Installation and Setup Guide for Solaris Platforms

Sun™ Studio 11

Sun Microsystems, Inc.
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Contents

Tables

Before You Begin

This installation guide gives instructions for how to perform the following tasks:

- Install the Sun™ Studio 11 software and serial number
- Install the recommended Java™ 2 Platform, Standard Edition (J2SE™) technology
- Run the Integrated Development Environment (IDE) after it is installed
- Uninstall Sun Studio 11 product software
- Troubleshoot installation problems

This book is designed for system administrators who install software and for developers who use software development applications. Experience with the Solaris™ Operating System (Solaris OS) and UNIX® commands is required.

Typographic Conventions

TABLE P-1 Typeface Conventions

Typeface	Meaning	Examples
`AaBbCc123`	The names of commands, files, and directories; on-screen computer output	Edit your `.login` file. Use `ls -a` to list all files. `% You have mail.`
`AaBbCc123`	What you type, when contrasted with on-screen computer output	`% su` `Password:`
AaBbCc123	Book titles, new words or terms, words to be emphasized	Read Chapter 6 in the *User's Guide*. These are called *class* options. You *must* be superuser to do this.
AaBbCc123	Command-line placeholder text; replace with a real name or value	To delete a file, type **`rm`** *filename*.

TABLE P-2 Code Conventions

Code Symbol	Meaning	Notation	Code Example
[ ]	Brackets contain arguments that are optional.	`O[`*`n`*`]`	`O4, O`
{ }	Braces contain a set of choices for a required option.	`d{y|n}`	`dy`
|	The "pipe" or "bar" symbol separates arguments, only one of which may be chosen.	`B{dynamic|static}`	`Bstatic`
:	The colon, like the comma, is sometimes used to separate arguments.	`R`*`dir`*`[:`*`dir`*`]`	`R/local/libs:/U/a`
…	The ellipsis indicates omission in a series.	`xinline=`*`f1`*`[,…`*`fn`*`]`	`xinline=alpha,dos`

Shell Prompts

Shell	Prompt
C shell	*machine-name*`%`
C shell superuser	*machine-name*`#`
Bourne shell and Korn shell	`$`
Superuser for Bourne shell and Korn shell	`#`

Supported Platforms

This Sun Studio release supports systems that use the SPARC® and x86 families of processor architectures: UltraSPARC®, SPARC64, AMD64, Pentium, and Xeon EM64T. The supported systems for the version of the Solaris Operating System you are running are available in the hardware compatibility lists at `http://www.sun.com/bigadmin/hcl`. These documents cite any implementation differences between the platform types.

In this document, these x86 related terms mean the following:

- "x86" refers to the larger family of 64-bit and 32-bit x86 compatible products.
- "x64' points out specific 64-bit information about AMD64 or EM64T systems.
- "32-bit x86" points out specific 32-bit information about x86 based systems.

For supported systems, see the hardware compatibility lists.

Accessing Sun Studio Software and Man Pages

The Sun Studio software and its man pages are not installed into the `/usr/bin/` and `/usr/share/man` directories. To access the software, you must have your `PATH` environment variable set correctly (see "Accessing the Software" on page 12). To access the man pages, you must have your `MANPATH` environment variable set correctly (see "Accessing the Man Pages" on page 12).

For more information about the `PATH` variable, see the `csh`(1), `sh`(1), `ksh`(1), and `bash`(1) man pages. For more information about the `MANPATH` variable, see the `man`(1) man page.

Note – The information in this section assumes that your Sun Studio software is installed in the `/opt` directory. If your software is not installed in the `/opt` directory, ask your system administrator for the equivalent path on your system.

Accessing the Software

Use the steps below to determine whether you need to change your PATH variable to access the software.

To Determine Whether You Need to Set Your PATH Environment Variable

1. **Display the current value of the PATH variable by typing the following at a command prompt.**

```
% echo $PATH
```

2. **Review the output to find a string of paths that contain /opt/SUNWspro/bin/.**

   If you find the path, your PATH variable is already set to access the software. If you do not find the path, set your PATH environment variable by following the instructions in the next procedure.

To Set Your PATH Environment Variable to Enable Access to the Software

- **Add the following path to your PATH environment variable. If you have previously installed Forte Developer software, Sun ONE Studio software, or another release of Sun Studio software, add the following path before the paths to those installations.**

  /opt/SUNWspro/bin

Accessing the Man Pages

Use the following steps to determine whether you need to change your MANPATH variable to access the man pages.

To Determine Whether You Need to Set Your MANPATH Environment Variable

1. **Request the `dbx` man page by typing the following at a command prompt.**

```
% man dbx
```

2. **Review the output, if any.**

   If the `dbx`(1) man page cannot be found or if the man page displayed is not for the current version of the software, follow the instructions in the next procedure for setting your `MANPATH` environment variable.

To Set Your MANPATH Environment Variable to Enable Access to the Man Pages

- **Add the following path to your `MANPATH` environment variable.**

  `/opt/SUNWspro/man`

Accessing the Integrated Development Environment

The Sun Studio integrated development environment (IDE) provides modules for creating, editing, building, debugging, and analyzing the performance of a C, C++, or Fortran application.

The command to start the IDE is `sunstudio`. For details on this command, see the `sunstudio(1)` man page.

The correct operation of the IDE depends on the IDE being able to find the core platform. The `sunstudio` command looks for the core platform in two locations:

- The command looks first in the default installation directory, `/opt/netbeans/3.5V11`.
- If the command does not find the core platform in the default directory, it assumes that the directory that contains the IDE and the directory that contains the core platform are both installed in or mounted to the same location. For example, if the path to the directory that contains the IDE is `/foo/SUNWspro`, the command looks for the core platform in `/foo/netbeans/3.5V11`.

If the core platform is not installed or mounted to either of the locations where the `sunstudio` command looks for it, then each user on a client system must set the environment variable `SPRO_NETBEANS_HOME` to the location where the core platform is installed or mounted (*/installation_directory*`/netbeans/3.5V11`).

Each user of the IDE also must add */installation_directory*`/SUNWspro/bin` to their `$PATH` in front of the path to any other release of Forte Developer software, Sun ONE Studio software, or Sun Studio software.

The path */installation_directory*`/netbeans/3.5V11/bin` should not be added to the user's `$PATH`.

Accessing Sun Studio Documentation

You can access the documentation at the following locations:

- The documentation is available from the documentation index that is installed with the software on your local system or network at `file:/opt/SUNWspro/docs/index.html`.

  If your software is not installed in the `/opt` directory, ask your system administrator for the equivalent path on your system.

- Most manuals are available from the `docs.sun.com`[sm] web site. The following titles are available through your installed software on Solaris platforms only:
  - *Standard C++ Library Class Reference*
  - *Standard C++ Library User's Guide*
  - *Tools.h++ Class Library Reference*
  - *Tools.h++ User's Guide*
- The release notes for both Solaris platforms and Linux platforms are available from the `docs.sun.com` web site.
- Online help for all components of the IDE is available through the Help menu, as well as through Help buttons on many windows and dialog boxes, in the IDE.

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 software on your local system or network.

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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. If your software is not installed in the `/opt` directory, ask your system administrator for the equivalent path on your system.

Type of Documentation	Format and Location of Accessible Version
Manuals (except third-party manuals)	HTML at `http://docs.sun.com`
Third-party manuals: • *Standard C++ Library Class Reference* • *Standard C++ Library User's Guide* • *Tools.h++ Class Library Reference* • *Tools.h++ User's Guide*	HTML in the installed software through the documentation index at `file:/opt/SUNWspro/docs/index.html`
Readmes	HTML on the developer portal at `http://developers.sun.com/prodtech/cc/documentation/ss11/mr/READMEs`
Man pages	HTML in the installed software through the documentation index at `file:/opt/SUNWspro/docs/index.html`
Online help	HTML available through the Help menu and Help buttons in the IDE
Release notes	HTML at `http://docs.sun.com`

Accessing Related Solaris Documentation

The following table describes related documentation that is available through the `docs.sun.com` web site.

Document Collection	Document Title	Description
Solaris Reference Manual Collection	See the titles of man page sections.	Provides information about the Solaris OS.
Solaris Software Developer Collection	*Linker and Libraries Guide*	Describes the operations of the Solaris link-editor and runtime linker.
Solaris Software Developer Collection	*Multithreaded Programming Guide*	Covers the POSIX and Solaris threads APIs, programming with synchronization objects, compiling multithreaded programs, and finding tools for multithreaded programs.

Resources for Developers

Visit `http://developers.sun.com/prodtech/cc` to find these frequently updated resources:

- Articles on programming techniques and best practices
- A knowledge base of short programming tips
- Documentation of software, as well as corrections to the documentation that is installed with your software
- Information on support levels
- User forums
- Downloadable code samples
- New technology previews

You can find additional resources for developers at `http://developers.sun.com`.

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

Sun Welcomes Your Comments

Sun is interested in improving its documentation and welcomes your comments and suggestions. Submit your comments to Sun at this URL:

http://www.sun.com/hwdocs/feedback

Please include the part number of the document in the subject line of your email. For example, the part number for this document is 819-3052-10.

CHAPTER 1

Preparing for Installation

This chapter includes information about the following topics:

Software Installation Overview

The following steps outline the general process you follow to install the Sun Studio 11 software, product serial number, and supporting software. See the references provided in each step for specific procedures.

Task	Description	For Instructions
1. Verify that the system on which you are installing the Sun Studio 11 software meets the minimum requirements for this release.	Using a system that meets the system requirements is recommended for proper performance.	See "System Requirements" on page 20.
2. Determine whether you are going to display the installer locally or remotely.	You can install the Sun Studio software using a remote display or local display.	Refer to "Choosing Local Display or Remote Display of the Installer" on page 23 for more details.
3. Verify that your system has access to the Java™ 2 Platform, Standard Edition technology.	The Sun Studio 11 software supports the Java™ 2 Platform, Standard Edition technology.	See "Installing the J2SE Platform and Related Solaris Operating System Patches" on page 38 for J2SE installation instructions, if necessary.
4. Choose an installation method.	There are four ways to install the Sun Studio software.	See"Choosing an Installation Method" on page 28 for more information.
5. Install the Sun Studio 11 software.	Step through the installation information.	See "Installing the Sun Studio 11 Software" on page 27 for installation instructions.

System Requirements

Sun Studio 11 software supports the system requirements shown in TABLE 1-1.

