Installation Guide

Sun Java™ Studio Enterprise 7 2004Q4

Sun Microsystems, Inc.
www.sun.com

Part No. 817-7971-10
December 2004, Revision A

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Contents

Before You Begin

This installation guide for Sun™ Java ™ Studio Enterprise 7 2004Q4 (Java Studio Enterprise) software provides instructions for installing, setting up, and starting the software. This book is designed to aid both system administrators and developers who install this software. You should be experienced with basic installation procedures for your operating environment.

Screen shots vary slightly from one platform to another. Although almost all procedures use the interface of the Java Studio Enterprise software, occasionally you might be instructed to enter a command at the command line. Here too, there are slight differences from one platform to another. For example, a Microsoft Windows command might look like this:

```
c:\>cd MyWorkDir\MyPackage
```

A UNIX® command might look like this:

```
% cd MyWorkDir/MyPackage
```

Before You Read This Book

You should be familiar with installing and uninstalling software products on the platforms you choose to use with this software. You need familiarity with system administration commands and topics such as:

- `su`, `xhost`, `pkginfo`, `patchadd`, and `grep` in the Solaris™ Operating System (Solaris OS)
- Services, registry keys, and the `regedit` utility on Microsoft Windows systems.

If you are unsure about the system administration commands for your operating system or you do not have a user account with administrator or superuser privileges, contact your system administrator for assistance with installing this software.

Before using the Java Studio Enterprise Integrated Development Environment (the IDE), you should also be familiar with several of the following subjects:

- Java™ programming language
- Enterprise JavaBeans™ (EJB™) technology concepts
- Java™ Servlet API syntax
- Syntax for drivers that support the JDBC™ API
- JavaServer Pages™ technology syntax
- HTML syntax
- How to use JDBC databases
- Java™ 2 Enterprise Edition (J2EE™) application assembly and deployment concepts
- Web Services
- Using J2EE application servers

Using the Java Studio Enterprise IDE successfully requires a knowledge of J2EE concepts, as described in the following resources:

- Java 2 Platform, Enterprise Edition Blueprints
  http://java.sun.com/j2ee/blueprints
- *Java 2 Platform, Enterprise Edition Specification*
  http://java.sun.com/j2ee/download.html#platformspec
- *The J2EE Tutorial*
  http://java.sun.com/j2ee/tutorial
- *Java Servlet Specification Version 2.3*
  http://java.sun.com/products/servlet/download.html#specs
- *JavaServer Pages Specification Version 1.2*
  http://java.sun.com/products/jsp/download.html#specs

Familiarity with the Java API for XML-Based RPC (JAX-RPC) is helpful. For more information, see this web page:

http://java.sun.com/xml/jaxrpc

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Typographic Conventions

Typeface	Meaning	Examples
`AaBbCc123`	The names of commands, files, and directories; on-screen computer output	Edit your `.cvspass` file. Use `DIR` to list all files. `Search is complete.`
`AaBbCc123`	What you type, when contrasted with on-screen computer output	> **`login`** :
AaBbCc123	Book titles, new words or terms, words to be emphasized	Read Chapter 6 in the *User's Guide*. These are called *class* options. You *must* save your changes.
AaBbCc123	Command-line variable; replace with a real name or value	To delete a file, type **`DEL`** *filename*.

Related Documentation

Java Studio Enterprise documentation includes books and tutorials delivered in Acrobat Reader (PDF) format, release notes, online help, and tutorials delivered in HTML format.

Documentation Available Online

The documents described in this section are available from the `docs.sun.com`SM web site and from the Documentation link from the Sun Java Studio Enterprise Developers Source portal (`http://developers.sun.com/jsenterprise`).

The docs.sun.com web site (http://docs.sun.com) enables you to read, print, and buy Sun Microsystems manuals through the Internet.

- *Sun Java Studio Enterprise 7 2004Q4 Release Notes* - part no. 819-0905-10

  Describes last-minute release changes and technical notes.

- *Sun Java Studio Enterprise 7 Installation Guide* (PDF format) - part no. 817-7971-10

  Describes how to install the Sun Java Studio Enterprise 7 integrated development environment (IDE) on each supported platform and includes other pertinent information, such as system requirements, upgrade instructions, server information, command-line switches, installed subdirectories, database integration, and information on how to use the Update Center.

- *Building J2EE Applications* - part no. 819-0819-10

  Describes how to assemble EJB modules and web modules into a J2EE application and how to deploy and run a J2EE application.

- Web Application Framework documentation (PDF format)

  - *Sun Java Studio Enterprise 7 Web Application Framework Component Author's Guide* - part no. 819-0724-10

    Describes the Web Application Framework component architecture and the process to design, create, and distribute new components.

  - *Sun Java Studio Enterprise 7 Web Application Framework Component Reference Guide* - part no. 819-0725-10

    Describes the components available in the Web Application Framework Library.

  - *Sun Java Studio Enterprise 7 Web Application Framework Overview* - part no. 819-0726-10

    Introduces the Web Application Framework and what it is, how it works, and what sets it apart from other application frameworks.

  - *Sun Java Studio Enterprise 7 Web Application Framework Tutorial*- part no. 819-0727-10

    Introduces the mechanics and techniques to build a web application using the Web Application Framework tools.

  - *Sun Java Studio Enterprise 7 Web Application Framework Developer's Guide* - part no. 819-0728-10

    Provides the steps to create and use application components that can be assembled to develop an application using the Web Application Framework and explains how to deploy the application in most J2EE containers.

  - *Sun Java Studio Enterprise 7 Web Application Framework IDE Guide* - part no. 819-0729-10

Describes the various parts of the Sun Java Studio Enterprise 7 2004Q4 IDE and emphasizes the use of the visual tools for developing a Web Application Framework application.

- *Sun Java Studio Enterprise 7 Web Application Framework Tag Library Reference -* part no. 819-0730-10

    Gives a brief introduction to the Web Application Framework tag library, as well as a comprehensive reference to the tags available within the library.

Tutorials

Sun Java Studio Enterprise 7 tutorials help you understand the features of the IDE. Each tutorial provides techniques and code samples that you can use or modify in developing more substantial applications. All tutorials illustrate deployment with Sun Java System Application Server.

All tutorials are available from the Tutorials and Code Camps link off the Developers Source portal, which you can access from within the IDE by choosing Help > Examples and Tutorials.

- **QuickStart guides** provide an introduction to the Sun Java Studio IDE. Start with a QuickStart tutorial if you are either new to the Sun Java Studio IDE or want a quick introduction to a particular feature. These tutorials describe how to develop simple web and J2EE applications, generate web services, and how to get started with UML modeling and Refactoring. QuickStarts take minutes to complete.

- **Tutorials** focus on a single feature of the Sun Java Studio IDE. Try these if you are interested in the details of a particular feature. Some tutorials build an application from the ground up, while others build on provided source files, depending on the focus of the example. You can complete a tutorial in an hour or less.

- **Narrated Tutorials** use video to illustrate a feature or technique. Try a narrated tutorials for a visual overview of the IDE or an in-depth presentation of a particular feature. You can complete a narrated tutorial in a few minutes. You can also start and stop a narrated tutorial at any point you wish.

Online Help

Online help is available in the Sun Java Studio Enterprise 7 IDE. You can open help by pressing the help key (F1 in Microsoft Windows environments, Help key in the Solaris environment), or by choosing Help $\rightarrow$ Contents. Either action displays a list of help topics and a search facility.

Documentation in Accessible Formats

The documentation is provided in accessible formats that are readable by assistive technologies for users with disabilities. You can find accessible versions of documentation as described in the following table.

Type of Documentation	Format and Location of Accessible Version
Books and tutorials	HTML at http://docs.sun.com
Tutorials	HTML at the Examples and Code Camps link from the Developers Source portal at http://developers.sun.com/jsenterprise
Release notes	HTML at http://docs.sun.com

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docfeedback@sun.com

Please include the part number (817-7971-10) of your document in the subject line of your email.

Introduction to Sun Java Studio Enterprise 7 Software

This chapter briefly describes the Sun™ Java ™ Studio Enterprise 7 2004Q4 (Java Studio Enterprise) product offering. Java Studio Enterprise software provides an entire set of tools and servers on two CD-ROMs, one DVD, or two download files. The media structure enables you to quickly install the tools that you need to get started (by using disk 1 or file 1 containing Tools Components). It also provides the ability to install optional servers either right away or at a later date (by using disk 2 or file 2 containing the Optional Servers). You can customize your installation and downloads to best meet your needs. The complete physical media kit for Java Studio Enterprise also includes one DVD that contains all files for installing on all the supported platforms.

Sun Java Studio Enterprise 7 software includes the following:

- Sun Java Studio Enterprise 7 IDE
- Java Studio Enterprise 7 plug-ins and additions
  - Sun Java System Application Server Standard Edition 7 2004Q2 plug-in
  - Sun Java System Web Server 6 2004Q1 Update 1, Service Pack 2 plug-in
  - Web Application Framework
- Sun Java Studio Enterprise 7 Collaboration Runtime
- Sun Java Enterprise System Servers as listed in TABLE 1-1. Note that the specific versions vary according to platform.

TABLE 1-1   Component Product Version by Platform

Microsoft Windows Runtime Version	Solaris OS Runtime Version
Sun Java System Application Server Standard Edition 7 2004Q2	Sun Java System Application Server Standard Edition 7 2004Q2
Sun Java System Message Queue 3.5 SP 1	Sun Java System Message Queue 3.5 SP 1
Sun Java System Web Server 6 2004Q1 Update 1, Service Pack 2	Sun Java System Web Server 6 2004Q1 Update 1, Service Pack 2
Sun Java System Directory Server 5.2	Sun Java System Directory Server 5 2004Q2

TABLE 1-1 Component Product Version by Platform *(Continued)*

Microsoft Windows Runtime Version	Solaris OS Runtime Version
Sun Java System Access Manager 6.1 (formerly Identity Server)	Sun Java System Access Manager 2004Q2
Sun Java System Portal Server 6.2	Sun Java System Portal Server 2004Q2
Sun Java System Identity Server Policy Agent 2.1 for Sun Java System Application Server	Sun Java System Identity Server Policy Agent 2.1 for Sun Java System Application Server

This release of Java Studio Enterprise is packaged in two parts for ease of download and installation. The following table describes the contents of the two parts. See TABLE 2-3 and TABLE 2-4 for exact media location of the component products.

TABLE 1-2 Component Products for Java Studio Enterprise.[1]

Tools Components	Optional Servers
Java Studio Enterprise IDE	Sun Java System Web Server
Sun Java System Application Server	Sun Java System Directory Server
Sun Java System Message Queue	Sun Java System Access Manager and Sun Java System Identity Server Policy Agent
Collaboration Runtime	Sun Java System Portal Server

1 The component product versions vary by platform. Review TABLE 1-1 for details.

The Java Studio Enterprise What's Next Page also contains information describing the software and possible next steps after installation. You see an option to open this page at the end of disk 2 (or download file 2) installation.You can also access this HTML document from the installation directory at: *java-studio-install-dir*\Docs\ WhatsNext.html.

Preparing for Installation

This chapter contains information that you should review before you install the Java Studio Enterprise developer environment. Java Studio Enterprise provides a full set of developer tools and servers for developing and deploying applications written in the Java™ programming language using J2EE concepts. See Chapter 1, TABLE 1-1 for more information on the specific versions of the component product software included in this software.

This chapter covers:

- "Overview of the Installation Process" on page 18
- "Planning for Installation" on page 18
- "Verifying System Readiness" on page 21
- "Checking Other Prerequisites" on page 29

Overview of the Installation Process

This section describes the general process for installing and validating the software on your system. All language versions of this software are installed using the same installer. During installation you are asked to select the language support you need. English language support is always installed.

TABLE 2-1   Overview of Software Installation and Configuration

Task	For Instructions
Plan your installation	"Planning for Installation" on page 18
Verify system readiness	"Verifying System Readiness" on page 21
(Solaris only) Install the necessary Solaris patches	See Appendix A for a list of the necessary patches and "Verifying the Solaris OS Patch Requirements" on page 45
Install Java Studio Enterprise	"Installing Java Studio Enterprise (Microsoft Windows)" on page 31
	"Installing Java Studio Enterprise (Solaris OS)" on page 45
Set up your initial IDE environment	"Setting Up the Java Studio Enterprise IDE" on page 71
Confirm configuration of Sun Java System Application Server	"Using Sun Java System Application Server Instances in the IDE" on page 83
(Optional) Validate that your selected servers were installed correctly	See Chapter 13 for Microsoft Windows See Chapter 14 for Solaris OS
(Optional) Configure PointBase	"Using Databases" on page 107

Planning for Installation

To properly plan your installation, review the following sections.

- Verify that your machine is a supported platform, see "Supported Platforms" on page 19
- Decide what you are going to install, see "Selecting What to Install" on page 19

- Verify that you do not need to uninstall previously installed software versions, see "Handling Existing Installations of Component Products" on page 25

Supported Platforms

Java Studio Enterprise is supported on the following platforms:

- Microsoft Windows XP Professional SP2
- Microsoft Windows XP Professional SP1a
- Microsoft Windows 2000 Professional SP4
- Solaris™ 9 OS Update 7 (x86)
- Solaris™ 8 OS Update 7 (UltraSPARC® III)
- Solaris™ 9 OS Update 7 (UltraSPARC® III)

Selecting What to Install

Java Studio Enterprise software comes in two parts, Tools Components and Optional Servers. For the basic IDE development environment, use the Tools Components installer to install the Java Studio IDE, Application Server, , and Collaboration Runtime. Use the Optional Servers installer to install Web Server, Directory Server, Access Manager, and Portal Server.

TABLE 2-1 describes the Tools Components and Optional Servers.

TABLE 2-2   Description of Component Products[1]

Tools Components	Optional Servers
Java Studio Enterprise IDE	Sun Java System Web Server
Sun Java System Application Server	Sun Java System Directory Server
Sun Java System Message Queue	Sun Java System Identity Server and Sun Java System Identity Server Policy Agent
Collaboration Runtime	Sun Java System Portal Server

1 The component product versions vary by platform. Review TABLE 1-1 for details.

Sun Java Studio Enterprise 7 software can be installed from physical media or by downloading zip files from the web site. TABLE 2-3 describes where to find the Tools Components and Optional Servers on the physical media

TABLE 2-3 Physical Media Location of Software Component Products

Platform	Contents	Location
Microsoft Windows	Tools Components	DVD:*media-drive*:\ToolsComponents_Windows\ installer.bat CD: JSE_04Q4_WIN_1(*media-drive:)*installer.bat
	Optional Servers	DVD:*media-drive*:\OptionalServers_Windows\installer.bat CD: JSE_04Q4_WIN_2(*media-drive:)*installer.bat
Solaris OS on x86	Tools Components	DVD:/*media-drive*/ToolsComponents_Solaris_x86/installer CD:/cdrom/*volume-label*/installer where *volume-label=* jse_04q4_x86_1
	Optional Servers	DVD:/*media-drive*/OptionalServers_Solaris_x86/installer CD:/cdrom/*volume-label*/installer where *volume-label*=jse_04q4_x86_2
Solaris OS on Sparc	Tools Components	DVD:/*media-drive*/ToolsComponents_Solaris_sparc/installer CD: /cdrom/*volume-label*/installer where *volume-label=* jse_04q4_sparc_1
	Optional Servers	DVD:/*media-drive*/OptionalServers_Solaris_sparc/installer CD: /cdrom/*volume-label*/installer where *volume-label*=jse_04q4_sparc_2

TABLE 2-4 lists names and contents of the download files for each platform.

TABLE 2-4 Download File Contents and Filenames by Platform

Platform	Contents	Filename
Microsoft Windows	Tools Components Optional Servers	`jstudio_ent_04Q4-ga-win-1.zip` `jstudio_ent_04Q4-ga-win-2.zip`
Solaris on x86	Tools Components Optional Servers	`jstudio_ent_04Q4-ga-solaris-x86-1.zip` `jstudio_ent_04Q4-ga-solaris-x86-2.zip`
Solaris on Sparc	Tools Components Optional Servers	`jstudio_ent_04Q4-ga-solaris-sparc-1.zip` `jstudio_ent_04Q4-ga-solaris-sparc-2.zip`

Verifying System Readiness

The installer performs the following system checks during the installation process:

- **System Dependencies:** Does the system have the hardware, operating system patches, and memory required for installation? See "System Dependencies" on page 22

- **Incomplete Uninstallations:** Does the system have signs of an incomplete installation of Java Studio Enterprise? This System Readiness Check is done on Microsoft Windows systems. It checks for mismatches in installed products, registry key entries, product registry entries and Windows services. When problems are detected, you see a report that lists discrepancies and corrective actions. View a sample report at FIGURE 2-1

- **Software Product Dependencies and Conflicts:** Does the system have installed software that is incompatible with Java Studio Enterprise software or other software conflicts. See "Software Product Dependencies and Conflicts" on page 24.

FIGURE 2-1 Sample Initial System Check Report (Microsoft Windows).

System Dependencies

These checks include the following:

- Appropriate access privilege to install the software
- Required and recommended amount of memory
- Sufficient disk space for the products you select
- Required operating system packages and patch level (Solaris only)

Having the Correct User Privileges

- (Solaris OS) You must have superuser (root) privileges to install.
- (Microsoft Windows) You must have administrative privileges to install.

If you do not have the proper user privileges or are unfamiliar with installing software necessitating these privileges, please contact your system administrator for assistance.

System and Disk Space Requirements

If the memory found does not satisfy the recommendations, the installer displays a warning but allows installation to proceed. If you proceed with installation with low memory you may experience poor performance during runtime usage of the software.

The operating system and disk space checks must be satisfied in order for installation to proceed.

TABLE 2-5 lists the system requirements needed to install a complete Tools Components and Optional Servers configuration on the supported platforms.

TABLE 2-5   Java Studio Enterprise System Requirements to Install Tools and Servers on One System

Supported Platforms	Minimum Configuration	Recommended Configuration
Windows 2000 Pro, Windows XP Pro	CPU: Pentium III, 500 MHz RAM: 512 MB	CPU: Pentium IV, 1.4 GHz or higher RAM: 1 GB
Solaris 9 OS x86 Platform Edition	CPU: Pentium III, 500 MHz RAM: 512 MB	CPU: Pentium IV, 1.4 GHz RAM: 1 GB
Solaris 8 OS, Solaris 9 OS (32-bit/64-bit, UltraSPARC® platform)	CPU: UltraSPARC® II 450 MHz RAM: 512 MB	CPU: UltraSPARC® III 750 MHz RAM: 1 GB

These are general guidelines. Your requirements might vary depending on which additional software you have installed for use with Java Studio Enterprise software.

The main factor in determining how much installation disk space you need is a combination of the products that you choose to install and the presence of compatible products on the target system. Other factors specific to your machine may also affect the disk space usage. The installer does not proceed with installation if insufficient disk space is detected.

TABLE 2-6 describes the baseline disk space requirements on each supported platform for the following installations:

- Full installation (all component products)
- Tools plus J2SE version 1.4.2_05 platform (includes IDE, Application Server, and Message Queue)

- Each component product server alone

TABLE 2-6   Disk Space Requirements for Java Studio Enterprise Software

Component Product	Microsoft Windows	Solaris Sparc	Solaris x86
Full Installation (all component products)	950 MB	760	650 MB
J2SE+Tools Components	600 MB	470 MB	470 MB
Application Server	140 MB	85 MB	85 MB
Message Queue	20 MB	8 MB	20 MB
Collaboration Runtime	4 MB	4 MB	4 MB
Directory Server	110 MB	50 MB	35 MB
Access Manager	85 MB	80 MB	60 MB
Portal Server	100 MB	160 MB	95 MB
Web Server	130 MB	75 MB	70 MB
swap space	2-4 GB	2-4 GB	2-4 GB

Software Product Dependencies and Conflicts

The installer helps you to identify software dependencies and conflicts by performing the following checks prior to actual installation:

- **Installed Component Products**: Are Java Enterprise System (Solaris OS only) or Java Studio Enterprise products already installed?
- **Component Product Dependencies**: Are there dependencies among component products that you select for installation?
- **Shared Component Dependencies**: Are there installed shared components that must be upgraded before installation?

Solaris OS only: The installer detects only the component products that were installed by means of Solaris package distributions. The installer does not detect components that were originally installed by other means. Because of this, you may want to perform an independent survey of the system or consult with others to determine what software is currently installed. For example:

- The installer ignores the Directory Server version that is distributed with Solaris. The package names for that version of Directory Server are different from the package names for the Java Studio Enterprise version.

- The installer reports the Message Queue version that is distributed with Solaris. The package names for that version are the same as the package names for the Java Studio Enterprise version.

Installed Component Product Detection

Java Studio Enterprise software detects, but is incompatible with the following:

- Message Queue preinstalled on Solaris OS systems where the Message Queue version is lower than 3.0.1 Service Pack 2
- Access Manager (formerly Identity Server) installed on web containers other than Application Server or Web Server
- Partial installation of software products, this may include products that are installed but not configured correctly

Java Studio Enterprise software can co-exist with the following:

- Solaris-bundled version of Directory Server 5.1
- Solaris-bundled version of Application Server 7
- Existing installations of (on Windows only) Java Studio Enterprise 6
- zip/tar-based installations (non-packaged based)

Handling Existing Installations of Component Products

Java Studio Enterprise IDE

The Java Studio Enterprise 7 IDE can co-exist with an existing installation of the following:

- Sun Java Studio Standard 5 update 1
- Sun Java Studio Enterprise 6 2004Q1

If you install Sun Java Studio Enterprise 7 on a machine with an existing installation of the Java Studio IDE, the installer detects the existing installation. You can proceed to install the new version of the IDE, but please note the following:

- The installer detects the existing installation of the Application Server and indicates its compatability. The installer does not attempt to upgrade your version of Application Server. To install the latest version of Application Server, you must uninstall the existing Application Server. Use the correct uninstaller to do this. You can not uninstall the old server with the Java Studio Enterprise 7 installer.

- You can not install second copies of any of the component product servers that you may have installed with Java Studio Enterprise 6.
- The new installation of the IDE will work with the previously installed servers.
- If there are servers that you did not install with Java Studio Enterprise 6, you have the option to install those now with Java Studio Enterprise.
- When you uninstall, use the correct uninstaller as the uninstaller will uninstall only those products that were installed by that version's installer.
- To uninstall your existing IDE, see the *Getting Started Guide* or *Installation Guide* for your currently installed version for the proper uninstall procedure. It is not necessary to delete your existing user directory.

Java Studio Enterprise Servers

The set of component product servers included with Java Studio Enterprise software is also distributed as part of the Sun Java Enterprise System deployment software suite. In general, component products installed by the Java Enterprise System 2004Q2 installer are compatible with this software. However, the Java Studio Enterprise installer detects only the component products that are also part of the Java Studio Enterprise software.

Note – (Solaris OS only) An existing installation of Application Server that was installed as part of the Java Enterprise System 2004Q2 software is not compatible with Java Studio Enterprise 7 due to the absence of one package related to PointBase. See *Sun Java Studio Enterprise 7 2004Q4 Release Notes* for more details on this known issue. The bug number reference is 5076666.

Different versions of Directory Server, Access Manager, and Portal Server are installed depending on the platform (Microsoft Windows or Solaris OS), see Chapter 1, TABLE 1-1 for details.

Java Studio Enterprise software detects and is compatible with the following product installations (platform differences apply):

- Sun Java System Application Server 7 Standard Edition, Update 1 when installed by any of the following methods:
  - Java Studio Enterprise 6 (previous release)
  - stand-alone installer
- Sun Java System Directory Server 5.2 or Sun Java System Directory Server 5 2004Q2 (installed by Java Enterprise System installer or installed by Java Studio Enterprise installer)
- Sun Java System Web Server 6 2004Q1 Update 1, Service Pack 2 (installed by Java Enterprise System installer or installed by Java Studio Enterprise installer)

- Sun Java System Access Manager 6.1 (formerly Identity Server) or Sun Java System Access Manager 2004Q2 (installed by Java Enterprise System installer or installed by Java Studio Enterprise installer)
- Sun Java System Message Queue 3.5 SP 1: installed by the following methods:
  - Stand-alone installer (On Microsoft Windows machines, this product must be installed in a location that does not contain spaces in the installation directory path name.)
  - When installed with Sun Java System Application Server Standard Edition 7 2004Q2
- Sun Java System Portal Server 6.2 or Sun Java System Portal Server 2004Q2 (installed by Java Enterprise System installer or installed by Java Studio Enterprise installer)

If a component product server of the correct version is installed, but not configured, you should uninstall it first and then reinstall it with the Java Studio Enterprise installer.

Component Product Dependencies

It is useful to know the interdependencies among the component products so that you can understand the behavior of the Product Selection page displayed during installation and properly plan your installation. TABLE 2-7 lists the dependencies that each component product has for other component products. It does not include dependencies on shared components, such as the J2SE platform.

To use this table, find the product you want to install in column one, then look at column two. The products listed in column two must also be installed for proper behavior. Column four lists whether the dependent products must be on the same

machine as the column one product. The installer makes these selections for you during the installation process. The information is presented here for planning purposes.

TABLE 2-7   Component Product Dependencies

Installed Component Product	Dependent Component Product	Lowest Compatible Version of the Component Product	Dependent Component Product Must Be on the Same Machine as Installed Component Product?
Java Studio Enterprise IDE (Tools)	Sun Java System Application Server	7	yes, also works with remote installation of the application server
Sun Java System Application Server	Sun Java System Message Queue	3.0.1 SP2	Yes
Sun Java System Directory Server	none		
Sun Java System Identity Server	Sun Java System Directory Server	5.2	Yes
	Sun Java System Web Server	6.1	Yes
	or		
	Sun Java System Application Server	7 update 1	
Sun Java System Message Queue	None		
Sun Java System Portal Server	Sun Java System Identity Server	6.1	Yes
Sun Java System Web Server	None		

Shared Component Dependencies (Solaris OS)

The installer ensures that software that is already installed on the machine is compatible with Java Studio Enterprise software.

Many systems already have shared components, such as Ant or NSS. The Java Studio Enterprise installer checks shared components on the machine. If it finds shared components whose version is incompatible with Java Studio Enterprise, it lists them. If you proceed with installation, the installer upgrades the shared components to the newer versions.

It is important that you verify that it is safe to upgrade shared components. You need to check that existing programs that use the older shared components will be compatible with the newer versions. See Appendix F for a list of shared components.

Upgrade Path for Component Product Servers (Solaris OS)

The installer does not perform any upgrading of the server runtimes from one version to the next. See Chapter 8 of the *Sun Java Enterprise System 2004Q2 Installation Guide* at `http://docs.sun.com/db/coll/entsys_04q2`, for information on upgrading the server runtimes if you prefer to upgrade, rather than uninstall the Java Enterprise System 6 version and reinstall the Java Studio Enterprise 7 version of the server.

J2SE Handling

The Java Studio Enterprise installer searches for the existence of compatible versions of the Java™ 2 Platform, Standard Edition (J2SE platform) on the target system. Based on the findings the installer presents one of the following two choices:

- When no compatible J2SE platform is found on the installation machine, the installer prompts you for a location to install the recommended J2SE version 1.4.2_05 platform.

- When multiple compatible J2SE versions are found on the system, the installer lists the locations and the version numbers of all the detected compatible versions. You select a version for the installer to use.

Checking Other Prerequisites

- Verify that the DNS suffix is correctly set. See "Verifying the DNS Suffix" on page 157.

- Download directories and installation directories may not contain spaces or other special characters in the path name.

CHAPTER **3**

Installing Java Studio Enterprise (Microsoft Windows)

This chapter describes how to install Java Studio Enterprise software from physical media (CD-ROM or DVD) or from files downloaded from the web.

This chapter covers the following topics:

Using the GUI Installer

- Verify that you have removed incompatible versions of the separate component products that you plan to install. See Chapter 2 for details.
- Get the product using one of the following methods:
  - Download and unzip the software from the product web site
  - After purchasing the software, put the physical media (DVD or CD-ROM) containing the software in the appropriate drive

Note – Verify that the disk or download file that you are using contains the products that you want to install. See "Selecting What to Install" on page 19 for more details.

▼ To Install Java Studio Enterprise Software

1. **Log in to your system with administrator privileges.**

2. **Start the installer.**

   ■ To start the installer from the CD-ROM or DVD, put the physical media into the proper drive.

   If the installer does not start, follow these additional steps:

   a. **From the Start Menu, choose Run, and browse to the product directory on the media.**

   b. **Double-click the file** *media-drive*\installer.bat.

   The installer starts and the Welcome page appears.

   Tip – On the DVD, the installer for Tools Components is found in the directory, ToolsComponents_Windows. The installer for Optional Servers is found in the directory, OptionalServers_Windows.

   ■ To start the installer from web download, follow these steps:

   a. **Download and unzip the appropriate download file.**

   Do not use a download directory containing spaces or other special characters in the path name.

   Be sure you have the correct download file for your platform and for the component products that you want to install. See "Selecting What to Install" on page 19 for a complete description of the download files and their contents.

   - **Tools Components** - jstudio_ent_04Q4-ga-win-1.zip unzips into ToolsComponents_Windows
   - **Optional Servers** - jstudio_ent_04Q4-ga-win-2.zip unzips into OptionalServers_Windows

   b. **After unzipping the download file, change to the directory containing the installer and double-click the file** installer.bat **to start the Java Studio Enterprise installer.**

   The System Readiness Check (SRC) examines your system to ensure that installation can proceed successfully. When the SRC is complete, either the installer starts or you see an option to open the Initial System Check Report.

3. **(If necessary) Click the View Report button for further instructions.**

The Initial System Check Report is displayed. If your system is not ready for installation, follow the recommendations of this report and then click Restart Check. You may also Exit and restart the installer after completing the recommended steps. When your system successfully passes the readiness check, the Welcome page appears.

Tip – If the System Check reveals that you have incomplete uninstallations or stale entries in the Windows Registry or productregistry file, see the section "To Fix a Failed Uninstall (Microsoft Windows Platform)" on page 160 for detailed information on cleaning up your system. If you have tried to uninstall a component product by just deleting the product files, you will likely have a corrupt Windows registry and you need to clean up the stale registry entries.

---

4. **On the Welcome page, click Next and follow the installer instructions.**

The installer asks a series of questions and installs the products you selected. When installation is complete, the Installation Complete page appears. If you have questions about the installer pages, refer to "Installer Reference" on page 34 for more information.

5. **Review the Installation Complete page.**

   a. **Click on the View Summary button to view the installation summary information.**

   A new window opens and displays the Installation Summary Report. You see two buttons at the top: Install Summary and Configuration Data.

   b. **(Optional) Click the Configuration Data or Install Summary buttons to view the information.**

   c. **To view the installer logging messages, click View Log on the Installation Complete page.**

   A window opens and displays the Installation Log.

   The log files can be found at the location specified by the user environment variable %TEMP%. For example, `C:\Documents and Settings\ Administrator\Local Settings\Temp`.

