Oracle® Solaris Studio 12.3 Installation Guide

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Contents

Preface

The *Oracle Solaris Studio 12.3 Installation Guide* gives instructions on how to perform the following tasks:

- Use the package installer to install the Oracle Solaris Studio 12.3 software on Oracle Solaris 10 platforms and supported Linux platforms
- Install the required Oracle Solaris 10 patches
- Start the Integrated Development Environment (IDE)
- Uninstall the Oracle Solaris Studio 12.3 software

Supported Platforms

This Oracle Solaris Studio release supports platforms that use the SPARC family of processor architectures running the Oracle Solaris operating system, as well as platforms that use the x86 family of processor architectures running Oracle Solaris or specific Linux systems.

This document uses the following terms to cite differences between x86 platforms:

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

Information specific to Linux systems refers only to supported Linux x86 platforms, while information specific to Oracle Solaris systems refers only to supported Oracle Solaris platforms on SPARC and x86 systems.

For a complete list of supported hardware platforms and operating system releases, see the Oracle Solaris Studio 12.3 Release Notes.

Oracle Solaris Studio Documentation

You can find complete documentation for Oracle Solaris Studio software as follows:

- Product documentation is located at the Oracle Solaris Studio documentation web site, including release notes, reference manuals, user guides, and tutorials.
- Online help for the Code Analyzer, the Performance Analyzer, the Thread Analyzer, dbxtool, DLight, and the IDE is available through the Help menu, as well as through the F1 key and Help buttons on many windows and dialog boxes, in these tools.
- Man pages for command-line tools describe a tool's command options.

Resources for Developers

Visit the Oracle Technical Network web site to find these resources for developers using Oracle Solaris Studio:

- Articles on programming techniques and best practices
- Links to complete documentation for recent releases of the software
- Information on support levels
- User discussion forums.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info` or visit `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs` if you are hearing impaired.

Typographic Conventions

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

TABLE P–1 Typographic Conventions

Typeface	Meaning	Example
`AaBbCc123`	The names of commands, files, and directories, and onscreen computer output	Edit your `.login` file. Use `ls -a` to list all files. `machine_name% you have mail.`
`AaBbCc123`	What you type, contrasted with onscreen computer output	`machine_name%` **`su`** `Password:`

TABLE P–1 Typographic Conventions *(Continued)*

Typeface	Meaning	Example
aabbcc123	Placeholder: replace with a real name or value	The command to remove a file is `rm` *filename*.
AaBbCc123	Book titles, new terms, and terms to be emphasized	Read Chapter 6 in the *User's Guide*. A *cache* is a copy that is stored locally. Do *not* save the file. **Note:** Some emphasized items appear bold online.

Shell Prompts in Command Examples

The following table shows the default UNIX system prompt and superuser prompt for shells that are included in the Oracle Solaris OS. Note that the default system prompt that is displayed in command examples varies, depending on the Oracle Solaris release.

TABLE P–2 Shell Prompts

Shell	Prompt
Bash shell, Korn shell, and Bourne shell	`$`
Bash shell, Korn shell, and Bourne shell for superuser	`#`
C shell	`machine_name%`
C shell for superuser	`machine_name#`

◆ ◆ ◆ CHAPTER 1

Preparing for Installation

This chapter includes information about the following:

Software Installation Overview

The following steps outline the general process you follow to install the Oracle Solaris Studio 12.3 software, product serial number, and supporting software.

Step	Task	Description	For Instructions
1.	Verify that the system on which you are installing the Oracle Solaris Studio 12.3 software meets the minimum hardware and operating system requirements for this release.	Using a system that meets the system requirements is recommended for proper performance.	See "System Requirements" on page 12
2.	Determine whether you are going to display the installer locally or remotely.	You can install the Oracle Solaris Studio software using a remote display or local display.	See "Choosing Local or Remote Display of the Installer" on page 13
3.	Choose an installation method.	There are two ways to install the Oracle Solaris Studio software.	See "Choosing an Installation Method" on page 15
4.	Install the Oracle Solaris Studio 12.3 software and the required OS patches.	Step through the installation information.	See "Installing the Oracle Solaris Studio Software" on page 17

System Requirements

Oracle Solaris Studio 12.3 software supports the hardware and operating system requirements shown in Table 1–1.

TABLE 1–1 System Requirements

	Solaris OS on SPARC based systems	Solaris OS on x86 based systems	Linux OS on x86 based systems	Desktop system OS
Operating system	Solaris 10 10/08 and subsequent Solaris 10 OS updates Solaris 11	Solaris 10 10/08 and subsequent Solaris 10 OS updates Solaris 11	Oracle Linux 5 and 6 Red Hat Enterprise Linux 5 and 6	Microsoft Windows XP Professional SP3, Microsoft Windows Vista SP1, Microsoft Windows 7 Professional, Ubuntu 9.10 or later Ubuntu update, Macintosh OS X 10.5 or later Macintosh OS X update (for installation of desktop distribution only)
CPU	SPARC-based systems SPARC64 platform-based systems	x86 64–bit platform based systems	x86 64–bit platform based systems	x86 64–bit platform based systems
Memory	Recommended: 3 GB Minimum: 1.5 GB	Recommended: 3 GB Minimum: 1.5 GB	Recommended: 3 GB Minimum: 1.5 GB	Recommended: 3 GB Minimum: 1.5 GB
Temporary disk space required by the installer	2 GB	2 GB	1.5 GB	N/A
Disk space required by the installed product (Use the `df -k` command to check your disk space.)	1.76 GB	1.52 GB	1.43 GB	365 KB

