

Oracle® Developer Studio 12.5: Installation Guide

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Using This Documentation

- **Overview** – Describes how to perform the following tasks:
 - Install the Oracle Developer Studio12.5 software on Oracle Solaris 10 platforms and supported Linux platforms using the package installer
 - Install the required Oracle Solaris 10 patches on Oracle Solaris 10 platforms
 - Install the Oracle Developer Studio 12.5 software on Oracle Solaris 11 platforms using the pkg command with the Image Packaging System (IPS)
 - Install the Oracle Developer Studio12.5 software on any supported platform using the tar file
 - Uninstall the Oracle Developer Studio12.5 software on Oracle Solaris 10 platforms and supported Linux platforms
 - Uninstall the Oracle Developer Studio12.5 software on Oracle Solaris 11 platforms
- **Audience** – Application developers, system developers, architects, support engineers
- **Required knowledge** – Programming experience, software development testing, aptitude to build and compile software products

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Overview of Installation Options

Oracle Developer Studio can be installed in several different ways depending on your needs and your system platform. This chapter describes the installation options.

Comparing Installation Options and Platforms

The following table compares the installation options.

TABLE 1 Installation Options for Each Platform

Installation Option	Platform	Support Available	For More Information
Graphical installer	Oracle Solaris 10 Oracle Linux Red Hat Linux	Yes	Chapter 2, “Installing Oracle Developer Studio 12.5 on Oracle Solaris 10 and Linux”
Command-line installer	Oracle Solaris 10 Oracle Linux Red Hat Linux	Yes	Chapter 2, “Installing Oracle Developer Studio 12.5 on Oracle Solaris 10 and Linux”
IPS package installation	Oracle Solaris 11.3	Yes	Chapter 3, “Installing Oracle Developer Studio 12.5 On Oracle Solaris 11”
Tar file	All platforms	No updates or patches	Chapter 4, “Installing Oracle Developer Studio 12.5 From a Tar File”

◆◆◆ **2** CHAPTER 2

Installing Oracle Developer Studio 12.5 on Oracle Solaris 10 and Linux

This chapter describes how to install Oracle Developer Studio 12.5 software.

Installation Tasks on Oracle Solaris 10 and Linux

The following table shows the order of tasks you must perform to install Oracle Developer Studio 12.5 on Oracle Solaris 10 and Linux.

Note - If you have not yet downloaded the Oracle Developer Studio 12.5 distribution for your platform, you can get it from the downloads section on the [Oracle Developer Studio web page](#) and save it to a temporary *download-directory* such as `/var/tmp`.

TABLE 2 Task Map for Installing Oracle Developer Studio on Oracle Solaris 10 and Linux

Task	For Information
1. Verify that the system on which you are installing Oracle Developer Studio 12.5 meets the minimum hardware and operating system requirements for this release.	“System Requirements” in Oracle Developer Studio 12.5: Release Notes
2. Verify that the system has the required system software packages.	“Required System Software Packages” in Oracle Developer Studio 12.5: Release Notes
3. Determine whether you are going to display the installer locally or remotely.	“Choosing Local or Remote Display of the Installer” on page 14
4. (Optional) Prepare for installing on an NFS file system if installing on a network.	“Installing to an NFS-Mounted File System” on page 15
5. Determine whether you are going to use the interactive graphical installer or the non-interactive command-line installer.	“Choosing an Installation Method” on page 16
6. Install the Oracle Developer Studio packages.	“Using the Installer on Oracle Solaris 10 and Linux Platforms” on page 17

Task	For Information
7. Install the required OS patches.	“Installing the Required Oracle Solaris 10 Patches” on page 21
8. (Optional) Install the runtime libraries and the required OS patches on systems where applications built by Oracle Developer Studio are to be run but where Oracle Developer Studio is not installed.	“Installing Only the Runtime Libraries on Oracle Solaris 10 and Linux” on page 22 “Installing the Required Oracle Solaris 10 Patches” on page 21

Choosing Local or Remote Display of the Installer

This section is relevant to users who plan to install the software using the graphical installer or command-line installer on Oracle Solaris 10 or Linux systems.

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

- *Local display.* The source computer and the display computer are the same. The graphical installer window or command-line installer messages are displayed on the same computer that contains the downloaded files and runs the installer.
- *Remote display.* The source computer and the display computer are different computers. The source computer contains the downloaded files and runs the installer. The display computer displays the graphical installer window or command-line installer messages. To install using a remote display, see [“How to Prepare for Installation Using a Remote Display” on page 14.](#)

▼ How to Prepare for Installation Using a Remote Display

1. **Type the following command on both the source computer and the display computer:**

```
% hostname
```

The hostnames are used in subsequent steps.

2. **Type the following command on the display computer:**

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

Replace *source-computer-name* with the output of the `hostname` command entered on the source computer, which is the computer that contains the downloaded files.

The `xhost` command enables programs running on the source computer to send their displays to the X server on the display computer.

3. Log in to the source computer using `ssh -X` and become superuser (root)

You can use `ssh` with the `-X` option to forward the X display content back to the display computer. The source computer might not allow remotely logging in as root, so you might need to log in using your own username and become root after connecting to the source computer as shown below.

```
% ssh -X source-computer-name
Password: your password-on-source-computer
% su
Password: root-password-on-source-computer
```

4. On the source computer, set your `DISPLAY` variable 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:n.n* with the output of the `hostname` command entered on the display computer.

You can type `echo $DISPLAY` on the display computer to see the display number, such as `:2.0`

Installing to an NFS-Mounted File System

To install the Oracle Developer Studio software on an NFS-mounted filesystem, you must run the installer on a system that meets the Oracle Developer Studio system requirements regardless of where the NFS partition is mounted. See [“System Requirements” in Oracle Developer Studio 12.5: Release Notes](#).

Note - The best way to share the product image as an NFS-mounted filesystem is to export it from a server that meets the Oracle Developer Studio system requirements. 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.

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 shared filesystem from the server.

▼ How to Prepare for Installing the Oracle Developer Studio Software on an NFS-mounted Filesystem

This procedure describes how to share a file system to a client machine where you will run the installer.

1. **On the file server, share the filesystem with options to enable root on the client machine to have full access to the shared 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 use the installer script to install the Oracle Developer Studio 12.5 software packages on Oracle Solaris 10 and Linux platforms:

Installation Method	Description
Interactive graphical mode	The graphical 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 Developer Studio 12.5 software you want to install. Or you can run the installer to install only the runtime libraries.
Non-interactive command-line mode	The non-interactive command-line mode of the package installer installs all components, or specified components,

Installation Method	Description
	of the Oracle Developer Studio 12.5 software, or only the runtime libraries, silently.

Using the Installer on Oracle Solaris 10 and Linux Platforms

If you have not yet downloaded the Oracle Developer Studio 12.5 distribution for your platform, you can get it from the downloads section of the [Oracle Developer Studio web page](#) and save it to a temporary *download-directory* such as `/var/tmp`.

You can install the Oracle Developer Studio 12.5 software on a single-user system. Or you can install the software on a server for use by client systems with the same architecture.

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

Before you install, see the following table for some installation conditions and options for the installer that you might need to consider.

TABLE 3 Oracle Developer Studio Special Installation Conditions on Oracle Solaris 10 and Linux

Installation Condition	Procedure
Installing in a Non-Global Zone	To install the software in a zone on an Oracle 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 check box in the graphical installer, or specify the <code>--current-zone-only</code> option when starting the command-line installer.
Installing on an Oracle Solaris Server for Use by Clients With a Different Architecture	You can install the Oracle Developer Studio software on a server running Oracle Solaris 10 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 <code>--ignore-arch</code> option when you start the installer.
Installing on Multiple Systems	To install the software on multiple systems, you can use the <code>--record state_file.xml</code> option when starting the graphical installer to record an installation that you can repeat using the <code>--state state_file.xml</code> option with the command-line installer.

Installation Condition	Procedure
Installing in an Alternative Root Directory	To install the software using an alternative root directory, use the command-line installer with the <code>--use-alternative-root <i>directory</i></code> option.
Installing the IDE and other graphical tools on a Desktop System	<p>Using the graphical installer, you can select an option to generate a zip file containing a distribution of the IDE, dbxtool, and Code Analyzer configured for installation on a desktop system with almost any operating system.</p> <p>After you have installed the Oracle Developer Studio 12.5 software on an Oracle Solaris 10 or Linux system, you can use the <code>solstudio --generate-desktop-dist</code> command or a menu item in the IDE to generate the same desktop distribution.</p> <p>You can unzip this distribution file on a desktop system. When you run the tools on that desktop system, they 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 Developer Studio server installation.</p>

For information about all the command line options, see the [Appendix A, “Command-Line Options for the Installer, Uninstaller, and install_patches Utility for Oracle Solaris 10 and Linux Platforms”](#).

▼ How to Install Using the Graphical Installer on Oracle Solaris 10 or Linux

The graphical installer lets you choose the installation directory and select which components of the Oracle Developer Studio 12.5 software you want to install. For a complete list of the valid command-line options when starting the graphical installer, see [“Command-Line Options for the Graphical Installer” on page 67](#).

Before You Begin Make sure you have done the preliminary tasks before installing. See the [“Installation Tasks on Oracle Solaris 10 and Linux” on page 13](#).

1. **Become superuser (root) or privileged user.**

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

2. **Change to the directory where you saved the downloaded distribution, using one of the following commands:**

```
# cd download-directory/OracleDeveloperStudio12.5-solaris-sparc-pkg
# cd download-directory/OracleDeveloperStudio12.5-solaris-x86-pkg
# cd download-directory/OracleDeveloperStudio12.5-linux-x86-rpm
```

3. Start the installer script.

```
# ./developerstudio.sh
```

The installer analyzes the system to ensure the Java version is correct. If the Java version found on your path is not Java version 1.7.0_25 or newer you see a warning but the installer might still be able to work. However you must have Java version 1.7.0_25 or newer to use the Java-based tools such as the IDE and Performance Analyzer. If you are on a 64-bit system, you must use a 64-bit Java for the installer to work correctly.

Tip - If an appropriate Java version is available but not on your path, you can click Cancel and restart with the option `developerstudio.sh --javahome path-to-java` to avoid the warning.

4. Click Next to proceed.

The Oracle Developer Studio Installer gives you the option of customizing your installation by selecting which components of the software to install.

5. Select individual components you want to install or all components and click Next to proceed.

6. Type or browse to the directory path where you want to install the software.

The default installation directory is `/opt`.

7. (Optional) If you do not want to create links, deselect the option Create Symbolic Links in `/usr/bin`.

The links make it easy to find the compilers and tools because `/usr/bin` is on all users' paths by default.

8. (Optional) If you want to install the software in all zones, deselect the option Install Oracle Developer Studio Software to Current Zone Only.

This option displays when you are running the installer on a system that has zones. By default, the software installs to the current zone only. When you run the installer in the global zone, installing in the current zone makes the installed product visible only in the global zone.

9. (Optional) If you want to generate a zip file distribution of the IDE, dbxtool, and Code Analyzer configured for a desktop operating system, select Generate Desktop Distribution During Installation.

The generated zip file `desktop-distribution.zip` is placed in the `lib` directory in your Oracle Developer Studio installation.

10. Click Next to proceed to the Summary page.

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.

11. Click Install to start the installation.

The installer shows progress of the installation and informs you when the installation is complete.

12. Click Finish to exit the installer.

Next Steps See [“Installing the Required Oracle Solaris 10 Patches” on page 21](#) for information about installing patches.

▼ How to Install Using the Command-Line Installer

By default, the command-line installer installs all components of the Oracle Developer Studio 12.5 software silently in the default installation directory `/opt`.

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 Command-Line Installer” on page 68](#) 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. For a complete list of the valid command-line options when starting the command-line installer, see [“Command-Line Options for the Command-Line Installer” on page 68](#).

1. Become superuser (root) or privileged user.

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

2. Change to the directory where you saved the downloaded distribution, using one of the following commands:

```
# cd download-directory/OracleDeveloperStudio12.5-solaris-sparc-pkg
# cd download-directory/OracleDeveloperStudio12.5-solaris-x86-pkg
# cd download-directory/OracleDeveloperStudio12.5-linux-x86-rpm
```

Tip - If you want the installer to generate a zip file containing a distribution of the IDE, dbxtool, and Code Analyzer configured for a desktop operating system, include the `--generate-desktop-distr` option in the following step. The generated zip file is placed in the `lib` directory in your Oracle Developer Studio installation.