   The log file names are of the following format:

   - `Sun_Java_Studio_Enterprise_7_2004Q4_install.A`*timestamp*
   - `Sun_Java_Studio_Enterprise_7_2004Q4_install.B`*timestamp*
   - `Summary_Report.`*timestamp*

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

7. **(Optional) Validate the installation using the appropriate chapters:**

   - Chapter 13 - describes validating your server installation
   - Chapter 8 - describes starting and setting up the Java Studio Enterprise IDE
   - Chapter 9 - describes using Application Server
   - Chapter 10 - describes using Web Server

Installer Reference

This section provides additional details for the installer wizard pages. The installer pages (panels) that you see and the order in which they appear depend on several things:

- Platform - some pages are specific to certain platforms
- Component Products being installed - the pages seen during the installation of the Tools Components differ somewhat from those seen during the installation of the Optional Servers.
- Component Products that are already installed on the machine

Initial System Check Report

The System Readiness Check is done to check for an incomplete installation of Java Studio Enterprise software or any of the component product runtimes. It checks for mismatches in installed products, registry key entries, product registry entries and Windows services. When problems are detected, you see a report that lists discrepancies and corrective actions. View FIGURE 2-1 and FIGURE 3-1 for samples of this report.
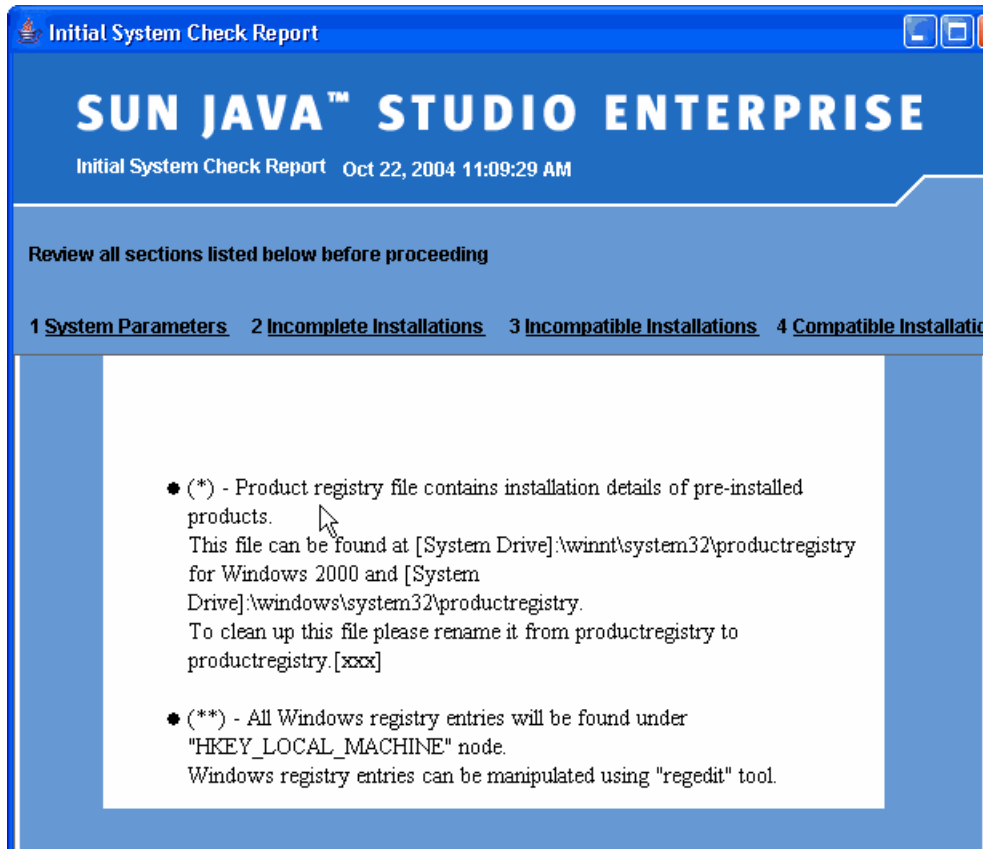
FIGURE 3-1 Sample Initial System Check Report

Product Serial Number

Enter your product license serial number on this page. If you are installing Java Studio Enterprise software for evaluation purposes, generate a trial license by checking the box next to the text, " Generate 90-day trial license serial number". This text is seen on the installer's Product Serial Number page.

If you have purchased the software, enter the license serial number that was provided to you at the time of purchase. You can upgrade to a permanent license after installation by using the license manager tool. See Chapter 12 for more information on this tool.

If you are installing the Optional Servers after installing the Tools Components, you may already have a license serial number on your machine. In this situation, click Next to continue using the existing trial license. To upgrade to a permanent license, input a new (non-trial) Product Serial Number (as found on the physical media or on the web page when you purchased the software for download).

Product Selection

Select the component products to install from this page.

The list of available products that you see depends on whether you are installing the Tools Components or the Optional Servers. These two bundles of component products are found in two different download files, CDs, or DVD folders, depending on the media that you are using. For more details, see "Selecting What to Install" on page 19.

- If you are installing the Tools Components, the available selections are:
  - Java Studio Enterprise IDE 7
  - Sun Java System Application Server
  - Sun Java System Message Queue
  - Collaboration Runtime
- If you are installing the Optional Servers, the available selections are:
  - Sun Java System Web Server
  - Sun Java System Directory Server
  - Sun Java System Access Manager (formerly Identity Server)
  - Sun Java System Portal Server

Some component products have dependencies on other products. The installer selects the dependent products for you. Review "Component Product Dependencies" on page 27 for more information about the product dependencies. Because of these dependencies, some combinations are not supported. For example, you can not install Access Manager or Portal Server without also installing Directory Server and a web container. The web container for Access Manager and Portal Server can be either Application Server or Web Server.

The installer disables the selection of component products that are already installed on your machine.

Container Selection

If you are installing Access Manager or Portal Server, you may select Web Server as the container instead of the default web container, which is Application Server. To do this, use the following procedure..

▼ To Select the Web Container for Access Manager and Portal Server

1. **Start the installer using the Optional Servers CD or download file.**

2. **On the Product Selection page, select the servers to install, being sure to select Web Server for installation.**

   You have not yet selected the web container. You do this on the next panel.

3. **Click Next.**

   The Container Selection page is displayed. This is where you indicate that you want to use the alternate web container.

   - If you have already installed Application Server using the Tools Components disk or download file, notice that at this point, the default web container, Application Server, is selected.

   - If you did not previously install the Tools Components portion of Java Studio Enterprise, then Web Server is already selected as the container.

4. **Click the radio button to indicate your choice of Web Server, click Next and continue with installation.**

   The installer creates the necessary Web Server instance and configures Access Manager and Portal Server, if both are selected, to run in this instance.

Where Are Your Remote Servers

This page is used to provide information to the installer when you have Application Server installed on another machine and plan to deploy your applications to that remote server. If you are installing and using Application Server on the local machine, accept the default and click next.

Tip – You can also link to a remote Application Server from within the IDE.

Installation Directory

Enter your installation directory on this page. The default installation root directory is *%SystemDrive%*\Sun\jstudio_04Q4. Follow these guidelines if you specify a non-default installation directory:

- Do not use a directory path name that contains spaces or other special characters.

- Do not exceed 20 characters for the *java-studio-install-dir* root directory. Some of the component products installed with Java Studio Enterprise have limitations on the length of the path name to their executable files.

Each component product is installed in its own folder beneath the root directory. See Appendix B for more information on the directory structure.

Configuration

The values entered on this page are used to configure the various servers that you install. The list of required fields that you see is dependent on the products that you are installing.

Host Name is the name of the machine on which you are installing the software.

DNS Domain Name is used for configuring various servers. This value must be correct for successful installation and configuration of the servers. See "Verifying the DNS Suffix" on page 157 for details on verifying this value on your machine. Contact your system administrator if you have problems determining the correct value for this parameter.

Administrator User ID and Administrator Password are used to configure the Java Studio Enterprise server products that you are installing. Use this ID and password to access the server administrative interfaces after installation. Remember to note your password and keep it secure. You can not access the password after installation.

Note – Access Manager and Portal Server do not use the Administrator User ID that you enter on this page. Use the user name `amadmin` to access the administrative consoles for these two component products.

Reviewing Configuration Data

You can review the configuration data after installation in the following ways:

- View the Summary Report placed in the directory `defined by %TEMP%.`

  For example `C:\Documents and Settings\Administrator\Local Settings\Temp`. The file name is of the format: `Summary_Report.`*timestamp.*

- View the configuration data from your web browser. The file `Configuration_Data.html` is saved in the *java-studio-install-dir*.

Installing on Machines Without a Static IP Address

This section contains information about installing the Java Studio Enterprise servers on a system that does not have a static IP address. Use the procedure "To Install Using Localhost IP Address" on page 39, if you are installing on a non-network machine or a machine without a static IP adddress, for example:

- A laptop
- A machine using a dynamically assigned IP address (DHCP environments)

Basically, you should disconnect from the network and reboot before installing. This enables the Java Studio Enterprise installer to automatically pick up `127.0.0.1` as your IP address and `localhost` as your host name.

If your machine has been connected to a network and already has a dynamic IP address assigned (via DHCP), the installer configures using the dynamic address and this may cause the servers to stop functioning as expected when the machine is rebooted.

Note – You can not connect from remote systems to Application Server installed on a machine using 127.0.0.1 and localhost as described in this section.

▼ To Install Using Localhost IP Address

1. **Disconnect your machine from the network.**

2. **Reboot the machine.**

   Machine is now using the IP address for localhost, `127.0.0.1`.

3. **Verify that the Primary DNS suffix is set correctly.**

   See "Verifying the DNS Suffix" on page 157.

Note – For a laptop, it is not important what the value of the DSN suffix is. You can use a domain name such as `laptop.com`.

---

4. **Disable firewall software that you may have running.**

5. **Install Java Studio Enterprise using the standard install procedure.**

   See "Using the GUI Installer" on page 31 for Microsoft Windows systems.

6. **When installation is complete, proceed to validate the installation using the appropriate chapters:**

   - Chapter 13 - describes validating your server installation
   - Chapter 8 - describes starting the Java Studio Enterprise IDE for the first time.
   - Chapter 9 - describes using Application Server
   - Chapter 10 - describes using Web Server

Note – If you use `localhost` as the machine name (host name) when installing this software and you normally use a proxy server when connecting to the Internet, you may need to change the proxy settings in your Web browser to direct connection or to not use a DNS proxy server when trying to access the Administration Consoles of the servers you install.

Using Silent Mode Installation

Silent installation is useful for installing Java Studio Enterprise on multiple hosts that require similar installation configurations. Silent installation requires that you run the installer once to capture your input values in a *state file*. Using appropriate command line options, the product is not installed during this dry run of the installer. The state file contains your responses as a list of parameters, each representing a single prompt or field. You can then run the installer on many hosts, using an edited version of this state file as input. It is necessary to edit the state file parameters that are machine or platform specific. This process propagates one installation configuration across multiple hosts in your enterprise.

Please refer to Chapter 7 for details on preparing and executing a silent installation.

Uninstalling Java Studio Enterprise (Microsoft Windows)

An uninstaller is provided to remove the Java Studio Enterprise software. You must have administrative privileges to uninstall this software.

This chapter covers:

- "Using the GUI Uninstaller" on page 41
- "Uninstalling Software in Silent Mode" on page 43

Using the GUI Uninstaller

Use the Sun Java Studio Enterprise 7 uninstaller to selectively uninstall specific Java Studio Enterprise component products or to uninstall all of the software. You can start the uninstaller from the Start Menu or by using the Microsoft Windows `Add/Remove Programs` utility.

Caution – Do not attempt to uninstall any part of Java Studio Enterprise software by deleting files. Failure to use the proper uninstaller will most likely result in a corrupted installation.

Follow this procedure to use the Start Menu:

▼ To Uninstall Java Studio Enterprise Software

1. Exit and shut down the IDE before starting the uninstaller.

2. **Choose Start > Programs > Sun Microsystems > Java Studio Enterprise 7 2004Q4 > Uninstall Java Studio Enterprise.**

   The uninstaller starts and the Welcome page is displayed.

3. **Click Next.**

   The Product Selection page is displayed.

4. **Select the products you wish to uninstall.**

   Note – Pay close attention to any warning messages seen. The uninstaller does not prevent you from uninstalling component products that may be used by other Java Studio Enterprise component products still on your system.

   ---

5. **Click Next to start the uninstallation process.**

   Uninstallation may take a few minutes.

6. **When the uninstallation is complete, click Close.**

7. **Check the** *java-studio-install-dir***.**

   A successful uninstallation of all of the Java Studio Enterprise software leaves the following files and folders:

   - *java-studio-install-dir*
     - `bin` - may contain log files
     - `MessageQueue3.5` (empty directory)

   If your *java-studio-install-dir* directory contains other files, you might have installed add-on products or the uninstallation might be incomplete. See Chapter 15 for more information. If you selected one or more individual component products to uninstall, then only the files related to that product are uninstalled. The remaining product directories and files are still on the machine.

8. **Examine the uninstall log files for error messages.**

   The log files are found in the directory defined by the user *%TEMP%* variable, for example `C:\Documents and Settings\Administrator\Local Settings\ Temp`. The log file names are of the following format:

   - `Sun_Java_Studio_Enterprise_7_2004Q4_uninstall.A`*timestamp*
   - `Sun_Java_Studio_Enterprise_7_2004Q4_uninstall.B`*timestamp*

9. **If you did a complete uninstallation and verify that it was successful, you can delete the** *java-studio-install-dir* **and its contents.**

Uninstalling Software in Silent Mode

Silent uninstallation is useful for automated uninstallation of Java Enterprise System components on multiple hosts that share similar configurations. Silent uninstallation requires that you run the uninstaller once to capture your input values in a *state file*. Using appropriate command line options, the product is not uninstalled during this dry run of the uninstaller. The state file contains your responses as a list of parameters, each representing a single prompt or field. You can then run the uninstaller on many hosts, using an edited version of this state file as input. It is necessary to edit the state file parameters that are machine or platform specific.

During silent uninstall, the uninstaller uses the state file to uninstall and unconfigure Java Studio Enterprise components.

The procedure for uninstalling in silent mode is similar to the procedure for installing in silent mode. For information on uninstalling in silent mode, see Chapter 7.

Installing Java Studio Enterprise (Solaris OS)

This chapter describes how to install your Java Studio Enterprise software in the Solaris OS environment from the product physical media or from files downloaded from the web. Before installing, you may need to install the necessary Solaris OS patches.

This chapter covers:

- "Verifying the Solaris OS Patch Requirements" on page 45
- "Using the GUI Installer" on page 46
- "Installer Reference" on page 49
- "Installing Using Silent Mode" on page 53
- "Troubleshooting During Installation" on page 54

Verifying the Solaris OS Patch Requirements

The quickest way to determine if you need to install any patches to your Solaris OS is to start the Java Studio Enterprise installer and run it to the Systems Requirements Check step. At the conclusion of this step, the installer displays information regarding the Solaris patches that you need. If the installer does not indicate the need to install patches, then your system has the necessary patches installed. If you are unsure about installing Solaris patches in your Solaris environment, contact your system administrator. You need to have superuser privileges to install patches for the Solaris OS.

To review the list of required patches, see Appendix A.

Using the GUI Installer

- Verify that you have removed incompatible versions of the separate component products that you plan to install. See Chapter 2 for details.
- Get the product using one of the following methods:
  - Download and unzip the software from the product web site
  - Put the physical media (DVD or CD-ROM) containing the software in the appropriate drive

---

Note – Verify that the disk or download file that you are using contains the products that you want to install. See "Selecting What to Install" on page 19 for more details.

▼ To Install Java Studio Enterprise Software

Note – The example commands used are for `csh`. Adapt the commands as needed for the Unix shell that you use.

---

1. **Verify that you have properly prepared your machine for installation. See Chapter 2 for details.**

2. **Start the installation.**

   - To start the installation from the physical media, follow these steps:

   a. **Log in to your system as a superuser using your root password.**

   b. **Insert the product media.**

   A File Manager window may open when you insert the media (behavior varies depending on local machine settings). To start the installer, double-click the `installer` icon in the File Manager window.

   If you do not see the File Manager window, follow these steps:

   i. **Open a terminal window.**

ii. Change to the CD-ROM directory or the DVD directory and start the installation.

```
# cd /cdrom/volume-label
#./installer
```

Tip – On the DVD, the installer can be found in the appropriate top-level directory for the part of the product that you are installing. For example, to install the IDE and Application Server on Solaris sparc, change to the directory, `/cdrom/jse_04q4_dvd/ToolsComponents_Solaris_sparc`. See "Selecting What to Install" on page 19 for more details.

The Welcome page appears. Go to Step 3.

■ To start the install from web download, follow these steps:

a. Download and unzip the Java Studio Enterprise software into your *java-studio-download-dir*.

Tip – Do not use a download directory containing spaces or other special characters in the path name.

Be sure you have the correct download file for your platform and for the component products that you want to install. See TABLE 2-4 for a complete description of the download files and their contents.

Solaris OS on x86

■ Tools Components - `jstudio_ent_04Q4-ga-solaris-x86-1.zip` unzips into the directory `ToolsComponents_Solaris_x86`

■ Optional Servers - `jstudio_ent_04Q4-ga-solaris-x86-2.zip` unzips into the directory `OptionalServers_Solaris_x86`

Solaris OS on Sparc

■ Tools Components - `jstudio_ent_04Q4-ga-solaris-sparc-1.zip` unzips into the directory `ToolsComponents_Solaris_sparc`

■ Optional Servers - `jstudio_ent_04Q4-ga-solaris-sparc-2.zip` unzips into the directory Optional Servers_Solaris_sparc

b. Enable access to the X server.

```
% xhost + machine-name
```

c. Become a superuser (root) with superuser environment. For example:

```
%  su - root
```

d. Set the `DISPLAY` **environment variable to display to your machine name. For example:**

```
%  setenv DISPLAY machine-name:0.0
```

e. Change to the subdirectory containing the installer.

f. Start the installer.

```
#./installer
```

The Welcome page displays. Proceed to Step 3.

3. **From the Welcome page, click Next and follow the instructions on the installer wizard pages.**

   The installer asks a series of questions, installs the products you selected. When installation is complete, the Installation Complete page appears. If you have questions about the installer pages, refer to "Installer Reference" on page 49 for more information.

   Note – Create non-root server instances of Application Server and Web Server for use by a standard user account on the page titled "Enable product usage by a non-root user (by creating admin domain)". See "Product Usage by Non-root User" on page 51 for details.

   ---

4. **Review the Installation Complete page.**

   a. Click on the View Summary button to view the installation summary information.

   A new window opens and displays the Installation Summary Report. You see two buttons at the top: Install Summary and Configuration Data.

   b. (Optional) Click on the Configuration Data button to view the configuration data for the component products that you installed.

c. **To view the installer logging messages, click View Log on the Installation Complete page.**

   After dismissing the installer, the log files can be found at `/var/sadm/install/logs`.

The log file names are of the following format:

- `Sun_Java_Studio_Enterprise_7_2004Q4_install.A`*timestamp*
- `Sun_Java_Studio_Enterprise_7_2004Q4_install.B`*timestamp*
- `Summary_Report.`*timestamp*
- `Shared_Component_Upgrade.`*timestamp*

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

6. **Exit from superuser privileges.**

7. **If you enabled client access, disable client access.**

   ```
   # xhost - machine-name
   ```

8. **(Optional) Validate the installation using the appropriate chapters:**
   - Chapter 14 - describes validating your server installation
   - Chapter 8 - describes starting the Java Studio Enterprise IDE
   - Chapter 9 - describes using Application Server
   - Chapter 10 - describes using Web Server

Installer Reference

This section provides additional information about the installer wizard pages that you might see during the installation process.

Common Component Upgrade

If you have shared components that need to be upgraded, you see this installer page. The page shows a list of any shared components that need to be upgraded before installation can proceed.

- Click Next to upgrade the components listed, or exit the installer.

Installation Directory

Enter your installation directory on this page. The default installation directory is
`/opt/SUNWjstudio04q4`. Follow these guidelines if you specify a non-default
installation directory:

- Verify that you have permission to write to the designated file if you specify a
  non-default installation directory.
- Do not exceed 20 characters for the *java-studio-install-dir* root directory. Some of
  the component products installed with Java Studio Enterprise have limitations on
  the length of the path name to their executable files.
- Specify an installation directory that is located on the local machine.
- Do not use an installation directory that is on an NFS-mounted filesystem. The
  Java Studio Enterprise installer does not support installing to a network-mounted
  filesystem.
- Verify the disk space requirements for your selected installation.

System Requirements Check

The installer displays information about your system readiness on this page. If your
machine does not meet requirements, the installer displays information describing
the problem.

- Click on View Report for details.

  The report is saved at
  `/var/sadm/install/logs/SystemCheck_Report.`*timestamp.*

Where Are Your Remote Servers

This page asks for information about existing installations of Application Server on a
remote machine. If you plan to use Application Server on a remote machine, select
the option "Link to Application Server on a remote machine" and enter the required
configuration data. Otherwise, accept the default value, "Do not link to Application
Server on a remote machine".

Configuration

The values entered on this page are used to configure the various servers. The list of
required fields that you see is dependent on the products that you are installing.

Host Name is the name of the machine on which you are installing the software.

DNS Domain Name is used for configuring various servers. This value must be correct for successful installation and configuration of the servers. See "Verifying the DNS Suffix" on page 157 for details on verifying this value on your machine. Contact your system administrator if you have problems determining the correct value for this parameter.

Administrator User ID and Administrator Password are used to configure the various Java Studio Enterprise server products that you are installing. Use this ID and password to access the server administrative interfaces after installation. Write down the password that you choose and keep it secure. The password can not be retrieved after installation.

Note – Access Manager and Portal Server do not use the Administrator User ID that you enter on this page. Use the user name `amadmin` to access the administrative consoles for these two component products.

Reviewing Configuration Data

You can review the configuration data after installation in the following ways:

- View the Summary Report placed in the directory `/var/sadm/install/logs`. The file name is of the format: `Summary_Report.`*timestamp.*

- View the configuration data from your web browser. The file `Configuration_Data.html` is saved in the *java-studio-install-dir*.

Product Usage by Non-root User

Use this installer page to enable usage of Application Server and Web Server from the IDE for a non-root user account. Usage of Application Server and Web Server as non-root is only for controlling domain and instances created for the non-root user account. It does not change how the software packages are installed. For example, you must still have root privileges to use the application server `asadmin` utility and to start Web Server admin server.

By default, the installer creates and configures an admin domain and an Application Server instance that is fully integrated for use within the Java Studio Enterprise IDE. The Web Server instance is also configured and integrated for use from within the IDE. These default instances are owned by the root user installing the software.

If you installed Access Manager or Portal Server, these products are configured to run in the default root-owned instance of Application Server, unless you used the Container Selection page of the installer to choose Web Server as an alternate web container.

Enter information about the IDE user's standard account on this installer page to enable the installer to create instances of Application Server and Web Server that are owned by the standard user.

If you are unfamiliar with the Application Server concept of an admin domain, see Chapter 9 for more information. If you do not create the non-root server instances during installation, you can create them manually post-installation. See Chapter 9 and Chapter 10 for more information.

▼ To Enable Non-root Usage of Application Server and Web Server

1. **When prompted, verify that the appropriate check box is checked.**
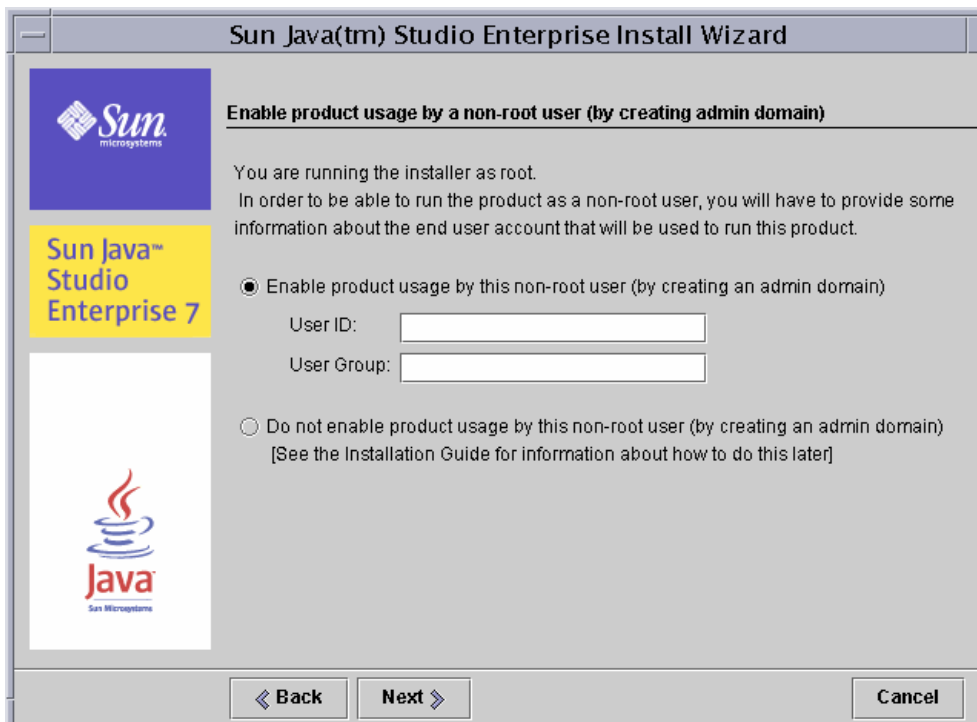
2. **Enter the user ID and user group for the standard user that will be using the software.**

This must be an existing account.

3. **Click Next and continue normal installation.**

Results of Enabling Product Usage by a Non-root User

When you select this option and provide the standard user account information, the installer does the following:

1. Creates a default Application Server instance and admin domain belonging to the non-root user.

   The Application Server and admin domain created during installation belong to the non-root user account that you specify and can be started, stopped and used by that user. Further, when that user starts and uses the IDE, the Server Registry shows this default server instance and all actions from within the IDE manipulate this non-root user instance. See Chapter 9 for more information.

2. Creates an instance of Web Server that belongs to the non-root user.

   The non-root user instance is fully integrated with the IDE. This non-root instance of Web Server appears in the IDE Server Registry and can be used for development purposes. See Chapter 10 for more information. The non-root instance name is `https-jstudio`.

   When Web Server has been selected as the web container for Access Manager or Portal Server, then a Web Server instance belonging to root is configured as the web container for Access Manager and Portal Server and can only be started, stopped and used by a user with root privileges. The root instance name is of the format:

   - `https-`*machinename.domainname.*

Installing Using Silent Mode

Silent installation is useful for installing Java Studio Enterprise on multiple hosts that share similar configurations. Silent installation requires that you run the installer once to capture input values in a *state file*. The state file contains your responses as a list of parameters, each representing a single prompt or field. You can then run the installer on many hosts, using the state file as input after editing certain host-specific values. This process propagates one configuration across multiple hosts in your enterprise. See Chapter 7 for details.

Troubleshooting During Installation

1. You specified a non-default installation directory, but the software was installed in `/opt/SUNWjstudio04q4`, the default directory.

   Reason: The installation directory you specified may be on a network- mounted filesystem. Installation to a directory that is not on the local machine is not supported in this version of the software.

   Solution: Uninstall and reinstall using a directory on your local machine.

2. Trying to install the software from CD-ROM, the installer won't start even after trying all suggestions in section "Using the GUI Installer" on page 46, Step 2

   Reason: The volume management system may be appending characters such as #1 to the volume label. If you see such characters at the end of the volume label, try the solution below. For example, the volume label for the Tools Component CD-ROM for the Solaris Sparc OS is `jse_04q4_sparc-1`, if you see `jse_04q4_sparc-1#1`, try this solution.

   Solution: Follow these steps to stop and restart the volume management process (`vold`) on your system, and run the installer again.

   a. **Ensure that CD-ROMs or floppy disks are not being used.**

      If you are not sure whether you have found all users of the media, run the `fuser` command.

   b. **Verify that you are superuser.**

   c. **Stop volume management.**

   ```
   # /etc/init.d/volmgt stop
   ```

   d. **Restart volume management.**

   ```
   # /etc/init.d/volmgt start
   ```

Uninstalling Java Studio Enterprise (Solaris OS)

An uninstaller is provided to remove the Java Studio Enterprise software. You must uninstall with the same user privileges required during the installation.

This chapter covers:

Using the GUI Uninstaller

Use the Sun Java Studio Enterprise 7 uninstaller to uninstall this software from your Solaris system.

Caution – Do not attempt to use `rm  -r` or `pkgrm` commands to uninstall the any part of this software. Failure to use the uninstaller will most likely result in a corrupted system.

▼ To Uninstall Java Studio Enterprise Software

1. **Exit and shut down the IDE before starting this procedure.**

2. **Enable client access to the X server by typing:**

   ```
   % xhost + machine-name
   ```

3. **Become a superuser (root).**

4. **Set your display environment variable to display to your local machine.**

```
% setenv DISPLAY machine-name:0.0
```

5. **Change to the** *java-studio-install-dir***. For example:**

```
#cd /opt/SUNWjstudio04q4
```

6. **Start the uninstaller wizard.**

```
# ./uninstall
```

The uninstaller starts and the Welcome screen appears.

7. **Click Next.**

The Product Selection page appears.

8. **Select the products you wish to uninstall.**

Pay close attention to any warning messages seen. The uninstaller does not prevent you from uninstalling component products that may be used by other Java Studio Enterprise component products still on your system.

9. **Click Next to start the uninstallation process.**

Uninstallation may take several minutes.

10. **When the uninstallation is complete, click Close.**

11. **Check the** *java-studio-install-dir***.**

A successful uninstallation of all of the Java Studio Enterprise software leaves an empty *java-studio-install-dir*.

If your directory contains other files, you might have installed add-on products or the uninstallation might be incomplete. If you uninstalled individual component products, then the remaining product installation directories should still exist.

Note – The *java-studio-install-dir* is not deleted by the uninstaller.

---

12. **Examine the uninstall log files for error messages.**

The log files are found in the directory /var/sadm/install/logs. The log file names are of the following format:

- Sun_Java_Studio_Enterprise_7_2004Q4_uninstall.A*timestamp*

- `Sun_Java_Studio_Enterprise_7_2004Q4_uninstall.B`*timestamp*

If you suspect your uninstallation was incomplete, see Chapter 15 for information about fixing a failed uninstallation.

13. **(Optional) If the uninstallation was successful, delete the remaining directory.**

```
# rm -r java-studio-install-dir
```

Note – Only delete the remaining directory if you uninstall all of the Java Studio Enterprise software and are certain that you do not need the files any longer.

Use this command to remove the log files and the installation directory only. Do not attempt to remove the product files using this command. You must run the uninstaller successfully before removing these log files and the directory in which they reside.

14. **Disable client access and exit from superuser privileges.**

```
# xhost - machine-name
# exit
```

Uninstalling Software in Silent Mode

Silent uninstallation is useful for automated uninstallation of Java Enterprise System components on multiple hosts that share similar configurations. See Chapter 7 for details.

CHAPTER **7**

Installing and Uninstalling In Silent Mode

This chapter describes how to install and uninstall Java Studio Enterprise software in silent mode.