TABLE 1–1 System Requirements *(Continued)*

	Solaris OS on SPARC based systems	Solaris OS on x86 based systems	Linux OS on x86 based systems	Desktop system OS
Swap space	Recommended: 2 to 4 GB Minimum: 1 GB To add swap space to your system, see "Adding Swap Space" on page 43	Recommended: 2 to 4 GB Minimum: 1 GB To add swap space to your system, see "Adding Swap Space" on page 43	Recommended: 2 to 4 GB Minimum: 1 GB To add swap space to your system, see "Adding Swap Space" on page 43	N/A
Operating system configuration	For the Solaris 10 OS: Entire Solaris Software Group Plus OEM Support, Entire Solaris Software Group, or Developer Solaris Software Group	For the Solaris 10 OS: Entire Solaris Software Group Plus OEM Support, Entire Solaris Software Group, or Developer Solaris Software Group	For the Linux OS: Development/ Libraries Package Group, including `glibc.i686`, `glibc-devel`, and `glibc-devel.i686`	N/A

Java SE Development Kit (JDK) 6 Update 24 or later is required to run the IDE, dbxtool, DLight, Code Analyzer, and Performance Analyzer. If you plan to use these tools and do not have the required JDK, you can download the JDK from `http://www.oracle.com/technetwork/java/javase/downloads/index.html` and install it after you have installed Oracle Solaris Studio.

On Linux platforms, you must install Java SE Development Kit (JDK) 6 Update 24 or later before installing Oracle Solaris Studio. The installer does not run with the OpenJDK included in Oracle Linux and Red Hat Enterprise Linux repositories.

Choosing Local or Remote Display of the Installer

You can display the installer either locally or remotely while you are installing the Oracle Solaris Studio 12.3 software:

- *Local display.* The source computer and the display computer are the same computer.The GUI installer window or non-GUI installer messages are displayed on the same computer that contains the product DVD or downloaded files and runs the installer.
- *Remote display.* The source computer and the display computer are different computers. The source computer contains the product DVD or downloaded files and runs the installer. The display computer displays the GUI installer window or non-GUI installer messages. To install using a remote display, follow the instructions in the remainder of this section.

▼ Preparing for Installation Using a Remote Display

1 **On the display computer, enable client access to the X server by typing the following on the 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 DVD or downloaded files.

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

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*:*n.n*

If you use the Bourne shell, type:

DISPLAY=*display-computer-name*:*n.n*
export DISPLAY

If you use the Korn shell, type:

export DISPLAY=*display-computer-name*:*n.n*

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

Installing to an NFS-Mounted Filesystem

To install the Oracle Solaris 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.

After mounting the filesystem you can install the Oracle Solaris Studio product on the server by running the graphical user interface (GUI) installer or non-GUI installer on the client machine.

You would specify the directory on which you mounted the filesystem as the installation directory for the Oracle Solaris Studio 12.3 software.

If you specify the `--nfs-server` option when you run the installer, the installer does not check the installation server for the required Solaris OS patches.

After you have installed the software, any machine that is running the Oracle Solaris 10 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 required OS patches installed (see Appendix D, "Patch Identification Numbers and Descriptions." You can install the patches using the `install_patches` utility (see "Installing the Required Oracle Solaris OS Patches" on page 24.

To uninstall Oracle Solaris 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.

▼ To Prepare for Installing the Oracle Solaris 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*

Choosing an Installation Method

There are two ways to install the Oracle Solaris Studio 12.3 software:

Package installer, graphical user interface (GUI) mode	The graphical user interface installer is an installation wizard that displays pages for a series of installation steps. On each page, you can quit, go back to the previous step, or go on to the next step. You can choose the installation directory and which components of the Oracle Solaris Studio 12.3 software you want to install. Or you can run the installer to install only the runtime libraries.
Package installer, non-GUI mode	The non-GUI mode of the package installer installs all components, or specified components, of the Oracle Solaris Studio 12.3 software, or only the runtime libraries, silently.

◆ ◆ ◆ CHAPTER 2

Installing the Oracle Solaris Studio 12.3 Software

This chapter includes information about the following:

Installing the Oracle Solaris Studio Software

You can install the Oracle Solaris Studio 12.3 software and the required OS patches on a single-user system. Or you can install the software and OS patches on a server for use by client systems with the same architecture, and then install the OS patches on each client system that will access the Oracle Solaris Studio software on the server.

Tip – Installation from a network location can take a significant amount of time, so if possible, make a copy of the installation bundle on each system where you plan to install the software, and run the installer locally.

Installing in a Zone

To install the software in a zone on a Solaris 10 system, run the installer in that zone. If you are installing in the global zone and want the software to be available in that zone only, select the Install in current zone only checkbox in the GUI installer, or specify the `--current-zone-only` option when starting the non-GUI installer.

Installing on a Solaris Server for Use by Clients With a Different Architecture

You can install the Oracle Solaris Studio software on a server running the Solaris OS for use by client systems with a different architecture. You can install the software on a SPARC based server for use by x86 based client systems. Or you can install the software on an x86 based server for use by SPARC based client systems. To install the software for SPARC based systems on an x86 based system, or vice versa, specify the `--ignore-architecture` option when you start the installer.

Installing in an Alternate Root Directory

To install the software using an alternate root directory, use the non-GUI installer with the `--use-alternative-root` *directory* option.

Installing on Multiple Systems

To install the software on multiple systems, you can use the `--record` *state_file*`.xml` option when starting the GUI installer to record an installation that you can repeat using the `--state` *state_file*`.xml` option with the non-GUI installer.

Installing the IDE on a Desktop System

When you install the Oracle Solaris Studio software on a server, you can ask the installer to generate a zip file containing a distribution of the IDE (and the Code Analyzer, if you are installing it) configured for installation on a desktop system with almost any operating system. After installing the Oracle Solaris Studio software, you can unzip this distribution file on a desktop system. When you run the IDE on the desktop system, it will recognize the server on which you generated the distribution as a remote host, and access the tool collection (compilers, make tool, and debugger) in your Oracle Solaris Studio installation.