3. Start the installer in non-interactive mode.

```
# ./developerstudio.sh --non-interactive
```

The installer runs silently and returns your prompt when installation is complete. For details about the installation, see the log file in the `/.nbi/log` directory.

The installer also analyzes the system to ensure the Java version is correct. If the Java version found on your path is not Java version 1.7.0_25 or newer you see a warning because you must have Java version 1.7.0_25 or newer to use the Java-based tools such as the IDE and Performance Analyzer. If you are on a 64-bit system, you just use a 64-bit Java for the installer to run correctly. The installation is complete even if you get the Java warning.

Next Steps See [“Installing the Required Oracle Solaris 10 Patches” on page 21](#) for information about installing patches.

Installing the Required Oracle Solaris 10 Patches

Several operating system patches are required for the proper operation of the compilers and tools in the Oracle Developer Studio 12.5 release on Oracle Solaris 10 platforms. See [Appendix C, “Patch Identification Numbers and Descriptions for Oracle Solaris 10 Platforms”](#) for more information about the patches.

To install the required Oracle Solaris 10 patches, run the `install_patches.sh` utility that is included in the downloaded distribution.

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

If you have installed the Oracle Developer Studio 12.5 software on an Oracle Solaris 10 server and the software 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. Change to the directory where you saved the downloaded distribution, using one of the following commands:

```
# cd download-directory/OracleDeveloperStudio12.5-solaris-sparc-pkg
```

```
# cd download-directory/OracleDeveloperStudio12.5-solaris-x86-pkg
```

```
# cd download-directory/OracleDeveloperStudio12.5-linux-x86-rpm
```

3. On each Oracle Solaris 10 client system, run the `install_patches.sh` utility to install the required Oracle Solaris 10 patches.

```
# ./install_patches.sh
```

When the patch installation is complete, see [Chapter 5, “After Installing Oracle Developer Studio 12.5”](#) for information about setting up user access and testing the installation.

See [“Installing Only the Runtime Libraries on Oracle Solaris 10 and Linux”](#) on page 22 to determine if you need to install the runtime libraries on other systems.

Installing Only the Runtime Libraries on Oracle Solaris 10 and Linux

The required runtime libraries are installed automatically when you install Oracle Developer Studio 12.5 on Oracle Solaris 10 and Linux.

You can also use the installer to separately install the libraries on systems where Oracle Developer Studio will not be installed but the runtime libraries are needed:

- The runtime libraries must be installed on any systems where applications built using Oracle Developer Studio 12.5 will be executed.
- If you install runtime libraries in a global zone, you might also need to install them in the nonglobal zones as well.

- If an installation of Oracle Developer Studio is shared over NFS, the runtime libraries must be installed on NFS client systems before the clients can use the shared installation.

Note - If you run the installer to install only the libraries on a system, and later decide to install the full Oracle Developer Studio release on the system, you must first run the uninstaller to uninstall the libraries.

See the following sections for instructions using the graphical installer and the command-line installer.

▼ How to Install Runtime Libraries With the Graphical Installer

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

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

2. **Change to the directory where you saved the downloaded distribution, using one of the following commands:**

```
# cd download-directory/OracleDeveloperStudio12.5-solaris-sparc-pkg
# cd download-directory/OracleDeveloperStudio12.5-solaris-x86-pkg
# cd download-directory/OracleDeveloperStudio12.5-linux-x86-rpm
```

3. **Start the installer with the `--libraries-only` option.**

```
# ./developerstudio.sh --libraries-only
```

4. **On the Oracle Developer Studio Installer page, click Next.**

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

The Summary page displays to indicate where the libraries will be installed and the space required.

6. **Click Install to start the installation.**

When the installation is complete the Setup Complete page is displayed.

7. **Click Finish to exit the installer.**

▼ How to Install Runtime Libraries Using the Command-line Installer

Before You Begin Verify that the system has required Oracle Solaris 10 patches. See [Appendix C, “Patch Identification Numbers and Descriptions for Oracle Solaris 10 Platforms”](#).

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

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

2. **Change to the directory where you saved the downloaded distribution, using one of the following commands:**

```
# cd download-directory/OracleDeveloperStudio12.5-solaris-sparc-pkg
# cd download-directory/OracleDeveloperStudio12.5-solaris-x86-pkg
# cd download-directory/OracleDeveloperStudio12.5-linux-x86-rpm
```

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

```
# ./developerstudio.sh --non-interactive --libraries-only
```

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

Installing Oracle Developer Studio 12.5 On Oracle Solaris 11

This chapter describes how to install Oracle Developer Studio 12.5 on Oracle Solaris 11.

Installation Tasks on Oracle Solaris 11

The following table shows the order of tasks you must perform to install Oracle Developer Studio 12.5 on Oracle Solaris 11.

TABLE 4 Task Map for Installing Oracle Developer Studio on Oracle Solaris 11

Task	For Information
1. Verify that the system meets the system requirements	“System Requirements” in Oracle Developer Studio 12.5: Release Notes
2. Verify that the system has the required system software packages	“Required System Software Packages” in Oracle Developer Studio 12.5: Release Notes
3. Verify that you have permissions to install software on the system	“Verifying Required Privileges to Install IPS Packages” on page 26
4. Install the system libraries that are required by Oracle Developer Studio on Oracle Solaris 11.	“Updating Oracle Solaris 11 System Libraries Required by Oracle Developer Studio 12.5” on page 26
5. Download and install the certificate and key and add publisher for Oracle Developer Studio IPS packages	“Downloading the Certificate and Key” on page 42
6. Install the Oracle Developer Studio packages	“Installing Oracle Developer Studio 12.5 on Oracle Solaris 11” on page 42
7. (Optional) Install the runtime libraries and the required system libraries on systems where applications built by Oracle Developer Studio are to be run but where Oracle Developer Studio is not installed.	“Installing Only the Runtime Libraries on Oracle Solaris 11” on page 47 “Updating Oracle Solaris 11 System Libraries Required by Oracle Developer Studio 12.5” on page 26

Verifying Required Privileges to Install IPS Packages

Make sure you have permission to install IPS packages using the following methods.

- Use the `profiles` command to list the rights profiles that are assigned to you.
If you have the Software Installation rights profile, you can use the `pfexec` command to install and update packages without becoming superuser. For example:

```
$ pfexec pkg install package-name
```

Other rights profiles also provide installation privilege, such as System Administrator rights profile.

- Depending on the security policy at your site, you might be able to use the `sudo` command with your user password to execute a privileged command. For example:

```
$ sudo pkg install package-name
```

- Use the `roles` command to list the roles that are assigned to you.

If you have the `root` role, you can use the `su` command with the root password to assume the root role. For example:

```
# pkg install package-name
```

See [Adding and Updating Software in Oracle Solaris 11.3](#) in the Oracle Solaris 11.3 Information Library for more information about installation privileges.

Updating Oracle Solaris 11 System Libraries Required by Oracle Developer Studio 12.5

Before you can install Oracle Developer Studio 12.5 on Oracle Solaris 11, you must ensure that some required system libraries are updated. These libraries are included with the Oracle Solaris 11 operating system in the `sunpro-incorporation` consolidation package, not with Oracle Developer Studio.

Since these libraries are also used by Oracle Developer Studio itself, you must install the libraries on Oracle Solaris 11.3 before installing Oracle Developer Studio.

An updated version of the `sunpro-incorporation` package has been added to the Oracle Solaris 11 release repository to address issues fixed in Oracle Solaris 11.3 SRU09 since Oracle Solaris 11.3 was released.

These instructions assume you are familiar with basics of the Oracle Solaris 11 Image Packaging System (IPS). A brief video introduction to IPS is available at http://download.oracle.com/otndocs/tech/OTN_Demos/IPS/IPS-demo.html.

For more extensive coverage of IPS, see *Adding and Updating Software in Oracle Solaris 11.3* in the Oracle Solaris 11.3 Information Library.

Update the required system libraries using one of the following methods, depending on whether you have purchased a support contract for Oracle Solaris to obtain access to the support repository:

If you have access to the Oracle Solaris 11 support repository:

Update your system to the latest Oracle Solaris 11.3 Support Repository Update (SRU). Access to the Oracle Solaris 11 support repository requires an Oracle Solaris 11 Support Contract. For details, refer to the article [How to Update Oracle Solaris 11 Systems from Oracle Support Repositories](#).

See a sample session in “[Example 1: Updating a Oracle Solaris 11.1 Boot Image to the Latest SRU from the Oracle Solaris 11 Support Repository](#)” on page 30.

If you do not have access to the Oracle Solaris 11 support repository:

1. Update your system to Oracle Solaris 11.3 from the Oracle Solaris 11 release repository at <http://pkg.oracle.com/solaris/release> as documented in [Updating to Oracle Solaris 11.3](#).
2. Unlock the sunpro-incorporation package on the system to be updated. See the instructions “[Unlocking the sunpro-incorporation Package](#)” on page 28.
3. Update the sunpro-incorporation package from the packages provided in the Oracle Solaris 11 release repository as described in “[Updating the sunpro-incorporation Package in a New Boot Environment](#)” on page 29. The process is similar to the one described in the article [How to Update Only Java on Your Oracle Solaris 11 System](#) if "sunpro" is substituted for "java" in shell commands shown in the article.
4. (Optional) Relock the sunpro-incorporation package as described in “[Relocking the sunpro-incorporation Package](#)” on page 29.

The examples for unlocking and updating the sunpro-incorporation package are shown in the session in “[Example 2: Updating the sunpro-incorporation Package from the Oracle Solaris 11 Release Repository](#)” on page 34.

If you decide later to synchronize the system with the latest Oracle Solaris 11.3 SRU, you can do so after obtaining access to the Oracle Solaris 11 support repository. For details of synchronizing, see “[Example 3: Synchronizing sunpro-incorporation with the Latest SRU from the Oracle Solaris 11 Support Repository](#)” on page 39.

Unlocking the sunpro-incorporation Package

This task is needed in order to update to the required version of system libraries on Oracle Solaris 11.3 from the Oracle Solaris 11 release repository without updating the entire operating system to the latest Oracle Solaris 11.3 SRU.

This unlocking procedure is shown in the session in [“Example 2: Updating the sunpro-incorporation Package from the Oracle Solaris 11 Release Repository”](#) on page 34.

1. Become root on the system to be updated.
2. Type the following commands to show the latest versions of the sunpro-incorporation package available in the Oracle Solaris 11 release repository:

```
# pkg publisher
PUBLISHER      TYPE  STATUS P LOCATION
solaris      origin  online Fhttp://pkg.oracle.com/solaris/release/
# pkg list -af sunpro-incorporation
NAME (PUBLISHER)          VERSION          IFO
consolidation/sunpro/sunpro-incorporation  0.5.11-0.175.3.9.0.2.0  ---
consolidation/sunpro/sunpro-incorporation  0.5.11-0.175.3.0.0.25.0  i--
consolidation/sunpro/sunpro-incorporation  0.5.11-0.175.2.1.0.4.0  ---
consolidation/sunpro/sunpro-incorporation  0.5.11-0.175.2.0.0.37.0  ---
```

3. Verify the version of the sunpro-incorporation package to make sure it needs updating. Type the following command:

```
# pkg list sunpro-incorporation
NAME (PUBLISHER)          VERSION          IFO
consolidation/sunpro/sunpro-incorporation  0.5.11-0.175.3.0.0.25.0  i--
```

The example output from this step shows version 0.5.11-0.175.3.0.0.25.0, indicating that it is not the latest version and that the package needs to be updated.

4. Type the following command to unlock the sunpro-incorporation package:

```
# pkg change-facet facet.version-lock.consolidation/sunpro/sunpro-incorporation=false
```

Now you can update the sunpro-incorporation package as described in [“Updating the sunpro-incorporation Package in a New Boot Environment”](#) on page 29.

Updating the sunpro-incorporation Package in a New Boot Environment

An updated version of the sunpro-incorporation package has been added to the Oracle Solaris 11 release repository to address issues fixed in Oracle Solaris 11.3 SRU09 since Oracle Solaris 11.3 was released.