Note – For further disk space requirements and important last minute information about this release, see the release notes for the Sun Studio 11 software on Solaris platforms on the product web site at .
`http://wwws.sun.com/software/products/studio/index.html`

TABLE 1-1 System Requirements

	Solaris OS on SPARC based systems	Solaris OS on x86 based systems
Operating system	Solaris 8, 9, or 10	Solaris 8, 9, or 10
CPU	SPARC architecture: Recommended: Sun Blade 2500 Workstation or better (two 1.6 GHz UltraSPARC IIIi processors) Minimum: Sun Ultra 60 workstation (450 MHz, UltraSPARC II processor)	x86 architecture (32 bit): Minimum: Intel Pentium III 500 MHz Workstation x64 architecture (64 bit): Recommended: Sun Java Workstation W2100z or better (two 2.6 GHz 200 series AMD Opteron processors) Minimum: Sun Fire V20z Server
Disk Space	1.5 Gbytes	925 Mbytes
(Use the `df -k` command to check your disk space.)		
Memory	Recommended: 1 Gbyte Minimum: 512 Mbytes	
Swap Space	Recommended: 2 Gbytes Minimum: 1 Gbytes	
J2SE Technology	J2SE 1.4.2_08 technology or J2SE 5.0 Update 3 technology, and required OS patches	
Operating System Configuration	Entire Solaris Software Group Plus OEM Support, Entire Solaris Software Group, or Developer Solaris Software Group (To determine your operating system configuration, you need to verify the installed packages. Specific packages are installed for each configuration. See the Solaris OS installation documentation for more details.)	

*Use the `swap -s` command to check the swap space.

Adding Swap Space

If you want to add swap space, do the following:

1. **Become a superuser (root) by typing:**

```
% su
Password: root-password
```

2. **Create a file in a selected directory to add swap space by typing:**

```
mkfile number[m|k|b] /directory/swap-file-name
```

where *number* is an amount of swap space, followed by either `m` for megabyte, `k` for kilobyte, or `b` for block. The *directory* is a directory in which you have permission to add swap space. The *swap-file-name* is the name of the swap file you are creating.

For example, to create a 16-megabyte swap file named `16mswap` in the `foo` directory, type the following:

```
# mkfile 16m /foo/16mswap
```

See the `mkfile`(1M) man page for more information.

3. **Verify that the file was created by typing:**

```
# ls -l /directory/swap-file-name
```

The new file appears in the directory. For example:

```
# ls -l /foo/16mswap
-rw------T   1 root     other    16777216 Dec 12 14:24 /foo/16mswap
```

4. **Run the `swap` command to specify the additional swap space by typing:**

```
# swap -a /directory/swap-file-name
```

5. **Verify that the extra swap space was added by typing:**

```
#swap -s
```

The output shows the allocated swap space. For example:

```
#swap -s
total: 289336k bytes allocated + 27008k reserved = 316344k used,
298336k available
```

Choosing Local Display or Remote Display of the Installer

You can display the installer either locally or remotely while you are installing the Sun Studio 11 with the graphical user interface installer or the command-line installer:

- **Local display.** The source computer and the display computer are the same computer. The installer window or command-line installer is displayed on the same computer that contains the product CD-ROM or downloaded files and runs the installer. You can continue to Chapter 2.
- **Remote display.** The source computer and the display computer are different computers. The source computer contains the product CD-ROM or downloaded files and runs the installer. The display computer displays the installer window or command-line installer. To install using a remote display, follow the instructions in the remainder of this section.

To prepare for installation using a remote display, follow these steps:

1. **On the display computer, enable client access to the X server by typing the following at a command line:**

```
% xhost + source-computer-name
```

Replace *source-computer-name* with the output of the `/usr/bin/hostname` command entered on the source computer, which is the computer that contains the product CD-ROM or downloaded files.

2. **Log in to the source computer and become a superuser (root) by typing:**

```
% rlogin source-computer-name -l rootname
Password: root-password
```

3. **On the source computer, set the display to the monitor that is attached to the display computer.**

   If you use the C shell, type:

```
# setenv DISPLAY display-computer-name:0.0
```

   If you use the Bourne shell, type:

```
# DISPLAY=display-computer-name:0.0
# export DISPLAY
```

   If you use the Korn shell, type:

```
# export DISPLAY=display-computer-name:0.0
```

   Replace *display-computer-name* with the output of the `/usr/bin/hostname` command entered on the display computer.

Installing to an NFS-mounted Filesystem

To install the Sun Studio software on an NFS-mounted filesystem, you must run the installer on a supported system regardless of where the NFS partition is mounted. In the following procedure, the server is the machine with the physical disk on which the installed software will reside, and the client is the machine on which you run the installer and which NFS-mounts the filesystem from the server.

Note – The best way to share the product image as an NFS-mounted filesystem is to export it from a supported system. Run the installer on the server and share the directory in which the software is installed. Use the following NFS install procedure only if your NFS server is not a supported platform for the product.

To prepare for installing the Sun Studio software on an NFS-mounted filesystem:

1. **On the server machine, share the filesystem with the appropriate options. It is essential that `root` on the client machine on which the installer will be run have full access to the NFS filesystem:**

```
# share -F nfs -o root=client-machine,rw filesystem
```

2. **On the client machine, mount the shared filesystem with read/write access:**

```
# mount server-machine:filesystem installation-directory
```

For example, you might mount the filesystem on installation directory `/mnt` on client machine foo.

You can then install the Sun Studio product on the server by running the graphical user interface installer, command-line installer, or batch installer on client machine `foo`. For the graphical user interface installer or the command-line installer, you would select `/mnt` as the installation directory. For the batch installer, you would specify `/mnt` as the installation directory using the `-d` option.

After you have installed the software, any machine that is running version 8, 9, or 10 of the Solaris OS can mount the filesystem from the server on which you installed the software, and run the software. Each client machine that runs the software must have the correct OS patches installed (see Appendix B and Appendix C).

To uninstall Sun Studio software installed on an NFS-mounted filesystem, you must run the uninstaller on the same client machine you used to install the software, and you must mount the filesystem prior to running the uninstaller.

Installing on a Solaris 10 System With Zones

You can install the Sun Studio 11 software on a system running the Solaris 10 OS with zones with the following limitations:

- You can install the Sun Studio 11 software components in the global zone or a non-global zone, but you must run the installer in the zone in which you want to install the product. The installer will install the product only in the zone in which you run the installer.
- You must install the Solaris OS patches provided with the Sun Studio software in the global zone.
- If you install the Sun Studio software in the globalzone, it is not visible in non-global zones.

To install the Sun Studio software in a non-global zone, do the following:

1. **Run the installer in the global zone and install the Solaris OS patches**
2. **Run the installer in the target non-global zone and install the Sun Studio product components.**

   For detailed information about zones in the Solaris 10 OS, see the *System Administration Guide: Solaris Containers-Resource Management and Solaris Zones.*

Installation Features Included in This Release

This Sun Studio 11 release includes the following installation features:

- Graphical user interface installation
- Command-line installation
- Batch installation
- Solaris JumpStart™ installation (not available for the Solaris 8 OS)
- J2SE software installation
- Batch uninstallation
- Graphical user interface uninstallation
- Command-line uninstallation

This document includes instructions for using each of the features.

CHAPTER 2

Installing the Sun Studio 11 Software

This chapter gives you instructions for installing your Sun™ Studio 11 software.

Note – Do not use the `pkgadd` command to install the software. Use the provided installer.

Supporting Previous Sun Studio and Sun ONE Studio Releases

If you installed any other release of the Sun Studio software on your system, then install the Sun Studio 11 software in a different directory. If you have Sun Studio 10 update 1 Early Access software installed, be sure to uninstall this software before installing the Sun Studio 11 software.

After installation, modify your `PATH` and `MANPATH` environment variables to include the new directory. See "Setting Up Access to the Developer Tools and Man Pages" on page 39 for more information about setting the variables to use the new release.

Installing from Electronic Download Files

If you obtained your Sun Studio 11 software through electronic download, you can find complete instructions for downloading the software file, extracting the file contents, and starting the product installers on the download page of the product

web site at
`http://wwws.sun.com/software/products/studio/index.html`. Follow the instructions in the *Download Instructions* before you proceed with product installation.

Choosing an Installation Method

There are four ways to install the Sun Studio 11 software:

- Use the graphical user interface (GUI) installer. See "Using the Graphical User Interface Installer" on page 29 for instructions.
- Use the command-line installer if you do not have graphical user interface capabilities. See "Using the Command-Line Installer" on page 33 for instructions.
- Use the batch installer (see "Using the Batch Installer" on page 34).
- Use the Solaris JumpStart™ installer on the Solaris™ 9 Operating System (Solaris OS) or the Solaris 10 OS (see "Using the Solaris JumpStart Installer" on page 37). Using the installer automates the software installation process if you need to install the Sun Studio 11 software on multiple systems.

The root (superuser) account that is used to install the Sun Studio software must have a Java™ 2 runtime environment (JRE) 1.4.0 or later in its `PATH`.

- If the J2SE 1.4.0 technology or later is installed on the system where you are running the installer, set the root's `PATH` environment variable so that this version of the J2SE technology is the first one in the path.
- If the J2SE 1.4.0 technology or later is not installed on the system where you are running the installer, install the Java 2 Runtime Environment (JRE) 1.4.2_10 software by doing the following:

a. Download the 32-bit self-extracting JRE 1.4.2_10 binary from `http://java.sun.com/j2se/1.4.2/download.html`.

b. Follow the installation instructions at `http://java.sun.com/j2se/1.4.2/jre/install-solaris.html` to install the JRE software in any directory of your choice other than `/usr/jdk`.

c. Add the path to the JRE software to your `PATH` environment variabl

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Note – The CD-ROM names are `studio_11_solsparc` and `studio_11_solx86`. In the examples provided, the CD-ROM name `studio_11_sol`*arch* is used.

Using the Graphical User Interface Installer

These instructions describe how to install the Sun Studio 11 software using the graphical user interface installer available on the product CD-ROM. If you get the product from an electronic download, be sure to follow all instructions in the *Download Instructions*, which is available for download from the product web site download page.

Note – Do not use the `pkgadd` command to install the software. Use the provided installer. Do not run the installer in the background.

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1. **Decide if you want to install using a remote display. See "Choosing Local Display or Remote Display of the Installer" on page 23 for details.**

2. **If you are not currently superuser (root), become a superuser by typing:**

```
% su
Password: root-password
```

Note – The installer prompts you to log in as superuser (root) if you invoke the installer when you are not logged in as superuser (root).

Note – If you are installing the Sun Studio 11 software on a system running the Solaris 10 OS with zones, see "Installing on a Solaris 10 System With Zones" on page 25 for important information about the correct procedure.

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3. **Insert the CD-ROM in the CD-ROM drive.**

   The product installer starts.

   If the installer does not start or you are using the Solaris™ 9 operating environment, the autorun feature might be disabled or unsupported on your system. In this case, use one of the following methods to start the installer:

   - In the File Manager window, double-click the installer icon to start the installer.

- Invoke the installer by typing:

```
# /cdrom/studio_11_solarch/installer
```

The Welcome page opens.

4. (**Optional for electronic download**) If you downloaded the product tar file from the product web site, d**o the following:**

   a. **See the** *Download Instructions* **available on the product web site download page for more information on uncompressing the tar file and extracting the contents.**

   b. **From the download directory, start the installer by typing:**

```
# ./installer
```

   The Welcome page opens.

   (**Optional for using the Solaris Product Registry tool**) You can start the installer by using the Solaris Product Registry tool.

   a. **To start the Product Registry tool, type:**

```
# prodreg
```

   b. **Click New Install.**

   c. **In the Select Installer dialog, navigate to the download directory or** `cdrom` **directory, and select installer.**

   d. **Click OK, and the installer starts.**

      The Welcome page opens.

