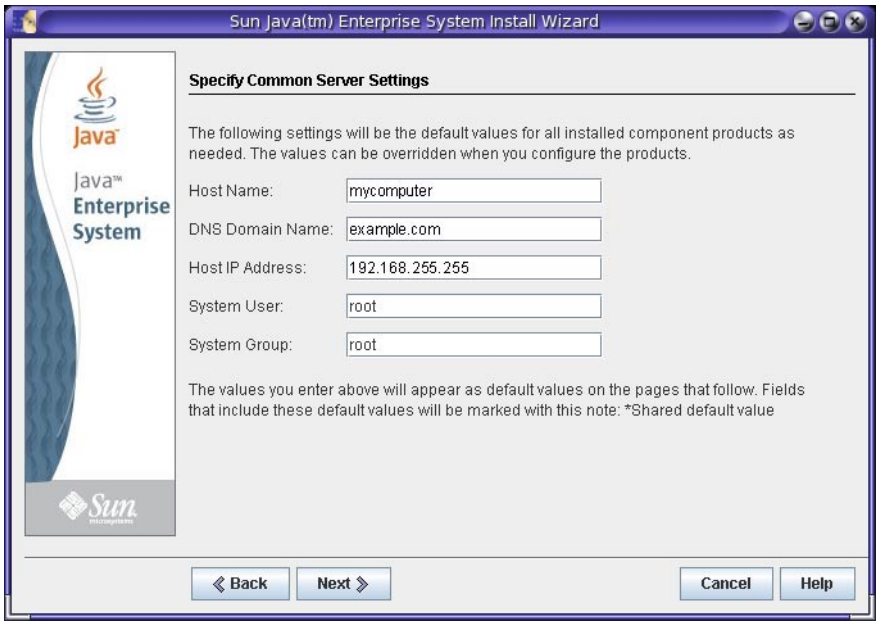
---

3 For a Configure Now installation, specify common server settings.

Either accept the defaults, or use alternate data to answer the installer questions regarding these global fields. Values that you enter here appear as default values on subsequent product component configuration pages. Refer to online help or to "Common Settings" in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX* for information on these fields.

Note – If you choose to enter alternate values instead of accepting the default values, you will need to be sure to specify your chosen alternate values whenever the item is requested by the installer or a configurator.

The following example screen shows the Specify Common Server Settings configuration page. In this example, the fields associated with Administrator User ID and Administrator Password are not displayed because a choice was made to use a single administrator account and password earlier in the installation session.



4 Click Next to proceed.

For a Configure Now installation, the configuration pages for each product component that can be configured during installation are displayed one by one.

Tip – Configuration values are gathered by the installer as you proceed through the installation. After installation is completed, you can access this information in the Installation Summary in the following locations:

Solaris OS: `/var/sadm/install/logs`

Linux: `/var/opt/sun/install/logs`

▼ To Specify Configuration Data

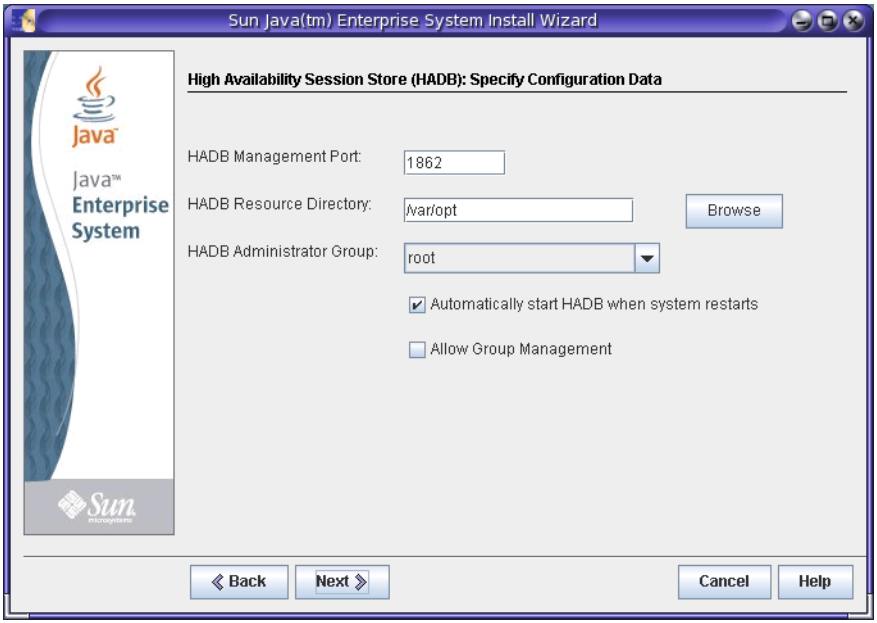
For a Configure Now installation, the installer presents one or more configuration pages for the selected product components that can be configured during installation. The following information can help in your selection:

- For information on the configuration values on each page, click the online help button at the bottom of each page. This information can also be found in the Chapter 3, "Configuration Information," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.
- Configuration worksheets are provided for gathering your configuration information in Chapter 4, "Configuration Worksheets," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.
- The following product components cannot be configured by the Java ES installer and, therefore, must be configured after installation: Directory Proxy Server, Java DB, Monitoring Console, Service Registry, and Sun Cluster software.
- Although Sun Cluster software itself cannot be configured during installation, you are offered the option of enabling remote support to simplify postinstallation configuration. The default is Yes.

Some of the fields in a configuration pages display default values from the Common Server Settings page. These values can be edited. However, if you choose to enter alternate values instead of accepting the default values, you will need to be sure to specify your chosen alternate values whenever the item is requested by the installer or a configurator.

Note – When you are installing Access Manager with Portal Server, you can select either Realm (Access Manager 7.x compatible) mode or Legacy (Access Manager 6.x compatible) mode for Access Manager. However, Portal Server supports Realm mode only if Access Manager is configured with Directory Server, with AM SDK configured for the data store. If you are using Communications products, Legacy mode is required.

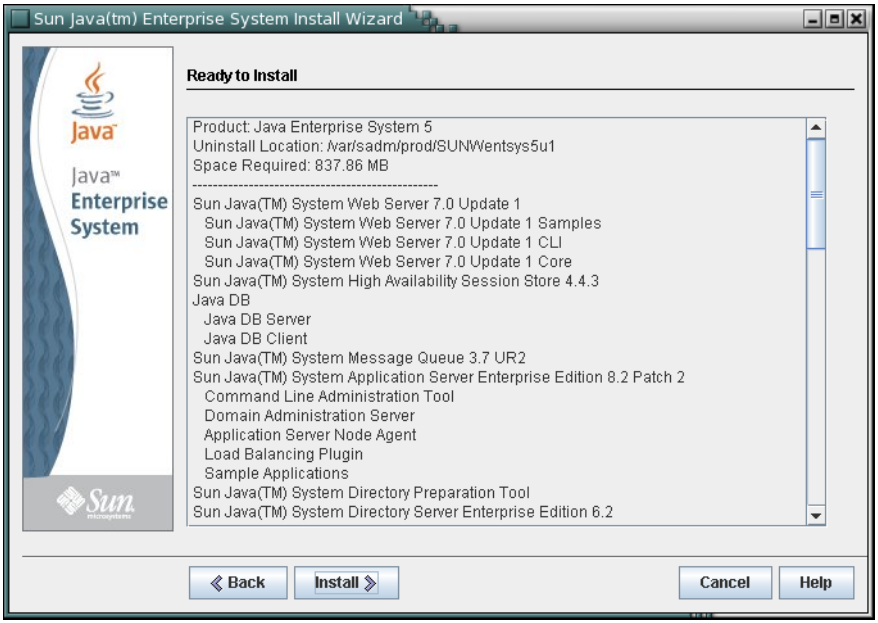
The following example screen shows a configuration page for a product component.



1 **As the individual configuration pages are displayed, specify the information for the settings.**
Defaults are displayed for configuration values, except for passwords.

2 **Click Next to proceed to the next product component configuration page.**

3 **When you click Next on the final configuration page, installation-time configuration is done.**
The Ready to Install page is displayed.



To Install the Software

Before transferring the software to your host, the installer displays the components that you selected. Although shared components are not explicitly listed, they have already been verified and will be installed if they are needed.

1. **Review the components listed and make any necessary changes.**

   a. **To return to the Choose Software Components page, click the Back button.**

      Continue to click Back on successive pages until the Choose Software Components page is again displayed. Make whatever changes are needed.

   b. **Click Next to move forward through the installer again.**

      You do not need to re-enter previously-entered values. Dependencies are rechecked and the system check is repeated.

2. **Click Next when you are satisfied with the Ready to Install list.**

3. **Click Install to begin installing the component packages.**

Note – For Linux, do not use the `rpm` command while the installer is running. If you use this command during Java ES installation, the installer might hang.

During installation, the following occurs:

- A progress bar displays the overall percentage complete.
- The names of packages are displayed as they are installed.

Depending on the size and complexities of your installation, this process can be lengthy.

Note – If you click Cancel at the Progress page, the installer exits after you have confirmed that you want to terminate the installation session.

If you click Stop while the installation is in progress, the installer rolls back any component packages that have already been installed and presents the Summary page. You are asked to confirm whether you want to terminate the installation session.

▼ To Complete the Installation Session

When installation is complete, the Installation Complete page is displayed. Any issues from the installation, such as insufficient memory, are noted on this page. In addition, you are provided with access to the installation summary and logs.

1 **Click View Summary or View Install Log to examine information about the installation.**

- **Installation Summary.** Lists each product component installed and the settings you specified. If you chose the Configure Now type, this summary includes all the configuration values.
- **Installation Log.** Displays the installer's log messages for components.

You can access this information at any time in the following locations:

Solaris OS: `/var/sadm/install/logs`

Linux: `/var/opt/sun/install/logs`

For more information on the Java ES logs, refer to "Examining Installation Log Files" on page 184.

2 **To access the postinstallation instructions, click the box to automatically display this installation guide.**

Although you might have done extensive configuration during your installation, most product components require some additional configuration. Refer to Chapter 6, "Completing Postinstallation Configuration" for instructions.

3 **Click Close to exit the installer.**

Your installation session is done. Product components that were installed will need to be started after you have completed all postinstallation tasks. Proceed to "Next Steps" on page 95.

4 **Register your successful installation.**

After Java ES installation completes successfully, the Java ES Reporter installation utility starts automatically in the console or terminal window where you invoked the installer. You are asked to provide the URL or IP address of a proxy that Reporter will use to access Sun through the internet. No other input from you is required.

Note – For a full description of Java ES Reporter, refer to "How Java ES Reporter Works" on page 29.

Adding Components

To install additional components, you can run the installer again. The installer detects installed components and uses them to satisfy the dependencies of the components you are adding. Installed product components are disabled at the Choose Software Components page.

For example, suppose you have installed Access Manager and its required components during this installation. Later, you decide to install Portal Server. The existing instance of Access Manager will be used to meet the Portal Server dependency on Access Manager. You will not be asked to reinstall Access Manager.

Note – When adding product components to a host where a Java ES installation has already been done, be sure to use the correct paths and passwords if the new product component will use a product component that is already installed and configured. If you do not remember the correct paths, refer to the Installation Summary for the original installation before adding any product components to the host.

Next Steps

After you have completed the installer portion of your Java ES installation, proceed as follows:

- Chapter 6, "Completing Postinstallation Configuration" provides instructions on postinstallation configuration.
- "Verifying After Installation" on page 136 provides instructions for verifying that this phase of installation was successful.

◆ ◆ ◆ CHAPTER 4

Installing With the Text-Based Interface

This chapter provides instructions for using the interactive text-based interface to install the Sun Java™ Enterprise System (Java ES) software.

This chapter has the following sections:

Before Installing

Before beginning the tasks in the chapter, you should have developed an installation sequence and ensured that any general installation requirements and prerequisites are met. After completing these tasks, you are ready to install.

This section addresses the following topics:

Verifying Prerequisites

Refer to "Verifying Installation Prerequisites" on page 36 for specific information on prerequisites for this release of Java ES.

You can find system requirements listed in "Platform Requirements and Issues" in *Sun Java Enterprise System 5 Update 1 Release Notes*.

Information on some common situation that might affect the order of installation can be found in Table 2–1.

Getting the Software

- **For Download.** Navigate to the directory where you downloaded the Java ES installation bundle and expand the bundle. For example:

  ```
  unzip java_es-5u1–solaris-sparc.zip
  ```

  You will see a `Copyright` file, a `README` directory and the operating system directory, for example, `Solaris_sparc`. In the operating system directory, you will see the `Product` directory, the `release_info` file, and the `installer` script.

For additional information on getting the Java ES software, refer to "Getting the Java ES Software" on page 39.

How to Use the Text-Based Interface

The text-based installer does not display a graphical interface, but instead prompts you for information using a series of queries. The following table describes how to respond to the installer's text-based prompts.

TABLE 4–1 Responding to the Text-Based Installer Prompts

Action	Input
To accept default values, as indicated in square brackets `[ ]`	Press Return.
To select items from a list	Type the numbers for the items in a comma-separated sequence and press Return. Spaces are not allowed. For example, to select item 2 in a list, type 2 and press Return. To select items 1, 3, and 4, type `1,3,4` and press Return.
To deselect items from a list	Type the numbers for the items in a comma-separated sequence, entering the minus character (-) before each number, and press Return. Spaces are not allowed. For example, to deselect item 2 from the list, type `-2` and press Return. To deselect items 1, 3, and 4, type `-1,-3,-4` and press Return.
To provide a value to a text field	Type the value and press Return.
To provide a password	Type the password and press Return. The password will not appear on the terminal window. Note: For the Java ES installer, white space cannot be used in admin passwords, nor can the following symbols: `; & ( ) ! | < > ' " $ ^ \ # / , @ %`

TABLE 4–1 Responding to the Text-Based Installer Prompts *(Continued)*

Action	Input
To return to the previous page	Type the left angle (<) character and press Return.
To exit the session	Type the exclamation mark character (!) and press Return.

Running the Installer in Text-Based Mode

A full description of options for the `installer` command and its options is contained in Appendix B, "Installation Commands."

If you have problems during installation, refer to the troubleshooting information in Chapter 9, "Troubleshooting."

▼ To Begin Installation

1 **If you are not logged in as `root`, become superuser.**

2 **Start the text-based installer:**

```
./installer –nodisplay
```

Welcome information is displayed.

3 **Press Return to display the Software License Agreement.**

Continue pressing Return to read the entire Agreement.

4 **To accept the terms of the License Agreement, type `yes` and press Return.**

If you do not accept all the terms of the License, select the default `no` by pressing Return. This ends the installation session.

▼ To Select Components and Languages

The installer checks your host for previously installed versions of Java ES product components. Some product components can be upgraded by the installer (Application Server, Message Queue, Java DB, and HADB). For example:

```
The following components can be upgraded by the Java ES installer.
Others will appear disabled, "* *", in the Choose Software Components Main Menu.

High Availability Session Store 4.4 - Upgradable, Compatible
Message Queue 3.7 UR2 - Upgradable, Incompatible
```

```
   <Press ENTER to continue>
```

If any other incompatible components are identified, you will need to remove or upgrade them manually. Instructions for upgrading outside the Java ES installer are contained in *Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*. When incompatibility issues are resolved, installation can proceed.

Note – Linux does not support Sun Cluster components, and only supports the BEA WebLogic third-party container for Configure Now installation.

```
Choose Software Components - Main Menu
------------------------------
Note: "*  *" indicates that the selection is disabled

[ ] 1. Directory Preparation Tool 6.4
[ ] 2. Web Server 7.0 Update 1
[ ] 3. Sun Cluster Geographic Edition 3.1 2006Q4
[ ] 4. Web Proxy Server 4.0.5
[ ] 5. Directory Server Enterprise Edition 6.2
[ ] 6. High Availability Session Store 4.4.3
[ ] 7. Access Manager 7.1
[ ] 8. Sun Cluster 3.1 8/05
[ ] 9. Message Queue 3.7 UR2
[ ] 10. Application Server Enterprise Edition 8.2 Patch 2
[ ] 11. Service Registry 3.1 Update 1
[ ] 12. Portal Server Secure Remote Access 7.1 Update 2
[ ] 13. Monitoring Console 1.0 Update 1
[ ] 14. Portal Server 7.1 Update 2
[ ] 15. Java DB 10.2.2.1
[ ] 16. Sun Cluster Agents 3.1 8/05
[ ] 17. All Shared Components
```

1 Type a comma-separated list of the numbers associated with the components you want to install, and press Return.

The installer presents a list called Choose Software Components — Confirm Choices which shows the components you selected.

2 If the chosen components are correct, press Return.

The installer queries you about installing subcomponents for those components you chose. For example:

```
Component Selection -  "Directory Server Enterprise Edition 6.2"
--------------------------------------------------------------------------------
*[X] 1. Directory Server 6 Core Server
*[X] 2. Directory Service Control Center
```

```
*[X] 3. Directory Server Command-Line Utility
*[X] 4. Directory Proxy Server 6.2 Core Server

   Enter a comma separated list of components to install (or A to
install all )
   [A] {"<" goes back, "!" exits}
```

Not all product components have subcomponents. In this case, the single product component is displayed, but no response is required from you. In cases where subcomponents are displayed, you must respond to the query.

3 Complete your subcomponent selections.

After you have confirmed all your subcomponent selections, the installer queries you about installing multilingual packages.

4 To install multilingual packages for all selected components, select (1) Yes and press Return.

By default, multilingual packages for the components you selected are installed. If you select (2) No, only English packages are installed. In this case, you will be queried to confirm this choice and warned that you will not be able to install localization packages later.

5 Resolve product component dependency errors.

If there is a problem with component dependencies, the installer displays a Product Dependency Check error or warning, depending on the problem. Typical problems might include:

- A local dependency has not been met

  In this situation, return to Choose Software Components and select the appropriate product component to satisfy the local dependency.

- A remote dependency will be met later during postinstallation configuration

  If you do not intend to specify a remote installation, return to Choose Software Components and select the appropriate product component to satisfy the dependency locally.

- Previous versions of product components are already installed on the local host

  If incompatible versions of product components are detected, you will need to exit the installer and upgrade or remove the incompatible versions.

6 Resolve shared component dependency errors.

If any incompatible versions of shared components are found on the host, you are asked if you want to upgrade them. Review the Shared Components Upgrade Required list and determine if it is safe for the installer to automatically upgrade these shared components.

Caution – Do not upgrade shared components without checking the dependencies that exist on the host for non-Java ES applications. First verify that these existing applications are compatible with the required Java ES versions of the shared components. For information about upgrading, see the *Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*.

- Type 1 (the default) or press Return to have the installer upgrade the shared components.
- Type 2 to cancel the installation session so that you can upgrade the shared components manually.

If you type 2, you must remove or upgrade the shared components on the Shared Components Upgrade Required list before you can continue with installation.

7 On Solaris OS, indicate if the installer should upgrade the J2SE SDK.

On Solaris OS, if an incompatible system-wide version of the J2SE SDK is detected, the J2SE Software Development Kit Upgrade Required page is displayed. You are presented with choices about what to do: (1) automatically upgrade the SDK version, or (2) manually upgrade the SDK version. Read the page and decide whether to upgrade automatically or manually. The default value is Automatically.

If a higher version of the JDK is encountered, with one or more JDK packages missing (for example, the 64–bit JVM), the installer treats this version as incompatible. In the case, choosing either option (1) or (2) results in the JDK being downgraded to the version of the JDK required by Java ES.

▼ To Specify Installation Directories and Initiate the System Check

1 Accept the default installation locations for the selected product components, or replace the default locations and press Return.

Note – If you choose to enter alternate values instead of accepting the default values, you will need to be sure to specify your chosen alternate values whenever the item is requested by the installer or a configurator.

A default installation directory is displayed for each selected product component. For example:

```
Installation Directories
========================
Enter the name of the target installation directory for each product:

Directory Server [/opt/SUNWdsee]  {"<" goes back, "!" exits}
Web Server [/opt/SUNWwbsvr7]  {"<" goes back, "!" exits}
```

```
Web Server Instance [/var/opt/SUNWwbsvr7]  {"<" goes back, "!" exits}
```

2 Review any issues discovered by the system check.

After the installation directories are chosen, the installer automatically initiates a check for disk space, memory, swap space, operating system patches, and operating system resources based on the components you selected. The left column of the following table lists the possible results of the system check. The right column specifies what action you should take for each situation

Message Displayed	Your Action
`System ready for installation`	Proceed with installation.
`System ready for installation`	Includes a warning that memory or swap space is not at the recommended level. Proceed with installation, but add memory or swap space when installation is complete. If you do not add memory or swap space, performance might be seriously affected.
`System not ready for installation`	If any patches are missing, the patch numbers are displayed. If you can fix the reported problems without stopping the installer, do so and then continue with installation.

For some issues, such as low memory, you can proceed with installation, but for others, such as insufficient disk space, you must resolve the issue before the installer can proceed.

Solaris 10. If the installer is running in a non-global zone, you will receive a message telling you that memory information is not available.

3 Install any missing operating system patches.

You must install most missing patches before proceeding with installation. For guidelines, refer to "To Install a Patch" on page 35. In some cases, you are allowed to proceed without installing a missing patch. In this case, if you choose to proceed, you are warned that installation might fail or software might malfunction. To continue with installation, you must confirm that you want to proceed without installing the missing patches.

4 After the system is ready for installation, press Return to continue.

You are queried about what type of configuration you want for the installation and asked to provide global settings.

▼ To Specify a Configuration Type and Common Server Settings

1 Specify a configuration type from the following options:

- **Configure Now (the default).** Allows you to configure product components that permit configuration at installation time. Your Configure Now tasks include specifying the common server settings and entering the configuration information for the product components selected.

  Note – Some product components cannot be configured during installation. If any of these product components were selected, you receive a message saying that you will need to configure these product components after installation.

- **Configure Later.** You provide only the minimum values that are necessary for installing the packages. The installer proceeds without doing further configuration. If you chose the Configure Later type, skip to "To Install the Software" on page 93.

2 For Configure Now, choose how your administrator user ID and password should be entered.

If you selected more than one product component that uses administrator user ID and password, you are prompted to choose.

Note – For the Java ES installer, white space cannot be used in admin passwords, nor can the following symbols: `; & ( ) ! | < > ' " $ ^ \ # / , @ %`

- **Use a single administrator account and password. (default)** If you accept the default, you enter the administrator user ID and password once, and these fields will not be displayed again on the configuration pages.
- **Use different administrator account for each product.** If you select this option, you will be asked to enter administrator user ID and password on the configuration pages for each of the selected components that use administrator ID and password.