This procedure shows you how to install the updated version of sunpro-incorporation from the Oracle Solaris 11 release repository after the sunpro-incorporation package is unlocked as described in [“Unlocking the sunpro-incorporation Package” on page 28](#).

Note - Creating a new named boot environment as shown in this procedure is optional. If you do not specify the `--be-name` option, a backup boot environment will be created and the update will be applied to the currently active boot environment. In this case, no reboot will be required.

1. Become root on the system to be updated.
2. Type the following to create a new boot environment with updated Oracle Developer Studio 12.5 system libraries:

```
# be_name=new boot environment name
# pkg update --be-name $be_name sunpro-incorporation
```

Proceed to [“Downloading the Certificate and Key” on page 42](#) after updating the sunpro-incorporation package.

Relocking the sunpro-incorporation Package

Relocking the sunpro-incorporation package keeps the package in sync with the rest of the system after the system is updated.

Note - If you did not update the system to the latest Oracle Solaris 11.3 SRU, you cannot relock the sunpro-incorporation package. You must leave it unlocked. Skip the rest of this section and proceed to [“Downloading the Certificate and Key” on page 42](#).

You should perform this step only if you previously unlocked the sunpro-incorporation package to install the system libraries from the Oracle Solaris 11 release repository, then obtained a support contract and updated the system to the latest Oracle Solaris 11.3 SRU from the Oracle Solaris 11 support repository.

1. Become root on the system where you had previously unlocked `sunpro-incorporation` and subsequently updated to the latest Oracle Solaris 11.3 SRU.
2. Type the following to create a new boot environment with updated Oracle Developer Studio 12.5 runtime libraries:

```
# pkg change-facet facet.version-lock.consolidation/sunpro/sunpro-incorporation=true
```

This step is shown in the session in [“Example 3: Synchronizing `sunpro-incorporation` with the Latest SRU from the Oracle Solaris 11 Support Repository”](#) on page 39.

Example Update Scenarios for Oracle Solaris 11

This section shows the following example update scenarios for Oracle Solaris 11. If you do not have a support contract, only Example 2 is relevant.

- [“Example 1: Updating a Oracle Solaris 11.1 Boot Image to the Latest SRU from the Oracle Solaris 11 Support Repository”](#) on page 30
- [“Example 2: Updating the `sunpro-incorporation` Package from the Oracle Solaris 11 Release Repository”](#) on page 34
- [“Example 3: Synchronizing `sunpro-incorporation` with the Latest SRU from the Oracle Solaris 11 Support Repository”](#) on page 39

Example 1: Updating a Oracle Solaris 11.1 Boot Image to the Latest SRU from the Oracle Solaris 11 Support Repository

This example shows a terminal session for upgrading a system from Oracle Solaris 11.1 to the latest SRU from the Oracle Solaris 11 support repository when you have an Oracle Solaris 11 support contract. The system's default publisher is already configured to point to the Oracle Solaris 11 support repository. See [“Example 3: Synchronizing `sunpro-incorporation` with the Latest SRU from the Oracle Solaris 11 Support Repository”](#) on page 39 for details on how to do this.

The terminal session shows the following:

- Lists the currently installed versions of the `entire` and `sunpro-incorporation` packages. The output reflects the versions originally delivered in Oracle Solaris 11.1.
- Lists all available versions of both packages in the Oracle Solaris 11 support repository. The output shows that newer versions of both are available, reflecting the latest Oracle Solaris 11.2 SRU.
- Updates the system to Oracle Solaris 11.3 SRU09. This is a lengthy update since it includes all SRUs delivered for Oracle Solaris 11.1, 11.2, and 11.3 at the time of the update. The

session shows that the system is updated in a named new boot environment, leaving the current boot environment unchanged.

Although it is not shown here, the system reports some recoverable errors during the installation of a package included in one of the Oracle S11.1 SRUs. The error messages can safely be ignored, as documented in the [Oracle Solaris 11.3 Release Notes](#) in the Oracle Solaris 11.3 Information Library.

```

root@x86box:~# beadm list
BE                Active Mountpoint Space   Policy Created
--                -
s11.1_example     NR      /           47.67G  static 2014-09-15 09:14
root@x86box:~# pkg list entire
NAME (PUBLISHER)                VERSION                                IFO
entire                          0.5.11-0.175.1.0.0.24.2             i--
root@x86box:~# pkg list sunpro-incorporation
NAME (PUBLISHER)                VERSION                                IFO
consolidation/sunpro/sunpro-incorporation 0.5.11-0.175.1.0.0.19.0             i--
root@x86box:~# pkg publisher
PUBLISHER                TYPE      STATUS P LOCATION
solaris                   origin   online F https://pkg.oracle.com/solaris/support/
root@x86box:~# pkg list -af entire
NAME (PUBLISHER)                VERSION                                IFO
entire                          0.5.11-0.175.3.9.0.2.0             ---
entire                          0.5.11-0.175.3.9.0.1.0             ---
entire                          0.5.11-0.175.3.8.0.7.0             ---
entire                          0.5.11-0.175.3.8.0.6.0             ---
entire                          0.5.11-0.175.3.8.0.5.0             ---
...
entire                          0.5.11-0.175.1.0.0.24.2             ---
...root@x86box:~# pkg list -af sunpro-incorporation
NAME (PUBLISHER)                VERSION                                IFO
consolidation/sunpro/sunpro-incorporation 0.5.11-0.175.3.9.0.2.0             ---
consolidation/sunpro/sunpro-incorporation 0.5.11-0.175.3.9.0.1.0             ---
consolidation/sunpro/sunpro-incorporation 0.5.11-0.175.3.8.0.7.0             ---
...
consolidation/sunpro/sunpro-incorporation 0.5.11-0.175.1.0.0.19.0             i--
...
root@x86box:~# pkg update --accept --be-name s11.1_example_s11.3sru09
-----
Package: pkg://solaris/consolidation/osnet/osnet-incorporation@0.5.11,5.11-
0.175.3.9.0.2.0:20160528T012906Z

License: lic_OTN

...
          Packages to remove: 7
          Packages to install: 90

```

```

    Packages to update: 498
    Mediators to change: 2
    Create boot environment: Yes
    Create backup boot environment: No

```

```

DOWNLOAD                PKGS        FILES    XFER (MB)   SPEED
Completed                595/595    40141/40141  872.6/872.6  1.2M/s

```

```

PHASE                    ITEMS
Removing old actions      7707/7707
Installing new actions    29119/29119
...
Updating modified actions 30920/30920
Updating package state database      Done
Updating package cache      505/505
Updating image state         Done
Creating fast lookup database      Done

```

A clone of `s11.1_example` exists and has been updated and activated. On the next boot the Boot Environment `s11.1_example_s11.3sru09` will be mounted on `'/'`. Reboot when ready to switch to this updated BE.

NOTE: Please review release notes posted at:

<http://www.oracle.com/pls/topic/lookup?ctx=E26502&id=SERNS>

```

root@x86box:~# beadm list

```

```

BE                Active Mountpoint Space   Policy Created
--                -
s11.1_example     N      /           9.80M  static 2014-09-15 09:14
s11.1_example_s11.3sru09 R      -           53.74G static 2014-09-15 09:59

```

```

root@x86box:~# reboot

```

```

Connection to x86box.example.com closed by remote host.
Connection to x86box.example.com closed.

```

After the system is rebooted, log in as a normal user and verify that both the entire and sunpro-incorporation packages have been updated:

```

...
Oracle Corporation  SunOS 5.11      11.3    August 2014
(x86box)% beadm list
BE                Active Mountpoint Space   Policy Created
--                -
s11.1_example     -      -           12.35M static 2014-09-15 09:14
s11.1_example_s11.3sru09 NR     /           53.99G static 2014-09-15 09:59

```



```
(x86box)% pkg list entire
NAME (PUBLISHER)                VERSION                IFO
entire                          0.5.11-0.175.3.9.0.2.0  i--
(x86box)% pkg list sunpro-incorporation
NAME (PUBLISHER)                VERSION                IFO
consolidation/sunpro/sunpro-incorporation 0.5.11-0.175.3.9.0.2.0  i--
(x86box)%
```

Check for the group package developer-studio-utilities:

```
(x86box)% pkg info developer-studio-utilities
pkg: info: no packages matching the following patterns you specified are
installed on the system. Try specifying -r to query remotely:
```

```
    developer-studio-utilities
```

```
(x86box)% pkg info -r developer-studio-utilities
Name: group/feature/developer-studio-utilities
Summary: Developer Support For Oracle Developer Studio
Description: Tools and runtime support libraries for use with Oracle
Developer Studio
```

...

The first command shows that the package is not installed. The second command shows that the command is available in the repository. Install the package as root:

```
root@x86box:~# pkg install -nv developer-studio-utilities
Packages to install:      4
Estimated space available: 32.83 GB
Estimated space to be consumed: 460.79 MB
Create boot environment: No
Create backup boot environment: No
Rebuild boot archive:    No
```

Changed packages:

```
solaris
group/feature/developer-studio-utilities
  None -> 0.5.11,5.11-0.175.3.3.0.2.0:20151117T031625Z
system/library/fortran-runtime
  None -> 0.5.11,5.11-0.175.3.8.0.3.0:20160425T173815Z
system/library/studio-runtime
  None -> 0.5.11,5.11-0.175.3.3.0.2.0:20151117T031646Z
system/library/sunperf
  None -> 0.5.11,5.11-0.175.3.6.0.3.0:20160229T234219Z
```

```
root@x86box:~# pkg install -v developer-studio-utilities
Packages to install:      4
Estimated space available: 32.83 GB
Estimated space to be consumed: 460.79 MB
```

```

Create boot environment:      No
Create backup boot environment: No
Rebuild boot archive:        No
    
```

Changed packages:

```

solaris
group/feature/developer-studio-utilities
  None -> 0.5.11,5.11-0.175.3.3.0.2.0:20151117T031625Z
system/library/fortran-runtime
  None -> 0.5.11,5.11-0.175.3.8.0.3.0:20160425T173815Z
system/library/studio-runtime
  None -> 0.5.11,5.11-0.175.3.3.0.2.0:20151117T031646Z
system/library/sunperf
  None -> 0.5.11,5.11-0.175.3.6.0.3.0:20160229T234219Z
    
```

DOWNLOAD	PKGS	FILES	XFER (MB)	SPEED
Completed	4/4	24/24	48.6/48.6	79.8M/s

PHASE	ITEMS
Installing new actions	93/93
Updating package state database	Done
Updating package cache	0/0
Updating image state	Done
Creating fast lookup database	Done
Updating package cache	1/1

Example 2: Updating the sunpro-incorporation Package from the Oracle Solaris 11 Release Repository

In this example, the system has been updated to Oracle Solaris 11.3 from the Oracle Solaris 11 release repository. The example shows that the release repository has a newer version of the sunpro-incorporation package than the version normally installed by `pkg install` from the release repository.

The terminal session shows the following tasks:

- Verifies that:
 - System default publisher points at the Oracle Solaris 11 release repository
 - System entire package version is that of Oracle Solaris 11.3
 - System sunpro-incorporation package version is that of Oracle Solaris 11.3
 - Oracle Solaris 11 release repository contains a newer version of sunpro-incorporation.
- Unlocks the sunpro-incorporation package. Unlocking the sunpro-incorporation package enables `pkg update` to install the newer version of the package.