5. **Click Next in the Welcome page.**

   The Initializing page is displayed, and when initialization is complete, the Software License Agreement page is displayed.

6. **In the Software License Agreement page, click** `Accept`**.**

   If you choose `Decline`, you cannot continue with the installation.

7. **Click Next to proceed to the Select Component page.**

8. **In the Select Component page, select the type of installation you want for each product.**

   - If you select Do Not Install, the product is not installed.

- If you select Default Install, the installer installs all components of the product and all online documentation that is associated with the components.
- If you select Custom Install, the installer allows you to select (in Step 11) which subcomponents of the product you want to install.

Note – If you select Default Install for Solaris patches, the installer installs all of the required patches for the Sun Studio 11 software, which are listed in Appendix B. If you have previously installed these patches, installing the required patches does not downgrade your system.

Note – If you are installing the Sun Studio 11 software on a system running the Solaris 10 OS with zones, you must install the required patches in the global zone.

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9. **Click Next to proceed to the Select Install Directory page.**

10. **Decide whether you want to change the software installation directory from `/opt`.**

    See "Supporting Previous Sun Studio and Sun ONE Studio Releases" on page 27 if you want to install this new Sun Studio release on a computer that contains previous Sun Studio releases, Sun ONE Studio releases, or Forte Developer releases.

    - If you want to install in the `/opt` directory on the source computer, click Next. If you have installed a previous release of Sun Studio software or Sun ONE Studio software in the `/opt` directory on the source computer, you must choose a different installation directory.
    - If you want to install the software in a directory other than the `/opt` directory on the source computer, type the new location in the text field or browse for another location. If you do not have permission to write to the directory you select, the installer asks you if you want to change permissions. You must have write permission for the selected directory before you can proceed with installation. See the `chmod`(1) man page for information on changing directory permissions.

11. **Click Next when you have entered the installation directory.**

    If you did not select Custom Install for any of the products, skip to Step 12.

    (**Optional for Custom Install**) If you selected Custom Install for any of the products in the Product Selection page, a Subcomponent Selection page is displayed for each of those products.

    a. **Select the subcomponents you want to install by clicking the check box next to the item.**

       Items with a check mark in the box will be installed.

    b. **Click Next to continue with installation.**

    The installer checks for adequate disk space, and the Ready to Install page appears.

12. **Verify that the disk space shown at the top of the Ready to Install page is available on your system by using the `df -k` command. If you receive a disk space error message and you have sufficient disk space to install the product, then ignore the error message and continue with installation.**

13. **In the Ready to Install page, confirm that the items you want to install are listed.**

    - If the products you want are listed, click Install Now.
    - If you want to install more products, click Back to return to the Select Components page, make your selections, and click Next to return to the Ready to Install page.

    The Installing page appears with a progress indicator. When installation is complete, the Installation Summary page appears.

14. **If you want to view the installation log file for a product, click the Details button for that product in the Installation Summary page.**

15. **In the Registration page, read the information about registering the product and click Next.**

16. **In the After Installation page, read the information about the log files and how to run the product.**

17. **Click Exit to finish the Sun Studio 11 software installation.**

18. **Remove the CD-ROM from the CD-ROM drive.**

19. **(Optional) If you performed the installation using a remote display, on the display computer, disable client access by typing the following:**

```
# xhost - source-computer-name
```

20. **Exit from superuser privileges on the source computer by typing:**

```
# exit
```

21. **To set up your access to the Sun Studio 11 software tools and man pages, set your `PATH` and `MANPATH` variables by following the steps in "Setting Up Access to the Developer Tools and Man Pages" on page 39.**

22. **If you use a proxy server to access the Internet, set the `ALL_PROXY` environment variable to your proxy settings so that you can use the Update Notification feature of the Sun Studio 11 software. For information about setting your proxy and about the Update Notification feature, see "Setting Your Proxy Information for Using the Update Notification Feature" on page 42**

Using the Command-Line Installer

These instructions describe how to install the Sun Studio 11 software using the command-line interface.

Note – Do not use the `pkgadd` command to install the software. Use the provided installer. Do not run the installer in the background.

---

1. **Decide if you want to install using a remote display. See "Choosing Local Display or Remote Display of the Installer" on page 23 for details.**

2. **If you are not currently superuser, become a superuser (root) by typing:**

```
% su
Password: root-password
```

Note – The installer prompts you to log in as superuser (root) if you invoke the installer when you are not logged in as superuser (root).

---

3. **Insert the CD-ROM in the CD-ROM drive.**

   If the GUI installer starts, choose Exit to exit from the installer. To restart the installer in the command line, type:

```
# /cdrom/studio_11_solarch/installer -nodisplay
```

4. **(Optional for electronic download) If you downloaded the product file from the product web site, do the following:**

   a. **See the** *Download Instructions* **available on the product web site download page for more information on uncompressing the tar file and extracting the contents..**

   b. **From the download directory, start the command-line installation by typing:**

```
# /download-directory/installer -nodisplay
```

   Do not run the installer in the background.

5. **The installer welcomes you. Enter to continue.**

   The Software License Agreement text is displayed.

6. **The Enter key is equivalent to the Return key on some keyboards. Press the Enter key to accept the default selections during installation.**

7. **Follow the installer instructions to complete the installation. See Step 10 in "Using the Graphical User Interface Installer" on page 29 for additional information about selecting the installation directory.**

8. **When installation is complete, you can view a product's log file by typing the number that corresponds to that product. When you finish viewing the log files, type the number that corresponds to `Done`.**

9. **Remove the CD-ROM from the CD-ROM drive.**

10. **(Optional) If you performed the installation using a remote display, on the display computer, disable client access by typing the following:**

```
# xhost - source-computer-name
```

11. **Exit from superuser privileges on the source computer by typing:**

```
# exit
```

12. **To set up your access to the Sun Studio 11 software tools and man pages, set your `PATH` and `MANPATH` variables by following the steps in "Setting Up Access to the Developer Tools and Man Pages" on page 39.**

13. **If you use a proxy server to access the Internet, set the `ALL_PROXY` environment variable to your proxy settings so that you can use the Update Notification feature of the Sun Studio 11 software. For information about setting your proxy and about the Update Notification feature, see "Setting Your Proxy Information for Using the Update Notification Feature" on page 42**

Using the Batch Installer

You can install the Sun Studio 11 software, Sun Performance Library™ software, or Sun Studio Source Distribution software with the batch installer for a default installation.

Note – Do not use the `pkgadd` command to install the software. Use the provided installer. Do not run the installer in the background.

Follow these instructions for batch installation:

1. **Decide if you want to install using a remote display. See "Choosing Local Display or Remote Display of the Installer" on page 23 for details.**

2. **If you are not currently superuser, become a superuser (root) by typing:**

```
% su
Password: root-password
```

3. **Use the following command to run the batch installer:**

```
batch_installer [-d dirname | -R root-path] [-h]
```

See TABLE 2-1 for the options that are available for the `batch_installer` command.

TABLE 2-1 `batch_installer` Options and Option Descriptions

Option Name	Option Description
`-d` *dirname*	Installs in directory *dirname.*
`-R` *root-path*	Specifies the absolute path for the root system and product. Use this option in JumpStart installation to set the root directory. **NOTE:** Use this option only with the batch installer.
`-h`	Displays usage information for the `batch_installer` command.

The `batch_installer` command and the options can be used in the scenarios shown in TABLE 2-2

TABLE 2-2 Installation Scenarios Using the `batch_installer` Command and Options

Scenario	Command Typed at the Prompt
Install in the default directory	**#./batch_installer**
Install in a directory other than the default directory	**#./batch_installer -d /***dirname*
Install and change the root installation	**#./batch_installer -R /a/opt**

4. **Choose the appropriate installation scenario from** TABLE 2-2 **to run the** `batch_installer` **command. For example, to use the options to install in a directory other than the default, type the following:**

```
# /cdrom/./batch_installer -d /dirname
```

The Software License Agreement is displayed, and the installer checks for adequate disk space. The installer proceeds with installation, and the prompt returns when installation is complete.

(**Optional for electronic download**) If you downloaded the product files from the product web site, type the following:

```
# /download-directory/install-directory/batch_installer -d /dirname
```

5. **(Optional) If you performed the installation using a remote display, on the display computer, disable client access by typing the following:**

```
% xhost - source-machine-name
```

6. **Exit from superuser privileges on the source computer by typing:**

```
# exit
```

7. **Set your** `PATH` **and** `MANPATH` **variables. See** **"Setting Up Access to the Developer Tools and Man Pages" on page 39****.**

8. **If you use a proxy server to access the Internet, set the** `ALL_PROXY` **environment variable to your proxy settings so that you can use the Update Notification feature of the Sun Studio 11 software. For information about setting your proxy and about the Update Notification feature, see** **"Setting Your Proxy Information for Using the Update Notification Feature" on page 42**

Using the Solaris JumpStart Installer

You can use the Solaris JumpStart™ installer on at least the Solaris 9 OS on SPARC® based systems and on at least the Solaris 9 OS on x86 based systems to automate the software installation process to install the Sun Studio 11 software on multiple systems. An overview of the JumpStart installation steps is listed below. See the *Solaris Installation Guide* for complete details of JumpStart installation.

Note – In the following instructions, substitute the download directory name for the `cdrom_path` that is used in the command-line examples.

---

1. **Verify that you have more than one gigabyte of disk space in both the `swap` partition and the `/opt` partition on the source machine.**
2. **(Optional for electronic download users) Copy the downloaded file into the `$SI_CONFIG_DIR` directory.**
3. **Create a finish script that resides on the source machine. The file must contain the following information:**

```
#! /bin/sh
cd $SI_CONFIG_DIR/cdrom_path
./batch_installer -R /a
```

Note – The `batch_installer -d` option does not work in JumpStart installation.

See "Using the Batch Installer" on page 34 for information on the available `batch_installer` command options.

Refer to the *Solaris Installation Guide* for further instruction on completing the JumpStart installation process.

Installing the J2SE Platform and Related Solaris Operating System Patches

The Sun Studio 11 Integrated Development Environment (IDE) supports the Java™ 2 Platform, Standard Edition technology (the J2SE™ technology) and related Solaris™ Operating System (OS) patches.

If you have the supported J2SE technology installed on your system, then the J2SE selection is not visible in the Select Components page of the installer.

If you do not have the supported J2SE technology installed on your system, then you can install the technology on your system by using one of these installers:

- The `studio_11_solsparc_comp` CD-ROM for the Solaris OS on SPARC® based systems. Using the companion CD-ROM, follow the instructions in "Using the Graphical User Interface Installer" on page 29 to install the J2SE technology.
- The `studio_11_solx86` CD-ROM for the Solaris OS on x86 based systems. During product installation, if you selected a default installation, then the J2SE technology is installed on your system. If you did not install the J2SE technology during the product installation, then run the installer again and select J2SE SDK 1.4.2 Solaris OS Patches in the Select Components page.
- The downloadable file available on the download page of the product web site at `http://wwws.sun.com/software/products/studio/index.html`. See the *Download Instructions* available on the product web site download page for more information on extracting the tar file. Follow the instructions in "Using the Graphical User Interface Installer" on page 29 to install the J2SE technology.