3 For a Configure Now installation, specify common server settings.

The installer presents you with a list of common server settings and their defaults for the components your selected. For example:

```
Specify Common Server Settings

Enter Host Name [myComputer]  {"<" goes back, "!" exits}
Enter DNS Domain Name [example.com]  {"<" goes back, "!" exits}
Enter IP Address [192.168.255.255]  {"<" goes back, "!" exits}
Enter Server admin User ID  [Admin]  {"<" goes back, "!" exits}
Enter Admin User's Password (Password cannot be less than 8 characters) []  {"<" goes back, "!" exits}
Confirm Admin User's Password  []  {"<" goes back, "!" exits}
Enter System User [root] {"<" goes back, "!" exits}
Enter system Group [root] {"<" goes back, "!" exits}
```

Either accept the defaults, or use alternate data for these global parameters. For information on the parameters, refer to the "Common Settings" in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

▼ To Specify Component Configuration Data

For a Configure Now installation, the installer presents one or more configuration queries for the selected product components that can be configured during installation. The following information can help in your selection:

- For information on the configuration values on each page, click the online help button at the bottom of each page. This information can also be found in the Chapter 3, "Configuration Information," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.
- Configuration worksheets are provided for gathering your configuration information in Chapter 4, "Configuration Worksheets," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.
- The following product components cannot be configured by the Java ES installer and, therefore, must be configured after installation: Directory Proxy Server, Java DB, Monitoring Console, Service Registry, and Sun Cluster software.
- Although Sun Cluster software itself cannot be configured during installation, you are offered the option of enabling remote support to simplify postinstallation configuration. The default is Yes.

Tip – After installation is complete, you can access your configuration information in the Installation Summary here:

Solaris OS: `/var/sadm/install/logs`

Linux: `/var/opt/sun/install/logs`

---

1 Specify configuration settings for product components.

Either accept the defaults or use the information you gathered in the product component worksheets to answer the installer queries regarding each product component.

A typical configuration query looks similar to the following:

```
Web Server: Specify instance Settings

Server Name [myComputer.example.com]  {"<" goes back, "!" exits}
Enter HTTP Port [80]  {"<" goes back, "!" exits}
Enter Runtime UNIX User ID [webservd]  {"<" goes back, "!" exits}
Enter Document Root Directory [/var/opt/SUNWwbsvr7/docs] {"<" goes back, "!" exits}
```

Note – When you are installing Access Manager with Portal Server, you can select either Realm (Access Manager 7.x compatible) mode or Legacy (Access Manager 6.x compatible) mode for Access Manager, ignoring the installer message that says Legacy mode is required for Portal Server. However, Portal Server supports Realm mode only if Access Manager is configured with Directory Server, with AM SDK configured for the data store. If you are using Communications products, Legacy mode is required

Note – To use Web Server as the web container, the Web Server Configuration Type mode must be set to Server, not Node, when you are queried on the Web Server Configuration Type page. Default value is Server.

2 Review the list of your selected product components and subcomponents.

After configuration values are set, the installer displays a Ready to Install list of the components and subcomponents that you have selected. For example:

```
Ready to Install
------------------------
The following components will be installed.

Product: Java Enterpirese System 5u1
Uninstall Location: /var/sadm/prod/SUNWentsys5u1
Space Required: 199.10 M
-----------------------------------------
Web Server 7.0
Web Server CLI
Web Server Core
Web Server Samples
Directory Preparaation Tool 6.4
Directory Server Enterprise Edition 6.2
Directory Server Core Server
Directory Service Control Center
Directory Server Enterprise Edition Command-Line Utilities
Directory Proxy Server Core Server
Monitoring Console 1.0
```

If you need to make changes, type < and press Return until you reach the prior query that requires a change. Although shared components are not explicitly listed, they have already been verified and will be installed if they are needed by the selected product components.

▼ To Install the Software

When you are satisfied with the Ready to Install list, you can start the installation.

Note – For Linux, do not use the `rpm` command while the installer is running. If you use this command during Java ES installation, the installer might hang.

1 **To start the installation, press Return to accept the default [1].**

The installation process starts and a progress indicator bar informs you of the state of the installation. For example:

```
Java Enterprise System
|-1%------------------25%---------------------50%--
```

Depending on the size and complexities of your installation, this process can be lengthy.

When the installation has successfully completed, the Installation Complete message is displayed.

2 **Examine the Installation Summary and Installation logs.**

When installation is complete, any issues from the installation, such as insufficient memory, are displayed on the screen. The following files also contain useful information

- [1] **Installation Summary.** Lists each component installed and the settings you specified. If you chose Configure Now, this summary includes all the configuration values.
- [2] **Installation log.** Displays the installer's log messages for components.

After installation, these files can be found here:

Solaris OS: `/var/sadm/install/logs`

Linux: `/var/opt/sun/install/logs`

To see a full listing of the Java ES logs, refer to "Examining Installation Log Files" on page 184.

3 **Exit the installer.**

Your installer session is done. Product components that were installed will need to be started after you have completed all postinstallation tasks. Proceed to "Next Steps" on page 108.

4 **Register your successful installation.**

After Java ES installation completes successfully, the Java ES Reporter installation utility starts automatically in the console or terminal where you invoked the installer. You are asked to provide the URL or IP address of a proxy that Reporter will use to access Sun through the internet. No other input from you is required.

Note – For a full description of Java ES Reporter, refer to "How Java ES Reporter Works" on page 29.

Adding Components

To install additional components, you can run the installer again. The installer detects installed components and uses them to satisfy the dependencies of the product components you are adding. Installed product components are disabled at the Choose Software Components page.

For example, suppose you have installed Access Manager and its required product components during this installation. Later, you decide to install Portal Server. The existing instance of Access Manager will be used to meet the Portal Server dependency on Access Manager. You will not be asked to reinstall Access Manager.

Note – When adding product components to a host where a Java ES installation has already been done, be sure to use the correct paths and passwords if the new product component will use a product component that is already installed and configured. If you do not remember the correct paths, refer to the Installation Summary for the original installation before adding any product components to the host.

Next Steps

After you have completed the installer portion of your Java ES installation, proceed as follows:

- Chapter 6, "Completing Postinstallation Configuration" provides final instructions on postinstallation configuration.
- "Verifying After Installation" on page 136 provides instructions for verifying that this phase of installation was successful.

◆ ◆ ◆ CHAPTER 5

Installing in Silent Mode

Silent installation is a non-interactive method used for installing Sun Java™ Enterprise System (Java ES) on multiple hosts that share similar configurations. This chapter provides instructions for using silent mode to install the Java ES software.

This chapter includes the following sections:

How Silent Installation Works

To run a silent installation, you first run an interactive installation session using the silent install syntax of the `installer` command. During the interactive session, your responses to the installer are captured as a set of name-value pairs in a *state file*. Each name-value pair represents a single prompt or field in the installation process. With the state file as input, you can then run the installer on other hosts. This process allows you to propagate one configuration across multiple hosts in your deployment.

The installer cannot run a state file from a different version of Java ES. That is, if you create your state file using Java ES 5U1, you cannot use this state file to install Java ES 2005Q4.

The following table presents the main events in a silent installation. Links to instructions are in the right column.

TABLE 5–1 Silent Installation Events

Event	Location of Instructions
1. Verify that your hosts meet the Java ES installation prerequisites.	"Verifying Installation Prerequisites" on page 36.
2. Run an interactive installation session to generate a state file.	"Generating the Initial State File" on page 110
- Using the graphical installer	Chapter 3, "Installing With the Graphical Interface"
- Using the text-based installer	Chapter 4, "Installing With the Text-Based Interface"
3. Copy the state file to another host and edit the state file for that host.	"Editing the State File" on page 111
4. (Optional) Edit the state file to run on a different platform from the platform where the state file was generated.	"Creating a Platform-Appropriate State File ID" on page 114
5. Run a silent installation session on each host.	"Running the Installer in Silent Mode" on page 115

Creating a State File

To create a state file, you must run an interactive session of the installer. A state file generated by the installer takes advantage of the installer's real-time dependency checking and error reporting.

Caution – Do not create a state file manually. This method can cause problems at installation time, configuration time, or server startup time.

Generating the Initial State File

You create the initial state file by running the installer interactively using the parameters of the `installer` command that tell the installer to capture your answers. As you proceed through the pages of the installer, your answers are captured and a state file is generated. The installer determines the order of the product components to be installed, so you can specify the components in any order. When you complete the installation, the state file is available in the location that you specified.

You can use the `-no` option if you do not want software to be installed during this session.

Syntax examples:

- To create a state file using the graphical interface:

```
./installer -saveState statefile_path
```

- To create a state file using the text-based interface:

  ```
  ./installer -nodisplay -saveState statefile_path
  ```

- To create a state file using the graphical interface without installing software in this session:

  ```
  ./installer -no -saveState statefile_path
  ```

Full syntax for the `installer` command can be found in Appendix B, "Installation Commands."

Refer to Appendix C, "Example State File" to see an example of a generated state file.

Editing the State File

After you have generated a state file, you must edit the state file to ensure that the local parameters are set correctly for the destination host. These parameters include host name, domain name, IP address, and other such settings.

Caution – In a state file created for silent installation, some parameters specify sensitive data, such as administrator passwords. Make sure to secure the file as appropriate for your deployment.

You might also need to change the state file ID, if you plan to do an installation on a platform that is different from the one on which you generated the initial state file.

This section addresses the following topics:

State File Editing Guidelines

When editing the state file, follow these guidelines:

- Do not modify parameters, except to edit their values.
  - Do not remove a parameter, even if it does not have a value.
  - Do not add a parameter.
  - Do not change the order in which parameters appear.
- Notice original types and formats and maintain them as you type new values. For example:
  - If the old value is a host name, type a host name and not a fully qualified domain name.
  - If the old value starts with a leading slash, make sure that the new value starts with a leading slash.

- Replace any value that you delete. For a required parameter, installation or configuration could fail if the parameter has been deleted.
- Retain the case of the original value.

Editing Local Parameters

The following table lists parameters that you might need to edit, depending on the product components you want to install or on your host. For example, the host on which you generated the state file might be in the same domain as the host on which you are installing.

For a description of each parameter, refer to the tables in Chapter 3, "Configuration Information," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

TABLE 5–2 State File Parameters Often Edited for Silent Installation

Component	Parameter Name
Common Server Settings	CMN_HOST_NAME
	CMN_DOMAIN_NAME
	CMN_IPADDRESS
	CMN_ADMIN_USER
	CMN_ADMIN_PASSWORD
	CMN_SYSTEM_USER
	CMN_SYSTEM_GROUP
Access Manager	IS_WS_HOST_NAME
	IS_WS_INSTANCE_DIR (if Web Server is the web container)
	CONSOLE_HOST
	IS_SERVER_HOST
	IS_DS_HOST
	IS_DS_HOSTNAME
	COOKIE_DOMAIN_LIST
Application Server	ASNA_ADMIN_HOST_NAME
	AS_WEB_SERVER_LOCATION
	AS_WEB_SERVER_PLUGIN_TYPE

TABLE 5–2 State File Parameters Often Edited for Silent Installation *(Continued)*

Component	Parameter Name
Directory Server	CREATE_INSTANCE
	DSEE_INSTANCE_DIR
	DSEE_INSTANCE_PORT
	DSEE_INSTANCE_SSL_PORT
	DSEE_DN_MANAGER
	DSEE_INSTANCE_USER
	DSEE_INSTANCE_GROUP
	DSEE_INSTANCE_PASSWORD
	DSEE_SUFFIX
Portal Server	PS_PORTALACCESS_URL
	format is http://*hostname.domainname*:*port/deploy_uri)*
	PS_DEPLOY_INSTANCE
Portal Server Secure Remote Access	SRA_SERVER_DOMAIN
	SRA_GW_HOSTNAME
	SRA_GW_DOMAIN
	SRA_GW_IPADDRESS
	SRA_NLP_HOSTNAME
	SRA_NLP_DOMAIN
	SRA_NLP_IPADDRESS
	SRA_RWP_HOSTNAME
	SRA_RWP_DOMAIN
	SRA_RWP_IPADDRESS
Web Server	WS_ADMIN_HOST

TABLE 5–2 State File Parameters Often Edited for Silent Installation *(Continued)*

Component	Parameter Name
Web Proxy Server	CMN_WPS_INSTALLDIR
	WPS_ADMIN_USER
	WPS_ADMIN_PASSWORD
	WPS_ADMIN_PORT
	WPS_ADMIN_RUNTIME_USER
	WPS_INSTANCE_RUNTIME_USER
	WPS_ISNTANCE_PORT
	WPS_INSTANCE_AUTO_START
	WPS_PROXY_DOMAIN

Creating a Platform-Appropriate State File ID

A state file can only be run on a host of the same platform type as the host where the state file was generated unless you edit the state file ID. Each platform has a different type of state file ID.

▼ To Generate a State File ID Using the Installer

This procedure generates a state file ID by running the installer on the platform on which you want to perform silent installation.

Note – The following command works only if you are generating an ID for the same platform on which you are running the command.

1. **If you are not logged in as `root`, become superuser.**
2. **Navigate to the directory where the installer is located:**

   `cd` *installer-directory*
3. **Run the installer command using the `-id` option.**

   ```
   ./installer -id
   ```

   The command generates an encrypted identifier.

4 **Copy the identifier and paste the value into the state file as the value for the `STATE_BEGIN` and `STATE_DONE` parameters.**

The following is an example of the state file identifier within a state file:

```
[STATE_BEGIN Sun Java(tm) Enterprise System \
f31c7e86a64605bc5b9b629931a30b275a0eb447]
.
.
.
[STATE_DONE Sun Java(tm) Enterprise System \
f31c7e86a64605bc5b9b629931a30b275a0eb447]
```

Running the Installer in Silent Mode

You should run the installer on a host that has the same operating system as the host on which you generated the state file. If you cannot do this, refer to "Creating a Platform-Appropriate State File ID" on page 114.

If you have problems during installation, refer to Chapter 9, "Troubleshooting."

▼ To Run the Installer in Silent Mode

Silent installation can be lengthy, depending on the quantity and type of product components that you are installing.

1 **Verify that your state file is edited correctly for the host.**

Caution – In a state file created for silent installation, some parameters specify sensitive data, such as administrator passwords. Make sure to secure the file as appropriate for your deployment.

2 **If you are not logged in as `root`, become superuser.**

3 **Navigate to the directory where the installer utility is located.**

`cd` *installer-directory*

4 **Run the installer using the following syntax:**

`./installer -noconsole -state` *statefile*

`–noconsole`	Start the installer in silent mode, suppressing the user interface.
`–state`	Use the specified state file as input to a silent installation.
statefile	Specify an absolute or relative pathname to a state file.

5 **After installation is complete, proceed to the next host and repeat Steps 1 through 4.**

▼ To Monitor the Progress of a Silent Installation

1 **To monitor a silent installation, navigate to the log file directory:**

Solaris OS: `cd /var/sadm/install/logs`

Linux: `cd /var/opt/sun/install/logs`

2 **Locate the log files for the current installation.**

The shared components are installed first and the product components follow. The *timestamp* variable represents the time the log was created. The variable has the format *MMddhhmm*.

MM Specifies the month

dd Specifies the date

hh Specifies the hour

mm Specifies the minute

3 **Use the `tail` command to watch messages as they are written to the logs:**

`tail -f` *logfile-name*

To exit the `tail` program, press Ctrl+C.

Next Steps

After you have completed the installer portion of your Java ES installation, proceed as follows:

- Chapter 6, "Completing Postinstallation Configuration" provides instructions on postinstallation configuration.
- "Verifying After Installation" on page 136 provides instructions for verifying that this phase of installation was successful.

◆ ◆ ◆ CHAPTER 6

Completing Postinstallation Configuration

This chapter contains instructions for completing initial configuration of the Sun Java™ Enterprise System (Java ES) product components after installation. If a product component is not listed in this chapter, there is no postinstallation configuration required for that component. However, that component might still require postinstallation tasks relating to monitoring or Sun Cluster data service if you are installing these product components.

This chapter contains the following sections:

How to Use This Chapter

When the Java ES installer finishes installation, most product components require additional configuration before the Java ES environment is operational. The extent of this work depends on the configuration type you selected (Configure Now or Configure Later), and whether or not your product components will be configured for monitoring or high availability with Sun Cluster software.

If you selected the Configure Later type during installation, the installer placed the product component package files in their respective directories. No parameter setting was done, and most product components are not operational because runtime services are not available. A number of product components include configuration tools for completing a Configure Later installation. When running the configuration tools, you can make any additional changes by following the instructions located in this guide and the instructions in the product documentation for each product component.

Before acting on the information in this chapter, you should have installed the Java ES components. You can examine the product registry or use the Solaris OS `pkginfo` command, the Linux `rpm` command to verify that the component packages have been installed. A list of packages associated with the components is contained in Chapter 5, "List of Installable Packages," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

A summary report containing the configuration values that were set during installation is available here:

Solaris OS: `/var/sadm/install/logs`

Linux: `/var/opt/sun/install/logs`

After completing installation, look through the procedures in this chapter for the product components you installed. If you determine that no additional configuration is required for your product components, you can start your product components by following the instructions in Chapter 7, "Verifying Installed Product Components."

Note – The default installation locations of Java ES product components might be different on the various platforms. Due to this, the procedures in this chapter often use variables to represent these locations. For example, *ApplicationServer-base* represents the directory where Application Server is installed, regardless of platform.

Verifying Man Pages

If your components have man pages, you will need to verify that your `MANPATH` environmental variable is set correctly. After installation, the man pages for the Java ES components are located in default directories. In some cases, the correct location for the component man pages is already set in your `MANPATH` environment variable. If the location of your man pages is not present, add this location to your `MANPATH` environment variable.

The following table indicates the default locations for the man pages of the Java ES components. If a component is not listed, the component does not have man pages.

TABLE 6–1 Man Pages Default Locations

Component	Location of Man Pages
Application Server	Solaris OS: `/opt/SUNWappserver/share/man` Linux: `/opt/sun/appserver/share/man`
Common agent container	Common Agent Container V1.1 Solaris OS: `/opt/SUNWcacao/man` Common Agent Container V2.x Solaris OS: `/usr/share/man` Linux: `/opt/sun/man` **Note –** Common Agent Container V1.1 does not co-exist on same Linux platform with V2.0 or V2.1.
Directory Server (and Directory Proxy Server)	Solaris OS: `/opt/SUNWdsee/dsee6/man` Linux: `/opt/sun/dsee6/man`
Monitoring	Solaris OS: `/opt/SUNWmfwk/man` Linux: `/opt/sun/man`
Sun Cluster	Solaris OS: `/usr/cluster/man/`

▼ To Update Your MANPATH Variable

The following example procedure shows how to ensure that the Application Server man pages are available using the C shell.

1 **Check your `MANPATH` environment variable to see if the correct path is already there.**

```
env | grep MANPATH
```

2 **If the correct path is not there, add the location of your Java ES component man pages to your `MANPATH` environment variable.**

- On Solaris OS, the following example command sets your `MANPATH` environment variable for the session:

  ```
  setenv MANPATH {$MANPATH}:/usr/dt/man:/usr/man:/opt/SUNWappserver/share/man
  ```

  To configure this environment variable to apply each time you log in, add the `setenv` command contents to your `.login` or `.cshrc` file.
- On Linux, update the `/etc/man.config` file with the required `MANPATH`. For example, add this line to the `/etc/man.config` file:

  ```
  MANPATH /opt/sun/man
  ```

  The new man pages will be fully accessible, regardless of path.

Note – For Linux, if users have `MANPATH` settings in their own shells, the procedure for Solaris OS should be used. This allows their personal settings to override the `/etc/man.config` file. You must also set the `MANSECT` variable.

---

3 **On Linux, you might need to set the `MANSECT` environment variable.**

Edit the `MANSECT` line in the `/etc/man.config` file. For example:

```
# and the MANSECT environment variablle is not set.
MANSECT     1:8:2:3:4:5:6:7:9:tcl:n:l:p:o
```

Change the second line to read this:

```
MANSECT     1:8:2:3:4:5:6:7:9:tcl:n:l:p:o:5:dsconf:5dpconf:5dssd:5dsat:5dsoc
```

4 **Verify that the man pages are accessible.**

For example, the following command should display the `asadmin` man page for Application Server:

```
man asadmin
```

Monitoring Console Postinstallation Configuration

If the product components you have installed will use Java ES monitoring, a number of the components require postinstallation configuration before they are enabled for the monitoring framework. For configuration instructions, refer to Chapter 3, “Installing and Using Monitoring Console,” in *Sun Java Enterprise System 5 Update 1 Monitoring Guide*.

Sun Cluster Postinstallation Configuration

On Solaris OS, theSun Cluster software provides a high availability platform for managing applications such as databases, application servers and web servers. Before you install or configure Sun Cluster software, ensure that the combination of hardware and software that you choose for your cluster is currently a supported Sun Cluster configuration.

Sun Cluster software can be used to manage the following Java ES product components:

- Application Server
- Application Server EE (HADB)
- Directory Server
- Message Queue (requires no additional configuration)
- Web Server

If the Java ES product components you installed will be included in a Sun Cluster environment, you must first configure the Sun Cluster framework before configuring the product components. then configure the Java ES product components you have selected. To install components from the Communications suite, refer to the *Sun Java Communications Suite 5 Installation Guide*. Finally, depending on the product components installed, you might need to configure Sun Cluster data services.

Phase I. Sun Cluster Framework

The Java ES installer performs a simple `pkgadd` installation of the core Sun Cluster packages and sets up the `/usr/cluster/bin` directory. No configuration is done during installation, so your first postinstallation task is to configure the cluster framework as described in the *Sun Cluster Software Installation Guide for Solaris OS*.

During this phase, the `scinstall` utility verifies the Sun Cluster packages. If packages are missing, an error message is displayed. If this happens, you must verify that the correct Sun Cluster packages were installed. Refer to Chapter 5, "List of Installable Packages," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

Phase II. Product Component Data Services

After you have installed and configured the Sun Cluster framework and the other Java ES and non-Java ES components, you are ready to configure the Sun Cluster data services using the Sun Cluster agents software.

Note – To configure Sun Cluster data services, you must have chosen the associated Sun Cluster agents during installation. To see an example Sun Cluster installation sequence, refer to "Sun Cluster Software Example" on page 66.

For guidelines on configuring the Sun Cluster data services, refer to "Sun Cluster Data Services Configuration" on page 130.

Access Manager Postinstallation Configuration

For all Access Manager installations, the web container needs to be restarted. If a full installation is being performed on Web Server or Application Server, the installer will stop the web container instance so only the instance needed to be started. For instructions on restarting Access Manager, see "Starting and Stopping Access Manager" on page 142.

Configuring Access Manager After a Configure Now Installation

After a Configure Now installation, you can start Access Manager and log into the Access Manager console. However, you cannot perform basic user management operations until you complete some final configuration steps. These steps differ depending on whether or not Access Manager is using a Directory Server instance that is already provisioned with user data. There are additional configuration tasks that you might want to perform for your deployment.

- Directory Server Provisioning Situations
- Enabling the Directory Server Referential Integrity Plug-in
- Adding Access Manager Indexes to Directory Server

For instructions on performing these tasks, refer to the *Sun Java System Access Manager 7.1 Postinstallation Guide*.

Configuring Access Manager After a Configure Later Installation

After a Configure Later installation, the packages are installed and you are ready to configure Access Manager using the Access Manager configuration script, *AccessManager-base*`/bin/amconfig`. Instructions for using this program are contained in the *Sun Java System Access Manager 7.1 Postinstallation Guide*.

For instructions on configuring Access Manager for a third-party web container on Solaris OS (BEA WebLogic or IBM WebSphere Application Server), refer to *Sun Java System Access Manager 7.1 Postinstallation Guide*.

Application Server Postinstallation Configuration

After a Configure Now installation, Application Server requires no postinstallation configuration.