Installing Oracle Solaris Studio With the Graphical User Interface Installer

The graphical user interface (GUI) installer lets you choose the installation directory and select which components of the Oracle Solaris Studio 12.3 software you want to install. For a complete list of the valid command-line options when starting the GUI installer, see "Command-Line Options for the GUI Installer" on page 37.

The GUI installer requires the Java 2 Software Development Kit (JDK) 5, Update 3.

▼ Using the Graphical User Interface Installer

1 If you are not currently superuser (root), become superuser by typing:

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

2 In the directory that contains the installer, start the installer by typing:

```
./solarisstudio.sh
```

3 The System Analysis page tells you:

- If your system is missing any of the required OS patches. (If you specified the `--nfs-server` when you started the installer, the installer does not check your system for the patches.)

  If you need to install these patches, you can do so by:

  - Clicking More Info and then clicking Execute install_patches.sh now.

    Note – If you are running the installer on a system running Oracle Solaris 10/09 or Oracle Solaris 9/10, you might see one of following messages when the `install_patches.sh` utility is running.

    ```
    For patch 147463-01, required patch 137137-09 does not exist.

    For patch 147464-01, required patch 137138-09 does not exist
    ```

    You can ignore the message because patch 147436-01 (SPARC platforms) or patch 147437–01 (x86 platforms) is required only on systems running Oracle Solaris 8/11.

  - Running the `install_patches.sh` utility from the command line after you have installed Oracle Solaris Studio.

  For a complete list of the valid command-line options when starting the `install_patches.sh` utility, see "Command-Line Options for the `install_patches.sh` Utility" on page 40

  The required OS patches must also be installed with the `install_patches.sh` utility on Oracle Solaris or Linux client systems that will use the Oracle Solaris Studio 12.3 software on a server. For more information, see "Installing the Required Oracle Solaris OS Patches" on page 24.

- If your system does not have JDK 6, Update 24, which is required for running the IDE, dbxtool, DLight, and the Code Analyzer. If you plan to use these tools, you can download the required JDK from `http://www.oracle.com/technetwork/java/javase/downloads/index.html`.

4. **The Oracle Solaris Studio Installer page gives you the option of selecting which components of the Oracle Solaris Studio software to install:**

   a. **Click Next if you want to install all components of the software.**

   b. **Click Customize if you want to select which components of the software to install. The Customize Installation dialog box lists the components and indicates which, if any, components are already installed. Click the checkbox for any component you do not want to install to remove the checkmark. Click OK, then click Next.**

Note – To install only the runtime libraries, you must have specified the `--libraries-only` option when you started the installer (see "Installing the Runtime Libraries Only With the GUI Installer" on page 21).

---

5. **On the Oracle Solaris Studio Installation page:**

   a. **Specify a different installation directory if you do not want to install the software in the default installation directory `/opt`. If you already have some components of Oracle Solaris Studio 12.3 software installed, the installer will install additional components only in the same directory.**

   b. **By default, the installer creates symbolic links in the `/usr/bin` directory and the `/usr/share/man` directory to the Oracle Solaris Studio 12.3 software and man pages. If you already have symbolic links in `/usr/bin` and `/usr/share/man` to a previous Sun Studio release, the links to Oracle Solaris Studio 12.3 will replace them. If you do not want the symbolic links created, or you do not want links to a previous release replaced, click the Create symbolic links in /usr/bin checkbox to remove the checkmark. (If you already have the links to Oracle Solaris Studio 12.3 installed or you specified the `--nfs-server` when you started the installer, the checkbox is not displayed and the links are not installed.)**

   c. **If you are running the installer on a system that has zones, the Install Oracle Solaris Studio software to current zone only checkbox is displayed. By default, the installer installs the software to the current zone only. If you want the software installed to all zones, click the checkbox to remove the checkmark. When you run the installer in the global zone, installing in the current zone only makes the installed product visible only in the global zone.**

   d. **If you are installing the IDE component and you want the installer to generate a zip file containing a distribution of the IDE (and the Code Analyzer, if you are installing it) configured for a desktop operating system, select the Generate Desktop Distribution during installation checkbox to add a checkmark. The generated zip file is placed in the `lib` directory in your Oracle Solaris Studio installation.**

   e. **Click Next.**

6. **On the Summary page, verify that the list of components to be installed is correct and that you have adequate space on your system for installation. Then click Install to start the installation.**

7. **When the installation is complete, the Setup Complete page is displayed. By default, the Register my Oracle Solaris Studio Software after finishing the installation checkbox contains a checkmark. If you do not want to register your Oracle Solaris Studio installation at this time, click the checkbox to remove the checkmark. Click Finish to exit the installer.**

8. **If you chose to register your installation, the installer opens a web browser to a page where you can register your copy of Oracle Solaris Studio. Registration is not required, but it allows you to organize your products and receive timely information from Oracle.**

9. **If Oracle Solaris Studio 12.3 is going to be used from Solaris or Linux client systems, then on each client system, set the `PATH` and `MANPATH` to access the Oracle Solaris Studio 12.3 software and man pages on the server (see "Setting Up Access to the Developer Tools and Man Pages" on page 25).**

10. **If you installed the Oracle Solaris Studio 12.3 software on a single-user system, type the following to determine whether you need to set up your access to the Oracle Solaris Studio 12.3 software tools and man pages:**

    ```
    /usr/bin/version
    ```

    a. **If you receive the message `/usr/bin/version: not found` or the command reports an earlier version of Studio software, see "Setting Up Access to the Developer Tools and Man Pages" on page 25 for information on setting your `PATH` and `MANPATH` to point to the Oracle Solaris Studio 12.3 software.**

    b. **If the command reports Oracle Solaris Studio 12.3 software, you do not need to set your `PATH` and `MANPATH`.**

Installing the Runtime Libraries Only With the GUI Installer

You can use the GUI installer to install the Oracle Solaris Studio runtime libraries only.

Note – If you run the installer to install only the libraries, you cannot run the installer later to install additional components without first running the uninstaller to uninstall the libraries.