Verifying a Successful Installation

Once the installation is completed, you can use any of the following methods to verify a successful installation:

- View the information in the Installation Summary page of the installer, which lists all products that are installed.
- Use the Solaris Product Registry to view all installed products. Type `prodreg` to open the Product Registry.
- View the installation log files.

a. Go to the `logs` directory by typing at the prompt:

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

b. View the file by typing:

```
% more Sun_Studio_Software_install.A03200125
```

The file extension varies for each log file.

Setting Up Access to the Developer Tools and Man Pages

Because the Sun Studio 11 software product components and man pages are not installed into the system directories `/usr/bin/` and `/usr/share/man`, you must change your `PATH` and `MANPATH` environment variables to enable use of the Sun Studio 11 software.

Note – The paths shown in this section assume that Sun Studio 11 packages are installed in the default `/opt` directory. If you installed the software in a different directory, replace `/opt` in the examples with that directory name.

Set the `PATH` and `MANPATH` variables in your home environment files. In the examples that follow, the `.cshrc` file is shown if you are using the C shell, and the `.profile` file is shown if you are using the Bourne shell or Korn shell.

For more information about the `PATH` and `MANPATH` environment variables, the SunOS™ man page `csh`(1) describes the `PATH` variable for the C shell, the `sh`(1) man page describes the `PATH` variable for the Bourne shell, and the `ksh`(1) man page describes the `PATH` variable for the Korn shell. The `man`(1) man page describes the `MANPATH` variable.

Setting Your PATH Environment Variable So You Can Access Sun Studio 11 Tools

To use the Sun Studio 11 software commands, your PATH environment variable must contain the path /opt/SUNWspro/bin. To determine whether you need to set your PATH environment variable, follow these steps:

1. **Display the current value of the PATH variable by typing:**

```
% echo $PATH
```

2. **Review the output for a string of paths that contain /opt/SUNWspro.**
   - If you find the path, your PATH variable is already set to access Sun Studio 11 software tools. (The /opt path can be replaced by an alternative install path.)
   - If you do not find the path, set your PATH variable as described in Step 3.
3. **Add the path /opt/SUNWspro/bin to your PATH environment variable. If you have previous versions of Sun Studio, Sun ONE Studio, or Forte Developer software installed, add the path before the paths of the previous installations.**

Note – Substitute your home environment file name for the file names shown in the examples.

   - If you are using the C shell, edit your home .cshrc file to add the path.
   - If you are using the Bourne shell or Korn shell, edit your home .profile file to add the path.

Setting Your MANPATH Environment Variable So You Can Access Sun Studio 11 Man Pages

To access Sun Studio 11 man pages with the man command, your MANPATH environment variable must contain the path /opt/SUNWspro/man. To determine whether you need to set your MANPATH environment variable, follow these steps:

1. **Request the dbx(1) man page by typing:**

```
% man dbx
```

2. **Review the output, if any.**

   If the `man dbx` command cannot find the `dbx`(1) man page, or if the page that is displayed is not for the version of the software you just installed, you do not have the `MANPATH` variable set correctly. Set your `PATH` variable as described in the next step.

3. **Add the path `/opt/SUNWspro/man/` to your `MANPATH` environment variable.**

   - If you are using the C shell, edit your home `.cshrc` file to add the path.
   - If you are using the Bourne shell or Korn shell, edit your home `.profile` file to add the path.

Adding the Changes to the Appropriate Environment Variable

The following procedure lets you permanently add the paths for the Sun Studio 11 software tools and man pages to the appropriate environment variables so that all Sun Studio 11 components are always available. These commands can also be entered at a shell prompt to temporarily enable that shell only.

1. **Add the Sun Studio 11 software to your `PATH` and `MANPATH` variables.**

Note – The `PATH` and `MANPATH` variables must be set to include Sun Studio 11 software in each user's environment, which allows each user to use the installed software.

   - If you are using the C shell (`csh`), first determine if your `MANPATH` variable is already set. At a shell prompt, type the command:

```
% echo $MANPATH
```

   If the response is "Undefined variable" (C shell) or an empty line (Bourne shell or Korn shell), the `MANPATH` variable is not set. If paths to one or more man directories are displayed, the variable is set.

   Now edit the `.cshrc` file in your home directory and add the following line at the end of the file:

```
set path=(/opt/SUNWspro/bin  $path)
```

If the MANPATH variable is not already set, add the following line:

```
setenv MANPATH /opt/SUNWspro/man:/usr/share/man
```

If the MANPATH variable is already set, add the following line instead:

```
setenv MANPATH /opt/SUNWspro/man:$MANPATH
```

- If you are using the Bourne or Korn shells (sh or ksh), edit the .profile file in your home directory and add the following lines:

```
PATH=/opt/SUNWspro/bin${PATH:+:}${PATH}
MANPATH=/opt/SUNWspro/man:${MANPATH:=/usr/share/man}
```

Do not type any spaces in these two lines.

2. **Save the .cshrc file or .profile file that you modified in Step 1.**
3. **Reinitialize your shell by executing the following command:**

For the C shell, type:

```
source ~/.cshrc
```

For the Bourne shell or Korn shell, type:

```
. ~/.profile
```

Setting Your Proxy Information for Using the Update Notification Feature

The Update Notification feature periodically checks www.sun.com and communicates available changes related to your Sun Studio software, including patches and major software updates.

You can view the current contents of the update file from the IDE by choosing Help → View update information.

To initiate contact with the server and get updated information, choose Help→ Check now for updates.

From the command line, you can view the update file at `~/.sunstudio/user_info/latest_updates.html`.

If Update Notification is not able to check for updates and your system is on a network with a proxy server, you can set proxy server information by doing the following:

1. **Choose Tools → Setup Wizard.**
2. **In the wizard, select the Use HTTP Proxy Server checkbox.**
3. **Type the proxy host name in the Proxy Server Name field and the port number in the Port field.**
4. **Click Finish.**

You can also set the proxy server information using the `ALL_PROXY` environment variable; for example:

```
setenv ALL_PROXY myproxy:8080
```

Note – You must exit and restart the IDE for the proxy server information to be recognized by the IDE.

To disable Update Notification, set the `SUNW_NO_UPDATE_NOTIFY` environment variable to any value other than false.

Usage information is communicated during the Update Notification process. This information is used by Sun Microsystems to improve future Sun Studio software releases. This information is anonymous and cannot be associated to any individual or organization.

CHAPTER 3

Starting and Setting Up the Sun Studio 11 IDE

This chapter describes how to run and setup the Sun Studio 11 integrated development environment (IDE) on your system.

Starting the IDE

Once you have the Sun Studio 11 software installed on your system, and you have the Java™ 2, Standard Edition (J2SE™) technology on your system or the path to where it is installed on the network, you can start using the software. To start the product, do the following:

- **At the prompt, type:**

```
% sunstudio
```

Note – The full path to the command is */installation-directory*/`SUNWspro/bin/sunstudio`.

If the software cannot find the supported J2SE technology, you will receive an error message. The `sunstudio` command looks for the J2SE technology in your `PATH` and in several standard locations on your system. If the J2SE technology is not installed on your system, do one of the following:

- Use the `--jdkhome` option with the `sunstudio` command to specify the path to the J2SE technology on the network.
- Set the `JDK_HOME` environment variable to the path to the J2SE technology on the network. Reinitialize your shell, then type the `sunstudio` command again.

For more information on the options available with the `sunstudio` command, see the `sunstudio` (1) man page. For more information about using the IDE, see the *Integrated Development Environment (IDE) Readme*.

Using the Setup Wizard

You can open the Setup wizard from the IDE Welcome screen by clicking the Setup Wizard button. You can also open the Setup wizard by selecting Tools→Setup Wizard. In the Setup wizard, you can indicate your preferred settings for general Sun Studio 11 settings and for your text editor.

In the General Sun Studio Settings page, you can set the Window Mode, Web Browser, and Web Proxy. Choose your preferred display under Window Mode. For Web Browser, the External Browser (UNIX®) selection is the recommended choice. If you want to view any external web pages through the IDE, then you also have to indicate a Web Proxy.

In the Text Editor Preferences page, you can select your text editor of choice. The default selection is the Built-in Editor.

The Module Installation and Update Center pages of the Setup Wizard are not integral to the Sun Studio 11 IDE. Once you have selected your General Sun Studio Settings and the Text Editor Preferences, you can exit the Setup Wizard by clicking the Finish button to save your settings.

The Welcome screen of the IDE includes a list of links that you can use to help you get started using the IDE, including a Using the IDE section and a tutorial. For further information on viewing the compiler and tools documentation, see "Accessing Sun Studio Documentation" on page 14.

Using the Registration Wizard

The Registration wizard opens the first time you run the IDE. You can also open the Registration wizard by clicking Help→ Registration Wizard. You can choose to register online, by fax, or by mail.

Note To System Administrators

After you have installed the Sun Studio 11 software, you can send an email to the developers who will be using the software. An email template is available in the following directory:

/installation-directory`/SUNWspro/READMEs/email_template.txt`

The email template provides information for:

- Setting local environment variables
- Starting the IDE
- Locating product documentation
- Installing the J2SE technology locally

The J2SE technology should be in the environment path of each developer who is using the Sun Studio 11 software. The developers can have the J2SE technology installed locally or mapped in their path environment. To assist the developers in installing the J2SE environment, you can copy the studio11-sol-*arch*-j2sdk.tar file or mount the CD-ROM image on a network server that is available to the developers. Be sure to include the path to J2SE installer in the email that you send to the developers.

CHAPTER 4

Uninstalling the Sun Studio 11 Software

This chapter describes how to uninstall the Sun™ Studio 11 software products and associated patches that are installed on your system.

When you successfully install your software, an uninstaller is automatically generated. There are four ways to use the uninstaller to remove the Sun Studio 11 software:

- Use the batch uninstaller, which removes all Sun Studio 11 software in silent mode. See "Using the Batch Software Uninstaller" on page 51.
- Use the graphical user interface (GUI) uninstaller, which allows you to uninstall select Sun Studio 11 product components. See "Using a Graphical User Interface Uninstaller" on page 52.
- Use the command-line uninstaller, which allows you to uninstall select Sun Studio 11 product components in silent or interactive mode. See "Using a Command-Line Uninstaller" on page 54.
- Use the Solaris Product Registry tool, which allows you to uninstall select Sun Studio 11 product components. See "Using the Solaris Product Registry Software Uninstaller" on page 56.

Note – Do not use the `pkgrm` command to uninstall the software. Use the provided uninstaller.

Uninstalling When Previous Versions Of Sun Studio Software Are Installed

If you installed the Sun Studio 11 software on a system that has previous Sun Studio software installations other than Sun Studio 11 product, then only the Sun Studio 11 software is removed when you use the uninstaller.

Choosing Local Display or Remote Display of an Uninstaller

You can display an uninstaller either locally or remotely while you are uninstalling Sun Studio 11 software.

To uninstall using the local display, proceed to "Using a Graphical User Interface Uninstaller" on page 52 or "Using a Command-Line Uninstaller" on page 54. To uninstall using a remote display, follow the steps in "Preparing to Uninstall Using a Remote Display" on page 50, and then proceed to "Using a Graphical User Interface Uninstaller" on page 52 or "Using a Command-Line Uninstaller" on page 54.