This chapter covers the following topics:

Installing in Silent Mode

Silent installation is useful for installing Java Studio Enterprise on multiple hosts that share similar configurations. Silent installation requires that you run the installer once to capture input values in a *state file*. The state file contains your responses as a list of parameters, each representing a single prompt or field. You can then run the installer on many hosts, using the state file as input after editing certain host-specific values. This process propagates one configuration across multiple hosts in your enterprise.

This section covers the following topics:

Overview of Installing in Silent Mode

Installing in silent mode to propagate a similar installation of Java Studio Enterprise on multiple systems of the same platform requires that you perform multiple procedures as follows:

1. **Prepare the state file by running the installer in a no-install mode. Follow procedure "To Generate a State File" on page 68.**

2. **Edit the state file following the guidelines in the section "Editing the State File" on page 63.**

3. **Generate an accurate state file ID for the platform where you will be using the silent install mode. Review the section "Creating a Platform-Appropriate ID" on page 64. If you need to do this step, use the procedure "To Generate a State File ID Using the Installer" on page 65.**

4. **Run the installer in silent mode. Follow the procedure "To Run the Installer in Silent Mode" on page 66.**

5. **After installing disk 1 (or download file 1) containing Tools Components, repeat these four procedures with disk 2 (or download file 2) containing Optional Servers.**

Preparing for Installing in Silent Mode

Before creating a state file, perform the same preinstallation steps that you perform for an interactive installation. Refer to "Preparing for Installation" on page 17 and for Solaris OS machines, see "Verifying the Solaris OS Patch Requirements" on page 45, if you have not done so already.

Review the guidelines for using silent mode.

Guidelines for Using Silent Mode

If you are an experienced user of Java Studio Enterprise server components, you might be accustomed to building state files manually. This method can be error-prone.

Follow these guidelines for successful silent installation:

- Allow the installer to generate the state file, as described in "Preparing a State File" on page 61.

Do not manually create an original state file. A state file generated by the installer takes advantage of the installer's real-time dependency checking and error reporting.

- If you plan to install both parts of Java Studio Enterprise (Tools Components and Optional Servers) using silent mode, you need to generate a separate state file for each disk or file (disk 1 or disk 2) that you install.

- Save a copy of the state file before making any edits.

- 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.

- When editing the values note the original type and format and maintain them as you enter the new value. For example:
  - If the old value is a host name, enter 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.
  - Retain the case of the original value.

- Replace any value that you delete. If the parameter is required, installation or configuration could fail.

- Verify that the DNS Suffix property is set correctly. See "Verifying the DNS Suffix" on page 157.

Preparing a State File

To prepare a state file, you must first run the installer using the graphical interface and command-line options to suppress actual installation. Use the procedure To Generate a State File. Then, you edit the state file for use on the specific target machine. See the section, "Editing the State File" on page 63.

Tip – You need to create a separate state file for each disk or file of this software. The Tools Components and Optional Servers installers generate different sets of paired values for the state file.

▼ To Generate a State File

1. **Log in with the proper permission for installing.**
   - (Solaris OS)

a. **Use the** `xhost` **command to grant access to your display.**

```
%  xhost  +  your-local-machine
```

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

c. **Set the** `DISPLAY` **environment variable to display to your local system.**

```
%  setenv DISPLAY  your-local-machine:0.0
```

■ (Microsoft Windows systems)

  ■ Log in with administrator privileges.

2. **In a command window, change to the directory where the installer program is located.**

For example, if you downloaded the files from the web:

```
cd  java-studio-download-dir
```

3. **Start the installer, providing an absolute path name for the state file. The format for the installer command is as follows:**

■ (Solaris OS)

```
#  ./installer -no -saveState  [statefile]
```

■ (Microsoft Windows)

```
C:\> installer.bat -no -saveState [statefile]
```

where

Option	Description
-no	Prevents the installer from installing software on this host. Required to generate a state file.
-saveState	Instructs the installer to generate a state file at the location specified by *statefile*. • If you omit the *statefile* value, the installer writes to the default file, statefile.out in the hidden directory, .install. • **Note**: If you are invoking the installer from physical media, do not omit the state file name and path.
statefile	Specifies an absolute path to the generated state file.

4. **Proceed with running the installer, following the instructions specified in the installation chapter for your platform.**

   As you respond to the installer, it records your answers in the state file. When you complete the installation, the state file is available in the location that you specified.

Editing the State File

Before you do a silent installation, edit the state file to ensure that local parameters such as host name, domain name, IP address, and other such settings are appropriate for the target installation machine. Read the section "Editing Local Parameters" on page 64. Take special care in editing the state file parameters and verify that you are using the correct values for host name, domain name and IP addresses. The silent-mode installer does not do the same level of validation as the interactive installer.

You might also need to change the state file ID, if you plan to install on an operating system that is different from the one on which you created the state file. Read the section "Creating a Platform-Appropriate ID" on page 64.

Note – While using a statefile made on another machine you see a message in the console that says, "corrupt statefile". Be sure that you have changed the state file id and all other local machine parameters.

Editing Local Parameters

The following table lists parameters that you might need to edit, depending on your machine setup. For example, the machine on which you generated the state file might be in the same domain as the machine on which you are installing, or not.

TABLE 7-1   Editable State File Parameters

Parameter Name	Usage and default value (if any)
`currentInstallDirectory`	Installation directory. Default value: • `Solaris OS - /opt/SUNWjstudio04q4` • Windows - \Sun\jstudio_04Q4
`CMN_HOST_NAME`	*machinename*
`CMN_DOMAIN_NAME`	*domainname*
`CMN_ADMIN_USER`	Administrator User ID entered during installer session. Default=admin
`CMN_ADMIN_PASSWORD`	Administrator Password entered during installer session. No default. Write down the password that you choose. The password can not be retrieved after installation.
`CREATE_NON_ROOT_INSTANCE`	Yes/No indicator. Default=No.
`DEPLOY_CONTAINER_TYPE`	Default=`appserver`, can also be `webserver`
`STUDIO_USER`	Non-root user account login ID.
`STUDIO_GROUP`	Non-root user account group.

Creating a Platform-Appropriate ID

Generate the state file on a machine with the same operating system as the machine on which you plan to execute the state file. There is a different type of state file ID for the following platforms:

- Solaris 8 on Sparc
- Solaris 9 on Sparc
- Solaris on x86
- Microsoft Windows 2000 Professional Edition
- Microsoft Windows XP Professional Edition

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

Caution – A state file created on a Windows machine **can not** be edited and used on a Solaris OS machine.

▼ To Generate a State File ID Using the Installer

1. **Log in with the proper permissions.**
   - (Solaris OS) If you are not logged in as root, become superuser.
   - (Microsoft Windows) You must have administrator privileges to run the installer.

2. **In a command window, change to the directory where the installer is located.**

3. **Run the installer with the** `-id` **option.**
   - (Solaris OS)

   ```
   # ./installer -id
   ```

   - (Microsoft Windows)

   ```
   C:\> installer.bat no-src -id
   ```

   The command generates an encrypted identifier. It looks something like this:

   ```
   ddaf55796c650e12941234a6bf8be824397f5fe
   ```

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) Studio Enterprise
   f31c7e86a64605bc5b9b629931a30b275a0eb447]
   .
   .
   .
   [STATE_DONE Sun Java(tm) Studio Enterprise
   f31c7e86a64605bc5b9b629931a30b275a0eb447]
   ```

Running the Installer in Silent Mode

Run the installer on a machine that has the same operating system as the machine on which you generated the state file or follow the procedure for creating a new state file ID that will match the platform of the target installation machine. See the section "To Generate a State File ID Using the Installer" on page 65.

▼ To Run the Installer in Silent Mode

1. **Open a terminal window on the host where you want to install the Java Studio Enterprise components.**

2. **Disable desktop firewall software to avoid interference with the installer's port assignment logic.**

3. **(Solaris OS only) Prepare for installing by providing access to the X server and setting your environment display variable.**

   a. **Provide access to your display.**

   ```
   % xhost + machine-name
   ```

   b. **Make sure your DISPLAY environment variable is properly set to the local display. For example, if your machine name is *myhost*:**

   ```
   % setenv DISPLAY myhost:0.0
   ```

4. **Log in with the proper permissions.**
   - (Solaris OS) You must be root.
   - (Microsoft Windows) You must have administrator privileges.

5. **In the command window, change to the directory where the installer program is located.**

6. **Start the installer with the following options:**
   - (Solaris OS)

   ```
   # ./installer -nodisplay -noconsole -state statefile
   ```

   - (Microsoft Windows)

   ```
   C:\> installer.bat -nodisplay -noconsole -state statefile
   ```

where:

Option	Description
–noconsole	Starts the installer in silent mode, suppressing the command line interface.
–nodisplay	Starts the installer in silent mode, suppressing the graphical user interface.
-state	Uses the specified *statefile* as input to a silent installation.
statefile	Specifies an absolute path name to a *statefile.*

Execution can be lengthy, depending on the number and type of components that you are installing.

7. **(Optional- Solaris OS only) Monitor the progress of silent installation.**

While the installer is executing, you can monitor its progress by noting changes to the installation log. Follow these steps:

a. **In a terminal window, use the** cd **command to change to the log file directory. For example:**

```
cd /var/sadm/install/logs
```

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

For more information on the Java Studio Enterprise log files, see "Examine Installation Log Files" on page 153.

c. **Use the tail command to watch messages as they are written to the logs. For example:**

```
# tail -f log-file-name
```

Uninstalling Software in Silent Mode

Silent uninstallation is useful for automated uninstallation of Java Enterprise System components on multiple hosts that share similar configurations. Silent uninstallation requires that you run the uninstaller once to allow the uninstaller to capture provided values in a *state file*.

The procedure for uninstalling in silent mode is similar to the procedure for installing in silent mode. For information on using silent mode, refer to "Preparing for Installing in Silent Mode" on page 60 and to the section "Preparing a State File" on page 61. For silent uninstall, the only host-specific parameter that you might need to edit is the state file ID as explained in "Creating a Platform-Appropriate ID" on page 64.

The basic procedure to uninstall in silent mode is to:

- Generate the state file
- Edit the state file
- Run the uninstaller in silent mode using the state file

▼ To Generate a State File

1. **(Solaris OS only) Prepare for installing by providing access to the X server and setting your environment display variable.**

   a. **Provide access to your display.**

   ```
   % xhost + machine-name
   ```

   b. **Make sure your DISPLAY environment variable is properly set to the local display.**

   ```
   % setenv DISPLAY machinename:0.0
   ```

2. **Log in with the proper permissions**
   - (Solaris OS) If you are not logged in as root, become superuser.
   - (Microsoft Windows) You must have administrator privileges.

3. **Change to the directory containing the uninstaller:**

   ```
   cd java-studio-install-dir
   ```

4. **Run the uninstaller with the following command:**
   - (Solaris OS)

   ```
   # ./uninstall -no -saveState statefile
   ```

- (Microsoft Windows)

```
C:\> uninstall.bat -no -saveState statefile
```

where:

-no	Prevents the uninstaller from removing software.
-saveState	Instructs the uninstaller to generate a state file at the location specified by *statefile*. Specify an absolute path to the state file you want to create.
statefile	Specifies an absolute path to the generated state file.

5. **Proceed through the uninstaller to completion.**

   As you respond to the uninstaller, 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.

6. **Use a copy of the state file for each host on which you are going to perform a silent uninstall, editing the state file ID if necessary.**

   If you want to use this state file to uninstall Java Studio Enterprise on a machine with a different OS than the machine where you generated the state file, you need to replace the state file ID appropriately. See "Creating a Platform-Appropriate ID" on page 64.

   Caution – You can not use a state file created on a Windows machine on a Solaris OS machine.

▼ To Run the Uninstaller in Silent Mode

1. **Make sure you have properly prepared and edited the state file, as explained in Step 6 in the preceding procedure, "To Generate a State File" on page 68**

2. **Verify that you have the proper permissions to uninstall.**

3. **Change to the directory containing the uninstaller.**

4. **Start the uninstaller from the command line, using the following options:**
   - (Solaris OS)

```
# ./uninstall -nodisplay -noconsole -state statefile
```

■ (Microsoft Windows)

```
C:\> uninstall.bat -nodisplay -noconsole -state statefile
```

where:

-noconsole	Starts the uninstaller in silent mode, suppressing the command line interface.
-nodisplay	Starts the uninstaller in silent mode, suppressing the graphical user interface.
-state	Uses the specified *statefile* as input to a silent uninstallation.
statefile	Specifies an absolute path name to a *statefile*.

While the uninstaller is running, you can monitor its progress by examining the uninstallation log.

▼ To Monitor Uninstalling in Silent Mode (Solaris OS)

1. In a terminal window, change to the log file directory.

```
# cd /var/sadm/install/logs
```

2. Locate the log files for the current uninstallation.

The log file of interest for monitoring purposes is:

■ Sun_Java_Studio_Enterprise_7_2004Q4_uninstall.B*timestamp*

The *timestamp* variable represents the time the log was created. It has the 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 log-file-name
```

CHAPTER **8**

Setting Up the Java Studio Enterprise IDE

After you have installed the IDE, use the information in this chapter to start, set up, and register your software.

This chapter covers the following topics:

- "Starting the IDE" on page 71
- "Setting Up the IDE" on page 73
- "Using the Collaboration Runtime" on page 74
- "Using the Startup Options" on page 77
- "Java Studio Enterprise IDE User Directory" on page 79
- "Troubleshooting During Setup of the IDE" on page 79

Starting the IDE

At the end of installation of the Tools Components, you see an option to launch the IDE. This option is selected by default on Microsoft Windows machines. It is not recommended for usage on Solaris OS machines, as you might encounter file permission issues.

When you first start the IDE, you are prompted to do the following tasks:

- Register your software
- Indicate whether you would like automatic update checking

▼ To Start the IDE (Microsoft Windows Systems)

Use one of these methods:

- Double-click the Java Studio Enterprise icon located on your desktop.

- Choose Start → Programs → Sun Microsystems → Java Studio Enterprise 7 2004Q4 → Start Java Studio Enterprise.
- Start the IDE at the command line by following these steps:

1. **In the Command Prompt window, change to the installation directory containing the IDE executable. For example**

   ```
   C:\> cd java-studio-install-dir\Ent_04Q4\bin
   ```

2. **Start the IDE using one of the following commands:**
   - Use runidew.exe to start the IDE with the default launcher used by the desktop icon.

   ```
   C:\> runidew.exe
   ```

   - To start the IDE and display messages in the Windows Console, type:

   ```
   C:\> runide.exe
   ```

   The runide.exe command options can be specified on the command line or in the *java-studio-install-dir*\Ent_04Q4\bin\ide.cfg file. See "Using the Startup Options" on page 77.

▼ To Start the IDE (Solaris Systems)

1. **Change to the installation directory containing the IDE executable. For example:**

   ```
   % cd java-studio-install-dir/Ent_04Q4/bin
   ```

2. **Start the IDE.**

   ```
   % ./runide.sh
   ```

   The runide.sh command options can be specified on the command line or in the *java-studio-install-dir*/Ent_04Q4/bin/ide.cfg file. See "Using the Startup Options" on page 77.

Setting Up the IDE

The IDE has the following wizards that enable you to control aspects of the IDE environment:

- Import Settings Wizard
- Setup Wizard
- Registration Wizard

Import Settings Wizard

The Settings Import wizard appears the first time that you start the IDE if you have previous versions of the IDE on your machine. The wizard enables you to import settings from prior versions of the IDE for use with Java Studio Enterprise. If you do not need to import settings, then select No, and click Start IDE.

Setup Wizard

You can access the Setup wizard by choosing Tools → Setup Wizard from the main IDE window.

In the Setup wizard you can do the following:

- Set the IDE display window mode (MDI or SDI)
- Specify the web browser to use for internal and external web pages
- Set the web proxy settings to use if you are behind a firewall
- Use the Module Installation page to enable or disable IDE modules
- Use the Update Center page to control the following:
  - Automatic update checking
  - Frequency of automatic updates
  - Update Center URL to check

Registration Wizard

The Registration wizard appears the first time that you start the IDE. This wizard enables you to register with the Sun Developer Resources web site.

Registering your software provides the following benefits:

- Access to the Update Center to download and install new modules and updates
- Access to preview modules, patches and bug fixes

If you decide to register with Sun Developer Resources at a later time, choose Help → Other Resources → Registration Wizard from the main window of the IDE.

▼ To Enable or Disable IDE Modules

1. **Choose Tools > Setup Wizard from the main menu.**

2. **Click Next until the Module Installation page is displayed.**

3. **Expand the module category node for a list of modules.**

   Click on the module icon to see a short description of the module function.

4. **Disable or enable a module by toggling the Enabled property value to true or false.**

   By default, all the modules installed with the IDE are enabled except the WebLogic Server Deployment Module (the WebLogic plug-in). For information on enabling this module, look for WebLogic technical articles at http://developers.sun.com/prodtech/javatools/jsenterprise/reference/techart/index.html.

Using the Collaboration Runtime

Sun Java Studio Enterprise 7 2004Q4 introduces new functionality for enterprise collaboration. To enable the collaboration functions in the IDE, install the Collaboration Runtime when you install the IDE from the Tools Components disk (or file) and start it. See "Selecting What to Install" on page 19.

Start the Collaboration Runtime from the Start Menu (Windows) or the command line (Solaris OS). The Collaboration Runtime is configured to start automatically when a Microsoft Windows system is rebooted. You can change this configuration using the Microsoft Windows Control panel. See "To Configure Collaboration Runtime (Microsoft Windows)" on page 76.

Once the runtime is started, start the IDE and then create an account from within the IDE. Use the following procedure.

▼ To Enable the Collaboration Functionality

1. **After installing the Tools Components, locate and start the runtime script.**

   - (Microsoft Windows) Choose Start → Programs → Sun Microsystems → Java Studio Enterprise 7 2004Q4 → Collaboration Runtime → Start Runtime.

   - (Solaris OS)

   a. **Change to the installation directory containing the executable. For example:**

   ```
   % cd java-studio-install-dir/CollabRuntime/bin
   ```

   b. **Start the Collaboration Runtime process.**

   ```
   % ./xmppd start
   ```

   You need to be logged in as root to start this process.

2. **Start the IDE.**

3. **Choose Collaborate → Login from the IDE main menu.**

   The Collaboration window opens at the right-hand side of the IDE.

4. **Click Add an account.**

   The Add Collaboration Account wizard is displayed.

5. **Select "I want to register a new account" and click next.**

6. **Continue through the wizard to the Server Location pane.**

   Enter the location of the Collaboration Runtime. To confirm the actual port number and location used during your installation, review the Configuration_Data.html file. If you accepted the default installation directory, this file can be found at:

   - (Microsoft Windows) `C:/Sun/jstudio_04Q4/Configuration_Data.html`
   - (Solaris OS) `/opt/SUNWjstudio/Configuration_Data.html`

   The Server Location is of the form, *machinename*:*portnumber*. If the default port number was available during installation, this location would be *machinename*:5222.

▼ To Configure Collaboration Runtime (Microsoft Windows)

The Collaboration Runtime is installed as a Microsoft Windows service. The default setting is to start automatically when your Windows system starts. You can change this setting by following these steps:

1. **Choose Start → Settings → Control Panel (or Start → Control Panel).**

   The Control Panel dialog box is displayed.

2. **Double-click on Administrative Tools.**

   The Administrative Tools dialog is displayed.

3. **Double-click on Services.**

4. **Scroll down the list of Services and right-click the entry for Java Studio Enterprise 7 Collaboration Runtime.**

5. **Select properties from the contextual menu and select the Startup type from the drop-down list.**

   The Runtime default configuration is automatic, so the runtime will be started when Windows starts.

▼ To Change the Collaboration Logging Options

1. **Locate the Collaboration Runtime configuration file at:**

   java-studio-install-dir/CollabRuntime/config/xmppd.conf

2. **To turn on debug log, open the configuration file in a text editor and set** iim.log.iim_server.severity=DEBUG**.**

3. **The Collaboration Runtime log file can be found at:***java-studio-install-dir*\ CollabRuntime\log\xmppd.log.

▼ To Find Additional Collaboration Documentation

You can find additional documentation for the Collaboration functionality in the IDE's online help.

■ Click Help → Help (by Subject) and then choose the appropriate topic:

  ■ Developer Collaboration Help

- Developer Collaboration Chat Help
- Developer Collaboration Filesharing Help

▼ To Stop the Collaboration Runtime

- (Microsoft Windows) Choose Start → Programs → Sun Microsystems → Java Studio Enterprise 7 2004Q4 → Collaboration Runtime → Stop Runtime.
- (Solaris OS)

a. Change to the installation directory containing the executable. For example:

```
% cd java-studio-install-dir/CollabRuntime/bin
```

b. Start the Collaboration Runtime process.

```
% ./xmppd stop
```

Using the Startup Options

The `runide` startup scripts can be run with additional command-line options.

You can use the options in the following ways:

- Type the options on the command line
- Put the options in the *java-studio-install-dir*/Ent_04Q4/bin/ide.cfg file

The IDE reads the `ide.cfg` file before parsing any command-line options. You can type options on multiple lines in the `ide.cfg file`.

TABLE 8-1 lists the `runide` command-line options.

TABLE 8-1   IDE Startup Options

Option	Description
-h -help	Prints a description of the available options and their usage.
-jdkhome *jdk-home-dir*	Specifies the location of a J2SE platform other than the default that was specified during installation.
-cp:p *additional-classpath*	Prepends the specified class path onto the IDE's class path.
-cp:a *additional-classpath*	Appends the specified class path to the IDE's class path.
-userdir *IDE-user-dir*	Specifies the *IDE-user-dir* (the location where your user settings are stored). If this option is not specified, the default location is used. See "Java Studio Enterprise IDE User Directory" on page 79.
-J *jvm-flags*	Passes specified flags directly to the Java™ Virtual Machine (JVM™) software.
• -Xverify:none	-J -Xverify:none tells the JVM software not to verify the correctness of the bytecode, thereby providing for faster startup time. Setting this flag removes some of protection that the Java language gives you. Refer to the JVM software documentation for more information.
• -Xms24m	-J -Xms24m sets the initial heap size of the JVM software to 24 MB. This flag prevents the JVM software from extending the heap size during startup, thereby providing a faster startup time.
• -Xmx96m	maximum Java heap size
• -Xss1024k	Thread stack size
(Microsoft Windows only) hotspot or -classic	Specifies the Java virtual machine (JVM) variant to be used. The terms "Java virtual machine" and "JVM" mean a virtual machine for the Java platform.
"-ui" *UI_class_name*	Sets the specified UI class as the IDE's look and feel.
"-fontsize" *size*	Sets the font size, expressed in points, in the IDE's user interface. The default value is 11.

Java Studio Enterprise IDE User Directory

The IDE stores user-specific data in the user directory. Examples of this information are IDE settings and options and other necessary runtime data for personal development servers, such as the PointBase Server, UDDI Registry Server and Tomcat. The user directory also contains the `ide.log` file, which provides useful information when requesting technical support.

- The default location for this directory on a Microsoft Windows system *%SystemDrive%*:`\Documents and Settings\`*user-id*`\.jstudio\Ent04Q4`
- On a Solaris system, the default location is *$HOME*/`.jstudio/Ent04Q4`.

The minimum space requirement for this directory for initial installation is 5.5 MB. Actual runtime space usage varies depending on your component use within the IDE.

The first time that you start the IDE, you can specify an alternate location for the user directory by starting the IDE from the command line and using the command line `-userdir` option. See TABLE 8-1 for additional command-line options.

Troubleshooting During Setup of the IDE

This section describes problems you might receive during startup and configuration of the newly installed IDE.

1. You experience performance problems running the IDE.

   Reason. You may not have sufficient virtual memory or swap space.

   Solution. Increase your virtual memory or swap space to 1.5 to 2 times the amount of your machines's installed RAM.

2. Trying to access links from the IDE Welcome page, you see an exception such as:.

   ```
   Could not access the URL through the external browser. Check the
   browser configuration...
   ```

   Reason. Your external web browser may not be set correctly.

   Solution. Follow these steps to set your external browser.

a. **Choose Options from the Tools menu.**

b. **In the Options window, expand the IDE Configuration node.**

c. **Expand the Server and External Tool Settings node.**

d. **Expand the Web Browsers node.**

e. **Select the external browser type and modify the Browser Executable property and the DDE Server property to the proper value for your external browser.**

If this does not fix the problem, then follow these steps:

■ (Windows)

a. **Select the Java Studio Enterprise icon on the desktop and right-click.**

b. **Select properties.**

c. **Edit the Target field as follows:**

```
C:\ java-studio-install-dir\bin\runidew.exe -userdir pathname-to-user-directory
```

■ (Solaris)

   ■ Start the IDE from the command line using the startup option –userdir. See also .

3. When you select one of the IDE Start Menu items that take you to a web page, you see the following error message:

```
Error: Cannot find the file C:\Sun\jstudio_04Q4\AppServer7\docs\
about.html. Make sure the path and filename are correct and that
all required libraries are available.
```

Reason. This error is a Microsoft Windows error that occurs when using a Netscape browser. If you have Netscape set as the program to open HTML pages, but you don't set Netscape as your default browser, you may see this error.

Solution. Click OK to dismiss the error. Set Netscape as your default browser, or set Internet Explorer as the program to open HTML pages.

4. A subsequent error message appears after dismissing the one described above.

```
Error: Unable to run this command.
```

Click OK to dismiss this error. Set Netscape as your default browser.

5. After installing the Tools Components on a Solaris system and selecting the option "Start IDE", you see the following error message:

```
# java.io.IOException: Permission denied
at java.io.UnixFileSystem.createFileExclusively(Native Method)
at java.io.File.createNewFile(File.java:828)
at org.netbeans.CLIHandler.initialize(CLIHandler.java:358)
at org.netbeans.CLIHandler.initialize(CLIHandler.java:245)
at org.netbeans.Main.execute(Main.java:143)
at org.netbeans.Main.main(Main.java:33)
...
...
...
org.netbeans.core.NbTopManager.get(NbTopManager.java:188)
at org.netbeans.core.Main.start(Main.java:485)
at org.netbeans.core.TopThreadGroup.run(TopThreadGroup.java:90)
at java.lang.Thread.run(Thread.java:534)
Cannot add System filesystem: null, exiting...
```

Reason. This error mesage indicates that the IDE startup was unsuccessful due to a permissions problem. Most likely, the start IDE option was selected while installing the IDE as a superuser. This does not indicate an installation problem.

Solution. Exit the terminal window and superuser environment. Start the IDE as the standard user.

Using Sun Java System Application Server Instances in the IDE

Once you have successfully installed the Java Studio Enterprise Tools Components, you can verify the configuration of Sun Java System Application Server Standard Edition 7 2004Q2 (Application Server) as your default application server. The Java Studio Enterprise IDE includes the Sun Java System Application Server plug-in. This chapter describes common procedures enabled by the plug-in and describes the scenarios for Application Server instance creation and for IDE usage. The chapter also includes some background information on administrative domains and some other common application servers tasks.

The application server documentation describes administering and using Application Server in more detail. You can find the Sun Java System Application Server documentation at
http://docs.sun.com/db/coll/ApplicationServer7_04q2.

This chapter covers the following topics:

Understanding Application Server Integration and Instances

The Sun Java System Application Server Plug-In enables tight integration between the IDE and Application Server. This section describes the application server domains and instances created during various installation scenarios and describes the new Application Server automatic start functionality enabled by the plug-in. The following topics are covered:

Application Server Instances (Microsoft Windows)

Sun Java System Identity Server and Sun Java System Portal Server can be installed from the Optional Servers portion of Sun Java Studio Enterprise 7. These two products are essentially web applications that run in a web container. The web container can be either Application Server or Web Server. The default web container is Application Server. The resulting server instances are described in TABLE 9-1.

TABLE 9-1   Application Server Instances Created During Installation (Microsoft Windows)

Scenario	Application Server Installed	Access Manager Installed	Portal Server Installed	Web Server Selected as Alternate Web Container	Application Server Domains and Instances Created (see Chapter 10 for Web Server details)	Owner of Domain
1	Yes	No	No	N/A	`domain1:admin-server` `domain1:server1`	administrator
2	Yes	Yes	Yes	No	`domain1:server1` `domain1:admin-server`	administrator

					`jstudio-domain:admin-server`
					`jstudio-domain:jstudio-server`
					`[web container for Access`
					`Manager and Portal Server]`
						administrator

3	Yes	Yes	Yes	Yes	`domain1:admin-server` `domain1:server1`	administrator

Application Server Instances (Solaris OS)

When you install the Java Studio Enterprise IDE and Application Server, the installer creates one or more preconfigured server instances depending on choices that you make during installation. The following table, TABLE 9-2, describes the possible scenarios and the instances that are created.

TABLE 9-2   Application Server Instances Created During Installation (Solaris OS)

Scenario	Application Server Installed	Access Manager Installed	Portal Server Installed	Web Server Selected as Web Container	Application Server Domains and Instances Created	Owner of IDomain	Non-root usage enabled during install
1	Yes	No	No	N/A	`domain1:admin-server` `domain1:server1`	root root	No
1a	Yes	No	No	N/A	`domain1:admin-server` `domain1:server1`	non-root user specified during install	Yes
2	Yes	Yes	Yes	No	`domain1:admin-server` `domain1:server1`	root root	No
					`jstudio-domain:admin-server` `jstudio-domain:jstudio-server [web container for Access Manager and Portal Server]`	root root	

Scenario	Application Server Installed	Access Manager Installed	Portal Server Installed	Web Server Selected as Web Container	Application Server Domains and Instances Created	Owner of IDomain	Non-root usage enabled during install
2a	Yes	Yes	Yes	No	`domain1:admin-server` `domain1:server1`	non-root user specified during install	Yes
					`jstudio-domain:admin-server` `jstudio-domain:jstudio-server [web container for Access Manager and Portal Server]`	root	
3	Yes	Yes	Yes	Yes	`domain1:admin-server` `domain1:server1`	root root	No
3a	Yes	Yes	Yes	Yes	`domain1:admin-server` `domain1:server1`	non-root user specified during install	Yes

Application Server and IDE Integration

Only `domain1` instances are visible in the IDE Server Registry. The `jstudio-domain` (if created), which is used as the web container for Access Manager and Portal Server, must be started and stopped from outside the IDE. See Chapter 13 (Microsoft Windows) or Chapter 14 (Solaris OS) for details on starting and stopping Application Server from outside the IDE.

You do not have to start your IDE's preconfigured Application Server explicitly. This is done automatically at the time the server is accessed. The automatic start is triggered when the application server instance is set as the default J2EE server under the Server Registry "Default Servers" node in the Runtime window. The first time that you access the IDE's Server Registry, the plug-in automatically starts the `domain1` admin server and sets the default J2EE server to be the preconfigured application server instance, `server1`.

The following tasks trigger the automatic starting of Application Server:

- **Deploying a J2EE module or a web application**. Application Server admin instance is started if it is not already running.
- **Executing a J2EE application or a web application**. Application Server admin instance and the server instance are started if they are not already running.

Note – To use the Administrative Console, you need the Administrator Password specified during installation.