- Updates the sunpro-incorporation package from the Oracle Solaris 11 release repository
- Installs the new developer-studio-utilities packages under the sunpro-incorporation package
- Lists the version IDs of the updated package under the sunpro-incorporation package

```

root@x86box:~# pkg publisher
PUBLISHER          TYPE      STATUS P LOCATION
solaris            origin   online F http://pkg.oracle.com/solaris/release/
root@x86box:~# pkg list entire
NAME (PUBLISHER)          VERSION          IFO
entire                   0.5.11-0.175.3.1.0.5.0  i--
root@x86box:~# pkg list sunpro-incorporation
NAME (PUBLISHER)          VERSION          IFO
consolidation/sunpro/sunpro-incorporation 0.5.11-0.175.3.0.0.25.0  i--
root@x86box:~# pkg list -af sunpro-incorporation
NAME (PUBLISHER)          VERSION          IFO
consolidation/sunpro/sunpro-incorporation 0.5.11-0.175.3.9.0.2.0   ---
consolidation/sunpro/sunpro-incorporation 0.5.11-0.175.3.0.0.25.0  i--
root@x86box:~# pkg facet
FACET                                     VALUE SRC
root@x86box:~# pkg change-facet facet.version-lock.consolidation/sunpro/sunpro-
incorporation=false
    Packages to change: 1
    Variants/Facets to change: 1
    Create boot environment: No
Create backup boot environment: Yes
PHASE                ITEMS
Removing old actions 1/1
Updating package state database Done
Updating package cache 0/0
Updating image state Done
Creating fast lookup database Done
Updating package cache 1/1
root@x86box:~# pkg install -nv sunpro-incorporation developer-studio-utilities
    Packages to install: 2
    Packages to update: 9
    Estimated space available: 39.22 GB
Estimated space to be consumed: 352.48 MB
    Create boot environment: No
Create backup boot environment: Yes
    Rebuild boot archive: No

Changed packages:
solaris
  group/feature/developer-studio-utilities
    None -> 0.5.11,5.11-0.175.3.3.0.2.0:20151117T031625Z
  system/library/studio-runtime

```

```

None -> 0.5.11,5.11-0.175.3.3.0.2.0:20151117T031646Z
consolidation/sunpro/sunpro-incorporation
  0.5.11,5.11-0.175.3.0.0.25.0:20150621T221505Z -> 0.5.11,5.11-0.175.3.9.0.2.0:
20160528T012705Z
  developer/assembler
    0.5.11,5.11-0.175.3.0.0.25.0:20150621T221506Z -> 0.5.11,5.11-0.175.3.9.0.2.0:
20160528T012706Z
  developer/library/xprofile
    0.5.11,5.11-0.175.2.0.0.34.0:20140303T132011Z -> 0.5.11,5.11-0.175.3.6.0.3.0:
20160229T234156Z
  system/library/c++-runtime
    0.5.11,5.11-0.175.3.0.0.24.0:20150607T193304Z -> 0.5.11,5.11-0.175.3.9.0.2.0:
20160528T012707Z
  system/library/fortran-runtime
    0.5.11,5.11-0.175.3.0.0.19.0:20150329T155700Z -> 0.5.11,5.11-0.175.3.8.0.3.0:
20160425T173815Z
  system/library/math
    0.5.11,5.11-0.175.3.0.0.19.0:20150329T155704Z -> 0.5.11,5.11-0.175.3.8.0.3.0:
20160425T173821Z
  system/library/mmheap
    0.5.11,5.11-0.175.3.0.0.7.0:20140930T154145Z -> 0.5.11,5.11-0.175.3.6.0.3.0:
20160229T234216Z
  system/library/openmp
    0.5.11,5.11-0.175.3.0.0.2.0:20140721T125146Z -> 0.5.11,5.11-0.175.3.6.0.3.0:
20160229T234217Z
  system/library/sunperf
    0.5.11,5.11-0.175.3.0.0.19.0:20150329T155708Z -> 0.5.11,5.11-0.175.3.6.0.3.0:
20160229T234219Z

```

```

root@x86box:~# pkg install -v sunpro-incorporation developer-studio-utilities

```

```

Packages to install:      2
Packages to update:      9
Estimated space available: 39.22 GB
Estimated space to be consumed: 352.48 MB
Create boot environment: No
Create backup boot environment: Yes
Rebuild boot archive:    No

```

```

Changed packages:

```

```

solaris
group/feature/developer-studio-utilities
  None -> 0.5.11,5.11-0.175.3.3.0.2.0:20151117T031625Z
system/library/studio-runtime
  None -> 0.5.11,5.11-0.175.3.3.0.2.0:20151117T031646Z
consolidation/sunpro/sunpro-incorporation
  0.5.11,5.11-0.175.3.0.0.25.0:20150621T221505Z -> 0.5.11,5.11-0.175.3.9.0.2.0:
20160528T012705Z
  developer/assembler

```

```

0.5.11,5.11-0.175.3.0.0.25.0:20150621T221506Z -> 0.5.11,5.11-0.175.3.9.0.2.0:
20160528T012706Z
  developer/library/xprofile
0.5.11,5.11-0.175.2.0.0.34.0:20140303T132011Z -> 0.5.11,5.11-0.175.3.6.0.3.0:
20160229T234156Z
  system/library/c++-runtime
0.5.11,5.11-0.175.3.0.0.24.0:20150607T193304Z -> 0.5.11,5.11-0.175.3.9.0.2.0:
20160528T012707Z
  system/library/fortran-runtime
0.5.11,5.11-0.175.3.0.0.19.0:20150329T155700Z -> 0.5.11,5.11-0.175.3.8.0.3.0:
20160425T173815Z
  system/library/math
0.5.11,5.11-0.175.3.0.0.19.0:20150329T155704Z -> 0.5.11,5.11-0.175.3.8.0.3.0:
20160425T173821Z
  system/library/mmheap
0.5.11,5.11-0.175.3.0.0.7.0:20140930T154145Z -> 0.5.11,5.11-0.175.3.6.0.3.0:
20160229T234216Z
  system/library/openmp
0.5.11,5.11-0.175.3.0.0.2.0:20140721T125146Z -> 0.5.11,5.11-0.175.3.6.0.3.0:
20160229T234217Z
  system/library/sunperf
0.5.11,5.11-0.175.3.0.0.19.0:20150329T155708Z -> 0.5.11,5.11-0.175.3.6.0.3.0:
20160229T234219Z

```

```

DOWNLOAD          PKGS      FILES  XFER (MB)  SPEED
Completed          11/11     91/91   52.4/52.4 13.4M/s

```

```

PHASE                ITEMS
Removing old actions 43/43
Installing new actions 111/111
Updating modified actions 56/56
Updating package state database Done
Updating package cache 9/9
Updating image state Done
Creating fast lookup database Done
Updating package cache 1/1

```

```
root@x86box:~# pkg list sunpro-incorporation
```

```

NAME (PUBLISHER)                VERSION                IFO
consolidation/sunpro/sunpro-incorporation 0.5.11-0.175.3.9.0.2.0 i--

```

```
root@x86box:~# pkg contents -m sunpro-incorporation | grep 175.3
```

```

set name=pkg.fmri value=pkg:///solaris/consolidation/sunpro/sunpro-incorporation@0.
5.11,5.11-0.175.3.9.0.2.0:20160528T012705Z
depend fmri=developer/ assembler@0.5.11-0.175.3.9.0.2.0 type=incorporate
depend fmri=developer/library/xprofile@0.5.11-0.175.3.6.0.3.0 type=incorporate
depend fmri=developer/versioning/sccs@0.5.11-0.175.3.0.0.10.0 type=incorporate
depend fmri=developer/xopen/xcu4@0.5.11-0.175.3.0.0.24.0 type=incorporate
depend fmri=group/feature/developer-studio-utilities@0.5.11-0.175.3.3.0.2.0
type=incorporate

```

```
depend fmri=system/library/c++-runtime@0.5.11-0.175.3.9.0.2.0 type=incorporate
depend fmri=system/library/fortran-runtime@0.5.11-0.175.3.8.0.3.0 type=incorporate
depend fmri=system/library/math@0.5.11-0.175.3.8.0.3.0 type=incorporate
depend fmri=system/library/mmheap@0.5.11-0.175.3.6.0.3.0 type=incorporate
depend fmri=system/library/openmp@0.5.11-0.175.3.6.0.3.0 type=incorporate
depend fmri=system/library/studio-runtime@0.5.11-0.175.3.3.0.2.0 type=incorporate
depend fmri=system/library/sunperf@0.5.11-0.175.3.6.0.3.0 type=incorporate
```

The following commands are performed as a normal user to verify:

- The sunpro-incorporation package is unlocked.
- The sunpro-incorporation package has been updated to version 0.5.11-0.175.3.9.0.2.0, the version of Oracle Solaris 11.3 SRU9.
- Packages in sunpro-incorporation that were included in one or more Oracle Solaris 11.3 SRUs have been updated to the version of their most recently delivered SRU.
- The rest of the system remains at version 0.5.11,5.11-0.175.3.1.0.5.0, same as in Oracle Solaris 11.3.

```
(x86box)% pkg facet
FACET                                     VALUE SRC
facet.version-lock.consolidation/sunpro/sunpro-incorporation  False local
(x86box)% pkg list entire
NAME (PUBLISHER)                          VERSION                                IFO
entire                                     0.5.11-0.175.3.1.0.5.0                i--
(x86box)% pkg list -af sunpro-incorporation
NAME (PUBLISHER)                          VERSION                                IFO
consolidation/sunpro/sunpro-incorporation 0.5.11-0.175.3.9.0.2.0                i--
consolidation/sunpro/sunpro-incorporation 0.5.11-0.175.3.0.0.25.0               ---
...
(x86box)% pkg list sunpro-incorporation
NAME (PUBLISHER)                          VERSION                                IFO
consolidation/sunpro/sunpro-incorporation 0.5.11-0.175.3.9.0.2.0                i--
(x86box)% pkg contents -m sunpro-incorporation | grep 175.3 | grep -v 175.3.0
set name=pkg.fmri value=pkg://solaris/consolidation/sunpro/sunpro-
incorporation@0.5.11,5.11-0.175.3.9.0.2.0:20160528T012705Z
depend fmri=developer/ assembler@0.5.11-0.175.3.9.0.2.0 type=incorporate
depend fmri=developer/library/xprofile@0.5.11-0.175.3.6.0.3.0 type=incorporate
depend fmri=group/feature/developer-studio-utilities@0.5.11-0.175.3.3.0.2.0
type=incorporate
depend fmri=system/library/c++-runtime@0.5.11-0.175.3.9.0.2.0 type=incorporate
depend fmri=system/library/fortran-runtime@0.5.11-0.175.3.8.0.3.0 type=incorporate
depend fmri=system/library/math@0.5.11-0.175.3.8.0.3.0 type=incorporate
depend fmri=system/library/mmheap@0.5.11-0.175.3.6.0.3.0 type=incorporate
depend fmri=system/library/openmp@0.5.11-0.175.3.6.0.3.0 type=incorporate
depend fmri=system/library/studio-runtime@0.5.11-0.175.3.3.0.2.0 type=incorporate
depend fmri=system/library/sunperf@0.5.11-0.175.3.6.0.3.0 type=incorporate
```

Note - The `studio-runtime` and `developer-studio-utilities` packages are new "group" packages provided to simplify installation of Oracle Developer Studio runtime libraries and UNIX utilities like `make`, `sccs`, and assemblers, on machines that did not include them in previous installations. This situation occurs frequently on machines that were originally installed using a standard Oracle Solaris server configuration.

Example 3: Synchronizing `sunpro-incorporation` with the Latest SRU from the Oracle Solaris 11 Support Repository

This example shows how to synchronize the system that was used in [“Example 2: Updating the `sunpro-incorporation` Package from the Oracle Solaris 11 Release Repository” on page 34](#) with the latest SRU from the Oracle Solaris 11 support repository.

Note - You would only need to do this if you previously unlocked and updated the `sunpro-incorporation` package from the Oracle Solaris 11 release repository and then obtained a support contract and have access to the Oracle Solaris 11 support repository.

The example assumes that a key and certificate for the Oracle Solaris 11 support repository were already copied to the `/var/pkg/ssl` directory, as described in the article [How to Update Oracle Solaris 11 Systems From Oracle Support Repositories](#) on the Oracle Technology Network.

The terminal session shows how to do the following:

- Use the key and certificate to configure the system's default publisher to point to the Oracle Solaris 11 support repository `https://pkg.oracle.com/solaris/support`, as explained in the article.
- Update the system to the latest Oracle Solaris 11.3 SRU.
- Relock the `sunpro-incorporation` package after the system has been updated to the latest Oracle Solaris 11 SRU.

Note that the system can still be updated to a Oracle Solaris 11.3 SRU if the `sunpro-incorporation` package has been unlocked and updated from the release repository, as described in the previous example.