Preparing to Uninstall Using a Remote Display

To prepare for uninstallation using a remote display, follow these steps:

1. **On the display computer, enable client access to the X server by typing the following at a command line:**

```
% xhost + source-computer-name
```

Replace *source-computer-name* with the output of the `/usr/bin/hostname` command entered on the source computer, which is the computer on which the uninstaller will be running.

2. **Log in to the source computer and become a superuser (root) by typing:**

```
% rlogin source-computer-name -l rootname
Password: root-password
```

3. **On the source computer, set your display to the monitor that is attached to the display computer.**

   If you use the C shell, type:

```
# setenv DISPLAY display-computer-name:0.0
```

   If you use the Bourne shell, type:

```
# DISPLAY=display-computer-name:0.0
# export DISPLAY
```

   If you use the Korn shell, type:

```
# export DISPLAY=display-computer-name:0.0
```

   Replace *display-computer-name* with the output of the `/usr/bin/hostname` command on the display computer, which is the computer on which the uninstaller will be displayed.

Using the Batch Software Uninstaller

The batch uninstaller removes all Sun Studio 11 software in the silent mode.

Note – If the uninstaller cannot find the J2SE technology that is available to your system, you need to run the uninstaller using the `-j` option with the following syntax: `./batch_uninstall_all -j /usr/java1.2`
so the uninstaller can find the required J2SE 1.2 software.

---

1. **Become a superuser (root) by typing:**

```
% su
Password: root-password
```

2. **Go to the product directory by typing:**

```
# cd /var/sadm/prod/com.sun.studio_11
```

Note – If you are uninstalling an Early Access version of the product, the uninstaller directory is `/var/sadm/prod/com.sun.studio_10u1_ea`*n*`.`

3. **Start the batch uninstaller by typing:**

```
# ./batch_uninstall_all
```

The batch uninstaller starts and continues with uninstallation.

Using a Graphical User Interface Uninstaller

TABLE 4-1 shows the software names and the uninstaller `.class` file names that you use to uninstall the Sun Studio 11 software.

TABLE 4-1 Software Names and Related Uninstaller `.class` File Names

Software Name	Uninstallation `.class` File Names
Sun Performance Library 8	`uninstall_Sun_Performance_Library.class`
Source Distribution	`uninstall_Source_Distribution.class`
IDE and tools software	`uninstall_Sun_Studio_Software.class`
Documentation	`uninstall_Documentation.class`
Uninstaller class files are located at `/var/sadm/prod/com.sun.studio_11`	

To run an uninstaller, follow these steps:

1. **If you have not already done so, become a superuser (root) by typing:**

```
% su
Password: root-password
```

2. **Go to the uninstaller directory by typing:**

```
# cd /var/sadm/prod/com.sun.studio_11
```

3. **Determine the uninstaller `.class` file name for the software you want to uninstall by typing `ls -l` to see the list of uninstaller `.class` file names or referring to** TABLE 4-1**.**

4. **To start the uninstaller, type the following, using the appropriate uninstaller `.class` file name.**

Note – Do not include the `.class` extension of the file name when you type the command.

```
# /usr/bin/java uninstall_uninstaller-class-file-name
```

For example, to remove the Sun Studio 11 software, type:

```
# /usr/bin/java uninstall_Sun_Studio_Software
```

The Uninstalling window appears. The Welcome page shows you which products will be uninstalled.

5. **In the Welcome page, click Next to continue.**

The Select Type of Uninstall page appears.

6. **In the Select Type of Uninstall page, select the type of uninstallation you want:**

If you want to uninstall all of the components of the product, select Full. Click Next and proceed to Step 8.

If you want to uninstall only certain components of the product, select Partial. Click Next and proceed to Step 7.

7. **In the Component Selection page, deselect the components you do not want to uninstall by clicking their checkboxes to remove the check marks. Click Next to continue.**

8. **In the Ready to Uninstall page, click Uninstall Now.**

   The Uninstalling page appears with a progress indicator. When uninstallation is complete, the Uninstallation Summary page appears. Click the Details button to view the log files.

9. **Click Exit to exit the uninstaller.**

10. **(Optional) If you performed the uninstallation using a remote display, on the display computer, disable client access by typing the following:**

```
% xhost - source-computer-name
```

11. **Exit from superuser privileges on the source computer by typing:**

```
# exit
```

Using a Command-Line Uninstaller

To remove software products with the command-line uninstaller, follow these steps:

1. **Become a superuser (root) by typing:**

```
% su
Password: root-password
```

2. **Go to the product directory by typing:**

```
# cd /var/sadm/prod/com.sun.studio_11
```

3. **To determine the uninstaller `.class` file name for the software you want to uninstall, type `ls -l` to see the list of uninstaller `.class` file names or refer to** TABLE 4-1**.**

4. **Type one of the following commands to run the command-line uninstaller, using the appropriate uninstaller `.class` file name.**

Note – Do not include the `.class` extension of the file name when you type the command.

- To uninstall a product, use its interactive command-line uninstaller. For example, to uninstall the Sun Studio 11 software, type:

```
# /usr/bin/java uninstall_Sun_Studio_Software -nodisplay
```

  The installer shows you which product will be uninstalled. Proceed to Step 5.

- To uninstall the entire product without any additional prompts (in silent mode), type:

```
# /usr/bin/java uninstall_uninstaller-class-file-name -nodisplay -noconsole
```

  The product is uninstalled and the uninstaller exits. Proceed to Step 7.

5. **Press Enter to continue.**

6. **Follow the command-line instructions to complete the uninstallation.**

7. **When uninstallation is complete, you have the option to view the product's log file by typing its corresponding number. When finished, type the number that corresponds to `Done`.**

   The installer exits.

8. **(Optional) If you performed the uninstallation using a remote display, on the display computer, disable client access by typing the following:**

```
% xhost - source-computer-name
```

9. **Exit from superuser privileges on the source computer by typing:**

```
# exit
```

Using the Solaris Product Registry Software Uninstaller

You can use the Solaris Product Registry tool to start the uninstaller.

1. **Become a superuser (root) by typing:**

```
% su
Password: root-password
```

2. **At the prompt, type:**

```
# prodreg
```

3. **From the Registered Software column, select the software component you want to uninstall.**
4. **Click the Uninstall button, and the uninstaller opens.**
5. **Verify that you want to uninstall that component and click OK in the Warning dialog.**
6. **(Optional) You might be prompted to use the interactive uninstaller. Follow the instructions in the uninstaller wizard to complete the uninstallation.**

CHAPTER 5

Troubleshooting

This chapter describes how to fix problems that can occur during Sun™ Studio 11 software installation and uninstallation.

Installing in a Directory That Is Reached by a Symbolic Link

You can install in a directory where part of the path is a symbolic link. An example for installing in a path reached by a symbolic link is if the default directory `/opt` does not have enough disk space. You need to complete the steps below to prevent the installer from bypassing the symbolic link and installing in an actual filesystem.

Note – For example, if you choose to install in `/opt`, the following steps show you how to create a symbolic link of `/opt/SUNWspro` that points to `/export/opt_SUNWspro`. You can substitute your directory names for the example names.

1. **Become a superuser (root) by typing:**

```
% su
Password: root-password
```

2. **Save the existing symbolic link by typing:**

```
# mv /opt/SUNWspro /mytemp
```

3. **Make a new `/opt/SUNWspro` directory, which will serve as a mount point, by typing:**

```
# mkdir /opt/SUNWspro
```

4. **Mount the target directory so it is available as `/opt/SUNWspro` by typing:**

```
# mount -F lofs localhost:/export/opt_SUNWspro /opt/SUNWspro
```

5. **Install the product in the `/opt` directory.**
6. **Unmount the target directory by typing:**

```
# umount /opt/SUNWspro
```

7. **Remove the empty `/opt/SUNWspro` mount point by typing:**

```
# rmdir /opt/SUNWspro
```

8. **Restore the symbolic link that you moved in Step 2:**

```
# mv /mytemp /opt/SUNWspro
```

9. **Exit from superuser privileges by typing:**

```
# exit
```

Product Registry Problems

If you encounter installation or uninstallation problems that involve a corrupt `productregistry` file, you can sometimes use the Solaris™ Product Registry Tool to locate and fix the problem.

How Do I Identify and Fix a Failed Installation?

If some packages are not properly installed, you will have problems using the Sun Studio software. For example, if you used the `pkgadd` command to install the software, you have corrupted the `productregistry` file. To verify whether all packages are installed properly, follow these instructions:

1. **Become a superuser (root) by typing:**

```
% su
Password: root-password
```

2. **Open the Solaris Product Registry tool by typing:**

```
% /usr/bin/prodreg &
```

3. **In the left column of the tool, look at the list under the heading Registered Software.**

   If a yellow triangle appears adjacent to the product name, then the product is not installed properly.

4. **Select the product name and click the Uninstall button.**

   The Uninstall Failed dialog box opens.

5. **Read the message in the box, and then click OK if you want to uninstall the product.**

   The Interactive Uninstall dialog box opens.

6. **Follow the instructions in the subsequent dialog boxes until uninstallation is complete.**

   Once the uninstallation is complete, you can reinstall the product software using the product installer. See Chapter 2 for product installation instructions.

How Do I Fix a Failed Uninstallation?

If the uninstaller quits before all the product files are deleted, rerunning the uninstaller will not delete the remaining product files. The product files have been marked as deleted in the `productregistry` file, so the uninstaller does not remove the remaining files. To completely remove the product files, use the Solaris Product Registry tool, as described in the following procedure:

1. **Become a superuser (root) by typing:**

```
% su
Password: root-password
```

2. **Open the Solaris Product Registry tool by typing:**

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

3. **In the left column of the tool, select all product names containing SS11 or Sun Studio 11 and click the Uninstall button.**

   The Uninstall Failed dialog box opens.

4. **Read the message in the box, and then click OK if you want to uninstall the product.**

   The Interactive Uninstall dialog box opens.

5. **Follow the instructions in the subsequent dialog boxes until uninstallation is complete.**

   Once the uninstallation is complete, you can reinstall the product software using the product installer. See Chapter 2 for product installation instructions.

What Can I Do If the `productregistry` File Is Corrupted?

If you attempted to fix the failed installation or uninstallation by using the steps in "How Do I Identify and Fix a Failed Installation?" on page 59 or "How Do I Fix a Failed Uninstallation?" on page 59, and you are still having problems, you need to delete the corrupted `productregistry` file from your system. The `productregistry` file is typically corrupted if you attempt to install or uninstall the software using the `pkgadd` command or `pkgrm` command.

Note – Deleting the `productregistry` file removes the entries for the Sun Studio 11 software and the registry entries for the Solaris Operating System (OS) and other products. Review the steps in "How Do I Identify and Fix a Failed Installation?" on page 59 and "How Do I Fix a Failed Uninstallation?" on page 59 before proceeding with the steps below.