To configure Application Server for load balancing, refer to the "Configuring Web Servers for HTTP Load Balancing" section in the Chapter 5, "Configuring HTTP Load Balancing," in *Sun Java System Application Server Enterprise Edition 8.2 High Availability Administration Guide*.

If needed, configure Application Server for use with the Sun Cluster software. Refer to "Sun Cluster Postinstallation Configuration" on page 121.

▼ To Configure Application Server After a Configure Later Installation

After a Configure Later installation, you will need to run a post installation script to set the Application Server environment. The scripts configure and create the *AppplicationsServer8–base*`/bin/*` shell scripts and a `config/asenv` file from templates that are installed during installation. (For a Configure Now installation, they are created during installation.)

1. **Navigate to the following directory of the Java ES 5U1 distribution. For example:**

   ```
   cd /os_arch/Product/application_server/Tools
   ```

2. **Open the `postInstall` README file and follow instructions to do the following:**

   a. **Run the `postInstall` script:**

      ```
      ./postInstall Application8Server-base ApplicationServer8Config-base
      ```

   b. **Create a new domain.**

      When using the `asadmin create-domain` command to create a new domain, you specify values for two parameters: `adminPort` and `instancePort`. The `adminPort` value can be the same as that used by the server instance. However, the `instancePort` value should not be the same as that used by any of the server instances.

3. **If needed, modify the environment variables in the** *ApplicationServer-base*`/samples/common.properties` **file.**

   If you do not know some paths, you can copy them from the *ApplicationServer-base* `/config/asenv.conf` file. For example:

Solaris Properties
com.sun.aas.derbyRoot=/opt/SUNWjavadb
com.sun.aas.webServicesLib=/opt/SUNWappserver/appserver/lib
com.sun.aas.imqHome=/var/opt/SUNWappserver/domains/domain1/imq
com.sun.aas.imqBinDir=/usr/bin
com.sun.aas.imqUserMgr=/usr/bin/imqusermgr
com.sun.aas.imqLib=/usr/share/lib
com.sun.aas.installRoot=/opt/SUNWappserver/appserver
com.sun.aas.javaRoot=/usr/jdk/entsys-j2se
com.sun.aas.domains.dir=/var/opt/SUNWappserver/domains
#admin.password= The admin password will not be saved as default. User can enter it and save it manually.
admin.host=jws-v210-4
appserver.instance=server
appserver.instance.port=8080
admin.user=admin
admin.port=4849
derby.port=1527
domain.name=domain1
server.cert.alias=s1as
keystore=${com.sun.aas.domains.dir}/${domain.name}/config/keystore.jks
keystore.password=changeit
trustStore=${com.sun.aas.domains.dir}/${domain.name}/config/cacerts.jks

Linux Properties
#admin.password= The admin password will not be saved as default. User can enter it and save it manually.
server.cert.alias=s1as
keystore=${com.sun.aas.domains.dir}/${domain.name}/config/keystore.jks
domain.name=domain1
com.sun.aas.imqHome=/var/opt/sun/appserver/domains/domain1/imq

Linux Properties
com.sun.aas.imqUserMgr=/opt/sun/mq/bin/imqusermgr
com.sun.aas.domains.dir=/var/opt/sun/appserver/domains
admin.user=admin
appserver.instance=server
com.sun.aas.imqBinDir=/opt/sun/mq/bin
trustStore=${cbom.sun.aas.domains.dir}/${domain.name}/config/cacerts.jks
com.sun.aas.imqLib=/opt/sun/mq/share/lib
keystore.password=changeit
com.sun.aas.derbyRoot=/opt/sun/javadb
admin.port=4849
derby.port=1527
com.sun.aas.webServicesLib=/opt/sun/appserver/lib
admin.host=jws-linuxpc-2
com.sun.aas.javaRoot=/usr/jdk/entsys-j2se
com.sun.aas.installRoot=/opt/sun/appserver
appserver.instance.port=8080

4. **If needed, configure Application Server for load balancing.**

   Follow the instructions in the Chapter 4, "Configuring Web Servers for Load Balancing," in *Sun Java System Application Server Enterprise Edition 8.2 High Availability Administration Guide*.

5. **If needed, configure Application Server for use with the Sun Cluster software.**

Directory Server Postinstallation Configuration

After a Configure Now installation, no additional configuration is necessary for Directory Server or its subcomponents.

Configuring Directory Server and Directory Proxy Server After a Configure Later Installation

After you perform a Configure Later installation of Directory Server or Directory Proxy Server, you must create instances before you can use the components. For instructions, refer to Part I, "Installing Directory Service Control Center, Directory Proxy Server, Directory Server, and Directory Server Resource Kit," in *Sun Java System Directory Server Enterprise Edition 6.2 Installation Guide*.

Configuring Directory Service Control Center After a Configure Later Installation

After you perform a Configure Later installation of Directory Service Control Center, you must complete initialization, and optionally enable Directory Service Control Center to restart when the system reboots. For instructions, refer to the Part I, "Installing Directory Service Control Center, Directory Proxy Server, Directory Server, and Directory Server Resource Kit," in *Sun Java System Directory Server Enterprise Edition 6.2 Installation Guide*.

HADB Postinstallation Configuration

After a Configure Now installation, no additional configuration is necessary.

Configuring HADB After a Configure Later Installation

After a Configure Later installation, the packages are installed and you are ready to perform the configuration tasks for HADB. Postinstallation configuration instructions for HADB and additional information can be found in the *Sun Java System Application Server Enterprise Edition 8.2 High Availability Administration Guide*.

If needed configure HADB for use with the Sun Cluster software. Refer to "Sun Cluster Data Services Configuration" on page 130.

Java ES Reporter Postinstallation Configuration

After Java ES Reporter has been installed, you can disable Reporter and stop it from sending reports to Sun, or re-enable Reporter after it has been disabled.

▼ To Enable or Disable Java ES Reporter

1. **Locate the Reporter configuration file.**

   Solaris OS: `/etc/opt/SUNWmfwk/config/reporter/config.properties`

   Linux: `/etc/opt/sun/mfwk/config/reporter/config.properties`

2. **Edit the file to set the enabled property to true or false.**

   ```
   enabled=true # Reporter is enabled
   enabled=false # Reporter is disabled
   ```

3. **Restart the common agent container:**

   ```
   cacaoadm restart
   ```

Message Queue Postinstallation Configuration

After installation, Message Queue requires no additional configuration.

If Message Queue will be included in a Sun Cluster configuration, proceed to "Sun Cluster Postinstallation Configuration" on page 121.

A common *optional* task is to configure Message Queue for automatic startup. To do this, become superuser and edit the following properties in the `imqbrokerd.conf` configuration file located in `/etc/imq` on Solaris OS and in `/etc/opt/sun/mq` on Linux .

- `AUTOSTART`, which specifies (`YES` or `NO`) if the broker is automatically started at boot time. The default value is `NO`.
- `ARGS`, which specifies command line options and arguments to pass to the broker startup command. See the *Sun Java System Message Queue 3 2005Q4 Administration Guide* for a listing and description of `imqbrokerd` command line options. (For example `-name` *instancename*)
- `RESTART`, which specifies (`YES` or `NO`) if the broker is automatically restarted if it abnormally exits. The default value is `YES`.

Additional configuration for Message Queue is discussed in the *Sun Java System Message Queue 3 2005Q4 Administration Guide*. For example, you might want to change the default administration password.

Portal Server and Portal Server Secure Remote Access Postinstallation Configuration

After a Configure Now or a Configure Later installation, the packages are installed and you are ready to perform the configuration tasks for Portal Server using instructions in the *Sun Java System Portal Server 7.1 Configuration Guide*.

- **Configure Now.** Basic configuration for a single-host situation using Web Server as the web container is done. Instructions for configuring your particular deployment are contained in *Sun Java System Portal Server 7.1 Configuration Guide*. After completing this configuration, you should return to this guide to verify final installation and to troubleshoot any problems.
- **Configure Later.** The software has been placed on the host and you are ready to run the Portal Server configuration tools. After completing this configuration you should return to this guide to verify final installation and to troubleshoot any problems.

Guidelines for configuring Portal Server to use a third-party web container are also included in *Sun Java System Portal Server 7.1 Configuration Guide*.

Service Registry Postinstallation Configuration

Service Registry cannot be configured during installation (Configure Now).

After a Configure Later installation, the packages are installed and you are ready to perform the configuration tasks for Service Registry. It is recommended that you configure Service Registry as a non-root user. For details, refer to"Configuring Service Registry" in *Service Registry 3.1 Update 1 Administration Guide* and in particular the task "To Configure Service Registry as a Non-Root User Using Custom Properties After a Configure Later Installation" in *Service Registry 3.1 Update 1 Administration Guide*.

Web Proxy Server Postinstallation Configuration

After a Configure Now installation, no additional configuration is needed.

After a Configure Later installation, the packages are installed and you are ready to configure Web Proxy Server using the following procedure.

▼ To Configure Web Proxy Server After a Configure Later Installation

1 **Create a properties file with your settings.**

For example, the `wps.properties` file might contain the following:

```
WPS_JDK_HOME=/usr/jdk/entsys-j2se/jre
WPS_SERVER_ROOT=/opt/SUNWproxy
WPS_ADMIN_NAME=admin
WPS_ADMIN_PWD=admin123
WPS_ADMIN_PORT=8889
WPS_START_ON_BOOT=N
WPS_ADMIN_SERVER_USER=root
WPS_SERVER_NAME=jws-v60x-4.red.iplanet.com
WPS_SERVER_PORT=8081
WPS_SERVER_ID=proxy-server1
WPS_ADMIN_SERVER_ID=proxy-admserv
WPS_SERVER_USER=root
```

2 **After you have created the file, run the following command:**

```
WebProxyServer-base/bin/proxy/bin/configureServer -l logfile -f path/wps.properties
```

Web Server Postinstallation Configuration

After a Configure Now installation, no additional configuration is needed unless you are using Sun Cluster or a 64–bit configuration.

- For Sun Cluster inclusion. If this product component will be included in a Sun Cluster configuration, proceed to "Sun Cluster Postinstallation Configuration" on page 121 and "Sun Cluster Data Services Configuration" on page 130.
- For 64–Bit support . If you are enabling 64–bit JVM support for Web Server, refer to "Enabling 64–bit Support" in *Sun Java System Web Server 7.0 Update 1 Installation and Migration Guide*.

▼ To Configure Web Server After a Configure Later Installation

After a Configure Later installation, the packages are installed and you are ready to configure Web Server using the following procedure.

1. **Create a runtime configuration for Web Server.**

   Run the Web Server configurator following instructions in the "Configure Later Mode (Java ES Only)" in *Sun Java System Web Server 7.0 Update 1 Installation and Migration Guide*.

2. **Verify the common server settings and update settings as needed.**

   Refer to the tables in "Web Server Configuration Information" in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

Sun Cluster Data Services Configuration

After the cluster has been established and the product components have been configured, you are ready to configure Sun Cluster data services for the various Java ES product components. The installed Sun Cluster agents are software programs that enable applications to take advantage of clusters. Agent software and additional configuration files comprise data services that enable you to run an application (such as Web Server or an Oracle database) on a cluster instead of on a single server. Combined with the Sun Cluster framework software and multihost disks, data services enable applications to become highly available and scalable.

Until you have fully configured the data services and all the supporting layers (volume manager, cluster file system, resource group information), Sun Cluster installation is not complete. More information on data services can be found in the *Sun Cluster Overview for Solaris OS* .

Note – You can deploy Access Manager and Portal Server in a highly available web container. However, they, like any web application deployed in a web container, are subject to failure. In this case, the web container will not fail over.

For Java ES product components, run the Java ES installer on each node installing the product components, then install the corresponding HA Sun Java System subcomponent of the Sun Cluster Agents for Sun Java System product components. In the Java ES installer, select the Configure Later type. When specifying installation directories, use the location on the node's local file system for product component, and use locations on a cluster file system for the component Configuration and Product Location.

The following table lists the agents that are provided in the Sun Cluster Agents component of the Java ES installer. Some additional links to documentation are provided.

TABLE 6–2 Sun Cluster Agents (Data Services)

Agent Name	Special Instructions	Platform
HA Application Server	Chapter 1, "Sun Cluster HA for Sun Java System Application Server EE (Supporting HADB Versions as of 4.4)," in *Sun Cluster Data Service for Sun Java System Application Server EE (HADB) Guide for Solaris OS*	SPARC, x86
HA Application Server EE (HADB)	*Sun Cluster Data Service for Sun Java System Application Server EE (HADB) Guide for Solaris OS*	SPARC, x86
HA Directory Server		SPARC. x86
HA Message Queue	Use *Sun Cluster Data Service for Sun Java System Message Queue Guide for Solaris OS* as a guide to installing and configuring for failover.	SPARC, x86
HA/Scalable Web Server	Use the *Sun Cluster Data Service for Sun Java System Web Server Guide for Solaris OS* as a guide to installing and configuring for failover or for scalability.	SPARC, x86
HA Agfa IMPAX		SPARC
HA Apache Tomcat		SPARC, x86
HA Apache		SPARC
HA Broadvision One-to-One Enterprise		SPARC
HA Calendar Server	Use Chapter 6, "Configuring Calendar Server 6.3 Software for High Availability (Failover Service)," in *Sun Java System Calendar Server 6.3 Administration Guide* as a guide to installing and configuring for failover.	SPARC
HA DHCP		SPARC, x86
HA DNS		SPARC, x86
HA Instant Messaging	Use the *Sun Java System Instant Messaging 7.2 Administration Guide* for instructions on installing and configuring for high availability.	SPARC
HA Messaging Server	Use Chapter 3, "Configuring High Availability," in *Sun Java System Messaging Server 6.3 Administration Guide* as a guide to installing and configuring for failover	SPARC
HA MySQL		SPARC, x86

TABLE 6–2 Sun Cluster Agents (Data Services) *(Continued)*

Agent Name	Special Instructions	Platform
HA NetBackup		SPARC
HA Sun N1 Service Provisioning		SPARC
HA NFS		SPARC, x86
HA Oracle		SPARC
HA Oracle Application Server		SPARC
HA Oracle E-Business Suite		SPARC
HA Oracle Real Application Clusters		SPARC
HA Samba		SPARC, x86
HA SAP		SPARC
HA SAP DB		SPARC
HA SAP liveCache		SPARC
HA Siebel		SPARC
HA Solaris Containers		SPARC, x86
HA Sun N1 Grid Engine		SPARC
HA Sun N1 Service Provisioning		SPARC
HA SWIFT Alliance Gateway		SPARC
HA Sybase ASE		SPARC
HA WebLogic Server		SPARC
HA WebSphere MQ		SPARC
HA WebSphere MQ Integrator		SPARC

▼ To Implement High Availability With a Non-Java ES Product

If your installation plan calls for high availability for non-Java ES products, follow the instructions here.

1 Install and configure the non-Java ES product.

For example, install Instant Messaging using the *Sun Java Communications Suite 5 Installation Guide*.

2. **In the Choose Software Components page of the Java ES installer, select the Sun Cluster agent that supports that product.**

   For example, select the HA Instant Messaging subcomponent of the Java ES Sun Cluster Agents component.

3. **Install the Sun Cluster agent using the Java ES installer.**

4. **Configure the agent following the instructions in the appropriate Sun Cluster data service guide here:**

   - Solaris SPARC platform data services guides are available here: `http://docs.sun.com/app/docs/coll/1124.4`
   - Solaris x86 platform data services guides are available here: `http://docs.sun.com/app/docs/coll/1125.4`
   - Special Java ES Instructions for current release here: *Sun Cluster 3.1 8/05 With Sun Java Enterprise System 5 Special Instructions*

Configuring the Java Virtual Machine (JVM)

After you have finished the required postinstallation configuration for your Java ES product components, some product components might require that you tune the Java Virtual Machine (JVM). The JVM consists of several entities, the most significant being the compiler, which turns Java byte code into machine instructions. In the version of the Java Developer's Kit (JDK) that is included with Java ES, there are several choices which can be made for the JVM.

The `–server` option is a good tuning option for a JVM running in server mode. (You can obtain the list of options by using the `java –?` command.)

For garbage collection, the default algorithm is a good place to start.

Another significant tuning option that might need to be configured is the Java heap memory. For example:

- The following command sets the initial Java heap size: `-Xms`*size*
- The following command sets the maximum Java heap size: `-Xmx`*size*

A good starting point for a heavily used system would be to set the maximum heap size to 1.2 GB.

Configuring Product Components With Non-root Identifiers

You must be root to run the Java ES installer. Because of this, all files placed on the machine by the installer are owned by root. However, when performing configuration after installation, you can assign a non-root runtime user or group to some product components. For example, you might be deploying Access Manager in an instance of Application Server that is not owned by root. For purposes of installation or administration, there are many reasons to configure a product component with a non-root identifier. Generally, the non-root user must already exist on the system, but this can vary by product component.

The following table provide links to information on configuring the applicable product components with non-root identifiers.

TABLE 6–3 Configuring Non-root Identifiers for Product Components

Product Component	Where to Find Instructions
Application Server	Set up an entire administrative domain owned and operated by a non-root user. For instructions, refer to *Sun Java System Application Server Enterprise Edition 8.2 Administration Guide*.
Directory Server	Create the server instance as a regular user, or specify the user when creating the instance. For instructions, refer to the *Sun Java System Directory Server Enterprise Edition 6.2 Administration Guide*.
Portal Server	Use the Portal Server configurator to configure for non-root. Instructions for running the configurator as well as descriptions of the settings used are contained in the Postinstallation Configuration chapter of the *Sun Java System Portal Server 7.1 Administration Guide*.
Web Server	By default, Web Server is configured with `webservd` as the runtime user. When using the Web Server configurator, you can specify any runtime user ID. For additional information, refer to "Installing Portal Server 7.1 on Web Server 7.0" in *Sun Java System Portal Server 7.1 Configuration Guide*, then scroll down to the section called Installing Portal Server 7.1 as a Non-root User.

Next Steps

After you have completed the configuration tasks in this chapter, verify postinstallation configuration by starting the product components as described in "Verifying After Postinstallation Configuration" on page 139.

◆ ◆ ◆ CHAPTER 7

Verifying Installed Product Components

This chapter provides instructions for verifying that the Sun Java™ Enterprise System (Java ES) product components have been installed and configured successfully. The procedures here do not address more complex interactions among product components that might occur after the initial configuring, such as single sign-on configuration.

This chapter includes the following sections:

How to Use This Chapter

There are two types of verification presented in this chapter: verifying directly after installation, and verifying after all postinstallation configuration is done.

- **Verifying after installation.** This type of verification is used to discover if installation was basically successful; only some components can be started and stopped at this point.

- **Verifying after postinstallation configuration.** This type of verification is used to verify that all the components can be started and are capable of running. Instructions for starting and stopping each component individually are included.

The default installation locations of Java ES product components are different on the various operating system. Due to this difference, the procedures in this chapter often use placeholders to represent these locations. For example, *AccessManager-base* represents the base installation directory for Access Manager.

Tip – In most cases, the examples in this chapter are based on default information. If you do not remember the installation or configuration values specified for your product component, try the example. Default installation directories and ports are listed in Chapter 2, "Default Installation Directories and Ports," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

Verifying After Installation

This section provides instructions for verifying that installation of an example set of Java ES product component packages was successful. If you performed a Configure Now installation, a few of the product components in this example are configured and ready to run. However, the purpose of the guidelines in this section is simply to verify that the packages are copied to the host correctly, with no partial packages or missing product components.

A good way to verify that packages were installed successfully is to examine the product registry. After installation, the Java ES installer updated the product registry to contain the product components that were installed. During uninstallation, the product registry is read by the Java ES uninstaller to determine which product components are present and can be uninstalled. Product registry is located here:

- Solaris OS: `/var/sadm/install/productregistry`
- Linux: `/var/opt/sun/install/productregistry`

You can also check a few of the product component directories to see if software is in the appropriate directory. Default directories are listed in Chapter 2, "Default Installation Directories and Ports," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*. Listings of the packages for the Java ES components can be found in Chapter 5, "List of Installable Packages," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*.

Looking at the installation logs is also helpful, especially if any of the packages do not seem correct in the product registry. For instructions on using the logs and the Log Viewer, refer to "Examining Installation Log Files" on page 184.

Finally, you can try to start product components that were part of a Configure Now installation, such as Web Server or Directory Server.

To Verify That Installation Succeeded

After postinstallation configuration is complete, use some or all of the following steps in this example to verify basic installation of the specified set of product components.

1. **Verify that no partial packages were installed. On Solaris OS:**

   ```
   pkginfo -p
   ```

2. **Verify that the correct version of a component is present.**

   To see the correct product component versions for this release, refer to Appendix A, "Java ES Components for This Release." For example, the J2SE version for Solaris should be 1.5.0_12.

   ```
   cd /usr/jdk
   ls -l
   ```

3. **Verify that the installed product components are reflected in the product registry.**

   a. **On Solaris, use the prodreg tool to view installed packages:**

      ```
      prodreg &
      ```

   b. **Expand the Java Enterprise System Node to view the packages installed by the Java ES installer.**

   c. **You can also use the following command to view the `productregistry` file directly.**

      ```
      more /var/sadm/install/productregistry
      ```

4. **Review the configuration data you provided during installation by opening the summary log:**

   ```
   cd /var/sadm/install/logs
   more Java_Enterprise_System_5_Summary_Report_install.*
   ```

5. **For a Configure Now installation, start Portal Server and its related services.**

   a. **Start Directory Server instance:**

      ```
      /opt/SUNWdsee/ds6/bin/dsadm start /var/opt/SUNWdsee/dsins1
      ```

   b. **Start Web Server instance:**

      For Solaris:

      `/var/opt/SUNWbsvr7/https-`*`hostname.domainname`*`/bin/startserv`

      For Linux:

      `/var/opt/sun/webserver7/https-`*`hostname.domainname`*`/bin/startserv`

      Starting Web Server automatically starts Portal Server and Access Manager.

Note – If you used a web container other than Web Server, the process might be different.

c. Access the Web Server URL:

`http://`*hostname*`:`*port*

d. Start the administration instance:

`/var/opt/SUNWwbsvr7/admin-server/bin/startserv`

e. Access the administration URL for Web Server:

`http://`*hostname.domainname*`:8800`

6 For a Configure Now installation, stop Portal Server and its related services:

a. Stop the Web Server administration server:

`/var/opt/SUNWwbsvr7/admin-server/bin/stopserv`

b. Stop Web Server:

`/var/opt/SUNWwbsvr7/https-`*hostname*`.`*domainname*`/bin/stopserv`

c. Stop Directory Server:

`/opt/SUNWdsee/ds6/bin/dsadm stop /var/opt/SUNWdsee/dsins1`

7 For a Configure Now installation, start the web container to access Portal Server and Access Manager services.

"Accessing the Portal Server Desktop by Starting the Web Container" on page 140

8 For a Configure Now installation, access the Access Manager console.

For login, User ID is `amadmin`, password was entered during installation

`http://`*hostname.domainname*`:`*port*`/amconsole`

9 For a Configure Now installation, access Portal Server:

For login, User ID is `amadmin`, password was entered during installation

`http://`*hostname.domainname*`:`*port*`/portal`

10 If errors occur, restart Web Server and repeat the steps.

Verifying After Postinstallation Configuration

This section provides guidelines for verifying that the Java ES product components are working after you have finished postinstallation configuration.