Using the Default Administrative Domain

This installation of the Java Studio Enterprise IDE and Sun Java System Application Server creates a preconfigured default administrative domain. This domain is added to the IDE's Server Registry. By server design, this administrative domain and its associated administrative server belong to the superuser or administrator performing the installation.

Solaris OS. You can specify that the default domain and server instance belong to a non-root (standard) user account. The option to specify a non-root user account must be selected during installation. See "Product Usage by Non-root User" on page 51. This option is only supported during installation on Solaris OS machines.

If the users of the IDE normally have superuser or administrator privileges, they can start the server using the installed default settings. For example, Microsoft Windows development environments where the developers do their daily work with user logins that have administrative privileges can use the default administrative domain and server as described in "To Confirm the Default Administrative Server" on page 88.

Additional procedures (not described in this book) for using the default administrative domain when the standard IDE user does not have superuser or administrative privileges are:

- To create a group of users with the permissions that allow them to manipulate the root-owned default domain.

- To change permissions on the domain directories, so that standard users can create their own application server instances and start and stop the default admin server.

- To start the default admin server from outside the IDE (this is done by a superuser) and enable the IDE users to manipulate server instances that belong to that domain from inside the IDE.

Caution – Changing permissions on the domain directories can create security problems if not handled properly. See the Application Server documentation for more information, refer to TABLE 9-3.

▼ To Confirm the Default Administrative Server

1. **Click the IDE's Runtime window.**

   The Runtime window displays the Server Registry node. The Server Registry node contains subnodes for all of the installed web servers and application servers. There is also a node showing which servers are the default servers.

2. **Expand the Server Registry node.**

   The IDE starts the default admin server and configures Sun Java System Application Server as the IDE's default application server. This process can take a minute or so to complete.

3. **Expand the Default Servers node.**

   Confirm that your `server1` instance is set to be the default server for J2EE Applications.

4. **(Optional) Expand the Installed Servers node and expand the Sun Java System Application Server 7 node.**
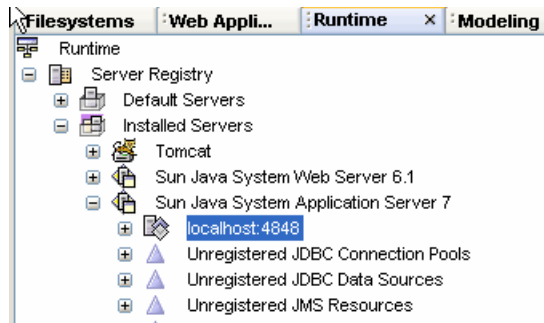
   In this screen shot, the node `localhost:4848` is your Admin Server instance.

5. **(Optional) Expand the localhost:4848 node to see the application server instance `server1`.**

Understanding Administrative Domains

This section is included from the Sun Java System Application Server 7 documentation to provide background on administrative domains. Sun Java System Application Server introduced a feature named administrative domains that enables you to define multiple, completely separate applicatio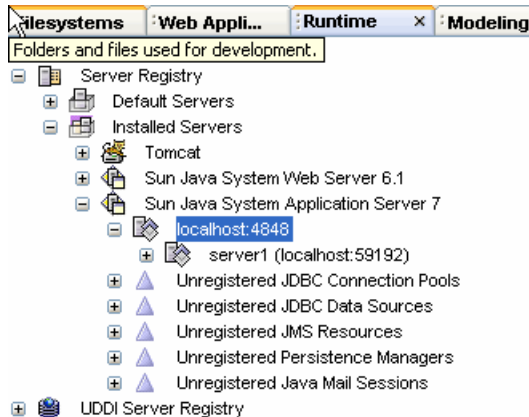n server runtime configurations that reuse the same installation image. Each administrative domain is represented by an administrative server which in turn controls one or more application server instances. The configuration of an administrative domain can reside anywhere on the machine.

Although it is likely that developers using their own workstations use a single administrative domain for day-to-day development, both shared development servers and operational environments can greatly benefit from using multiple administrative domains. On shared development servers, creation of an administrative domain for each developer provides a compartmentalized area or "sandbox" for each developer on a shared server machine. In operational environments, administrative domains enable system administrators to define separate secure runtime configurations without requiring multiple installations of the product.

Depending on the engineering practices in your development environment, you have several options for creating or configuring administrative server domains that can be used by individual developers.

TABLE 9-3 describes procedures to help you complete the configuration of Application Server when the preconfigured instances do not meet your development needs..

TABLE 9-3   Application Server Procedures

Description	Procedure Reference	Permitted User
Create an administrative domain for another user to use with the IDE.	See "To Create a Domain for Another User" on page 91	Superuser or administrator only
Add the user domain to the IDE Server Registry.	See "To Add the User's Domain to the IDE" on page 93	All IDE users
Create a user group with permission to manipulate the default administrative domain and server.	See *Sun Java System Application Server 7 2004Q2 Administration Guide*	Superuser or administrator only
Change permissions on the domain directories to allow standard users to manipulate the default administrative domain and server.	Standard Solaris OS Administration tasks. Consult your System Administrator	Superuser or administrator only

Creating Administrative Domains for Each User

In Solaris development environments, users do not usually run the IDE as a user with superuser privileges. If you are planning to use the bundled Sun Java System Application Server, it is necessary to provide IDE users with access to an administrative domain that they can start and stop. This enables them to create and manipulate application server instances within that domain as required by their development work.

There are multiple ways to provide the end user with access to an admin server domain. The two-step process described here creates a separate domain for the standard IDE user. Once this is done, the user has the maximum flexibility for controlling the use of their admin domain and minimal intervention is required by the system administrator.

This two-step process consists of the following two procedures:

- "To Create a Domain for Another User" on page 91
- "To Add the User's Domain to the IDE" on page 93

In this process, the superuser completes the first step to create a separate Application Server administrative domain for each standard (non-root) end user. The standard user completes the second step to configure the new domain within the IDE by adding, also referred to as "registering", the administrative domain to the IDE's Server Registry. This enables the standard user to control the administrative server for this domain and to manipulate instances of the application server as needed for development.

▼ To Create a Domain for Another User

The superuser performs this procedure to create a domain for a standard user account. This procedure is performed from the command line outside the IDE. To use this procedure on a Microsoft Windows system, modify the commands and directories as needed. For more information about the asadmin utility, see the *Sun Java System Application Server 7 2004Q2 Administration Guide* at http://docs.sun.com/source/817-3652-10.

1. **Become a superuser or administrator.**

2. **Change to the directory where the asadmin utility executable is located.**

   For example, type:

   ```
   # cd /opt/java-studio-install-dir/AppServer7/bin
   ```

   This example shows the default installation directory for a Solaris installation. If you specified a different installation directory when you installed this product, replace /opt/*java-studio-install-dir* with the path name to your installation directory.

3. **From the command line, use the** `asadmin` **utility to create the domain with the** `create-domain` **command.**

```
# ./asadmin create-domain --sysuser standarduser --adminport portnumber
--adminuser useradmin --adminpassword userpassword userdomain
```

The options and associated arguments for this command are described in the following table. The domain name is specified without an associated option.

Option	Argument	Description
`--sysuser`	*standarduser*	*standarduser* is the existing standard user's login id for your system.
`--adminport`	*portnumber*	*portnumber* is an available port number for this admin domain instance.
`--adminuser`	*useradmin*	*useradmin* is the user name associated with this admin domain.
`--adminpassword`	*userpassword*	*userpassword* is the user password associated with the user name for this admin domain.
`n/a`	*userdomain*	*userdomain* is the standard user's domain name and must be unique.
`--path`	domain_path	Path to the directory where the domain should be created. If not specified, the domain is created in the default domain directory. See the *Sun ONE Application Server 7 Getting Started Guide* for more information.

The following message displays.

```
Created Domain userdomain successfully.
```

4. **Exit from superuser privileges.**

5. **Provide your standard user with the values that you used in Step 3 for the port number, admin user name, admin user password, and the domain name.**

The standard user uses these values to complete the configuration of the application server from within the IDE. These values are used in Step 3 in the section, "To Add the User's Domain to the IDE" on page 93.
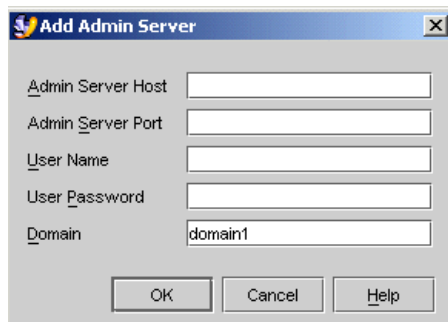
▼ To Add the User's Domain to the IDE

This procedure is done with the same login and permissions used for running the IDE for normal day-to-day development activities.

Note – If you opted to enable usage by a non-root user during installation (Solaris OS only), do not use this procedure. The default admin domain and server instance created by the installer are already owned and configured for use by the non-root user that you specified during installation.

---

1. **Start the IDE.**

2. **In the IDE Runtime window, select the Server Registry node.**

3. **Add (also called Register in Application Server terminology) your admin server by following these steps:**

   a. **Expand the Server Registry node and expand the Installed Servers node.**

   b. **Right-click the Sun Java System Application Server 7 node and choose Add Admin Server from the contextual menu.**

   The Add Admin Server dialog box is displayed.

   c. **Type the values in the text fields.**

   Contact the superuser or administrator who installed the IDE and created your user admin domain to get these values:

Text Field	Description
Admin Server Host	`localhost` or local machine name
Admin Server Port	*portnumbe*r used in the `create-domain` command

User Name	*useradmin*, user name used in the `create-domain` command
User Password	*user*, user password used in the `create-domain` command
Domain	*userdomain*, used in the `create-domain` command

d. Click OK.

The following error message might display:

```
Could not connect to Admin Server. If Admin Server is local it will
be started.
```

e. Click OK to dismiss this error message.

The local admin server is started and your new admin server is added to the IDE. A new admin server node is generated in the Server Registry representing your domain and admin server. You are now ready to create your application server instance.

4. To create the application server instance, follow these steps:

a. In the Runtime window, right-click the new admin server node, identified by the port number you entered, and choose Create a Server Instance from the contextual menu.

The Enter Server Instance Values dialog box is displayed.
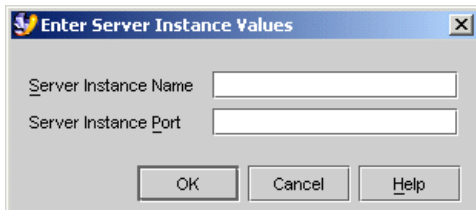
b. Type in a name and an available port number.

For example, `MyServer` and 50000.

Note – On UNIX systems, the port number 1023 and below are reserved. Use an available port number above 1023. Do not use port numbers used by the default application server or by other applications on your system.

---

c. Click OK.

A new application server instance is created in the IDE. You can see it by expanding your admin server instance.

5. **To set the new server as the default application server and web server, right-click the new application server instance and choose Set As Default.**

6. **Expand the Default Servers node to verify.**

   The default servers for J2EE application and web tier applications show the new server as the default.

Other Common Application Server Tasks

▼ To Manually Set the Default Application Server

1. **In the IDE's Runtime window, expand the Server Registry node and expand its Default Servers subnode.**

   If the J2EE Applications node's label is *server-instance(machinename:port-number)*, then Sun Java System Application Server is the default application server. If it is not, continue with the next step.
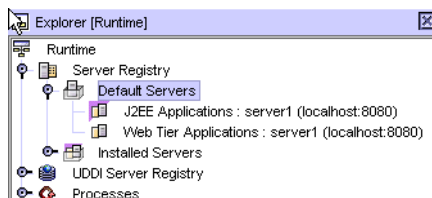
2. **Find your server instance under the Installed Servers node, right-click the server instance, and choose Set As Default.**

   Your server is set as the default server for J2EE applications and Web Tier applications.

▼ To Manually Start|Stop the Application Server Instance

1. **Right-click the application server node and choose Status from the contextual menu.**

Note – If this node is not displayed, your admin server might not be running. Be sure your admin server is running and then try again.

The Sun Java System Application Server Instance Status dialog box is displayed.
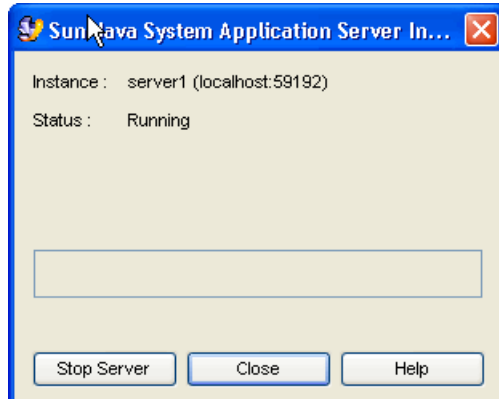
2. **Click Start | Stop Server as needed.**

   If the dialog box has a Stop Server button, the server is already running.

   The server is started when the Status line shows Running.

3. **Click Close.**

CHAPTER **10**

Using Sun Java System Web Server Instances in the IDE

Once you have successfully installed the Java Studio Enterprise IDE and Sun Java System Web Server 6 2004Q1 Update 1, Service Pack 2 (Web Server - from Optional Servers), you can verify the configuration of Web Server. The Java Studio Enterprise IDE includes the Sun Java System Web Server plug-in. This chapter describes common procedures enabled by the plug-in and describes the scenarios for Web Server instance usage from the IDE.

Sun Java System Access Manager and Sun Java System Portal Server can be installed from the Optional Servers portion of Sun Java Studio Enterprise 7. These two products are essentially web applications that run in a web container. The web container can be either Application Server or Web Server. The default web container is Application Server. During installation of the Optional Servers, you can select Web Server to be the web container instead. The resulting web server instances are described in TABLE 10-1 and TABLE 10-2.

This chapter covers the following topics:

Using the Correct Web Server Instance (Microsoft Windows)

When you install the Java Studio Enterprise IDE and Web Server, the installer creates one or more preconfigured web server instances depending on choices that you make during installation. The following table, TABLE 10-1, describes the possible scenarios and the instances that are created.

TABLE 10-1 Web Server Instances Created During Installation (Microsoft Windows)

Scenario	Web Server Installed	Access Manager Installed	Portal Server Installed	Web Server Selected as Web Container	Instances Created	Owner of Instance
1	Yes	No	No	N/A	`https-admserv` `https-`*machinename.domainname*	administrator
2	Yes	Yes	Yes	No	`https-admserv` `https-`*machinename.domainname*	administrator
3	Yes	Yes	Yes	Yes	`https-admserv` https-*machinename.domainname* = web container for Access Manager and Portal Server	administrator

- **Scenario 1** assumes Web Server is installed by itself.
- **Scenario 2** assumes Web Server, Access Manager, and Portal Server are installed and the default web container (Application Server) is used.
- **Scenario 3** assumes Web Server, Access Manager, and Portal Server are installed and Web Server is selected for the web container.

If you installed Web Server using scenario 3, you might want to create and use a separate web server instance for development purposes to avoid issues such as accidentally undeploying either Access Manager or Portal Server. Use the procedure, "To Create a Web Server Instance (Microsoft Windows)" on page 98.

To create a web server instance that is not owned by the administrator account used for installing, follow the procedure "To Create a Web Server Instance (Microsoft Windows)" on page 98

See Appendix C for technical details of the web server instance on a Microsoft Windows machine.

▼ To Create a Web Server Instance (Microsoft Windows)

This procedures uses the Web Server Administrative Console to create a new web server instance.

1. Log in as administrator on the machine where you have Web Server installed.

2. **From the command line, change to the installation directory for the Web Server Admin Server. For example, using the default directory:**

```
cd \Sun\jstudio_04Q4\WebServer6_2004q1\https-admserv
```

3. **Start the Web Server Admin Server process.**

```
startsvr.bat
```

Once you see the message "server started successfully", proceed to the next step.

4. **Access the Web Server Graphical Interface by typing the default server URL in your web browser.**

This URL is of the format `http://`*machinename.domainname:adminport*. For example, `http://host1.example.com:8888`.

To locate the proper URL:

a. **Open the** *java-studio-install-dir*`/Configuration_Data.html` **file in your web browser.**

b. **Find the entry labeled Web Server Admin URL and click the link.**

5. **When prompted, type the User Name and Password.**

Use the values that you entered on the Configuration page during installation. If you do not remember what you used for the User Name, you can find it in the `Summary_Report.`*timestamp* for your installation session. Refer to the installation chapter for your platform for the location of this report.

The Web Server Administration Server Console appears in the browser window.

6. **From the Servers tab, click Add Server.**

The Add Server form displays in the browser.

7. Enter the requested values.

Name of Field	Example Value	Additional Information
Server Name	www.mozilla.com (or *machine-name.domain-name*)	Specifies the fully qualified host name of this server.
Server Port	8059	Specifies an unused port number to service the HTTP requests for this server.
Server Identifier	marketing_server	Specifies the server identification (a name) for the Administration Server to use for this server instance. The Server Identifier cannot start with a digit. Only ASCII characters are supported.
Server User	*IDE-user-account-login*	Specifies the user name under which this server instance runs. This should match the user account that will run the IDE.
Document Root	/home/*IDE-user-account-login*	Specifies the directory path to the location of the server's web documents.

8. Click OK.

The new instance is created. You can now set this server instance as the default Web Server in the IDE. See "To Set the Default Web Server Instance in the IDE" on page 105

Using the Correct Web Server Instance (Solaris OS)

When you install the Java Studio Enterprise IDE and Web Server, the installer creates one or more preconfigured web server instances depending on choices that you make during installation. The following table, TABLE 10-1, describes the possible scenarios and the instances that are created.

TABLE 10-2   Web Server Instances Created During Installation (Solaris OS)

Scenario	Web Server Installed	Access Manager Installed	Portal Server Installed	Web Server Selected as Web Container	Instances Created	Owner of Instance	Non-root usage enabled during install
1	Yes	No	No	N/A	`https-admserv` `https-`*machinename.domainname*	root root	No

1a	Yes	No	No	N/A	`https-admserv`
					`https-`*machinename.domainname*
					
					`https-jstudio`
						root
						root
						
						non-root user specified during install
							Yes

2	Yes	Yes	Yes	No	`https-admserv` `https-`*machinename.domainname*	root root	No

TABLE 10-2 Web Server Instances Created During Installation (Solaris OS) *(Continued)*

Scenario	Web Server Installed	Access Manager Installed	Portal Server Installed	Web Server Selected as Web Container	Instances Created	Owner of Instance	Non-root usage enabled during install

2a	Yes	Yes	Yes	No	`https-admserv`
					`https-`*machinename.domainname*
					
					`https-jstudio`
						root
						root
						
						non-root user specified during install
							Yes

3	Yes	Yes	Yes	Yes	`https-admserv` `https-`*machinename.domainname*	root root	No

3a	Yes	Yes	Yes	Yes	`https-admserv`
					`https-`*machinename.domainname*
					
					`https-jstudio`
						root
						root
						
						non-root user specified during install
							Yes

During installation on a Solaris OS machine, you have the opportunity to enable Application Server and Web Server usage by a non-root user. If you did this, the installer created a second instance of Web Server belonging to the specified non-root user account. If you did not use this option during installation follow the procedure "To Create a Web Server Instance (Solaris OS)" on page 102 to create a web server instance for a standard user.

See Appendix D for technical details of the web server instances on a Solaris OS machine.

▼ To Create a Web Server Instance (Solaris OS)

The superuser performs this procedure to create an instance for another user, usually a non-root end user. This procedures uses the Web Server Administrative Console to create a new instance.

1. Become a superuser.

2. **From the command line, change to the installation directory for the Web Server Admin Server.**

```
# cd /opt/SUNWwbsvr/https-admserv
```

3. **Start the Web Server Admin Server process.**

```
# ./start
```

Once you see the message "server started successfully", proceed to the next step.

4. **Access the Web Server Graphical Interface by typing the default server URL in your web browser.**

This URL is of the format `http://`*machinename.domainname:adminport*. For example, `http://host1.example.com:8888`.

To locate the proper URL:

a. **Open the** *java-studio-install-dir*/`Configuration_Data.html` **file in your web browser.**

b. **Find the entry labeled Web Server Admin URL and click the link.**

5. **When prompted, type the User Name and Password.**

Use the values that you entered on the Configuration page during installation. You can find User Name in the `Summary_Report.`*timestamp* for your installation session. Refer to the installation chapter for your platform for the location of this report.

Web Server Administration Server Console appears in the browser window.

6. **From the Servers tab, click Add Server.**

The Add Server form displays in the browser.

7. **Enter the requested values.**

Name of Field	Example Value	Additional Information
Server Name	`www.mozilla.com` (or *machine-name.domain-name*)	Specifies the fully qualified host name of this server.
Server Port	1025 (Solaris OS) Be sure to use an unused port number above 1024.	Specifies an unused port number to service the HTTP requests for this server.
Server Identifier	`marketing-server`	Specifies the server identification (a name) for the Administration Server to use for this server instance. The Server Identifier cannot start with a digit. Only ASCII characters are supported.
Server User	*IDE-user-account-login*	Specifies the user name under which this server instance runs. This should match the user account that will run the IDE.
Document Root	/home/*IDE-user-account-login*	Specifies the directory path to the location of the server's web documents.

8. **Click OK to create the new instance.**

9. **Exit from superuser privileges.**

10. **Provide your standard end user with the Server Identifier.**

The standard user can now set this server instance as the default web server instance in the IDE using the following procedure.

Other Common Web Server Tasks

These procedures can be used to set or confirm the default Web Server instance and to start the Web Server instance from the IDE. For information on validating the Web Server from outside the IDE, refer to Chapter 13 for Microsoft Windows systems and to Chapter 14 for Solaris OS systems.
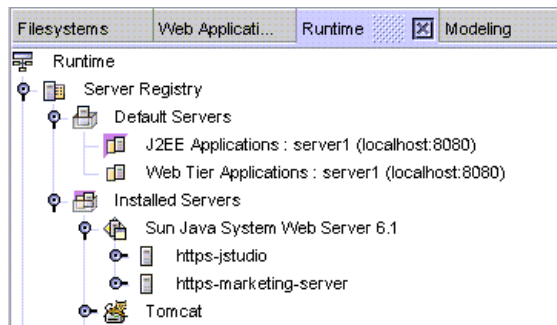
▼ To Set the Default Web Server Instance in the IDE

Note – This procedure is done by the Server User (the standard end user) specified when the new Web Server instance was created.
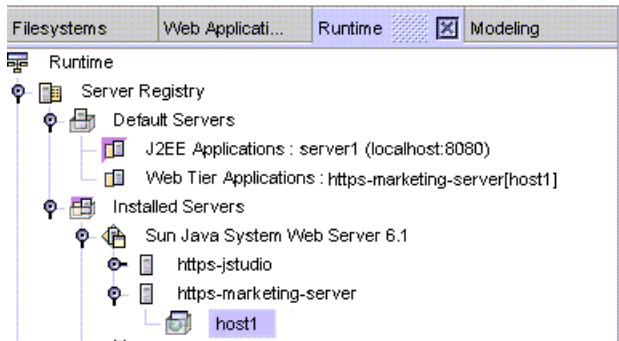
1. **In the IDE Runtime window, expand the Server Registry node and expand the Installed Servers node.**

2. **Expand the Sun Java System Web Server 6.1 node.**

   You see your Web Server instance with the name that was specified as the Server Identifier. For example: `https-marketing-server`.

   (Solaris only) If you created a non-root instance of Web Server during installation, your Server Registry looks something like this:
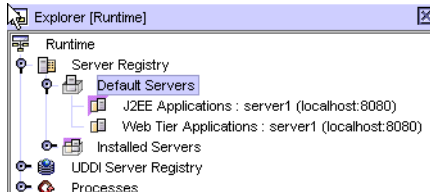

3. **Expand your Sun Java System Web Server instance node to see the virtual server.**

4. **Right-click the Virtual Server instance and choose Set As Default from the contextual menu.**

5. **Expand the Default Servers node to verify that the Web Tier Applications node shows the new server instance as the default.**

▼ To Confirm the Default Web Server

1. In the IDE Runtime window, expand the Server Registry node and expand its Default Servers subnode.

If the Web Tier Applications node's label is *server-instance(machinename:portnumber)* and matches the Web Server instance that you want to use from the IDE, then your default Web Server is set correctly. If it is not, continue with the next step.

2. Find your web server instance under the Installed Servers node, right-click the server instance, and choose Set As Default.

Your server is set as the default server for Web Tier applications.

▼ To Start or Stop a Web Server Instance

1. Right-click the Sun Java System Web Server 6.1 node and choose Start Server [Stop Server] from the contextual menu.

2. Confirm that the server started successfully by returning to the Web Server Console.

You can find additional information about using the Web Server in Sun Java System Web Server documentation.

Using Databases

This chapter describes how to configure Java™ DataBase Connectivity (JDBC™) software. Most of the information pertains to the PointBase Server 4.2 Restricted Edition (PointBase), which is used with many of the IDE examples and tutorials. General information about using other databases with the IDE is also included.

PointBase is the default database provided as part of the Java Studio Enterprise installation. PointBase can be found in the Sun Java System Application Server Standard Edition 7 2004Q2 installation subdirectory, for example, *java-studio-install-dir*\AppServer7\pointbase. Documentation for PointBase can be found at *java-studio-install-dir*\AppServer7\pointbase\docs

This release of Java Studio Enterprise software introduces enhancements in the integration of PointBase with the IDE and Application Server.

This chapter covers:

- "Setting Up PointBase Connectivity" on page 107
- "Using Other JDBC Enabled Databases" on page 111

Setting Up PointBase Connectivity

An enterprise application uses the JDBC API to interact with a database. Enterprise applications require pooling of database connections so that the business objects in the system can share database access. A JDBC data source lets you make connections to a database. A persistent manager is a component responsible for the persistence of the entity beans installed in the container. The connection pool, JDBC data source and JDBC persistent manager are referred to as connectivity resources.

Before you can deploy and execute an enterprise application that uses a database with Sun Java System Application Server, the database's JDBC driver must be enabled in the application server environment and the connectivity resources must be created.

When you use the Java Studio Enterprise 7 installer to install the IDE and Application Server, the following tasks are done for you:

- The PointBase JDBC driver is installed and registered with Application Server. The connectivity resources are created as part of this configuration step.
- Starting and establishing a connection to the PointBase database is done automatically when the database is accessed the first time. The following activities, which require database access, automatically start the PointBase database server:
  - Connect to database server using the PointBase JDBC driver node from the IDE's Database Explorer.
  - Connect to database server from a disconnected pointbase connection under the database explorer
  - Capture dbschema
  - Connect to database server from cmp wizard
  - Connect to database from Web Application Framework wizards.
  - Execute a J2EE application against an appserver instance having registered PointBase connection pools.

Note – Execution against the default application server instance may start the PointBase database server even though the executed application does not use PointBase. This happens because the default application server instance has a PointBase connection pool defined as part of the installer's configuration process for Application Server and IDE integration. During the automatic starting of Application Server, the existence of the connection pool resource causes the IDE to start the PointBase database server before it starts the application server instance. If you are not using the PointBase database at all in your applications and want to avoid this startup of the PointBase server, delete the connection pool resource from your application server instance.

To use the IDE examples when you have installed Sun Java System Application Server independently of your IDE installation, see "To Use an External PointBase Installation With the IDE" on page 110.

▼ To Confirm the PointBase Resource Configuration

1. **In the IDE's Runtime window, expand the Server Registry node and expand the Installed Servers node.**

2. **Expand the Sun Java System Application Server 7 node and expand the default admin server node (localhost:4848).**

   Your port number may vary.

3. **Expand the default application server instance node, (`MyServer(localhost:`*`xxxx`*`)).**

   The variable *xxxx* = the port number assigned to your application server instance.

4. **Expand the registered resources for JDBC Connection Pools, JDBC Data Sources, and Persistent Mangers.**

   If the IDE installer was able to configure your PointBase connectivity resources for the Application Server, you see the following nodes:

   - JDBC Connection Pools: PointbasePool
   - JDBC DataSources: jdbc/jdbc-pointbase
   - Persistent Managers: jdo/PointbasePM
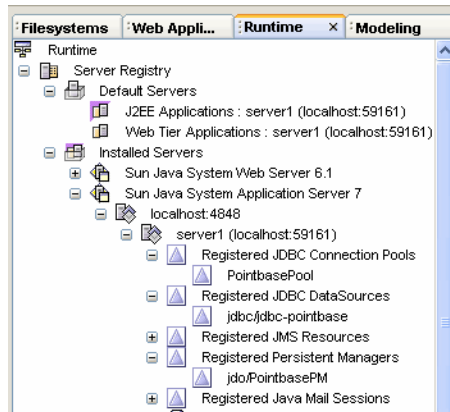
▼ To Set PointBase JDBC Resources for the Examples

If you need to set the PointBase JDBC resources in the application server environment, use this procedure.

1. **In the IDE's Runtime window, expand the Server Registry node and expand the Installed Servers node.**

2. **Locate your application server instance.**

   It is labeled *app-server-name* (*app-server-host*:*app-server-port*), for example, `server1 (localhost:59161)`.

3. **Right-click the application server instance node and choose Preconfigure PointBase JDBC Resources from the contextual menu.**

   A timer icon (such as an hour glass) appears. When the process is complete, the cursor reverts to its usual icon.

4. **Expand the registered resources for JDBC Connection Pools, JDBC Data Sources, and Persistent Managers.**

   You should see the following nodes:

   - JDBC Connection Pools: `PointbasePool`
   - JDBC DataSources: `jdbc/jdbc-pointbase`
   - Persistent Managers: `jdo/PointbasePM`
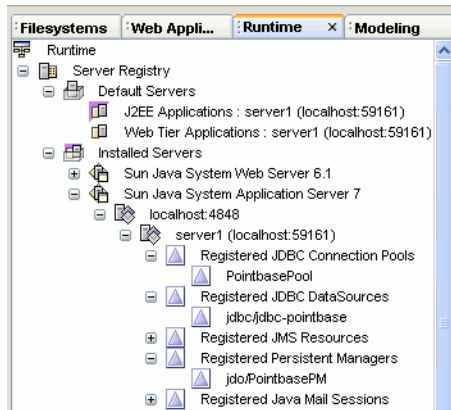
▼ To Use an External PointBase Installation With the IDE

If you have a PointBase installation external to the IDE, perform the following procedure to connect the IDE to that external PointBase installation. If you do not have access to a PointBase installation, you must install PointBase before using Java Studio Enterprise examples and tutorials. See the *Sun ONE Application Server 7 Getting Started Guide* for instructions on how to install PointBase.

1. **Choose Tools > PointBase Network Server > Configure.**

2. **Use the Browse button to navigate to the PointBase installation directory.**

3. **Specify a different port number if necessary.**

4. **Click OK.**

   When asked whether to overwrite files `sample.dbn` and `sample$1.wal`, click No.

Using Other JDBC Enabled Databases

Sun Java Studio Enterprise 7 2004Q4 software installs and registers several other commonly used database drivers. The following are installed and appear under the Databases Explorer Drivers node:

- Oracle database driver
- Sybase database driver
- Microsoft SQL database driver
- IBM's DB2 database driver

To use one of these installed database drivers from the IDE, follow this procedure.