---

1. **Become a superuser (root) by typing:**

```
% su
Password: root-password
```

2. **Go to the** `productregistry` **file by typing the following command at the prompt:**

```
% cd /var/sadm/install
```

3. **Remove the** `productregistry` **file by typing:**

```
# rm productregistry
```

4. **Exit from superuser privileges by typing:**

```
# exit
```

Once you have removed the `productregistry` file, you can reinstall the product software using the product installer. See Chapter 2 for product installation instructions.

How Can I View the Installation Log Files?

When you install the Sun Studio software, log files that contain a record of the installation are automatically generated.

To troubleshoot installation problems by viewing the log files, do the following:

1. **Go to the** `logs` **directory by typing at the prompt:**

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

2. **View the file by typing:**

```
% more Sun_Studio_Software_install.A03200125
```

The file extension varies for each log file.

Installing With a Remote Display

The following topics include problems that can occur during a remote display installation.

What If the Installation Fails on an NFS-Mounted Filesystem?

If the installation fails on an NFS-mounted filesystem, ensure that you have write permission on that filesystem. You can check for write permission by following the instructions below. See "Choosing Local Display or Remote Display of the Installer" on page 23 for more information about installing on an NFS-mounted filesystem.

1. **Check for write permission by typing:**

```
% touch /net/remote-system/opt/testfile
```

If you receive an error message, then you do not have write permission. For example:

```
% touch /net/harker/opt/testfile
touch: /net/harker/opt/testfile cannot create
```

2. **Choose another installation directory on which you have write permission, or contact your system administrator to change the filesystem permissions.**

How Do I Initialize a ToolTalk Software Session During Remote Display Installation?

If the graphical user interface installer stalls during installation, you can initialize a ToolTalk™ software session by doing the following:

1. **Exit from the installer.**
2. **If you are not currently superuser (root), become a superuser by typing:**

```
% su
Password: root-password
```

3. **Type at the prompt:**

```
# /usr/dt/bin/ttsession -c
```

4. **Ensure that the** `$DISPLAY` **is set.**

   The sections "Choosing Local Display or Remote Display of the Installer" on page 23 and "Installing to an NFS-mounted Filesystem" on page 24 describe how to set the remote display.

5. **Start the installer by typing:**

```
# /cdrom/studio_8_sol_arch/installer
```

   Follow the instructions in Chapter 2 to complete the installation.

What Can I Do If the Batch Installer Stalls?

If you enter an invalid parameter when you start the batch installer, the installer stalls and does not complete the installation. Some common errors include typing an incorrect serial number, including two different directory names, or invoking the installer when you do not have enough disk space.

Follow these steps to restart the batch installer:

1. **View the log files for any error messages by typing:**

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

2. **To stop the installer, press Control+C.**
3. **To install the product using the batch installer, see "Using the Batch Installer" on page 34 of Chapter 2.**

APPENDIX **A**

Sun Studio 11 Components and Packages

This appendix provides information about the Sun Studio 11 software products available for software development. This appendix also lists the components and packages that comprise each product.

TABLE A-1 lists the Sun Studio 11 software metacluster and package configuration and component information for the SolarisOS on SPARC based systems. Component names are in all uppercase characters. Some of the components appear in the package lists for other components. For example, the `SPROLANG` component is listed in the package lists for the `SPROCC` component and the `SPROCCC` component, indicating that all of the packages in the `SPROLANG` component are included in the `SPROCC` component and the `SPROCCC` component.

TABLE A-2 lists the Sun Studio 11 software metacluster and package configuration and component information for the Solaris OS on x86 based systems. Component names are in all uppercase characters. Some of the components appear in the package lists for other components. For example, the `SPROLANG` component is listed in the package lists for the `SPROCC` component and the `SPROCCC` component, indicating that all of the packages in the `SPROLANG` component are included in the `SPROCC` component and the `SPROCCC` component.

TABLE A-1 Sun Studio 11 Product Metacluster Components and Packages for Solaris on SPARC Based Systems

Sun Studio 11 IDE for Solaris (metaclust=SPROMSTUDIO)
Sun Studio 11 Compilers C (SPROCC)
Sun Studio 11 Compilers Common Components (SPROLANG)
Sun Studio 11 C Compiler (SPROcc)
Sun Studio 11 update 1 Common Tools (SPROutool)
Sun Studio 11 update 1 Man Pages/Online Info for C (SPROmrcc)
Sun Studio 11 update 1 Common Compiler Man Pages/Online Info (SPROmrcom)
Sun Studio 11 update 1 Math Library Man Pages (SPROmr3m)
Sun Studio 11 update 1 Test Coverage Man Page (SPROmrtcv)
Sun Studio 11 update 1 C9X Math Library (SPROM9XS)
Sun Studio 11 update 1 Sunmath Library (SPROSM)
Sun Studio 11 update 1 Man Pages/Online Info for Source Browser (SPROmrsbe)
Sun Studio 11 Source Browser (SPROsbe)
Misc files (SPROCMISC)
Sun Studio 11 Compilers C++ (SPROCCC)
Sun Studio 11 Compilers Common Components (SPROLANG)
Sun Studio 11 Compilers C++ (SPROCPL)
Sun Studio 11 Common Tools (SPROutool)
Sun Studio 11 update 1 C++ Complex Library (SPROcmpl)
Sun Studio 11 update 1 Tools.h++ 7.1 (SPROTL7)
Sun Studio 11 update 1 Standard Library for C++ (SPROSCL)
Sun Studio 11 update 1 Man Pages/Online Info for C++ (SPROmrcpl)
Sun Studio 11 update 1 Common Compiler Man Pages/Online Info (SPROmrcom)
Sun Studio 11 update 1 Math Library Man Pages (SPROmr3m)
Sun Studio 11 update 1 Test Coverage Man Page (SPROmrtcv)
Sun Studio 11 update 1 C9X Math Library (SPROM9XS)
Sun Studio 11 update 1 Man Pages/Online Info for Source Browser (SPROmrsbe)
Sun Studio 11 update 1 Source Browser (SPROsbe)
Sun Studio 11 update 1 Sunmath Library (SPROSM)
Sun Studio 11 STLport (SPROSTLPORT)
Misc files (SPROCMISC)

TABLE A-1 Sun Studio 11 Product Metacluster Components and Packages for Solaris on SPARC Based Systems *(Continued)*

Sun Studio 11 Compilers Fortran 95 (SPROCFOR)
Sun Studio 11 Compiler FORTRAN 77 Tools (SPROftool)
Sun Studio 11 Compilers Common Components (SPROLANG)
Sun Studio 11 Fortran 95 Libraries (SPROLIB90)
Sun Studio 11 Compiler Fortran 90 (SPROf90)
Sun Studio 11 Common Tools (SPROutool)
Sun Studio 11 Man Pages/Online Info for Fortran 95 (SPROmrftn)
Sun Studio 11 Common Compiler Man Pages/Online Info (SPROmrcom)
Sun Studio 11 Math Library Man Pages (SPROmr3m)
Sun Studio 11 Test Coverage Man Page (SPROmrtcv)
Sun Studio 11 C9X Math Library (SPROM9XS)
Sun Studio 11 Sunmath Library (SPROSM)
Sun Studio 11 dmake Man Page (SPROmrdmk)
Sun Studio 11 Man Pages/Online Info for Source Browser (SPROmrsbe)
Sun Studio 11 Source Browser (SPROsbe)
Misc files (SPROCMISC)
Sun Studio 11 Compilers Fortran 95 Legacy Libraries (SPROCFORL)
Sun Studio 11 FORTRAN 77 Dynamic Libraries (SPROl77s)
Sun Studio 11 FORTRAN 77 64-bit Dynamic Libraries (SPROl77sx)
Sun Studio 11 Garbage Collector (SPROCLGC)
Sun Studio 11 Garbage Collector (SPROLGC)
Sun Studio 11 Garbage Collector 64-bit Library (SPROLGCX)
Sun Studio 11 LockLint (SPROCLKLT)
Sun Studio 11 LockLint (SPROlklnt)
Sun Studio 11 Man Pages/Online Info for MT Tools (SPROmrmp)
Sun Studio 11 DBX Debugging Tools (SPROCDBX)
Sun Studio 11 Debugging Tools (SPROdbx)
Sun Studio 11 Debugging Tools 64-bit (SPROdbxx)
Sun Studio 11 Debugging Tools (SPROjdbx)
Sun Studio 11 Debugging Tools 64-bit (SPROjdbxx)
Sun Studio 11 Man Pages/Online Info for dbx (SPROmrdbx)
Misc files (SPROCMISC)

TABLE A-1 Sun Studio 11 Product Metacluster Components and Packages for Solaris on SPARC Based Systems *(Continued)*

Sun Studio 11 Performance Tools (SPROCPRFT)
Sun Studio 11 Performance Analyzer Tools (SPROprfan)
Sun Studio 11 Man Pages/Online Info for Perf Tools (SPROmrpan)
Sun Studio 11 Performance Analyzer 64-bit Tools (SPROprfax)
Sun Studio 11 Performance Analyzer Library API (SPROprflb)
Sun Studio 11 Performance Analyzer 64-bit Library API (SPROprflx)
Misc files (SPROCMISC)
Sun Studio 11 DwarfSupportLibrary binaries (SPROdwrfb)
Sun Studio 11 DwarfSupportLibrary 64-bit binaries (SPROdwrfx)
Sun Studio 11 DwarfSupportLibrary man pages (SPROmrdwf)
Sun Studio 11 Performance Analyzer GUI (SPROprfgn)
Sun Studio 11 Man Pages/Online Info for Analyzer GUI (SPROmrpgn)
Sun Studio 11 Demos (SPROCDEMO)
Sun Studio 11 Compiler Examples and Programs (SPROdemo)
Sun Studio 11 Building Software (SPROCBLD)
Sun Studio 11 Distributed Make (SPROdmake)
Sun Studio 11 dmake Man Page (SPROmrdmk)
Sun Studio 11 Demos (SPROCTDEMO)
Sun Studio 11 Tools Examples and Programs (SPROtdemo)
Sun Studio 11 IDE (SPROCIDE)
Sun Studio 11 IDE Readme (SPROmride)
Sun Studio 11 dbx GUI plug-in (SPROdbxui)
Sun Studio 11 GUI Interface Support (SPROsvc)
Sun Studio 11 X-designer plug-in (SPROxdplg)
Sun Studio 11 Branding files (SPROidext)
Sun Studio 11 Native Connector Tool (SPROjnsnb)
Sun Studio 11 Native Connector Tool Run-Time (SPROjnsrt)
Sun Studio 11 Native Connector Tool Support (SPROjnsup)
Sun Studio 11 Exuberant CTags Binary Distribution (SPROctags)
Sun Studio 11 NetBeans (SUNWnbide)
Sun Studio 11 cpp Module Binary Distribution (SUNWnbcpp)
Sun Studio 11 External Editor Module Binary Distribution (SUNWexted)
Sun Studio 11 Registration Tool (SPROnbreg)
Sun Studio 11 X-Designer (SPROCXD)
X-Designer GUI Builder (SPROfdxd)
X-Designer ManPages and Online Help (SPROmrxd)

TABLE A-1 Sun Studio 11 Product Metacluster Components and Packages for Solaris on SPARC Based Systems *(Continued)*