The `sunpro-incorporation` package cannot be locked unless the package version is in sync with the rest of the system. In this example, the system is updated before the package is relocked.

```
(x86box)% beadm list
BE              Active Mountpoint Space  Policy Created
--              -
```

```

s11.3          -      -          14.42M  static 2015-10-15 13:14
s11.3_plus_ss12.5_rtlibs NR      /          45.89G  static 2016-06-04 13:03 17:09
(x86box)% pkg list entire
NAME (PUBLISHER)                                VERSION                                IFO
entire                                           0.5.11-0.175.3.1.0.5.0              i--
(x86box)% pkg list sunpro-incorporation
NAME (PUBLISHER)                                VERSION                                IFO
consolidation/sunpro/sunpro-incorporation      0.5.11-0.175.3.9.0.2.0              i--
(x86box)% su - root
Password:
...
root@x86box:~# pkg publisher
PUBLISHER          TYPE      STATUS P LOCATION
solaris            origin   online F http://pkg.oracle.com/solaris/release/
root@x86box:~# ls -l /var/pkg/ssl
total 6
-rw-r--r--  1 root    root      786 Sep  9 15:44 pkg.oracle.com.key.certificate.pem
-rw-r--r--  1 root    root      887 Sep  9 15:44 pkg.oracle.com.key.pem
root@x86box:~# pkg set-publisher \
> -k /var/pkg/ssl/pkg.oracle.com.key.pem \
> -c /var/pkg/ssl/pkg.oracle.com.key.certificate.pem \
> -g https://pkg.oracle.com/solaris/support/ \
> -G http://pkg.oracle.com/solaris/release/ solaris
root@x86box:~#
root@x86box:~# pkg publisher
PUBLISHER          TYPE      STATUS P LOCATION
solaris            origin   online F https://pkg.oracle.com/solaris/support/
root@x86box:~# beadm list
BE                Active Mountpoint Space  Policy Created
--                -
s11.3             -      -          14.42M  static 2015-10-15 13:14
s11.3_plus_ss12.5_rtlibs NR      /          46.00G  static 2016-06-04 13:03
root@x86box:~# pkg update --accept --be-name s11.3_sru09 entire
...
A clone of s11.3_plus_ss12.5_rtlibs exists and has been updated and activated.
On the next boot the Boot Environment s11.3_sru09 will be
mounted on '/'. Reboot when ready to switch to this updated BE.

Updating package cache                                1/1
root@x86box:~# beadm list
BE                Active Mountpoint Space  Policy Created
--                -
s11.3             -      -          14.42M  static 2015-10-15 13:14
s11.3_plus_ss12.5_rtlibs -      -          10.15M  static 2016-06-04 13:03
s11.3_sru09       NR      /          47.83G  static 2016-06-04 13:23
root@x86box:~# reboot
Connection to x86box.example.com closed by remote host.
Connection to x86box.example.com closed.

```


...

The terminal session shows how to verify the following as a normal user:

- The system has been updated to Oracle Solaris 11.3 SRU09.
- The sunpro-incorporation package remains at the version previously updated from the Oracle Solaris 11 release repository.

```
(x86box)% beadm list
BE                Active Mountpoint Space  Policy Created
--                -
s11.3              -    -           14.42M  static 2015-10-15 13:14
s11.3_plus_ss12.5_rtlibs -    -           10.15M  static 2016-06-04 13:03
s11.3_sru09        NR    /            47.83G  static 2016-06-04 13:20
```

```
(x86box)% pkg list entire
NAME (PUBLISHER)                                VERSION                                IFO
entire                                           0.5.11-0.175.3.9.0.4.0              i--
(x86box)% pkg list sunpro-incorporation
NAME (PUBLISHER)                                VERSION                                IFO
consolidation/sunpro/sunpro-incorporation      0.5.11-0.175.3.9.0.2.0              i--
```

Now that the system entire package has been updated, the sunpro-incorporation package is in sync with the rest of the system.

The terminal session shows the root user locking the sunpro-incorporation package in sync with the rest of the system.

```
(x86box)% su - root
Password:
...
root@x86box:~# pkg facet
FACET                                           VALUE SRC
facet.version-lock.consolidation/sunpro/sunpro-incorporation  False local
root@x86box:~# pkg change-facet facet.version-lock.consolidation/sunpro/sunpro-incorporation=true
      Packages to change: 1
      Variants/Facets to change: 1
      Create boot environment: No
Create backup boot environment: Yes
PHASE                                           ITEMS
Installing new actions                          1/1
Updating package state database                 Done
Updating package cache                          0/0
Updating image state                            Done
Creating fast lookup database                   Done
Updating package cache                          1/1
root@x86box:~# beadm list
BE                Active Mountpoint Space  Policy Created
--                -
s11.3              -    -           14.42M  static 2015-10-15 13:14
s11.3_plus_ss12.5_rtlibs -    -           10.15M  static 2016-06-04 13:03
s11.3_sru09        NR    /            47.83G  static 2016-06-04 13:20
```

```
s11.3 - - 14.42M static 2015-10-15 13:14
s11.3_plus_ss12.5_rtlibs - - 10.15M static 2016-06-04 13:03
s11.3_sru09 NR / 47.83G static 2016-06-04 13:20
s11.3_sru09-backup-1 - - 100.0K static 2016-06-04 14:23
root@x86box:~# pkg facet
FACET VALUE SRC
facet.version-lock.consolidation/sunpro/sunpro-incorporation True local
root@x86box:~#
```

Downloading the Certificate and Key

To install Oracle Developer Studio 12.5 on an Oracle Solaris 11 system, you must have a Oracle Developer Studio certificate and key.

If you have previously obtained a certificate and key for the Oracle Developer Studio package repository, you can use those and do not need to obtain new ones. You can download them again after you log in to the <https://pkg-register.oracle.com> page.

To download the certificate and key:

1. On the Welcome page at <https://pkg-register.oracle.com>, click Request Certificates.
2. If prompted, sign in to your Oracle Online account.
3. In the Available Repositories page next to Oracle Developer Studio, click Request Access.
If you already have been granted access to the repository you can get details and instructions on how to set up the repository on your system by clicking Show Details.
4. On the Request Access page, scroll down to the bottom and click Accept to accept the license agreement.
5. On the Product Details page, click the *certificate page* link.
6. On the Your Certificate page, click Download Key to download and save the key `pkg.oracle.com.key.pem` to your browser's default download location.
7. Click Download Certificate to download and save the certificate `pkg.oracle.com.certificate.pem` to your browser's default download location.

This is your key and certificate pair to authenticate your client to `pkg.oracle.com`. It is valid for every repository hosted on `pkg.oracle.com`.

Installing Oracle Developer Studio 12.5 on Oracle Solaris 11

You use the Image Packaging System (IPS) to install Oracle Developer Studio 12.5 on Oracle Solaris 11 systems.

The Oracle Developer Studio publisher includes the packages shown in [Table 7, “Oracle Developer Studio 12.5 Package Names for Oracle Solaris 11,”](#) on page 72. You can install the entire release from the package repository or install individual packages for the compilers and tools you want to use.

Before you install, see the following table for some installation conditions you might need to consider.

TABLE 5 Oracle Developer Studio Installation Conditions

Installation Condition	Procedure
Installing in a Non-Global Zone	To install the software in a non-global zone on an Oracle Solaris 11 system, execute the installation commands in that zone.
Installing on Multiple Systems	On Oracle Solaris 11 platforms, you can install the Oracle Developer Studio 12.5 software on multiple systems by remotely logging in to each system and installing the software from the Oracle Developer Studio publisher.
Installing the IDE and other graphical tools on a Desktop System	After you have installed the Oracle Developer Studio 12.5 software on an Oracle Solaris 11 platform, you can use the <code>devstudio --generate-desktop-distr</code> command or a menu item in the IDE to generate a zip file containing a distribution of the IDE, dbxtool, and Code Analyzer configured for installation on a desktop system with almost any operating system. You can unzip this distribution file on a desktop system. When you run the IDE on that system, the IDE 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 Developer Studio server installation.

▼ How to Install Oracle Developer Studio 12.5 from the Package Repository

Before You Begin See [“Installation Tasks on Oracle Solaris 11”](#) on page 25 to ensure you have done the preliminary tasks including verifying permissions to install software on the system.

1. **Create a directory in `/var/pkg` to store the key and certificate you downloaded from `pkg-register.oracle.com`.**

```
% mkdir -m 0775 -p /var/pkg/ssl
```

2. **Copy the key and certificate into the directory.**

```
% cp -i download-directory/pkg.oracle.com.key.pem /var/pkg/ssl
% cp -i download-directory/pkg.oracle.com.certificate.pem /var/pkg/ssl
```

3. Add the Oracle Developer Studio publisher.

```
% pkg set-publisher \
-k /var/pkg/ssl/pkg.oracle.com.key.pem \
-c /var/pkg/ssl/pkg.oracle.com.certificate.pem \
-G '*' -g https://pkg.oracle.com/solarisstudio/release solarisstudio
```

4. To list the Oracle Developer Studio 12.5 packages, type:

```
% pkg list -af 'pkg://solarisstudio/developer/developerstudio-125/*'
NAME (PUBLISHER)                                VERSION                                IFO
developer/developerstudio-125/backend (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/c++ (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/cc (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/code-analyzer (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/dbx (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/dbxtool (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/dmake (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/fortran (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/library/c-libs (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/library/c++-libs (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/library/f90-libs (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/library/math-libs (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/library/oic-libs (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/library/perflib (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/library/studio-gccrt (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/oic (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/performance-analyzer (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/studio-common (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/studio-ide (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/studio-ja (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/studio-legal (solarisstudio) 12.5-1.0.0.0 ---
developer/developerstudio-125/studio-zhCN (solarisstudio) 12.5-1.0.0.0 ---
```

If you use the Package Manager graphical application you will be able to locate the newly discovered packages when you restart the Package Manager.

5. To do a dry run of an installation of the entire distribution to see what will be installed, type:

```
# pkg install -nv developerstudio-125
Packages to install: 23
Estimated space available: 33.95 GB
Estimated space to be consumed: 2.77 GB
Create boot environment: No
```

```
Create backup boot environment:      No
      Rebuild boot archive:          No

Changed packages:
solaris
  developer/library/lint
    None -> 0.5.11,5.11-1.0.0.175.1.0.0.20.0:20120709T162225Z
solarisstudio
  developer/developerstudio-125
    None -> 12.5,5.11-1.0.0.0:20160604T181118Z
  developer/developerstudio-125/backend
    None -> 12.5,5.11-1.0.0.0:20160604T180159Z
  developer/developerstudio-125/c++
    None -> 12.5,5.11-1.0.0.0:20160604T180237Z
  developer/developerstudio-125/cc
    None -> 12.5,5.11-1.0.0.0:20160604T180346Z
  developer/developerstudio-125/code-analyzer
    None -> 12.5,5.11-1.0.0.0:20160604T180351Z
  developer/developerstudio-125/dbx
    None -> 12.5,5.11-1.0.0.0:20160604T180354Z
  developer/developerstudio-125/dbxtool
    None -> 12.5,5.11-1.0.0.0:20160604T180411Z
  developer/developerstudio-125/dmake
    None -> 12.5,5.11-1.0.0.0:20160604T180414Z
  developer/developerstudio-125/fortran
    None -> 12.5,5.11-1.0.0.0:20160604T180438Z
  developer/developerstudio-125/library/c++-libs
    None -> 12.5,5.11-1.0.0.0:20160604T180343Z
  developer/developerstudio-125/library/f90-libs
    None -> 12.5,5.11-1.0.0.0:20160604T180418Z
  developer/developerstudio-125/library/math-libs
    None -> 12.5,5.11-1.0.0.0:20160604T180514Z
  developer/developerstudio-125/library/oic-libs
    None -> 12.5,5.11-1.0.0.0:20160604T180527Z
  developer/developerstudio-125/library/perflib
    None -> 12.5,5.11-1.0.0.0:20160604T180826Z
  developer/developerstudio-125/library/studio-gccrt
    None -> 12.5,5.11-1.0.0.0:20160604T181033Z
  developer/developerstudio-125/oic
    None -> 12.5,5.11-1.0.0.0:20160604T180515Z
  developer/developerstudio-125/performance-analyzer
    None -> 12.5,5.11-1.0.0.0:20160604T181016Z
  developer/developerstudio-125/studio-common
    None -> 12.5,5.11-1.0.0.0:20160604T181033Z
  developer/developerstudio-125/studio-ide
    None -> 12.5,5.11-1.0.0.0:20160604T181037Z
  developer/developerstudio-125/studio-ja
    None -> 12.5,5.11-1.0.0.0:20160604T181111Z
```

```
developer/developerstudio-125/studio-legal
None -> 12.5,5.11-1.0.0.0:20160604T181115Z
developer/developerstudio-125/studio-zhCN
None -> 12.5,5.11-1.0.0.0:20160604T181115Z
```