▼ Using Database Drivers Installed by Java Studio Enterprise

1. **In the IDE's Runtime window, expand the Databases node.**

2. **Expand the Drivers node and select the driver you want to use.**

3. **Right-click the selected driver and choose Connect Using from the contextual menu.**

   The New Database Connection dialog is displayed. Ensure that the correct driver is selected in the driver field.

4. **Enter the JDBC URL in the Database URL field.**

   This URL typically begins with `jdbc:` and a short name for the driver, followed by another colon. The rest of the URL depends on the type of driver you are using. For example, you might need to specify a host and port. Alternatively, the name of a database file might suffice, or an ODBC DSN. To help you get started, existing drivers are provided with templates for the correct URL format. For example:

   - IBM's DB2 - `jdbc:sun:db2://`*servername*:*portnumber*`;databaseName=`DATABASENAME
   - Microsoft SQL Server - `jdbc:sun:sqlserver://`*server_name*:[*portNumber*]

- Oracle - `jdbc:sun:oracle://`*server_name*[:*portNumber*][;SID= DATABASENAME]

- Sybase - `jdbc:sun:sybase://`*server_name*[:*portNumber*]

Parameters in square brackets are optional. If in doubt, refer to the documentation for the driver you are using.

5. **Provide the user name and password, if required by your database configuration.**

6. **Click the Remember Password checkbox to have the IDE remember your password.**

   The password is saved only for the current the IDE session. After restarting the IDE, you must type the password again. This feature can be turned on or off in the properties of each connected database in the Runtime window.

7. **Click OK to connect the IDE to the database.**

   If the connection is successful, a new node appears on the same level as Drivers. The icon for a connected database shows complete. If the connection attempt fails, the IDE displays a dialog box indicating the connection is broken.

▼ Using Database Drivers Not Installed by Java Studio Enterprise

To use database drivers other than those installed by Java Studio Enterprise from the IDE, follow this procedure.

1. **In the IDE's Runtime window, expand the Databases node.**

2. **Right-click the Drivers node and choose Add Driver from the contextual menu.**

   The Add JDBC Driver dialog box is displayed.

3. **Click the Add button to navigate to the directory where the driver** `.jar` **or** `.zip` **file is available and add the** `.jar` **or** `.zip` **file.**

   If the driver needs more than one `.jar` or `.zip` file, repeat this procedure to add all the required files.

4. **Specify the Driver class for the driver.**

   Refer to the driver documentation for the driver class name.

5. **Give this installation a Name and click OK.**

   A node representing this driver is displayed under the Drivers node.

Upgrading Your Installation

This chapter discusses the following topics:

Updating Modules With the Update Center

Once you have the IDE installed on your system, use the Update Center to add new IDE modules or to update the existing IDE modules.

▼ To Update your IDE Modules

1. **Choose Tools → Update Center from the main menu.**

   The Update Center wizard appears.

2. **Select Sun Java Studio Enterprise Update Center as the Update Center.**

3. **If you haven't set your proxy configuration, click the Proxy Configuration button.**

   The Proxy Configuration dialog box appears. Modify the values as needed and click OK to return to the Update Center wizard.

4. **Click Next.**

   The Update Center Login page appears.

5. **Type your Java Studio Enterprise Update Center login name and password and click Next.**

   The Update Center displays the modules that are available to you.

   Note – The Update Center login name and password are *not* the same as those used to configure the servers during installation.

   ---

6. **Select individual modules or select all by clicking the >> button.**

   Use the < button to remove those versions that are not appropriate to your platform.

7. **Click Next and follow the Update Center installation procedure.**

   The IDE installs the selected modules and then restarts itself.

Using the License Manager Tool

The Java Studio Enterprise IDE uses the License Manager tool to enable you to see your existing license and to upgrade from a trial license serial number to a permanent serial number. When you install the IDE using a 90-day trial license serial number, you see warning messages as the expiration date approaches. You can purchase the product and receive a permanent license serial number at any time during the 90-day trial period.

You may view your license information or upgrade to a permanent serial number using the License Manager by using the following procedures.

▼ To View the Status of Your License

While you are in the trial period, you can view how many days are remaining by using the License Manager tool.

1. **Choose Tools → License Manager from the main IDE window.**

   The License Manager appears.

2. **Click on the Serial Number Reporting tab.**

   The Serial Number Reporting page appears. You can review the serial number information and see if it is a trial or permanent license and how many days remain until the expiration date.

▼ To Upgrade to a Permanent License

Follow this procedure to upgrade to a permanent serial number at any time during your trial period. After your 90-day trial has expired, trying to start the IDE will cause this same Serial Number Installation page to appear. You can enter the new permanent serial number at that time. You receive a permanent serial number when you purchase the product.

Note – You must install the permanent serial number using the same user privileges as when the IDE was installed. For example, on Solaris, the installation must be done as a root user, therefore you must be running the IDE as a root user to upgrade the license serial number.

---

1. **Become a superuser or log in to your system with administrator privileges.**

   Contact your system administrator if you did not install the IDE yourself.

2. **Start the IDE.**

3. **Choose Tools → License Manager from the main menu.**

   The License Manager appears.

4. **Click on the Serial Number Installation tab.**

   The Serial Number Installation page appears.

5. **Enter the permanent serial number in the text box and click Install.**

▼ To View License Status From Outside the IDE

If you did not install the Java Studio Enterprise IDE, you can view the software license status using the standalone license manager tool.

1. **Change to the** *java-studio-install-dir***/bin directory.**

   - (Microsoft Windows) If you accepted the default installation directory value, change to `C:\Sun\jstudio_04Q4\bin`.

   - (Solaris OS) If you accepted the default installation directory value, use the following command:

   ```
   % cd /opt/SUNWjstudio/bin
   ```

2. **Invoke the license manager tool.**

   - (Microsoft Windows) Double-click the `licManager.bat` file.

- (Solaris OS) Use the following command:

```
# ./licManager
```

3. **(As needed) Upgrade your trial license to a permanent license.**

   You can also upgrade from a trial license to a permanent license using this tool. You must do this using administrator or superuser privileges. Follow Step 4 and Step 5 as described in "To Upgrade to a Permanent License" on page 115 after invoking the license manager as described in this procedure.

Using Java Studio Enterprise Servers (Microsoft Windows)

After installation, you can use the procedures in this chapter to validate correct installation and configuration of your Java Studio Enterprise 7 servers on the Microsoft Windows plaform. This chapter describes:

Overview of the Validation Process

This section contains an overview of the general validation process and information on how to find configuration data.

To start and stop a component product server, you must have administrative rights. The basic process for starting most Java Studio Enterprise servers has three steps:

1. **Start the admin server process.**

2. **Log in to the administrative tool.**

   Most of the servers have browser-based interfaces to the administrative tool.

3. **Start your server instance using the administrative interface.**

   Most of the servers also have command-line interfaces. See the documentation for the component products for additional information on administration issues.

Sun Java System Application Server Standard Edition 7 2004Q2 and Sun Java System Web Server 6 2004Q1 Update 1, Service Pack 2 can also be started and stopped from the Java Studio Enterprise IDE via their respective plug-ins.

TABLE 13-1 lists the procedures to use for validating each server installation.

TABLE 13-1 Procedures for Validating Java Studio Enterprise Servers (Windows)

Task	Windows Instructions
Validate Application Server	"To Validate Application Server" on page 120
Validate Web Server	"To Validate Web Server" on page 121
Validate Access Manager	"To Validate Access Manager (formerly Identity Server)" on page 123
Validate Portal Server	"To Validate Portal Server" on page 125

Finding Configuration Data

To perform the server validation procedures you need to know the port numbers, instance names, and other configuration data for the servers that you installed. You can review the configuration data for each server in the following ways:

- View the configuration data from your web browser. The file Configuration_Data.html is saved in the *java-studio-install-dir*.
- View the Summary Report created by the installer.
  - The report is placed in the directory specified by the environment variable *%TEMP%*. For example C:\Documents and Settings\Administrator\ Local Settings\Temp\Summary_Report.*timestamp*.

Validating Server Installation

On Microsoft Windows systems, you can start the servers from the Start Menu or the command line. For command line information, please see Appendix C. This section describes using the Start Menu entries for starting and stopping the servers.

The quickest way to verify the server installations is to use the Start Menu option to start all the servers and then verify access to the administrative tool for each one. These instructions assume that you are logged in as a user with administrative privileges.

▼ To Start and Validate All Servers

1. **Choose Start → Programs → Sun Microsystems → Java Studio Enterprise 7 2004Q4 → Start Servers → All Servers.**

   This starts all the installed servers in the proper order.

2. **(Optional) Access the Computer Management Services dialog to verify that the servers started properly by following these steps:**

   a. **Open the Computer Management dialog.**

   - (Microsoft Windows 2000 Pro) Right-click on the My Computer icon and select Manage from the contextual menu.
   - (Microsoft Windows XP Pro) Choose Start, right-click My Computer, and click Manage from the contextual menu.

   b. **Double-click Services and Applications.**

   c. **Double-click Services.**

   d. **Scroll down the list of services to see the following Java Studio Enterprise server entries. Verify that the Status column for each server entry shows the value** `Started`**:**

   - `Sun App Server 7 (domain1:server1)`
   - `Sun App Server 7 (jstudio-domain:jstudio-server)`
   - `Sun App Server 7 Admin Server (domain1:admin-server)`
   - `Sun App Server 7 Admin Server (jstudio-domain:admin-server)`
   - `Sun ONE Administration Server 5.2`
   - `Sun ONE Directory Server 5.2 (`*`machinename`*`)`
   - `Sun ONE Web Server 6.1 (https-`*`machinename.domainname`*`)`
   - `Sun ONE Web Server 6.1 Administration Server`

3. **Access the administrative console for the servers as follows:**

   a. **For Application Server, follow steps 2-3 of the procedure "To Validate Application Server" on page 120.**

   b. **For Web Server, follow steps 2-5 of the procedure "To Validate Web Server" on page 121.**

   c. **For Access Manager, use the procedure "To Validate Access Manager (formerly Identity Server)" on page 123.**

   d. **For Portal Server, use the procedure "To Validate Portal Server" on page 125.**

   e. **For Directory Server, follow steps 2-5 of the procedure "To Validate Directory Server Installation" on page 129.**

▼ To Validate Application Server

1. **Choose Start → Programs → Sun Microsystems → Java Studio Enterprise 7 2004Q4 → Start Server → Application Server.**

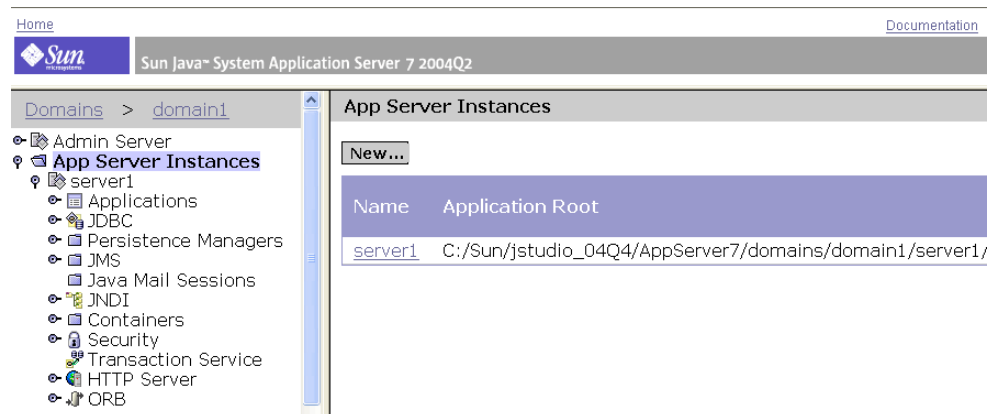   This starts the Application Server admin process and the default instance.

2. **Choose Start → Programs → Sun Microsystems > Java Studio Enterprise 7 2004Q4 > Administration Consoles > Application Server.**
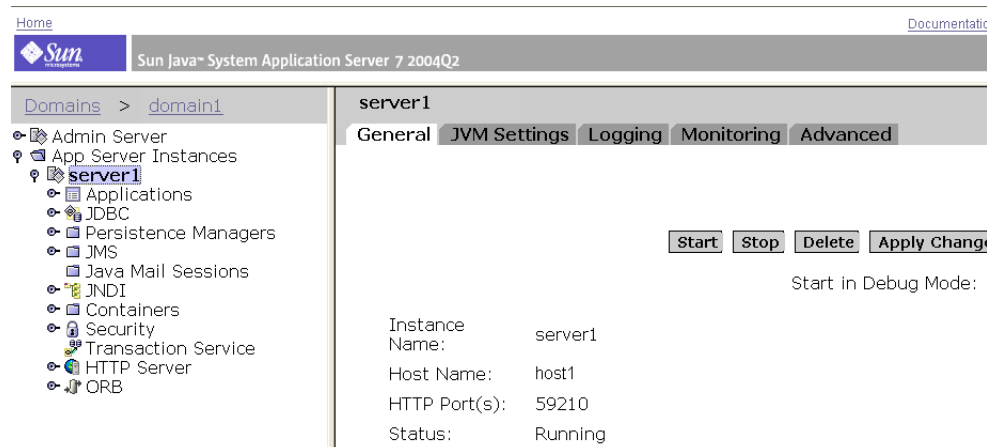
   The Application Server Administration login prompt appears.

3. **Type your User Name and Password and click OK.**

   Use the values specified during installation. Application Server Console appears.

4. **Click the server1 node in the left frame to check the status of the server instance.**

> **Note –** .Starting Application Server from outside the IDE using the Start Menu entry starts all instances of Application Server created by the Java Studio Enterprise installer. Using the IDE to start the server enables you to start a specific instance.

▼ To Validate Web Server

You can start Web Server from the Start Menu or from inside the Java Studio Enterprise IDE. This procedure describes using the Start Menu.

1. **Choose Start → Programs → Sun Microsystems → Java Studio Enterprise 7 2004Q4 → Start Servers → Web Server.**

   This starts the Web Server Administration service.

2. **Choose Start → Programs → Sun Microsystems → Java Studio Enterprise 7 2004Q4 → Administration Consoles → Web Server.**

   The Web Server Administration login prompt appears.
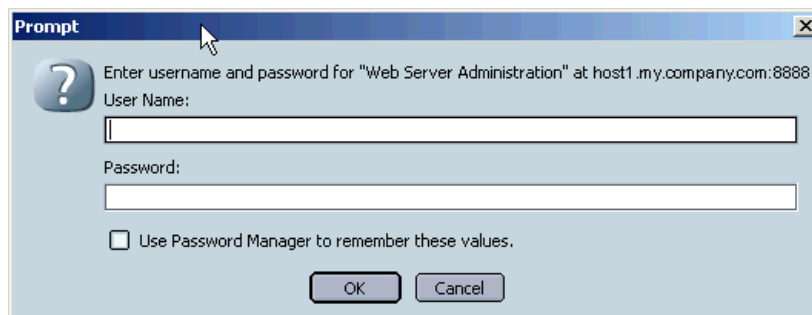
   If you see the following error:

   ```
   The connection was refused when attempting to contact
   servername:portnumber
   ```

   - Check to be sure that the Web Server admin server is actually started. Do this by checking your Microsoft Windows Services and confirming that Sun One Web Server 6.1 Administration Console shows a status of started. Refer to Appendix C for details on how to start this service from the command line if needed.
   - Check that your proxy settings are set to use direct connection or not use a proxy server for your Web Server domain name.

> **Tip –** If you see an error stating that the proxy server could not locate your web server, an incorrect proxy setting could be the cause. Check your web browser proxy settings and be sure that the domain used for your web server installation is set to "no proxy". Check the documentation for your browser for information on how to edit the proxy settings.
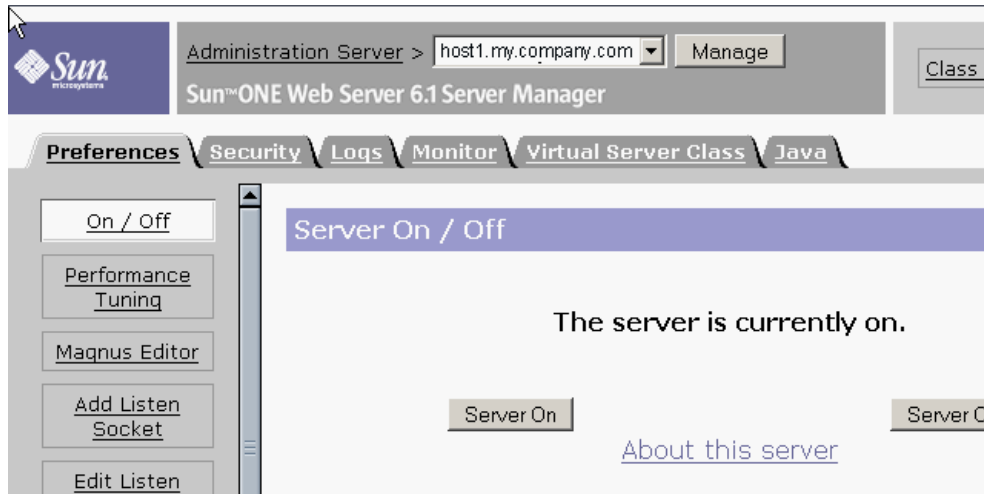
3. **Type your User Name and Password and click OK.**

   These are the values you provided on the Configuration page during installation. The Web Server Console appears in your browser window.
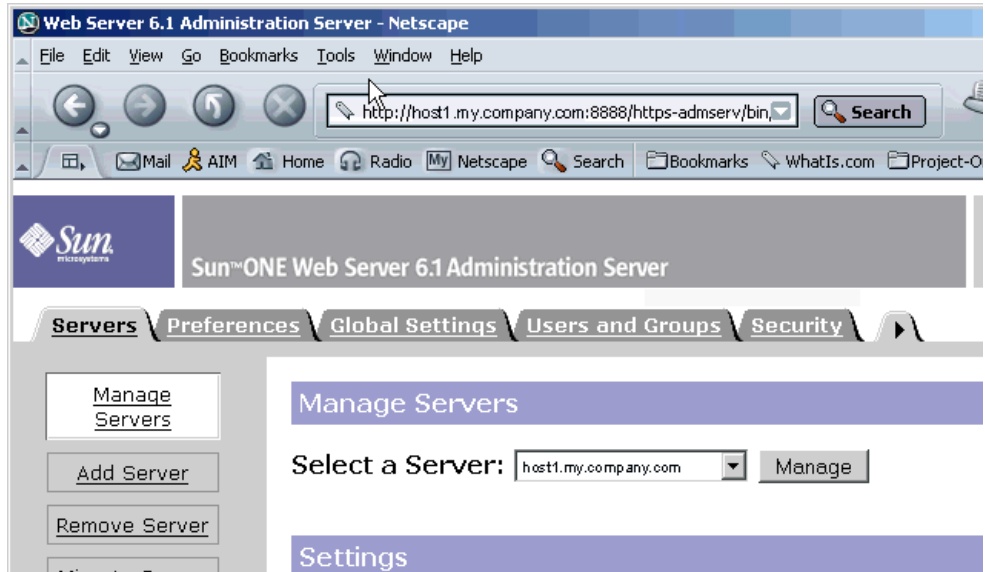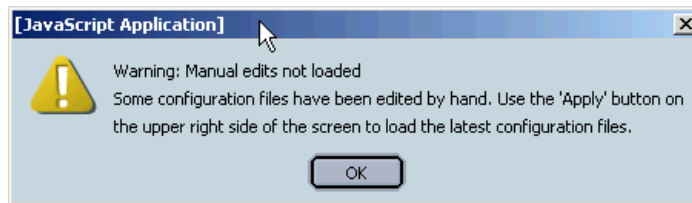

4. **Select your server instance and click Manage.**

   Web Server Manager displays your server instance.

If you see this JavaScript Application popup dialog:

- **Click OK and use the 'Apply' button as described to Apply Changes.**

5. **Confirm that your server instance is running by clicking Server On if your server instance is off.**

▼ To Validate Access Manager (formerly Identity Server)

To use the Access Manager Admin Console, Directory Server and your web container instance and admin server must be running. The default container is Application Server. If you started all servers using the Start Menu, this has been done.

1. **Change to the** *java-studio-install-dir* **and open the** Configuration_Data.html **file in your web browser.**
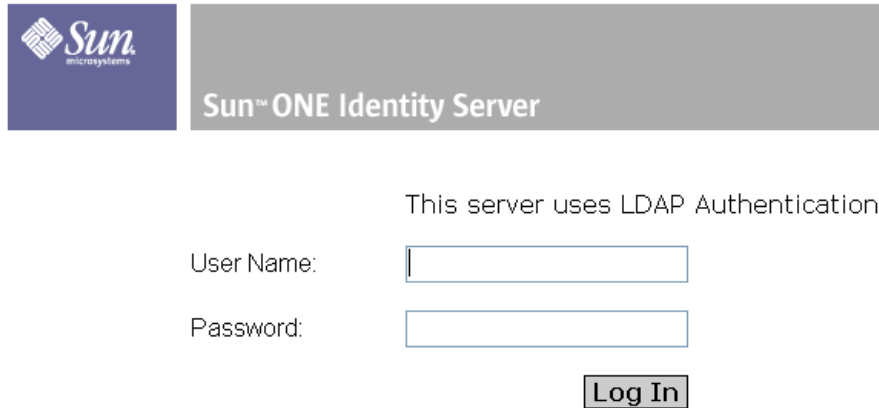
This file shows the URLs assigned for each server runtime that you installed.

2. **Locate the section of this report for Sun Java System Access Manager 6.1.**

    Review the entries and find the row labeled Access Manager Server Console URL. This should be a live hypertext link of the form
    `http://`*machinename.domainname*`:`*port-number*`/amconsole`.

3. **Click on this link.**

    The Access Manager Admin Console login dialog appears in the browser window.
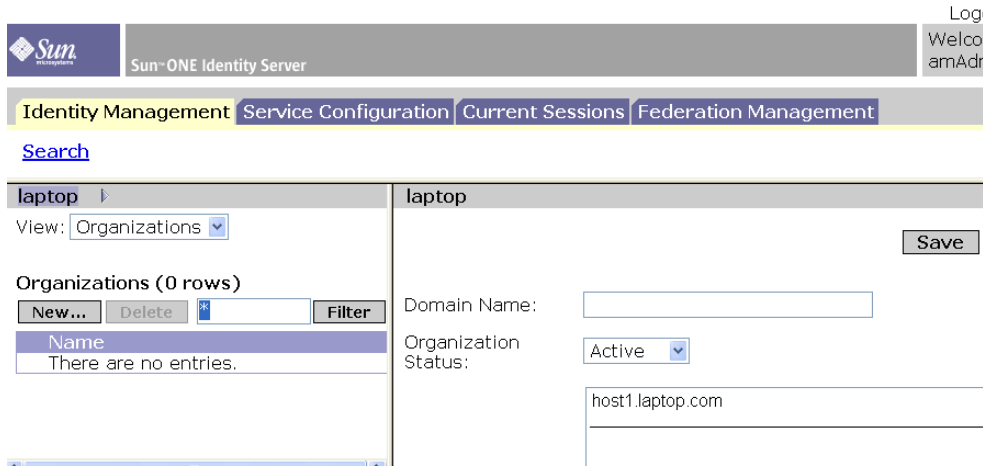

4. **Type your User Name and Password and click Log In.**

    Access Manager's Console appears in your browser window.

Note – **User Name** is `amadmin`. **Password** is the value specified during installation.

Using Access Manager

Access Manager uses the `amldapuser` as the bind user to search for users in the directory during authentication. This user by default has read access to the directory. The bind password for this user is preconfigured by the installer by appending a '1' to the Administrator Password that is used during installation. For example, if you type `admin123` as the Administrator Password on the installer's Configuration page, the assigned `amldapuser` password is `admin1231`.

▼ To Validate Portal Server

After successfully following all the prior procedures to validate Directory Server, the web container and Access Manager, perform these additional steps.

1. **Log out from Access Manager Console and start a new browser instance.**

2. **In your web browser open the** *java-studio-install-dir*`\Configuration_Data.html` **file .**
   This file shows the URLs assigned for each server runtime that you installed.

3. **Locate the section of this report for Sun Java System Portal Server 6.2.**

4. **Review the entries and find the row labeled Portal Server Console URL. This is a live hypertext link of the form:** `http://`*webcontainerhost.domainname*`:`*portnumber*`/portal`.

   For example, using the default values for the port number with Application Server as the web container, the URL might look like this: `http://host1.my.company.com:8080/portal`.

5. **Click this link.**

   The Portal Server Desktop appears in the browser window. Display of the sample desktop confirms successful deployment of Portal Server on your web container instance.
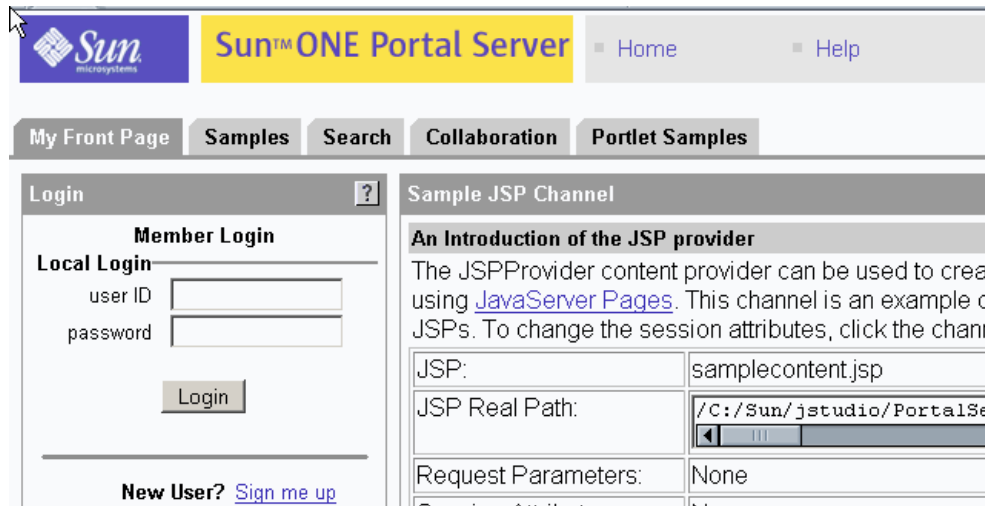
▼ To Stop All Servers

● **Choose Start → Programs → Sun Microsystems → Java Studio Enterprise 7 2004Q4 → Stop Servers → All Servers.**

Finding Additional Documentation

You can find documentation at docs.sun.com. The following tables list some links to available documentation titles.

TABLE 13-2   Server Runtime Documentation Links (Windows versions)

Component Product Server Runtime Version	Link
Sun Java System Application Server Standard Edition 7 2004Q2	http://docs.sun.com/db/coll/ApplicationServer7_04q2
Sun Java System Web Server 6 2004Q1 Update 1, Service Pack 2	http://docs.sun.com/db/coll/S1_websvr61sp2_en
Sun Java System Message Queue 3.5 SP 1	http://docs.sun.com/db/coll/MessageQueue_35_SP2
Sun Java System Directory Server 5.2	http://docs.sun.com/db/coll/S1_DirectoryServer_52
Sun Java System Access Manager 6.1	http://docs.sun.com/db/coll/S1_IdServ_61
Sun Java System Portal Server 6.2	http://docs.sun.com/db/coll/S1_PortalServer_62
Sun Java System Identity Server Policy Agent 2.1 for Sun Java System Application Server 7	http://docs.sun.com/db/coll/S1_IdServPolicyAgent_21

Troubleshooting During Server Validation

The Java Studio Enterprise servers have specific dependencies and need to be started in the proper startup sequence. If you are using only Application Server or Web Server, then there is no startup sequence requirement. If you are starting the server runtimes manually, then observe the proper startup sequence. The Start Menu script takes care of these dependencies automatically.

The startup sequence is important when using Access Manager (formerly Identity Server) and Portal Server. Access Manager and Portal Server are deployed as web applications running on either Application Server (default) or Web Server (selection available through the Product Selection page of the installer, see "Container Selection" on page 36). Access Manager and Portal Server also rely on Directory Server. Therefore, before attempting to access either Access Manager or Portal Server, you must start both Directory Server and the appropriate web container. To shut down the servers, reverse the sequence.

Note – The script, `startservers.bat`, found at *java-studio-install-dir*`\bin` automatically starts all the servers in the proper order. You can run this script from the command line or you can use the Windows Start Menu.

If you experience any difficulties starting the admin consoles for Access Manager and Portal Server, confirm the following:

- Web browser has the correct proxy settings: use the procedure "To Verify Web Browser Proxy Settings" on page 128
- Servers have been started in the correct sequence: use the procedure "To Start Servers in the Correct Sequence" on page 129
- Directory Server connectivity: use the procedure "To Validate Directory Server Installation" on page 129

▼ To Verify Web Browser Proxy Settings

If you see Page Not Found Errors while trying to access the admin console for Access Manager or while trying to display the Portal Server Desktop, check your web browser proxy settings. To access the servers that you have installed, the web browser should not be trying to resolve the URLs using a proxy server. For example, on Mozilla1.4, use these steps to change the proxy settings:

1. **In the web browser window, click Edit → Preferences.**

2. **Expand the Advanced node and select Proxies.**

   The Proxies dialog box is displayed. If you are using a proxy server, the option Manual Proxy Configuration is selected.

3. **Verify that your server domains are listed in the text box labeled "No Proxy for:".**

▼ To Start Servers in the Correct Sequence

1. **Start Directory Server.**

   Start both the admin server and the server instance.

2. **Start the web container, either Application Server (default) or Web Server.**

   Start both the admin server and the server instance.

3. **Now, try accessing Access Manager or the Portal Server desktop.**

▼ To Validate Directory Server Installation

1. **Choose Start → Programs → Sun Microsystems → Java Studio Enterprise 7 2004Q4 → Start Servers → Directory Server.**

   This starts Directory Server's admin process and Directory Server's server instance.

2. **Choose Start → Programs → Sun Microsystems → Java Studio Enterprise 7 2004Q4 → Administration Consoles → Directory Server.**

   The Server Console Login dialog appears. The User ID and Administration URL display the values used during installation and configuration.

3. Type your Password and Click OK.

This is the password that you used on the Configuration page during installation. The Server Console appears.
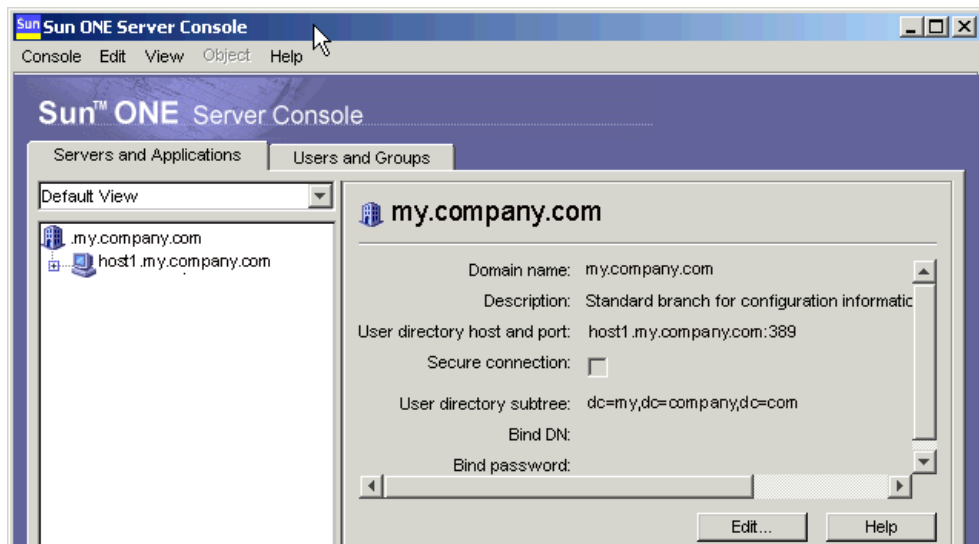
4. On the Servers and Applications tab, expand your server host node, then expand the Server Group node.