▼ Using the Graphical User Interface Installer

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

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

2. **In the directory that contains the installer, start the installer by typing:**

   ```
   ./solarisstudio.sh --libraries-only
   ```

3. **On the Oracle Solaris Studio Installer page, click Next.**

4. **On the Oracle Solaris Studio Installation page, specify a different installation directory if you do not want to install the libraries in the default installation directory `/opt`.**

5. **On the Summary page, verify that you have adequate space on your system for installation. Then click Install to start the installation.**

6. **When the installation is complete, the Setup Complete page is displayed. Click Finish to exit the installer.**

Installing Oracle Solaris Studio With the Non-GUI Installer

By default, the non-GUI installer installs all components of the Oracle Solaris Studio 12.3 software silently in the default installation directory. You can select which components you want to install by specifying the `--install-components` option when you start the installer. Use the `--print-components-description` option or see "Command-Line Options for the Non-GUI Installer" on page 38 for a list of the component names you can specify with this option.

You can start the installer with the `--installation-location` *directory* option to install the components in a directory of your choice. You can start the installer with the `--libraries-only` to install the runtime libraries only (see "Installing the Runtime Libraries Only With the Non-GUI Installer" on page 23). For a complete list of the valid command-line options when starting the non-GUI installer, see "Command-Line Options for the Non-GUI Installer" on page 38.

▼ Using the Non-GUI Installer

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

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

2. **In the directory that contains the installer, start the installer by typing:**

   ```
   ./solarisstudio.sh --non-interactive
   ```

   If you want to install only selected components of the Oracle Solaris Studio software, include the `--install-components` option with the names of the components you want to install.

   If you are installing the IDE component and you want the installer to generate a zip file containing a distribution of the IDE (and the Code Analyzer, if you are installing it) configured for a desktop operating system, include the `--generate-desktop-dir` option. The generated zip file is placed in the `lib` directory in your Oracle Solaris Studio installation.

3. **The installer runs silently and returns your prompt when installation is complete. It writes a log file in the `/root/.nbi/logs` directory.**

4. **If the Oracle Solaris Studio 12.3 is going to be used from Solaris or Linux client systems, then on each client system, set the `PATH` and `MANPATH` to access the Oracle Solaris Studio 12.3 software and man pages on the server (see "Setting Up Access to the Developer Tools and Man Pages" on page 25).**

5. **If you installed the Oracle Solaris Studio 12.3 software on a single-user system, type the following to determine whether you need to set up your access to the Oracle Solaris Studio 12.3 software tools and man pages:**

   ```
   /usr/bin/version
   ```

   a. **If you receive the message `/usr/bin/version: not found` or the command reports an earlier version of Sun Studio software, see "Setting Up Access to the Developer Tools and Man Pages" on page 25 for information on setting your `PATH` and `MANPATH` to point to the Oracle Solaris Studio 12.3 software.**

   b. **If the command reports Oracle Solaris Studio 12.3 software, you do not need to set your `PATH` and `MANPATH`.**

Installing the Runtime Libraries Only With the Non-GUI Installer

You can use the non-GUI installer to install the Oracle Solaris Studio Runtime Libraries only.

Note – If you run the installer to install only the libraries, you cannot run the installer later to install The Oracle Solaris Studio software without first running the uninstaller to uninstall the libraries.

▼ Using the Non-GUI Installer

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

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

2. **In the directory that contains the installer, start the installer by typing:**

   ```
   ./solarisstudio.sh --non-interactive --libraries-only
   ```

3. **The installer runs silently and returns your prompt when installation is complete. It writes a log file in the `/root/.nbi/logs` directory.**

Installing the Required Oracle Solaris OS Patches

Several operating system patches are required for the proper operation of the compilers and tools in the Oracle Solaris Studio 12.3 release on the Solaris OS (see Appendix D, "Patch Identification Numbers and Descriptions"). To install the required Solaris OS patches, you can run the `install_patches.sh` utility that is included in the product download.

If you are running the GUI installer, the System Analysis page informs you if your system does not have the required OS patches (unless you specified the `-–nfs-server` option when starting the installer). You can then run the `install_patches.sh` utility by clicking More info, and then clicking Execute install_patches.sh now.

If you are running the non-GUI installer, run the `install_patches.sh` utility after installation to ensure that your system has the required OS patches.

Note – If you are running the `install_patches.sh` utility on a system running Oracle Solaris 10/09 or Oracle Solaris 9/10, you might see one of following messages.

```
For patch 147463-01, required patch 137137-09 does not exist.

For patch 147464-01, required patch 137138-09 does not exist
```

You can ignore the message because patch 147436-01 (SPARC platforms) or patch 147437–01 (x86 platforms) is required only on systems running Oracle Solaris 8/11.

If you have installed the Oracle Solaris Studio 12.3 software on a Solaris or Linux server and it is going to be used from client systems, then do the following:

1. On each client system, mount the directory on the server into which you downloaded the package installer.

   `mount` *server:filesystem download_directory*

2. On each client system, run the `install_patches.sh` utility to install the required Solaris OS patches.

Setting Up Access to the Developer Tools and Man Pages

Because the Oracle Solaris Studio 12.3 software product components and man pages are not installed into the system directories `/usr/bin/` and `/usr/share/man`, you might need to change your `PATH` and `MANPATH` environment variables to enable use of the Oracle Solaris Studio 12.3 software.

You do not need to change your paths if:

- You did not previously install Sun Studio 11 software, Sun Studio 12 software, Sun Studio 12 Update 1 software, or Oracle Solaris Studio 12.2 software on your system.
- The response to the command`/usr/bin/version` is Oracle Solaris Studio 12.3 software.

On Solaris platforms, add the path */installation_directory*`/solarisstudio12.3/bin` to your `PATH` environment variable. On Linux platforms, add the path */installation_directory*`/oracle/solarisstudio12.3/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.