6. To do a dry run of a single component, type:

```
# pkg install -nv developerstudio-125/package-name
```

For example, for the C++ compiler:

```
# pkg install -nv developerstudio-125/c++
Packages to install:      11
Estimated space available: 33.95 GB
Estimated space to be consumed: 415.39 MB
Create boot environment: No
Create backup boot environment: No
Rebuild boot archive:    No
```

Changed packages:

```
solaris
  developer/library/lint
  None -> 0.5.11,5.11-0.175.1.0.0.20.0:20120709T162225Z
solarisstudio
  developer/developerstudio-125/backend
  None -> 12.5,5.11-1.0.0.0:20160604T180159Z
  developer/developerstudio-125/c++
  None -> 12.5,5.11-1.0.0.0:20160604T180237Z
  developer/developerstudio-125/cc
  None -> 12.5,5.11-1.0.0.0:20160604T180346Z
  developer/developerstudio-125/library/c++-libs
  None -> 12.5,5.11-1.0.0.0:20160604T180343Z
  developer/developerstudio-125/library/math-libs
  None -> 12.5,5.11-1.0.0.0:20160604T180514Z
  developer/developerstudio-125/library/studio-gccrt
  None -> 12.5,5.11-1.0.0.0:20160604T181033Z
  developer/developerstudio-125/studio-common
  None -> 12.5,5.11-1.0.0.0:20160604T181033Z
  developer/developerstudio-125/studio-ja
  None -> 12.5,5.11-1.0.0.0:20160604T181111Z
  developer/developerstudio-125/studio-legal
  None -> 12.5,5.11-1.0.0.0:20160604T181115Z
  developer/developerstudio-125/studio-zhCN
  None -> 12.5,5.11-1.0.0.0:20160604T181115Z
```

7. Install either the entire distribution or specific packages.

You must specify the `--accept` option to acknowledge the license agreement. The license text reads as follows:

You acknowledge that your use of Oracle Developer Studio is subject to the Oracle Developer Studio OTN License Agreement. The OTN License Agreement is located at :
<http://www.oracle.com/technetwork/licenses/solaris-studio-license-169628.html>

- **To install the complete Oracle Developer Studio 12.5 release including all compilers and tools, type:**

```
# pkg install --accept developerstudio-125
```

- **To install specific packages type the following:**

```
# pkg install --accept developerstudio-125/package-name developerstudio-125/package-name ...
```

where the *package-name* is one of the packages listed when you did the dry run of the entire distribution installation. The packages are also listed in [Table 7, “Oracle Developer Studio 12.5 Package Names for Oracle Solaris 11,”](#) on page 72.

Note - You do not need to use the `--accept` option if you are only installing the `studio-gccrt` package.

Next Steps See the next section about additional installation options and tips. See [Chapter 5, “After Installing Oracle Developer Studio 12.5”](#) for information about setting up user access and testing the installation.

Installing Only the Runtime Libraries on Oracle Solaris 11

The required runtime libraries are installed automatically when you install the complete `developerstudio-125` package.

You must separately install the Oracle Developer Studio runtime libraries on machines where Oracle Developer Studio will not be installed but the runtime libraries are needed:

- The runtime libraries must be installed on any machines where applications built using Oracle Developer Studio 12.5 will be executed.
- If you install runtime libraries in a global zone, you might also need to install them in the nonglobal zones as well.
- If an installation of Oracle Developer Studio is shared over NFS, the runtime libraries must be installed on NFS client systems before the clients can use the shared installation.

▼ How to Install Only the Runtime Libraries on Oracle Solaris 11

This procedure is needed only for systems described above where the complete release has not been installed.

Before You Begin Verify that the Oracle Solaris 11 system has been updated to required system libraries. See [“Updating Oracle Solaris 11 System Libraries Required by Oracle Developer Studio 12.5” on page 26.](#)

Verify that the system is configured to use the Oracle Developer Studio package repository as described in steps 1 through 3 in [“How to Install Oracle Developer Studio 12.5 from the Package Repository” on page 43.](#)

You must have privileges to install software on the system.

1. **Become root or a user privileged to install software.**
2. **Verify that Oracle Developer Studio 12.5 is not already installed on the system by typing the following:**

```
# pkg list 'developer/developerstudio-125/*'
pkg list: No packages matching 'developer/developerstudio-125/*' installed
```

3. **Install the libraries by typing the following:**

```
# pkg install --accept developerstudio-125/library/c++-libs \
developerstudio-125/library/c-libs \
developerstudio-125/library/f90-libs \
developerstudio-125/library/math-libs \
developerstudio-125/library/perflib \
developerstudio-125/library/studio-gccrt
```

You should see output similar to the following:

```

          Packages to install: 9
          Create boot environment: No
          Create backup boot environment: No
DOWNLOAD                                PKGS      FILES    XFER (MB)   SPEED
Completed                                9/9       4872/4872  185.5/185.5 14.1M/s

PHASE                                     ITEMS
Installing new actions                    5189/5189
Updating package state database           Done
Updating package cache                    0/0
Updating image state                      Done
Creating fast lookup database             Done
Reading search index                     Done
```



```
Updating search index          9/9
Updating package cache        2/2
```

4. View the installed packages by typing the following:

```
# pkg list developer/developerstudio-125/\*
NAME (PUBLISHER)                VERSION                IFO
developer/developerstudio-125/library/c++-libs (solarisstudio) 12.5-1.0.0.0
  i--
developer/developerstudio-125/library/c-libs (solarisstudio) 12.5-1.0.0.0
  i--
developer/developerstudio-125/library/f90-libs (solarisstudio) 12.5-1.0.0.0
  i--
developer/developerstudio-125/library/math-libs (solarisstudio) 12.5-1.0.0.0
  i--
developer/developerstudio-125/library/perflib (solarisstudio) 12.5-1.0.0.0
  i--
developer/developerstudio-125/library/studio-gccrt (solarisstudio) 12.5-1.0.0.0
  i--
developer/developerstudio-125/studio-common (solarisstudio) 12.5-1.0.0.0
  i--
developer/developerstudio-125/studio-ja (solarisstudio) 12.5-1.0.0.0
developer/developerstudio-125/studio-legal (solarisstudio) 12.5-1.0.0.0
  i--
developer/developerstudio-125/studio-zhCN (solarisstudio) 12.5-1.0.0.0
  i--
```

Additional required packages were automatically installed.

Next Steps Verify that users on this system are able to use Oracle Developer Studio 12.5. See [Chapter 5, “After Installing Oracle Developer Studio 12.5”](#).

Installing Oracle Developer Studio 12.5 From a Tar File

This chapter describes how to install Oracle Developer Studio 12.5 from a tar file on any platform.

Downloading and Installing Oracle Developer Studio 12.5 From a Tar File

The following instructions explain how to install Oracle Developer Studio 12.5. These instructions apply to installation on Oracle Solaris 10, Oracle Solaris 11, and Linux platforms.

Note - When you install from a tar file you cannot get support or patches for the product from Oracle. If you want such support you must use a package installer. See [Chapter 2, “Installing Oracle Developer Studio 12.5 on Oracle Solaris 10 and Linux”](#) or [Chapter 3, “Installing Oracle Developer Studio 12.5 On Oracle Solaris 11”](#).

▼ How to Install Oracle Developer Studio 12.5 From a Tar File

Before You Begin Make sure that your system meets the “[System Requirements](#)” in *Oracle Developer Studio 12.5: Release Notes* and has the “[Required System Software Packages](#)” in *Oracle Developer Studio 12.5: Release Notes*.

1. **If you have not already downloaded the tar file for your platform, go to the [Oracle Developer Studio product page](#) to the downloads section and save it to a temporary *download-directory* such as `/var/tmp`.**
2. **Change to the directory where you want to install the software.**

```
% cd install-dir
```

3. Extract the tar file using the appropriate command for your platform:

```
% bzcat download-directory/OracleDeveloperStudio12.5-solaris-sparc-bin.tar.bz2 | tar -xf -
```

```
% bzcat download-directory/OracleDeveloperStudio12.5-solaris-x86-bin.tar.bz2 | tar -xf -
```

```
% bzcat download-directory/OracleDeveloperStudio12.5-linux-x86-bin.tar.bz2 | tar -xf -
```

The tar file contents are unpacked in a directory named: *OracleDeveloperStudio12.5-OS-platform-bin* where *OS* is *solaris* or *linux* and *platform* is *sparc* or *x86*.

The Oracle Developer Studio 12.5 product contents are located in the following directory:

```
install-dir/OracleDeveloperStudio12.5-OS-platform-bin/developerstudio12.5
```

4. (Oracle Solaris 10 only) Install the operating system patches as described below.

The *OracleDeveloperStudio12.5-solaris-sparc-bin* and *OracleDeveloperStudio12.5-solaris-x86-bin* directories contain a script *install_patches.sh* for installing patches for Oracle Solaris 10.

Run the following script with system administration privileges:

```
# install-dir/install_patches.sh
```

5. (Oracle Solaris 11 only) Install the operating system updates as described in [“Updating Oracle Solaris 11 System Libraries Required by Oracle Developer Studio 12.5”](#) on page 26.

6. Set up access to the Oracle Developer Studio 12.5 compilers and tools:

- Add the path *install-dir/OracleDeveloperStudio12.5-OS-platform-bin/developerstudio12.5/bin* to your PATH environment variable
- Add the path *install-dir/OracleDeveloperStudio12.5-OS-platform-bin/developerstudio12.5/man* to your MANPATH environment variable

◆◆◆ 5 CHAPTER 5

After Installing Oracle Developer Studio 12.5

This chapter describes tasks you might want to perform after you install Oracle Developer Studio 12.5 to ensure that installation is complete.

- [“Setting Up Access to the Developer Tools and Man Pages” on page 53](#)
- [“Testing Your Oracle Developer Studio 12.5 Installation” on page 54](#)
- [“Getting Started with Oracle Developer Studio 12.5” on page 56](#)

Setting Up Access to the Developer Tools and Man Pages

If you did not enable the installer to create symbolic links in `/usr/bin` and `/usr/share/man`, you might need to change your `PATH` and `MANPATH` environment variables to enable use of the Oracle Developer Studio 12.5 software.

Type the following commands on a system where you want to run Oracle Developer Studio to determine whether you need to set up your access to the Oracle Developer Studio 12.5 software tools and man pages:

```
% which cc
/opt/developerstudio12.5/bin/cc
% man codean
Reformatting page. Please wait... done.

User Commands                                codean(1)

NAME
  codean - Command Line Interface of Code Analyzer
...
```

If the `which` command returns the message `no cc in paths` or the reports the path to another version of the `cc` command, you need to set your `PATH`.

If the `man` command returns `No manual entry for codean`, you need to set your `MANPATH`.

On Oracle Solaris platforms Add the path `/install-dir/developerstudio12.5/bin` to your PATH environment variable.
Add the path `/install-dir/developerstudio12.5/man` to your MANPATH environment variable.

On Linux platforms Add the path `/install-dir/oracle/developerstudio12.5/bin` to your PATH environment variable.
Add the path `/install-dir/oracle/developerstudio12.5/man` to your MANPATH environment variable.

By default the *install-dir* is `/opt`.

Note - You should not have any references to any other version of Oracle Developer Studio in your `LD_LIBRARY_PATH` setting. If an incompatible library is referenced by tools such as Performance Analyzer, the tool might fail and the reason will be difficult to diagnose.

Testing Your Oracle Developer Studio 12.5 Installation

You might want to test your installation, to make sure it was properly installed on your system. If programs in your installation do not start properly, see [“Fixing a Failed Installation or Uninstallation” on page 62](#).

▼ How to Test Your Installation

Execute some commands to test the installation.

