



# Sun™ ONE Studio 5, Standard Edition Getting Started Guide

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Adobe PostScript

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# Before You Begin

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This *Getting Started Guide* provides instructions for installing, setting up, and starting the Sun™ ONE Studio 5, Standard Edition integrated development environment (IDE). This book is designed for both system administrators and developers who install software. You should be experienced with basic installation procedures on your platform.

Screen shots and commands entered at the command line vary slightly 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 release of the Sun ONE Studio 5 IDE. You need familiarity with system administration commands, such as:

- `su`, `xhost`, `pkginfo`, `pkgadd`, and `pkgrm` utilities in the Solaris™ Operating System (Solaris OS)
- Add/Remove Program utility on Microsoft Windows systems
- `rpm` command in the Linux environment

If you are unsure about the system administration commands for your operating system, contact your system administrator for assistance with the instructions in this guide.

Before using this IDE, you should also be familiar with the following subjects:

- Java™ programming language
- Enterprise JavaBeans™ (EJB™) technology concepts
- Java™ Servlet API syntax
- Syntax for drivers that support the JDBC™ API
- HTML syntax
- JavaServer Pages™ technology syntax
- How to use JDBC databases
- Java™ 2 Enterprise Edition (J2EE™) application assembly and deployment concepts
- Web Services
- Using application servers such as Sun™ ONE Application Server 7, Standard Edition

Using the Sun ONE Studio 5, Standard Edition 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 <code>.cvspass</code> file. Use <code>DIR</code> to list all files. Search is complete.
<b>AaBbCc123</b>	What you type, when contrasted with on-screen computer output	> <b>login</b> Password:
<i>AaBbCc123</i>	Book titles, new words or terms, words to be emphasized	Read Chapter 6 in the <i>User's Guide</i> . These are called <i>class</i> options. You <i>must</i> save your changes.
<code>AaBbCc123</code>	Command-line variable; replace with a real name or value	To delete a file, type <b>DEL</b> <i>filename</i> .

---

## Related Documentation

Sun ONE Studio documentation includes books delivered in Acrobat Reader (PDF) format, release notes, online help, readme files for example applications, and Javadoc™ documentation.

## Documentation Available Online

The documents described in this section are available from the `docs.sun.com`<sup>SM</sup> web site and from the documentation page of the Sun ONE Studio Developer Resources portal at <http://forte.sun.com/ffj/documentation>.

The `docs.sun.com` web site (<http://docs.sun.com>) enables you to read, print, and buy Sun Microsystems manuals through the Internet. If you cannot find a manual, see the documentation index that is installed with the product on your local system or network.

- Release notes (HTML format)
 

Available for each Sun ONE Studio edition. Describe last-minute release changes and technical notes.

  - *Sun ONE Studio 5, Standard Edition Release Notes* - part no. 817-2337-10
- Getting Started guides (PDF format)
 

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

  - *Sun ONE Studio 5, Standard Edition Getting Started Guide* - part no. 817-2318-10
  - *Sun ONE Studio 4, Mobile Edition Getting Started Guide* - part no. 817-1145-10
- Sun ONE Studio 5 Programming series (PDF format)
 

This series provides in-depth information on how to use various Sun ONE Studio features to develop well-formed J2EE applications.

  - *Building Web Components* - part no. 817-2334-10
 

Describes how to build a web application as a J2EE web module using JSP pages, servlets, tag libraries, and supporting classes and files.
  - *Building J2EE Applications* - part no. 817-2327-10
 

Describes how to assemble EJB modules and web modules into a J2EE application and how to deploy and run a J2EE application.
  - *Building Enterprise JavaBeans Components* - part no. 817-2330-10
 

Describes how to build EJB components (session beans, message-driven beans, and entity beans with container-managed persistence or bean-managed persistence) using the Sun ONE Studio EJB Builder wizard and other components of the IDE.
  - *Building Web Services* - part no. 817-2324-10
 

Describes how to use the Sun ONE Studio IDE to build web services, to make web services available to others through a UDDI registry, and to generate web service clients from a local web service or a UDDI registry.
  - *Using Java DataBase Connectivity* - part no. 817-2332-10
 

Describes how to use the JDBC productivity enhancement tools of the Sun ONE Studio IDE, including how to use them to create a JDBC application.
- Sun ONE Studio tutorials (PDF format)
 

These tutorials demonstrate how to use the major features of Sun ONE Studio 5, Standard Edition:

  - *Sun ONE Studio 5 Web Application Tutorial* - part no. 817-2320-10
 

Provides step-by-step instructions for building a simple J2EE web application.

- *Sun ONE Studio 5 J2EE Application Tutorial* - part no. 817-2322-10  
Provides step-by-step instructions for building an application using EJB components and web services technology.
- *Sun ONE Studio 4, Mobile Edition Tutorial* - part no. 816-7873-10  
Provides step-by-step instructions for building a simple application for a wireless device, such as a cellular phone or personal digital assistant (PDA). The application you build is compliant with the Java 2 Platform, Micro Edition (J2ME™ platform) and conforms to the Mobile Information Device Profile (MIDP) and Connected, Limited Device Configuration (CLDC).

You can also find the completed tutorial applications at:

<http://forte.sun.com/ffj/documentation/tutorialsandexamples.html>

## Online Help

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

## Examples

You can download examples that illustrate a particular Sun ONE Studio feature, as well as completed tutorial applications, from the Sun ONE Studio Developer Resources portal at:

<http://forte.sun.com/ffj/documentation/tutorialsandexamples.html>

The site includes the applications that are used in this document.

## Javadoc Documentation

Javadoc documentation is available within the IDE for many Sun ONE Studio modules. Refer to the release notes for instructions on installing this documentation.

## 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 <a href="http://docs.sun.com">http://docs.sun.com</a>
Mini-tutorials	HTML at <a href="http://forte.sun.com/ffj/tutorialsandexamples.html">http://forte.sun.com/ffj/tutorialsandexamples.html</a>
Integrated example readmes	HTML in the example subdirectories of <i>sIstudio-install-directory/examples</i>
Release notes	HTML at <a href="http://docs.sun.com">http://docs.sun.com</a>

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## Contacting Sun Technical Support

If you have technical questions about this product that are not answered in this document, go to:

<http://www.sun.com/service/contacting>

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## Sun Welcomes Your Comments

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[docfeedback@sun.com](mailto:docfeedback@sun.com)

Please include the part number (817-2318-10) of this document in the subject line of your email.

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# Preparing for Installation

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This chapter contains information that you need before you install the Sun™ ONE Studio 5, Standard Edition IDE. This release of Sun ONE Studio includes Sun™ ONE Application Server 7, Standard Edition and PointBase Server 4.2 Restricted Edition (PointBase). The installation of these products with the Sun ONE Studio installer results in an integrated enterprise level tool for developing and deploying applications written in the Java™ programming language using J2EE concepts.

This chapter covers:

- “Overview of the Installation Process” on page 13
- “Supported Platforms” on page 14
- “System and Disk Space Requirements” on page 15
- “Verifying Your J2SE Platform” on page 17
- “Supporting Previous Software Releases” on page 19
- “Having the Correct User Privileges” on page 19

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## Overview of the Installation Process

This section describes the general process for installing and configuring the Sun ONE Studio IDE on your system.

**TABLE 1-1** Overview of IDE Installation and Configuration

<b>Task</b>	<b>For Instructions</b>
Verify that your platform is supported.	“Supported Platforms” on page 14
Verify the system and disk space requirements.	“System and Disk Space Requirements” on page 15
(Solaris only) Install the necessary Solaris patches.	See “Applying the Solaris 8 OS Patches” on page 29

**TABLE 1-1** Overview of IDE Installation and Configuration (*Continued*)

Task	For Instructions
Verify that you have access to the required version of the J2SE platform.	“Verifying Your J2SE Platform” on page 17
Determine if you have the correct permissions to install the IDE.	“Having the Correct User Privileges” on page 19
Determine if you want to keep your previous version of the IDE.	“Supporting Previous Software Releases” on page 19
Install the IDE.	<ul style="list-style-type: none"><li>• “Installing the IDE (Microsoft Windows Systems)” on page 21</li><li>• “Installing the IDE (Linux Systems)” on page 25</li><li>• “Installing the IDE (Solaris OS)” on page 29</li></ul>
Set up your initial IDE environment.	“Setting Up the IDE” on page 37
(Optional) Confirm configuration of Sun ONE Application Server 7.	“Using Sun ONE Application Server With the IDE” on page 43
(Optional) Validate your installation of the IDE by creating a simple J2EE application.	“Validating Your IDE Installation” on page 55
(Optional) Configure PointBase.	“Using Databases With the IDE” on page 59
(Optional) Configure your WebLogic Server environment.	“Using BEA WebLogic Servers With the IDE” on page 67

## Supported Platforms

The Sun ONE Studio 5, Standard Edition IDE is supported on the following platforms:

- Microsoft Windows 2000 Professional
- Microsoft Windows XP Professional
- Red Hat Linux 7.2
- Solaris™ 9 OS (32-bit/64-bit, UltraSPARC® III)
- Solaris™ 8 OS (32-bit/64-bit, UltraSPARC® III)

# System and Disk Space Requirements

TABLE 1-2 lists the system requirements needed to install a minimum configuration on any of the supported platforms.

TABLE 1-2 Sun ONE Studio 5, Standard Edition System Requirements

Supported Platforms	Minimum Configuration	Recommended Configuration
Windows 2000, Windows XP	Pentium III, 500 MHz 512 MB RAM	Pentium III, 1GHz 768 MB RAM
Red Hat Linux 7.2	Pentium III 500 MHz 512 MB RAM	Pentium III, 1GHz 768 MB RAM
Solaris 8, Solaris 9 operating systems (32-bit/64-bit, UltraSPARC® platform)	Ultra™ 60, 450 MHz 512 MB RAM	Sun Blade™ 1000, 750 MHz 1 GB RAM

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

## Disk Space Requirements

The main factor in determining how much installation disk space you need is to know if the Sun ONE Studio IDE installer will install the IDE and the Sun ONE Application Server or just the IDE. The IDE installer looks for an existing installation of Sun ONE Application Server 7 and PointBase Server 4.2 Restricted Edition on your system.

- If the installer detects an existing installation of the Sun ONE Application Server 7 and PointBase on your system, then only the Sun ONE Studio IDE is installed.
- If the installer detects an existing installation of the Sun ONE Application Server 7 on your system but not PointBase, the installer displays a message suggesting that you uninstall your existing Sun ONE Application Server 7 and rerun the IDE installer to install a new Sun ONE Application Server 7 that is tightly integrated with the IDE and includes PointBase.
- On a Solaris 9 update 2 OS, you have the option to install a second copy of Sun ONE Application Server 7 that is tightly integrated with the IDE and contains the PointBase Server.

The PointBase Server 4.2 Restricted Edition is the default database provided with the IDE. The database is provided so you can start immediately to build and deploy applications. You need this database to use the Sun ONE Studio examples and tutorials.

## Temporary Space Requirements

Running the installer requires sufficient temporary space to unpack the installation files.

- On UNIX® systems, the installer uses the `/tmp` or the `/var/tmp` directory.
- On a Microsoft Windows system, the installer uses the directory as specified by the user variable `TEMP` in the System Properties settings.

## Space Requirements by Platform

The space requirements are described in TABLE 1-3 for Microsoft Windows, TABLE 1-4 for Linux systems, and TABLE 1-5 for Solaris OS systems..

**TABLE 1-3** Disk Space Requirements for Microsoft Windows

Directory	Sun ONE Studio plus Sun ONE Application Server 7	Sun ONE Studio only
<i>sIstudio-install-directory</i>	450 MB	150 MB
temporary space as defined in user variable <code>TEMP</code> found in System Properties	190 MB	190 MB

**TABLE 1-4** Disk Space Requirements for Linux OS

Directory	Sun ONE Studio plus Sun ONE Application Server 7	Sun ONE Studio
<i>sIstudio-install-directory</i>	485 MB	150 MB
<code>/tmp</code> (temporary space)	200 MB	200 MB
<code>/etc/opt</code>	2 MB	n/a
<code>/var/opt</code>	20 MB	n/a
<code>/opt/imq</code>	8 MB	n/a



TABLE 1-5 Disk Space Requirements for Solaris OS

Directory	Sun ONE Studio plus Sun ONE Application Server 7	Sun ONE Studio
<i>s1studio-install-directory</i>	550 MB	150 MB
<i>/var/tmp</i> (temporary space)	190 MB	190 MB
<i>/usr</i>	76 MB	n/a
<i>/etc/opt</i>	4 MB	n/a
<i>/var/opt</i>	30 MB	n/a

---

## Verifying Your J2SE Platform

To install the Sun ONE Studio IDE you must have one of the following:

- At least the J2SE, version 1.4.1\_02 platform installed locally
- Network access to the path in which at least the J2SE version 1.4.1\_02 platform is installed

---

**Note** – To maximize runtime performance, the J2SE platform should be installed on and accessed from your local system.

---

The recommended J2SE platform version is included on the product companion CD-ROM. You can also find J2SE platform versions at <http://java.sun.com/j2se/downloads.html>.

At this site, you can access current versions as well as archived J2SE platform versions. Sun maintains the download site for previously released versions of the J2SE platform and related products that have completed the end-of-life process and are no longer covered by standard support contracts. These downloads are made available as a courtesy to developers to assist in problem resolution. Look for the section titled “Download Archived Releases” or the Archived Downloads link.

## ▼ To Determine Your Current J2SE Platform Version

- Identify which J2SE platform version is available to your system by typing the following command at a command line.

```
java -version
```

The output looks similar to the following:

```
java -version
java version "1.4.1_02"
Java(TM) 2 Runtime Environment, Standard Edition (build 1.4.1_02-
b02)
Java HotSpot(TM) Client VM (build 1.4.1_02-b02, mixed mode)
```

If you do not have at least the J2SE version 1.4.1\_02 platform available to your system, you must install the supported J2SE version 1.4.1\_02 platform.

Depending on how you have your PATH environment variable set, the `java -version` command may not return complete results. If this command does not return the correct version and you know you have a suitable J2SE version on your system, use the command line option, `-is:javahome`, to specify the the path. See Appendix D for details.

## ▼ To Install the J2SE Version 1.4.1\_02 Platform

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**Note** – (Solaris only) Prior to installing the J2SE platform, you must ensure that you have installed the full set of required patches. See “Applying the Solaris 8 OS Patches” on page 29.

---

1. **Obtain the appropriate platform-specific installer file from** <http://java.sun.com/j2se/downloads.html> **or from the Sun ONE Studio 5 companion CD.**

TABLE 1-6 lists the installer file names for each supported platform.

2. **Install the J2SE version 1.4.1\_02 platform on your system.**

Installation instructions can be found on the web site. If you have the product CDs, you can find the installation instructions on the companion CD in the same directory as the J2SE software installer file.