On Solaris platforms, add the path */installation_directory*`/solarisstudio12.3/man/` to your `MANPATH` environment variable. On Linux platforms, add the path */installation_directory*`/oracle/solarisstudio12.3/man/` to your `MANPATH` environment variable.

Starting the Oracle Solaris Studio 12.3 IDE

Once you have the Oracle Solaris Studio 12.3 software and the required OS patches installed, and have added the software installation directory to your path, you can start using the software. To start the IDE, type the following:

```
solstudio &
```

Note – The full path to the command is */installation_directory*`/solarisstudio12.3/bin/solstudio` on Solaris systems, and */installation_directory*`/oracle/solarisstudio12.3/bin/solstudio` on Linux platforms.

◆ ◆ ◆ CHAPTER 3

Uninstalling the Oracle Solaris Studio 12.3 Software

This chapter includes information about the following:

Uninstalling When Previous Releases of Oracle Solaris Studio or Sun Studio Software Are Installed

If you installed the Oracle Solaris Studio 12.3 software on a system that has previous Oracle Solaris Studio or Sun Studio software installations, then only Oracle Solaris Studio 12.3 is removed when you run the uninstaller. The uninstaller removes all of the installed product components.

Choosing Local Display or Remote Display of the Uninstaller

You can display an uninstaller either locally or remotely while you are uninstalling Oracle Solaris Studio 12.3 software.

▼ Preparing for Uninstallation Using a Remote Display

1 **On the display computer, enable client access to the X server by typing the following on the 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).**

```
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:n.n
```

If you use the Bourne shell, type:

```
DISPLAY=display-computer-name:n.n
export DISPLAY
```

If you use the Korn shell, type:

```
export DISPLAY=display-computer-name:n.n
```

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

Uninstalling the Software

You can uninstall all of the installed components of the Oracle Solaris Studio 12.3 software using the graphical user interface uninstaller or the non-GUI uninstaller.

▼ Using the Graphical User Interface Uninstaller

1 **If you are not currently superuser (root), become superuser by typing:**

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

2 **Go to the installation directory, for example, `/opt/solarisstudio12.3`.**

3 **Start the GUI uninstaller by typing:**

```
./uninstall.sh &
```

4 **On the Summary page, click Uninstall to start the uninstallation.**

5 **When the uninstallation is complete, the Setup Complete page is displayed. Click Finish to exit the uninstaller.**

▼ Using the Non-GUI Uninstaller

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

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

2. **Go to the installation directory, for example, `/opt/solarisstudio12.3`.**

3. **Start the non-GUI uninstaller by typing:**

   ```
   ./uninstall.sh --non-interactive
   ```

4. **The uninstaller runs silently and returns your prompt when uninstallation is complete.**

◆ ◆ ◆ CHAPTER 4

Troubleshooting

This chapter describes how to fix problems that can occur during Oracle Solaris Studio 12.3 installation and uninstallation.

The chapter includes information about the following:

GUI Installer Will Fail If `TMPDIR` Points to Non World-Writable Directory

If you choose to install the symbolic links to Oracle Solaris Studio software in the `/usr/bin` and `/usr/man/share` directories, and your `TMPDIR` environment variable is pointing to a directory that is not world-writable, then the GUI installer will fail to complete installation. To ensure that this situation does not occur, unset your `TMPDIR` environment variable or set it to a world-writable directory before starting the installer.

GNOME Errors Might Occur When Starting GUI Installer

On some systems, GNOME errors might occur when you start the GUI installer. If such errors prevent the GUI installer from starting, use the non-GUI installer.

Installer Lock File Might Prevent Installer From Starting

If the installer is interrupted or quits without completing the installation, a lock file might prevent you from restarting the installer. If you receive a message that an instance of the installer is already running when you try to start the installer, you might need to remove a lock file from the `/root/.nbi` directory.

Fixing a Failed Installation or Uninstallation

On Solaris platforms, the installer stores information on which Oracle Solaris Studio 12.3 packages it has installed in two places:

- The `productregistry` file, the Solaris Product Registry database
- The `/root/.nbi` directory

On Linux platforms, the installer stores information on which Oracle Solaris Studio 12.3 packages it has installed in two places:

- The database of installed packages
- The `/root/.nbi` directory

If some packages were not properly installed, you will have problems using the Oracle Solaris Studio software, and you might have problems installing additional components or uninstalling the software.

For example, if the installer quit before installation was complete, the uninstaller (`uninstall.sh`) might not be present in your installation directory. Or if you used the `pkgadd` command to install any of the packages, the `productregistry` file or the `product-cache` directory in the `/root/.nbi` directory might be corrupted. In such cases, the uninstaller cannot uninstall the packages and you need to remove them in the correct way in order to be able to rerun the installer.

If the uninstaller quits before all the product files are deleted, rerunning the uninstaller will not delete the remaining files and you need to remove them in the correct way to complete the uninstallation of the product.

Do not uninstall the product by removing the installation directory. Packages will still be registered in the `productregistry` database and the `/root/.nbi` directory, and the installer will not run.

Fixing a Failed Uninstallation Using the Uninstaller

In some cases, the Oracle Solaris Studio packages might be correctly installed and the uninstaller is present in the installation directory, but the uninstaller fails because the `/root/.nbi` is corrupted. In this situation, you can force the uninstaller to remove the Oracle Solaris Studio packages and the installation directory by specifying the `--force-uninstall` when you start the uninstaller.

When you run the uninstaller with this option, it does not delete the package entries from the `/root/.nbi` directory, which has the following consequences:

- When you run the installer to reinstall the Oracle Solaris Studio release you uninstalled, it does not allow you to specify which components to install, and installs all of the packages that were previously installed.
- When you run the installer for any Oracle Solaris Studio release, it warns you that the `/root/.nbi` directory is corrupted, and gives you the option of proceeding with the installation or cancelling it.

