

Installing Synopsys Tools

Version A-2008.03, March 2008

Comments?

Send comments on the documentation by going to <http://solvnetsynopsys.com>, then clicking "Enter a Call to the Support Center."

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Preface

This preface includes the following sections:

- [What's New in This Release](#)
- [About This Guide](#)
- [Customer Support](#)

What's New in This Release

This section describes the new features, enhancements, and changes included in the Synopsys Installer version 1.8. Unless otherwise noted, you can find additional information about these changes later in this guide. There are currently no new features, enhancements, and changes for the A-2008.03 release.

About This Guide

This document provides information and procedures required to install Synopsys tools using the Synopsys Installer.

- The installation instructions in this guide reflect the latest version of Synopsys software for each product. Not all products are the same version.
- For Synopsys tool specific installation information, see <http://www.synopsys.com/install> and refer to the product installation notes of interest.
- This document includes download and installation instructions common to Synopsys products that use the Synopsys Installer.
- This document covers obtaining swap space information and checking the data-size limit.
- The Synopsys Common Licensing information has been moved. See the *Synopsys Common Licensing installation Notes* at <http://www.synopsys.com/install> for information about downloading and installing SCL.

Note:

The CosmosScope, Magellan, Saber and Saber HDL, and Saber Optional tools do not use Synopsys Installer.

Audience

This guide is written for system administrators responsible for installing Synopsys software tools. All instructions in this guide are for UNIX systems unless otherwise indicated.

Related Publications

For additional information about Synopsys tools, see

- Documentation on the Web, which is available through SolvNet at <http://solvnet.synopsys.com/DocsOnWeb>
- The product download or CD/DVD directory

Conventions

The following conventions are used in Synopsys documentation.

Table 1

Convention	Description
Courier	Indicates command syntax.
<i>Courier italic</i>	Indicates a user-defined value in Synopsys syntax, such as <i>object_name</i> . (A user-defined value that is not Synopsys syntax, such as a user-defined value in a Verilog or VHDL statement, is indicated by regular text font italic.)
Courier bold	Indicates user input—text you type verbatim—in Synopsys syntax and examples. (User input that is not Synopsys syntax, such as a user name or password you enter in a GUI, is indicated by regular text font bold.)
[]	Denotes optional parameters, such as <i>pin1 [pin2 ... pinN]</i>
	Indicates a choice among alternatives, such as <i>low medium high</i> (This example indicates that you can enter one of three possible values for an option: low, medium, or high.)
_	Connects terms that are read as a single term by the system, such as <i>set_annotated_delay</i>
Control-c	Indicates a keyboard combination, such as holding down the Control key and pressing c.
\	Indicates a continuation of a command line.
/	Indicates levels of directory structure.
Edit > Copy	Indicates a path to a menu command, such as opening the Edit menu and choosing Copy.

Customer Support

Customer support is available through SolvNet online customer support and through contacting the Synopsys Technical Support Center.

Accessing SolvNet

SolvNet includes an electronic knowledge base of technical articles and answers to frequently asked questions about Synopsys tools. SolvNet also gives you access to a wide range of Synopsys online services including software downloads, documentation on the Web, and “Enter a Call to the Support Center.”

To access SolvNet, go to the SolvNet Web page at the following address:

<http://solvnet.synopsys.com>

If prompted, enter your user name and password. If you do not have a Synopsys user name and password, follow the instructions to register with SolvNet.

If you need help using SolvNet, click HELP in the top-right menu bar or in the footer.

Contacting the Synopsys Technical Support Center

If you have problems, questions, or suggestions, you can contact the Synopsys Technical Support Center in the following ways:

- Open a call to your local support center from the Web by going to <http://solvnet.synopsys.com> (Synopsys user name and password required), and then clicking “Enter a Call to the Support Center.”
- Send an e-mail message to your local support center.
 - E-mail support_center@synopsys.com from within North America.
 - Find other local support center e-mail addresses at http://www.synopsys.com/support/support_ctr
- Telephone your local support center.
 - Call (800) 245-8005 from within the continental United States.
 - Call (650) 584-4200 from Canada.
 - Find other local support center telephone numbers at http://www.synopsys.com/support/support_ctr

Preface

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The Synopsys Tools Installation Process

This document provides information about steps to complete before you install Synopsys tools and instructions for installing the tools.

The following sections are included:

- [Preparing for Installation](#)
- [Overview of Installation Process](#)
- [Synopsys Installer Download and Installation](#)
- [Synopsys Product File Download Methods](#)
- [Installing Product Files From CD or DVD](#)
- [Untarring and Uncompressing Installation Files](#)
- [Installing Products with the Synopsys Installer](#)

Preparing for Installation

This section provides information about steps to complete before you install Synopsys tools. The following topics are included:

- [Finding Your Site Identification Number](#)
- [Acquiring a License](#)
- [Creating the Synopsys Root Directory](#)
- [Defining the SYNOPSYS Environment Variable](#)
- [Checking Your Hardware and Software Configuration](#)
- [Configuring the Environment](#)

Finding Your Site Identification Number

The default site identification number is 000. When you are prompted to enter your site ID during the installation process, you can leave the default value of 000 and press Enter to continue the installation.