**TABLE 1-6** J2SE Software Installer File Names.

Platform	Companion CD Directory	Installer File Name
Microsoft Windows	j2sdk\windows	j2sdk-1_4_1_02-windows-i586.exe
Linux OS	j2sdk/linux	j2sdk-1_4_1_02-linux-i586-rpm.bin
Solaris OS 32-bit	j2sdk/solaris_sparc	j2sdk-1_4_1_02-solaris-sparc.tar.Z
Solaris OS 64-bit	j2sdk/solaris_sparc	j2sdk-1_4_1_02-solaris-sparcv9.tar.Z

---

## Supporting Previous Software Releases

To upgrade your previous version of the Sun ONE Studio IDE to Sun ONE Studio 5, Standard Edition, you must do one of the following:

- To keep your previous version of the IDE, identify a different directory in which to install the Sun ONE Studio 5 software when prompted during installation.

To use the same installation directory as the previous IDE version, first uninstall the previous version of the IDE prior to installing Sun ONE Studio 5 software. See the *Getting Started Guide* for your currently installed version of the IDE.

- To keep your current IDE user settings, specify the location of your current user directory when prompted during the initial IDE setup on the Settings Import wizard. See “Setting Up the IDE” on page 38.

---

## Having the Correct User Privileges

On a Solaris or Linux system, you must have superuser (root) privileges to install a standard installation of this software. A standard installation includes Sun ONE Studio and Sun ONE Application Server 7 with PointBase. On a Linux system, if you have an existing installation of Sun ONE Application Server 7, including PointBase, then you do not need superuser privileges because only the IDE is installed.

On a Microsoft Windows system, you must have administrative privileges to install a standard installation of this software. A standard installation includes Sun ONE Studio and Sun ONE Application Server 7 with PointBase. If you have an existing installation of Sun ONE Application Server 7, including PointBase, then you do not need administrator privileges because only the IDE is installed.

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.

## Installing the IDE (Microsoft Windows Systems)

---

This chapter describes how to install the IDE from the product CD or from files downloaded from the web.

The IDE installer installs Sun ONE Application Server 7, Standard Edition as the default application server. The application server installation includes the PointBase Server 4.2 Restricted Edition(PointBase) as part of the standard installation. If you already have the Sun ONE Application Server 7 installed on your system, a second copy is not installed.

You can install the IDE in two ways:

- See “To Install the IDE” on page 22
- See “Using Command-line Options During Installation” on page 23

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### Using the GUI Installer

You can install the IDE by using the product CD-ROM or by downloading the `s1s5se-win-en.exe` installer launcher from <http://www.sun.com/software/sundev/jde/buy/index.html>.

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**Note** – If you encounter errors at any point during the installation, refer to Chapter 12 for troubleshooting tips.

---

## ▼ To Install the IDE

1. **Verify that you have at least the J2SE, version 1.4.1\_02 platform installed on your system and that you have reviewed the space requirements.**

See Chapter 1 for details.

2. **Start the Installation.**

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

- a. **Log in to your system with administrator privileges.**

- b. **Download the `s1s5se-win-en.exe` installer file from <http://www.sun.com/software/sundev/jde/buy/index.html> and save it in the `s1studio-download-directory`.**

- c. **Double-click the `s1s5se-win-en.exe` file in the `s1studio-download-directory`.**  
The Welcome screen appears.

- d. **Proceed to Step 3.**

- To start the install from the CD-ROM, follow these steps:

- a. **Log on to your system with administrator privileges.**

- b. **Insert the product CD.**

The installer starts and the Welcome page appears. Go to Step 3.

If the installer does not start, the autorun feature might be disabled. Follow these steps to start the installer:

- i. **From the Start Menu, choose Run, and browse to the CD-ROM directory.**

- ii. **Double-click the directory `installers_se`, select `s1s5se-win-en.exe` and click Open.**

- iii. **Click OK in the Run dialog box.**

The installer starts and the Welcome page appears. Go to Step 3.

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

The installer asks a series of questions, installs the product, then displays the final Summary page.

When prompted for the license serial number you have two options:

- Generate a 60-day trial license serial number by using the 60-day trial button.
- Use the license serial number listed on a card enclosed in the purchased product package. If you purchase the product online, then the serial number is provided to you at the time of purchase and download.

#### 4. Review the Summary page.

Sun ONE Application Server properties are displayed:

- Admin Server Host: localhost
- Admin Server Port: 4848
- Admin User Name: admin
- Admin User Password: adminadmin

#### 5. Write down and save the Admin User password.

You need this password to use the Sun ONE Application Server administrative tool. The other properties can be viewed from within the IDE, by looking at the Sun ONE Application Server property sheet.

#### 6. Click Finish to exit the installer.

The default installation directory is `%Drive%\Sun\studio5_se`.

#### 7. Review the log file found at `s1studio-install-directory\install.log`.

You might see the following message:

```
WARNING - Installation of the SNMP subagent failed
```

The warning is issued because the Microsoft Windows SNMP Service is not installed on your system. This will not affect the functionality of the IDE. If you have the SNMP service installed, you should not see this warning.

#### 8. Continue to Chapter 5 for information about setting up the IDE.

---

**Note** – If you plan to use Sun ONE Application Server 7, read Chapter 6 before attempting to deploy your applications.

---

---

## Using Command-line Options During Installation

Command-line options for installing in silent mode are supported by the IDE installers. The procedure depends on whether you are installing from files on the CD-ROM or files downloaded from the web site. Some command-line options can be used with the GUI installer.

See Appendix D for details on using the command-line options and for installing in silent mode.





## Installing the IDE (Linux Systems)

---

This chapter describes how to install the IDE from the product CD or from files downloaded from the web.

The IDE installer also installs Sun ONE Application Server 7, Standard Edition as the default application server. The application server installation includes the PointBase Server 4.2 Restricted Edition as part of the standard installation.

You can install the Sun ONE Studio 5 IDE in two ways:

- See “Using the GUI Installer” on page 25
- See “Using Command-Line Options During Installation” on page 28

---

## Using the GUI Installer

You can install the Sun ONE Studio IDE by using the product CD-ROM or by downloading the `s1s5se-linux-en.bin` installer launcher from <http://www.sun.com/software/sundev/jde/buy/index.html>.

---

**Note** – If you encounter errors at any point during the installation, refer to Chapter 12 for troubleshooting tips.

---

### ▼ To Install the IDE

1. **Verify that you have at least the J2SE, version 1.4.1\_02 platform installed on your system and that you have reviewed the space requirements.**

See Chapter 1 for details.

## 2. Start the installation.

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

**a. Download the `s1s5se-linux-en.bin` installer file from <http://www.sun.com/software/sundev/jde/buy/index.html> and save it in the `s1studio-download-directory`.**

**b. Set the execute permission on the `s1s5se-linux-en.bin` file.**

```
% chmod a+x /s1studio-download-dir/s1s5se-linux-en.bin
```

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

For example, if you use the bash shell, type:

```
# export DISPLAY=your-local-machine:0.0
```

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

```
%su root
```

Enter your superuser password when prompted.

**e. Start the installer.**

```
# /studio-download-dir/s1s5se-linux-en.bin
```

The Welcome page appears. Proceed to Step 3.

- To start the install from the CD-ROM, follow these steps:

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

To use the CD-ROM and enable the autorun feature to work correctly, log in to your machine as root. Do not use the `su` command in a terminal window as this does not allow you to install correctly when the autorun feature launches the install process.

**b. Insert the product CD.**

Answer yes if you are prompted about whether you want to use autorun to install the CD. Answer yes if you are prompted about whether you want to use autorun. The Welcome page appears. Proceed to Step 3.

- If the installer does not start, the autorun feature might be disabled. In this case, follow these steps:

- i. **Open a terminal window.**
- ii. **Change to the CD-ROM directory and start the installation.**

```
# cd /cdrom/en_studio5_5
# ./install.sh
```

The Welcome page appears. 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 product, and then displays the Summary page.

When prompted for the license serial number you have two options:

- Generate a 60-day trial license serial number by using the 60-day trial button.
- Use the license serial number listed on a card enclosed in the purchased product package. If you purchase the product online, then the serial number is provided to you at the time of purchase and download.

**4. Review the Summary page.**

The following properties, used by the Sun ONE Application Server, are displayed:

- Admin Server Host: localhost
- Admin Server Port: 4848
- Admin User Name: admin
- Admin User Password: adminadmin

**5. Write down and save the Admin User password.**

You need this password to use the Sun ONE Application Server administrative tool. The other properties can be viewed from within the IDE by looking at the Sun ONE Application Server property sheet.

**6. Click Finish to exit the installation wizard.**

Installing as a superuser, the default installation directory is `/opt/studio5_se`. If you only installed the IDE and installed it as a standard user, then the default installation directory is `$HOME/studio5_se` where `$HOME` is your home directory.

**7. Exit from superuser privileges.**

**8. Continue to Chapter 5 for information about setting up the Sun ONE Studio 5 IDE.**

---

**Note** – If you plan to use Sun ONE Application Server 7 to deploy your applications, read Chapter 6.

---

---

# Using Command-Line Options During Installation

Command-line options for installing in silent mode are supported by the IDE installers. The procedure depends on whether you are installing from files on the CD-ROM or files downloaded from the web site. Some command-line options can be used with the GUI installer.

See Appendix D for details on using the command-line options and for installing in silent mode.

## Installing the IDE (Solaris OS)

---

This chapter describes how to install your Sun ONE Studio 5 IDE from the product CD or from files downloaded from the web in supported Solaris operating systems. It also describes applying the necessary Solaris 8 OS patches using the `solaris_patch_installer` script.

The IDE installer installs Sun™ ONE Application Server 7, Standard Edition as the default application server. The application server installation includes the PointBase Server 4.2 Restricted Edition as part of its standard installation. If you already have the Sun ONE Application Server 7 installed on your system, a second is not automatically installed.

You can install the IDE in two ways:

- See “Using the GUI Installer” on page 32
- See “Using Command-Line Options During Installation” on page 35

Before installing the IDE, you need to install the necessary Solaris 8 OS patches.

---

## Applying the Solaris 8 OS Patches

Run the `solaris_patch_installer` script to ensure that all the Solaris patches required by the IDE are installed on your system. The patch installer includes the Solaris patch packages you need for your Solaris 8 OS.

The `solaris_patch_installer` script is provided on the Sun ONE Studio 5 companion CD and is also available from the Sun ONE Studio 5 product download page. See “To Install Patches for the Solaris 8 OS” on page 30 for instructions on how to use the `solaris_patch_installer` script.

If you do not have the required Solaris patches when you start the IDE installer, a message displays the Solaris patches that you need. Installing these patches individually is not recommended. Use the provided `solaris_patch_installer`

script. 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.

---

**Note** – Some Solaris patches require that you reboot your system after installation has completed. The installer prompts you to reboot, if necessary.

---

## ▼ To Install Patches for the Solaris 8 OS

1. **If you have not already done so, download the `solaris_patch_installer.tar.gz` file into the *solaris-patches-directory* from the Sun ONE Studio download web site at <http://www.sun.com/software/sundev/jde/buy/index.html> or from the Sun ONE Studio 5 companion CD.**

---

**Note** – Ensure that the *solaris-patches-directory* on your system has enough available space to uncompress and extract the contents of the downloaded file. You need at least 160 MB of free disk space.

---

2. **From the *solaris-patches-directory*, uncompress and extract the contents of the downloaded file.**

```
% cd solaris-patches-directory
% /usr/bin/gzcat solaris_patch_installer.tar.gz | tar xvf -
```

The `solaris_patch_installer` file and the `patches` directory are extracted into the *solaris-patches-directory*.

3. **(Optional) To recover disk space, remove the downloaded file.**

```
% rm -rf solaris_patch_installer.tar.gz
```

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

```
% su root
```

Enter your superuser password when prompted.

5. **Change to the *solaris-patches-directory* and run the `solaris_patch_installer` script.**

```
# cd solaris-patches-directory
# ./solaris_patch_installer
```

The `solaris_patch_installer` installs the necessary patches.

You see output similar to the following:

```
# ./solaris_patch_installer
Solaris Patch Installer for J2SE, v.1.4.1
Installing 110380-04...already applied

Installing 110934-10...successfully installed

Installing 112396-02...successfully installed

Installing 108987-13...attempting to patch a package that is not
installed

Installing 111310-01...already applied
```

This is a sample listing of normal messages and indicate the patch installer script is running correctly.

6. **If prompted, reboot your system.**

```
# Certain patches installed on your system require that you reboot
your machine.
Do you want to REBOOT your machine now? (y/n)
# y
```

7. **If you are not prompted to reboot, exit from superuser privileges.**
8. **(Optional) Remove the *solaris-patches-directory* to recover disk space.**

```
% rm -rf solaris-patches-directory
```

For a complete list of the Solaris patches included with the `solaris_patch_installer` script, see Appendix A.

The `solaris_patch_installer` installs all the necessary patches for the J2SE platform and those needed for the Sun ONE Studio IDE and its components. Be sure you have run the patch installer script before trying to install the J2SE platform.

---

## Using the GUI Installer

You can install the Sun ONE Studio IDE by using the product CD or by downloading the `s1s5se-sol-sparc-en.bin` installer launcher from <http://www.sun.com/software/sundev/jde/buy/index.html>.

---

**Note** – If you encounter errors at any point during the installation, refer to Chapter 12 for troubleshooting tips.

---

### ▼ To Install the IDE

1. **Verify that you have at least the J2SE, version 1.4.1\_02 platform installed on your system before installing Sun ONE Studio 5 software.**

See “Verifying Your J2SE Platform” on page 17.

2. **Start the installation.**

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

- a. **Download the `s1s5se-sol-sparc-en.bin` installer file from <http://www.sun.com/software/sundev/jde/buy/index.html> and save into the `s1studio-download-directory`.**

- b. **Set the execute permission on the `s1s5se-sol-sparc-en.bin` file.**

```
% chmod a+x /s1studio-download-dir/s1s5se-sol-sparc-en.bin
```

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

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



**d. Enable access to the X server.**

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

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

```
%su root
```

Enter your superuser password when prompted.

**f. Start the installer.**

```
# /studio-download-dir/sls5se-sol-sparc-en.bin
```

The Welcome page displays. Proceed to Step 3.

- To start the install from the CD-ROM, follow these steps:

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

To use the CD-ROM and enable the autorun feature to work correctly, log in to your machine as root. Do not use the `su` command in a terminal window as this does not enable you to install correctly when the autorun feature launches the install process.

**b. Insert the product CD.**

- On Solaris 8 systems, the installer starts and the Welcome page appears. Go to Step 3.
- On Solaris 9 systems, a File Manager window opens when you insert the CD-ROM. To start the installer, double-click the `volstart` icon or the `install.sh` icon in the File Manager window.