To start Java ES, you start the product components one after another, in a specific sequence. Some guidelines:

- Start with the basic services provided by Directory Server and your web container (Web Server or an application server). Java ES creates runnable instances of Java ES Application Server and Web Server during installation.
- Third-party web containers must already be installed and running using instructions in the third-party documentation.

Note – For Configure Now, Linux only supports the BEA WebLogic container.

- Because Portal Server and Access Manager run inside the web container, Portal Server and Access Manager start when you start the web container.
- If a service is already running when you start Java ES, the service should be stopped and then restarted after Java ES components are running.
- It is good practice to stop and restart the Sun Java Web Console shared component, especially in relation to Directory Service Control Center, Monitoring Console, and Sun Cluster software:
  - Solaris OS: `/usr/sbin/smcwebserver stop`
  - Solaris OS: `/usr/sbin/smcwebserver start`
  - Linux: `/opt/sun/webconsole/bin/smcwebserver stop`
  - Linux: `/opt/sun/webconsole/bin/smcwebserver start`

The general sequence for bringing up the entire Java ES product component set is shown in the following table. The left column lists the order in which you should perform the startup, the middle column describes the task, and the right column lists the location of the instructions for performing the task.

TABLE 7–1 Preferred Startup Sequence for Java ES

Order	Task	Location of Instructions
1	Start Directory Server.	"Starting and Stopping Directory Server" on page 145

TABLE 7–1 Preferred Startup Sequence for Java ES *(Continued)*

Order	Task	Location of Instructions
2	Start your chosen web container. If installed, Access Manager and Portal Server are automatically started.	
	- Start Application Server (this starts Message Queue).	"Starting and Stopping Application Server" on page 143
	- Start Web Server.	"Starting and Stopping Web Server" on page 150
	- Start IBM WebSphere Server.	See the third-party documentation for the server.
	– Start BEA WebLogic Server.	See the third-party documentation for the server.
3	Start Portal Server Secure Remote Access.	"Starting and Stopping Portal Server Secure Remote Access" on page 147
4	Start Web Proxy Server	"Starting and Stopping Web Proxy Server" on page 148
5	Start Service Registry	*Service Registry 3.1 Update 1 Administration Guide*
6	Start Monitoring Console	"Starting the Monitoring Console" in *Sun Java Enterprise System 5 Update 1 Monitoring Guide*

To shut down the entire Java ES product component set, reverse the sequence.

Accessing the Portal Server Desktop by Starting the Web Container

The Portal Server startup and shutdown mechanisms are part of the startup and shutdown mechanisms for the web container on which it runs (Sun Java Systems or third-party). Portal Server also depends on Directory Server, Access Manager, and the Access Manager SDK. See the following sections to start your Sun web container, Access Manager, and Portal Server after installation and configuration:

- "Starting and Stopping Application Server" on page 143
- "Starting and Stopping Web Server" on page 150

Portal Server administrators use the Access Manager Console for managing end-user access to the Portal Server desktop. See "Starting and Stopping Access Manager" on page 142 to open the Access Manager Console.

The following procedures pertain to accessing the end-user Portal Server Desktop after postinstallation configuration is complete:

- "To Access the Portal Server Desktop from a Sun Web Container" on page 141
- "To Access the Portal Server Desktop from BEA WebLogic" on page 142
- "To Access the Portal Server Desktop from IBM WebSphere" on page 142

▼ To Access the Portal Server Desktop from a Sun Web Container

The web protocol for Portal Server can be either HTTP or HTTPS. By default, the host is *hostname.domain*.

1. **In a browser window, use the following URL format to display the sample Desktop (the default Portal Access URL and default deployment URI are `/portal`):**

   `http://`*hostname.domain:port*`/portal`

   When you enter the URL, the welcome page is displayed, including a short description of Portal Server and links to the sample portals that you selected for installation. Click one of the links to access the anonymous portal desktop for the sample portal. If the sample desktop displays without any exception, your Portal Server installation was successful.

2. **Enter the following in the browser:**

   `http://`*hostname.domain:port*`/psconsole`

3. **Verify that the gateway is running on the specified port (default is 443):**

   `netstat –an | grep` *port-number*

   If the gateway is not running, use the following command to start the gateway:

   PortalServer-base`/bin/psadmin start-sra-instance –u amadmin -f` *amadmin-password-file* `– –instance-type gateway – –instance-name` *GatewayInstancename*

4. **View the log files to verify that there are no problems logged.**

5. **Run Portal Server in secure mode by typing the gateway URL in your browser:**

   `https://`*gateway-hostname.domainname:port*

   If you have chosen the default port (443) during installation, you need not specify the port number.

6. **For a mobile device, use the following URL format:**

   `http://`*hostname.domain:port*`/portal/dt`

Note – The Portal Server URL and the deployment URI must be the same. For example, if the Portal Server URL is `http://`*hostname.domain:port*`/portal`, the deployment URI must be `/portal`.

- Portal ID: The default value is `portal1`.
- Search ID: The default value is `search1`.
- Deployment URI: The default value is `/portal`.

▼ To Access the Portal Server Desktop from BEA WebLogic

- **In a new browser window on Solaris OS, use the following URL to display the Sample Desktop:**

  `http://`*beaweblogic-host*`:` *port*`/portal`

  Display of the Sample Desktop confirms successful deployment of Portal Server on BEA WebLogic.

▼ To Access the Portal Server Desktop from IBM WebSphere

- **In a new browser window on Solaris OS, use the following URL to display the Sample Desktop:**

  `http://`*ibmwebsphere-hostname*`:` *port*`/portal`

  Display of the Sample Desktop confirms successful deployment of Portal Server on IBM WebSphere.

Starting and Stopping Access Manager

To start and stop Access Manager after postinstallation configuration is complete, start and stop the web container in which Access Manager is running.

▼ To Access the Access Manager Login Page

Accessing the login page depends on the type of installation you did for Access Manager:

- Legacy (6.x):

  `http://`*web-container-host*`:`*port*`/amconsole`

or

`http://`*web-container-host*`:`*port*`/amserver`

- Realm (7.x):

  `http://`*web-container-host*`:`*port*`/amserver`

1. **Use the following URL format to access the default page in Legacy (6.x) mode:**

   `http://`*web-container-host*`:`*port*`/amconsole`

   The Access Manager login page appears.

2. **Use the following URL format to access the default page in Realm (7.x) mode:**

   `http://`*web-container-host*`:`*port*`/amserver`

   The Access Manager login page appears.

3. **Log in.**

   The default administrator account is `amadmin`. Your login confirms successful installation.

Starting and Stopping Application Server

Application Server is configured as a domain. The Java ES installer creates the default administrative domain with the default port number 4849. The Administration Server instance name is `server`. To use Application Server after postinstallation configuration is complete, start the domain and access the graphical Administration Console. More information can be found in the Chapter 1, "Getting Started," in *Sun Java System Application Server Enterprise Edition 8.2 Administration Guide*.

Note – Starting Application Server also starts Message Queue.

▼ To Start the Application Server Domain

1. **On the command line, change to** *ApplicationServer-base*`/bin`**.**

Note – The contents of the administrator password file should be `AS_ADMIN_PASSWORD=password`.

---

2. **Start the domain. For example:**

```
% asadmin start-domain --user admin-id --passwordfile path_to_admin-password_file domainname
```

3 **Enter the values that you provided during installation.**

A message is displayed telling you that the server is starting:

```
Starting Domain domain1, please wait. Log redirected to install_dir...
```

When the startup process has completed, an additional message is displayed:

```
Domain domain1 started
```

4 **Verify that the Application Server processes are running. For example, on Solaris OS:**

```
/usr/bin/ps -ef | grep appserv
/opt/SUNWappserver/appserver/lib/appservDAS domain1
```

▼ To Access the Administration Console

- **To access the Administration Console, use the following URL format in your browser:**
  `https://`*localhost*`:`*port*

  If the browser is running on the host where the Application Server was installed, specify *localhost* for the host name. If the browser is on another system, replace *localhost* with the name of the system that the Application Server software is running. Replace the *port* variable with the Administration port number assigned during installation. The default port number assigned during installation is 4849. For example:

  ```
  https://mycomputer.example.com:4849
  ```

  Display of the Administration Console Login screen confirms successful installation.

Note – More information on installing the Application Server, the Domain Administration Server, and its various port numbers and concepts can be found in the *Sun Java System Application Server Enterprise Edition 8.2 Installation Guide*.

▼ To Stop Application Server

1 **On the command line, change to** *ApplicationServer-base*`/bin`**.**

2 **Stop the Application Server instances. For example:**

```
./asadmin stop-domain --domain domain1
```

3 **Verify that Application Server is no longer running. For example:**

```
/usr/bin/ps -ef | grep appserv
```

Starting and Stopping Directory Proxy Server

After postinstallation configuration is complete, use the following procedures for starting and stopping Directory Proxy Server.

▼ To Start Directory Proxy Server

1. **If a Directory Proxy Server instance does not yet exist, create one.**
2. **On the command line, change to** *DirectoryProxyServer-base*`/bin`**.**
3. **Start the Directory Proxy Server instance. For example:**

```
./dpadm start /var/opt/SUNWdsee/dpsins1
```

▼ To Stop Directory Proxy Server

1. **On the command line, change to** *DirectoryProxyServer-base*`/bin`**.**
2. **Stop the Directory Server Proxy Server instance. For example:**

```
./dpadm stop /var/opt/SUNWdsee/dpsins1
```

Starting and Stopping Directory Server

After postinstallation configuration is complete, use the instructions in this section to start and stop Directory Server. If Directory Server is part of a cluster, ensure that you are working on the active node for the logical host.

Note – Before using the `dsadm` command to start or stop Directory Server, verify that the `LD_LIBRARY_PATH` environment variable is unset. If this variable is not unset, you might receive an error when `dsadm` cannot find a dependent library.

▼ To Start Directory Server

1. **If a Directory Server instance does not yet exist, create one.**
2. **On the command line, change to** *DirectoryServer-base*`/bin`**.**

3 **Start the Directory Server instance. For example:**

```
./dsadm start /var/opt/SUNWdsee/dsins1
```

▼ To Stop Directory Server

1 **On the command line, change to** *DirectoryServer-base*`/bin`**.**

2 **Stop the Directory Server instance. For example:**

```
./dsadm stop /var/opt/SUNWdsee/dsins1
```

Starting and Stopping Message Queue

Message Queue uses a broker to route and deliver messages. (To scale the Message Queue service, brokers can be clustered.) The `imqbrokerd` command starts a broker.

▼ To Start Message Queue Broker

1 **On the command line, change to the** *MessageQueue-base*`/bin` **directory.**

2 **Start the Message Queue broker:**

```
./imqbrokerd
```

3 **Verify that the broker process is running. For example:**

Solaris OS: `/usr/bin/ps -ef | grep imqbrokerd`

Linux: `/bin/ps -ef | grep imqbrokerd`

▼ To Stop Message Queue Broker

- **When you stop a running broker, you are prompted for user admin user name and password.**

  Solaris OS: `/usr/bin/imqcmd shutdown bkr [ -b` *hostname:port* `]`

  Linux:`/opt/sun/mq/bin/imqcmd shutdown bkr [ -b` *hostname:port* `]`

Starting and Stopping Monitoring Console

After postinstallation configuration is complete, refer to instructions in the "Starting the Monitoring Console" in *Sun Java Enterprise System 5 Update 1 Monitoring Guide*.

Starting and Stopping Portal Server Secure Remote Access

The Secure Remote Access product component of Portal Server offers browser-based secure remote access to portal content and services from any remote device with a Java technology-enabled browser. The Gateway subcomponent presents the content securely from internal web servers and application servers through a single interface to a remote user. Portal Server Secure Remote Access depends on Portal Server and Access Manager or the Access Manager SDK.

After postinstallation configuration is complete, use the following instructions for starting and stopping the Gateway.

▼ To Start Portal Server Secure Remote Access Gateway

1 **After installing the Gateway subcomponent and creating the required profile, start the Gateway. For example:**

```
gateway-install-root/SUNWportal/bin/psadmin start-sra-instance --adminuser \
amadmin --passwordfile /tmp/password --name default --type gateway
```

`default` is the default gateway profile created during installation. You can create your own profiles later, and restart the Gateway with the new profile.

2 **Verify that the Gateway is running on the specified port:**

```
netstat -an | grep port-number
```

The default Gateway port is 443.

▼ To Stop Portal Server Secure Remote Access Gateway

1 **Stop the Gateway. For example:**

```
gateway-install-root/SUNWportal/bin/psadmin stop-sra-instance --adminuser /
amadmin --passwordfile /tmp/password --name default --type gateway
```

This command stops all the Gateway instances that are running on that particular host.

2 **Run the following command to check that the Gateway processes are no longer running:**

```
/usr/bin/ps -ef | grep entsys5i
```

Stopping and Rebooting Sun Cluster Software

Although Sun Cluster software is not started and stopped like other Java ES product components, the software can be stopped by rebooting into noncluster mode. For instructions, refer to the *Sun Cluster System Administration Guide for Solaris OS*.

Starting and Stopping Web Proxy Server

When you install Web Proxy Server, two server instances are installed by default: a Web Proxy Server Administration Server instance and a Web Proxy Server instance.

▼ To Start Web Proxy Server Administration Server and Instance

1. **On the command line, change to** *WebProxyServer-base*`/proxy-admserv`**.**
2. **Start the Web Proxy Administration Server. For example:**
   - Solaris OS: `/opt/SUNWproxy/proxy-admserv/start`
   - Linux: `/opt/sun/webproxyserver/proxy-admserv/start`
3. **On the command line, change to** *WebProxyServer-base*`/proxy-`*hostname.domainname*`.`
4. **Start the Web Proxy Server instance. For example:**
   - Solaris OS: `/opt/SUNWproxy/proxy-server1/start`
   - Linux: `/opt/sun/webproxyserver/proxy-server1/start`
5. **Verify that the Web Proxy Server processes are running. For example:**

```
/usr/bin/ps -ef | grep proxy
```

▼ To Start the Socks Server

1. **On the command line, change to** *WebProxyServer_base*`/proxy-instance-name`**.**
2. **Start the Socks Server:**

```
./start-sockd
```

3. **Verify that the Socks Server processes are running. For example:**

```
/usr/bin/ps -ef | grep sockd
```

To Access the Administration Server Graphical Interface

- **Use the** `http://`*hostname.domainname:adminport* **format to access the Administration Server graphical interface. For example:**

  ```
  http://host1.example.com:8888
  ```

  Your login confirms successful installation.

To Stop Web Proxy Server

1. **On the command line, change to** *WebProxyServer-base*`/proxy-admserv`**.**
2. **Stop the Admin Server. For example:**
   - Solaris OS: `/opt/SUNWproxy/proxy-admserv/stop`
   - Linux: `/opt/sun/webproxyserver/proxy-admserv/stop`
3. **On the command line, change to** *WebProxyServer-base*`/proxy-instance-name`**.**
4. **Stop the Web Proxy Server instance. For example:**
   - Solaris OS: `/opt/SUNWproxy/proxy-server1/stop`
   - Linux: `/opt/sun/webproxyserver/proxy-server1/stop`
5. **Verify that the Web Proxy Server processes are not running. For example:**

   ```
   /usr/bin/ps -ef | grep proxy
   ```

To Stop the Socks Server

1. **On the command line, change to** *WebProxyServer_base*`/proxy-instance-name`**.**
2. **Stop the Socks Server:**

   ```
   ./stop-sockd
   ```

3. **Verify that the Socks Server processes are not running. For example:**

   ```
   /usr/bin/ps -ef | grep sockd
   ```

Starting and Stopping Web Server

When you install Web Server, two server instances are installed by default: an Administration Server instance and a Web Server instance.

▼ To Start Web Server

1. **Start the Administration Server. For example:**

   For Solaris OS: `/var/opt/SUNWwbsvr7/admin-server/bin/startserv`

   For Linux: `/var/opt/sun/webserver7/admin-server/bin/startserv`

2. **Start the Web Server instance. For example:**

   For Solaris OS: `/var/opt/SUNWwbsvr7/https-instanceName/bin/startserv`

   For Linux: `/var/opt/sun/webserver7/https-instanceName/bin/startserv`

3. **Access the Web Server Administration Server administration instance:**

   In a browser window, use the `http://`*hostname* `.`*domainname*`:`*adminport* format. For example:

   For SSL port (this is the default): `https://host1.example.com:8989`

   For HTTP port: `http://host1.example.com:8800`

   Your login confirms successful installation.

▼ To Stop Web Server

1. **Stop the Administration Server. For example:**

   For Solaris OS: `/var/opt/SUNWwbsvr7/admin-server/bin/stopserv`

   For Linux: `/var/opt/sun/webserver7/admin-server/bin/stopserv`

2. **Stop the Web Server instance. For example:**

   For Solaris OS: `/var/opt/SUNWwbsvr7/https-instanceName/bin/stopserv`

   For Linux: `/var/opt/sun/webserver7/https-instanceName/bin/stopserv`

Next Steps

If you have completed this chapter, you have verified that the Java ES product components that you installed and configured are functional. You can now do any additional configuration or begin administering the product components. The following documentation can help you get started:

- All Java ES product documentation: `http://docs.sun.com/coll/1286.3`
- *Sun Cluster System Administration Guide for Solaris OS*
- *Sun Cluster Data Services Planning and Administration Guide for Solaris OS*

◆ ◆ ◆ CHAPTER 8

Uninstalling

This chapter provides instructions for uninstalling Sun Java™ Enterprise System (Java ES) product component software or other Java ES-related utilities that have been installed during a Java ES installation.

This chapter includes the following sections:

How the Uninstaller Works

This section contains the following subsections:

Java ES provides an uninstallation program for removing product components that were installed on your system using the Java ES installer. Like the Java ES installer, the uninstaller can be run in graphical, text-based, or silent mode.

During installation, the Java ES installer places the Java ES uninstaller at the following location:

- Solaris OS: `/var/sadm/prod/SUNWentsys5u1`
- Linux: `/var/sadm/prod/sun-entsys5u1`

Tip – You can use the optional -no parameter to run the uninstaller without uninstalling any software. This option is useful for familiarizing yourself with the uninstaller and for creating a state file for a subsequent silent uninstallation.

Limitations of the Uninstaller

- The uninstaller only removes product components that were installed by the Java ES installer. To remove product components that were not installed by the Java ES installer, follow instructions in the product component documentation.
- The uninstaller does not remove Java ES shared components.
- The uninstaller must be run separately on each host that contains Java ES product components. Remote uninstallation is not supported. For each host, you can select one or more product components for removal.
- The uninstaller might remove configuration and user data files. The files vary for each component. After the uninstallation process is completed, you might need to remove some additional files and directories. For product-by-product information, refer to "Reviewing Uninstallation Behavior for Java ES Product Components" on page 158.
- The uninstaller presents unconfigure pages for product components if needed for multi-session uninstallation.
- The uninstaller does not unconfigure installations on third-party web containers.
- The uninstaller does not unconfigure Access Manager SDK installations on any web container. You must reconfigure the web container manually (for example, restore the original classpath).

Caution – Do not use the uninstaller to remove Sun Cluster software unless Sun Cluster software was installed but never used to configure a cluster node. For more information, see "Uninstalling Sun Cluster Software" on page 178

Handling Interdependencies

The uninstaller might behave differently depending on which product components you installed and how they are interrelated.

- The uninstaller recognizes dependencies among products that are installed on the same host. If you attempt to uninstall a product component that has dependent products installed on the local host, the uninstaller issues a warning.

  For example, if you attempt to uninstall Access Manager from the host where Portal Server is also installed, the uninstaller warns you that Portal Server cannot function without Access Manager.

- In most cases, you can uninstall a product component if no other product component depends on it.

  For example, Portal Server depends on Access Manager but Access Manager does not depend on Portal Server. If you attempt to uninstall Portal Server, the uninstaller does not issue a warning because Access Manager can function without Portal Server.

Caution – When uninstalling a product component, you must identify which products are configured for that product component (some additional configuration might be required). Otherwise, you might have product components on your system that are configured to support products that are no longer present.

The uninstaller does not recognize the following interdependencies:

- Dependencies from remote hosts
- Dependencies resulting from configuration

Product Component Dependencies from Remote Hosts

Some product component dependencies can be satisfied with product components deployed on remote hosts. The uninstaller does not recognize these dependency relationships.

For example, if you uninstall Directory Server, the uninstaller does not warn you that Access Manager depends on Directory Server, even if both products are deployed on the same host. This is because another Directory Server instance on another host *could* support Access Manager.

Product Component Dependencies Resulting from Configuration

The uninstaller does not recognize a product component dependency that is the result of postinstallation configuration.

For example, suppose you install both Portal Server and Calendar Server on the same host, and then configure Portal Server to use Calendar Server for the Portal Server calendar channel. After this configuration, Portal Server depends on Calendar Server. However, if you then uninstall Calendar Server, the uninstaller does not warn you that Portal Server depends on Calendar Server because the uninstaller does not know about the postinstallation configuration.

Verifying Prerequisites

The following table lists the tasks that you should perform before uninstallation. Some of the tasks might not apply to your particular situation.

The left column lists the order in which you should perform the tasks and the right column contains other useful information and the location of instructions.

TABLE 8–1 Pre-uninstallation Checklist

Task Description	Instructions or Helpful Information
1. Review the needs and behaviors of each product component you are going to uninstall.	"Reviewing Uninstallation Behavior for Java ES Product Components" on page 158
2. Identify product component dependencies that result from configuration and take appropriate measures	"Handling Interdependencies" on page 154 You might need to back up data, unconfigure the dependent product component from the supporting product component, or uninstall the product components in a particular order.
3. Make a copy of the product registry file. The backup copy is helpful in recovering from a failed uninstallation.	Solaris OS: `/var/sadm/install/productregistry` Linux: `/var/opt/sun/install/productregistry`
4. Make a copy of the configuration or user data for product components you are uninstalling if you plan to reuse this data in subsequent installations.	"Reviewing Uninstallation Behavior for Java ES Product Components" on page 158
5. If necessary, gather administrator access information for Directory Server and Access Manager.	"Granting Administrator Access for the Uninstaller" on page 168

6. If uninstalling Access Manager, uninstall the schema.	Use this LDIF file to remove the schema before uninstallation:
	Solaris OS:
	`/etc/opt/SUNWam/config/ldif/ds_remote_schema_uninstall.ldif`
	Linux:
	`/etc/opt/sun/identity/config/ldif/ds_remote_schema_uninstall.ldif`

7. If uninstalling Sun Cluster software, Sun Cluster Geographic software must be uninstalled first.	Uninstall Sun Geographic Edition software before Sun Cluster software.

TABLE 8–1 Pre-uninstallation Checklist *(Continued)*

Task Description	Instructions or Helpful Information
8. If uninstalling Access Manager or Portal Server without uninstalling the Web Container	Ensure that the Web Container is up and running, For Application Server web container the domain should be started before uninstallation, For Web Server container, the administration instance should be started before uninstallation. If this is not the case Portal Server and Access Manager will not be undeployed from the Web Container during uninstallation.
9. If uninstalling Access Manager	Ensure that Directory Server and the Web Container is up and running.
10. If uninstalling Web Server	Ensure that administration instance is running.