You see an entry for the Administration Server and entry for your server of the form Directory Server (*machinename*).
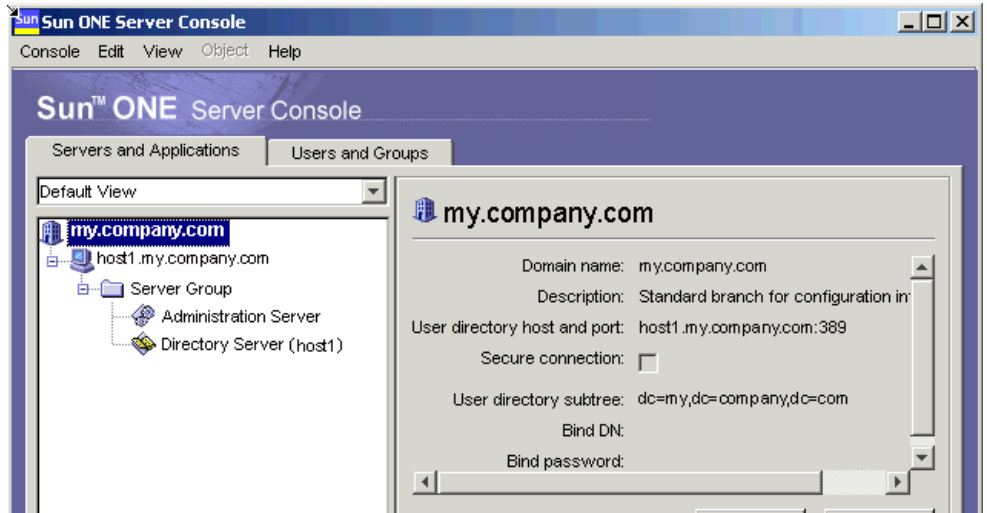
5. **Double-click on the Directory Server node.**

The Sun ONE Directory Server Console for your server instance appears.

From this console, you can perform administrative tasks.

Diagnosing Common Errors

This section lists some of the more common errors you might see.

1. Trying to access Access Manager Console from your web browser results in the following error:

```
Server Error
This server has encountered an internal error which prevents it
from fulfilling your request. The most likely cause is a
misconfiguration. Please ask the administrator to look for
messages in the server's error log.
```

   Reason: Access Manager relies on other Java Studio Enterprise servers, such as Directory Server and Application Server or Web Server. The servers may not all be running.

   Solution: Start the servers in the proper sequence. See "To Start Servers in the Correct Sequence" on page 129 for details.

2. After starting all the servers, trying to access the amserver by using an URL of the form `http://localhost/amserver` gives you a Page Not Found error.

   Reason: You may have an incorrect proxy server setting. IS may be trying to resolve the URL by using the proxy server if one is set.

   Solution: Set the Web browser proxy setting to direct connection or to not use a proxy server.

3. You see this error message in the console window trying to start Access Manager from the Start Menu:

```
C:\Sun\jstudio\IS6.1\bin>C:\Sun\jstudio\DirectoryServer5.2\slapd-
localhost\start -slapd.bat
C:\Sun\jstudio\WebServer6.1\https-localhost.my.company.com\startsvr.bat
C:\Sun\jstudio\IS6.1\bin>net start slapd-localhost
The requested service has already been started.
More help is available by typing NET HELPMSG 2182
C:\Sun\jstudio\IS6.1\bin>
```

   Reason: Directory Server is already started and can not be started again.

   Solution: You can ignore this message. You should be able to access Access Manager as both Directory Server and Web Server are already running.

4. Installing Java Studio Enterprise results in either a failed installation or failed configuration of Access Manager:

   Reason. Your system DNS Suffix may not be set correctly.

   Solution. See "Verifying the DNS Suffix" on page 157.

5. Trying to access Portal Server Desktop, you see this error in the browser window:

```
A serious error has occurred in the Desktop. This may have been caused by
a mis-configuration on the server.
Report this problem to you administrator.
Possible cause:
You do not have permission to access the dektop
Return to front page
```

Reason: You have not logged out of Access Manager Console before trying to access Portal Server Desktop.

Solution: Either logout of Access Manager Console and try again or start a new instance of your browser and try again.

CHAPTER **14**

Using Java Studio Enterprise Servers (Solaris OS)

After installation, you can use the procedures in this chapter to validate correct installation and configuration of your Java Studio Enterprise servers. This chapter describes:

Overview of the Validation Process

This section contains an overview of the general validation process, the use of the start server scripts and information on how to find configuration data.

To start and stop the root-owned component product servers, you must have root privileges. If you created a non-root instance of Application Server or Web Server, you can start and stop those instances while logged in as the non-root user account that was specified during installation.

Tip – As long as you know the proper user name and password, you can access these browser-based interfaces as a non-root user.

The basic process for starting most Java Studio Enterprise servers has three steps:

1. **Start the admin server process.**

2. **Log in to the administrative tool.**

   Most of the servers have browser-based interfaces to the administrative tool.

3. **Start your server instance using the administrative interface.**

   Most of the servers also have command-line interfaces. See the documentation for the component products for additional information.

   Sun Java System Application Server Standard Edition 7 2004Q2 and Sun Java System Web Server 6 2004Q1 Update 1, Service Pack 2 can also be started and stopped from the Java Studio Enterprise IDE via their respective plug-ins.

Finding Configuration Data

To perform the server validation procedures you need to know the port numbers, instance names, and other configuration data for the servers that you installed. You can review the configuration data for each server in the following ways:

- View the configuration data from your web browser. The file `Configuration_Data.html` is saved in the *java-studio-install-dir*.
- View the Summary Report created by the installer. This report is saved at `/var/sadm/install/logs/Summary_Report.`*timestamp*

Tip – The easiest way to access the admin consoles for the installed servers is to use the live links found in the `Configuration_Data.html`. This technique is described in the following procedures.

Validating Server Installation

To start all the servers, the exact procedures depend on which servers you have installed and which installation options you have selected. You may need to run the start servers script once while logged in as root and again while logged in with your normal, non-root account login. See "Product Usage by Non-root User" on page 51 for a description of this option and the resulting server instances.

Note – To start and stop the root-owned servers, you must have superuser privileges. If you created non-root instances of Application Server and Web Server during installation, you can do some activities as non-root, such as running the scripts for starting and stopping the non-root instances.

TABLE 14-1 lists the procedures to use for validating your server installation.

TABLE 14-1   Procedures for Validating Java Studio Enterprise Servers (Solaris OS)

Task	Procedure
Start root-owned servers	"To Start Root-Owned Servers" on page 137
Start non-root owned servers	"To Start Non-root Owned Servers" on page 138
Validate Application Server	"To Access Application Server Admin Console" on page 138
Validate Web Server	"To Access Web Server Admin Console" on page 140
Validate Access Manager	"To Open Access Manager Admin Console" on page 140
Validate Portal Server	"To Display Portal Server Desktop" on page 141
Troubleshooting	"Troubleshooting During Server Validation" on page 146

▼ To Start Root-Owned Servers

1. **Log in as root.**

2. **Change to the directory containing the start servers script. For example, if you used the default installation directory:**

```
# cd /opt/SUNWjstudio04q4/bin
```

3. **Run the script.**

```
# ./startservers
```

If you installed all the server runtimes, you see output like the following:

```
Following server product(s) can be started:
[1] Sun Java [tm] System Administration Server 5 2004Q2
[2] Sun Java [tm] System Directory Server 5 2004Q2
[3] Sun Java [tm] System Web Server 6 2004Q1 Update 1 SP2
[4] Sun Java [tm] System Application Server Standard Edition 7
2004Q2
[5] Sun Java [tm] System Access Manager 2004Q2

Servers to be started [1,2...,all,q] ?:
```

4. **Type all to start all installed root-owned servers.**

   You see messages indicating the progress of the script.

▼ To Start Non-root Owned Servers

1. **Exit from root privileges and log in with your normal non-root user account information.**

2. **In a terminal window, change to the directory containing the start servers script and execute the script as the non-root user.**

   ```
   % ./startservers
   ```

   You see output similar to the following:

   ```
   Following server product(s) can be started:
   [1] Sun Java [tm] System Web Server 6 2004Q1 Update 1 SP2
   [4] Sun Java [tm] System Application Server Standard Edition 7
   2004Q2

   Servers to be started [1,2...,all,q] ?:
   ```

3. **Type all to start all your non-root owned servers.**

   Now you can access the admin consoles and verify the server status and do other admin tasks. Completing this additional step for each installed server verifies that the server runtimes were installed and configured properly.

Accessing Server Admin Consoles

Complete this step to verify proper connectivity and access to the admin console for each installed server after you have run the start servers script.

▼ To Access Application Server Admin Console

1. **Start your web browser.**

2. **If you access the web using a proxy server, verify that your proxy server settings will enable you to access the server URLS on your local machine.**

3. **In your web browser, open the** `Configuration_Data.html` **file.**

   This file is created by the installer and stored in the default install directory. The report looks similar to FIGURE 14-1:
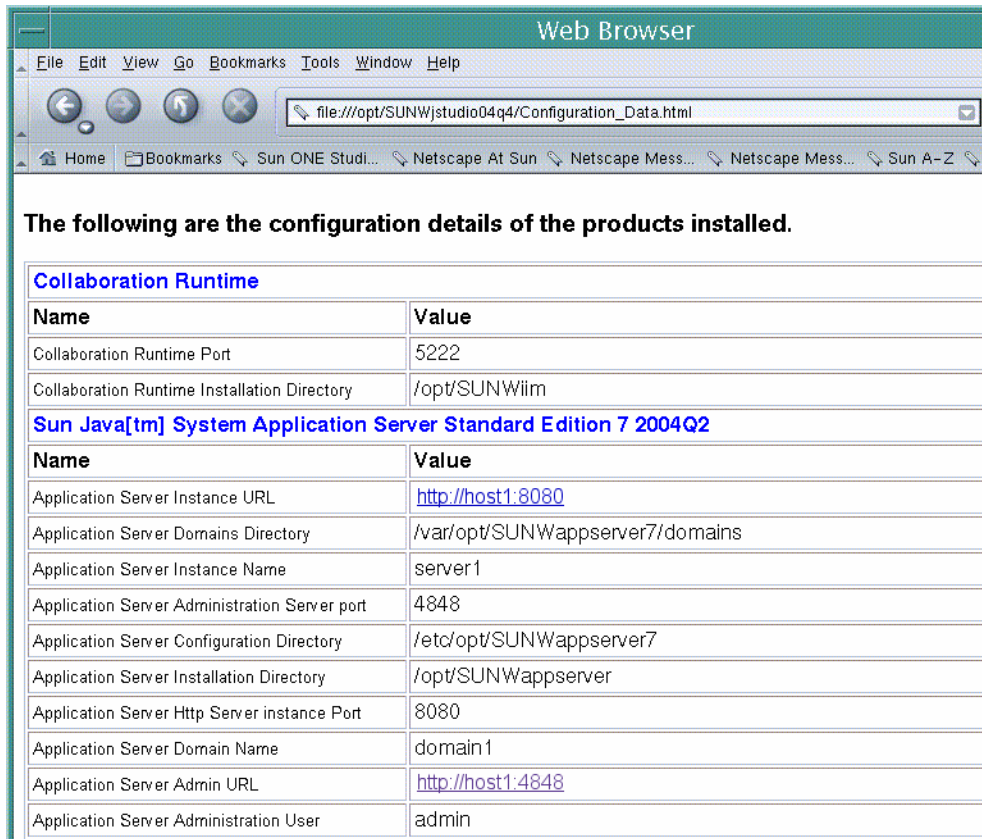

FIGURE 14-1   Configuration_Data.html Report

4. **Find the entry labeled Application Server Admin URL and click on the link.**

   You are prompted for your username and password for Application Server.

5. **Type the Application Server Admin User Id and Password and click OK.**

   The Application Server Admin Console displays in your browser.

▼ To Access Web Server Admin Console

1. **Verify that Web Server processes are running.**

```
# ps -ef | grep webservd
```

2. **Repeat steps 1 and 2 of the prior procedure to open the**
   `Configuration_Data.html` **file or use the back button of your browser to return to the file.**

3. **Find the entry labeled Web Server Admin URL and click the link.**

   You are prompted for the username and password for Web Server Administration.
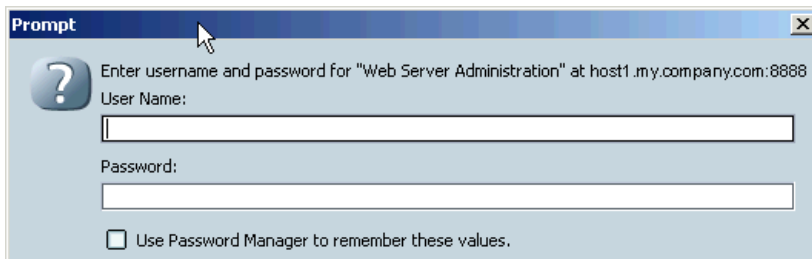
4. **Type the admin user ID and password selected during installation and click OK.**

   The Web Server Administration Console is displayed in your browser.

▼ To Open Access Manager Admin Console

1. **(Optional) If you installed Access Manager, return to the Configuration Data report in your browser and in the section for Sun Java System Access Manager 2004Q2, in the name column find the row labeled Access Manager Console URL.**

2. **Click the link.**

   You see the Sun Java System Identity Server Login page.
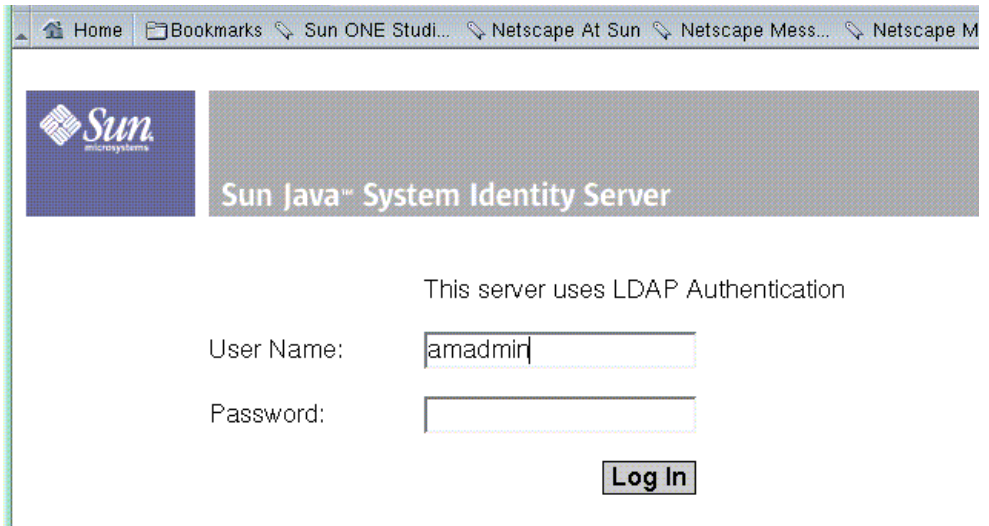
3. **Type your User Name (amadmin) and Password and click Log In.**

   The Access Manager admin console displays in your browser window.
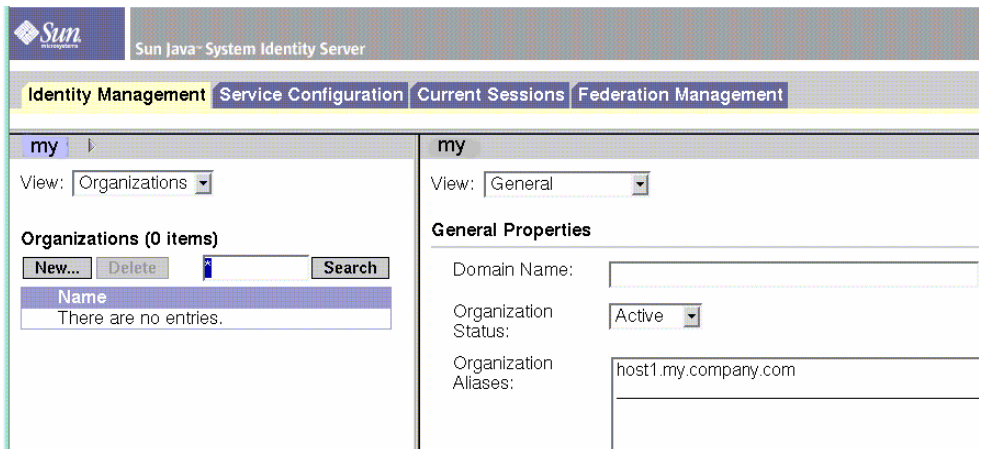
▼ To Display Portal Server Desktop

1. **Verify that the Directory Server process is running.**

```
% ps -ef | grep slapd
```

2. `Grep` **for the process** `appservd` **when Application Server is the container and for the process** `webservd` **when Web Server is the container.**

3. **Log out from Access Manager Console and start a new browser instance.**

4. **Open the** `Configuration_Data.html` **file and find the section for Sun Java System Portal Server 2004Q2.**

   In the name column find the row labeled Portal Server Console URL.

5. **Click the link.**

   The Sun Java System Portal Server 2004Q2 sample desktop displays in your browser.
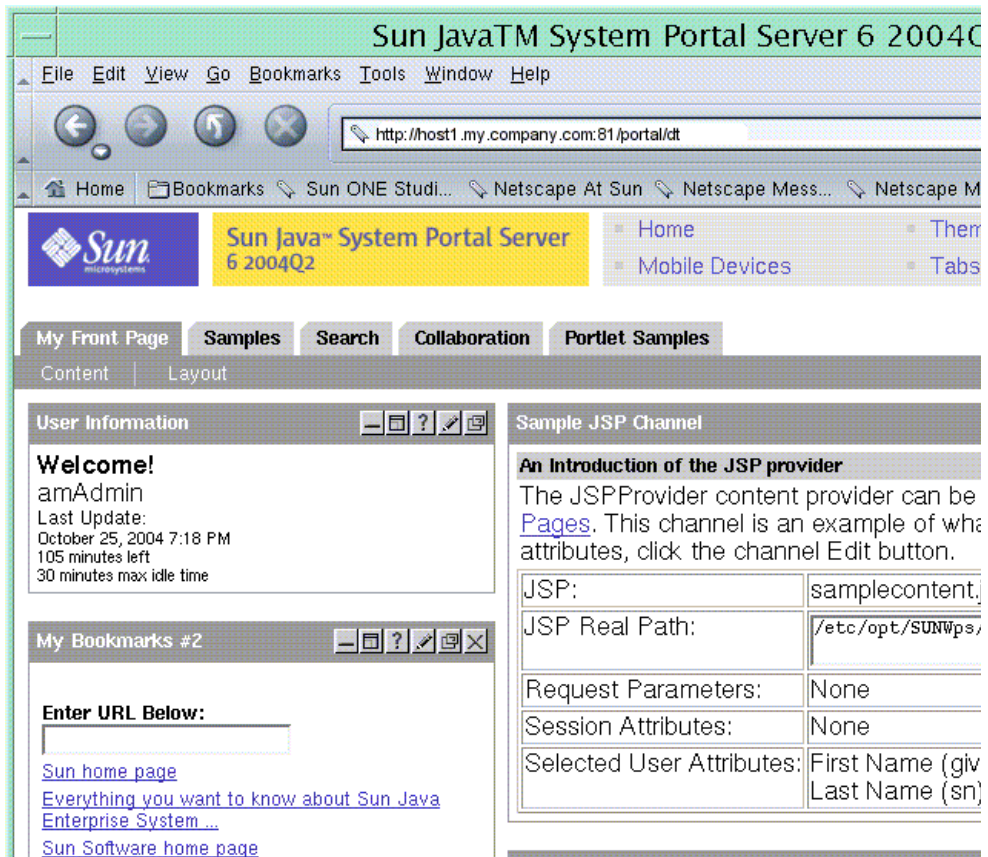
Congratulations, your servers were installed and configured correctly. You are ready to begin development.

Stopping Servers

The easiest way to stop all the installed servers is to run the stop server script once as root and once as non-root. You can also stop the servers individually from the command line.

▼ To Stop All Root-Owned Servers

1. **Become root user.**

2. **Change to the directory containing the script. For example, if you accepted the default installation directory, type:**

```
# cd /opt/SUNWjstudio04q4/bin
```

3. **Invoke the stop server script.**

```
# ./stopservers
```

Run the stop server script as the non-root user if you need to stop the server instances owned by the non-root user.

▼ To Stop Application Server

1. **Log in as root.**

2. **Change to** *java-studio-install-dir*/AppServer7/bin**. For example, type:**

```
# cd /opt/SUNWappserver/bin
```

3. **Stop the Application Server instances.**

```
# ./asadmin stop-domain --domain domain1
```

You see output similar to the following:

```
Instance domain1:admin-server stopped
Instance domain1:server1 stopped
Domain domain1 stopped
```

4. **(Optional) Verify that Application Server is no longer running.**

```
# ps -ef | grep appservd
```

▼ To Stop Web Server

1. **Log in as root.**

2. **Change to the installation directory for Web Server Admin Server. For example:**

```
# cd /opt/SUNWwbsvr/https-admserv
```

3. **Stop the Web Server admin process.**

```
# ./stop
```

4. **Change to the installation directory for your Web Server instance. For example:**

```
# cd /opt/SUNWwbsvr/https-machinename.domainname
```

5. **Stop the Web Server instance.**

```
# ./stop
```

6. **Verify that Web Server is no longer running.**

```
# ps -ef | grep webservd
```

▼ To Stop Directory Server

1. **Log in as root.**

2. **Change to the directory containing the stop script for your server instance. The directory name is of the form slapd-*instancename*, where *instancename* is usually the host name of the machine. For example, if *host1* is your machine name. For example:**

   ```
   #cd /opt/SUNWdirserver/slapd-host1
   ```

3. **Stop Directory Server.**

   ```
   # ./stop-slapd
   ```

4. **Stop Directory Server admin server.**

   ```
   # ./stop-admin
   ```

5. **Verify that Directory Server instances are no longer running.**

   ```
   # ps -ef | grep slapd
   ```

Finding Additional Documentation

You can find documentation at docs.sun.com. The following tables lists links to some of the available documentation titles.

TABLE 14-2   Server Runtime Documentation Links (Solaris OS versions)

Component Product Server Runtime Version	Link
Sun Java System Application Server Standard Edition 7 2004Q2	http://docs.sun.com/db/coll/ApplicationServer7_04q2
Sun Java System Web Server 6 2004Q1 Update 1, Service Pack 2	http://docs.sun.com/db/coll/S1_websvr61sp2_en
Sun Java System Message Queue 3.5 SP 1	http://docs.sun.com/db/coll/MessageQueue_35_SP2
Sun Java System Directory Server 5 2004Q2	http://docs.sun.com/db/coll/DirectoryServer_04q2
Sun Java System Access Manager 6.1 (formerly Identity Server)	http://docs.sun.com/db/coll/S1_IdServ_61
Sun Java System Portal Server 6.2	http://docs.sun.com/db/coll/S1_PortalServer_62
Sun Java System Identity Server Policy Agent 2.1 for Sun Java System Application Server 7	http://docs.sun.com/db/coll/S1_IdServPolicyAgent_21

Troubleshooting During Server Validation

The Java Studio Enterprise servers have specific dependencies and need to be started in the proper startup sequence. If you are using only Application Server or Web Server, then there is no startup sequence requirement. If you are starting the server runtimes manually, then observe the proper startup sequence. The Start Menu script takes care of these dependencies automatically.

The startup sequence is important when using Access Manager and Portal Server. Access Manager and Portal Server are deployed as web applications running on either Application Server (default) or Web Server (selection available throught the Product Selection panel of the installer, see "Container Selection" on page 36). Access Manager and Portal Server also rely on Directory Server. Therefore, before attempting to access either Access Manager or Portal Server, you must start both Directory Server and the appropriate web container. To shut down the servers, reverse the sequence.

Note – The start server script that is provided automatically starts all the servers in the proper order. You run this script from the command line.

If you experience any difficulties starting the admin consoles for Access Manager and Portal Server, confirm the following:

- Web browser has the correct proxy settings, use the procedure: "To Verify Web Browser Proxy Settings" on page 147
- Servers have been started in the correct sequence, use the procedure: "To Start Servers in the Correct Sequence" on page 147
- Directory Server connectivity, use the procedure: "To Verify Directory Server Connectivity" on page 148

▼ To Verify Web Browser Proxy Settings

If you see Page Not Found Errors while trying to access the admin console for Access Manager or while trying to display the Portal Server Desktop, check your web browser proxy settings. To access the servers that you have installed, the web browser should not be trying to resolve the URLs using a proxy server. For example, on Mozilla1.4, use these steps to change the proxy settings:

1. **In the web browser window, click Edit → Preferences.**

2. **Expand the Advanced node and select Proxies.**

   The Proxies dialog box is displayed. If you are using a proxy server, the option Manual Proxy Configuration is selected.

3. **Verify that your server domains are listed in the text box labeled "No Proxy for:".**

▼ To Start Servers in the Correct Sequence

1. **Start Directory Server.**

   Start both the admin server and the server instance.

2. **Start the web container, either Application Server (default) or Web Server.**

   Start both the admin server and the server instance.

3. **Now, try accessing Access Manager or the Portal Server desktop.**

▼ To Verify Directory Server Connectivity

1. **Log in as root.**

2. **Change to the directory containing the start script for your server instance. The directory name is of the form slapd-***machinename***, where** *machinename* **is the name of the machine. For example, if** `host1` **is your machine name:**

   ```
   # cd /opt/SUNWdirserver/slapd-host1
   ```

3. **Start Directory Server.**

   ```
   # ./start-slapd
   ```

4. **Verify that Directory Server is running.**

   ```
   ps -ef | grep slapd
   ```

   You see output similar to the following:

   ```
   # root  1297    1  0   Jul 01 ?        2:27 ./ns-slapd -D
   /opt/SUNWdirserver/slapd-host1 -i /opt/SUNWdirserver/slapd-host1
   ```

5. **Start the Directory Server Admin Server.**

   ```
   # cd /opt/SUNWdirserver
   # ./start-admin
   ```

6. **Start the Sun Java System Server Console.**

   ```
   # ./startconsole
   ```

   The Java System Console login dialog appears.
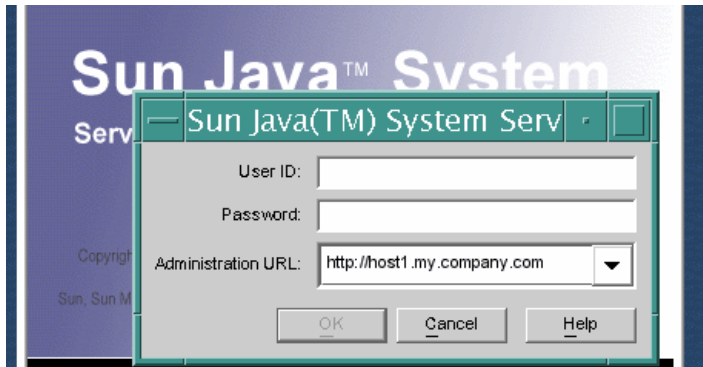
7. Type your User ID and Password and click OK.

Your login to Sun Java System Server Console confirms successful installation.
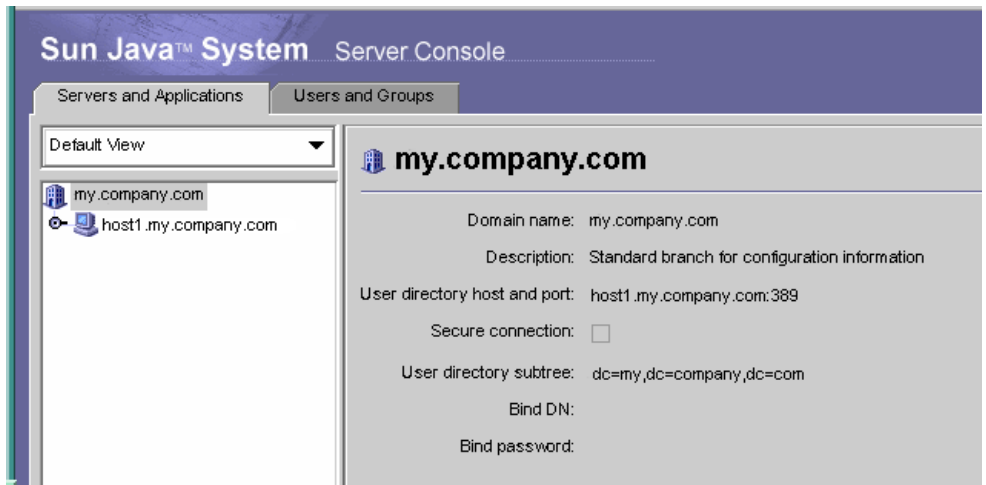
8. (Optional) On the Servers and Applications tab, expand your server host node, then expand the Server Group node.

You see an entry for the Administration Server and an entry for your server of form Directory Server (*machinename*).
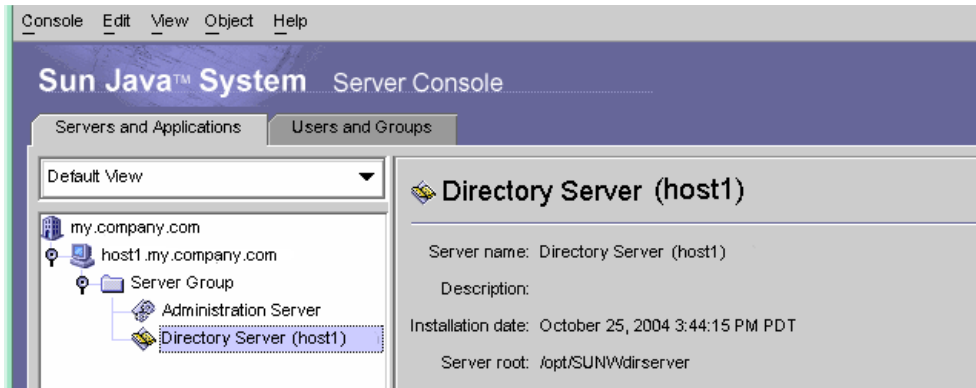
9. **Double-click on the Directory Server (*host-name*) node.**

The Sun Java System Directory Server console for your server instance appears. From this console, you can start, stop, and restart your server instance.

Diagnosing Common Errors

This section lists some of the more common errors you might see.