If the installer does not start or you do not see the File Manager window, follow these steps:

- i. Open a terminal window.
- ii. Change to the CD-ROM directory and start the installation.

```
# cd /cdrom/en_studiose_5  
# ./install.sh
```

The Welcome page appears. Go 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 product, and then displays the Summary page.

When prompted for the license serial number you have two options:

- Generate a 60-day trial license serial number by using the 60-day trial button.
- Use the license serial number listed on a card enclosed in the purchased product package. If you purchase the product online, then the serial number is provided to you at the time of purchase and download.

---

**Note** – If you specify a non-default installation directory, do not specify an NFS-mounted directory. The Sun ONE Application Server 7 cannot be installed on an NFS-mounted directory.

---

#### 4. Review the Summary page.

The following properties, used by the Sun ONE Application Server, are displayed:

- Admin Server Host: localhost
- Admin Server Port: 4848
- Admin User Name: admin
- Admin User Password: adminadmin

#### 5. Write down and save the Admin User password.

You need this password to use the Sun ONE Application Server administrative tool. The other properties can be viewed from within the IDE by looking at the Sun ONE Application Server property sheet.

#### 6. Click Finish to exit the installation wizard.

The default installation directory on a Solaris system is `/opt/studio5_se`.

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

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

#### 8. Exit from superuser privileges.

#### 9. Continue to Chapter 5 for information about setting up the Sun ONE Studio 5 IDE.

---

**Note** – If you plan to use Sun ONE Application Server 7, read Chapter 6 before attempting to deploy your applications.

---

---

# Using Command-Line Options During Installation

Command-line options for installing in silent mode are supported by the IDE installers. The procedure to use depends on whether you are installing from files on the CD-ROM or files downloaded from the web site. Some command-line options can be used with the GUI installer.

See Appendix D for details on using the command-line options and for installing in silent mode.



## Setting Up the 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 37
  - “Setting Up the IDE” on page 38
  - “Using the Startup Options” on page 40
- 

## Starting the IDE

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

- Import your customized settings from previous versions
- 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 Sun ONE Studio SE icon located on your desktop.
- Choose Start → Programs → Sun Microsystems → Sun ONE Studio SE → Sun ONE Studio SE.
- Start the IDE by typing the following command at a command line:

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

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

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

The Windows console displays error messages and other console messages generated by using the IDE.

Using `runidew.exe` just starts the IDE. This is the default launcher used by the desktop icon.

The `runide.exe` command options can be specified on the command line or in the `s1studio-install-directory\bin\ide.cfg` file. See “Using the Startup Options” on page 40.

## ▼ To Start the IDE (Solaris or Linux Systems)

### 1. Change to the `s1studio-install-directory/bin` directory

The default installation directory is `/opt/studio5_se`.

```
% cd /opt/studio5_se/bin
```

### 2. Start the IDE.

```
% runide.sh
```

The `runide.sh` command options can be specified on the command line or in the `s1studio-install-directory/bin/ide.cfg` file. See “Using the Startup Options” on page 40.

---

## Setting Up the IDE

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

- Settings Import Wizard
- Registration Wizard
- Setup Wizard

# Settings Import Wizard

The Settings Import wizard is displayed the first time that you start the IDE. The wizard enables you to import settings from prior versions of the IDE for use with Sun ONE Studio 5.

# Registration Wizard

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

Registering your Sun ONE Studio 5 software through the web enables you to do the following:

- Use the Update Center to download and install new modules and updates specific to your environment
- Subscribe to the Early Access Program (<http://forte.sun.com/eap>) and receive new, nonpublic builds of the IDE, as well as preview releases of Sun ONE Studio 5 modules, patches, and bug fixes
- Receive product announcements, if desired

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

# Setup Wizard

You can access the Setup wizard from the IDE Welcome screen or 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
- 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

## ▼ To Enable or Disable IDE Modules

1. **Choose Tools → Setup Wizard from the main IDE window.**
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 plugin). For information on enabling this module, see Chapter 9.

---

## 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 `$1studio-install-directory/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 5-1 lists the `runide` command-line options.

**TABLE 5-1** IDE Startup Options

Option	Description
<code>-h</code> <code>-help</code>	Prints a description of the available options and their usage.
<code>-jdkhome</code> <i>jdk-home-dir</i>	Specifies the location of a J2SE platform other than the default that was specified during installation.
<code>-cp:p</code> <i>additional-classpath</i>	Prepends the specified class path onto the IDE's class path.
<code>-cp:a</code> <i>additional-classpath</i>	Appends the specified class path to the IDE's class path.



**TABLE 5-1 IDE Startup Options (Continued)**

Option	Description
<code>-userdir <i>s1studio-user-directory</i></code>	Specifies the <i>s1studio-user-directory</i> (the location where your user settings are stored). If this option is not specified, the default location is used. See the installation chapter for your platform for more information.
<code>-J <i>jvm-flags</i></code>	Passes specified flags directly to the Java™ Virtual Machine (JVM™) software.
<ul style="list-style-type: none"><li>• <code>-Xverify:none</code></li></ul>	<code>-J -Xverify:none</code> tells the JVM software not to verify the correctness of the bytecode, thereby providing for faster startup time. Setting this flag removes some of the protection that the Java language gives you. Refer to the JVM software documentation for more information.
<ul style="list-style-type: none"><li>• <code>-Xms24m</code></li></ul>	<code>-J -Xms24m</code> 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.
<ul style="list-style-type: none"><li>• <code>-Xmx96m</code></li></ul>	maximum Java heap size
<ul style="list-style-type: none"><li>• <code>-Xss1024k</code></li></ul>	Thread stack size
(Microsoft Windows only) <code>hotspot</code> or <code>-classic</code>	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.
<code>"-ui" <i>UI_class_name</i></code>	Sets the specified UI class as the IDE’s look and feel.
<code>"-fontsize" <i>size</i></code>	Sets the font size, expressed in points, in the IDE’s user interface. The default value is 11.



# Using Sun ONE Application Server With the IDE

---

Once you have successfully installed the IDE, you can complete the configuration of Sun ONE Application Server as your default application server. This chapter describes the basic configuration steps necessary to validate your installation and deploy the example described in Chapter 7. This chapter does not describe all available configuration options. See the *Sun ONE Application Server 7 Getting Started Guide* and the *Sun ONE Application Server 7 Administrator's Guide* for more information. You can find the Sun ONE Application Server 7, Standard Edition documentation at [http://docs.sun.com/db/coll/s1\\_asse\\_en](http://docs.sun.com/db/coll/s1_asse_en).

This chapter covers the following topics:

- “Understanding Administrative Domains” on page 43
- “Using the Default Administrative Domain” on page 45
- “Creating Administrative Domains for Each User” on page 47
- “Using the Sun ONE Application Server 7” on page 52

---

## Understanding Administrative Domains

The Sun ONE Application Server introduces a feature named administrative domains that enables you to define multiple, completely separate application 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 6-1 describes the procedures in this chapter to help you complete the configuration of Sun ONE Application Server 7.

**TABLE 6-1** Sun ONE Application Server Procedures

Description	Procedure Reference	Permitted User
Start the default administrative domain that is created and configured during installation.	See "To Start the Default Administrative Server" on page 45	Superuser or administrator only
Create an administrative domain for another user to use with the IDE.	See "To Create a Domain for Another User" on page 48	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 50	All IDE users
Confirm the presence of the default application server in the IDE's server registry.	See "To Confirm the Default Application Server" on page 53	All IDE users
Start the Sun ONE Application Server 7 instance.	See "To Start the Application Server Instance" on page 53	All IDE users
Create a user group with permission to manipulate the default administrative domain and server.	See <i>Sun ONE Application Server 7 Administrator's Guide</i>	Superuser or administrator only
Change permissions on the domain directories to allow standard users to manipulate the default administrative domain and server.	See <i>Sun ONE Application Server 7 Administrator's Guide</i>	Superuser or administrator only

---

# Using the Default Administrative Domain

This installation of Sun ONE Studio and Sun ONE Application Server 7, 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.

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 should use the default administrative domain and server as described in “To Start the Default Administrative Server” on page 45.

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 Sun ONE Application Server 7 documentation for more information.

---

## ▼ To Start the Default Administrative Server

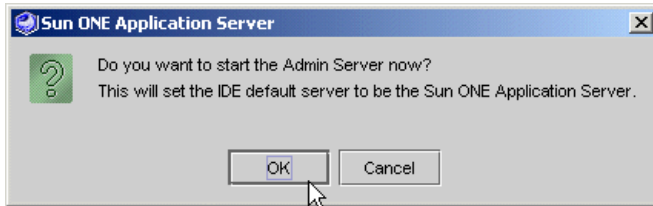
This procedure is for a user with superuser or administrative privileges who is starting the IDE for the first time. If this is not the first time you are starting the IDE, see “To Confirm the Default Application Server” on page 53.

**1. In the Explorer in the main IDE window, select the Runtime tab.**

The Runtime tab of the Explorer 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. Select the Server Registry node.**

A query window pops up, asking whether you want to start the admin server. This refers to the admin server for the default domain, which can only be run by a user with superuser or administrator privileges.

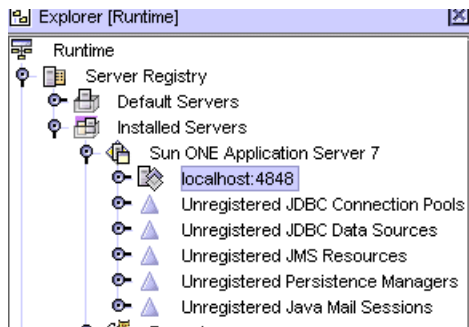


**3. Click OK.**

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

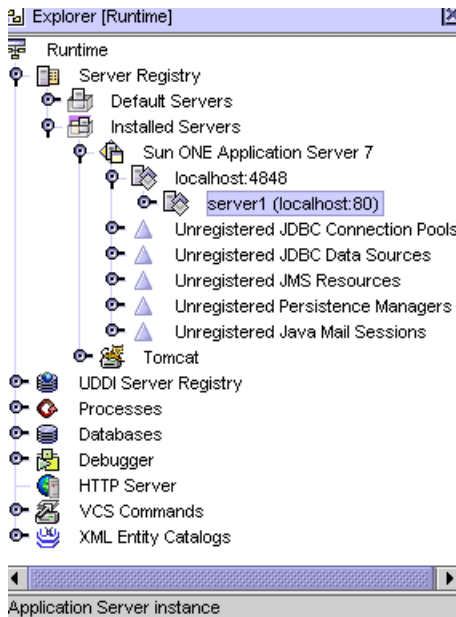
**4. Expand the Server Registry node and expand the Installed Servers node.**

**5. Expand the Sun ONE Application Server 7 node.**



The node `localhost:4848` is your Admin Server instance.

**6. Expand the localhost:4848 node to see the application server instance `server1`.**



7. To start your application server instance, right-click `server1` and choose **Status** from the contextual menu.

The Sun ONE Application Server Instance Status dialog box displays.

8. Click **Start Server**.

The application server instances starts.

---

## Creating Administrative Domains for Each User

In Solaris and Linux development environments, users do not usually run the IDE as a user with superuser privileges. If you are planning to use the bundled Sun ONE 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 accomplish this using the default admin server domain as mentioned in the section “Using the Default Administrative Domain” on page 45. The procedure described here creates a separate domain for

each IDE user. Once this is done, each user has the maximum flexibility for controlling the use of their admin domain and minimal intervention is required by the system administrator.

In this procedure, the superuser creates a separate Sun ONE Application Server administrative domain for each standard user. The standard user completes the configuration within the IDE by adding (in the Sun ONE Application Server 7 documentation, this is 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.

The procedures documented in this section use the Sun ONE Application Server `asadmin` utility, a command-line interface. For more information about the `asadmin` utility, see the *Sun ONE Application Server 7 Administrator’s Guide* at <http://docs.sun.com/source/816-7156-10>.

## ▼ To Create a Domain for Another User

The superuser performs this procedure to create a domain for another user.

1. **Become a superuser.**
2. **Change to the directory where the `asadmin` utility executable is located.**

For example, type:

```
# cd /opt/studio5_se/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/studio5_se` with the path name to your installation directory.



### 3. In the `asadmin` utility 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
<code>--sysuser</code>	<i>standarduser</i>	<i>standarduser</i> is the existing standard user's login id for your system.
<code>--adminport</code>	<i>portnumber</i>	<i>portnumber</i> is an available port number for this admin domain instance.
<code>--adminuser</code>	<i>useradmin</i>	<i>useradmin</i> is the user name associated with this admin domain.
<code>--adminpassword</code>	<i>userpassword</i>	<i>adminpassword</i> is the user password associated with the user name for this admin domain.
n/a	<i>userdomain</i>	<i>userdomain</i> is the standard user's domain name and must be unique.
<code>--path</code>	<i>domain_path</i>	Path to the directory where the domain should be created. If not specified, the domain is created in the default domain directory. See the <i>Sun ONE Application Server 7 Getting Started Guide</i> 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 5 in the section, "To Add the User's Domain to the IDE" on page 50.

## ▼ To Add the User's Domain to the IDE

The standard user should perform this procedure.

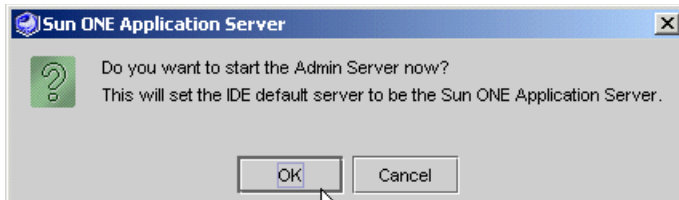
---

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

---

1. **Start the IDE.**
2. **In the IDE Explorer, select the Runtime tab.**
3. **Select the Server Registry node.**

A query window displays asking “Do you want to start the Admin Server now?” This refers to the default domain, domain1, which can only be run by a superuser or administrator.

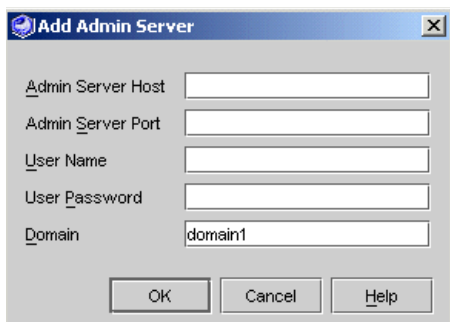


If you click OK, this action creates and starts an admin server that you can not use.

4. **Click Cancel.**

This dismisses the query window and now we can add your user Admin Server. This was created by your system administrator or other superuser as described in “To Create a Domain for Another User” on page 48.
5. **Add (also called Register in application server documentation) your admin server by following these steps:**
  - a. **Expand the Server Registry node and expand the Installed Servers node.**
  - b. **Right-click the Sun ONE 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:

---

Admin Server Host	localhost or local machine name
Admin Server Port	<i>portnumber</i> used in the create-domain command
User Name	<i>useradmin</i> , username used in the create-domain command
User Password	<i>userpassword</i> , user password used in the create-domain command
Domain	<i>userdomain</i> , 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.
```

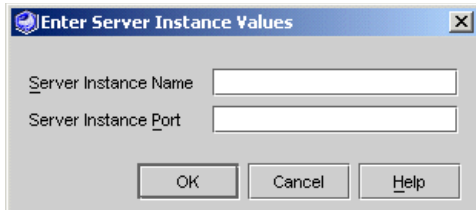
**e. Click OK to dismiss this error message.**

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 Explorer representing your domain and admin server. You are now ready to create your application server instance.