Planning for Uninstallation

Before using the uninstaller, you should survey your installation and plan the steps you might have to take to prevent loss of data or loss of interdependency connections. It is important to understand how the various Java ES product components behave when they are uninstalled.

This section contains the following subsections:

- "Surveying Installed Java ES Software" on page 157
- "Reviewing Uninstallation Behavior for Java ES Product Components" on page 158
- "Granting Administrator Access for the Uninstaller" on page 168

Surveying Installed Java ES Software

Perform one of the following procedures to review the Java ES product component software that is already installed on each host.

▼ To Use the Uninstaller for Viewing Installed Software

1 As `root`, navigate to the directory where the uninstaller is located:

- Solaris OS: `/var/sadm/prod/SUNWentsys5u1`
- Linux: `/var/sadm/prod/sun-entsys5u1`

2 To survey the local host, run the uninstaller without uninstalling software.

For graphical mode:

```
./uninstall -no
```

For text-based mode:

```
./uninstall -no -nodisplay
```

To see the full syntax for the `uninstall` command, refer to "uninstall Command" on page 215.

3 **Proceed through the uninstaller pages until you reach the list of installed products.**

4 **After viewing the list of installed product components, exit the uninstaller.**

No software has been uninstalled.

▼ To Use the Solaris prodreg Utility for Viewing Installed Software

- **Use the `prodreg` utility to view information about all packages installed on your system, including Java ES product components.**

This information is useful when checking for product component dependencies. The `prodreg` utility also indicates packages that are incomplete and might need special handling. On the Solaris 10 and Solaris 9 operating systems, run the utility as follows:

```
prodreg
```

For more information, see the `prodreg` man page.

Reviewing Uninstallation Behavior for Java ES Product Components

Review the relevant tables in this section to see what the uninstaller does with each Java ES product component. Plan the steps you might have to take to prevent loss of data or loss of interdependency connections.

Note – In some cases, component files are left behind after uninstallation, which could cause a subsequent installation to fail. If this occurs, refer to "Installation Fails Due to Files Left Behind During an Uninstallation" on page 190 for guidelines on resolution.

This section contains the following subsections:

- "Sun Cluster Software and Sun Cluster Geographic Edition Uninstallation Behavior" on page 167
- "Web Proxy Server Uninstallation Behavior" on page 167
- "Web Server Uninstallation Behavior" on page 168

Access Manager Uninstallation Behavior

TABLE 8–2 Access Manager Uninstallation Details

Topic	Details
Configuration Data	No entries in Directory Server will be removed (including Access Manager specific data).
Other Installations This Component Requires	Directory Server Web container
Products Requiring This Installation	Portal Server must reside on the same host as Access Manager SDK.

Pre-Uninstallation Tasks	Remove the schema using this file:
	Solaris OS:
	`/etc/opt/SUNWam/config/ldif/ds_remote_schema_uninstall.ldif`
	Linux:
	`/etc/opt/sun/identity/config/ldif/ds_remote_schema_uninstall.ldif`

Post-Uninstallation Tasks	Uninstallation unconfigures Access Manager from the web container for full installations on Web Server or Application Server only. It does not unconfigure Access Manager from third-party web containers. Uninstallation also does not unconfigure SDK on any web container. Additionally, remove the following files located in the directory `/var/sadm/install` if they exist: `.lockfile.pkg.lock.` For information on additional post-uninstallation issues, refer to "Access Manager Post-uninstallation Issues" on page 179.

Application Server Uninstallation Behavior

TABLE 8–3 Application Server Uninstallation Details

Topic	Details
Configuration Data and User Data (Solaris OS and Linux only)	■ The default domain created during installation is removed during uninstallation. ■ User-created domains, including all administrative server and Application Server instances, are not removed during uninstallation. ■ All Administration Server and Application Server instances are stopped prior to the completion of uninstallation.
Other Installations This Component Requires	Requires Message Queue on the same system.
Products Requiring This Installation	Components that are configured to use Application Server as web container.
Pre-Uninstallation Tasks	To preserve configuration data, make a copy of the administration domain directories.

Post-Uninstallation	To completely remove Application Server from your system, remove any remaining Application Server log files and directories. Default locations for Application Server directories are:
	Solaris OS:
	`/var/opt/SUNWappserver`
	`/opt/SUNWappserver/appserver` or *ApplicationServer-base*
	Linux :
	`/var/opt/sun/appserver`
	`/opt/sun/appserver`
	Refer to "Message Queue Uninstallation Behavior" on page 162 for information on Message Queue post-uninstallation tasks.

Directory Proxy Server Uninstallation Behavior

TABLE 8–4 Directory Proxy Server Uninstallation Details

Topic	Details
Configuration data	Configuration data for the instance of Directory Proxy Server you are uninstalling is removed during uninstallation. Shared configuration data between several instances of Directory Proxy Server remains after uninstallation. Directory Proxy Server has no user data.
Other Installations This Component Requires	Directory Proxy Server has a logical dependency upon the local or remote Directory Server.
Products Requiring This Installation	None
Pre-Uninstallation Tasks	None
Post-Uninstallation Tasks	None

Directory Server Uninstallation Behavior

TABLE 8–5 Directory Server Uninstallation Details

Topic	Details
Configuration Data and User Data	If you are uninstalling the Directory Server instance hosting user data, the Directory Server LDAP database is removed during uninstallation. **Caution:** To avoid loss of data, make sure to back up Directory Server information before uninstalling. Directory Server has several tools and utilities to backup Directory Server and migrate configuration data. Refer to Directory Server documentation at `http://docs.sun.com/coll/1224.1` for more information.
Other Installations This Component Requires	None
Products Requiring This Installation	■ Access Manager ■ Portal Server
Pre-Uninstallation Tasks	■ Back up the Directory Server LDAP database as needed. ■ Make sure you can provide the Directory Server instance path.

TABLE 8–5 Directory Server Uninstallation Details *(Continued)*

Topic	Details
Post-Uninstallation Tasks	If you subsequently install Directory Server to the same location, the installation directory must not exist. You might need to manually remove the installation directory and any custom configuration files before reinstalling to the same location.

HADB Uninstallation Behavior

TABLE 8–6 HADB Uninstallation Details

Topic	Details
Configuration Data and User Data	Configuration and user data are not removed during uninstallation. By default, this data resides in the following locations: ■ Solaris OS and Linux: `/etc/opt/SUNWhadb`, `/var/opt/SUNWhadb`
Other Installations This Component Requires	None
Products Requiring This Installation	Application Server when configured to use HADB for high availability session persistence.
Pre-Uninstallation Tasks	If you plan to upgrade HADB and reuse configuration data, refer to the chapter on High Availability Session Store in the *Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*
Post-Uninstallation Tasks	Remove configuration and user data that is no longer needed.

Message Queue Uninstallation Behavior

TABLE 8–7 Message Queue Uninstallation Details

Topic	Details
Configuration Data	Instance-specific configuration data, user repository and access control file remains after uninstallation, and can be reused upon subsequent reinstallation.
Other Installations This Component Requires	Directory Server (optional)
Products Requiring This Installation	Application Server (must reside on same host as Message Queue).

TABLE 8–7 Message Queue Uninstallation Details *(Continued)*

Topic	Details
Pre-Uninstallation Tasks	■ Stop any running brokers. You will be prompted for user name (admin) and password: `imqcmd shutdown bkr` [`-b` *hostName:port*]. For more information, see the *Message Queue Uninstallation Behavior*. ■ If you are not planning to reinstall Message Queue and therefore want to delete dynamic data, the flat-file user repository, and the access control file associated with each broker instance, remove this data using the following command. `imqbrokerd -name` *instanceName* `-remove instance` ■ If you upgrade Message Queue using the Message Queue upgrade script, make a note of your process. The upgrade script does not write install information to the Java ES registry. For more information, see the *Sun Java Enterprise System 5 Update 1 Upgrade Guide for UNIX*.
Post-Uninstallation Tasks	If you are not planning to reinstall Message Queue, use the commands in the product component documentation to clean up your system.

Monitoring Console Uninstallation Behavior

TABLE 8–8 Monitoring Console Uninstallation Details

Topic	Details
Configuration Data	User data remains after uninstallation, however, this data is removed before any reinstallation.
Other Installations This Component Requires	None
Other Products Requiring This Installation	None
Pre-Uninstallation Tasks	None

TABLE 8–8 Monitoring Console Uninstallation Details *(Continued)*

Topic	Details

Post-Uninstallation Tasks	To preserve data, copy the following to a persistent location, then copy back after reinstallation:
	For Solaris OS:
	`/etc/opt/SUNWmfwk/config/mfwk.properties`
	`/etc/opt/SUNWmfwk/config/masteragent.properties`
	`/etc/opt/SUNWmfwk/config/nodelist`
	`/var/opt/SUNWmfwk/persistence/`
	`/var/opt/SUNWmfwk/alarms/`
	For Linux :
	`/etc/opt/sun/mfwk/config/mfwk.properties`
	`/etc/opt/sun/mfwk/config/masteragent.properties`
	`/etc/opt/sun/mfwk/config/nodelist`
	`/var/opt/sun/mfwk/persistence/`
	`/var/opt/sun/mfwk/alarms/`

Portal Server Uninstallation Behavior

TABLE 8–9 Portal Server Uninstallation Details

Topic	Details
Configuration Data and User Data	■ Configuration data is removed during uninstallation. Unconfiguring includes removing services created in Access Manager by Portal Server. ■ Providers for user channels are not removed during installation and can be reused upon subsequent installation. ■ Customized configuration data (display profiles, property files, resources strings, and other customizations) is not removed by the uninstaller. It can be reused upon subsequent installation only if Portal Server is reinstalled to the same host with the same configuration.
Other Installations This Component Requires	■ Directory Server ■ Application Server or Web Server (Can also be configured to be dependent on IBM WebSphere or BEA WebLogic on Solaris OS.) ■ Access Manager ■ Service Registry

TABLE 8–9 Portal Server Uninstallation Details *(Continued)*

Topic	Details
Products Requiring this Installation	None
Pre-Uninstallation Tasks	Verify that Directory Server and the web container are running. If the web container is Web Server, Web Server admin server must be running.
Post-Uninstallation Tasks	■ If you are running Portal Server within Web Server and you choose to remove Portal Server only, you must restart Access Manager. For more information, refer to "Access Manager Post-uninstallation Issues" on page 179 ■ If Portal Server is deployed to the IBM WebSphere web container, there might be additional uninstallation tasks.

Portal Server Secure Remote Access Uninstallation Behavior

TABLE 8–10 Portal Server Secure Remote Access Details for Uninstallation

Topic	Details
Configuration Data	■ All configuration data for the Portal Server Secure Remote Access Core product component is removed during uninstallation. ■ All web applications that have been deployed are undeployed. ■ Users do not have configuration data access to Portal Server Secure Remote Access Gateway, Netlet Proxy, and Rewriter Proxy subcomponents.
Other Installations This Component Requires	■ Portal Server Secure Remote Access Gateway, Netlet Proxy, and Rewriter Proxy depend on Portal Server. You cannot remove Portal Server and retain Gateway, Netlet Proxy, and Rewriter Proxy. ■ Portal Server, Secure Remote Access Gateway, Netlet Proxy, and Rewriter Proxy subcomponents depend on Access Manager SDK. ■ Access Manager SDK must reside on the same host as Gateway, Netlet Proxy, and Rewriter Proxy. Gateway, Netlet Proxy, and Rewriter Proxy cannot be in the same directory. ■ You can remove any Portal Server Secure Remote Access product component without removing any dependent product component. ■ You can remove Gateway and leave Access Manager SDK on the host.
Products Requiring this Installation	None

TABLE 8–10 Portal Server Secure Remote Access Details for Uninstallation *(Continued)*

Topic	Details
Pre-Uninstallation Tasks	None
Post-Uninstallation Tasks	None

Service Registry Uninstallation Behavior

TABLE 8–11 Service Registry Details for Uninstallation

Topic	Details
Configuration Data	The Registry configuration process installs the Registry database domain and server keystore in the following directory: ■ Solaris OS: `/var/opt/SUNWsrvc-registry` ■ Linux: `/var/opt/sun/srvc-registry` The directory is not removed when Service Registry is uninstalled. This allows you to preserve the database for use in a future installation or release if you want.
Other Installations This Component Requires	Application Server (Domain Administration Server and Command-Line Administration Tool) HADB Message Queue
Products Requiring This Installation	None

Pre-Uninstallation Tasks	1. Navigate to the *ServiceRegistry–base*`/install` directory.
	2. Stop the Service Registry domain as follows:
	`.../ant -f build-install.xml appserver.domain.stop`
	3. Delete the Service Registry domain as follows:
	`.../ant –f build-install.xml appserver.domain.delete`
	If you want to preserve the Registry database for future use, copy the `/var/opt/SUNWsrvc-registry/3.0` directory (on Solaris OS) or `/var/opt/sun/srvc-registry/3.0` (on Linux) directory to another location before you reinstall the Registry.

Post-Uninstallation Tasks	For information on some optional tasks, refer to "Service Registry Post-uninstallation Tasks" on page 180

Sun Cluster Software and Sun Cluster Geographic Edition Uninstallation Behavior

TABLE 8–12 Sun Cluster and Sun Cluster Geographic Edition Uninstallation Details

Topic	Details
Configuration Data	Do not use the Java Enterprise System uninstaller to remove Sun Cluster software, except to remove software that was installed but never used to configure a cluster node. For more information, refer to "Uninstalling Sun Cluster Software" on page 178.
Other Installations This Component Requires	Sun Cluster Geographic Edition software must be removed on every host that contains Sun Cluster Geographic Edition components. For more information, refer to Chapter 5, "Uninstalling the Sun Cluster Geographic Edition Software," in *Sun Cluster Geographic Edition Installation Guide* Sun Cluster core and agents for Sun Cluster must be removed together.
Products Requiring This Installation	None
Pre-Uninstallation Tasks	Sun Cluster software should only be uninstalled using the utilities provided with your Sun Cluster installation. Note: Sun Cluster Geographic Edition software must be removed before Sun Cluster software is removed.
Post-Uninstallation Tasks	You might need to update the product registry after uninstalling Sun Cluster software. For more information, refer to "Uninstalling Sun Cluster Software" on page 178.

Web Proxy Server Uninstallation Behavior

TABLE 8–13 Web Proxy Server Uninstallation Details

Topic	Details
Configuration Data	Only the certificate database files in the alias directory under the installation location are preserved. All other files are removed.
Dependencies	Directory Server (optional) if external LDAP access control has been selected.
Pre-Uninstallation Tasks	Stop all instances of Web Proxy Server.
Post-Uninstallation Tasks	The certificate database is preserved under the *WebProxyServer-base*`/alias` directory. Before reinstalling, move the certificate database and delete the old installation directory.

Web Server Uninstallation Behavior

TABLE 8–14 Web Server Uninstallation Details

Topic	Details
Configuration Data and User Data	■ User data is not removed during uninstallation but configuration data is removed. ■ The Web Server administrative server instance and configured Web Server instance directories are removed. The initially-configured document root directory is not removed. ■ Web Server administrative server and Web Server instances are stopped before completion of uninstallation.
Other Installations This Component Requires	None
Products Requiring this Installation	Components that can be configured to use Web Server as web container, such as Access Manager and Portal Server. Also Application Server Load Balancing Plugin (if Application Server uses Web Server as its web container).
Pre-Uninstallation Tasks	Make sure you can provide the administrator password for the web container.
Post-Uninstallation Tasks	To preserve configuration data, back up the Administrative Server and Web Server instance directories under the installation location. If you reinstall Web Server to the same location, the installation directory must not exist. You might need to manually remove the installation directory and any custom configuration files before reinstalling to the same location. For information on additional post-uninstallation issues, refer to "Web Server Post-uninstallation Tasks (Web Server Not Uninstalled)" on page 180.

Granting Administrator Access for the Uninstaller

Depending on the product components you choose to uninstall, you might need to grant the uninstaller administrator access to Access Manager and Directory Server.

- Access Manager administrator access is required to undeploy the Access Manager web applications from the Application Server and to remove the Access Manager schema.
- Directory Server administrator access is required to manage the configuration directory during uninstallation.

The following table describes the information that the uninstaller needs for granting administrator access. The left column of each table lists the graphical mode labels and state file parameters for the information you must provide. The right column provides additional information.

TABLE 8–15 Required Administration Information

Label and State File Parameter	Description
Access Manager	
Administrator User ID `IS_IAS81_ADMIN`	User ID of the Application Server administrator.
Administrator Password `IS_IAS81_ADMINPASSWD`	Password of the Application Server administrator.
Directory Manager DN `IS_DIRMGRDN`	Distinguished Name (DN) of the user who has unrestricted access to Directory Server. Default value is `cn=Directory Manager`.
Directory Manager Password `IS_DIRMGRPASSWD`	Password of the Directory Manager.
Directory Server	
Administrator User ID `CONFIG_DIR_ADM_USER`	User with administrator privileges for the configuration directory. This user can modify Directory Server configuration, including creating and removing suffixes. Access control restrictions apply.
Administrator Password `CONFIG_DIR_ADM_PASSWD`	Password for the Administrator.
Portal Server	
Administrator Password `PS_DEPLOY_ADMIN_PASSWORD`	Password that Portal Server uses to access the web container as administrator.
Access Manager Administrator Password `PS_IS_ADMIN_PASSWORD`	
Directory Server Administrator Password `PS_DS_DIRMGR_PASSWORD`	
Directory Server Administrator Domain `PS_DS_DIRMGR_DN`	

TABLE 8–15 Required Administration Information *(Continued)*

Label and State File Parameter	Description
Web Server	
Administrator User ID `IS_WS_ADMIN_ID`	
Administrator Password `IS_WS_ADMIN_PASSWORD`	

Running the Uninstaller

After you have completed the relevant tasks in "Verifying Prerequisites" on page 156 and planned for component uninstallation behavior, you are ready to run the uninstaller. This section contains information on the three ways in which the uninstaller can be used.

- "Running the Uninstaller in Graphical Mode" on page 170
- "Running the Uninstaller in Text-Based Mode" on page 173
- "Running the Uninstaller in Silent Mode" on page 175

Information on syntax of the `uninstall` command can be found in Appendix B, "Installation Commands."

Running the Uninstaller in Graphical Mode

This section provides instructions for using the interactive graphical interface to uninstall the Java ES product components.

▼ To Start the Graphical Uninstaller

1 (Optional) Provide access to your local display.

If you are logging in to a remote machine, make sure your `DISPLAY` environment variable is properly set to the local display. If the `DISPLAY` variable is not set properly, the installer runs in text-based mode.

- Example for C Shell (machine name `myhost`):

```
setenv DISPLAY myhost:0.0
```

- Example for Korn Shell (machine name `myhost`):

```
DISPLAY=myhost:0.0
```

You might need to grant display authorization to run the installer on your local display. For example, you can use the following command to grant display authority from `myhost` to the root user on `serverhost`:

```
myhost\> xauth extract - myhost:0.0|rsh -l root serverhost xauth merge -
```

Note – For full instructions on granting such authorization safely, refer to the "Manipulating Access to the Server" chapter in the *Solaris X Window System Developer's Guide*.

---

2 **If you are not logged in as `root`, become superuser.**

3 **Navigate to the directory where the uninstaller is located:**

- Solaris OS: `/var/sadm/prod/SUNWentsys5u1`
- Linux: `/var/sadm/prod/sun-entsys5u1`

4 **Start the graphical uninstaller:**

```
./uninstall
```

The Welcome page is displayed.

5 **Click Next to proceed.**

The Select Components page is displayed.

▼ To Select Product Components to Uninstall

1 **Examine the product components and select those you want to uninstall.**

- Product components that are installed on your system are enabled and can be selected. Product components that are not installed on your system are disabled.
- Some product components contain subcomponents. Expand the product components to view the subcomponents.

2 **After you are satisfied with your selections, click Next.**

3 **Resolve configuration or dependency issues.**

If the uninstaller detects any recognizable product component dependencies, or potential loss of configuration data among the products selected, warnings are displayed. Your choices are:

a. **Click Continue to continue with uninstallation.**

b. **Click Close to return to the Choose Software Components page.**

4 **If unconfigure pages are displayed, enter the information requested for the product component.**

▼ To Grant Administrator Access

Depending on the product components you selected for removal, the uninstaller prompts you for administrator IDs and passwords. For details on the information you must provide the uninstaller, refer to "Granting Administrator Access for the Uninstaller" on page 168.

Note – In addition, the uninstaller might also prompt you for a port number or a host name.

---

1 **Provide the required administrator information.**

2 **Click Next to proceed to the Ready To Uninstall page.**

▼ To Uninstall Software

Before removing software from your system, the uninstaller lists the product components you have selected for removal and the total disk space that will be reclaimed.

1 **Review the uninstallation selections you have made and make any changes needed as follows:**

   a. **Click Back through successive pages until the Select Components page is displayed.**

   b. **Make changes as needed page.**

   c. **Click Next to proceed again through the uninstaller pages.**

      The uninstaller remembers previously-specified values. You can modify any value you previously specified.

2 **Click Next when you are satisfied with your selections.**

The uninstaller begins removing software from your system and displays the following:

- A progress bar that displays the overall completion percentage
- The name of the package currently being removed
- The Uninstallation Complete page displays after all product component software has been removed.

3 **Click View Summary or View Log for information about the uninstallation.**

- **Uninstallation summary.** Shows the product components that were uninstalled and a list of configuration information for the product components.
- **Uninstallation log.** Shows all messages that were generated by the uninstaller during uninstallation.

- You can also review the uninstallation summary and log files:

  Solaris OS: `/var/sadm/install/logs`
  Linux: `/var/opt/sun/install/logs`

4 **Click Close to exit the uninstaller.**

5 **If you uninstalled Access Manager or Service Registry, go to "Completing Post-uninstallation Tasks" on page 178.**

Running the Uninstaller in Text-Based Mode

The text-based interface allows you to run the uninstaller directly from a terminal window by responding to prompts displayed in the window. For usage guidelines, refer to "How to Use the Text-Based Interface" on page 98.

If you have problems during uninstallation, refer to Chapter 9, "Troubleshooting."

▼ To Start the Uninstaller in Text-Based Mode

1 **If you are not logged in as `root`, become superuser.**

2 **Navigate to the uninstaller directory:**

- Solaris OS: `/var/sadm/prod/SUNWentsys5u1`
- Linux: `/var/sadm/prod/sun-entsys5u1`

3 **Run the uninstaller:**

```
./uninstall -nodisplay
```

The Welcome message is displayed followed by a list of all possible Java ES product components on your system.

▼ To Select Product Components for Uninstallation

The uninstaller selects for removal any Java ES product components it finds on your system by listing the numbers corresponding to the installed product components. Product components that are not installed on your system are disabled and cannot be chosen. You can choose to uninstall all installed components, or select only some of the installed components for uninstallation.

1 **Choose product components for uninstallation.**

- To uninstall all installed product components, press Return.
- To choose specific product components, type a comma-separated list of the numbers corresponding to the product components you want to uninstall, and press Return.