Sun Freeware Editors (SPROCED)
Sun Studio 11 vim external editor (SPROgvim)
Sun Studio 11 XEmacs 21.4.12 (SPROxmbin)
Sun Studio 11 XEmacs 21.4.12 (SPROxmshr)
Sun Studio 11 XEmacs 21.4.12 - source distribution (SPROxmsrc)
Sun Studio 11 XEmacs 21.4.12 - documentation (SPROmrxm)

Sun Studio 11 Documentation Set (metaclust=SPROMDOCS)
Sun Studio 11 Documentation Set (SPROCDOCS)
Sun Studio 11 Copyright and Images (SPROhtbas)
Sun Studio 11 Tools.h++ 7.1 Docs (SPROhttl7)
Sun Studio 11 Standard Library C++ Docs (SPROhtstd)
Sun Studio 11 XDesigner Docs (SPROhtxd)

Sun Studio 11 Sun Performance Library (metaclust=SPROMPLIB)
Sun Performance Library (SPROCPERF)
Sun Studio 11 Compilers Common Components (SPROLANG)
Sun Studio 11 Fortran 95 Libraries (SPROLIB90)
Sun Studio 11 Man Pages for Sun Perf Library (SPROmrpl)
Sun Studio 11 PerfLib Common Components (SPROplg)
Sun Studio 11 Sunmath Library (SPROSM)
Sun Studio 11 Performance Archive Libraries (SPROPL)
Sun Studio 11 Performance Shared Libraries (SPROPLS)
Sun Studio 11 Interval Libraries Common Components (SPROiplg)
Sun Studio 11 Man Pages for Sun Interval Library (SPROmripl)
Sun Studio 11 Interval Libraries 32-bit (SPROipl)
Sun Studio 11 Interval Libraries 64-bit (SPROiplx)
Sun Studio 11 PerfLib Legacy Library Check (SPROplck)

Sun Studio 11 Source Distribution (metaclust=SPROMSRC)
DwarfLibrary, Source Distribution (DWSRC)
Sun Studio 11 DwarfSupportLibrary source (SPROdwrfs)
Red-Black Tree Library, Source Distribution (RDBLKSRC)
Sun Studio 11 Red-Black_Tree_Library source (SPROrdbks)
Sun Studio 11 STLport Source Distribution (STLSRC)
Sun Studio 11 STLPort version 4 source (SPROstl4h)
Exuberant CTags Source Distribution (CTGSRC)
Sun Studio 11 Exuberant ctags source (SPROctsrc)

TABLE A-2 Sun Studio 11 update 1 Product Metacluster Components and Packages for Solaris on x86 Based Systems

Sun Studio 11 IDE for Solaris (metaclust=SPROMSTUDIO)
Sun Studio 11 Compilers C (SPROCC)
Sun Studio 11 Compilers Common Components (SPROLANG)
Sun Studio 11 C Compiler (SPROcc)
Sun Studio 11 Common Tools (SPROutool)
Sun Studio 11 Man Pages/Online Info for C (SPROmrcc)
Sun Studio 11 Common Compiler Man Pages/Online Info (SPROmrcom)
Sun Studio 11 Math Library Man Pages (SPROmr3m)
Sun Studio 11 Test Coverage Man Page (SPROmrtcv)
Sun Studio 11 C9X Math Library (SPROM9XS)
Sun Studio 11 Sunmath Library (SPROSM)
Sun Studio 11 Man Pages/Online Info for Source Browser (SPROmrsbe)
Sun Studio 11 Source Browser (SPROsbe)
Misc files (SPROCMISC)
Sun Studio 11 Compilers C++ (SPROCCC)
Sun Studio 11 Compilers Common Components (SPROLANG)
Sun Studio 11 Compilers C++ (SPROCPL)
Sun Studio 11 Common Tools (SPROutool)
Sun Studio 11 C++ Complex Library (SPROcmpl)
Sun Studio 11 Tools.h++ 7.1 (SPROTL7)
Sun Studio 11 Standard Library for C++ (SPROSCL)
Sun Studio 11 Man Pages/Online Info for C++ (SPROmrcpl)
Sun Studio 11 Common Compiler Man Pages/Online Info (SPROmrcom)
Sun Studio 11 Math Library Man Pages (SPROmr3m)
Sun Studio 11 Test Coverage Man Page (SPROmrtcv)
Sun Studio 11 C9X Math Library (SPROM9XS)
Sun Studio 11 Man Pages/Online Info for Source Browser (SPROmrsbe)
Sun Studio 11 Source Browser (SPROsbe)
Sun Studio 11 Sunmath Library (SPROSM)
Sun Studio 11 STLport (SPROSTLPORT)
Misc files (SPROCMISC)

TABLE A-2 Sun Studio 11 update 1 Product Metacluster Components and Packages for Solaris on x86 Based Systems *(Continued)*

- Sun Studio 11 Compilers Fortran 95 (SPROCFOR)
  - Sun Studio 11 Compiler FORTRAN 77 Tools (SPROftool)
  - Sun Studio 11 Compilers Common Components (SPROLANG)
  - Sun Studio 11 Fortran 95 Libraries (SPROLIB90)
  - Sun Studio 11 Compiler Fortran 90 (SPROf90)
  - Sun Studio 11 Common Tools (SPROutool)
  - Sun Studio 11 Common Compiler Man Pages/Online Info (SPROmrcom)
  - Sun Studio 11 Math Library Man Pages (SPROmr3m)
  - Sun Studio 11 Test Coverage Man Page (SPROmrtcv)
  - Sun Studio 11 C9X Math Library (SPROM9XS)
  - Sun Studio 11 Sunmath Library (SPROSM)
  - Sun Studio 11 Man Pages/Online Info for Source Browser (SPROmrsbe)
  - Sun Studio 11 Source Browser (SPROsbe)
  - Sun Studio 11 Man Pages/Online Info for Fortran 95 (SPROmrftn)
  - Misc files (SPROCMISC)
- Sun Studio 11 Garbage Collector (SPROCLGC)
  - Sun Studio 11 Garbage Collector (SPROLGC)
  - Sun Studio 11 Garbage Collector 64-bit Library (SPROLGCX)
- Sun Studio 11 DBX Debugging Tools (SPROCDBX)
  - Sun Studio 11 Debugging Tools (SPROdbx)
  - Sun Studio 11 Debugging Tools 64-bit (SPROdbxx)
  - Sun Studio 11 Debugging Tools (SPROjdbx)
  - Sun Studio 11 Debugging Tools 64-bit (SPROjdbxx)
  - Sun Studio 11 Man Pages/Online Info for dbx (SPROmrdbx)
  - Misc files (SPROCMISC)
- Sun Studio 11 Demos (SPROCDEMO)
  - Sun Studio 11 Compiler Examples and Programs (SPROdemo)
- Sun Studio 11 Building Software (SPROCBLD)
  - Sun Studio 11 Distributed Make (SPROdmake)
  - Sun Studio 11 dmake Man Page (SPROmrdmk)
- Sun Studio 11 Demos (SPROCTDEMO)
  - Sun Studio 11 Tools Examples and Programs (SPROtdemo)

TABLE A-2 Sun Studio 11 update 1 Product Metacluster Components and Packages for Solaris on x86 Based Systems *(Continued)*

Sun Studio 11 IDE (SPROCIDE)
Sun Studio 11 IDE Readme (SPROmride)
Sun Studio 11 dbx GUI plug-in (SPROdbxui)
Sun Studio 11 GUI Interface Support (SPROsvc)
Sun Studio 11 X-designer plug-in (SPROxdplg)
Sun Studio 11 Branding files (SPROidext)
Sun Studio 11 Native Connector Tool (SPROjnsnb)
Sun Studio 11 Native Connector Tool Run-Time (SPROjnsrt)
Sun Studio 11 Native Connector Tool Support (SPROjnsup)
Sun Studio 11 Exuberant CTags Binary Distribution (SPROctags)
Sun Studio 11 NetBeans (SUNWnbide)
Sun Studio 11 C, C++, and Fortran Support (SUNWnbcpp)
Sun Studio 11 External Editor Support (SUNWexted)
Sun Studio 11 Registration Tool (SPROnbreg)
Sun Studio 11 X-Designer (SPROCXD)
X-Designer GUI Builder (SPROfdxd)
X-Designer ManPages and Online Help (SPROmrxd)
Sun Freeware Editors (SPROCED)
Sun Studio 11 vim external editor (SPROgvim)
Sun Studio 11 XEmacs 21.4.12 (SPROxmbin)
Sun Studio 11 XEmacs 21.4.12 (SPROxmshr)
Sun Studio 11 XEmacs 21.4.12 - source distribution (SPROxmsrc)
Sun Studio 11 XEmacs 21.4.12 - documentation (SPROmrxm)
Sun Studio 11 Performance Tools (SPROCPRFT)
Sun Studio 11 Performance Analyzer Tools (SPROprfan)
Sun Studio 11 Man Pages/Online Info for Perf Tools (SPROmrpan)
Sun Studio 11 Performance Analyzer 64-bit Tools (SPROprfax)
Sun Studio 11 Performance Analyzer Library API (SPROprflb)
Sun Studio 11 Performance Analyzer 64-bit Library API (SPROprflx)
Misc files (SPROCMISC)
Sun Studio 11 DwarfSupportLibrary binaries (SPROdwrfb)
Sun Studio 11 DwarfSupportLibrary man pages (SPROmrdwf)
Sun Studio 11 Performance Analyzer GUI (SPROprfgn)
Sun Studio 11 Man Pages/Online Info for Analyzer GUI (SPROmrpgn)

TABLE A-2 Sun Studio 11 update 1 Product Metacluster Components and Packages for Solaris on x86 Based Systems *(Continued)*

Sun Studio 11 Documentation Set (metaclust=SPROMDOCS)
Sun Studio 11 Documentation Set (SPROCDOCS)
Sun Studio 11 Copyright and Images (SPROhtbas)
Sun Studio 11 Tools.h++ 7.1 Docs (SPROhttl7)
Sun Studio 11 Standard Library C++ Docs (SPROhtstd)
Sun Studio 11 XDesigner Docs (SPROhtxd)
Sun Studio 11 Sun Performance Library (metaclust=SPROMPLIB)
Sun Performance Library (SPROCPERF)
Sun Studio 11 Compilers Common Components (SPROLANG)
Sun Studio 11 Fortran 95 Libraries (SPROLIB90)
Sun Studio 11 Sunmath Library (SPROSM)
Sun Studio 11 PerfLib Common Components (SPROplg)
Sun Studio 11 PerfLib 32-bit (Archive) (SPROpl)
Sun Studio 11 PerfLib 64-bit (Archive) (SPROplx)
Sun Studio 11 PerfLib 32-bit (Shared) (SPROpls)
Sun Studio 11 Perflib 64-bit (Shared) (SPROplsx)
Sun Studio 11 Man Pages for Sun Perf Library (SPROmrpl)
Sun Studio 11 Source Distribution (metaclust=SPROMSRC)
DwarfLibrary, Source Distribution (DWSRC)
Sun Studio 11 DwarfSupportLibrary source (SPROdwrfs)
Red-Black Tree Library, Source Distribution (RDBLKSRC)
Sun Studio 11 Red-Black_Tree_Library source (SPROrdbks)
Sun Studio 11 STLport Source Distribution (STLSRC)
Sun Studio 11 STLPort version 4 source (SPROstl4h)
Exuberant CTags Source Distribution (CTGSRC)
Sun Studio 11 Exuberant ctags source (SPROctsrc)

APPENDIX **B**

Patch Identification Numbers and Descriptions

Operating system patches and product patches are provided for Sun Studio 11 software. These patches are required for the proper operation of the compilers and tools in this release. This appendix lists the Solaris OS patches that are included with this release. These patches are installed automatically unless you change the default selection on the Select Components page during the installation process.