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

**a. In the Explorer, right-click the new admin server node, identified by the portnumber 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 4855.

---

**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.

**7. 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.**

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

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

---

## Using the Sun ONE Application Server 7

As long as your admin server is running, you can start, stop and deploy your applications using your application server instances. When the admin server stops running, the IDE loses its connection to the application server. If your admin server is stopped for any reason, for example if your system is rebooted, it is necessary to start the admin server for your domain and to set the default application server again.

This chapter describes using Sun ONE Application Server 7 from the IDE. The application server documentation describes other facilities for starting and stopping the application server and using the `asadmin` command-line interface, the Administrative Console, Windows Services, and other facilities. Refer to the *Sun ONE Application Server 7 Getting Started Guide* for more details.

---

**Note** – To use the Administrative Console, you need the admin user password assigned during installation. The default password is `adminadmin`, but may have been changed subsequent to installation. Check with your system administrator.

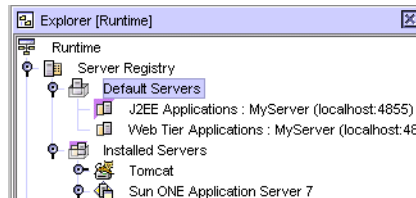
---

## ▼ To Confirm the Default Application Server

If you have started Sun ONE Application Server before, this is how you confirm that it is still the default server:

1. **In the IDE Explorer, select the Runtime tab.**
2. **Expand the Server Registry node and expand its Default Servers subnode.**

If the J2EE Applications node's label is *server-instance(server-hostname:server-portnumber)*, then Sun ONE Application Server is the default application server. If it is not, continue with the next step.



3. **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 Start the Application Server Instance

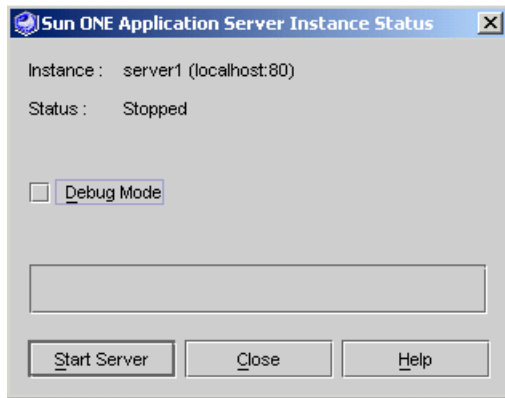
1. **Right-click the application server node and choose Status from the contextual menu.**

---

**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 ONE Application Server Instance Status dialog box is displayed.



**2. Click Start Server.**

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.**

## Validating Your IDE Installation

---

This chapter describes how to validate your installation of the Sun ONE Studio IDE by showing you how to create a simple web application using Sun ONE Application Server 7. This chapter covers:

- “Creating a J2EE Platform Application” on page 55

---

**Note** – The following instructions assume that you installed the IDE and the Sun ONE Application Server 7 and have configured your default application server. See Chapter 6 for information about configuring the application server.

---

---

## Creating a J2EE Platform Application

The following steps show you how to create a simple test application for the *Java™ 2 Platform, Enterprise Edition Specification* (J2EE platform) using Sun ONE Application Server 7.

- 1. Create a new directory called `helloApp`.**
- 2. Start the IDE, if you have not already done so and confirm that Sun ONE Application Server 7 is your default application server.**  
See Chapter 6 for more information.
- 3. Mount the `helloApp` directory in the IDE by choosing File → Mount Filesystems from the main window.**  
The New wizard appears.
  - a. Select Local Directory and click Next.**
  - b. Select the `helloApp` directory, and click Finish.**  
A `helloApp` node appears in the Filesystems tabbed pane of the Explorer window.

4. **Create a new Java package named `hello`.**
  - a. **Right-click the `helloApp` node and choose `New` → `Java package`.**

The New wizard for a Java package appears.
  - b. **In the New wizard, type the name `hello` for the new Java package and click `Finish`.**

A new node for the `hello` package appears on the Filesystems tabbed pane of the Explorer window.
5. **Create a new session bean named `helloTest` by doing the following:**
  - a. **In the Explorer window, right-click the `hello` node and choose `New` → `All Templates`.**

The New Wizard appears.
  - b. **Expand the `J2EE` node, choose `Session EJB`, and click `Next`.**

The New Wizard for a Session EJB appears.
  - c. **Type `helloTest` in the `EJB Name` text field, keep all the default settings on the New wizard, and click `Finish`.**

The `helloTest(EJB)` node appears in the Filesystems tabbed pane of the Explorer window. Nodes for `helloTest`, `helloTestBean`, and `helloTestHome` also appear.
6. **Add a business method by right-clicking the `helloTest(EJB)` node and choosing `Add Business Method`.**

The Add New Business Method dialog box appears.
7. **Type `sayHello` as the method name.**
8. **Set the return type by selecting `java.lang.String` from the combo box and click `OK`.**
9. **Edit the `sayHello` method using the Source Editor:**
  - a. **In the Explorer window, expand the `helloTest(EJB)` node and expand the `Business Methods` node.**
  - b. **Select `sayHello()`, right-click, and choose `Open`.**

The Source Editor opens and displays the contents of the `helloTestBean` method.
  - c. **Add one line so that the `helloTestBean` method looks like this:**

```
public java.lang.String sayHello() {  
    return "Hello there, Studio!";  
}
```



10. **Choose Build** → **Compile from the main IDE window or press F9 to compile the sayHello method.**

If no compilation errors are found, the Output Window(Compiler) displays the message `Finished helloTestBean.`

11. **From the Filesystems tabbed pane of the Explorer window, create a new EJB Test application by doing the following:**

- a. **Right-click the helloTest(EJB) node and choose Create New EJB Test Application.**

The Create a New EJB Test Application dialog box appears.

- b. **Accept all the default values by clicking OK.**

An EJB module called `helloTest_EJBModule`, a web module named `helloTest_WebModule`, and an application named `helloTest_TestApp` are created and automatically mounted in the IDE.

12. **In the Filesystems tab of the Explorer window, right-click the helloTest\_TestApp node and choose Execute.**

A progress monitor is displayed and the IDE switches to the Running tab. The `helloTest_TestApp` is deployed and your web browser appears with the URL displayed as `http://localhost:8000/helloTest_TestApp/dispatch.jsp`.

If the browser is not displayed automatically, open it manually and type `http://localhost:8000/helloTest_TestApp` for the URL.

---

**Note** – Ensure that your web browser is configured to not use proxy servers for domains beginning with `localhost`.

---

If the `http://admin-server-host:admin-server-portnumber/helloTest_TestApp/dispatch.jsp` page is displayed, the application server is working correctly.

You have now verified that your installation of the IDE is working properly with the Sun ONE Application Server 7.

At this point, you can skip the steps remaining in this chapter or continue to run the session bean's method.

13. **(Optional) Run the session bean's method.**

- a. **On the `http://admin-server-host:admin-server-portnumber/helloTest_TestApp/dispatch.jsp` page in your web browser, click the Invoke button next to `hello.helloTest.create`.**

The correct button is the first Invoke button on the page, under the heading Invoke Methods on the `hello.helloTestHome`. The browser page is refreshed.

**b. In the EJB Navigation section of the browser page, click**

`hello.helloTest[7]`.

The number 7 might be some other number in your web browser.

**c. Click Invoke next to `java.lang.String sayHello`.**

The page refreshes and section, The Results of the Last Method Invocation displays the following:

```
Hello there, Studio!
```

```
Method Invoked: sayHello()
```

```
Parameters:
```

```
none
```

You have completed running the session bean's method.

## Using Databases With the IDE

---

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 Sun ONE Studio examples and tutorials. General information about using other databases with the IDE is also covered.

PointBase is the default database provided as part of the standard Sun ONE Studio installation. PointBase can be found in the Sun ONE Application Server 7 installation subdirectory, for example, *s1studio-install-directory*\appserver7\pointbase.

This chapter covers:

- “Setting Up PointBase Connectivity” on page 59
- “Using the PointBase Server and Console” on page 63
- “Using Other JDBC Enabled Databases” on page 65

---

## 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 ONE Application Server 7, you need to enable the database’s JDBC driver in the application server environment and create the three connectivity resources.

When the IDE and Sun ONE Application Server 7 are installed together the following are done for you:

- The PointBase JDBC driver is installed automatically.
- For the Microsoft Windows user with administrator privileges, the IDE installer also automatically creates the three PointBase connectivity resources to facilitate use of the IDE's examples and tutorials. See "To Confirm the PointBase Resource Configuration" on page 60.

Microsoft Windows users of the IDE who do not have administrator privileges, Solaris OS users, and Linux OS users who plan to use the Sun ONE Studio examples and tutorials should follow the procedure, "To Set PointBase JDBC Resources for the Examples and Tutorials" on page 61 to configure the PointBase resources.

To use the IDE examples and tutorials in cases where you have installed Sun ONE Application Server 7 independently of your IDE installation, see "To Use an External PointBase Installation With the IDE" on page 62.

## ▼ To Confirm the PointBase Resource Configuration

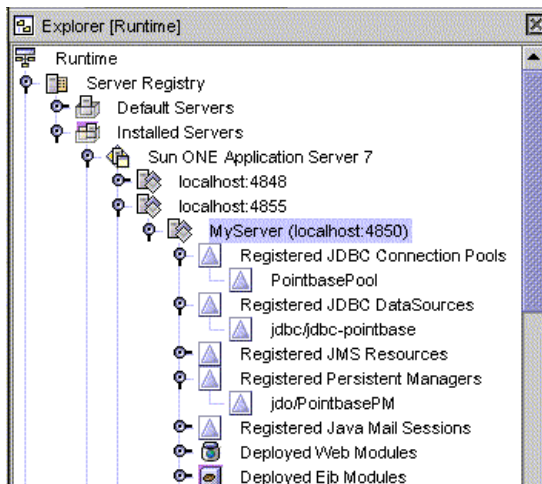
1. **In the Runtime tab of the IDE Explorer, expand the Server Registry node and expand the Installed Servers node.**
2. **Expand the default admin server node (localhost:4848) and the default application server node (server1(localhost:xxxx)).**

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

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

If the IDE installer was able to configure your PointBase connectivity resources for the Sun ONE 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 and Tutorials

Users in Solaris and Linux environments, who typically run the IDE without superuser privileges, need to set the PointBase JDBC resources in the application server environment. This procedure creates the JDBC connection resources for running many of the Sun ONE Studio examples and tutorials.

---

**Note** – Before starting this procedure, make sure both the admin server and the application server are running (see “Using the Sun ONE Application Server 7” on page 52).

---

- 1. In the Runtime tab of the IDE Explorer, expand the Server Registry node and expand the Installed Servers node.**
- 2. Locate your application server instance.**

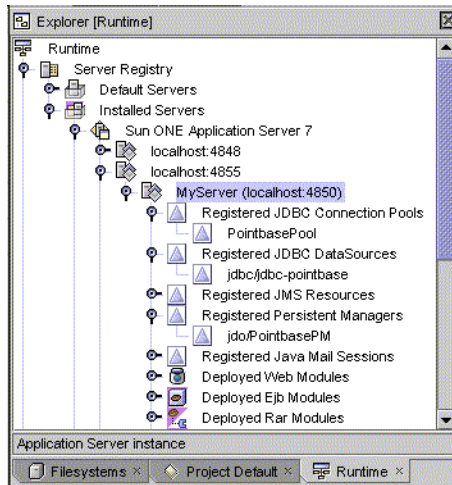
It is labeled *app-server-name (app-server-host:app-server-port)*, for example, *MyServer (localhost:4850)*.
- 3. Right-click the application server instance node and choose Preconfigure PointBase JDBC Resources from the contextual menu.**

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 actions 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 Sun ONE Studio examples and tutorials. See the *Sun ONE Application Server 7 Getting Started Guide* for instructions on how to install PointBase.

To complete this procedure, you will be writing to the IDE installation directories, so you must have root or administrator privileges.

#### 1. On your file system, find the PointBase installation directory.

If your system had a pre-existing Sun ONE Application Server 7 installation, then PointBase may be installed as part of that installation. Look for a `pointbase` subdirectory in the `s1as7-install-directory`.

If you installed PointBase separately from other Sun software, locate your PointBase installation directory.

- 2. In the PointBase installation, locate the `pbclientxxx.jar` JDBC driver library file.**
- 3. Copy the `pbclientxxx.jar` file to the `s1studio-install-directory/lib/ext` directory.**  
The PointBase JDBC driver is now enabled.
- 4. Restart the IDE.**
- 5. In the IDE, choose Tools → PointBase Network Server → Configure.**  
The Configure PointBase dialog box is displayed.
- 6. In the text fields, type the PointBase installation directory and server port number; and click OK.**  
You can now start your PointBase server and console from the IDE.
- 7. In the Runtime tab of the IDE Explorer, select your application server instance.**  
It is labeled *app-server-name* (*app-server-host:app-server-port*). For example, the default server is `server1(localhost:80)`, or a standard user's server could be `MyServer(localhost:4850)`.
- 8. Right-click the application server instance node and choose Properties.**  
The properties window displays.
- 9. Open the property editor for the Classpath Suffix property.**  
Click on the value field of this property, then on the ellipsis button that appears. The Classpath Suffix editor window is displayed.
- 10. Click the Add JAR/ZIP button.**  
Use the Add JAR File file finder to locate your `pbclientxxx.jar` file.
- 11. Select the `pbclientxxx.jar` file and click OK.**
- 12. Click OK to close the property editor window.**  
The external PointBase JDBC driver for the Sun ONE Application Server 7 runtime is now located.

---

## Using the PointBase Server and Console

For detailed information on using this database software, see the PointBase documentation in the `s1studio-install-directory/appserver7/pointbase/docs` directory.

You must start the PointBase database server before you can access a PointBase database from an application you developed using the IDE or before you can create your own tables or database with PointBase software.

### ▼ To Start the PointBase Server

1. **From the main IDE window, Choose Tools → PointBase Network Server.**
2. **Then choose Start Server.**

The PointBase 4.2 window appears.