1. Trying to access Access Manager Console from your web browser results in the following error:

```
Server Error
This server has encountered an internal error which prevents it
from fulfilling your request. The most likely cause is a
misconfiguration. Please ask the administrator to look for
messages in the server's error log.
```

Reason: Access Manager relies on other Java Studio Enterprise servers, such as Directory Server and Application Server or Web Server. The servers may not all be running.

Solution: Start the servers in the proper sequence. See "To Start Servers in the Correct Sequence" on page 147 for details.

2. Trying to start Access Manager from the command line, you see the following error:

```
Directory Server was not installed as part of Identity Server.
Please start it manually.
starting web container instance ...
Sun ONE Web Server 6.1 B09/11/2003 19:00
info: CORE3016: daemon is running as super-user
...
info: WEB0100: Loading web module in virtual server [https-
machinename.domainname] at [/search]
failure: WebModule[/portal]: WEB2783: Servlet /portal threw load()
exception
javax.servlet.ServletException: WEB2778: Servlet.init() for servlet
RewriterServlet threw exception
...
----- Root Cause -----
Start of DataServiceException:
Message: LDAP authentication failed.
Cause:com.iplanet.sso.SSOException: LDAP authentication failed.
...
com.sun.portal.desktop.context.ContextError:
DSAMEServiceAppContext.initAdminDSAMEConnection()com.iplanet.sso.SSO
Exception:
LDAP authentication failed.
```

Reason: Access Manager relies on other Java Studio Enterprise servers, such as Directory Server and Web Server. The servers may not all be running.

Solution: Start the servers in the proper sequence. See "To Start Servers in the Correct Sequence" on page 147 for details.

3. After starting all the servers, trying to access the amserver by using an URL of the form http://localhost/amserver gives you a Page Not Found error.

Reason: You may have an incorrect proxy server setting specified in your web browser settings. Your browser may be trying to resolve the URL by using the proxy server if one is set.

Solution: Set the Web browser proxy setting to direct connection or to not use a proxy server for the server domain name you are using.

4. Installing Java Studio Enterprise results in either a failed installation or failed configuration of Access Manager:

   Reason. Your system DNS Suffix may not be set correctly.

   Solution. See "Verifying the DNS Suffix" on page 157.

5. Trying to access Portal Server Desktop, you see this error in the browser window:

```
A serious error has occurred in the Desktop. This may have been caused by
a mis-configuration on the server.
Report this problem to you administrator.
Possible cause:
You do not have permission to access the dektop
Return to front page
```

   Reason: You have not logged out of Access Manager Console before trying to access Portal Server Desktop.

   Solution: Logout of Access Manager Console and start a new instance of your browser and try again.

Troubleshooting Problems

This chapter provides tips for how to troubleshoot problems that you might encounter in the following areas:

Basic Installation Troubleshooting Techniques

This section contains some basic trouble shooting suggestions. You can also find troubleshooting tips for some common errors specific to tasks described in several other chapters of this guide. Refer to the Table of Contents or the index.

Examine Installation Log Files

If a problem occurs during installation or uninstallation, check the appropriate log file. Installer and uninstaller log files and reports are found in the following locations:

- (Solaris OS) `/var/sadm/install/logs`

- (Microsoft Windows), determined by the value of the user environment variable, `%TEMP%`, such as `C:\Documents and Settings\Administrator\Local Settings\Temp`.

- A copy of the installation summary report, `Summary_Report.`*timestamp*, is also stored in the *java-studio-install-dir* on all platforms.

The following table lists the formats for the log file names. The A version of the log file records completion of the installer. The B version of the log file contains the log messages. Use the Microsoft Windows utility Notepad to view the log files.

TABLE 15-1 Log File Name Formats

Logged Entity	Log File Name Format
Installer: component products	`Sun_Java_Studio_Enterprise_7_2004Q4_install.A`*timestamp* `Sun_Java_Studio_Enterprise_7_2004Q4_install.B`*timestamp*
Uninstaller	`Sun_Java_Studio_Enterprise_7_2004Q4_uninstall.A`*timestamp* `Sun_Java_Studio_Enterprise_7_2004Q4_uninstall.B`*timestamp*
Installer: component products	`For Example:` `Sun_ONE_Identity_Server_install.A`*timestamp* `Sun_ONE_Identity_Server_install.B`*timestamp* `Sun_ONE_Identity_Server_Policy_Agent_install.A`*timestamp* `Sun_ONE_Identity_Server_Policy_Agent_install.B`*timestamp*
(Solaris only) Installer: shared component upgrade report	`Shared_Component_Upgrade.`*timestamp*
Installer: Systems Requirements report	`SystemCheck_Report.`*timestamp*
Installation summary	`Summary_Report.`*timestamp*
Configuration Data*	`Configuration_Data.html` * This file is stored in the installation directory

The *timestamp* variable represents the time the log was created. It has the format *MMddhhmm*, where

MM	Specifies the month
dd	Specifies the date
hh	Specifies the hour
mm	Specifies the minute

To use the log files for troubleshooting, attempt to isolate the first problem that occurred. Often, the first problem leads to successive problems. Use the following sequence:

1. **Review the installation summary file, which provides a high-level description of what was installed and configured.**

   If a problem occurred, see what component caused the problem. If multiple problems occurred, isolate the first.

2. **Review the detailed log files.**

   a. **Look for the first error or warning that occurred and attempt to resolve it. Sometimes resolving one error resolves a number of seemingly unrelated errors that follow.**

   b. **Find the name of the component or package that caused the problem.**

   The log files can give you clues that determine your next steps, such as these:

   ■ If there was a configuration problem, look at the configuration summary to examine the settings used.

3. **Examine component product log files.**

   If a problem occurs starting a component product, examine its log files. Some component products components write log files to the same directory as the installer's log files, including Administration Server, Application Server, Directory Server, Portal Server, and Access Manager. For more information about component product log files, see the appropriate appendix for your platform.

   ■ (Microsoft Windows) See Appendix C
   ■ (Solaris OS) See Appendix D

Check Resources and Settings

The following host-level issues can cause installation problems.

■ **(Solaris OS) Updates.**   Have you applied the recommended updates (patches)?

■ **Disk space.**   How is the disk partitioned, and to what partitions do installation directories point?

   ■ (Solaris OS) The installation directories `/var/sadm` and `/etc/opt`, or the nondefault directories that you specify, need sufficient disk space.

   ■ (Windows OS) The installation directory C:\Sun\jstudio, or the nondefault directory that you specify needs sufficient disk space.

■ **DNS Suffix.** Be sure the DNS suffix is set properly. See "Verifying the DNS Suffix" on page 157.

■ **(Microsoft Windows) %TEMP% variable.** Be sure that you have defined the user environment variable %TEMP%.

Run Verification Procedures

If you are troubleshooting problems related to starting component products, check that the component processes are running and perform the validation procedures in the following chapters (as seems appropriate to the problem you are debugging):

■ "Starting the IDE" on page 71
■ "Using Sun Java System Application Server Instances in the IDE" on page 83
■ "Validating Server Installation" on page 118 for Windows systems
■ "Validating Server Installation" on page 136 for Solaris OS systems

Check the Distribution Media

If you are installing from a DVD or CD-ROM, is the media dirty? Dirty discs can result in installation problems due to read errors.

Verify Directory Server Connectivity

If you are installing a component that relies on Directory Server, one of the following could cause an issue:

■ You specified an incorrect user ID and password for Directory Server.

■ You specified an incorrect LDAP port.

■ Directory Server has not been started.

■ During silent mode installation, Directory Server was not running.

   The interactive modes of the installer check for Directory Server connectivity during installation, but silent mode does not do so. If you perform a silent installation when Directory Server is not available, Access Manager or Portal Server could fail during installation.

Verify Passwords

During installation you choose a user name and password. The installer uses the name and password to configure the server component products. This user name and password are used for Application Server, Directory Server and Web Server. Access Manager and Portal Server use a different user name and password. To access the Access Manager Admininstrative Console, type the user name `amadmin`. The password value is the one you used during installation. Review the `Summary_Report.`*timestamp* to verify that you are using the correct login information for each server process.

Verifying the DNS Suffix

Installation and configuration of Directory Server, Access Manager, Portal Server and Web Server require a valid domain name. On Microsoft Windows machines, the DNS Suffix property must be set to a valid value.

Use the procedure appropriate to your platform to verify that the DNS Suffix is set correctly on your machine. If you have questions about the correct DNS Suffix or domain name for your machine, contact your network administrator for assistance.

▼ To Verify DNS Suffix (Microsoft Windows XP Professional Systems)

4. **Right-click My Computer and select Properties.**

   The System Properties dialog box is displayed.

5. **Select the Computer Name tab.**

   Review the value of the field Full computer name. If it contains a fully-qualified domain name for your computer, for example *machinename*`.my.company.com`, then your settings are complete. If the field is blank or incomplete, then continue to the next step.

6. **Click Change (a button near the bottom of the displayed tab).**

   The Computer Name Changes dialog box is displayed.

7. **Click More.**

   The DNS Suffix and NetBIOS Computer Name dialog box is displayed.

8. **Type the correct DNS suffix in the field, Primary DNS suffix of this computer, and verify that the check box, Change primary DNS suffix when domain membership changes, is checked.**

9. **Reboot your machine and follow steps 1-3 to verify your changes.**

▼ (To Verify DNS Suffix (Microsoft Windows 2000 Professional Systems)

1. **Right-click the My Computer icon on your desktop.**

2. **Select Properties from the contextual menu.**

3. **Select the Network Identification tab and click Properties.**

   The Identification Changes dialog box displays.

4. **Click More.**

   The DNS Suffix and NetBios Computer Name dialog displays.

5. **Type the correct DNS suffix in the field, Primary DNS suffix of this computer, and verify that the check box, Change primary DNS suffix when domain membership changes, is checked.**

6. **Reboot your machine and follow steps 1-3 to verify your changes.**

▼ To Verify Domain Name (Solaris OS)

1. **Change to the** `/etc` **directory.**

2. **View the** `resolv.conf` **file and verify that it contains the proper domain name entry for your machine and an entry for the DNS name server for your organization or network.**

Note – If the `resolv.conf` file does not exist, contact your network administrator to configure the domain name that is appropriate to your enterprise network.

Java Studio Enterprise Problems and Solutions

This section describes some common error conditions you might encounter and suggested solutions for resolving the problems.

Installing Java Studio Enterprise Software

1. Nothing happens after double-clicking the Java Studio Enterprise 7 `installer.bat` file after downloading and unzipping the downloaded file.

Reason. If you are on a Microsoft Windows system, most likely there is spaces or other special characters in the path name to the location of `installer.bat`. To verify that this is the problem, open a command prompt window, invoke the installer from this windows and you should see a command line error message describing the problem.

Solution. Unzip the downloaded file to a directory that does not contain spaces or special characters anywhere in the path name. See "To Install Java Studio Enterprise Software" on page 32 for complete installation steps on Windows systems.

2. Trying to reinstall Java Studio Enterprise after uninstalling the software results in the following message from the installer:

```
Corrupt Serial Number: Installation Cannot Proceed
<html><body> A serial number that was installed on the machine
appears to have been corrupted.
```

Reason. Certain files were not uninstalled properly during a previous uninstall session. You should not see this message unless you have repeatedly installed and uninstalled the software.

Solution. Be sure to remove the following files if they are not removed by the uninstaller:

- Solaris OS systems - `/var/sadm/install/.JavaStudio`
- Microsoft Windows systems - remove the Registry Key HKEY_LOCAL_MACHINE > SOFTWARE > Sun Microsystems > JavaStudio

Starting Servers

The Java Studio Enterprise servers have specific dependencies and need to be started in the proper startup sequence. Refer to Chapter 13 for more information on Microsoft Windows systems. Refer to Chapter 14 for more information on Solaris OS systems.

Note – If you use `localhost` as the machine name (host name) when installing this software and you normally use a proxy server when connecting to the Internet, you may need to change the proxy settings in your Web browser to direct connection or to not use a DNS proxy server when trying to access the Administration Consoles of the servers you install. See "To Verify Web Browser Proxy Settings" on page 128 for Windows machines or "To Verify Web Browser Proxy Settings" on page 147 for Solaris OS machines.

When accessing Directory Server Admin console, sometimes the login dialog displays an incorrect URL and log in attempts fail. Correct the URL and log in again. Use the procedure "To Verify Directory Server Connectivity" on page 148.

Identifying and Fixing an Incomplete Uninstallation

If the uninstaller stops running before all the product files are deleted, some files, directories, and other system entries may not be properly uninstalled. It is also possible for the installation, configuration, or uninstallation of a component product to fail in such a way that subsequent attempts to uninstall or install fail.

You can identify a failed uninstallation in the following ways:

- Examining the directories and files remaining after you uninstall Java Studio Enterprise indicates that not all files were deleted properly. See the uninstallation chapter for your platform for a list of files that are not deleted during uninstallation.

- After uninstalling the product, you are unable to reinstall the same or a newer version even though you are using a different installation directory or you have deleted the old one. This problem might indicate a corrupted product registry.

- You see an error message while uninstalling, the uninstall process fails, or the log contains an indication that the uninstallation failed.

If you have a failed uninstallation you might encounter problems if you try to reinstall the same or different versions of the software or if you try to install a stand-alone version of Java Studio Enterprise component products.

If you used an uninstallation method other than the provided uninstaller wizard, you might be left with an incomplete or corrupted uninstallation. The following sections describe what to do to fix your system if you determine that you have an incomplete uninstallation.

▼ To Fix a Failed Uninstall (Microsoft Windows Platform)

1. **Be sure you are logged in as a user with administrator privileges.**

2. **Locate the Java Studio Enterprise uninstaller executable,** `uninstall.bat`**.**

   It is found in the *java-studio-install-dir*. The default installation directory is *%SystemDrive%*\Sun\jstudio_04Q4. If this executable is not present, continue to Step 4.

3. **Run the uninstaller and continue to Step 4.**

```
C:\> java-studio-install-dir\uninstall.bat
```

4. **Verify that all servers are stopped.**

   Stop the servers using the Start Menu or the command line. To verify, use the following steps:

   a. **Choose Start > Settings > Control Panel.**

      The Control Panel dialog box is displayed.

   b. **Double-click on Administrative Tools.**

      The Administrative Tools dialog is displayed.

   c. **Double-click on Services.**

   d. **Scroll down the list of Services until you see the entries for Sun ONE servers.**

      The uninstaller may have removed some of the entries. If you see entries for Sun ONE servers that were installed using this installer, then verify they are stopped.

5. **Remove the Java Studio Enterprise entries from the** `productregistry` **file located at** `%SystemRoot%\system32\`**.**

   To be safe, backup this file before editing the entries if you have installed other Sun software. The variable, `%SystemRoot%`, on a Microsoft Windows 2000 system might be `C:\WINNT`. On a Microsoft Windows XP Professional system this variable might be `C:\WINDOWS`. See also "To Manually Edit Product Registry File" on page 169.

6. **Using the Windows Registry Editor, delete the following folders and their contents from the Windows Registry.**

   If you have other Sun software products installed, you should just delete the Java Studio Enterprise entries, not the entire folder. You can verify that the entry was installed by Java Studio Enterprise by examining the registry key attribute `ImagePath`. The value indicates the installation directory, if it's under *java-studio-install-dir*, then it was installed by the Java Studio Enterprise installer.

   The Java Studio Enterprise entries are:

   - `HKEY_LOCAL_MACHINE\SOFTWARE\Sun\`

     - `Administration\5.2`
     - `Directory\5\slapd-machinename`
     - `Directory\5\SNMP\CurrentVersion`

   - `HKEY_LOCAL_MACHINE\SOFTWARE\Sun Microsystems\`

     - `Application Server\7 2004Q2`
     - `IdentityServer\6.1`
     - `JavaStudio\2004Q4`
     - `PortalServer\6.2`

- studio_ee\7
- Sun ONE Message Queue\3.0.1
- WebServer\6.1

7. **Using the Windows Registry Editor, delete the Sun ONE server registry keys from the following folder:**

- HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Eventlog\
  Application\

  - admin52-serv
  - c_sun_jstudio_04q4_webserver6_2004q1_https-admserv_config
  - c_sun_jstudio_04q4_webserver6_2004q1_https-
    hostname.*domainname*_config
  - slapd-*hostname*
  - SunAppServer7 2004Q2UR1ER1-domain1_admin-server
  - SunAppServer7 2004Q2UR1ER1-domain1_server1
  - SunAppServer7 2004Q2UR1ER1-jstudio-domain_admin-server
  - SunAppServer7 2004Q2UR1ER1-jstudio-domain_<asserver>

Also remove the following Java Studio Enterprise Services entries:

- HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\

  - admin52-serv
  - https-admserv61
  - https-*machinename.domainname*
  - slapd-*machinename*
  - SunAppServer7 2004Q2UR1ER1-domain1_admin-server
  - SunAppServer7 2004Q2UR1ER1-domain1_server1
  - SunAppServer7 2004Q2UR1ER1-jstudio-domain_admin-server
  - SunAppServer7 2004Q2UR1ER1-jstudio-domain_jstudio-server

8. **Remove the Start Menu Program Group named Sun Microsystems > Sun Java Studio Enterprise 7 and its contents (Program Items).**

9. **Remove the product files from the** *java-studio-install-dir*.

   If you have trouble deleting some of these directories, check the Task Manager to see if a java.exe process is running. End the java.exe process and try again to delete the *java-studio-install-dir* and its subdirectories.

10. **(Optional) Reboot the system so that the system comes up with a clean registry.**

    Verify that all Java Studio Enterprise services were removed.

    a. **Open the Control Panel dialog.**

    - (Windows 2000 systems) Choose Start > Control Panel > Settings.
    - (Windows XP systems) Choose Start > Control Panel.

    b. **Double-click Administrative Tools.**

    The Administrative Tools dialog is displayed.

    c. Double-click Services.

       The Services dialog is displayed.

    d. Scroll down in the list of services to find the Sun Java Studio Enterprise 7 entries.

       If you have uninstalled the entire Java Studio Enterprise product, then you should not see any related entries.

▼ To Fix a Failed Uninstall (Solaris OS)

Be sure that you have tried running the uninstaller provided with Java Studio Enterprise before using these steps. Normally, the uninstaller completes the uninstallation of the products that you select.

1. Enable client access to the X server.

```
% xhost + your-local-machine
```

2. Set the DISPLAY environment variable to display to your local system.

For example, if you use the C shell, type:

```
% setenv DISPLAY your-local-machine:0.0
```

3. Become a superuser.

4. Verify that all Java Studio Enterprise servers are stopped.

    a. If the stopservers script is still available, run the script. For example:

```
# /opt/SUNWjstudio/bin/stopservers.sh
```

If the stopservers script is not available, you may need to locate the process id for each server and stop it separately. For example:

```
% ps -ef | grep appservd
```

If the server is running, kill the process. Repeat for each server process. Refer to Appendix D for the Solaris process name corresponding to the servers that you have installed.

5. **Verify that all Java Studio Enterprise component product packages were removed.**

```
# pkginfo | egrep -i "Sun ONE|Sun Java"
```

If you still see packages, see "To Manually Remove Packages" on page 169.

Note – The packages SUNWasvc and SUNWjato do not pose a problem for subsequent install sessions and can be left on your system.

---

6. **Verify that the uninstaller package was removed.**

```
# pkginfo | grep -i "SUNWjstudio"
```

7. **Edit** /var/sadm/install/productregistry **to remove Java Studio Enterprise entries.**

   Backup the file before doing manual edits. See also "To Manually Edit Product Registry File" on page 169.

8. **Remove (if found)** /var/sadm/install/.JavaStudio.

9. **Remove** /var/opt/SUNWappserver7 **and** /etc/opt/SUNWappserver7 **(if you installed Application Server).**

10. **Remove** /var/opt/SUNWam **and** /etc/opt/SUNWam **(if you installed Access Manager).**

11. **Remove** /var/opt/SUNWps **and** /etc/opt/SUNWps **(if you installed Portal Server).**

12. **Remove** *java-studio-install-dir*/SUNWwbsvr **(if you installed Web Server).**

13. **Remove the remaining files in the** *java-studio-install-dir*.

```
# rm -r java-studio-install-dir
```

Note – Remove the program files and directories as the last step in this procedure.

---

14. **Disable client access to the X server and exit from superuser privileges.**

```
# xhost - your-local-machine
# exit
```

Removing Java Studio Enterprise Packages Manually

TABLE 15-2 lists the packages installed during Java Studio Enterprise installation. Use this list as a reference to be sure you removed all of the packages. It is recommended that you only remove these packages manually if the uninstaller wizard failed to remove them.

Note – Remove the packages in the order listed in this table using the procedure "To Manually Remove Packages" on page 169.

Java Studio Enterprise component products are listed in the table for reference only and the Sun ONE names are used for correspondence to the software packages.

TABLE 15-2   Java Studio Enterprise Packages (Solaris OS)

Component Product	Package Name
Sun Java System Portal Server	SUNWps
	SUNWpsap
	SUNWpsc
	SUNWpscfg
	SUNWpscp
	SUNWpsdis
	SUNWpsdt
	SUNWpsdta
	SUNWpsdtc
	SUNWpsdtm
	SUNWpsdtp
	SUNWpsdtx
	SUNWpsgw
	SUNWpsgwa
	SUNWpsgwm
	SUNWpsgws
	SUNWpsks
	SUNWpslcfg
	SUNWpsma
	SUNWpsmad

TABLE 15-2 Java Studio Enterprise Packages (Solaris OS) *(Continued)*

Component Product	Package Name
	SUNWpsmai
	SUNWpsmas
	SUNWpsmig
	SUNWpsmp
	SUNWpsnf
	SUNWpsnl
	SUNWpsnlp
	SUNWpsnm
	SUNWpsoh
	SUNWpsp
	SUNWpsplt
	SUNWpsps
	SUNWpsrw
	SUNWpsrwa
	SUNWpsrwp
	SUNWpssdk
	SUNWpsse
	SUNWpssea
	SUNWpssep
	SUNWpssp
	SUNWpsss
	SUNWpssso
	SUNWpsssoa
	SUNWpssub
	SUNWpstlj
	SUNWiimps
	SUNWebnfs
Sun Java System Access Manager	SUNWamcon
	SUNWamdsc

TABLE 15-2 Java Studio Enterprise Packages (Solaris OS) *(Continued)*

Component Product	Package Name
	SUNWamext
	SUNWamfcd
	SUNWamjwsdp
	SUNWamma
	SUNWammae
	SUNWampwd
	SUNWamrsa
	SUNWamsam
	SUNWamsci
	SUNWamsdk
	SUNWamsdkconfig
	SUNWamsvc
	SUNWamsvcconfig
	SUNWamsws
	SUNWamutl
	SUNWcomic
	SUNWcomis
Sun Java System Administration Server (installed to support Sun Java System Directory Server)	SUNWasvc
	SUNWasvcp
	SUNWasvr
	SUNWasvu
Sun Java System Directory Server	SUNWdsvcp
	SUNWdsvh
	SUNWdsvhx
	SUNWdsvpl
	SUNWdsvr
	SUNWdsvu
	SUNWdsvx

TABLE 15-2 Java Studio Enterprise Packages (Solaris OS) *(Continued)*

Component Product	Package Name
Sun ONE Web Server	SUNWawbsvr
	SUNWwbsvr
Sun ONE Application Server 7	SUNWasaco
	SUNWascmo
	SUNWasdbo
	SUNWasdmo
	SUNWasmano
	SUNWaso
	SUNWascmlo
	SUNWasro
Sun Java System Access Manager Policy Agent for Sun ONE Application Server 7	SUNWamas
Sun Java System Message Queue	SUNWiqcdv
	SUNWiqcrt
	SUNWiqdoc
	SUNWiqfs
	SUNWiqjx
	SUNWiqlen
	SUNWiqlpl
	SUNWiqr
	SUNWiqu
	SUNWiquc
	SUNWiqum
Sun Java Studio Enterprise 7	SUNWjstudio

▼ To Manually Remove Packages

1. **(Directory Server) If you need to manually remove the packages for Directory Server, follow these steps first:**

   a. **Start the Directory Server instance. For example:**

   ```
   # cd /opt/SUNWdirserver/slapd-instance-name
   # ./start-slapd
   ```

   b. **Unconfigure Directory Server.**

   ```
   # /usr/sbin/directoryserver unconfigure
   ```

   c. **Unconfigure Directory Server Administration Console.**

   ```
   # /usr/sbin/mpsadmserver unconfigure
   ```

2. **Remove any Java Studio Enterprise component product packages that have not been removed using the** pkgrm **command.**

   Do this carefully and in the order described in TABLE 15-2. Failure to remove the packages in this order may result in unexpected problems due to package dependencies. If you are uncertain how to do this, contact your system administrator.

▼ To Manually Edit Product Registry File

Java Studio Enterprise keeps a metadata record of all the packages and zip units that are installed. This information is stored in a file called productregistry. This productregistry file follows XML markup standards and is platform independent. The location of this file is as follows:

- (Solaris OS) - /var/sadm/install
- (Microsoft Windows 2000) - %SystemDrive%/WINNT/system32
- (Microsft Windows XP Professional) - %SystemDrive%/WINDOWS/system32

A typical product registry might look like this:

CODE EXAMPLE 15-1 Sample XML Entry

```
<productregistry>
  <version>0.6</version>
    <components>
      <compid>Looking Glass
        <compversion>1.0
          <uniquename>Project Looking Glass</uniquename>
            <compinstance>
              <parent>Java Desktop System
                <instance>1
                  <version>1.0</version>
                </instance>
              </parent>
              <children>
               <compref>Java 3D API
               <instance>1
                 <version>1.0</version>
               </instance>
               </compref>
              </children>
              <comptype>FEATURE</comptype>
               <location>/opt/lookingglass</location>
                <dependent>
                  <compref>Java Desktop System
                    <instance>1
                      <version>1.0</version>
                    </instance>
                  </compref>
                </dependent>
                <required>
                  <compref>Java 3D API
                    <instance>1
                      <version>1.0</version>
                    </instance>
                  </compref>
                </required>
            </compinstance>
          </compversion>
        </compid>
      </components>
</prodregistry>
```

As shown in the example each product is identified by a compid tag. Associated
with a compid, there can be single or multiple versions and associated with a
version there can be single or multiple instances. For each instance, there is a

`comptype` tag, which can be a `component`, `feature` or `product`. Associated with a `compinstance` there can be single or multiple entries for required components or children components.

Manual editing of the product registry file is NOT a recommended approach, but if it is necessary to recover from a corrupted installation or a failed uninstallation, it may be edited as follows:

1. **Make a backup copy of the** `productregisty` **file for safekeeping.**

2. **Remove the entire entry for the particular** `compid`**.**

   Remove from the <compid> tag to the corresponding </compid> tag. Do this carefully.

3. **Remove all the required/children packages for that entry.**

   Sometimes one `compid` can have multiple versions of the same product. Care must be taken to remove entries for the correct version.

Depending on the component products installed, you may see one or more of the `compid` entries listed in .

TABLE 15-3 Product Registry File Compids (Microsoft Windows)

Component Product	Compid
Sun Java Studio Enterprise 7 2004Q4	
	ApplicationServer
	SUNWasaco.zip
	SUNWascmlo.zip
	SUNWascmo.zip
	SUNWasdbo.zip
	SUNWasdmo.zip
	SUNWaso.zip
	SUNWaspx.zip
	SUNWasro.zip
	SUNWaclg.zip
	SUNWicu.zip
	SUNWjaf.zip
	SUNWjhrt.zip
	SUNWjmail.zip
	SUNWpr.zip
	SUNWtls.zip
	SUNWxrgrt.zip
	SUNWxrpcrt.zip
	SUNWxsrt.zip
	ant.zip
	SUNWjaxp.zip
	CollabServer
	CollabServer

TABLE 15-3 Product Registry File Compids (Microsoft Windows) *(Continued)*

Component Product	Compid
	DirectoryServer
	Sun ONE Server Basic System Libraries
	basesys
	Sun ONE Server Basic Libraries
	base
	Sun ONE Directory Suite
	Sun ONE Directory Console Support
	slapd-client
	Sun ONE Directory Server
	slapd
	nsperl553
	perldap
	Sun ONE Administration Services
	Sun ONE Administration Server
	admin
	Sun ONE Administration Console
	admin-client
	Sun ONE Server Console
	Sun ONE Server Console Core
	base-client
	Java Runtime Environment
	IdentityServer
	PolicyAgent
	PortalServer
	SUNWpscore
	SUNWpsEtcOptCore
	SUNWpsIdentityCore
	SUNWpsc
	SUNWpsp
	SUNWpspEtcOpt.zip
	SUNWpsps
	SUNWpspsEtcOpt
	MessageQueue
	MessageQueue
	OrionDevComponents
	SUNWjstudio
	WhatsNext.zip
	locale.zip

TABLE 15-3 Product Registry File Compids (Microsoft Windows) *(Continued)*

Component Product	Compid
	Studio
	Studio.Core
	Studio.UML
	WebServer
Sun ONE Identity Server	CommonDomainServices
	Web server silent install template
	Introduction War File
	ConfigureExistingDirectoryServer
	locale
	DS Config file
	Password Dll
	LDAPTools
	DS Config utils
	SunONEIdentityServerAdminConsole
	Console War File
	SunONEIdentityServerManagementandPolicyServices
	services zip file
	common zip file
	Services War File
	migration
	SunONEWebServerPasswordServiceDeployment
	Password Services War file
Sun ONE Identity Server Policy Agent for Sun ONE Application Server	Sun ONE Identity Server Policy Agent for Sun ONE Application Server 7.0
	Sun(tm) ONE Identity Server Policy Agent for Sun ONE Application Server 7.0
	Agent uninstall script
	Agent Admin script
	Agent Resource Bundle
	Agent Installer Toolkit

The following table lists the Sun Java Studio Enterprise 7 product registry compids for Solaris OS machines.