▼ Fixing a Failed Installation or Uninstallation on Solaris Platforms

1. **Become superuser by typing:**

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

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

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

3. **In the left pane of the tool, expand the Unclassified Software node.**

4. **Select all of the package names containing Oracle Solaris Studio 12.3 and click Uninstall. Follow the instructions to remove the packages.**

5. **Click Exit to exit the tool.**

6. **Remove the `/root/.nbi` directory by typing:**

   ```
   rm -r /.nbi
   ```

▼ Fixing a Failed Installation or Uninstallation on Linux Platforms

1. **Become superuser by typing:**

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

2. **Find all of the Oracle Solaris Studio packages by typing:**

   ```
   rpm -q -a | grep solarisstudio12.3
   ```

3. **Remove each Oracle Solaris Studio 12.3 rpm package by typing:**

   `rpm -e` *package-name*

   Oracle Solaris Studio 12.3 rpm packages have the suffix `12.3`, for example, `solarisstudio12.3-cc-12.3-1`. Be careful not to remove packages from Sun Studio releases, which have different suffixes.

4. **Remove the `/root/.nbi` directory by typing:**

   ```
   rm -r /.nbi
   ```

Installation Will Fail on an NFS-Mounted Filesystem If Write Permission is Not Set

If installation fails on an NFS-mounted filesystem, ensure that you have write permission on that filesystem. You can check for write permission by following these instructions. For information about installing on an NFS-mounted filesystem, see "Installing to an NFS-Mounted Filesystem" on page 14.

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.

Viewing the Installation Log File

When you install the Oracle Solaris Studio 12.3 software, a log file that contains a record of the installation session is automatically generated. Log files are stored in the `/root/.nbi/logs` directory.

◆ ◆ ◆ APPENDIX A

Command-Line Options for the Installer,Uninstaller,and `install_patches` Utility

Command-Line Options for the GUI Installer

The following command-line options are valid when you are starting the GUI installer.

`--current-zone-only`	Install only in the current zone. When you run the installer in the global zone, this option makes the installed product available only in that zone.
`--help`	Display information on the options.
`--ignore-arch`	Disable system architecture checking (Oracle Solaris based systems only)
`--javahome` *directory*	Use the JDK in directory when running the installer. This option is needed when the installer cannot locate a JDK in a standard location on your system, and you need to point it to one.
`--libraries-only`	Perform runtime libraries only installation.
`--locale` *locale*	Override the default locale for the installer with the specified locale. Valid locales are `en` (English), `ja` (Japanese), and `zh` (Simplified Chinese).
`--nfs-server`	Use NFS server installation mode, in which the installer does not check the server for the required Solaris OS patches or create symbolic links in the `/usr/bin` directory.
`--output` *output_file*	Write all installer output to the specified file.

`--record` *state_file*`.xml`	Record an installer session in the GUI installer so that you can use repeat the installation on another system with the non-GUI installer. This option is especially useful when you want to install a subset of the product components on multiple systems.
`--tempdir` *directory*	By default, the installer extracts temporary data into the `/tmp` directory. If there is not sufficient space in the `/tmp` directory on your system, you can specify another directory for the installer to use.
`--verbose`	Write verbose output to the console.

Command-Line Options for the Non-GUI Installer

The following command-line options are valid when you are starting the non-GUI installer.

`--create-symlinks`	Create symbolic links in the `/usr/bin` and `/usr/share/man` directories to the Oracle Solaris Studio 12.3 software and man pages.
`--current-zone-only`	Install only in the current zone. When you run the installer in the global zone, this option makes the installed product visible only in that zone.
`--extract-installation-data` *directory*	Extract installation data, do not perform installation.
`--generate-desktop-distr`	Generate a zip file containing a distribution of the IDE (and the Code Analyzer, if you are installing it) configured for a desktop operating system.
`--help`	Display information on the options.
`--ignore-arch`	Disable system architecture checking (Oracle Solaris based systems only)
`--install-components` *component_name*,*component*_name,...	Install only the specified components. The valid *component_name*s are: `c-and-cpp-compilers`, `code-analyzer-tool`, `dbx-debugger`, `dbxtool`, `dlight-observability-tool`, `dmake`, `fortran-compiler`, `oic`, `performance-and-thread-analysis-tools`, `performance-library`, and `studio-ide`.

`--installation-location` *directory*	Install Oracle Solaris Studio software in the specified directory instead of in the default installation directory `/opt`.
`--javahome` *directory*	Use the JDK in directory when running the installer. This option is needed when the installer cannot locate a JDK in a standard location on your system, and you need to point it to one.
`--libraries-only`	Perform runtime libraries only installation.
`--locale` *locale*	Override the default locale for the installer with the specified locale. Valid locales are `en` (English), `ja` (Japanese), and `zh` (Simplified Chinese).
`--nfs-server`	Use NFS server installation mode, in which the installer does not check the server for the required Solaris OS patches or create symbolic links in the `/usr/bin` directory.
`--non-interactive`	Start the installer in non-GUI mode.
`--print-components-description`	Lists the component names you can use with the `--install-components` option
`--silent-logs-dir` *directory*	Write the installer log file to the specified directory.
`--state` *state_file* `.xml`	Play back the state file recorded by the GUI installer to silently repeat an installation session. This option lets you install a subset of the product components in non-GUI mode.
`--tempdir` *directory*	By default, the installer extracts temporary data into the `/tmp` directory. If there is not sufficient space in the `/tmp` directory on your system, you can specify another directory for the installer to use.
`--use-alternative-root` *directory*	Install in the specified root directory instead of the default root directory `/`. Specify the full path of the directory to use as the alternate root. This option is valid only on systems running the Solaris OS.
`--verbose`	Write verbose output to the console.

Command-Line Options for the Uninstaller

The following options are valid when starting the uninstaller.