### ▼ To Stop the PointBase Server

1. **From the main IDE window Choose Tools → PointBase Network Server.**
2. **Then choose Stop Server or choose Server → Shutdown! from the PointBase 4.2 window.**

### ▼ To Start the PointBase Client Console

1. **With the PointBase Server running, from the main IDE window choose Tools → PointBase Network Server.**
2. **Then choose Start Console.**

The Connect to Database dialog box appears.

3. **Click OK to continue.**

### ▼ To Stop the PointBase Client Console

Do one of the following:

- **From the Console menu, select File → Exit.**

or

- **From the main IDE window, choose Tools → PointBase Network Server → Stop Console.**



---

# Using Other JDBC Enabled Databases

The following information applies to database drivers other than the driver for the PointBase Server 4.2 Restricted Edition database.

You can configure Sun ONE Application Server 7 to connect to other databases by performing actions similar to those described for PointBase as follows:

- Enable the database's JDBC driver
- Create a connection pool
- Create a JDBC data source
- Create a JDBC persistent manager

To enable other JDBC drivers, you must place the database driver files in the `s1studio-install-directory/lib/ext` directory before you start the Sun ONE Studio IDE. If you do not do this, the dbschema wizard does not enable you to select the proper database driver when you create a new schema. You cannot mount the driver file in the IDE's Explorer, nor can you simply place the driver file in the `CLASSPATH` environment variable. You must copy the driver file into the `lib/ext` folder.

For information on configuring the connectivity resources for other databases, see the *Sun ONE Application Server 7 Getting Started Guide*. This book can be found at [http://docs.sun.com/db/coll/s1\\_asse\\_en](http://docs.sun.com/db/coll/s1_asse_en).

If you want to use the IDE with an Oracle database, see the *Sun ONE Studio 5 J2EE Application Tutorial* found on the Sun ONE Studio Developer Resources portal at: <http://forte.sun.com/ffj/documentation/tutorialsandexamples.html>



## Using BEA WebLogic Servers With the IDE

---

The standard installation of Sun ONE Studio includes Sun ONE Application Server 7, Standard Edition configured as the default application server. However, you can use other application servers with the IDE. This chapter describes how to configure the IDE environment to use WebLogic Servers.

The IDE installation includes support for two versions of the BEA WebLogic servers: BEA WebLogic Server versions 6.1 SP4 and 7.0 SP2.

This chapter describes:

- “Configuring the WebLogic Environment” on page 67
- “WebLogic Support in a Multiuser Environment” on page 71

---

## Configuring the WebLogic Environment

The WebLogic Server Plug-in module is installed with the IDE installation, but is not enabled. To use BEA WebLogic Server 6.1 or 7.0, you must do the following:

- **Enable the plug-in support for the WebLogic Server version you use**, see “To Enable the WebLogic Server Plug-in Support” on page 68.
- **Set the WebLogic Server as your default application server**, see “To Set the WebLogic Server as the Default Application Server” on page 69.
- **Configure the IDE to start the WebLogic Server**, see “To Configure the IDE to Start the WebLogic Server” on page 70.

## ▼ To Enable the WebLogic Server Plug-in Support

---

**Note** – Do not have any directories containing J2EE platform components mounted in the IDE's filesystem when performing this procedure.

---

**1. Start the IDE.**

See Chapter 5 for this information.

**2. In the main IDE windows, choose Tools → Setup Wizard.**

The Setup Wizard opens and displays the General Sun ONE Studio Settings page.

**3. Click Next.**

The Module Installation page displays.

**4. Expand the J2EE Support node.**

A list of modules with version information and whether the module is enabled appears.

**5. Find WebLogic Server Deployment Module and set the Enabled column to True.**

**6. (Optional, but recommended) If you are not using the Sun ONE Application Server, disable it by toggling the value in the enabled column to False.**

Disabling this unused plug-in support reduces performance overhead while running the IDE.

**7. Click Finish.**

The IDE is initially installed with the WebLogic Server 7 support as the default, so completing this step enables the general WebLogic Server support and creates an entry for WebLogic Server 7 in the Server Registry.

- If you are using WebLogic Server 7, continue to “To Set the WebLogic Server as the Default Application Server” on page 69.
- To use WebLogic Server 6.1, continue to Step 8.

**8. (For WebLogic Server 6.1) To enable the WebLogic Server 6.1-specific plug-in, follow these steps:**

**a. Choose Tools → Options.**

The Options page displays.

**b. Expand the Debugging and Executing node and select WebLogic Plugin Options entry.**

The property sheet values display in the right hand side of the page.

**c. Set the WebLogic Server 6 Support property to True.**

- d. **((Optional, but recommended) If you don't intend to use WebLogic Server 7, set the WebLogic Server 7 Support to False.**

Disabling this unused plug-in support reduces performance overhead while running the IDE.

- e. **Click Close.**

- f. **Now, continue to “To Set the WebLogic Server as the Default Application Server” on page 69.**

## ▼ To Set the WebLogic Server as the Default Application Server

1. **In the IDE Explorer window, select the Runtime tab and expand the Server Registry/Installed Servers node.**

The enabled WebLogic Server nodes are visible.

2. **Right-click the WebLogic Server node and choose Properties.**

The property sheet for the WebLogic server appears.

3. **Select the WebLogic Home property.**

4. **Type the applicable value for the property and close the property sheet. For example on a Microsoft Windows system, type:**

- *bea-install-dir*\weblogic700 for WebLogic Server 7.0.
- *bea-install-dir*\wlserver6.1 for WebLogic Server 6.1.

Replace the variable *bea-install-dir* with the pathname to your WebLogic Server installation directory.

5. **Add a WebLogic server instance by right-clicking the appropriate WebLogic Server node and choosing Add Server Instance.**

6. **Set the password value in the property sheet by following these steps:**

- a. **Right-click the WebLogic server instance you just created and choose Properties.**

The property sheet for the instance appears.

- b. **Select the Password property and type the password you specified during the WebLogic server installation as the property's value.**

- c. **(WebLogic Server 7 only) Set the RootDirectory property to the location of the server's `config.xml` file.**

For example, *bea-install-dir*/user\_projects/mydomain

d. Close the property sheet.

7. **Right-click the WebLogic Server Instance 1 and choose Set As Default Application Server.**

The WebLogic server is now the default application server used by the IDE.

---

**Note** – WebLogic Server 7.0 requires that the data sources for CMP beans are `TxDatasources` rather than `Datasources`. This requirement differs from WebLogic Server 6.1 requirements and is indicated by a message when the application is deployed to the WebLogic Server 7.0. For more information, see the BEA web site at <http://edocs.bea.com/wls/docs70/faq/jdbc.html>.

---

## ▼ To Configure the IDE to Start the WebLogic Server

To start the WebLogic server from the IDE, you must set the Startup Java Options property.

1. **In the IDE, select the Explorer's Runtime tab.**
2. **Expand the Server Registry node and expand the Installed Servers subnode.**
3. **Expand the WebLogic Server node to see the instance nodes.**
4. **Select the instance you want to change and right-click the WebLogic Server Instance node and choose Properties.**  
The Properties window appears for this instance.
5. **Locate the Startup Java Options property and enter the following in the text field:**  
`-Djavaplugin.enabled=true`
6. **(Optional) If needed, specify additional Java class paths or native libraries for the WebLogic Server using the properties: Extra Class Path and Extra Library Path.**  
These properties are found on the WebLogic Server property sheet accessed as described above in Step 4.
7. **(Optional) If your WebLogic server uses external resources, such as the examples PointBase server included with the WebLogic installation, make sure these resources are available before starting the WebLogic server from the IDE.**

The IDE does not automatically detect the external dependency. See Chapter 8 for details on configuring an external PointBase installation.

---

# WebLogic Support in a Multiuser Environment

A command-line configuration script is provided to assist system administrators in enabling the WebLogic Plug-in support in a multiuser environment. System administrators setting up a multiuser environment can use the command-line facility to enable WebLogic Server support and disable Sun ONE Application Server 7 for all users.

---

**Note** – This procedure must be performed before the IDE is started for the first time.

---

## ▼ To Enable WebLogic Plug-in Support for a Multiuser Environment

1. **Become a superuser.**
2. **Change to the IDE installation directory.**

```
# cd $studio-install-directory/bin
```

On a Solaris system, the default *\$studio-install-directory* is `/opt/studio5_se`.

3. **Execute the configuration script with the `enable` option.**

```
# ./plugin_config.sh -enable weblogic
```

4. **To disable Sun ONE Application Server 7 on a Solaris system, use the `disable` option, for example:**

```
# ./plugin_config.sh -disable $SAS
```





## Upgrading Your Installation

---

This chapter discusses the following topics:

- “Updating Modules With the Update Center” on page 73
- “Using the License Manager Tool” on page 74

---

### 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. Click the Update Center button from the IDE’s Welcome screen or choose Tools → Update Center from the main IDE window.**

The Update Center wizard appears.

- 2. Select Sun ONE Studio Update Center as the Update Center, and deselect NetBeans Update Center.**

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

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

- 4. Click Next, and type your Sun ONE Studio Update Center login name and password.**

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

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

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

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

The IDE installs the selected modules and then restarts itself.

For more information about how the Update Center works and to review Sun's privacy policy regarding your personal information, see the Developer Resources Site FAQs at <http://forte.sun.com/ffj/feedback/sitefaq.html>.

---

## Using the License Manager Tool

The Sun ONE Studio 5 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 60-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 60-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 60-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.

- 1. Start the IDE.**

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

The License Manager appears.

- 3. Click on the Serial Number Installation tab.**

The Serial Number Installation page appears.

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



## Uninstalling the IDE

---

An uninstaller wizard is available to remove the Sun ONE Studio 5 IDE. You must uninstall the IDE and the Sun ONE Application Server with the same user privileges required during the installation. On a Solaris or Linux system, you must be a superuser. On a Microsoft Windows system, you must have administrative privileges.

This chapter describes how to uninstall each of the supported platforms:

- **For Microsoft Windows systems**, see “To Uninstall the IDE (Microsoft Windows Platform)” on page 77.
- **For Linux systems**, see “To Uninstall the IDE (Linux Systems)” on page 79.
- **For Solaris OS**, see “To Uninstall the IDE (Solaris OS)” on page 80.

---

## Using the Uninstaller

### ▼ To Uninstall the IDE (Microsoft Windows Platform)

Use the Microsoft Windows *Add/Remove* utility to uninstall in the Windows operating environment.

1. **Exit and shut down the IDE before starting this procedure.**
2. **Ensure that you have at least J2SE version 1.4.1\_02 available on your system.**
3. **Choose Start > Settings > Control Panel.**

The Control Panel dialog box appears.

**4. Double-click Add/Remove Programs.**

**5. Select Sun ONE Studio 5, Standard Edition from the list of currently installed programs.**

**6. Click Change/Remove.**

The InstallShield Wizard prepares the uninstaller wizard and the Welcome panel appears.

**7. Click Next and follow the instructions.**

When the uninstallation is complete, the final Summary panel appears.

**8. Click Finish.**

**9. Check the *s1studio-install-directory*.**

A successful uninstallation leaves the following files and folders:

*s1studio-install-directory*

install.log

uninstall.log

*s1studio-install-directory*\appserver7

statefile

uninstall.exe

uninstall.log

*s1studio-install-directory*\appserver7\bin

icudt2.dll

icuin2.dll

icule2.dll

icuuc2.dll

*s1studio-install-directory*\appserver7\bin\lib

*s1studio-install-directory*\appserver7\bin\share\bin

If your *s1studio-install-directory*/appserver7 directory contains other files, you might have installed add-on products or the uninstallation might be incomplete. See “Identifying and Fixing an Incomplete Uninstallation” on page 95 for more information.

---

**Note** – The *s1studio-user-directory* is not deleted during uninstallation.

---

**10. Examine the *s1studio-install-directory*\uninstall.log file for error messages.**

**11. If the uninstallation was successful, you can delete the remaining directories and files.**

## ▼ To Uninstall the IDE (Linux Systems)

---

**Caution** – You must use the Sun ONE Studio uninstaller to uninstall this software from your Linux system. Do not attempt to use `rpm -e` commands to uninstall the IDE. Failure to use the uninstaller might result in a corrupted system.

---

1. Exit and shut down the IDE before starting this procedure.
2. Ensure that you have at least J2SE version 1.4.1\_02 available on your system.
3. Set your display environment variable to display to your local machine.

For example, if you use the bash shell, type:

```
% export DISPLAY=your-local-machine:0.0
```

4. Become a superuser.
5. Start the uninstaller wizard.

```
# java -jar /s1studio-install-directory/_uninst/uninstall.jar
```

The uninstaller's Welcome screen appears.

6. Click Next and follow the instructions.

The uninstaller wizard uninstalls the IDE.

7. Click Finish.
8. Check the *s1studio-install-directory*.

A successful uninstallation leaves the following directories and files:

*s1studio-install-directory*

```
uninstall.log  
install.log
```

*s1studio-install-directory*/appserver7

```
uninstall  
statefile  
uninstall.log
```

*s1studio-install-directory*/\_uninst

If your *s1studio-install-directory*/appserver7 directory contains other files, you might have installed add-on products or the uninstallation might be incomplete.

---

**Note** – The *s1studio-user-directory* is not deleted during uninstallation.

---

**9. Examine the *s1studio-install-directory/uninstall.log* file for error messages.**

If you suspect your uninstallation was incomplete, see Chapter 12 for information about fixing a failed uninstallation.

**10. If the uninstallation was successful, you can delete the remaining directories and files.**

```
# rm -r s1studio-install-directory
```

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

**11. Exit from superuser privileges.**

## ▼ To Uninstall the IDE (Solaris OS)

---

**Caution** – Use the Sun ONE Studio uninstaller to uninstall this software from your Solaris system. Do not attempt to use `rm -r` or `pkgrm` commands to uninstall the IDE. Failure to use the uninstaller might result in a corrupted system.

---

- 1. Exit and shut down the IDE before starting this procedure.**
- 2. Ensure that you have at least J2SE version 1.4.1\_02 available on your system.**
- 3. Enable client access to the X server by typing:**

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

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

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

- 5. Become a superuser (root).**



## 6. Start the uninstaller wizard.

```
# java -jar /s1studio-install-directory/_uninst/uninstall.jar
```

The Welcome screen appears.

## 7. Click Next and follow the instructions.

The uninstaller wizard uninstalls the IDE.

## 8. Click Finish.

## 9. Check the *s1studio-install-directory*.

A successful uninstallation leaves the following directories and files:

*s1studio-install-directory*

uninstall.log

install.log

*s1studio-install-directory/appserver7*

uninstall

statefile

uninstall.log

*s1studio-install-directory/\_uninst*

If your *s1studio-install-directory/appserver7* directory contains other files, you might have installed add-on products or the uninstallation might be incomplete.