TABLE 15-4 Product Registry File Compids (Solaris OS)

Product	Compid
Administration Server	
	Sun Java(TM) System Server Console
	Java Runtime Environment
	Sun Java(TM) System Server Console Core
	Sun Java(TM) System Server Suite
	Sun Java(TM) System Administration Console
	Sun Java(TM) System Administration Server
Directory Server	Sun Java(TM) System Directory Suite
	Sun Java(TM) System Directory Console Support
	Sun Java(TM) System Directory Server
	Sun Java(TM) System Server Basic Libraries
Sun ONE Identity Server Policy Agent for Sun ONE Application Server	Sun ONE Identity Server Policy Agent for Sun ONE Application Server 7.0
	Agent Admin script
	Agent Installer Toolkit
	Agent Resource Bundle
	Agent uninstall script
	SUNWamas
Sun Java Studio Enterprise 7 2004Q4	ApplicationServer
	SUNWasaco
	SUNWascmlo
	SUNWascmo
	SUNWasdbo
	SUNWasdmo
	SUNWasmano
	SUNWaso
	SUNWasro
	CollabServer
	SUNWiimdv

TABLE 15-4 Product Registry File Compids (Solaris OS) *(Continued)*

Product	Compid
DirectoryServer	
	SUNWasvcp
	SUNWasvr
	SUNWasvu
	SUNWdsvcp
	SUNWdsvh
	SUNWdsvhx
	SUNWdsvpl
	SUNWdsvr
	SUNWdsvu
	SUNWdsvx
IdentityServer	
	SUNWamcon
	SUNWamconsdk
	SUNWamext
	SUNWamfcd
	SUNWamjwsdp
	SUNWamma
	SUNWammae
	SUNWampwd
	SUNWamrsa
	SUNWamsam
	SUNWamsci
	SUNWamsdk
	SUNWamsdkconfig
	SUNWamsvc
	SUNWamsvcconfig
	SUNWamutl
JSEDocs	
	locale.zip
	WhatsNext.zip

TABLE 15-4 Product Registry File Compids (Solaris OS) *(Continued)*

Product	Compid
	MessageQueue
	SUNWiqdoc
	SUNWiqfs
	SUNWiqjx
	SUNWiqlpl
	SUNWiqr
	SUNWiqu
	SUNWiquc
	SUNWiqum
	PolicyAgent
	PortalServer
	SUNWiimps
	SUNWps
	SUNWpsap
	SUNWpsc
	SUNWpscfg
	SUNWpscp
	SUNWpsdis
	SUNWpsdt
	SUNWpsdta
	SUNWpsdtc
	SUNWpsdtm
	SUNWpsdtp
	SUNWpsdtx
	SUNWpsma
	SUNWpsmad
	SUNWpsmai
	SUNWpsmas
	SUNWpsmig
	SUNWpsmp
	SUNWpsnm
	SUNWpsoh
	SUNWpsp
	SUNWpsps
	SUNWpsrw

TABLE 15-4 Product Registry File Compids (Solaris OS) *(Continued)*

Product	Compid
	SUNWpsrwa
	SUNWpssdk
	SUNWpsse
	SUNWpssea
	SUNWpssep
	SUNWpssp
	SUNWpssso
	SUNWpsssoa
	SUNWpssub
	SUNWpstlj
	SUNWpswsrpcommon
	SUNWpswsrpconsumer
	SUNWpswsrpconsumerconfig
	SUNWpswsrpconsumersample
	SUNWpswsrpproducer
	SUNWpswsrpproducersample
Studio	
	SUNWjse
	SUNWjseuml
WebServer	
	SUNWwbsvr
	SUNWawbsvr

Solaris OS Patch Numbers and Descriptions

The tables in this appendix provide the patch numbers and patch descriptions required by Java Studio Enterprise component products for the Solaris OS. You can find these patches at the SunSolve Patch Support Portal at http://sunsolve.sun.com. Check the *Sun Java Studio Enterprise 7 2004Q4 Release Notes* for the late-breaking information on the necessary patches. Running the Java Studio Enterprise installer to the point of the System Requirements Check produces a report listing any necessary patches required for the installation of the component products that you have selected.

Java Studio Enterprise component products are listed in the tables for reference only.

Note – The tables list the minimum patch level required. If you find later patch levels on the SunSolve web page, these are acceptable.

TABLE A-1   Patch Numbers and Descriptions for Solaris 9 x86 OS

Component Product	Patch Identification Number - minimum patch level required	Patch Description
Installer	115755-02	zlib security patch
J2SE, version 1.4.2_05 platform	112786-32	X11 6.6.1_x86: Xsun patch

TABLE A-2 Patch Numbers and Descriptions for Solaris 9 SPARC OS

Component Product	Patch Identification Number - minimum patch level required	Patch Description
Solaris 9 SPARC for SUNWlib	115754-02	SunOS 5.9: zlib security patch
J2SE, version 1.4.2_05 platform	113886-23	OpenGL 1.3: OpenGL Patch for Solaris (32bit)
	113096-03	X11 6.6.1: OWconfig patch
	112785-43	X11 6.6.1: Xsun patch

TABLE A-3 Patch Numbers and Descriptions for Solaris 8 SPARC OS

Component Product	Patch Identification Number - minimum patch level required	Patch Description
Installer	110380-04	ufssnapshots support, libadm
	110934-13	pkgtrans, pkgadd, pkgchk, pkgmk and libpkg.a
Application Server	109326-06	libresolv.so.2 and in.named
	108993-26 (obsoletes 108827)	LDAP2 client, libc, libthread and libnsl libraries
Directory Server	108434-13	32-Bit Shared library patch for C++
	108528-24	kernel update
	108989-02	/usr/kernel/sys/acctctl and /usr/kernel/sys/exacctsys
	108993-26	LDAP2 client, libc, libthread and libnsl libraries
	109147-27	linker
	109326-10	libresolv.so.2 and in.named patc
	108435-12	64-Bit Shared library patch for C++
	112611	`/usr/lib/libz.so.1`
Access Manager	110380-04	ufssnapshots support, libadm
	110934-13	pkgtrans, pkgadd, pkgchk, pkgmk and libpkg.a
Message Queue	Patches for J2SE	
Web Server	Patches for J2SE	
	112611	`/usr/lib/libz.so.1`

TABLE A-3   Patch Numbers and Descriptions for Solaris 8 SPARC OS *(Continued)*

Component Product	Patch Identification Number - minimum patch level required	Patch Description
Portal Server	Patches for J2SE	
Java Studio Enterprise IDE	Patches for J2SE	
J2SE version 1.4.2_05 platform	108434-17	32-Bit shared library patch for C++
	108435-13	64-bit shared library
	108528-29	kernel update patch
	108652-83	X11 6.4.1: Xsun
	108773-18	IIIM and X Input & Output Method
	108921-21	CDE 1.4: dtwm
	108940-64	Motif 1.2.7 and 2.1.1: Runtime library
	108987-13	Patch for patchadd and patchrm
	108989-02	/usr/kernel/sys/acctctl and /usr/kernel/sys/exacctsy
	108993-37	LDAP2 client, libc, libthread and libnsl libraries patch
	109147-30	linker patch
	109326-16	libresolv.so.2 and in.named
	110386-03	RBAC feature patch
	110615-12	sendmail
	111023-03	/kernel/fs/mntfs and /kernel/fs/sparcv9/mntfs patch
	111111-04	/usr/bin/nawk patch
	111308-05	/usr/lib/libmtmalloc.so.1 patch
	111310-01	/usr/lib/libdhcpagent.so.1
	111317-05	/sbin/init and /usr/sbin/init
	112003-03	fontset in 64-bit Solaris 8 iso-1 or iso-15
	112396-02	/usr/bin/fgrep patch
	112438-03	/kernel/drv/random patch
	112472-01	Font2DTest abort when Lucinda Sans Thai Typewriter selected

TABLE A-3 Patch Numbers and Descriptions for Solaris 8 SPARC OS *(Continued)*

Component Product	Patch Identification Number - minimum patch level required	Patch Description
	113648-03	/usr/sbin/mount patch
	113886-23	OpenGL 1.3 patch for Solaris (32-bit)
	115827-01	/sbin/sulogin and /sbin/netstrategy
	116602-01	/sbin/uadmin and /sbin/hostconfig

You can find additional information about these patches at the SunSolve Patch Support Portal at http://sunsolve.sun.com. Click on the link for the Patch Portal.

Java Studio Enterprise Installation Structure

This appendix describes the directory structure resulting from a complete installation of both the Tools Components and Optional Servers parts of Sun Java Studio Enterprise 7. The tables list the directory or folder name and a general description of the contents.

TABLE B-1 Installation Folders After Installing Tools Components and Optional Servers (Microsoft Windows)

Folder Name and Description	Contents
%Drive%:java-studio-install-dir Default top-level installation directory = `Sun\jstudio_04q4`	**Files:** • `Configuration_Data.html` • `LICENSE.txt` - text of license agreement • `Summary_Report.`*timestamp* • `uninstall.bat` • `uninstall_Sun_Java_tm_Studio_Enterprise.class` **Directories:** • `AppServer7`- Application Server files • `bin` - utility executables such as the start and stop servers scripts and the license manager tool executable. Also contains log files from using the scripts. • CollabRuntime - enables IDE collaboration functionality • `DirectoryServer5.2` - Directory Server files • `Docs` - selected documentation files • Ent_04Q4 - Studio product bits • `.private` - hidden directory • `IS6.1` - Access Manager files • `MessageQueue3.5` - Message Queue files • `PolicyAgent` – Policy Agent files • `PortalServer6.2` - Portal Server files • `system` - license file • `WebServer6_2004Q1` - Web Server files

TABLE B-2 Installation Directories After Installing Tools Components and Optional Servers (Solaris OS)

Directory Name and Description	Contents - files, directories, and symbolic links
java-studio-install-dir Default top-level installation directory = /opt/SUNWjstudio	**Files:** • `Configuration_Data.html` • `LICENSE.txt` - text of license agreement • `Summary_Report.`*timestamp* • `uninstall` • `uninstall_Sun_Java_tm_Studio_Enterprise.class` **Directories:** • Ent_04Q4 - Studio product bits • `bin` - utility executables such as the start and stop servers scripts and the license manager tool executable • Docs - selected documentation files • .private - hidden directory • etc - not used, ignore **Symbolic Links:** • `AppServer7` -> Application Server files • `CollabRuntime` -> Collaboration Runtime files • `DirectoryServer5_2004Q2` -> Directory Server files • `IS6_2004Q2` -> Access Manager files • `PolicyAgent` -> Policy Agent files • `PortalServer6_2004Q2` -> Portal Server files • `WebServer6_2004Q1` -> Web Server files
/opt/SUNWappserver	Sun Java System Application Server installation directory
/opt/SUNWdirserver	Sun Java System Directory Server installation directory
/opt/SUNWam	Sun Java System Access Manager installation directory and Sun Java System Identity Server Policy Agent installation directory
/opt/SUNWiim	Collaboration Runtime - enables IDE collaboration functionality
/opt/SUNWps	Sun Java System Portal Server installation directory
/opt/SUNWwbsvr	Sun Java System Web Server installation directory

When you start the IDE for the first time, the user directory is created. See "Java Studio Enterprise IDE User Directory" on page 79 for more information.

Java Studio Enterprise Server Reference (Microsoft Windows)

This appendix contains reference details for the Java Studio Enterprise servers installed on Microsoft Windows systems.

The default top-level installation directory for Java Studio Enterprise on a Microsoft Windows system is `C:\Sun\jstudio_04Q4`. You may indicate a different installation directory location during the install process. In the following tables, the top-level installation directory is referred to by the variable *java-studio-install-dir*.

Assigning Port Numbers

The Java Studio Enterprise installer uses default port numbers to configure the servers. However, if the installer detects other applications using the same port numbers, it automatically assigns a port number from the private range of port numbers 59152 to 65536.

You can find the actual port numbers for each server in the configuration summary at the end of installation. See "Finding Configuration Data" on page 118 for details on viewing this information.

Command-line Usage

Scripts for starting and stopping all servers from the command line can be found in the following installation directory:

- *java-studio-install-dir*`\bin`

Server Reference Details

Use the Windows utility Notepad to access the log files listed in the following tables.

Note – The variable *server-name* may be of the form *machinename* or *machinename.domainname*.

TABLE C-1   Sun Java System Directory Server Reference Details

Server Detail	Description
Product dependency	none
Default directory	*java-studio-install-dir*\DirectoryServer5.2
Windows service and process name	Sun ONE Directory Server(*server-name*) ns-slapd slap-d
Start-stop scripts	*java-studio-install-dir*\DirectoryServer5.2\slapd-*server-name*\start-slapd.bat *java-studio-install-dir*\DirectoryServer5.2\slapd-*server-name*\stop-slapd.bat
Log files	*java-studio-install-dir*\DirectoryServer5.2\slapd-*server-name*\logs\access *java-studio-install-dir*\DirectoryServer5.2\slapd-*server-name*\logs\errors *access these files with Notepad
Administrative tool	See TABLE C-2 Sun ONE Directory Server Administration Server Admin Client: http://*machinename*:*admin-port-number,* where port-number is the port number assigned to Directory Server admin server during installation.
Configuration file	*java-studio-install-dir*\DirectoryServer5.2\slapd-*server-name*\config\dse.ldif
Default server port number	389

TABLE C-2   Sun Java System Directory Server Administration Server Reference Details.

Server Details	Description
Product dependency	Sun Java System Directory Server
Installation directory	*java-studio-install-dir*\DirectoryServer5.2
Windows service name	Sun ONE Administration Server 5.2
Start-stop scripts	*java-studio-install-dir*\DirectoryServer5.2\start-admin.cmd *java-studio-install-dir*\DirectoryServer5.2\stop-admin.cmd
Log files	*java-studio-install-dir*\DirectoryServer5.2\admin-serv\logs/

TABLE C-2   Sun Java System Directory Server Administration Server Reference Details. *(Continued)*

Server Details	Description
Administrative tool	*java-studio-install-dir*\DirectoryServer5.2\startconsole.exe
Configuration file	*java-studio-install-dir*\DirectoryServer5.2\admin-serv\config *java-studio-install-dir*\DirectoryServer5.2\shared\config
Default port number	390

TABLE C-3   Sun Java System Web Server Reference Details

Server Detail	Description
Product dependency	none
Installation directory	*java-studio-install-dir*\WebServer6.1
Windows service name process names	Sun Java System Web Server (https-*server-name*) webservd; webservd-wdog
start-stop scripts	*java-studio-install-dir*\WebServer6.1\https-*server-name*\startsvr.bat *java-studio-install-dir*\WebServer6.1\https-*server-name*\stopsvr.bat
Log files	*java-studio-install-dir*\WebServer6.1\https-*server-name*\logs\access *java-studio-install-dir*\WebServer6.1\https-*server-name*\logs/error
Administrative tool	AdminServer: *java-studio-install-dir*\WebServer6.1\https-admserv\startsvr.bat | stopsvr.bat AdminClient: Start Menu > Programs > Sun Microsystems > Java Studio Enterprise 7 2004Q4 > Administration Consoles> Web Server or http://*machinename*:*admin-port-number*
Configuration file	all files under *java-studio-install-dir*\WebServer6.1\https-*server-name*\config
Default HTTP server port number	80
Default admin port number	8888

TABLE C-4   Sun Java System Application Server Reference Details

Server Detail	Description
Product dependency	Sun Java System Message Queue
Installation Directory	*java-studio-install-dir*/AppServer7
Windows service and process names	Sun App Server 7 (domain1:server1) Sun App Server 7 Admin Server (domain1:admin-server) `appservd; appservd-wdog`
Start-stop scripts	*java-studio-install-dir*\AppServer7\bin\asadmin.bat start-instance *server-name* *java-studio-install-dir*\AppServer7\bin\asadmin.bat stop-instance *server-name* OR • to start all Application Server instances *java-studio-install-dir*\AppServer7\bin\asadmin.bat start-appserv • To stop all Application Server instances *java-studio-install-dir*\AppServer7\bin\asadmin.bat stop-appserv
Log files	*java-studio-install-dir*\AppServer7\domains\domain1\admin-server\logs *java-studio-install-dir*\AppServer7\domains\domain1\server1\logs
Administrative tool	AdminServer: *java-studio-install-dir*\AppServer7\bin\asadmin.bat start-instance admin-server AdminClient: `http://machinename:`*admin-port-number*
Configuration file	`AppServer7\domains\domain1\admin-server\config` `AppServer7\domains\domain1\server1\config`
Default HTTP server port number	8080
Default admin port number	4848

TABLE C-5 Sun Java System Access Manager Reference Details

Server Detail	Description
Product Dependency	Sun Java System Directory Server web container, either Application Server (default) or Web Server
Default *java-studio-install-dir*	*java-studio-install-dir*\IS6.1
Windows services process	depends on web container: `webservd`, when hosted on Web Server appservd, when hosted on Application Server
Start-stop scripts	N/A - start Directory Server, then the web container. To stop - stop the web container.
Log files	Files prefixed with `am` or `sso` under directory: *java-studio-install-dir*\IS6.1\debug – For example: `amAuth`, `amXMLHandler` *java-studio-install-dir*\IS6.1\logs
Administrative tool	AdminClient: http://*server-name*:*port-number*/amconsole
Configuration file	*java-studio-install-dir*\IS6.1\config
Default port number	No separate port number, runs in web container, Application Server or Web Server

TABLE C-6 Sun Java System Portal Server Reference Details

Server Detail	Description
Product dependency	Directory Server Access Manager web container, either Application Server (default) or Web Server
Default *java-studio-install-dir*	*java-studio-install-dir*\PortalServer6.2
Windows process names	`webservd` - hosted on Web Server appservd - hosted on Application Server
Start-stop scripts	N/A - start Directory Server, then the web container. To stop - stop the web container.
Log files	*java-studio-install-dir*\IS6.1\debug
Administrative tool	AdminClient: http://*server-name*:*port-number*/amconsole
Configuration file	*java-studio-install-dir*\PortalServer6.2\Config\PSConfig.properties
Default port number	No separate port number -hosted on Application Server or Web Server

Application Server as the Web Container

The following table describes the configuration details for the default installation of Sun Java Studio Enterprise 7. In this default installation, Application Server is the web container for the web applications, Access Manager and Portal Server.

TABLE C-7   Reference Details for Sun Java System Application Server as Web Container

Domains	Owned By	Server Names	Default Ports	Server Location
domain1	administrator or standard user: configurable through the IDE and shown in the Server Registry	admin-server	4848	*java-studio-install-dir*\ AppServer7\domains\ domain1\admin-server
		server1	8080	*java-studio-install-dir*\ AppServer7\domains\ domain1\server1
jstudio-domain	administrator only, webcontainer for Access Manager and Portal Server	admin-server	90	*java-studio-install-dir*\ AppServer7\domains\ jstudio-domain\admin-server
		jstudio-server	81	*java-studio-install-dir*\ AppServer7\domains\ jstudio-domain\jstudio-server

Web Server as Web Container

The following table describes the configuration details for the installation of Sun Java Studio Enterprise 7 when Web Server is selected as the web container for the web applications, Access Manager and Portal Server. See "Container Selection" on page 36 for details on how this selection is made during installation.

TABLE C-8   Reference Details for Sun Java System Web Server as Web Container

Owned By	Server Names	Default Ports	Used For
administrator	https-admserv	8888	admin server
administrator	https-*server-name*	80	default instance server and web container for Access Manager and Portal Server

Java Studio Enterprise Server Reference (Solaris OS)

This appendix contains information about the Java Studio Enterprise servers installed on Solaris OS machines.

The default top-level installation directory for Sun Java Studio Enterprise 7 is /opt/SUNWjstudio. You may enter a different installation directory location during the install process. See "Installation Directory" on page 50 for more details regarding allowable installation directory locations.

In the following tables, the top-level installation directory is referred to by the variable *java-studio-install-dir*. The default installation directory contains symbolic links to the actual installation directories for the component product servers.

Assigning Port Numbers

The Java Studio Enterprise installer uses default port numbers to configure the servers. The following tables list only the default port numbers. However, if the installer detects other applications using the same port numbers, it automatically assigns a port number from the private range of port numbers 59152 to 65536. You can find the actual port numbers for each server in the Summary Report at the end of installation.

This appendix lists reference details for the following component products:

- Sun Java System Application Server, see TABLE D-5
- Sun Java System Directory Server, see TABLE D-1
- Sun Java System Directory Server Administration Server, see TABLE D-2
- Sun Java System Access Manager, see TABLE D-6
- Sun Java System Portal Server, see TABLE D-7
- Sun Java System Web Server, see TABLE D-3

Application Server as the Web Container

The details about the domains created when Application Server is the web container are described in "Application Server Instances (Solaris OS)" on page 85.

Web Server as the Web Container

The details about the instances created when Web Server is the web container are described in "Using the Correct Web Server Instance (Solaris OS)" on page 101.

Note – As used in the following tables, the variable *server-name* may be of the form *machinename* or *machinename.domainname.* The actual URL for each server can be viewed in the Configuration_Data.html file.

TABLE D-1   Sun Java System Directory Server Reference Details

Server Detail	Description
Product dependency	none
Installation directory	*java-studio-install-dir*/DirectoryServer5_2004Q2 -> /opt/SUNWdirserver
Solaris process names	ns-slapd
start-stop scripts	/opt/SUNWdirserver/slapd-*server-name*/start-slapd /opt/SUNWdirserver/slapd-*server-name*/stop-slapd
Log files	/opt/SUNWdirserver/slapd-*server-name*/logs/access /opt/SUNWdirserver/slapd-*server-name*/logs/errors
Administrative tool	See TABLE D-2
Configuration file	/opt/SUNWdirserver/slapd-*server-name*/config/dse.ldif
Default server port number	389
Default admin server port number	390

TABLE D-2   Sun Java System Directory Server Administration Server Reference Details

Server Detail	Description
Product dependency	Sun Java System Directory Server
Installation directory	*java-studio-install-dir*/DirectoryServer5_2004Q2 -> /opt/SUNWdirserver
Solaris process names	ns-httpd;uxwdog
Start-stop scripts	/opt/SUNWdirserver/start-admin /opt/SUNWdirserver/stop-admin
Log files	/opt/SUNWdirserver/admin-serv/logs/
Administrative tool	/opt/SUNWdirserver/startconsole
Configuration file	/opt/SUNWdirserver/admin-serv/config /opt/SUNWdirserver/shared/config
Default port number	390

TABLE D-3   Sun Java System Web Server Reference Details

Server Detail	Description
Product dependency	none
Installation directory	*java-studio-install-dir*/WebServer6.1 -> /opt/SUNWwbsvr
Solaris process names	webservd; webservd-wdog
Start-stop scripts	/opt/SUNWwbsvr/https-*server-name*/start /opt/SUNWwbsvr/https-*server-name*/stop
Log files	/opt/SUNWwbsvr/https-*server-name*/logs/access /opt/SUNWwbsvr/https-*server-name*/logs/error
Administrative tool	AdminServer: /opt/SUNWwbsvr/https-admserv/start | stop AdminClient: http://*hostname*:admin-port-number
Configuration file	all files under /opt/SUNWwbsvr/https-*server-name*/config
Default HTTP server port number	80
Default admin port number	8888

TABLE D-4 refers to the second Web Server instance that is created for the non-root user during installation. Details not listed in TABLE D-4 are the same as those listed in TABLE D-3. See "Product Usage by Non-root User" on page 51 for details on creating the non-root instance during installation.

TABLE D-4 Sun Java System Web Server Non-root Instance Reference Details

Server Detail	Description
Instance name	`https-jstudio`
Default HTTP server port number	8000
Default admin port number	8888
Start-stop scripts	`/opt/SUNWwbsvr/https-jstudio/start` `/opt/SUNWwbsvr/https-jstudio/stop`
Log files	`/opt/SUNWwbsvr/https-jstudio/logs/access` `/opt/SUNWwbsvr/https-jstudio/logs/error`
Configuration file	all files under `/opt/SUNWwbsvr/https-jstudio/config`

TABLE D-5 Sun Java System Application Server Reference Details

Server Detail	Description
Product dependency	Sun Java System Message Queue
Installation directory	*java-studio-install-dir*`/AppServer7 -> /opt/SUNWappserver`
Solaris process names	`appservd; appservd-wdog`
Start-stop scripts	`/opt/SUNWappserver/bin/asadmin/start-instance` *server-name* `/opt/SUNWappserver/bin/asadmin/stop-instance` *server-name* OR • to start all instances `/opt/SUNWappserver/bin/asadmin/start-appserv`
Log files	`/var/opt/SUNWappserver7/domains/domain1/admin-server/logs/access` `/var/opt/SUNWappserver7/domains/domain1/server1/logs/server.log`
Administrative tool	AdminServer: `/opt/SUNWappserver/bin/asadmin start-instance admin-server` AdminClient: http://*machinename*:*admin-port-number*
Configuration file	`var/opt/SUNWappserver7/domains/domain1/admin-server/config`

TABLE D-5 Sun Java System Application Server Reference Details *(Continued)*

Server Detail	Description
Default HTTP server port number	8080
Default admin port number	4848
Domains	/var/opt/SUNappserver7/domains

TABLE D-6 Sun Java System Access Manager Reference Details

Server Detail	Description
Product Dependency	Directory Server web container, either Application Server (default) or Web Server
Installation directory	*java-studio-install-dir*/IS6_2004Q2 -> /opt/SUNWam
Solaris process names	appservd, hosted on Application Server webservd, hosted on Web Server
start-stop scripts	/etc/init.d/amserver start /etc/init.d/amserver stop
Log files	Files prefixed with am or sso under directory: /var/opt/SUNWam/debug - For example: amAuth, amXMLHandler /var/opt/SUNWam/logs
Administrative tool	AdminClient: http://*hostname*:*port-number*/amserver
Configuration file	/etc/opt/SUNWam/config
Default port number	No separate port number, hosted on Application Server (default) or Web Server.

TABLE D-7 Sun Java System Portal Server Reference Details.

Server Details	Description
Product dependency	Directory Server Access Manager web container, either Application Server (default) or Web Server
Installation directory	*java-studio-install-dir*/PortalServer6_2004Q2 -> /opt/SUNWps
Solaris process names	appservd, hosted on Application Server webservd, hosted on Web Server

TABLE D-7   Sun Java System Portal Server Reference Details. *(Continued)*

Server Details	Description

Start-stop scripts	`/etc/init.d/amserver start`
	`/etc/init.d/amserver stop`
	OR
	`/opt/SUNWps/bin/amserver start
		stop`

Log files	`/var/opt/SUNWam/debug`
Administrative tool	AdminClient: `http://`*hostname*:*port-number*`/amserver`
Configuration file	`/etc/opt/SUNWps/PSConfig.properties`
Default port number	No separate port number, hosted on Application Server (default) or Web Server

Port Usage in Java Studio Enterprise IDE

TABLE E-1 provides a listing of the ports used by Java Studio Enterprise IDE. It includes ports used by the IDE modules and third-party components. Also included is information on whether the default port assignment can be modified. For information on the default port numbers used by the Java Studio Enterprise servers, see Appendix C for Microsoft Windows installations and see Appendix D for Solaris OS installations.

If you are using multiple application servers or you are using the IDE in a multiuser environment, you might encounter port conflicts. If you encounter a port conflict, consult this table for information about how to modify the port assignment.

TABLE E-1   Port Usage in Java Studio Enterprise

Module, Server, or Third-Party Component	Default Port Number Assigned	Description	How to Modify the Default Port Assignment
NetBeans Internal HTTP Server Module	8082	Embedded server HTTP	The default port assignment is automatically changed if a conflict is detected.
PointBase Restricted Edition	9092		In the IDE, Choose Tools → PointBase Network Server → Configure, and set the port number.

TABLE E-1 Port Usage in Java Studio Enterprise *(Continued)*

Module, Server, or Third-Party Component	Default Port Number Assigned	Description	How to Modify the Default Port Assignment
Internal JWSDP Tomcat	8015	Server administration	1. In the IDE's Runtime window, expand the Server Registry node and expand the Installed Servers node. 2. Expand the Tomcat node, right-click the Bundled Tomcat (4.1) node, and choose Properties from the contextual menu. 3. Select the Server Port property and type the desired port number.
	8081	Server HTTP	1. In the IDE's Runtime window, expand the Server Registry node and expand the Installed Servers node. 2. Expand the Tomcat node and expand the relevant installation node, such as Bundled Tomcat (4.1) 3. Right-click the node representing the `Host` to be edited, and choose Properties from the contextual menu. 4. Find the HTTP Connector property field and type the desired port number.
	8443	Redirecting	Modify *s1studio-user-dir*/JWSDP_base/conf/server.xml. Be aware that you edit the server.xml file at your own risk. Be sure to create a backup version of your working server.xml file before beginning to edit. 1. In the IDE's Runtime window, expand the Tomcat node under the Installed Servers node. 2. Right-click the node for the installation of Tomcat that you want to edit. From the contextual menu, choose Configure (Edit server.xml). The server.xml file appears in the Source Editor. You can now edit server.xml to modify the default port number.
	11555	IDE debugger connection	1. In the IDE's Runtime window, expand the Server Registry node and expand the Installed Servers node. 2. Expand the Tomcat node, right-click the Bundled Tomcat (4.1) node and choose Properties from the contextual menu. 3. In the Debugger properties section, find the Debugger Port property and type the desired port number.

TABLE E-1 Port Usage in Java Studio Enterprise *(Continued)*

Module, Server, or Third-Party Component	Default Port Number Assigned	Description	How to Modify the Default Port Assignment
Java Web Services Developer Pack UDDI Server (bundled with the IDE)	8095	Tomcat server port for registry server	1. Open the *java-studio-install-dir*/Ent_04Q4/jwsdp/uddi_base/conf/server.xml file in a text editor. 2. Replace the port number. 3. Restart the IDE.
	8089	Tomcat HTTP port for registry server	1. Open the *java-studio-install-dir*/Ent_04Q4/jwsdp/uddi_base/conf/server.xml file in a text editor. 2. Replace the port number. 3. Restart the IDE.
	4080	Xindice HTTP	1. Open the *java-studio-install-dir*/Ent_04Q4/jwsdp/tools/xindice/config/system.xml file in a text editor. 2. Replace the port number. 3. Restart the IDE.
WebLogic 7.0 or 8.1	7001	Server HTTP	The default port assignment can be modified during the installation of the WebLogic server. When using WebLogic, verify that the WebLogic Server instances in the IDE's Runtime window have the correct value for the Port property.
	7002	Server HTTPS	The default port assignment can be modified during the installation of the WebLogic server. When using WebLogic, verify that the WebLogic Server instances in the IDE's Runtime window have the correct value for the Port property.

Java Studio Enterprise Shared Components (Solaris OS)

This appendix describes the shared components that may be installed or upgraded by the Java Studio Enterprise installer on Solaris OS machines. A Y in the column under the server name indicates that the shared component is used by that server product.

TABLE F-1 Shared Components

Common Technology Components	Package Name	Directory Server	Web Server	Access Manager	Portal Server	Application Server	Message Queue
Ant	SUNWant					Y	
Apache Common Logging	SUNWaclg					Y	
ICU	SUNWicu SUNWicux	Y	Y			Y	
JAF	SUNWjaf				Y	Y	
JATO	SUNWjato			Y	Y		
Java Help Runtime	SUNWjhrt					Y	Y
JavaMail	SUNWjmail			Y	Y	Y	
JAXP	SUNWjaxp			Y	Y	Y	
JAXR	SUNWxrgrt					Y	
JAX-RPC	SUNWxrpcrt			Y		Y	
JSS	SUNWjss	Y		Y	Y		

TABLE F-1 Shared Components *(Continued)*

Common Technology Components	Package Name	Directory Server	Web Server	Access Manager	Portal Server	Application Server	Message Queue
LDAP C Language SDK	SUNWldk SUNWldkx	Y	Y				
NSPR	SUNWpr SUNWprx	Y	Y	Y	Y	Y	
NSS	SUNWtls SUNWtlsx	Y	Y	Y	Y	Y	
Perl	SUNWpl5u					Y	
SASL	SUNWsasl SUNWsaslx	Y					
Nova search engine	SUNWktse		Y		Y		
SOAP	SUNWxsrt				Y	Y	Y
J2SE	SUNWj3rt SUNWj3dev SUNWj3dmo SUNWj3man	Y	Y	Y	Y	Y	Y
Common Mobile Access	SUNWma SUNWmae				Y	Y	

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