1. Make sure the version of Java on your path is at least 1.7.0_25:

```
% java -version
java version "1.7.0_45"
Java(TM) SE Runtime Environment (build 1.7.0_45-b18)
Java HotSpot(TM) Server VM (build 24.45-b08, mixed mode)
```

2. Test your installation by checking the version of a program such as Performance Analyzer:

```
% analyzer -V
analyzer: Oracle Developer Studio Performance Analyzer 12.5 SunOS_i386 2016/06/14
```

3. Start Performance Analyzer:

```
% analyzer &
```

You should see the Welcome page of Performance Analyzer.

▼ How to Test For Installation of System Patches or Updates

This procedure shows errors you might see when the required system patches or updates have not been installed.

In this example, Oracle Developer Studio was installed from a tar file into the directory `/export/home/example/developerstudio12.5` on an Oracle Solaris 10 system. The compiler successfully compiles a simple program when no compiler options are used, but returns errors when the `-O` option is used.

1. Create a simple program such as the following `hello.c` file:

```
#include <stdio.h>

main()
{
    printf("hello, world\n");
}
```

2. Compile the program without any compiler options except `-v` to show the version info, and then run the `a.out` binary:

```
% cc -v hello.c
cc: Studio 12.5 Sun C 5.14 SunOS_sparc 2016/05/17
acomp: Studio 12.5 Sun C 5.14 SunOS_sparc 2016/05/17
ld: Software Generation Utilities - Solaris Link Editors: 5.11-1.2470

% a.out
hello world
%
```

The program compiles and runs without issues.

3. Compile again adding the `-O` option:

```
% cc -O -v hello.c
cc: Studio 12.5 Sun C 5.14 SunOS_sparc 2016/05/17
```

```
acompl: Studio 12.5 Sun C 5.14 SunOS_sparc 2016/05/17
compiler(iropt) error: iropt: dlsym() could not find function _mmheap_createc

/export/home/example/developerstudio12.5/lib/compilers/iropt'quit+0x3e [0x8285dfe]
/export/home/example/developerstudio12.5/lib/compilers/iropt'0x24acfa [0x829acfa]
/export/home/example/developerstudio12.5/lib/compilers/iropt'main+0x17 [0x8341417]
/export/home/example/developerstudio12.5/lib/compilers/iropt'_start+0x72 [0x80947c2]
cc: Fatal error in /export/home/example/developerstudio12.5/lib/compilers/iropt
cc: Status 134
```

The error occurs because the required system library `/lib/libmmheap.so.1` has not been updated or installed.

Next Steps If the program compiled with `-0`, there is nothing further you need to do.

If the program did not compile and produced similar errors, a system administrator must install the required updates or patches:

- For Oracle Solaris 10, see [“Installing the Required Oracle Solaris 10 Patches” on page 21](#).
- For Oracle Solaris 11, see [“Updating Oracle Solaris 11 System Libraries Required by Oracle Developer Studio 12.5” on page 26](#).

Getting Started with Oracle Developer Studio 12.5

See the following documents to get started with Oracle Developer Studio 12.5:

[Oracle Developer Studio 12.5: Overview](#)

[What's New in the Oracle Developer Studio 12.5 Release](#)

Go to the [Oracle Developer Studio developer portal](#) for more information, videos, articles, and more.

Uninstalling the Oracle Developer Studio 12.5 Software

This chapter includes information about the following:

- [“Uninstalling the Oracle Developer Studio 12.5 Software on Oracle Solaris 10 and Linux Platforms” on page 57](#)
- [“Uninstalling Oracle Developer Studio 12.5 on Oracle Solaris 11 Platforms” on page 60](#)
- [“Uninstalling the Tar Installation of Oracle Developer Studio 12.5” on page 60](#)

Uninstalling the Oracle Developer Studio 12.5 Software on Oracle Solaris 10 and Linux Platforms

This section explains how to uninstall the Oracle Developer Studio 12.5 if it was installed using a package installer.

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

If you installed the Oracle Developer Studio 12.5 software on an Oracle Solaris 10 or Linux system that has previous Oracle Developer Studio or Sun Studio software installations, then only Oracle Developer Studio 12.5 is removed when you run the uninstaller. The uninstaller removes all of the installed Oracle Developer Studio 12.5 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 Developer Studio 12.5 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 downloaded files.

2. **Log in to the source computer using `ssh -X` and become a superuser (root).**

You can use `ssh` with the `-X` option to forward the X display content back to the display computer. The source computer might not allow remotely logging in as root, so you might need to log in using your own username and become root after connecting to the source computer as shown below.

```
% ssh -X source-computer-name
Password: your password-on-source-computer
% su
Password: root-password-on-source-computer
```

3. **On the source computer, set your `DISPLAY` variable 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.

You can type `echo $DISPLAY` on the display computer to see the display number, such as `:2.0`

Uninstalling the Software with the Uninstaller

You can uninstall all of the installed components of the Oracle Developer Studio 12.5 software using the graphical uninstaller or the command-line uninstaller.

▼ How to Uninstall Using the Graphical Uninstaller on Oracle Solaris 10 and Linux

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

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

2. **Go to the installation directory, for example, `/opt/developerstudio12.5`.**

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

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

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

When the software has been uninstalled, the Setup Complete page is displayed.

5. **Click Finish to exit the uninstaller.**

▼ How to Uninstall With the Command-Line Uninstaller on Oracle Solaris 10 and Linux

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

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

2. **Go to the installation directory, for example, `/opt/developerstudio12.5`.**

3. **Start the command-line uninstaller by typing:**

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

The uninstaller runs silently and returns your prompt when the software is uninstalled.

Uninstalling Oracle Developer Studio 12.5 on Oracle Solaris 11 Platforms

To uninstall the entire Oracle Developer Studio 12.5 software on an Oracle Solaris 11 platform, type:

```
% sudo pkg uninstall 'developer/developerstudio-125*'
```

Note - When you install Oracle Developer Studio 12.5, some Oracle Solaris 11 packages are installed along with the Oracle Developer Studio packages to satisfy dependencies. Uninstalling Oracle Developer Studio 12.5 does not uninstall these Oracle Solaris 11 packages.

To uninstall individual components, type the following where *package-name* is one of the packages listed in [Table 7, “Oracle Developer Studio 12.5 Package Names for Oracle Solaris 11,”](#) on page 72.:

```
% sudo pkg uninstall 'developer/developerstudio-125/package-name'
```

Note that some packages cannot be uninstalled by themselves because other packages have dependencies on them.

Uninstalling the Tar Installation of Oracle Developer Studio 12.5

If you installed the using the tar file, you can uninstall the software by deleting the */install-dir/developerstudio12.5* directory.

Troubleshooting Installation and Uninstallation

This chapter describes how to fix problems that can occur during Oracle Developer Studio 12.5 installation and uninstallation.

The chapter includes information about the following:

- [“Graphical Installer Fails If Temporary Directory is Not World-Writable” on page 61](#)
- [“Installation Fails on Oracle Linux if Temporary Directory is in `/usr/local`” on page 62](#)
- [“GNOME Errors Might Occur When Starting Graphical Installer” on page 62](#)
- [“Installer Lock File Might Prevent Installer From Starting” on page 62](#)
- [“Fixing a Failed Installation or Uninstallation” on page 62](#)
- [“Installation Will Fail on an NFS-Mounted Filesystem If Write Permission is Not Set” on page 65](#)
- [“Viewing the Installation Log File” on page 65](#)

Graphical Installer Fails If Temporary Directory is Not World-Writable

If your `TMPDIR` environment variable is pointing to a directory that is not world-writable, then the graphical 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.

This problem also occurs if you specify a directory that is not world-writable with the installer's `--tmpdir` command line option, so you should be sure to specify a world-writable directory.

Installation Fails on Oracle Linux if Temporary Directory is in /usr/local

If you use the command line option `--tmpdir /usr/local/tmp` with the `developerstudio.sh` installer script on Oracle Enterprise Linux 6, the installation fails silently. This also happens if your `TMPDIR` environment variable specifies a directory in `/usr/local`.

The workaround is to specify a directory that is not in the `/usr/local` directory.

GNOME Errors Might Occur When Starting Graphical Installer

On some systems, GNOME errors might occur when you start the graphical installer. If such errors prevent the graphical installer from starting, use the command-line 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 `/.nbi` directory.

Fixing a Failed Installation or Uninstallation

On Oracle Solaris 10 platforms, the installer stores information about the Oracle Developer Studio 12.5 packages it has installed in two places:

- The `productregistry` file, the Oracle Solaris Product Registry database
- The `.nbi` directory in the system root directory (`/`)

On Linux platforms, the installer stores information on which Oracle Developer Studio 12.5 packages it has installed in two places:

- The database of installed packages
- The `.nbi` directory in the system root directory (`/`)

If some packages were not properly installed, you will have problems using the Oracle Developer 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 `/.nbi` directory might be corrupted. In such cases, the uninstaller cannot uninstall the packages and you need to remove them in the Oracle Solaris product registry. See [“Fixing a Failed Installation or Uninstallation on Oracle Solaris 10 Platforms” on page 64](#) for instructions on how to remove the Oracle Developer Studio packages.

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 `/.nbi` directory, and the installer will not run.

Fixing a Failed Uninstallation Using the Uninstaller

In some cases, the Oracle Developer Studio packages might be correctly installed and the uninstaller is present in the installation directory, but the uninstaller fails because the `/.nbi` is corrupted. In this situation, you can force the uninstaller to remove the Oracle Developer 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 `/.nbi` directory, which has the following consequences:

- When you run the installer to reinstall the Oracle Developer 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 Developer Studio release, it warns you that the `/.nbi` directory is corrupted, and gives you the option of proceeding with the installation or canceling it.

▼ Fixing a Failed Installation or Uninstallation on Oracle Solaris 10 Platforms

1. **Become superuser by typing:**

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

2. **Open the Oracle 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 Developer Studio 12.5 and click Uninstall. Follow the instructions to remove the packages.**
5. **Click Exit to exit the tool.**
6. **Remove the /.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 Developer Studio packages by typing:**

```
rpm -q -a | grep developerstudio12.5
```

3. **Remove each Oracle Developer Studio 12.5 rpm package by typing:**

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

Oracle Developer Studio 12.5 rpm packages have the suffix 12.5, for example, `developerstudio12.5-cc-12.5-1`. Be careful not to remove packages from Sun Studio releases, which have different suffixes.

4. **Remove the `/.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 File System” on page 15](#).

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 Developer Studio 12.5 software, a log file that contains a record of the installation session is automatically generated. Log files are stored in the `/.nbi/log` directory.

◆◆◆ A P P E N D I X A

Command-Line Options for the Installer, Uninstaller, and `install_patches` Utility for Oracle Solaris 10 and Linux Platforms

This appendix describes all the options for the package installer and uninstaller.

Command-Line Options for the Graphical Installer

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

<code>--current-zone-only</code>	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.
<code>--help</code>	Display information on the options.
<code>--ignore-arch</code>	Disable system architecture checking (Oracle Solaris based systems only)
<code>--javahome <i>directory</i></code>	Use the JDK in <i>directory</i> 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.
<code>--libraries-only</code>	Perform runtime libraries only installation.
<code>--locale <i>locale</i></code>	Override the default locale for the installer with the specified locale. Valid locales are en (English), ja (Japanese), and zh (Simplified Chinese).
<code>--nfs-server</code>	Use NFS server installation mode, in which the installer does not check the server for the required Oracle Solaris patches or create symbolic links in the <code>/usr/bin</code> directory.
<code>--output <i>output_file</i></code>	Write all installer output to the specified file.
<code>--record <i>state_file.xml</i></code>	Record an installer session in the graphical installer so that you can use repeat the installation on another system with the command-line installer. This option is especially

<code>--tempdir <i>directory</i></code>	useful when you want to install a subset of the product components on multiple systems. By default, the installer extracts temporary data into the <code>/tmp</code> directory. If there is not sufficient space in the <code>/tmp</code> directory on your system, you can specify another directory for the installer to use.
<code>--verbose</code>	Write verbose output to the console.

Command-Line Options for the Command-Line Installer

The following command-line options are valid when you are starting the `developerstudio.sh` command-line installer.