---

**Note** – The *s1studio-user-directory* is not deleted during uninstallation.

---

## 10. Examine the *s1studio-install-directory/uninstall.log* file for error messages.

If you suspect your uninstallation was incomplete, see Chapter 12 for information about fixing a failed uninstallation.

## 11. If the uninstallation was successful, delete the remaining directories and files. :

```
# rm -r s1studio-install-directory
```

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.

## 12. Disable client access and exit from superuser privileges.

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

# Troubleshooting Problems

---

This chapter provides tips for how to troubleshoot problems that you might encounter in the following areas:

- “Installing Solaris 8 OS Patches With the `solaris_patch_installer`” on page 84
- “Installing the IDE” on page 85
- “Starting the IDE” on page 90
- “Using Start Menu Items (Microsoft Windows Platform)” on page 91
- “Running Web Services” on page 92
- “Running Web Services Using UDDI” on page 94
- “Using WebLogic Server 6.1 or 7.0” on page 95
- “Identifying and Fixing an Incomplete Uninstallation” on page 95

---

# Installing Solaris 8 OS Patches With the `solaris_patch_installer`

TABLE 12-1 describes problems you might encounter using the `solaris_patch_installer` script.

**TABLE 12-1** `solaris_patch_installer` Problems

Problem	Solution
<p>You get an error message similar to the following after running the <code>solaris_patch_installer</code> on a newly installed Solaris 8 OS:</p> <pre># ./solaris_patch_installer Solaris Patch Installer for J2SE, v.1.4.1 Installing 109147-14... successfully installed Installing 108434-06... ... Installing 108773-12... pkgadd failed Cannot continue patch installation. For more details, please look at /var/tmp/solaris_patch_installer.log</pre>	<p>Run the <code>solaris_patch_installer</code> script a second time. If you continue to have problems, contact your Solaris system administrator.</p> <p>This error can occur if you have a more recent revision of a patch on your system than the one that is included in the script. The script does not install the older patch version. In rare cases, the subsequent patch that the script tries to install has an explicit dependency on that older patch. When this situation arises, it will be necessary to examine the specific patches on the system and use the patches listed in Appendix A to decide what to do. This task is best done by an experienced system administrator. Remember, the order in which the <code>solaris_patch_installer</code> installs the patches is important. The patches are installed in the order listed in Appendix A.</p>

---

# Installing the IDE

TABLE 12-2 describes problems you might encounter during the IDE installation.

**TABLE 12-2** Sun ONE Studio 5 IDE Installation Problems

Problem	Solution
<p>You get an error message while installing the Sun ONE Studio 5 IDE: Error writing file = There may not be enough temporary disk space. Try using <code>-is:tempdir</code> to use a temporary directory on a partition with more disk space</p>	<p>Start the installer using <code>-is:tempdir</code> command-line option to specify a directory with more space. Don't specify a directory on an NFS-mounted filesystem. Don't specify a directory using a symlink.</p> <p>For example, in a Solaris operating environment, type the following at the command prompt:</p> <pre>\$ s1s5se-sol-sparc-en.bin -is:tempdir temporary-directory</pre>
<p>The installer fails and displays a message that there is not enough available disk space to use for installation. However, the file system you specified for installing the IDE has plenty of available disk space.</p>	<p>Determine if the filesystem you specified is symbolically linked to another file system whose disk space is not recognized. For example, in a Solaris environment, <code>/export/home</code> has 2 GB of space and <code>/</code> has 100 MB. The <code>/opt</code> directory is symbolically linked to <code>/export/home</code>. If you specified <code>/opt/s1studio</code> as the IDE installation directory, the Sun ONE Studio 5 installer does not recognize the symbolic link to <code>/export/home</code>. The installer recognizes only the <code>/</code> directory, which is the target directory for <code>/opt</code> and has only 100 MB.</p> <p>To correct the problem, directly specify the filesystem with the larger available disk space as the installation directory.</p>
<p>You get the following error message while installing the Sun ONE Studio 5 IDE: Error: Could not find JVM</p>	<p>Start the installer with the <code>-is:javahome</code> command-line option, to specify where the J2SE platform is installed.</p> <p>For example, in a Solaris OS, type the following at the command prompt:</p> <pre>s1s5se-sol-sparc-en.bin -is:javahome java-home- directory</pre>
<p>(UNIX only) The installer looks like it has hung. No messages are displayed.</p>	<ul style="list-style-type: none"><li>• Check that the <code>DISPLAY</code> environment variable is set correctly. If you are installing on your local system, the <code>DISPLAY</code> environment variable should be set to <code>your-machine-name:0.0</code>.</li><li>• Check that you have enabled access to the X server with the command <code>xhost + your-machine-name</code>.</li></ul> <p>See Chapter 3 for Linux systems installation and Chapter 4 for Solaris OS installation.</p>

**TABLE 12-2 Sun ONE Studio 5 IDE Installation Problems (Continued)**

Problem	Solution
<p>(Solaris OS only)</p> <pre>ERROR: could not initialize interface awt - exception: java.lang.NoClassDefFoundError java.lang.NoClassDefFoundError at java.lang.Class.forName0(Native Method) at java.lang.Class.forName(Class.jav a:130 ... Wizard.getExitCode(): called after WizardServices is shutdown. Wizard.getExitCode(): called after WizardServices is shutdown.</pre>	<p>This error indicates that your <code>DISPLAY</code> environment variable is not set correctly. In some cases, you need to make sure that it includes the domain as well as the host name. For example:</p> <pre><b>setenv DISPLAY your-machine-name.your-domain:0.0</b></pre>
<p>The IDE installer exits without installing the product. No messages are displayed.</p>	<ul style="list-style-type: none"> <li>• The file you downloaded from the Sun ONE Studio product download page is not complete. Download the file again and check that the size of the downloaded file is the same as the file size specified on the product download page. Run the IDE installer again.</li> <li>• You have specified an invalid command-line parameter in the <i>installer-name.sp</i> file. Check the file and correct the command-line options. Run the IDE installer again. See Appendix D.</li> <li>• Run the installer launcher (<i>installer-name.exe</i> file or <i>installer-name.bin</i> file) with the option <code>-is:log log.txt</code>, where <i>installer-name</i> is the specific installer file name for your platform. Check <code>log.txt</code> for possible errors. See Appendix D.</li> </ul>
<p>(Solaris OS only) While attempting to install using remote CD drive, the following error is seen in the CD Mount Support dialog box:</p> <pre>No CD found. Please insert Sun ONE Studio 5 CD.</pre>	<p>You are attempting to install from a remote CD drive mounted through NFS. NFS is not supported. You should invoke installation directly from the remote CD drive. You must still have the proper J2SE platform version installed on the local machine. Run the Solaris installer from the following location:</p> <pre><b>CD-mount- path/en_studio5_5/installers_se/s1s5se_sol- sparc-en.bin</b></pre>
<p>The <code>-is:tempdir</code> command-line option is not working.</p>	<p>Ensure that you are using the correct syntax for the command-line option. For example, in a Solaris environment, the syntax is as follows:</p> <pre><b>s1s5se_sol-sparc-en.bin -is:tempdir temporary-directory.</b></pre> <p>Don't specify a directory on an NFS-mounted filesystem.</p>

**TABLE 12-2** Sun ONE Studio 5 IDE Installation Problems (*Continued*)

<b>Problem</b>	<b>Solution</b>
You get an error message that says that the product is not supported for the Solaris 7 OS after you inserted the product CD on a computer running in the Solaris 7 operating environment.	The Sun ONE Studio 5 IDE is only supported for the Solaris 8 and Solaris 9 OS.
(Solaris OS only) You get the following error message: ERROR: cannot find product/product.xml on your computer.	Stop and restart the volume management process ( <code>vold</code> ) on your system, and run the installer again. <ol style="list-style-type: none"><li>1. 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 <code>fuser</code> command.</li><li>2. Become superuser.</li><li>3. Stop volume management. <code># /etc/init.d/volmgt stop</code></li><li>4. Restart volume management. <code># /etc/init.d/volmgt start</code></li></ol>
(Solaris OS only) Not able to eject the product CD after running the installer manually.	After running the installer manually, change out of the CD-ROM directory before trying to eject the CD-ROM from the drive. The CD-ROM is not ejecting because the system is detecting that the CD is being used.
(Linux RedHat 7.2 only) During installation, the installer componenet panel displays the message: The installation of Sun ONE Application Server 7 with PointBase is not supported on your platform.	Linux RedHat 7.2 is a supported platform. However, if you have modified the <code>/etc/redhat-release</code> system file, the installer cannot recognize your platform as valid. The installer is looking for the value "Red Hat Linux release 7.2" in the system file.

**TABLE 12-2** Sun ONE Studio 5 IDE Installation Problems (*Continued*)

Problem	Solution
<p>(Solaris OS) After inserting the CD, the installer started but displayed the following message:</p> <p>The installation cannot continue for the following reason(s): To install Sun ONE Studio 5 you need to log in as superuser or a user with administrator privileges.</p>	<p>You are logged in as a standard user without the appropriate permissions to install this product. Do one of the following:</p> <p>Method one:</p> <ol style="list-style-type: none"><li>1. Click Finish on the installer wizard page.</li><li>2. Open a terminal window and type <code>eject cdrom</code>.</li><li>3. Log out of your system.</li><li>4. Log in to your sytem as a superuser. .</li><li>5. Reinsert the CD.</li></ol> <p>Method two:</p> <ol style="list-style-type: none"><li>1. Open a terminal window.</li><li>2. Enable access to the Xserver by typing <code>xhost + your-machine-name</code>.</li><li>3. Set the DISPLAY environment variable to your local machine by typing, for example: <code>setenv DISPLAY your-machine-name:0.0</code></li><li>4. Become a superuser.</li><li>5. Change to the CD-ROM directory. Type: <code>cd /cdrom/en_studio5_5</code></li><li>6. Invoke the installer. Type: <code>./install.sh</code></li><li>7. When the installation is finished, disable the Xserver by typing <code>xhost -</code>, then exit from superuser privileges.</li></ol> <p>If you do not have the proper login permissions, contact your system administrator.</p>
<p>(Solaris OS only) During installation, you see this error message: J2SDK packages SUNWj2rt or SUNWj3rt are missing on your system. you must install a valid package-based JDK 1.4.1_02 (or later) before running this installer.</p>	<p>Some of the default Java packages on your Solaris OS have been removed. You must install a package-based J2SE platform that meets the minimum requirements. See Chapter 1 for more details.</p>



**TABLE 12-2 Sun ONE Studio 5 IDE Installation Problems (Continued)**

Problem	Solution
<p>(UNIX systems) The installer Summary panel indicates that your installation was successful, but when you review the <code>install.log</code> file, you see the following error: <code>Setup.product.install, com.sun.installer. InstallApplicationServerAction, err, Error occurred while installing [0] -&gt; /s1studio-install-directory/appserver_inst/install.sh /s1studio-install-directory/appserver_inst statefile ../install.log where s1studio-install-directory is an NFS-mounted filesystem.</code></p>	<p>This error occurs on UNIX systems if you specify an NFS-mounted filesystem as the installation directory. As a result of this error, the IDE has been installed, but not Sun ONE Application Server 7.</p> <p>For best results, it is recommended that you uninstall the IDE, then reinstall the IDE specifying a local filesystem directory for your installation directory. See Chapter 11.</p> <p>If necessary, also see “Identifying and Fixing an Incomplete Uninstallation” on page 95 for additional help.</p>
<p>(Microsoft Windows) After exiting the installer or uninstaller wizard, you see the <code>WindowsNativeToolkit</code> process consuming a large percentage of your CPU resources.</p>	<p>The <code>WindowsNativeToolkit</code> process is started during installation and uninstallation. Sometimes it does not stop properly. Use the Windows Task Manager to find any instances of the process <code>WindowsNativeToolkit</code> and end the process.</p>
<p>(Solaris OS) The installer Summary panel indicates that installation was successful, but when you review the <code>install.log</code> file, you see the following error:</p> <pre>Installing Appserver... Existing Sun ONE Message Queue 3.0 installation has been detected. Silent installation cannot proceed. Please consult Installation Guide for upgrade information. Can't write statefile "s1studio-install-directory/appserver7/st atefile" :java.io.FileNotFoundException: "s1studio-install-directory/appserver7/sta tefile (No such file or directory) (date-time) Finished Installing Appserver7...</pre> <p>This indicates that the Sun ONE Application Server was not installed.</p>	<p>This problem occurs if you try to install Sun ONE Studio 5 on a system that already has Sun™ One Message Queue 3.0 software installed. This has caused the Sun ONE Application Server 7 installation to fail and only the IDE has been installed. To fix this problem, follow these steps:</p> <ol style="list-style-type: none"><li>1. Uninstall Message Queue 3.0 using the <code>pkgrm</code> utility. See the Sun ONE Message Queue Installation Guide at <a href="http://docs.sun.com/source/816-5928-10/index.html">http://docs.sun.com/source/816-5928-10/index.html</a> for details on uninstalling this software.</li><li>2. Uninstall the IDE. See “To Uninstall the IDE (Solaris OS)” on page 80.</li><li>3. Reinstall Sun ONE Studio 5.</li></ol>

---

# Starting the IDE

TABLE 12-3 describes problems you might receive during startup and configuration of the newly installed IDE.

**TABLE 12-3** Sun ONE Studio 5 Startup and Configuration Problems

<b>Problem</b>	<b>Solution</b>
<p>When starting the IDE, you get an error message similar to the following:</p> <pre>ERROR: The J2SE[tm] 1.2.1 found at /usr/java1.2/bin/java cannot be used by the IDE. J2SE[tm] 1.4.1_02 is recommended. NOTE: You can download and install the J2SE[tm] and related Solaris[tm] patches from http://access1.sun.com/forte/. Warning: Current runtime environment does not satisfy minimum requirements.</pre>	<p>The values of the <code>\$JAVA_PATH</code> and <code>\$JDK_HOME</code> environment variables override the value of the J2SE platform path you specified during the IDE installation. You need to unset these environment variables or use the <code>-jdkhome</code> command-line option when starting the IDE. See Chapter 5.</p>
<p>You experience performance problems running the IDE.</p>	<p>Increase your virtual memory or swap space to 1.5 to 2 times the amount of your machines's installed RAM.</p>

---

# Using Start Menu Items (Microsoft Windows Platform)

TABLE 12-4 describes errors you might receive using the Start menu items on Microsoft Windows to access documentation, examples and tutorials, or other items that take you to a web page. These errors are due to the way Microsoft Windows is interpreting your browser settings.