2. **Resolve configuration or dependency issues.**

   If the uninstaller detects product component dependencies among the products selected for removal, warnings about a potential loss of configuration data are displayed. Your choices are:

   a. **Type `Yes` and press Return to continue with uninstallation.**

   b. **Type `No` and press Return to return to Component Selection.**

   c. **Type the character `!` and press Return to exit the uninstallation.**

3. **If unconfigure pages are displayed, enter the information requested for the product component.**

To Grant Administrator Access

- **If you selected a product component for which the uninstaller needs an administrative ID or password, the uninstaller prompts you for administrator IDs and passwords.**

  For details on the information you must provide the uninstaller, refer to "Granting Administrator Access for the Uninstaller" on page 168.

Note – Depending on the product components you selected for removal, the uninstaller might also prompt you for a port number or a host name.

To Uninstall the Software

Before removing software from your system, the uninstaller displays a summary page, showing the product components selected for removal.

1. **Review your selections.**

   a. **If changes are needed, type the < character and press Return to go back through successive pages until the Component Selection list appears.**

   b. **Make changes as needed on the Component Selection list.**

   c. **Proceed again through the uninstaller screens.**

2. **When you are satisfied with your selections, type the number `1` and press Return.**

   The uninstaller begins removing software from your system. During uninstallation, the uninstaller displays a progress bar that displays the overall completion percentage.

   After all product component software has been removed, you can view the uninstallation summary and log.

3 **Type `1` or `2` and press Return to see information about the uninstallation.**

- **Uninstallation summary.** Type `1` to see the product components that were uninstalled and a list of configuration information for the product components.
- **Uninstallation log.** Type `2` to list all messages that were generated by the uninstaller during uninstallation.

  You can also view the uninstallation summary and log files:

  Solaris OS: `/var/sadm/install/logs`
  Linux: `/var/opt/sun/install/logs`

4 **Type the `!` character to exit the uninstaller.**

If you uninstalled Access Manager or Service Registry, go to "Completing Post-uninstallation Tasks" on page 178.

Running the Uninstaller in Silent Mode

Silent uninstallation is useful for uninstalling Java ES product components on multiple hosts that share similar configurations. The procedure for uninstalling in silent mode is similar to the procedure for installing in silent mode as described in Chapter 5, "Installing in Silent Mode."

▼ To Create a State File

To perform a silent uninstallation, you must first generate a state file by running an interactive uninstallation session in either graphical or text-based mode. For more information, refer to "Generating the Initial State File" on page 110.

1 **If you are not logged in as `root`, become superuser.**

2 **Navigate to the uninstaller directory:**

- Solaris OS: `/var/sadm/prod/SUNWentsys5u1`
- Linux: `/var/sadm/prod/sun-entsys5u1`

3 **If you are using the graphical interface of the uninstaller, you might need to provide access to your local display. See "Running the Uninstaller in Graphical Mode" on page 170.**

4 **Run the silent uninstaller. For example:**

Tip – Include the –no option if you do not want to uninstall software in this session.

Graphical mode:

```
./uninstall -saveState statefile_path
```

Text-based mode, software not uninstalled:

```
./uninstall -no -nodisplay -saveState statefile_path
```

To see the full syntax for the uninstall command, refer to "uninstall Command" on page 215.

5 **Proceed through the uninstaller to completion.**

As you respond to the prompts, the uninstaller records your answers in the specified state file. When you complete the uninstallation, the state file is available in the location that you specified. If you used the –no option, no software was uninstalled.

6 **Make a copy of the state file for each host on which you are going to perform a silent uninstallation.**

7 **Edit each file providing information specific to the host where you will run that silent uninstallation.**

For guidelines on editing state files, refer to "Editing the State File" on page 111. Editing the state file might also include generating a state file ID, as explained in "Creating a Platform-Appropriate State File ID" on page 114.

▼ To Run the Uninstaller in Silent Mode

1 **Verify that you have properly prepared and edited the state file for the host where you want to uninstall Java ES product components.**

2 **If you are not logged in as `root`, become superuser.**

3 **Navigate to the uninstaller directory:**

- Solaris OS: `/var/sadm/prod/SUNWentsys5u1`
- Linux: `/var/sadm/prod/sun-entsys5u1`

4 **Start the uninstaller. For example:**

```
./uninstall -noconsole -state statefile_path
```

To see the full syntax for the uninstall command, refer to "uninstall Command" on page 215.

▼ To Monitor the Progress of a Silent Uninstallation

1 **In a terminal window, navigate to the log file directory:**

Solaris OS: `/var/sadm/install/logs`
Linux: `/var/opt/sun/install/logs`

2. **Locate the log files for the current uninstallation. The log file of interest for monitoring purposes is:**

   `Java_Enterprise_System_5_uninstall.B`*timestamp*

   The *timestamp* variable represents the time the log was created. The variable has the following format *MMddhhmm*, where:

   MM Specifies the month

   dd Specifies the date

   hh Specifies the hour

   mm Specifies the minute

3. **Use the `tail` command to watch messages as they are written to the logs. For example:**

   `tail -f` *logfile_name*

   To exit the `tail` program, press Ctrl+C.

Uninstalling Java ES Reporter

Java ES Reporter is not a component managed by the Java ES installer, therefore, you cannot use the uninstaller to remove Reporter.

▼ To Uninstall Java ES Reporter

1. **Disable Java ES Reporter**

   Follow instructions contained in "Java ES Reporter Postinstallation Configuration" on page 126.

2. **As root, delete the following files:**

Solaris OS	/opt/SUNWmfwk/lib/commons-codec-1.3.jar /opt/SUNWmfwk/lib/commons-httpclient-3.0.jar /opt/SUNWmfwk/lib/mfwk_reporter.jar /etc/opt/SUNWmfwk/config/reporter/config.properties /var/opt/SUNWmfwk/jobtool/reporter/job_measurement_reporter /etc/cacao/instances/default/modules/com.sun.mjwk.reporter. /etc/opt/SUNWmfwk/config/reporter/config_state.properties
Linux	/opt/sun/mfwk/share/lib/commons-codec-1.3.jar /opt/sun/mfwk/share/lib/commons-httpclient-3.0.jar /opt/sun/mfwk/share/lib/mfwk_reporter.jar /etc/opt/sun/mfwk/config/reporter/config.properties /var/opt/sun/mfwk/jobtool/reporter/job_measurement_reporter /etc/opt/sun/cacao/instances/default/modules/com.sun.mjwk.r /etc/opt/sun/mfwk/config/reporter/config_state.properties

Uninstalling Sun Cluster Software

Do not use the Java ES uninstaller to remove Sun Cluster software unless Sun Cluster software was installed but never used to configure a cluster node. Sun Cluster software should be uninstalled using the utilities provided with the Sun Cluster software. Sun Cluster Core and Sun Cluster Agents for Sun Java System must be removed together. Sun Cluster Geographic Edition software must be removed before removing Sun Cluster software. For more information on unconfiguring and uninstalling Sun Cluster software, refer to the *Sun Cluster Software Installation Guide for Solaris OS*.

After uninstalling Sun Cluster software manually, run the Java ES uninstaller to remove Sun Cluster components from the product registry.

Completing Post-uninstallation Tasks

This section provides instructions for tasks that you might need to perform after uninstalling Java ES product components from your system. The actual tasks required depend on which product components you chose to uninstall.

- "Access Manager Post-uninstallation Issues" on page 179
- "Access Manager Post-uninstallation Task (Application Server Not Uninstalled)" on page 179
- "Service Registry Post-uninstallation Tasks" on page 180

- "Web Server Post-uninstallation Tasks (Web Server Not Uninstalled)" on page 180

Access Manager Post-uninstallation Issues

If you uninstall Access Manager but not its web container (Application Server or Web Server), you need to apply configuration changes to the instance where Access Manager was deployed.

In some cases the uninstaller might not be able to remove some or all of the Access Manager files. In this case, do a final cleanup by removing the following default directories and their contents:

- For Solaris OS: `/opt/SUNWam`
- For Linux:`/opt/sun/identity`

or, if Access Manager was not installed in the default location:

AccessManager_base`/identity`

Access Manager Post-uninstallation Task (Application Server Not Uninstalled)

If you uninstall Access Manager but not the Application Server in which it is deployed, you must complete the following procedure.

▼ To Restart Application Server After Access Manager Uninstallation

1. **If necessary, start the Application Server admin instance. For example, on a Solaris host:**

```
cd /opt/SUNWappserver/appserver/bin
 ./asadmin start-domain --user admin_user --passwordfile
path_to_admin-password_file domainname
```

2. **In a browser window, go to the Application Server administration console. The default URL is** `https://hostname:4849`.

3. **In the left pane, click the key to the left of Application Server Instances.**

4. **Select the server or the name of the Application Server instance on which Access Manager was deployed.**

5. **Click Apply Changes.**

Service Registry Post-uninstallation Tasks

In some cases, the uninstaller might not be able to remove some or all of your installation files. To do a final cleanup, remove the *ServiceRegistry-base* directory and its contents at the following location:

- Solaris OS: `/opt/SUNWsrvc-registry`
- Linux: `/opt/sun/srvc-registry`

The directory that contains the Service Registry database, domain, and keystores is not removed when you uninstall the Registry:

- Solaris OS: `/var/opt/SUNWsrcv-registry`
- Linux: `/var/opt/sun/srvc-registsry`

You can remove it manually if you want. However, to preserve the database for use in a future installation or release, copy the following directory to another location before you reinstall the Registry, then copy it back after you reinstall:

- Solaris OS: `/var/opt/SUNWsrvc-registry/3.0`
- Linux: `/var/opt/sun/srvc-registry/3.0`

For reinstallation, if you made a copy of the Registry database before you installed Service Registry, copy it back after you reinstall. After restoring the database and keystore files (stored in the 3.0 directories), run the following command using platform-specific variants:

```
.../ant –f build-install.xml appserver.domain.stop export.registryOperatorCert install.cacerts \
appserver.domain.start
```

This enables existing users to have continued use of the Service Registry Web Console.

Web Server Post-uninstallation Tasks (Web Server Not Uninstalled)

If you uninstall Access Manager but not the Web Server in which it is deployed, you must complete the following procedure.

▼ To Restart Web Server After Access Manager Uninstallation

1. **If necessary, start the Web Server admin instance. Refer to "To Start Web Server " on page 150.**
2. **Access the Web Server administration console.**

Tip – Please refer *http://hostname.domainname:8800* or *https://hostname.domainname:8989*.

3 Click Apply Changes to restart the web container.

◆ ◆ ◆ CHAPTER 9

Troubleshooting

This chapter provides suggestions on how to resolve Sun Java™ Enterprise System (Java ES) installation and uninstallation problems.

This chapter includes the following sections:

How to Troubleshoot Problems

This section provides guidelines for analyzing and identifying the source of problems during installation and uninstallation of Java ES.

This section contains the following subsections:

Examining Installation Log Files

If a problem occurs during installation or uninstallation, the first place to look for information on what happened is the installation logs. Informational, warning, and error messages are issued after such operations as user choices, package manipulations, and installation or uninstallation steps. Messages on installation, uninstallation, and install-time configuration are gathered into the source log files. Information that is displayed for each message includes date and time, log level, module ID, and the message text. Passwords are never included.

Log File Formats

There are four types of log files that capture installation or uninstallation information:

- A summary provides a high-level description of what was installed and configured.
- A detail version A file contains completion information.
- A detail version B file contains more details on the log messages.
- A debug file contains information that is relevant when installation fails. Use the debug file when one of the other log files indicates an error.

The log messages are stored in a Sun standard format called Unified Logging Format (ULF). If you find ULF difficult to read, you can use the Java ES Log Viewer to view the log messages.

Source log files can be edited with a text editor. The following table lists the formats of the source log files.

TABLE 9–1 Log File Formats

Logged Entity	Log File Name Format
Installer	`Java_Enterprise_System_5_install.A`*timestamp*
	`Java_Enterprise_System_5_install.B`*timestamp*
	`JavaES_Install_log.`*timestamp*
	`Java_Enterprise_System_5_Summary_Report_install.`*timestamp*
Uninstaller	`Java_Enterprise_System_5_uninstall.A`*timestamp*
	`Java_Enterprise_System_5_uninstall.B`*timestamp*
	`JavaES_UnInstall_log.`*timestamp*
	`Java_Enterprise_System_5_Summary_Report_uninstall.`*timestamp*

After an uninstallation, the uninstaller removes the installer, the Log Viewer , and itself. However, source log files are not removed and are stored in the following locations:

- Solaris: `/var/sadm/install/logs`

- Linux: `/var/opt/sun/install/logs`

▼ To Use Log Files for Troubleshooting

1 Examine the summary file. For example:

`Java_Enterprise_System5_Summary_Report_install.`*timestamp*

If a problem occurred, determine which component caused the problem. Determine if multiple problems occurred. You will probably need to look at one or both of the detail logs.

2 Examine the detail log. For example:

`JavaES_Install_log`*timestamp*

Look for the first error or warning that occurred and resolve it. Sometimes resolving one error resolves a number of seemingly unrelated errors that follow.

Using the Log Viewer

The Java ES Log Viewer provides a graphical display for viewing the ULF log messages from the `JavaES_Install_log.`*timestamp* file or the `JavaES_UnInstall_log.`*timestamp* file. You display a log file by selecting Open in the File menu on the Log Viewer main page. If the file you specify already exists or cannot be opened for writing, a Log Viewer error occurs and you are returned to the Log Viewer main page. Such a file cannot exist in the directory used by the installer to store source logs.

The messages that meet your filtering criteria are displayed in a single log table when you click the Search button. After the log table is displayed, an individual row in the log table can then be selected for detailed display, including display in multiple-line format.

How Filtering Works

To tailor your logging output, you indicate your display preferences and search criteria on the Log Viewer main page after you have selected a ULF log file. Display Preferences indicate what language you want your selection displayed in, and what limitations to apply in displaying the filtered records.

- **Language.** Chooses a translation language for viewing messages. The default is English. This list is populated from the translation resource bundles stored by the installer. If a resource bundle is not specified, messages and the Log Viewer interface are displayed in English.
- **Timestamp.** Sets the records to be filtered or displayed. Choices are View All, Most Recent, and Oldest.
  - **View All.** All data is filtered and displayed.
  - **Most Recent.** All data is filtered, and the most recent data is displayed first.

- **Oldest.** All data is filtered, and the oldest data is displayed first.

There are three ways to filter messages so that the messages displayed are of sufficient importance or interest: by log level, by logger, and by content.

- **Log Level.** Chooses a log level for filtering messages. Choices are SEVERE, ERROR, WARNING, INFO, CONFIG, FINE, FINER, and FINEST. Selecting FINEST is equivalent to selecting all records for display. When you select a log level, only messages having that log level or a level greater in severity are displayed. If you do not want to include any message except those that have the exact log level you specify, click the Do not include more severe messages checkbox.
- **Logger.** Chooses none or one of the loggers that apply to the file you opened. A logger (`moduleID` in a ULF file) indicates what part of the installer is writing the log message. The main loggers are `JAVAESConfig`, `JAVAESInstall`, or `JAVAESUninstall`. Only messages associated with the logger you selected are displayed. In addition, product component loggers can be specified. For example, `WebServerInstall`, `AccessManagerConfig`, `DirectoryServerUnInstall`.
- **Content.** When you enter a string, such as "configure," in the Only Show Entries Containing text box, only messages that contain that string are selected.

Some typical search criteria:

- Display only the SEVERE log messages in this file.
- Display only the log messages with a log level greater than or equal to ERROR.
- Display only the log messages from installation that have a log level greater than or equal to ERROR.
- Display only the log messages from uninstallation events.

▼ To Run the Log Viewer

Because the Log Viewer operates in read-only mode, multiple users can run the Log Viewer at the same time.

1 On the command line, navigate to the location of the Log Viewer:

- Solaris SPARC: `/var/sadm/prod/SUNWentsys5u1i/Solaris_sparc`
- Solaris x86: `/var/sadm/prod/SUNWentsys5u1i/Solaris_x86`
- Linux: `/var/sadm/prod/sun-entsys5u1i/Linux:_x86`

2 Start the Log Viewer.

```
./viewlog
```

The Log Viewer main page is displayed.

3. **In the File menu, select a log file for display.**

   If the file you select is not ULF, you receive a message saying the selected file is not ULF and cannot be selected. Only ULF files can be displayed using the Log Viewer.

   If no ULF log files are available, the installation or uninstallation might not be completed yet. Wait and try again.

4. **Choose Display Preferences and Search Criteria for your scenario.**

5. **Click Search.**

   The log table displays the records that match your filtering criteria.

Verifying Product Dependencies

A number of product components have installation-time interdependencies. Problems that affect one product component can affect other product components. First, you should familiarize yourself with the information in *Sun Java Enterprise System 5 Installation Planning Guide*.

- Review the summary file and log files to see whether related products have failed. These might provide a clue as to what to fix first.
- Check that you have specified correct connection information. For example:
  - Does the information that you provided when configuring Directory Server match the directory information you provided for product components that use that Directory Server?
  - Does the Access Manager information that you provided for Portal Server or Portal Server Secure Remote Access match the information you provided for Access Manager?

In addition to product component interdependencies, some product components depend on the existence of Solaris packages that might not be installed on the host. The absence of these packages could cause installation failures. Read the "Software Requirements" section of the Release Notes for details.

If a problem occurs starting a product component, examine that product component's log files. Locations of many product component log files are listed in "Product Component Troubleshooting Tips" on page 200.

Checking Resources and Settings

The following host-level issues can cause installation problems.

- **Updates.** Have you applied the recommended updates (patches)?

- **Disk Space.** How is the disk partitioned, and to what partitions do installation directories point? The installation directories `/var/sadm` and `/etc/opt`, or the non-default directories that you specify, need sufficient disk space.
- **Network Ports.** During configuration, you supply port numbers for Java ES product components. Check the following:
  - Examine the standard port numbers in the file `/etc/services` .
  - Look at the summary log file to compare your settings with the standards. Did you mistype a port number or set one server to the port that is typically used for another?
  - Use the command `netstat -a` to view current port use on the system. Did you assign a port number that was already in use?

  IP Addresses. During configuration, you specify IP addresses. Check that you entered the correct IP addresses. These are some questions to resolve:
  - Does this system have multiple network interfaces, each with its own IP address?
  - In a high availability configuration, did you specify the IP address of the logical host or the IP address of a cluster node?

Checking Postinstallation Configuration

If you are having problems starting product components, verify that the procedures outlined in Chapter 6, "Completing Postinstallation Configuration" were followed correctly.

Checking Directory Server Connectivity

If you are installing a product component that relies on Directory Server, problems can be caused by one of these problems:

- You specified an incorrect user ID and password for Directory Server.
- You specified an incorrect LDAP port.
- Directory Server is unreachable.

  The interactive modes of the installer check for Directory Server connectivity during installation, but silent mode does not. If you perform a silent installation when Directory Server is not available, installation of Access Manager or Portal Server could fail.

Removing Web Server Files and Directory

To prevent the overwriting of customized files, such as edited configuration files, Web Server cannot be installed into a directory that contains files.

If you are reinstalling Web Server, check the installation directories to ensure that they are empty. If they are not empty, archive the files elsewhere and retry the installation.

Verifying Passwords

The installer queries you to supply a number of passwords for product components. If you are installing different product components on different hosts, it is important to ensure that you supply matching passwords on each host.

To resolve password problems, you might need to uninstall and then reinstall. If the uninstall fails, refer to "Installation Fails Due to Files Left Behind During an Uninstallation" on page 190.

Examining the Installed or Uninstalled Product Components

If you have installed product components but are having problems and cannot reinstall or uninstall, check the installed component packages using the Solaris `pkginfo` command, the Linux `rpm` command. Compare the results with the Java ES packages listed in Chapter 5, "List of Installable Packages," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*. Additional troubleshooting information is in "Installation Fails Due to Files Left Behind During an Uninstallation" on page 190.

Tip – On Solaris 9 and Solaris 10, you can also use the product registry (`prodreg` tool) which provides a graphical interfaces that indexes components and their packages, superseding the `pkg` utilities. To invoke the product registry, type `prodreg` at the command prompt. For more information, refer to the `prodreg`(1) man page.

Verifying Administrator Access for Uninstallation

During uninstallation, you might need to grant administrator access to the uninstaller, as described in "Granting Administrator Access for the Uninstaller" on page 168.

Resolving Installation Problems

This section addresses the following problems you might encounter during installation.

- "Silent Installation Fails After Editing the State File" on page 193
- "Man Pages Do Not Display" on page 194

Installation Fails Due to Files Left Behind During an Uninstallation

Uninstallation can leave behind product component files or packages. In such a case, you might need to manually remove the files or packages before you can reinstall Java ES. The installer reports that the product component is on the host, even though you thought you removed it.

The following might have occurred:

- The uninstallation failed and an error message provided the name of the package that was not uninstalled, but no one resolved the problem.
- The uninstallation failed but the error was not detected, so you believe packages were uninstalled when they were not.

▼ To Clean Up a Partial Installation

1 Use the following command to determine whether any packages were partially installed.

Solaris OS: `pkginfo -p`

Linux: `rpm -qa |grep –I ^sun | xargs rpm -V`

The command output lists any partially installed packages. Using the package names returned, refer to Chapter 5, "List of Installable Packages," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX* to discover what product component the packages belong to.

2 Remove components or packages.

- On Solaris 9 or 10, use the `prodreg` tool.

  The `prodreg` tool manages the package-based components on your host. You can view product components and their packages, with full information, including interdependencies. You can use the `prodreg` tool to safely uninstall product components and remove packages. Once you have removed a product component with the `prodreg` tool, you can reinstall.

- On Linux, use the `rpm -e` command.

  To edit the product registry file, open the file `/var/opt/sun/install/productregistry`. This XML file describes each product component. Each product component description starts with a `<compid\>` tag and ends with a `</compid\>` tag. Delete the entire entry for the product component.

3. **Verify that the following directories do not contain Java ES product components or packages:**

   ```
   /opt
   /etc/opt
   /var/opt
   ```

4. **Run the installer again.**

Installation Fails Due to Removed Shared Components in Product Registry After Uninstallation

As of the Java ES 5U1 release, shared components are listed in the product registry file after installation.

The Java ES uninstaller removes product components from the system but does not remove shared components. After an uninstallation, the product registry still contains entries for the shared components. If you manually remove any Java ES shared components after an uninstallation, these components are not removed from the product registry. Thus, the next Java ES 5U1 installation fails because the installer assumes that the manually deleted shared components are present (because they still have entries in the product registry file).

Tip – Avoid manually removing Java ES shared components from your system.

Suggested Fix. Either remove the corresponding entries from the product registry file or remove the product registry file itself. Removing entries from the product registry file can cause the file to become corrupted, so you might prefer to remove the whole product registry. Before doing this, verify that products other than Java ES components are not using the product registry file.

On Linux there is no equivalent of the graphical product registry that exists on Solaris OS. If you manually removed files on Linux , you must manually edit the product registry file to remove those entries.

Cannot Configure IBM WebSphere as the Portal Server Web Container

WebSphere might not be running, or you might have specified a WebSphere value that does not match the WebSphere native configuration. There are two approaches to troubleshooting this issue. IBM WebSphere is only supported as a web container on Solaris OS.