<code>--create-symlinks</code>	Create symbolic links in the <code>/usr/bin</code> and <code>/usr/share/man</code> directories to the Oracle Developer Studio 12.5 software and man pages.
<code>--current-zone-only</code>	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.
<code>--extract-installation-data <i>directory</i></code>	Extract installation data, do not perform installation.
<code>--generate-desktop-distr</code>	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. The zip file called <code>-desktop-distribution.zip</code> is located in the <code>lib</code> directory of your Oracle Developer Studio installation.
<code>--help</code>	Display information on the options.
<code>--ignore-arch</code>	Disable system architecture checking (Oracle Solaris based systems only)
<code>--install-components <i>component_name,component_name,...</i></code>	Install only the specified components. The valid <i>component_names</i> are: <code>c-and-cpp-compilers</code> , <code>code-analyzer-tool</code> , <code>dbx-debugger</code> , <code>dbxtool</code> , <code>dmake</code> , <code>fortran-compiler</code> , <code>oic</code> , <code>performance-and-thread-analysis-tools</code> , <code>performance-library</code> , <code>studio-ide</code> , <code>japanese-localization</code> , and <code>simplified-chinese-localization</code> .
<code>--installation-location <i>directory</i></code>	Install Oracle Developer Studio software in the specified directory instead of in the default installation directory <code>/opt</code> .
<code>--javahome <i>directory</i></code>	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.
<code>--libraries-only</code>	Perform runtime libraries only installation.

<code>--locale <i>locale</i></code>	Override the default locale for the installer with the specified locale. Valid locales are en (English), ja (Japanese), and zh (Simplified Chinese).
<code>--nfs-server</code>	Use NFS server installation mode, in which the installer does not check the server for the required Oracle Solaris patches or create symbolic links in the <code>/usr/bin</code> directory.
<code>--non-interactive</code>	Start the installer in command-line mode.
<code>--print-components-description</code>	Lists the component names you can use with the <code>-install-components</code> option
<code>--silent-logs-dir <i>directory</i></code>	Write the installer log file to the specified directory silently.
<code>--state <i>state_file</i> .xml</code>	Play back the state file recorded by the graphical installer to silently repeat an installation session. This option lets you install a subset of the product components in command-line mode.
<code>--tempdir <i>directory</i></code>	By default, the installer extracts temporary data into the <code>/tmp</code> directory. If there is not sufficient space in the <code>/tmp</code> directory on your system, you can specify another directory for the installer to use.
<code>--use-alternative-root <i>directory</i></code>	Install in the specified root directory instead of the default root directory <code>/</code> . Specify the full path of the directory to use as the alternate root. This option is valid only on systems running Oracle Solaris 10.
<code>--verbose</code>	Write verbose output to the console.

Command-Line Options for the Uninstaller

The following options are valid when starting the `uninstall.sh` uninstaller.

<code>--force-uninstall</code>	Remove the Oracle Developer Studio 12.5 packages and the installation directory without removing the <code>.nbi</code> directory.
<code>--javahome <i>directory</i></code>	Use the JDK in <i>directory</i> 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.
<code>--locale <i>locale</i></code>	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 graphical uninstaller.
<code>--non-interactive</code>	Run the uninstaller in command-line mode and uninstall installed components of the software.

<code>--output <i>output_file</i></code>	Write all uninstaller output to the specified file. This option is valid only for the graphical uninstaller.
<code>--silent-logs-dir <i>directory</i></code>	Output silent logs to the specified <i>directory</i>
<code>--tempdir <i>directory</i></code>	By default, the uninstaller extracts temporary data into the <code>/tmp</code> directory. If there is not sufficient space in the <code>/tmp</code> directory on your system, you can specify another directory for the uninstaller to use.
<code>--use-alternative-root <i>directory</i></code>	Uninstall from the specified root directory instead of the default root directory <code>/</code> . This option is valid only for the command-line uninstaller and only on systems running Oracle Solaris.
<code>--verbose</code>	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.

<code>-G</code>	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.
<code>-p</code>	Install Oracle Developer Studio product patches if available. If you specify this option and no product patches are available, the utility displays a message telling you so.
<code>-l <i>locale</i></code>	Override the default locale for the utility with the specified locale. Valid locales are <code>en</code> (English), <code>ja</code> (Japanese), and <code>zh</code> (Simplified Chinese).
<code>-R <i>directory</i></code>	Install patches in the specified root directory instead of the default root directory <code>/</code> . Specify the full path of the directory to use as the alternate root.
<code>-h</code>	Display information on the options.

◆◆◆ **B** APPENDIX

Components and Package Names in Oracle Developer Studio

This appendix lists the components and packages that comprise the Oracle Developer Studio 12.5 software for each platform.

- [Table 6, “Oracle Developer Studio 12.5 Package Names for Oracle Solaris 11,” on page 71](#) lists the software package configuration and component information for Oracle Solaris 10.
- [Table 7, “Oracle Developer Studio 12.5 Package Names for Oracle Solaris 11,” on page 72](#) lists the software package configuration and component information for Oracle Solaris 11.
- [Table 8, “Oracle Developer Studio 12.5 RPM Package Names for Oracle Linux and Red Hat Linux,” on page 73](#) lists the Oracle Developer Studio 12.5 RPM package and component information for Oracle Linux and Red Hat Linux.

TABLE 6 Oracle Developer Studio 12.5 Package Names for Oracle Solaris 11

Component	Package Name
C++ Compiler	SPRO-cc++
C++ libraries	SPRO-c++-libs
C Compiler	SPRO-cc
C and C++ Runtime libraries	SPRO-studio-gccrt
Fortran Compiler	SPRO-fortran
Fortran libraries	SPRO-f90-libs
Code Analyzer	SPRO-code-analyzer
dbx Debugger	SPRO-dbx
dbxtool Graphical Debugger	SPRO-dbxtool
Distributed Make	SPRO-dmake
IDE	SPRO-studio-ide
Performance Analyzer and Thread Analyzer	SPRO-performance-analyzer
Math Libraries	SPRO-math-libs

Component	Package Name
Performance Library	SPRO-perflib
Oracle Instant Client	SPRO-oic
	SPRO-oic-libs
Support files	SPRO-backend
	SPRO-studio-common
	SPRO-studio-bin-links
Localization packages	SPRO-studio-ja
	SPRO-studio-zhCN
Legal files	SPRO-studio-legal

TABLE 7 Oracle Developer Studio 12.5 Package Names for Oracle Solaris 11

Component	Package Name
C++ Compiler	developerstudio-125/c++
C++ libraries	developerstudio-125/library/c++-libs
C Compiler	developerstudio-125/cc
C libraries	developerstudio-125/library/c-libs
C and C++ Runtime libraries	developerstudio-125/library/studio-gccrt
Fortran Compiler	developerstudio-125/fortran
Fortran libraries	developerstudio-125/library/f90-libs
Code Analyzer	developerstudio-125/code-analyzer
dbx Debugger	developerstudio-125/dbx
dbxtool Graphical Debugger	developerstudio-125/dbxtool
Distributed Make	developerstudio-125/dmake
IDE	developerstudio-125/studio-ide
Performance Analyzer and Thread Analyzer	developerstudio-125/performance-analyzer
Math Libraries	developerstudio-125/library/math-libs
Performance Library	developerstudio-125/library/perflib
Oracle Instant Client	developerstudio-125/oic
Oracle Instant Client libraries	developerstudio-125/library/oic-libs
Support files	developerstudio-125/backend
	developerstudio-125/studio-common
Localization packages	developerstudio-125/studio-ja
	developerstudio-125/studio-zhCH
Legal files	developerstudio-125/studio-legal

TABLE 8 Oracle Developer Studio 12.5 RPM Package Names for Oracle Linux and Red Hat Linux

Component	Package Name
C++ Compiler	developerstudio-c++-12.5-1.x86_64.rpm
C Compiler	developerstudio-cc-12.5-1.x86_64.rpm
C and C++ Libraries	developerstudio-c++-libs-12.5-1.x86_64.rpm
	developerstudio-compiler-osl原因-12.5-1.x86_64.rpm
	developerstudio-studio-gccrt-12.5-1.x86_64.rpm
Fortran Compiler	developerstudio-fortran-12.5-1.x86_64.rpm
Fortran libraries	developerstudio-f90-libs-12.5-1.x86_64.rpm
Code Analyzer	developerstudio-code-analyzer-12.5-1.x86_64.rpm
dbx Debugger	developerstudio-dbx-12.5-1.x86_64.rpm
dbxtool Graphical Debugger	developerstudio-dbxtool-12.5-1.x86_64.rpm
Distributed Make	developerstudio-dmake-12.5-1.x86_64.rpm
IDE	developerstudio-studio-ide-12.5-1.x86_64.rpm
Performance Analyzer and Thread Analyzer	developerstudio-performance-analyzer-12.5-1.x86_64.rpm
Performance Library	developerstudio-perflib-12.5-1.x86_64.rpm
	developerstudio-perflib-rtlibs-12.5-1.x86_64.rpm
Oracle Instant Client	developerstudio-oic-12.5-1.x86_64.rpm
	developerstudio-oic-libs-12.5-1.x86_64.rpm
Support files	developerstudio-backend-12.5-1.x86_64.rpm
	developerstudio-studio-common-12.5-1.x86_64.rpm
Localization packages	developerstudio-ja-12.5-1.x86_64.rpm
	developerstudio-zhCN-12.5-1.x86_64.rpm
Legal files	developerstudio-studio-legal-12.5-1.x86_64.rpm

Patch Identification Numbers and Descriptions for Oracle Solaris 10 Platforms

Operating system patches for Oracle Solaris 10 are provided for the Oracle Developer Studio 12.5 software. These patches are required for the proper operation of the compilers and tools in this release. This appendix lists Oracle Solaris 10 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.sh` script that is included in the directory that contains the installer. See [“Installing the Required Oracle Solaris 10 Patches” on page 21](#) for more information.

To determine which version of a patch is installed on your system type the following command where *patch-id* is the patch number without the version number:

```
% showrev -p | grep patch-id
```

For example, the following command shows that you need to update patch 118683 because it is version 07 and version 13 is required:

```
% showrev -p | grep 118683
Patch: 118683-07 Obsoletes: Requires: Incompatibles: Packages: SUNWspot
```

[Table 9, “Required Patches for Oracle Solaris 10 on SPARC Based Systems,” on page 75](#) lists the patch identification numbers and descriptions of the required patches for Oracle Solaris 10 on SPARC based systems.

[Table 10, “Required Patches for Oracle Solaris 10 on x86 Based Systems,” on page 76](#) lists the patch identification numbers and descriptions of the required patches for Oracle Solaris 10 on x86 based systems.

TABLE 9 Required Patches for Oracle Solaris 10 on SPARC Based Systems

Patch Identification Number	Patch Description
118683-15	Patch for profiling libraries and assembler
119963-34	Shared library patch for C++
119966-02	Math Libraries (<code>libm</code> , <code>libmvec</code>) patch

Patch Identification Number	Patch Description
120753-16	Microtasking libraries (libmtsk) patch
152226-01	Fortran runtime support libraries patch
152228-01	Sun Performance Libraries (libsunperf) patch

TABLE 10 Required Patches for Oracle Solaris 10 on x86 Based Systems

Patch Identification Number	Patch Description
119961-16	Patch for profiling libraries and assembler
119964-34	Shared library patch for C++
119967-02	Math Libraries (libm, libmvec) patch
120754-16	Microtasking libraries (libmtsk) patch
152227-01	Fortran runtime support libraries patch
152229-01	Sun Performance Libraries (libsunperf) patch

Version Numbers of the Oracle Developer Studio12.5 Components

This appendix provides the version numbers of the components of the Oracle Developer Studio12.5 software.

TABLE 11 Version Numbers of the Oracle Developer Studio12.5 Components

Component	Version Number
C compiler	5.14
C++ compiler	5.14
C++ Standard Library	default (libCstd)
GCC C++ 11 Runtime Libraries and Headers	5.1.0
Code Analyzer	12.5
dbx debugger	8.1
dbxtool	12.5
dmake	8.3
Fortran 95 compiler	8.8
IDE	12.5
OpenMP Support	4.1
Performance Analyzer	12.5
STLport	4.5.3
Oracle Developer Studio Performance Library	2016
Thread Analyzer	12.5

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