**TABLE 12-4** Start Menu Errors (Windows)

<b>Problem</b>	<b>Solution</b>
<p>Error message appears when you select one of the IDE Start Menu items that take you to a web page. For example:</p> <pre>Error: Cannot find the file C:\Sun\studio5_se\docs\documentation.html. Make sure the path and filename are correct and that all required libraries are available.</pre>	<p>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.</p> <p>Click OK to dismiss the error.</p> <p>To solve this problem, set Netscape as your default browser, or set Internet Explorer as the program to open HTML pages.</p>
<p>A subsequent error message appears after dismissing the one described above.</p> <pre>Error: Unable to run this command.</pre>	<p>Click OK to dismiss this error.</p> <p>Set Netscape as your default browser.</p>

---

# Running Web Services

TABLE 12-5 describes error messages you might get when running a web service using any of the application servers supported by the IDE.

**TABLE 12-5** Errors When Running a Web Service With Any Application Server

<b>Problem</b>	<b>Solution</b>
<pre>[java.rmi.RemoteException: HTTP transport error: java.net.ConnectException: Connection refused; nested exception is: HTTP transport error: java.net.ConnectException: Connection refused</pre>	<ul style="list-style-type: none"><li>• Changes were made to the web service, and you did not refresh the web service client that was making the call to the web service. To refresh the web service client: Right-click the web service client node and select Refresh From Web Service. from the contextual menu. This regenerates the client proxy to reflect the changes made to the web service.</li><li>• After you developed and deployed your web service, you changed the target deployment server and you did not change the web service SOAP RPC URL. To fix this:<ol style="list-style-type: none"><li>1. Change the SOAP RPC URL property found on the web service property sheet.</li><li>2. Right-click the web service node and choose Generate Web Service Files.</li><li>3. If you have a default client, right-click it and select Refresh From Web Service.</li><li>4. Redeploy the web service.</li></ol></li></ul>

**TABLE 12-5** Errors When Running a Web Service With Any Application Server (*Continued*)

Problem	Solution
<pre>[java.rmi.RemoteException:cannot connect to server:Not found; nested exception is: cannot connect to server: Not found</pre>	<p>The Web Context property of the web module in the J2EE application does not match the context root specified in the SOAP RPC URL property of the web service. To view the Web Context property of the web module:</p> <ol style="list-style-type: none"><li>1. Expand the J2EE application to which the web service was added.</li><li>2. Right-click the web module of the web service (the file whose name ends in <code>_war</code>) and choose Properties.</li><li>3. The Web Context property is one of the properties displayed in the Properties window.</li></ol> <p>To view the context of the SOAP RPC URL property of the web service:</p> <ol style="list-style-type: none"><li>1. Right-click the web service node and choose Properties.</li><li>2. The SOAP RPC URL property displays a value that is similar to the following: <code>http://localhost:8000/MyService/MyService</code></li></ol> <p>The first instance of <code>MyService</code> in this URL is the context root or web context. You can change it to any value of your choice, but it must match the value of the Web Context property of the web module in the J2EE application.</p>

---

# Running Web Services Using UDDI

TABLE 12-6 describes error messages you might get when running a web service using UDDI.

**TABLE 12-6** Errors When Running a Web Service Using UDDI

<b>Problem</b>	<b>Solution</b>
You get an empty web page when viewing .wsdl files.	Many versions of the Netscape web browser do not display the .wsdl file. View the page's source file to see the actual .wsdl file.
You get the following exception when searching for anything in a UDDI registry using the New Client wizard: <code>IllegalArgumentException</code>	If you intend to use a public UDDI registry, set the User Proxy Server name and port information in the IDE. <ul style="list-style-type: none"><li>• Choose Tools → Setup Wizard from the main window of the IDE and provide the User Proxy Server name and port.</li></ul> You must restart the IDE for the values to take effect.
The internal UDDI registry server fails to start and displays the following exception: <code>Ljava.lang.RuntimeException: RegistryServerServlet.initializeDB( ...): com.sun.xnode.XNodeException: aborting connection attempt., RegistryServerServlet.init(...): connection: 1, Database failed to connect</code>	A possible cause is that a previous Xindice server instance was not terminated properly. (On a Microsoft Windows system, you might have to restart the operating system to get rid of these server instances.) <ol style="list-style-type: none"><li>1. Terminate the corresponding Java processes associated with that Xindice server instance.</li><li>2. Restart the IDE.</li></ol> Always terminate the internal UDDI registry server using the following steps: <ol style="list-style-type: none"><li>1. Select the Runtime tab of the Explorer.</li><li>2. Expand the UDDI Server Registry node.</li><li>3. Right-click the Internal UDDI Registry and choose Stop Server from the contextual menu.</li></ol>

---

# Using WebLogic Server 6.1 or 7.0

TABLE 12-7 describes error messages you might get when using WebLogic Server 6.1 or 7.0.

TABLE 12-7 Errors When Using WebLogic Server 6.1 or 7.0

Problem	Solution
WebLogic server is unable to download its XML document definitions from the BEA web site.	If you deploy a J2EE application client to the WebLogic server, the server must be able to download its XML document definitions from the WebLogic web site. If your connection to the web requires a proxy server, specify this setting in the IDE before deploying an application to the WebLogic server. To set the proxy server, choose Tools → Setup Wizard and specify your proxy and web browser settings.
When executing a J2EE application you see the following error: Error configuring application listener of class ...<.JAXRPCContextListener> java.lang.ClassNotFoundException: ...<JAXRPCContentListener>	You started the WebLogic server from outside the IDE. Please see “To Configure the IDE to Start the WebLogic Server” on page 70 to start the server from the IDE. If you must start the server from outside the IDE, add the following to the WebLogic class path environment variable. For example, on a Microsoft Windows system, the path to add is <i>s1studio-install-directory</i> \jwsdp\jwsdp-common-lib\jwsdp-common.jar. See WebLogic documentation for more information if needed.

---

## Identifying and Fixing an Incomplete Uninstallation

If the IDE uninstaller wizard quits before all the product files are deleted, some files, directories, and other system entries are not properly uninstalled.

You can identify a failed uninstallation in the following ways:

- Examining the directories and files remaining after you uninstall the IDE indicates that not all files were deleted properly. See Chapter 11 and refer to the section 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 IDE, 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 IDE or if you try to install a stand-alone version of Sun ONE Application Server 7.

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. You can also visit the Knowledge Base at the Sun ONE Studio Developer Resources portal at the following URL: <http://forte.sun.com/ffj>.

## ▼ To Fix a Failed Uninstall (Microsoft Windows Platform)

**1. Be sure you are logged in as a user with administrator privileges.**

**2. Locate the application server uninstaller in your *s1studio-install-directory*.**

The default installation directory is `%SystemDrive%\Sun\studio5_se`. If this executable is not present, continue to Step 4.

**3. Run the application server uninstaller and continue to Step 4.**

```
C:\> s1studio-install-directory\appserver7\uninstall.exe
```

**4. Stop the WindowsNativeToolkit processes and remove corresponding files.**

**a. Use the Windows Task Manager to find any instances of the process WindowsNativeToolkit and end the process.**

**b. Delete the WindowsNativeToolkit file found at `%TEMP%\WindowsNativeToolkit_<version-id>.exe`.**

**5. Use the `wincleanup.exe` utility to remove services corresponding to the default domain and any instances you created.**



- a. **Locate the `wincleanup.exe` utility at `s1studio-install-directory\appserver7\bin\wincleanup.exe`.**

If the utility is not at this location, you can download it from <http://forte.sun.com/ffj>. Look underneath the heading IMPROVING PRODUCTIVITY.

- b. **Run `wincleanup.exe` to remove the default domain services.**

```
C:\> s1studio-install-directory\appserver7\bin\wincleanup.exe
```

- c. **Repeat Step b for any additional domains or server instances you have created, using the service (domain or server) name as an argument.**

```
C:\> s1studio-install-directory\appserver7\bin\wincleanup.exe service-name
```

6. **Using the Windows Registry Editor, delete the following folder and its contents from the Windows Registry:**

```
HKEY_LOCAL_MACHINE\SOFTWARE\Sun Microsystems\Application Server
```

7. **Remove the following key and its contents:**

```
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\CurrentVersion\Uninstall\  
Sun ONE Application Server 7
```

8. **Remove the application server entries from the `productregistry` file located at `%SystemRoot%\system32\`.**

9. **Remove the Start Menu Program Group named Sun Microsystems > Sun ONE Application Server 7 and its contents (Program Items).**

10. **Remove the Start Menu Program Group named Sun Microsystems > Sun ONE Studio 5 SE and its contents.**

11. **Remove the product files from the `s1studio-install-directory`.**

12. **Reboot the system so that the system comes up with a clean registry.**

## ▼ To Fix a Failed Uninstall (Solaris OS)

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. Open the Solaris Product Registry tool.**

```
# /usr/bin/prodreg &
```

**5. Expand the System Registry node and choose the Sun ONE Application Server node.**

**6. Click Uninstall and follow the instructions.**

**7. Remove the remaining files in the *s1studio-install-directory*.**

```
# rm -r s1studio-install-directory
```

---

**Note** – Remove the program files and directories as the last step in this procedure.

---

The following Solaris packages are installed by the IDE installer:

- SUNWasaco
- SUNWascmo
- SUNWasdbo
- SUNWasdmo
- SUNWasdvo
- SUNWaslco
- SUNWaso
- SUNWaspx
- SUNWasro

Use this list as a reference to be sure you removed all of them. It is recommended that you only remove these packages manually if the uninstaller wizard and the Solaris Product Registry tool failed to remove them.

**8. Disable client access to the X server and exit from superuser privileges.**

```
# xhost - your-local-machine  
# exit
```

## ▼ To Cleanup a Failed Uninstall (Linux Systems)

1. Become a superuser.
2. Query for installed application server rpm packages.

```
# rpm -qa | grep SUNW
```

You see some or all of the following packages:

- SUNWasaco-7.0.0-0.0.0
- SUNWaso-7.0.0-0.0.0
- SUNWtls-3.3.2-0.0.0
- SUNWxsrt-7.0.0-0.0.0
- SUNWjhrt-7.0.0-0.0.0
- SUNWascmo-7.0.0-0.0.0
- SUNWjasp-7.0.0-0.0.0
- SUNWxrgrt-7.0.0-0.0.0
- SUNWasdmo-7.0.0-0.0.0
- SUNWicu-7.0.0-0.0.0
- SUNWasro-7.0.0-0.0.0
- SUNWjaf-7.0.0-0.0.0
- SUNWxrpcrt-7.0.0-0.0.0
- SUNWpr-4.1.2-0.0.0
- SUNWjmail-7.0.0-0.0.0
- SUNWaclg-7.0.0-0.0.0
- SUNWasdbo-7.0.0-0.0.0

3. Remove any of the 17 packages listed above that appear in the output from the command in Step 2

```
# rpm -e package-name
```

4. Check for installed Message Queue packages.

```
# rpm -qa | grep imq  
# imq-3.0.1-01
```

5. If found, as illustrated in Step 4, remove the Message Queue packages.

```
# rpm -e imq-3.0.1-01
```

**6. Rename** `/var/tmp/productregistry` to  
`/var/tmp/productregistry.BACKUP`.

**7. Remove the following directories, using the `rm -rf` command:**

- `/var/opt/imq`
- `/etc/opt/imq`
- `/var/opt/SUNWappserver7`
- `/etc/opt/SUNWappserver7`
- `/tmp/*admin*`
- `/tmp/*domain*`
- `/tmp/*server*`

**8. Remove the `s1studio-install-directory`.**

```
$ rm -rf /s1studio-install-directory
```

**9. Exit from superuser privileges.**

## Solaris 8 OS Patch Numbers and Descriptions

TABLE A-1 provides the patch numbers and patch descriptions included with the Sun ONE Studio 5, Standard Edition `solaris_patch_installer` for the Solaris 8 OS. These patches must be installed in the order that they are listed in this table. For this reason, the `solaris_patch_installer` script is the recommend method for installing these patches on your system.

**TABLE A-1** Patch Numbers and Descriptions for Solaris 8 OS

Patch Identification Number	Patch Description
110380-04	ufssnapshots support, libadm patch
110934-10	pkgtrans, pkgadd, pkgchk and libpkg.a patch
112396-02	/usr/bin/fgrep patch
108987-13	Patch for patchadd and patchrm
111310-01	/usr/lib/libdhcagent.so.1
111293-04	/usr/lib/libdevinfo.so.1
111111-03	/usr/bin/nawk patch
108528-20	SIGEMT
111023-02	/kernel/fs/mntfs and /kernel/fs/sparcv9/mntfs patch
110386-03	RBAC Feature Patch
108989-02	Accounting
108652-66	Xserver
112003-03	Fontset
111308-03	/usr/lib/libmtmalloc.so.1 patch

**TABLE A-1** Patch Numbers and Descriptions for Solaris 8 OS *(Continued)*

<b>Patch Identification Number</b>	<b>Patch Description</b>
109326-09	security, libresolv poll()
109147-22	Solaris 8 interprocedural optimizer
108993-18	LDAP2 Patch
108940-51	Motif 1.2.7 and 2.1.1: Runtime library patch for Solaris 8 OS
108921-16	CDE 1.4 dtwm
108773-17	X input methods

You can also find additional information about these patches at the SunSolve Patch Support Portal at <http://sunsolve.Sun.com/pub-cgi>.

## Port Usage in the IDE

TABLE B-1 provides a listing of the ports used by the Sun ONE Studio IDE. It includes ports used by the IDE modules, third-party components, and application servers that are used with the IDE. Also included is information on whether the default port assignment can be modified.

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 B-1** Port Usage in the Sun ONE Studio 5, Standard Edition IDE

Module, Application Server, or Third-Party Component	Default Port Number Assigned	Description	How to Modify the Default Port Assignment
NetBeans Open File Module	7318	Open file server	<ol style="list-style-type: none"><li>1. Choose Tools → Options in the main IDE window.</li><li>2. Expand the IDE Configuration node.</li><li>3. Expand the Server and External Tool Settings node.</li><li>4. Right-click Open File Server, and choose Properties from the contextual menu.</li><li>5. Select Port property and type a different port number.</li></ol>
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 → Configure, and set the port number.