Check the Configuration

One approach is to check the configuration of your WebSphere instance.

▼ To Check the WebSphere Configuration

1. **Ensure that WebSphere is running.**
2. **Examine the values for the following installer fields:**
   - WebSphere Virtual Host (`PS_IBM_VIRTUAL_HOST` in the state file)
   - Application Server Name (`PS_IBM_APPSERV_NAME` in the state file)
3. **Use the WebSphere tools to check the configuration to make sure it matches the values you are entering.**
4. **Try again.**

Create New Instances

Another approach is to create new instances of the WebSphere entities.

▼ To Create New Instances of WebSphere Entities

1. **Use the `adminclient.sh` to start the WebSphere console.**
2. **Create a new virtual host instance and a new Application Server instance name.**
3. **Click the entry under Nodes (typically the host name), and select Regen WebServer Plugin.**

   This process saves the new entries into the `plugin` configuration file, which the installer checks for the legal names.
4. **Return to the installer and enter the values you just created.**

Unexpected External Error Occurs

A power failure or system failure might have occurred, or you might have entered CTRL/C to stop the installer process.

Suggested Fix. If the failure occurred during the installation or configuration process, you are probably left with a partial installation. Run the uninstaller. If the uninstaller fails, follow the instructions under "Uninstallation Fails, Leaving Behind Files" on page 194

Graphical Installer Seems Unresponsive

The installer sometimes creates an image on the screen before the image is ready for input. You cannot repeatedly click Next in the installation wizard without waiting.

Suggested Fix. The button that represents the default choice includes a blue rectangle. This rectangle sometimes appears after the button itself appears. Wait until you see the blue rectangle before clicking a button.

Silent Installation Fails: "State File is Incompatible or Corrupted"

If you are using a state file that was created on the same platform on which you are using it, the problem might be due to an unknown file corruption error. There are two approaches to troubleshooting this issue.

Generate a New State File

- If you created the state file on the same platform on which you are running the silent installation, generate a new state file and reinstall.
- If you are using a state file that was created on a different platform or version, the problem is that state files must be run on the same type of platform on which they are created. For example, if you created the state file on Solaris 9, you cannot use it on Solaris 10, or, if you created the state file on the x86 platform, you cannot use it on the SPARC platform.

Create a New Platform-Appropriate ID

If the platform on which you created the state file is not the same as the platform on which you are running the silent installation, create a new, platform-appropriate ID for the file. For instructions on how to do this, refer to "Creating a Platform-Appropriate State File ID" on page 114.

Silent Installation Fails After Editing the State File

If you edited the state file, you might have introduced errors. Check the following and regenerate the state file as described in "Creating a State File" on page 110.

- Are all local host parameters set, and are they set to consistent values?
- Are parameter values in the correct case?
- Did you delete a required parameter without entering a replacement?
- Are all port numbers valid and unassigned?

Suggested Fix. Resolve the problem and regenerate the state file.

Man Pages Do Not Display

The most likely reason for this is that your MANPATH environment variable is not set correctly for the components you installed.

Suggested Fix. Update `/etc/MANPATH` to point to the new man page directory. Refer to "Verifying Man Pages " on page 119.

Resolving Uninstallation Problems

This section addresses the following problems you might encounter during uninstallation.

Cannot Find Uninstaller

The Java ES installation program places the uninstaller on your system at the following location:

- Solaris OS: `/var/sadm/prod/SUNWentsys5u1`
- Linux: `/var/sadm/prod/sun-entsys5u1`

If the uninstaller is not in this directory, one of the following might have occurred:

- Java ES was never installed on this host.
- The Java ES uninstaller previously removed all product components and itself from this host.

  During uninstallation, if the uninstaller detects that there are no Java ES product components on a host, it uninstalls itself.
- During a failed installation, one of the following occurred:
  - The uninstaller was never installed on the host.
  - The uninstaller was removed, but some Java ES product components remain on the host.

Suggested Fix. Manually clean up your system as described in "Uninstallation Fails, Leaving Behind Files" on page 194.

Uninstallation Fails, Leaving Behind Files

If manual cleanup is necessary because the uninstaller left behind files or processes, perform the following procedure to remove packages from your system.

To Manually Clean Up Packages

1. **Determine which packages you want to remove.**

   Compare the packages on your system with the Java ES packages listed in Chapter 5, "List of Installable Packages," in *Sun Java Enterprise System 5 Update 1 Installation Reference for UNIX*. (See also "Installation Fails Due to Files Left Behind During an Uninstallation" on page 190. You can use the following commands to determine which packages are installed:

   - Solaris OS: `pkginfo` or `prodreg` utility
   - Linux: `rpm` command

2. **Stop all running processes for Java ES product components.**

   Brief instructions for stopping processes are contained in Chapter 6, "Completing Postinstallation Configuration" product component documentation.

3. **Back up all custom configuration and user data you plan to use in subsequent installations.**

   "Reviewing Uninstallation Behavior for Java ES Product Components" on page 158 provides some information on configuration and user data that should be backed up. For more information, refer to the product component documentation for each product component.

4. **Use the `pkgrm`, `rpm -e`, or `swremove` command to remove Java ES component packages.**

5. **Remove any remaining product component directories and their content that you do not plan to use in subsequent installations. If you do plan to use these directories later, move them elsewhere.**

6. **Update the product registry file, which is located here:**

   - Solaris OS: `/var/sadm/install/productregistry`
   - Linux: `/var/opt/sun/install/productregistry`

   The uninstaller uses this registry to determine which product components are installed on a host. Both the installer and uninstaller update the product registry upon completion of an installation or uninstallation.

   Note – If you manually remove packages rather than using the uninstaller, then you must edit the product registry so it correctly reflects the software installed on your system.

7. **Clean up the log files for your system, which are located here:**

   - Solaris OS: `/var/sadm/install/logs`
   - Linux: `/var/opt/sun/install/logs`

   The log files might not correctly reflect the state of your system after you manually remove packages.

Product Registry Is Corrupted

During uninstallation, the uninstaller uses the product registry file to determine what needs to be uninstalled:

- Solaris OS: `/var/sadm/install/productregistry`
- Linux: `/var/opt/sun/install/productregistry`
- If the uninstaller fails, you might need to retry after you restore the product registry from your backup copy.
- If you manually remove packages, the product registry is not automatically updated. When you subsequently run the uninstaller, you might encounter problems because the product registry does not correctly reflect your system. In this case, you can try to reinstall and then run the uninstaller again.

Resolving Common Agent Container Problems

This section addresses the following problems that might arise in relation to the common agent container shared component:

- "Port Number Conflicts" on page 196
- "Compromised Security Around the Root Password" on page 198

Port Number Conflicts

The common agent container (V2.1) included with Java ES reserves the following port numbers by default:

- JMX port (TCP) = 11162
- SNMP Adaptor port (UDP) = 11161
- SNMP Adaptor port for traps (UDP) = 11162
- Commandstream Adaptor port (TCP) = 11163
- RMI connector port (TCP) = 11164

If you are troubleshooting an installation of Sun Cluster software, the port assignments are different because Sun Cluster software uses a different version of common agent container. In this case, default ports are as follows:

- JMX port (TCP) = 10162
- SNMP Adaptor port (UDP) = 10161
- SNMP Adaptor port for traps (UDP) = 10162
- Commandstream Adaptor port (TCP) = 10163
- RMI connector port (TCP) = 10164

If your installation already reserves any of these port numbers, change the port numbers used by the common agent container as described in the following procedure.

Checking Port Numbering

For further information on the common agent container `cacaoadm` command, see the `cacaoadm` man page. If you cannot see this man page at the command line, verify that your MANPATH is set correctly. Refer to "Verifying Man Pages " on page 119.

▼ To Verify Port for Solaris OS

Before You Begin The path to cacaoadm on Solaris is:

- Common Agent Container V1.1 `/opt/SUNWcacao/bin/cacaoadm`
- Common Agent Container V2.x `/usr/sbin/cacaoadm`

1. **As root, stop the common agent container management daemon:**

   ```
   /usr/sbin/cacaoadm stop
   ```

2. **Change the port number using the following syntax:**

   ```
   /usr/sbin/cacaoadm set-param param=value
   ```

   For example, to change the port occupied by the SNMP Adaptor from the default 11161 to 11165:

   Note – For Sun Cluster software, use previously-specified ports.

   ```
   /usr/sbin/cacaoadm set-param snmp-adaptor-port=11165
   ```

3. **Restart the common agent container management daemon:**

   ```
   /usr/sbin/cacaoadm start
   ```

▼ To Verify Port For Linux

1. **As root, stop the common agent container management daemon:**

   ```
   /opt/sun/cacao/bin/cacaoadm stop
   ```

2. **Change the port number using the following syntax:**

   ```
   /opt/sun/cacao/bin/cacaoadm set-param param=value
   ```

   For example, to change the port occupied by the SNMP Adaptor from 11161 to 11165:

   ```
   /opt/sun/cacao/bin/cacaoadm set-param snmp-adaptor-port=11165
   ```

3. **Restart the common agent container management daemon:**

   ```
   /opt/sun/cacao/bin/cacaoadm start
   ```

Compromised Security Around the Root Password

It might be necessary to regenerate security keys on a host running Java ES. For example, if there is a risk that a root password has been exposed or compromised, you should regenerate security keys. The keys used by the common agent container services are stored in the following locations:

The path to security on solaris is:

Common Agent Container V1.1:

Solaris OS: `/etc/opt/SUNWcacao/security`

Linux: `/etc/opt/sun/cacao/security`

Common Agent Container V2.x (default instance):

Solaris OS: `/etc/cacao/instances/default/security`

Common Agent Container V2.x, custom instance named `<name>`:

Solaris OS: `/etc/cacao/instances/<name>/security`

Under normal operation, these keys can be left in their default configuration. If you need to regenerate the keys due to a possible key compromise, you can regenerate the security keys using the following procedure.

▼ To Generate Keys for Solaris OS

1 As root, stop the common agent container management daemon.

```
/usr/sbin/cacaoadm stop
```

2 Regenerate the security keys.

```
/usr/sbin/cacaoadm create-keys --force
```

3 Restart the common agent container management daemon.

```
/usr/sbin/cacaoadm start
```

Note – In the case of Sun Cluster software, you must propagate this change across all nodes in the cluster. For more information, see "How to Finish a Rolling Upgrade to Sun Cluster 3.1 8/05 Software" in *Sun Cluster Software Installation Guide for Solaris OS*.

▼ To Generate Keys for Linux

1. **As root, stop the common agent container management daemon.**

   ```
   /opt/sun/cacao/bin/cacaoadm stop
   ```

2. **Regenerate the security keys.**

   ```
   /opt/sun/cacao/bin/cacaoadm create-keys --force
   ```

3. **Restart the common agent container management daemon.**

   ```
   /opt/sun/cacao/bin/cacaoadm start
   ```

   For more information on the `cacaoadm`(1M) command, see the `cacaoadm` man page.

Resolving Postinstallation Start/Restart Problems

This section addresses various problems that might arise after installation.

Monitoring Rules Stop Working (status Unknown)

If you have restarted Application Server, the communication between Application Server and Monitoring Console has been disrupted and needs to be reactivated. Monitoring rules that were previously working, no longer work and are in a status of Unknown. If you have restarted the common agent container on the Application Server host, the problem will still exist because the common agent container must also be restarted on the Monitoring Console host.

▼ To Reestablish Application Server Communication to Monitoring Console

1. **As root, restart the common agent container on the host where Application Server resides. For example:**

   ```
   /usr/sbin/cacaoadm start
   ```

2. **Then go to the host where Monitoring Console resides and restart the common agent container. For example:**

   If common agent container is already running, stop it, then start it with these commands.

   On Solaris OS:

   ```
   /usr/sbin/cacaoadm stop
   /usr/sbin/cacaoadm start
   ```

On Linux :

```
/opt/sun/cacao/bin/cacaoadm stop
/opt/suncacao/bin/cacaoadm start
```

Portal Database Not Found After Java DB Restart

This can occur when you deploy an Application Server sample that uses Java DB after running the default Application Server command to restart Java DB (`asadmin stop-database` then `asadmin start-database`). Portal Server samples are no longer be accessible.

Suggested Fix. There are a number ways to approach this problem

1. Do not stop Java DB.
2. If Java DB was stopped, restart Java DB with the following command allowing the Application Server database to be created in an alternate location.

   Solaris OS: `/asadmin start-database --dbhome /var/opt/SUNWportal/derby`

   Linux: `/asadmin start-database --dbhome /var/opt/sun/portal/derby`

   If you want the database to be located in the default location, start a second instance of Java DB using a non-default port, then specify the correct Derby port in the Application Server samples `common.properties` file. For example: `asadmin start-database --dbport 1528`

Product Component Troubleshooting Tips

The tables in this section provide various quick tips on troubleshooting product component problems, including references to useful documentation. This section contains the following subsections:

Access Manager Troubleshooting Tips

TABLE 9–2 Access Manager Troubleshooting Tips

Topic	Details
Configuration File	`AMConfig.properties` ■ Solaris OS: `/etc/opt/SUNWam/config` ■ Linux: `/etc/opt/sun/identity/config`
Log and Debug Files	Log file directory: ■ Solaris OS: `/var/opt/SUNWam/logs` ■ Linux: `/var/opt/sun/identity/logs` Debug file directory: ■ Solaris OS: `/var/opt/SUNWam/debug` ■ Linux: `/var/opt/sun/identity/debug`
Debug Mode	Refer to the Auditing Features chapter in the *Sun Java System Access Manager 7.1 Developer's Guide*.

Application Server Troubleshooting Tips

TABLE 9–3 Application Server Troubleshooting Tips

Topic	Details
Log Files	Log file directory: ■ Solaris OS: `/var/sadm/install/logs/` ■ Linux: `/var/opt/sun/install/logs/` Application Server instance log directory (default location for the initially created instance): ■ Solaris OS: `/var/opt/SUNWappserver/domains/domain1/logs` ■ Linux: `/var/opt/sun/appserver/domains/domain1/logs` Message log file name: `server.log`, for each server instance
Configuration Files	■ Solaris OS: `/opt/SUNWappserver/appserver/config/asenv.conf` ■ Linux: `/opt/sun/appserver/config/asenv.conf`
Troubleshooting	Refer to the *Sun Java System Application Server Enterprise Edition 8.2 Troubleshooting Guide*.

Directory Server Troubleshooting Tips

TABLE 9–4 Directory Server Troubleshooting Tips

Topic	Details
Log Files	Installation log file: ■ Solaris OS: `/var/sadm/install/logs` ■ Linux: `/var/opt/sun/install/logs`
Troubleshooting	Refer to Part I, "Directory Server Administration," in *Sun Java System Directory Server Enterprise Edition 6.2 Administration Guide* Refer to Part II, "Directory Proxy Server Administration," in *Sun Java System Directory Server Enterprise Edition 6.2 Administration Guide*.

Message Queue Troubleshooting Tips

TABLE 9–5 Message Queue Troubleshooting Tips

Topic	Details
Log Files	Installation log file: ■ For Solaris OS: `/var/sadm/install/logs` ■ For Linux: `/var/opt/sun/install/logs` Broker log file: ■ For Solaris OS: `/var/imq/instances/`*instance-name*`/log` ■ For Linux: `/var/opt/sun/mq/instances/`*instance-name*`/log`
Troubleshooting	Refer to the Troubleshooting Problems chapter of the *Sun Java System Message Queue 3 2005Q4 Administration Guide*. For performance problems, refer to "Analyzing and Tuning a Message Service" in the *Sun Java System Message Queue 3 2005Q4 Administration Guide*.

Monitoring Console Troubleshooting Tips

TABLE 9–6 Monitoring Console Troubleshooting Tips

Topic	Details
Configuration Files	For Monitoring Console: ■ For Solaris OS: `/opt/SUNWjesmc/WEB-INF/web.xml` ■ For Linux: `/opt/sun/jesmc/WEB-INF/web.xml` ■ For Solaris OS: `/etc/opt/SUNWmfwk/config/mfwk.properties` ■ For Linux: `/etc/opt/sun/mfwk/config/mfwk.properties` ■ For Solaris OS: `/etc/opt/SUNWmfwk/config/masteragent.properties` ■ For Linux: `/etc/opt/sun/mfwk/config/masteragent.properties`
Log Files	For Monitoring Console: ■ `/var/log/webconsole/console/console_config_log` (all platforms) ■ `/var/log/webconsole/console/console_debug_log` (all platforms) For Monitoring Framework: ■ For Solaris OS: `/var/opt/SUNWmfwk/logs` ■ For Linux: `/var/opt/sun/mfwk/logs`
Troubleshooting	If you cannot access Monitoring Console, refer to "Troubleshooting the Monitoring Console" in *Sun Java Enterprise System 5 Update 1 Monitoring Guide*. If you cannot see your monitored components in the Monitoring Console, refer to "Troubleshooting the Monitoring Framework" in *Sun Java Enterprise System 5 Update 1 Monitoring Guide*

Portal Server Troubleshooting Tips

TABLE 9–7 Portal Server Troubleshooting Tips

Topic	Details
Debug Files	Solaris OS: `/var/opt/SUNWportal/logs` Linux: `/var/opt/install/portal/logs` Portal Server Desktop debug files: Solaris OS: `/var/opt/SUNWam/debug/desktop` and `/var/opt/SUNWam/debug/desktop.dpadmin.debug` Linux: `/var/opt/sun/identity/debug/desktop` and `/var/opt/sun/identity/debug/desktop.dpadmin.debug` The `dpadmin`, `par`, `rdmgr`, and `sendrdm` Portal Server command line utilities have options to generate debugging messages. They are described in the *Portal Server Administration Guide*.
Log Files	Solaris OS: `/var/opt/SUNWportal/logs` Linux: `/var/opt/sun/portal/logs`
Troubleshooting	Refer to the *Sun Java System Portal Server 7.1 Administration Guide*.

Portal Server Secure Remote Access Troubleshooting Tips

Portal gateway debug logs are located in the following directories:

- Solaris OS: `/var/opt/SUNWportal/debug`
- Linux: `/var/opt/sun/portal/debug` and `/var/opt/sun/identity/debug/desktop/debug`

Note – For Solaris OS, logs for Portal Server services (such as NetFile) are in `/var/opt/SUNWam/debug` when logging is turned on from the Access Manager Administration Console.

Service Registry Troubleshooting Tips

TABLE 9–8 Service Registry Troubleshooting Tips

Topic	Details
Log Files	Instance log directory: ■ Solaris OS: `/var/opt/SUNWsrvc-registry/domains/registry/logs` ■ Linux: `/var/opt/sun/srvc-registry/domains/registry/logs` Message log file name is `server.log`.
Configuration File Location	Solaris OS: `/opt/SUNWsrvc-registry/install/install.properties` Linux: `/opt/sun/srvc-registry/install/install.properties`
Troubleshooting	Refer to the *Service Registry 3.1 Update 1 Administration Guide*.

Sun Cluster Software Troubleshooting Tips

Note – Linux do not support Sun Cluster components.

TABLE 9–9 Sun Cluster Software Troubleshooting Tips

Topic	Details
Log Files	Default log directory: `/var/cluster/logs/install` Error messages: `/var/adm/messages`
Troubleshooting	Refer to the *Sun Cluster Software Installation Guide for Solaris OS*.

Web Proxy Server Troubleshooting Tips

TABLE 9–10 Web Proxy Server Troubleshooting Tips

Topic	Details
Log Files	Default log location: ■ Solaris OS: `/opt/SUNWproxy/`*proxy-instance-name*`/logs` ■ Linux: `/opt/sun/webproxyserver//`*proxy-instance-name*`/logs` The errors log file lists all the errors the server has encountered. The access log file records the information about requests to the server and the responses from the server. For more information, refer to the *Sun Java System Web Proxy Server 4.0.5 Administration Guide*.
Configuration File Directory	For Solaris OS: `/opt/SUNWproxy/`*proxy-instance-name* `/config` For Linux: `/opt/sun/webserver/`*proxy-instance-name* `/config`
Debug Mode	You can set the value of the `loglevel` attribute of the LOG element in the /*server-root*/*proxy-instance-name* `/config/server.xml` file: info, fine, finer, finest.

Web Server Troubleshooting Tips

TABLE 9–11 Web Server Troubleshooting Tips

Topic	Details
Log Files	There are two types of Web Server log files: the `errors` log file and the `access` log file. The `errors` log file lists all the errors a server has encountered. The `access` log records information about requests to the server and the responses from the server. For more information, refer to the *Sun Java System Web Server 7.0 Update 1 Administrator's Guide* These logs are located in the following directories: ■ Solaris OS: `/var/opt/SUNWwbsvr7/https-`*instancename*`/logs` ■ Linux: `/var/opt/sun/webserver7/https-`*instancename*`/logs` If Web Server configuration fails during Configure Now installation, refer to the following logs for additional information: ■ Solaris OS: `/var/opt/SUNWwbsvr7/setup/WebServer_Install.log` ■ Linux: `/var/opt/sun/webserver7/setup/WebServer_Install.log` Admin Server errors logs can be found here: ■ Solaris OS: `/var/opt/SUNWwbsvr7/admin-server/logs/errors` ■ Linux: `/var/opt/sun/webserver7/admin-server/logs/errors`

TABLE 9–11 Web Server Troubleshooting Tips *(Continued)*

Topic	Details
Configuration File Directory	■ Solaris OS:`/var/opt/SUNWwbsvr7/https-`*instance-name*`/config` ■ Linux: :`/var/opt/sun/webserver7/https-`*instance-name*`/config`

Additional Troubleshooting Information

The following information in this guide is also useful for troubleshooting:

- Chapter 6, "Completing Postinstallation Configuration" contains instructions for performing postinstallation configuration.
- Chapter 8, "Uninstalling" contains information on problems that might occur while uninstalling the Java ES software.

◆ ◆ ◆ APPENDIX A

Java ES Components for This Release

This appendix lists the product components and shared components that are part of the Sun Java™ Enterprise System (Java ES) software.

Product Components

In the Choose Software Components page of the Java ES installer, the product components are grouped by the services they help to provide. The following list also shows the subcomponents that are installed with each product component.

Note – Linux does not support Sun Cluster components, and only supports the BEA WebLogic third-party container for Configure Now.

Collaboration Services

- Portal Server 7.1 Update 2
- Portal Server Secure Remote Access 7.1
  - Gateway
  - Netlet Proxy
  - Rewriter Proxy
- Directory Preparation Tool 6.4 (used when Directory Server supports Communications Services)

Web & Application Services

- Application Server Enterprise Edition 8.2
  - Domain Administration Server

- Application Server Node Agent
- Command Line Administration Tool
- Load Balancing Plugin

  Can be used with either Web Server 6.x or Apache Web Server 1.3.33 or above, selectable at configuration. Default is Web Server.
- Sample Applications

- Web Server 7.0
  - Web Server CLI
  - Web Server Core
  - Web Server Samples
- Web Proxy Server 4.0.5
- Message Queue 3.7 UR2
- Service Registry 3.1
  - Service Registry Client Support
  - Service Registry Deployment Support

Directory & Identity Services

- Access Manager 7.1
  - Access Manager Core Services
  - Access Manager Administration Console
  - Common Domain Services for Federation Management
  - Access Manager SDK
  - Access Manager Distributed Authentication User Interface
  - Access Manager Client SDK
  - Access Manager Session Failover Client
- Directory Server Enterprise Edition 6.2
  - Directory Server 6.2 Core Server
  - Directory Service Control Center
  - Directory Server Command-Line Utility
  - Directory Proxy Server 6.2 Core Server

Availability Services

Note – Sun Cluster components are not available on Linux.