TABLE B-1 lists the patch identification numbers and descriptions for the Solaris 8 OS on SPARC based systems.

TABLE B-2 lists the patch identification numbers and descriptions for the Solaris 9 OS on SPARC based systems.

TABLE B-3 lists the patch identification numbers and descriptions for the Solaris 10 OS on SPARC based systems..

TABLE B-4 lists the patch identification numbers and descriptions for the Solaris 8 OS on x86 based systems.

TABLE B-5 lists the patch identification numbers and descriptions for the Solaris 9 OS on x86 based systems.

TABLE B-6 lists the patch identification numbers and descriptions for the Solaris 10 OS on x86 based systems..

TABLE B-1 Patches for Solaris 8 OS on SPARC Based Systems

Patch Identification Number	Patch Description
109147-37	Linker patch
108434-18	32-Bit Shared library patch for C++ Requires 109147-07 or greater
108435-18	64-Bit Shared library patch for C++ Requires 108434-18
111697-04	`/usr/ccs/bin/sccs` and `/usr/ccs/bin/make` patch

TABLE B-1 *(Continued)*Patches for Solaris 8 OS on SPARC Based Systems *(Continued)*

Patch Identification Number	Patch Description
114802-02	Assembler patch
117557-03	`libmtsk` patch
111721-04	Math Library (`libm`) patch
108652-83	X11 6.4.1: `Xsun` patch

TABLE B-2 Patches for Solaris 9 OS on SPARC Based Systems

Patch Identification Number	Patch Description
112963-22	Linker patch
111711-12	32-Bit shared library patch for C++
111712-12	64-Bit shared library patch for C++ Requires 111711-11
111703-03	`/usr/ccs/bin/sccs` and `/usr/ccs/bin/make` patch
117560-03	`libmtsk` patch
111722-04	Math Library (`libm`) patch
112785-43	X11 6.6.1: `Xsun` patch

TABLE B-3 Patches for Solaris 10 OS on SPARC Based Systems

Patch Identification Number	Patch Description
117461-04	Linker patch
120753-01	`libmtsk` patch

TABLE B-4 Patches for Solaris 8 OS on x86 Based Systems

Patch Identification Number	Patch Description
109148-37	Linker patch
108436-16	Shared library patch for C++_x86 Requires 109148-07 or greater
111701-04	`/usr/ccs/bin/sccs` and `/usr/ccs/bin/make` patch
117558-03	`libmtsk` patch
112757-01	Math Library (`libm`) patch
108653-72	X11 6.4.1_x86: `Xsun` patch

TABLE B-5 Patches for Solaris 9 OS on x86 Based Systems

Patch Identification Number	Patch Description
113986-18	Linker patch
111713-09	Shared library patch for C++_x86
115114-01	Assembler patch
117559-03	`libmtsk` patch
111728-03	Math Library (`libm`) patch
112786-32	X11 6.6.1_x86: `Xsun` patch

TABLE B-6 Patches for Solaris 10 OS on x86 Based Systems

Patch Identification Number	Patch Description
118345-03	Linker patch
119964-03	Shared library patch for C++_x86
120754-01	`libmtsk` patch

APPENDIX C

J2SE Technology Required Patch Identification Numbers and Descriptions

Java™ 2, Standard Edition (J2SE) technology required patches are provided in the J2SE installer for the Sun Studio 11 software. These patches are required for the proper operation of the J2SE technology with the Solaris OS. This appendix lists the Solaris OS patches that are included with this release. These patches are installed automatically unless you change the default selection on the Select Components page during the J2SE technology installation process.

TABLE C-1 lists the patch identification numbers and descriptions for the Solaris 8 OS on SPARC based systems.

TABLE C-2 lists the patch identification numbers and descriptions for the Solaris 8 OS on x86 based systems.

TABLE C-3 lists the patch identification numbers and descriptions for the Solaris 9 OS on SPARC based systems.

TABLE C-4 lists the patch identification numbers and descriptions for the Solaris 9 OS on x86 based systems..

TABLE C-1 Patches Installed With the J2SE Technology for Solaris 8 OS on SPARC Based Systems

Patch Identification Number	Patch Description
108652-90	X11 6.4.1: `Xsun`
108921-23	CDE 1.4: `dtwm`
108940-68	Motif 1.2.7 and 2.1.1: Runtime library
112003-03	Unable to load fontset in 64-bit Solaris 8 `iso-1` or `iso-15`
108773-19	IIIM and X Input & Output Method
111310-01	`/usr/lib/libdhcpagent.so.1`
112472-01	Font2DTest2 abort when Lucida Sans Thai Typewriter selected
109147-34	Linker

TABLE C-1 Patches Installed With the J2SE Technology for Solaris 8 OS on SPARC Based Systems *(Continued)*

Patch Identification Number	Patch Description
111308-05	`/usr/lib/libmtmalloc.so.1`
112438-03	`/kernel/drv/random`
108434-18	32-Bit Shared library for C++
108435-18	64-Bit Shared library for C++ Requires 108434-17
113886-28	OpenGL 1.3: OpenGL Patch for Solaris (32-bit)
113887-28	OpenGL 1.3: OpenGL Patch for Solaris (64-bit)
111111-04	`/usr/bin/nawk`
112396-02	`/usr/bin/fgrep`
110386-03	`RBAC` Feature
111023-03	`/kernel/fs/mntfs` and `/kernel/fs/sparcv9/mntfs`
111317-06	`/sbin/init` and `/usr/sbin/init`
113648-03	`/usr/sbin/mount`
115827-01	`/sbin/sulogin` and `/sbin/netstrategy`
116602-01	`/sbin/uadmin` and `/sbin/hostconfig`
108987-16	Patch for `patchadd` and `patchrm`
108528-29	Kernel update and Apache
108989-02	`/usr/kernel/sys/acctctl` and `/usr/kernel/sys/exacctsys`
108993-44	`LDAP2` client, `libc`, `libthread` and `libnsl` libraries
109326-16	`libresolv.so.2` and `in.named`
110615-13	sendmail

TABLE C-2 Patches Installed With the J2SE Technology for Solaris 8 OS on x86 Based Systems

Patch Identification Number	Patch Description
108653-79	X11 6.4.1_x86: `Xsun`
108941-68	Motif 1.2.7_x86 and 2.1.1_x86: Runtime library
108922-23	CDE 1.4_x86: `dtwm`
108436-16	32-Bit Shared Library for C++
108774-19	IIIM and X Input & Output Method

TABLE C-2 Patches Installed With the J2SE Technology for Solaris 8 OS on x86 Based Systems *(Continued)*

Patch Identification Number	Patch Description
111307-06	`boot.bin`, `bootconf.exe`, `bootenv.rc` and `nbp`
111311-01	`/usr/lib/libdhcpagent.so.1`
112473-01	`Font2DTest2` abort if Lucida Sans Thai Typewriter selected
112439-02	`kernel/drv/random`
109148-34	Linker
111309-05	`/usr/lib/libmtmalloc.so.1`
111313-02	Viper Library patch
111112-04	`/usr/bin/nawk`
112397-02	`/usr/bin/fgrep`
110400-03	`RBAC` Feature
111024-03	`/kernel/fs/mntfs`
111318-06	`/sbin/init and /usr/sbin/init`
113649-03	`/usr/sbin/mount`
115828-01	`/sbin/sulogin` and `/sbin/netstrategy`
116603-01	`/sbin/uadmin` and `/sbin/hostconfig`
108988-16	Patch for `patchadd` and `patchrm`
108529-29	Kernel update and Apache
108990-02	`acctctl` & `exacctsys`
108994-44	`LDAP2` client, `libc`, `libthread`, and `libnsl` libraries

TABLE C-3 Patches Installed With the J2SE Technology for Solaris 9 OS on SPARC Based Systems

Patch Identification Number	Patch Description
111711-12	32-Bit Shared library for C++
111712-12	64-Bit Shared library for C++ Requires 111711-12
113886-28	OpenGL 1.3: OpenGL Patch for Solaris (32-bit)
113887-28	OpenGL 1.3: OpenGL Patch for Solaris (64-bit)

TABLE C-3 Patches Installed With the J2SE Technology for Solaris 9 OS on SPARC Based Systems *(Continued)*

Patch Identification Number	Patch Description
113096-03	X11 6.6.1: `OWconfig` patch
112785-47	X11 6.6.1: `Xsun` patch
112963-19	Linker

TABLE C-4 Patches Installed With the J2SE Technology for Solaris 9 OS on x86 Based Systems

Patch Identification Number	Patch Description
112786-36	X11 6.6.1_x86: `Xsun`
111713-09	32-Bit Shared Library for C++
113986-15	Linker

APPENDIX **D**

Version Numbers of Sun Studio 11 Software Components

This appendix provides the version numbers of the components that are included in the Sun Studio 11 software.

TABLE D-1 lists the version numbers of the components.

TABLE D-1 Version Numbers of Components of Sun Studio 11 Software

Component	Version Number
C	5.8
C++	5.8
Fortran 95	8.2
`dbx`	7.5
`dmake`	7.7
Locklint	2.6
Performance Analyzer	7.5
Tools.h++	7.1.0
Standard C++ Library	2.1.1
Sun Performance Library	4.3
STLport	4.5.3
X-Designer	7.8

Glossary

batch installer The batch installer is an installer packaged with the product that can install each product component from the command-line with minimal user interaction.

display computer The computer that displays the installer window or command-line installer. For installation using a local display, the display computer and the source computer are the same computer. For installation using a remote display, the display computer and the source computer are different computers.

installation directory The directory in which you install Sun Studio 11 software products. The default directory is `/opt` on the source computer.

Solaris JumpStart installation The Solaris JumpStart™ installation works with the Solaris OS, versions 9 and 10 on SPARC based systems and the Solaris OS versions 9 and 10 on x86 based systems to automate the software installation process to install the Sun Studio 11 software on multiple systems.

local display An installation method where the product CD-ROM or downloaded product software is on the same computer that you use to perform the installation. The source computer runs the installer, and the installer window is displayed on the monitor that is attached to the source computer.

remote display An installation method where the product CD-ROM or downloaded product software is on a different computer than the installer window or command-line installer. You use the `rlogin` command to log in to the source computer that contains the product CD-ROM or downloaded files. You set the `DISPLAY` environment variable to display the installer window on the monitor that is attached to the display computer. The installer runs on the source computer, but the installer window or command-line installer is displayed on the display computer.

source computer The machine that runs the installer. The source computer contains the product CD-ROM or the downloaded product software.

Index