`--force-uninstall`	Remove the Oracle Solaris Studio 12.3 packages and the installation directory without removing the `/root/.nbi` directory.
`--javahome` *directory*	Use the JDK in directory when running the uninstaller. This option is needed when the uninstaller cannot locate a JDK in a standard location on your system, and you need to point it to one.
`--locale` *locale*	Override the default locale for the uninstaller with the specified locale. Valid locales are `en` (English), `ja` (Japanese), and `zh` (Simplified Chinese). This option is valid only for the GUI uninstaller.
`--non-interactive`	Run the uninstaller in non-GUI mode and uninstall installed components of the software.
`--output` *output_file*	Write all uninstaller output to the specified file. This option is valid only for the GUI uninstaller.
`--tempdir` *directory*	By default, the uninstaller extracts temporary data into the `/tmp` directory. If there is not sufficient space in the `/tmp` directory on your system, you can specify another directory for the uninstaller to use.
`--use-alternative-root` *directory*	Uninstall from the specified root directory instead of the default root directory `/`. This option is valid only for the non-GUI uninstaller and only on systems running the Solaris OS.
`--verbose`	Write verbose output to the console.

Command-Line Options for the `install_patches.sh` Utility

The following options are valid when starting the `install_patches.sh` utility.

`-G`	Add patches to packages in the current zone only. When you run the utility in the global zone, this option makes the patches available in that zone only.
`-p`	Install Oracle Solaris Studio product patches if available. If you specify this option and no product patches are available, the utility displays a message telling you so.
`-l` *locale*	Override the default locale for the utility with the specified locale. Valid locales are `en` (English), `ja` (Japanese), and `zh` (Simplified Chinese).

`-R` *directory*	Install patches in the specified root directory instead of the default root directory `/`. Specify the full path of the directory to use as the alternate root.
`-h`	Display information on the options.

◆ ◆ ◆ APPENDIX B

Adding Swap Space

Adding Swap Space

If the system on which you are installing the software does not have the required minimum 1 GB of swap space, add swap space by doing the following.