- Sun Cluster 3.1 8/06
  - Sun Cluster Core
- Sun Cluster Agents 3.1

Note – The list of available Sun Cluster agents is not the same on the SPARC and x86 operating systems.

- HA Application Server
- HA Message Queue
- HA Directory Server
- HA Messaging Server
- HA Application Server EE (HADB)
- HA/Scalable Web Server
- HA Instant Messaging
- HA Calendar Server
- HA Apache Tomcat
- HA Apache
- HA DHCP
- HA DNS
- HA MySQL
- HA Sun N1 Service Provisioning
- HA NFS
- HA Oracle
- HA Samba
- HA Sun N1 Grid Engine
- HA Solaris Containers

- Sun Cluster Geographic Edition 3.1 2006Q4

Note – Sun Cluster Geographic Edition is not supported on Solaris x86.

- Sun Cluster Geographic Edition Core
- Sun StorEdge Availability Suite
- Hitachi Truecopy Data Replication Support (SPARC only)
- EMC SRDF Data Replication

- High Availability Session Store 4.4

Shared Services

- All Shared Components
- Monitoring Console 1.0
- Java DB 10.2
  - Java DB Client
  - Java DB Server

Shared Components

Shared components provide the local services and technology support for the product components. When you install Java ES product components, the installer automatically installs the shared components required if they are not already installed. Shared components are not selectable.

This release of Java ES includes these shared components:

- ANT (Jakarta ANT Java/XML-based build tool) 1.6.5
- ACL (Apache Common Logging) 1.0.4
- BDB (Berkeley Database) 4.2.52
- Common Agent Container 2.1 (Sun Cluster only)
- Common Agent Container 2.1
- FastInfoSet 1.0.2
- ICU 3 (International Components for Unicode) 3.2
- J2SE™ (Java 2 Platform, Standard Edition) platform 5.0 Update 9
- JAF (JavaBeans™ Activation Framework) 1.0.3
- JATO (Java Studio Web Application Framework) 2.1.5
- JavaHelp™ 2.0
- JavaMail™ API 1.3.2
- JAXB (Java API for XML Binding) 2.0
- JAXP (Java API for XML Processing) 1.3
- JAXR (Java API for XML Registries) 1.0.7
- JAXRPC (Java API for XML-based Remote Procedure Call) 1.1.3
- JAXWS (Java API for Web Services) 2.0
- JDMK (Java Dynamic Management™ Kit) 5.1_03
- JSS (Java Security Services) 4.2.5
- JSS3 (Network Security Services for Java) 3.1.11
- JSTL (Java Server Pages Standard Tag Library) 1.0.6
- KTSE (KT Search Engine) 1.3.4
- LDAP C SDK 6.0
- LDAP Java SDK 4.19
- MA Core (Mobile Access Core) 6.3.1
- NSPR (Netscape Portable Runtime) 4.6.3
- NSPRD (Netscape Portable Runtime Development) 4.6
- NSS (Network Security Services) 3.11
- NSSU (Network Security Service Utilities) 3.11
- SAAJ (SOAP with Attachments API for Java) 1.3
- SASL (Simple Authentication and Security Layer) 2.19
- Sun Explorer Data Collector (Solaris OS only) 4.3.1
- Sun Java Monitoring Framework 2.0
- Sun Java Web Console 3.0.2
- WSCL (Web Services Common Library) 2.0
- XWSS (XML Web Services Security) 2.0

◆ ◆ ◆ APPENDIX B

Installation Commands

This appendix describes the command syntax and options for running the Sun Java™ Enterprise System (Java ES) installation utilities.

installer or install Command

There are two versions of the Java ES installer:

- `installer` utility—This is the standard version of the Java ES installer, located in the top-level installation directory under the operating system directory. You will use this version of the installer unless your installer has been patched.
- `install` utility—This is the packaged version of the Java ES installer that is used for patching. If there is a bug in the installer, Sun can fix the installer and create a patch for the installer package. After the patch is applied, the packaged version of the installer (`install`) should thereafter be used for the release, thus launching the version of the installer that contains the fixes from the patch. This utility is located in the following directory along with the `viewlog` utility:
  - Solaris OS: `/var/sadm/prod/SUNWentsys5u1i`
  - Linux: `/var/sadm/prod/sun-entsys5u1i`

Syntax for both commands is the same.

```
installer [option]...
```

The following table describes the options for the `installer` or the `install` command.

TABLE B–1 Java ES Installation Command Options

Option	Description
`-help`	Defines command-line options for the installer.
`-id`	Prints a state file ID to the screen.
`-no`	Runs the installer without installing software.
`-noconsole`	Starts the installer in silent mode, suppressing the graphical interface. Use this option with the `-state` option to run the installer in silent mode.
`-nodisplay`	Starts the installer in text-based mode (does not launch the graphical interface).
`-noreporter`	Suppresses installation of Java ES Reporter (prevents the Reporter installation utility from being launched).
`-reporter`	Invokes the Java ES Reporter installation utility on the command line in a separate installation session. Used after running a Java ES installation using the –`noreporter` option, or after running a silent Java ES installation (Reporter cannot be installed in a silent Java ES installation). User input for Reporter installation includes the URL or IP address of a proxy that Reporter uses to access Sun through the internet.
`-saveState` [*statefile*]	Instructs the installer to generate a state file at the location specified by *statefile*. State files are used when performing a silent installation. If the specified file does not exist, the command creates it. If you omit the *statefile* value, the installer writes to the default file, `statefile.out`. You can specify the same state file in subsequent installation sessions. After the first session, *n* is appended to the file name, where *n* is an integer that is incremented for each session, beginning with zero (`0`).
`-state` *statefile*	Uses the specified state file to provide input for silent installation. Use this option with the `-noconsole` option for starting silent installation.
`-version`	Prints the build information, including Product Name, Date, Build, Patch Level. Primarily an internal tool, but can be helpful in filing bugs.

Examples

Substitute whichever version of the installer you are using (`installer` or `install`) in the following table or examples

To run the installer in graphical mode from the installation directory:

```
./installer
```

To run the installer in text-based mode:

```
./installer -nodisplay
```

To run the graphical installer without installing software:

```
./installer -no
```

To create a state file in graphical mode without installing software:

```
./installer -no -saveState myInstallStatefile
```

To create a state file while installing software in text-based mode:

```
./installer -nodisplay -saveState myInstallStatefile
```

To run the installer in silent mode:

```
./installer -noconsole -state myInstallStatefile
```

To run the installer in graphical mode without installing Java ES Reporter:

```
./installer -noreporter
```

To install Java ES Reporter in a separate session using the Reporter installation utility (does not invoke the Java ES installer):

```
./installer -reporter
```

uninstall Command

After installation, the Java ES installer places the uninstaller `uninstall` utility here:

- Solaris OS: `/var/sadm/prod/SUNWentsys5u1`
- Linux: `/var/sadm/prod/sun-entsys5u1`

The Java ES `uninstall` command has the following format:

```
uninstall [option]...
```

The following table describes the options for the `uninstall` command.

TABLE B–2 Java ES Uninstall Command-line Options

Option	Description
`-help`	Defines command line options for the uninstaller.
`-id`	Prints a state file ID to the screen.
`-no`	Runs the uninstaller without removing software.
`-noconsole`	Starts the uninstaller in silent mode, suppressing the graphical interface. Use this option with the `-state` option to run the uninstaller in silent mode.
`-nodisplay`	Starts the uninstaller in text-based mode (does not launch the graphical interface).
`-saveState` [*statefile*]	Instructs the uninstaller to generate a state file at the location specified by *statefile*. State files are used when performing a silent uninstallation. If the specified file does not exist, the command creates it. If you omit the *statefile* value, the uninstaller writes to the default file, `statefile.out`. You can specify the same state file in subsequent uninstallation sessions. After the first session, *n* is appended to the file name, where *n* is an integer that is incremented for each session, beginning with zero (`0`).
`-state` *statefile*	Uses the specified state file to provide input for silent uninstallation. Use this option with the `-noconsole` option for starting silent uninstallation.
`-version`	Prints the build information, including Product Name, Date, Build, Patch Level. Primarily an internal tool, but can be helpful in filing bugs.

Examples

To run the uninstaller in graphical mode from within the uninstaller directory:

```
./uninstall
```

To run the uninstaller in text-based mode:

```
./uninstall -nodisplay
```

To run the graphical uninstaller without removing software:

```
./uninstall -no
```

To create a state file in graphical mode without removing software:

```
./uninstall -no -saveState myUninstallStatefile
```

To create an uninstallation state file while uninstalling software in text-based mode:

```
./uninstall -nodisplay -saveState myUninstallStatefile
```

To run the uninstaller in silent mode:

```
./uninstall  -noconsole -state myUninstallStatefile
```

viewlog Command

After installation, the Java ES installer places the Log Viewer `viewlog` utility here:

- Solaris X86 Solaris OS: `/var/sadm/prod/sun-entsys5u1i/Solaris_x86`
- Solaris Sparc Solaris OS: `/var/sadm/prod/sun-entsys5u1i/Solaris_sparc`
- Linux: `/var/sadm/prod/sun-entsys5u1i/Linux_x86`

The Java ES `viewlog` command has the following format:

`viewlog [`*option*`]...`

The following table describes the options for the `viewlog` command.

TABLE B–3 Java ES Log Viewer Command-line Options

Option	Description
`-help`	Defines command line options for the Log Viewer

Examples

To run the graphical Log Viewer:

```
./viewlog
```

◆ ◆ ◆ APPENDIX C

Example State File

This appendix contains an example of a silent installation state file. The PSP_SELECTED_COMPONENTS parameter indicates the components that were selected during the interactive installation.

Caution – In a state file created for silent install, the variables can specify sensitive data, such as administrator passwords. Make sure to secure the file as appropriate for your deployment.

```
#
# Wizard Statefile created: Thu Aug 23 10:44:06 MEST 2007
# Wizard path: /tmp/.entsys_CaChE/Solaris_x86/.install/EntsysInstall_SunOS_x86_10.class
# Install Wizard Statefile section for Sun Java(tm) Enterprise System
#[STATE_BEGIN Sun Java(tm) Enterprise System 1a0d71a37083d05f63c3a53399a9c2770b88a0b5]
LICENSE_TYPE =
PSP_SELECTED_COMPONENTS = JSS3, JAXP, WSCL, JAXB106, SOAPRuntime, JAXR, JDMK, JAXB, JAXWS, FastInfoSet, JAXRPC, X
PSP_EXIT_ON_DEPENDENCY_WARNING = no
PSP_LOG_CURRENTLY_INSTALLED = yes
REMOVE_BUNDLED_PRODUCTS =
LOCALE = true
CCCP_UPGRADE_EXTERNAL_INCOMPATIBLE_JDK =
CMN_WPS_INSTALLDIR = /opt/SUNWproxy
DSEE_BASE = /opt/SUNWdsee
CMN_DSSETUP_INSTALLDIR = /opt/SUNWcomds
CMN_WS_INSTANCEDIR = /var/opt/SUNWwbsvr7
CMN_WS_INSTALLDIR = /opt
CMN_SRA_INSTALLDIR = /opt
CMN_IS_INSTALLDIR = /opt
CMN_AS_DOMAINSDIR = /var/opt/SUNWappserver
CMN_AS_INSTALLDIR = /opt/SUNWappserver
CMN_REG_SERVER_ROOT = /opt
CMN_PS_INSTALLDIR = /opt
CMN_UNINSTALL_INSTALLDIR =
CONFIG_TYPE = Custom
```

```
CMN_ADMIN_USER = admin
CMN_ADMIN_PASSWORD = adminadm
USE_DEFAULT_PASSWORD = true
CMN_HOST_NAME = grenache-06
CMN_DOMAIN_NAME = france.sun.com
CMN_IPADDRESS = 129.157.201.124
CMN_SYSTEM_USER = root
CMN_SYSTEM_GROUP = root
WS_ADMIN_IS_SERVER_MODE = true
WS_START_ON_BOOT = false
WS_64BIT_INSTALL = false
WS_ADMIN_HOST = grenache-06.france.sun.com
WS_ADMIN_SSL_PORT = 8989
WS_ADMIN_HTTP_PORT = 8800
WS_ADMIN_SERVER_USER = root
WS_ADMIN_LOGIN_USER = admin
WS_ADMIN_LOGIN_PASSWORD = adminadm
WS_INSTALL_CLI_ONLY = false
WS_NODE_HOST =
WS_NODE_SSL_PORT =
WS_REGISTER_NODE =
WS_SERVER_NAME = grenache-06.france.sun.com
WS_HTTP_PORT = 80
WS_SERVER_USER = root
WS_DOCROOT = /var/opt/SUNWwbsvr7/https-grenache-06.france.sun.com/docs
HADB_DEFAULT_AMDINPORT = 1862
HADB_DEFAULT_RESDIR = /var/opt
HADB_DEFAULT_GROUP = root
HADB_ALLOW_GROUPMANAGE = N
AS_ADMIN_USER_NAME = admin
AS_PASSWORD = adminadm
AS_ADMIN_PORT = 4849
AS_JMX_PORT = 8686
AS_HTTP_PORT = 8080
AS_HTTPS_PORT = 8181
AS_MASTER_PASSWORD = adminadm
ASNA_ADMIN_HOST_NAME = grenache-06.france.sun.com
ASNA_ADMIN_USER_NAME = admin
ASNA_PASSWORD = adminadm
ASNA_MASTER_PASSWORD = adminadm
ASNA_ADMIN_PORT = 4849
ASNA_NODE_AGENT_NAME = grenache-06
AS_WEB_SERVER_LOCATION = /opt
AS_WEB_SERVER_INSTANCE_LOCATION = /var/opt/SUNWwbsvr7/https-grenache-06.france.sun.com
AS_WEB_SERVER_PLUGIN_TYPE = Sun Java System Web Server
CREATE_INSTANCE = true
DSEE_INSTANCE_DIR = /var/opt/SUNWdsee/dsins1
DSEE_INSTANCE_PORT = 389
```

```
DSEE_INSTANCE_SSL_PORT = 636
DSEE_DN_MANAGER = cn=Directory Manager
DSEE_INSTANCE_USER = root
DSEE_INSTANCE_GROUP = root
DSEE_INSTANCE_PASSWORD = adminadm
DSEE_SUFFIX = dc=france,dc=sun,dc=com
IS_LDAPUSERPASSWD = adminadmin
IS_ADMINPASSWD = adminadm
IS_LDAP_USER = amldapuser
IS_ADMIN_USER_ID = amAdmin
AM_ENC_PWD = 123456789012
AM_REALM = disabled
AM_APPL_USER_ID = anonymous
AM_APPL_PWD =
DeploymentServer = AppServer
PortalSelected = TRUE
IS_WS_HOST_NAME =
IS_WS_INSTANCE_DIR =
IS_WS_INSTANCE_NAME =
IS_WS_INSTANCE_PORT =
IS_WS_ADMIN_PORT =
IS_WS_ADMIN_ID =
IS_WS_ADMIN_PASSWORD =
FORCE_UNINSTALLATION =
IS_WS_INSTANCE_DIR_ROOT =
IS_SERVER_PROTOCOL = http
IS_WS_PROTOCOL =
IS_APPSERVERBASEDIR = /opt/SUNWappserver/appserver
IS_AS_CONFIG_DIR =
IS_IAS81INSTANCE = server
IS_IAS81INSTANCEDIR = /var/opt/SUNWappserver/domains/domain1
IS_IAS81INSTANCE_PORT = 8080
IS_IAS81_ADMIN = admin
IS_IAS81_ADMINPASSWD = adminadm
IS_IAS81_MASTERPASSWD = adminadm
IS_IAS81_ADMINPORT = 4849
ASADMIN_PROTOCOL = https
IS_IAS81_PROTOCOL = http
IS_IAS81_HOST = grenache-06.france.sun.com
IS_SUNAPPSERVER_DOCS_DIR = /var/opt/SUNWappserver/domains/domain1/docroot
IS_BEA_INSTALL_DIR =
IS_BEA_ADMIN_PASSWD =
IS_BEA_ADMIN_PORT =
IS_BEA_DOMAIN =
IS_BEA_INSTANCE =
IS_BEA_DOC_ROOT_DIR =
IS_BEA_WEB_LOGIC_JAVA_HOME_DIR =
IS_BEA_MANAGED_SERVER =
```

```
IS_IBM_INSTALL_DIR =
IS_IBM_VIRTUAL_HOST =
IS_IBM_APPSERV_NAME =
IS_IBM_APPSERV_PORT =
IS_IBM_DOC_DIR_HOST =
IS_IBM_WEB_SERV_PORT =
IS_IBM_WEBSPHERE_JAVA_HOME =
IS_WAS40_NODE =
CONSOLE_HOST = grenache-06.france.sun.com
CONSOLE_DEPLOY_URI = amconsole
PASSWORD_SERVICE_DEPLOY_URI = ampassword
IS_SERVER_HOST = grenache-06.france.sun.com
IS_SERVER_PORT = 8080
CONSOLE_PORT = 8080
SERVER_DEPLOY_URI = amserver
COOKIE_DOMAIN_LIST = .sun.com
USE_DSAME_SERVICES_WEB_CONTAINER =
CDS_DEPLOY_URI = amcommon
ADMIN_COMPONENT_SELECTED = true
CONSOLE_PROTOCOL = http
CONSOLE_REMOTE = false
USE_CURRRENT_DS = true
IS_DS_HOST = grenache-06.france.sun.com
IS_DS_HOSTNAME = grenache-06
IS_DS_PORT = 389
IS_ROOT_SUFFIX = dc=france,dc=sun,dc=com
IS_DIRMGRDN = cn=Directory Manager
IS_DIRMGRPASSWD = adminadm
IS_EXISTING_DIT_SCHEMA = n
IS_LOAD_DIT = y
IS_ORG_OBJECT_CLASS = sunISManagedOrganization
IS_ORG_NAMING_ATTR = o
IS_USER_OBJECT_CLASS = inetorgperson
IS_USER_NAMING_ATTR = uid
IS_DIRECTORY_MODE = 1
DIST_AUTH_DEPLOY_URI = amdistauth
CLIENT_DEPLOY_URI = amclient
PS_DEPLOY_TYPE = SUNONE8
PS_DEPLOY_DIR = /opt/SUNWappserver/appserver
PS_DEPLOY_INSTANCE_DIR = /var/opt/SUNWappserver/domains/domain1
PS_DEPLOY_INSTANCE = server
PS_DEPLOY_PROTOCOL = http
PS_DEPLOY_PORT = 8080
PS_DEPLOY_DOCROOT = /var/opt/SUNWappserver/domains/domain1/docroot
PS_DEPLOY_ADMIN_PORT = 4849
PS_DEPLOY_ADMIN = admin
PS_DEPLOY_ADMIN_PASSWORD = adminadm
PS_DEPLOY_ADMIN_PROTOCOL = https
```

```
PS_DEPLOY_ADMIN_HOST = grenache-06.france.sun.com
PS_PORTALACCESS_URL = http://grenache-06.france.sun.com:8080/portal
PS_DEPLOY_DOMAIN_NAME =
PS_DEPLOY_DOMAIN = domain1
PS_DEPLOY_DOMAIN_DIR =
PS_DEPLOY_JDK_DIR = /usr/jdk/entsys-j2se
PS_DEPLOY_HOST = grenache-06.france.sun.com
PS_DEPLOY_NOW = y
PS_DEPLOY_CELL =
PS_DEPLOY_NODE =
PS_PORTAL_ID = portal1
PS_SEARCH_ID = search1
PS_INSTANCE_ID = grenache-06-8080
PS_DEPLOY_URI = /portal
PS_SAMPLE_PORTAL = true
PS_ENTERPRISE_PORTAL = true
PS_COMMUNITY_PORTAL = true
SRA_SWITCH_CORE = true
PS_IS_INSTALLDIR = /opt
PS_IS_LDAP_AUTH_PASSWORD = adminadmin
PS_IS_ADMIN_PASSWORD = adminadm
PS_SERVER_PROTOCOL = http
PS_DS_DIRMGR_DN = cn=Directory Manager
PS_DS_DIRMGR_PASSWORD = adminadm
SRA_LOG_USER_PASSWORD = adminadm
PS_PRIMARYPORTALHOST =
PS_ACCESS_METHOD =
SRA_IS_INSTALLDIR =
SRA_SERVER_DOMAIN = france.sun.com
SRA_GATEWAY_PROTOCOL = https
SRA_GATEWAY_DOMAIN = france.sun.com
SRA_GATEWAY_PORT = 443
SRA_GATEWAY_PROFILE = default
SRA_GW_PROTOCOL = https
SRA_GW_HOSTNAME = grenache-06
SRA_GW_SUBDOMAIN =
SRA_GW_DOMAIN = france.sun.com
SRA_GW_PORT = 443
SRA_GW_IPADDRESS = 129.157.201.124
SRA_GW_PROFILE = default
SRA_NLP_HOSTNAME = grenache-06
SRA_NLP_SUBDOMAIN =
SRA_NLP_DOMAIN = france.sun.com
SRA_NLP_PORT = 10555
SRA_NLP_IPADDRESS = 129.157.201.124
SRA_NLP_GATEWAY_PROFILE = default
SRA_RWP_HOSTNAME = grenache-06
SRA_RWP_SUBDOMAIN =
```

```
SRA_RWP_DOMAIN = france.sun.com
SRA_RWP_PORT = 10443
SRA_RWP_IPADDRESS = 129.157.201.124
SRA_RWP_GATEWAY_PROFILE = default
SRA_IS_CREATE_INSTANCE = y
SRA_SERVER_PROTOCOL = http
PS_SERVER_HOST = grenache-06.france.sun.com
PS_SERVER_PORT = 8080
SRA_IS_ORG_DN = dc=com
SRA_IS_SERVICE_URI = /amserver
SRA_IS_PASSWORD_KEY =
SRA_CERT_ORGANIZATION = Sun Microsystems
SRA_CERT_DIVISION = Software
SRA_CERT_CITY = Santa Clara
SRA_CERT_STATE = CA
SRA_CERT_COUNTRY = US
SRA_CERT_PASSWORD = adminadm
SRA_CERT_SELFSIGNED =
SC_REMOTE_CONFIG = Yes
WPS_ADMIN_USER = admin
WPS_ADMIN_PASSWORD = adminadm
WPS_ADMIN_PORT = 8888
WPS_ADMIN_RUNTIME_USER = root
WPS_INSTANCE_RUNTIME_USER = nobody
WPS_INSTANCE_PORT = 8081
WPS_INSTANCE_AUTO_START = N
WPS_PROXY_DOMAIN = grenache-06.france.sun.com
[STATE_DONE Sun Java(tm) Enterprise System 1a0d71a37083d05f63c3a53399a9c2770b88a0b5]
```

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