**TABLE B-1** Port Usage in the Sun ONE Studio 5, Standard Edition IDE (*Continued*)

Module, Application Server, or Third-Party Component	Default Port Number Assigned	Description	How to Modify the Default Port Assignment
Internal JWSDP Tomcat	8015	Server administration	<ol style="list-style-type: none"> <li>1. In the Runtime tab of the Explorer, expand the Server Registry node and expand the Installed Servers node.</li> <li>2. Expand the Tomcat 4.0 node, right-click the Internal JWSDP node, and choose Properties from the contextual menu.</li> <li>3. Select the Server Port property and type the desired port number.</li> </ol>
	8081	Server HTTP	<ol style="list-style-type: none"> <li>1. In the Runtime tab of the Explorer, expand the Server Registry node and expand the Installed Servers node.</li> <li>2. Expand the Tomcat 4.0 node and expand the relevant installation node.</li> <li>3. Right-click the node representing the Host to be edited, and choose Properties from the contextual menu.</li> <li>4. Select the HTTP Connector property field and type the desired port number.</li> </ol>
	8443	Redirecting	<p>Modify <code>sIstudio-user-dir/JWSDP_base/conf/server.xml</code>. Be aware that you edit the <code>server.xml</code> file at your own risk. Be sure to create a backup version of your working <code>server.xml</code> file before beginning to edit.</p> <ol style="list-style-type: none"> <li>1. On the Runtime tab of the Explorer, expand the Tomcat 4.0 node under the Installed Servers node.</li> <li>2. Right-click the node for the installation of Tomcat that you want to edit. From the contextual menu, choose Configure (<code>server.xml</code>).</li> </ol> <p>The <code>server.xml</code> file appears in the Source Editor. You can now edit <code>server.xml</code> to modify the default port number.</p>
	11555	IDE debugger connection	<ol style="list-style-type: none"> <li>1. In the Runtime tab of the Explorer, expand the Server Registry node and expand the Installed Servers node.</li> <li>2. Expand the Tomcat 4.0 node, right-click the InternalJWSDP node and choose Properties from the contextual menu.</li> <li>3. Select the Debugger tab.</li> <li>4. Select the Debugger Port property and type the desired port number.</li> </ol>



**TABLE B-1** Port Usage in the Sun ONE Studio 5, Standard Edition IDE (*Continued*)

Module, Application 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	<ol style="list-style-type: none"> <li>1. Open the <i>s1studio-install-directory</i>/jwsdp/uddi_base/conf/server.xml file in a text editor.</li> <li>2. Replace the port number.</li> <li>3. Restart the IDE.</li> </ol>
	8089	Tomcat HTTP port for registry server	<ol style="list-style-type: none"> <li>1. Open the <i>s1studio-install-directory</i>/jwsdp/uddi_base/conf/server.xml file in a text editor.</li> <li>2. Replace the port number.</li> <li>3. Restart the IDE.</li> </ol>
	4080	Xindice HTTP	<ol style="list-style-type: none"> <li>1. Open the <i>s1studio-install-directory</i>/jwsdp/tools/xindice/config/system.xml file in a text editor.</li> <li>2. Replace the port number.</li> <li>3. Restart the IDE.</li> </ol>
WebLogic 6.1 or 7.0	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 Runtime tab of the IDE Explorer 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 Runtime tab of the IDE Explorer have the correct value for the Port property.
Sun ONE Application Server 7 Solaris Integrated and Solaris Supported Edition	4848	Server administration HTTP	Refer to the server installation documentation ( <a href="http://docs.sun.com/source/816-7145-10/index.html">http://docs.sun.com/source/816-7145-10/index.html</a> ) for details.
	80	HTTP web server	Refer to the <i>Sun ONE Application Server 7 Getting Started Guide</i> and the <i>Sun ONE Application Server 7 Standard Edition Installation Guide</i> for details. You can find the Sun ONE Application Server 7 documentation at <a href="http://docs.sun.com/db/coll/sl_asse_en">http://docs.sun.com/db/coll/sl_asse_en</a>



## IDE Subdirectories

---

This appendix describes the subdirectories that are installed in the *s1studio-install-directory*. It also describes the user directory created during installation that is used by the IDE for user-specific information.

---

## Installation Subdirectories

TABLE C-1 describes the subdirectories that can be found in the IDE *s1studio-install-directory*. On Solaris and Linux systems, additional directories are used for the installation of Sun ONE Application Server 7. See *Sun ONE Application Server 7 Standard Edition Installation Guide* available at [http://docs.sun.com/db/coll/s1\\_asse\\_en](http://docs.sun.com/db/coll/s1_asse_en) for more details.

**TABLE C-1** Sun ONE Studio 5 Installation Subdirectories

Subdirectory	Description
<code>_uninst</code>	Contains the files used to uninstall the IDE.
<code>appserver_inst</code>	Information files related to Sun ONE Application Server 7 installation.
<code>appserver7</code>	Contains the Sun ONE Application Server 7 files.
<code>bin</code>	Contains contains the IDE startup and utility executables, IDE configuration, security policy.
<code>docs</code>	Contains the Sun ONE Studio 5 help files and other miscellaneous documentation.
<code>examples</code>	Contains source files for examples that illustrate several key features of the Sun ONE Studio 5 software.

**TABLE C-1** Sun ONE Studio 5 Installation Subdirectories (*Continued*)

Subdirectory	Description
jwsdp	Contains files and directories specific to the Java Web Services Developer Pack.
lib	Contains the JAR files that make up the IDE's core implementation and the open APIs.
modules	Stores Sun ONE Studio 5 modules as JAR files.
sources	Contains sources for libraries that might be redistributed with user applications.
system	Contains files and directories used by the IDE for special purposes.
update_tracking	Contains information used by the Update Center.

---

## IDE User Subdirectory

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 is `C:\Documents and Settings\user-id\studio5se_user`.
- On a Solaris or Linux system, the default location is `$HOME/studio5se_user`.

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

## Command-Line Options for Installing the IDE

---

This appendix describes the command-line options for installing the IDE. There are four main reasons for using command-line options.

- **To specify a non-standard location for the J2SE platform**, see “Specifying the Location of the J2SE Platform” on page 110
- **To specify a non-standard location for the temporary space directory**, see “Specifying the Location of the Temporary Space Directory” on page 111
- **To specify a log file for error messages to aid in debugging**, see “Specifying a Log File for Error Messages” on page 111.
- **To install in silent mode**, see “Installing the IDE in Silent Mode” on page 111.

---

# Command-Line Options Used With the GUI Installer

Three command-line options can be used with the GUI installer files. TABLE D-1 summarizes these option.

**TABLE D-1** Command-line Options Used with Gui Installers

Option	Description
<code>-is:tempdir <i>pathname</i></code>	Specifies the directory to use for temporary space. Used when the default on your system has insufficient space for the installer to run successfully.
<code>-is:javahome <i>pathname</i></code>	Specifies the locations of your J2SE platform. Useful when the J2SE platform is installed in a non-standard location.
<code>-is:log log.txt</code>	Directs the installer to put error messages into the log file, log.txt.

## Specifying the Location of the J2SE Platform

- If the installer does not detect your J2SE platform (this can happen if your J2SE platform is installed in a non-standard location), you can invoke the installer from the command line using the option `-is:javahome` to specify the path to your J2SE platform.
- For example, on a Microsoft Windows system, type this command:

```
C:\> \s1studio-download-directory\s1s5se-win-en.exe -is:javahome C:\j2se-directory
```

Replace the variable *j2se-directory* with the location of your J2SE installation.

## Specifying the Location of the Temporary Space Directory

If the default temporary space directory does not have enough space to run the installer, you can invoke the installer from the command line using the option `-is:tempdir` to specify another directory that has sufficient space.

```
C:\> \s1studio-download-directory\s1s5se-win-en.exe -is:tempdir C:\
temporary-directory
```

## Specifying a Log File for Error Messages

If you need to do additional troubleshooting during a problem installation, you can run the installer with the `-is:log log.txt` option. This directs the installer to put error messages in the file `log.txt`.

```
C:\> \s1studio-download-directory\s1s5se-win-en.exe -is:log log.txt
```

---

## Installing the IDE in Silent Mode

You can run the installer in a non-interactive mode, called silent mode, by specifying the `-silent` option on the command line. This option suppresses GUI displays to the terminal window. The procedure for installing the IDE silently (in a non-interactive mode) depends on whether you are installing from files on the CD-ROM or files downloaded from the web site.

- If you downloaded the installer files from the web site, you create a file containing the command-line install options and use the installer launchers. The installer launcher and the options file must reside in the same directory. See “Installing Silently Using Web Download” on page 112.
- If you have the CD-ROM, you type the options on the command line and start installer `jar` files. The `jar` files are only available on the CD-ROM. See “Installing Silently Using the CD-ROM” on page 115.

# Installing Silently Using Web Download

Create a file containing the command-line options you want to use and place the file in the *s1studio-download-directory*. Then invoke the installer from the command line using the `-silent` option. The following example shows the steps for installing the IDE silently from the command line on a Solaris OS.

## ▼ To Install Silently From Web Download (Solaris OS)

1. **In a text editor, create the `s1s5se-sol-sparc-en.sp` file in the *s1studio-download-directory* where you saved the downloaded `s1s5se-sol-sparc-en.bin` installer launcher.**

Include at least the three mandatory options and remember to put them in quotes. For example, your `.sp` file might look like this:

```
installDir="/opt/studio5_se"  
jdkHome="/usr/j2se"  
serialNumber="trial"
```

See TABLE D-2 for other install options.

**TABLE D-2** Command-Line Options for Silent Installation

Option - Short Name	Option - Long Name	Description
id	installDir	Specifies the directory where you want the IDE installed. Mandatory for <code>-silent</code> mode.
jh	jdkHome	Sets the location of the valid J2SE version to use with the IDE. Mandatory for <code>-silent</code> mode.
sn	serialNumber	Sets the license serial number for the IDE. Mandatory for <code>-silent</code> mode.



**TABLE D-2** Command-Line Options for Silent Installation (*Continued*)

Option - Short Name	Option - Long Name	Description
-np	noPointBaseFound	<p>Specifies what to do if Sun ONE Application Server 7 is already installed.</p> <p>The value “useExistingAppserver” tells the installer to continue the installation of the IDE even though an existing installation of the application server has been detected.</p> <p>The value “reinstall” tells the installer to exit if an existing installation of Sun ONE Application Server 7 without PointBase Server is detected.</p> <p>This option is only useful if Sun ONE Application Server 7 without PointBase Server is already installed on the system.</p>
ps	proxyServer	<p>Specifies with the -DportNumber option the registry setting for the proxy server name and port number.</p>
pn	portNumber	<p>Specifies with -DproxyServer option the registry setting for the proxy server name and the port number. These options can be set at any time using the IDE.</p> <p>Specifying these two options on the command line is optional. However, if specified, they are both required. These options can also be set at any time using the Setup wizard in the IDE . See Chapter 5.</p>

**2. Enable client access to the X server.**

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

Replace *your-machine-name* with the host name of your machine.

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

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

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

**5. Start the installer launcher from the command line.**

```
# cd s1studio-download-directory
# s1s5se-sol-sparc-en.bin -silent
```

The installer uses the options specified in the `s1s5se-sol-sparc-en.sp` file to install the IDE and displays the following in the command prompt window:

```
InstallShield Wizard
Initializing InstallShield Wizard...
Searching for Java(tm) Virtual Machine...
.....
Running InstallShield Wizard...
```

6. When the installation completes, review the log file `install.log` found in the `s1studio-install-directory`.
7. Disable client access and exit from superuser privileges.

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

## ▼ To Install Silently From Web Download (Microsoft Windows)

The following example shows the steps for installing the IDE silently from the command line on a Microsoft Windows system.

1. In a text editor, create the `s1s5se-win-en.sp` file in the `s1studio-download-directory` where you saved the downloaded `s1s5se-win-en.exe` installer launcher.

Include these mandatory options and remember to put them in quotes. For example, your `.sp` file might look like this:

```
installDir="C:\Sun\studio5_se"
jdkHome="C:\j2sdk1.4.1_02"
serialNumber="trial"
```

See TABLE D-2 for other install options.

2. Start the installer launcher from the command line.

```
C:\> cd s1studio-download-directory
C:\> s1s5se-win-en.exe -silent
```

The installer uses the options specified in the `s1s5se-win-en.sp` file to install the IDE and displays the following in the command prompt window:

```
InstallShield Wizard
Initializing InstallShield Wizard...
Searching for Java(tm) Virtual Machine...
.....
Running InstallShield Wizard...
```

## Installing Silently Using the CD-ROM

If you have the product CD-ROM, you can use the installer `jar` files and type your options directly on the command line. To install using the `jar` file, type your installation options on the command line with the `-silent` option. Include the three mandatory options. This procedure can not be used with the `.bin` installer launcher downloaded from the web site.

When the options are typed directly on the command line, the installer uses the Java global variable specification option (`-D`) to pass information to the installer script.

For example, on a Microsoft Windows system, type the following in a command prompt window:

```
C:\> java -Did="C:\s1studio-install-directory" -Djh="C:\j2sdk1.4.1_02"
-Dsn="trial" -jar D:\installers_se\s1s5se-win-en.jar -silent
```

In this example:

- `-Did` is the install directory to use
- `-Djh` specifies the J2SE location
- `-Dsn` indicates to the installer to generate a trial serial number
- `D:` is the CD-ROM drive containing the product CD.

On a Solaris OS system, type the following:

```
# cd /cdrom/en_studiose_5/installers_se
# java -Did="s1studio-install-directory" -Djh="/usr/j2se" -Dsn="trial" -
jar s1s5se-sol-sparc-en.jar
```

Remember to enclose the values in quotes. See TABLE D-3 for a list of options.

**TABLE D-3** Command-Line Installation Options

Option - Short Name	Option - Long Name	Description
-Did	-DinstallDir	Specifies the directory where you want the IDE installed. Mandatory command-line parameter when using <code>-silent</code> mode.
-Djh	-DjdkHome	Sets the location of the valid J2SE version to use with the IDE. The installer configures the IDE to use this J2SE. Mandatory command-line parameter when using <code>-silent</code> mode.
-Dsn	-DserialNumber	Sets the license serial number for the IDE. Mandatory command-line parameter when using the <code>-silent</code> mode.
-Dnp	-DnoPointBaseFound	Specifies what to do if Sun ONE Application Server 7 is already installed. The value "useExistingAppserver" tells the installer to continue the installation of the IDE even though an existing installation of the application server has been detected. The value "reinstall" tells the installer to exit if an existing installation of Sun ONE Application Server 7 without PointBase Server is detected. This option is only useful if Sun ONE Application Server 7 without PointBase Server is already installed on the system.
-Dps	-DproxyServer	Specifies with the <code>-DportNumber</code> option the registry setting for the proxy server name and port number.
-Dpn	-DportNumber	Specifies with <code>-DproxyServer</code> option the registry setting for the proxy server name and the port number. These options can be set at any time using the IDE. Specifying these two options on the command line is optional. However, if specified, they are both required. These options can also be set at any time using the Setup wizard in the IDE. See Chapter 5.

The following table lists the installer file names for the three platforms.

**TABLE D-4** Installer and Command-Line Options File Names

Type of File	Microsoft Windows	Linux	Solaris OS
Web installer launcher	s1s5se-win-en.exe	s1s5se-linux-en.bin	s1s5se-sol-sparc-en.bin
CD-ROM installer launcher	s1s5se-win-en.exe	s1s5se-linux-en.bin	s1s5se-sol-sparc-en.bin
jar file (CD only)	s1s5se-win-en.jar	s1s5se-linux-en.jar	s1s5se-sol-sparc-en.jar
Command-line options file (use with installer file only)	s1s5se-win-en.sp	s1s5se-linux-en.sp	s1s5se-sol-sparc-en.sp



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