▼ Adding Swap Space on a Solaris System

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
```

▼ Adding Swap Space on a Linux System

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:**

   `dd if=/dev/zero of=`*/dir/myswapfile* **`bs=1024 count`***=number_blocks_needed*

   where *dir* is a directory in which you have permission to add swap space. The *myswapfile* is the name of the swap file you are creating. The *number_blocks_needed* is an amount of 1024-byte blocks you want to create. See the `dd`(1) man page for more information.

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

   `ls -l` */dir/myswapfile*

   The new file appears in the directory.

4. **Initialize the new swap area by typing:**

   `mkswap` */dir/myswapfile*

   See the `mkswap`(8) man page for more detailed information.

5. **Run the `swapon` command to enable the new swap space for paging and swapping by typing the following:**

   `swapon -a` */dir/myswapfile*

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

   `swapon -s`

   The output shows the allocated swap space.

◆ ◆ ◆ APPENDIX C

Oracle Solaris 12.3 Components and Packages

This appendix lists the components, and packages that comprise the Oracle Solaris Studio 12.3 software.

Table C–1 lists the Oracle Solaris Studio 12.3 software package configuration and component information for the Solaris OS on SPARC based systems.

Table C–2 lists the Oracle Solaris Studio 12.3 software package configuration and component information for the Solaris OS on x86 based systems.

Table C–3 lists the Oracle Solaris Studio 12.3 RPM package and component information for Linux platforms.

TABLE C–1 Oracle Solaris Studio 12.3 Components and Packages for SPARC Based Systems

Component	Packages

C and C++ Compilers	`SPRO-12-3-cc`
	`SPRO-12-3-c++`
	`SPRO-12-3-c++-libs`

Code Analyzer	`SPRO-12-3-code-analyzer`
Fortran Compiler	`SPRO-12-3-fortran` `SPRO-12-3-f90-libs`
dbx Debugger	`SPRO-12-3-dbx`
dbxtool	`SPRO-12-3-dbxtool`
dmake	`SPRO-12-3-dmake`
IDE	`SPRO-12-3-studio-ide`
DLight Observability Tool	`SPRO-12-3-dlight`

TABLE C–1 Oracle Solaris Studio 12.3 Components and Packages for SPARC Based Systems *(Continued)*

Component	Packages
Legal files	`SPRO-12-3-legal`
Oracle Instant Client	`SPRO-12-3-oic`
	`SPRO-12-3-oic-libs`
Performance and Thread Analysis Tools	`SPRO-12-3-analyzer`
Math Libraries	`SPRO-12-3-math-libs`
Support Files	`SPRO-12-3-backend`
	`SPRO-12-3-studio-common`
Performance Library	`SPRO-12-3-perflib`
Localizations	`SPRO-12-3-studio-ja`
	`SPRO-12-3-studio-zhCN`

TABLE C–2 Oracle Solaris Studio 12.3 Components and Packages for x86 Based Systems

Component	Packages
C and C++ Compilers	`SPRO-12-3-cc`
	`SPRO-12-3-c++`
	`SPRO-12-3-c++-libs`
Code Analyzer	`SPRO-12-3-code-analyzer`
Fortran Compiler	`SPRO-12-3-fortran`
	`SPRO-12-3-f90-libs`
dbx Debugger	`SPRO-12-3-dbx`
dbxtool	`SPRO-12-3-dbxtool`
dmake	`SPRO-12-3-dmake`
IDE	`SPRO-12-3-studio-ide`
DLight Observability Tool	`SPRO-12-3-dlight`
Legal files	`SPRO-12-3-legal`
Oracle Instant Client	`SPRO-12-3-oic`
	`SPRO-12-3-oic-libs`
Performance and Thread Analysis Tools	`SPRO-12-3-analyzer`

TABLE C–2 Oracle Solaris Studio 12.3 Components and Packages for x86 Based Systems *(Continued)*

Component	Packages
Math Libraries	SPRO-12-3-math-libs
Support Files	SPRO-12-3-backend
	SPRO-12-3-studio-common
Performance Library	SPRO-12-3-perflib
Localizations	SPRO-12-3-studio-ja
	SPRO-12-3-studio-zhCN

TABLE C–3 Oracle Solaris Studio 12.3 Components and RPM Packages for Linux Platforms

Component	RPMs
C and C++ Compilers	solarisstudio12.3-cc-12.3-1.x86_64.rpm
	solarisstudio12.3-c++-12.3-1.x86_64.rpm
	solarisstudio12.3-c++-libs-12.3-1.x86_64.rpm
Code Analyzer	solarisstudio12.3-code-analyzer-12.3-1.x86_64.rpm
Fortran Compiler	solarisstudio12.3-fortran-12.3-1.x86_64.rpm
	solarisstudio12.3-f90-libs-12.3-1.x86_64.rpm
dbx Debugger	solarisstudio12.3-dbx-12.3-1.x86_64.rpm
dbxtool	solarisstudio12.3-dbxtool-12.3-1.x86_64.rpm
dmake	solarisstudio12.3-dmake-12.3-1.x86_64.rpm
IDE	solarisstudio12.3-studio-ide-12.3-1.x86_64.rpm
Legal files	solarisstudio12.3-legal-12.3-1.x86_64.rpm
Oracle Instant Client	solarisstudio12.3-oic-12.3-1.x86_64.rpm
	solarisstudio12.3-oic-libs-12.3-1.x86_64.rpm
Performance and Thread Analysis Tools	solarisstudio12.3-analyzer-12.3-1.x86_64.rpm
Support Files	solarisstudio12.3-backend-12.3-1.x86_64.rpm
	solarisstudio12.3-studio-common-12.3-1.x86_64.rpm
	solarisstudio12.3-compiler-oslibs-12.3-1.x86_64.rpm
Performance Library	solarisstudio12.3-perflib-12.3-1.x86_64.rpm
Localizations	solarisstudio12.3—studio-ja-12.3-1.x86_64.rpm

TABLE C–3 Oracle Solaris Studio 12.3 Components and RPM Packages for Linux Platforms *(Continued)*

Component	RPMs
	`solarisstudio12.3–studio–zhCN–12.3-1.x86_64.rpm`

◆ ◆ ◆ APPENDIX D

Patch Identification Numbers and Descriptions

Operating system patches for Oracle Solaris 10 are provided for the Oracle Solaris Studio 12.3 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. If these patches are not already installed on your system, you can install them using the `install_patches` script that is included in the directory that contains the installer.

Table D–1 lists the patch identification numbers and descriptions of the required patches for the Solaris 10 OS on SPARC based systems.

Table D–2 lists the patch identification numbers and descriptions of the required patches for the Solaris 10 OS on x86 based systems.

Additional patches, which are not included in the product download file or on the product DVD, are recommended to resolve specific issues that might or might not affect your use of the software. To install one of the recommended patches, download the patch from My Oracle Support (`http://support.oracle.com`) and follow the instructions in the README file included with the patch, which contains important information on risks and proper procedure.

Table D–3 lists the patch identification number and description of the recommended patch for the Solaris 10 OS on SPARC based systems.

Table D–4 lists the patch identification numbers and descriptions of the recommended patches for the Solaris 10 OS on x86 based systems.

TABLE D–1 Required Patches for Solaris 10 OS on SPARC Based Systems

Patch Identification Number	Patch Description
118683-07	Assembler and `libxprof` patch (required for `-xprofile` option)
120753-10	`libmtsk` patch
119963–24	Shared library patch for C++

TABLE D–1 Required Patches for Solaris 10 OS on SPARC Based Systems *(Continued)*

Patch Identification Number	Patch Description
147436–01	Linker patch (Solaris 10 8/11 only)

TABLE D–2 Required Patches for Solaris 10 OS on x86 Based Systems

Patch Identification Number	Patch Description
119961-10	Assembler and `libxprof` patch (required for `-xprofile` option)
120754–10	`libmtsk` patch
119964–24	Shared library patch for C++
147437–01	Linker patch (Solaris 10 8/11 only)

TABLE D–3 Recommended Patch for Solaris 10 OS on SPARC Based Systems

Patch Identification Number	Patch Description
144500–19	Kernel patch. This patch is required on systems running Solaris 10 OS releases earlier than the Solaris 10 8/11 if you want to be able to run the `collect` command to detect data races in a binary that has been instrumented with Discover, or if you are generating object files for shared objects in a Fortran program that uses object oriented features.

TABLE D–4 Recommended Patch for Solaris 10 OS on x86 Based Systems

Patch Identification Number	Patch Description
144501–19	Kernel patch. This patch is required on systems running Solaris 10 releases earlier than the Solaris 10 8/11 if you want to be able to run the `collect` command to detect data races in a binary that has been instrumented with Discover, or if you are generating object files for shared objects in a Fortran program that uses object oriented features.

◆ ◆ ◆ APPENDIX E

Version Numbers of the Oracle Solaris Studio 12.3 Components

This appendix provides the version numbers of the components of the Oracle Solaris Studio 12.3 software.

TABLE E–1 Version Numbers of the Oracle Solaris Studio 12.3Components

Component	Version Number
C compiler	5.12
C++ compiler	5.12
C++ Standard Library	default (libCstd)
Code Analyzer	12.3
dbx debugger	7.9
dbxtool	12.3
DLight	2.1
dmake	8.1
Fortran 95 compiler	8.6
IDE	12.3
Locklint	2.6
OpenMP Support	3.1
Performance Analyzer	7.9
STLport	4.5.3
Sun Performance Library	2011/10/29
Thread Analyzer	7.9

TABLE E–1 Version Numbers of the Oracle Solaris Studio 12.3Components *(Continued)*

Component	Version Number
Tools.h++	7.1.0

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