It is recommended that before you install any Synopsys products, you locate and make a note of your site ID. You will need this information to open a support call or to register for SolvNet.

Your site ID is in your Synopsys Order Notification e-mail. (If you receive physical media, your site ID was shipped in the package with your Synopsys tools.) Also, you can locate your site ID by examining the header information in your Synopsys license file. The site ID information is in the following format:

```
# SYNOPSYS INC. KEY CERTIFICATE  
# Site ID: xxx
```

If you are still unable to locate your site ID, contact your Synopsys sales representative.

Provided that you entered a valid site identification number during installation, you can check it at any time by viewing your site_info file.

```
$SYNOPSYS/admin/license/site_info
```

Acquiring a License

The Synopsys Common Licensing (SCL) system provides a single, common licensing base for all Synopsys tools. The SCL software and the documentation describing how to install and configure it are separate from the tools that use it.

Before you can use Synopsys tools, you must do the following:

- Retrieve your license key file from the SmartKeys Web page at <http://solvnet.synopsys.com/smartkeys>
- Install the SCL software.

See the *Synopsys Common Licensing Installation Notes* at <http://www.synopsys.com/install> for information about downloading and installing SCL

Note:

You can install SCL before or after you install your Synopsys tools. However, you cannot use your Synopsys tools until you have installed, configured, and started SCL.

For more information about licensing setup, see the following documents:

- Synopsys Licensing QuickStart Guide Web page (at <http://www.synopsys.com/keys>)
- *Synopsys Common Licensing Administration Guide*

The *Synopsys Common Licensing Administration Guide* is included with the product files in the product download directory and on the Synopsys Common Licensing CD.

You can also obtain a soft copy of the Synopsys Common Licensing Administration Guide in Portable Document Format (PDF) or HTML from Documentation on the Web, which is available through SolvNet at <http://solvnet.synopsys.com>

Creating the Synopsys Root Directory

To create a new root directory for this Synopsys release, enter

```
% mkdir -p /usr/synopsys/product_version
```

To set the permissions on the new directory, enter

```
% chmod 755 /usr/synopsys/product_version
```

Important:

Install each version of the software in a new directory. Do not install different versions of Synopsys software in the same directory.

Defining the SYNOPSYS Environment Variable

Set the `SYNOPSYS` environment variable (`$SYNOPSYS`) in the shell that you are using: C, Bourne, Korn, or Bash. In the following examples, the `root_directory` argument is the name of the Synopsys root directory.

If you are using the C shell, enter the following command to set the `SYNOPSYS` environment variable:

```
% setenv SYNOPSYS root_directory
```

If you are using the Bourne, Korn, or Bash shell, enter the following command to set the `SYNOPSYS` environment variable:

```
# SYNOPSYS=root_directory; export SYNOPSYS
```

Note:

The `SYNOPSYS` environment variable is not required by all tools. In some cases, another environment variable must be set; in other cases, no variable is required. For details, see the individual product chapters.

Checking Your Hardware and Software Configuration

You must check your hardware and software configuration (including patch requirements) before you attempt to install any Synopsys tools.

Platform-Independent Package (Common File)

For each product, you must download one common file (platform-independent package) and one or more platform-specific files. (See [Figure 1-1 on page 1-6.](#))

For information about downloading Synopsys software, see “Downloading Synopsys Software” at

<http://www.synopsys.com/install>

Supported Platforms and Operating Systems. [Table 1-1 on page 1-5](#) lists the supported platforms, operating systems, and corresponding Synopsys platform keywords for this release. Many platforms require operating system (OS) patches.

For detailed information, see the Supported Platforms Guide page on the Synopsys Web site. Go to

http://www.synopsys.com/products/sw_platform.html

Under Supported Platforms Guides, select the appropriate foundation for your release. This Web page provides information about supported hardware, operating systems, and required OS patches. If the required patch described on this page is not available from the platform vendor, install the most recent patch instead.

Table 1-1 Supported Platforms, Operating Systems, and Keywords

Platform	Operating system	Synopsys platform keyword	Window environment
AMD Opteron	Red Hat Enterprise Linux v4, 5 ¹	amd64 (64-bit mode) linux (32-bit mode) ²	GNOME
AMD Opteron	SUSE Enterprise Linux 9, 10 ¹	suse64 (64-bit mode) suse32 (32-bit mode)	KDE
EM64T	Red Hat Enterprise Linux v4, 5 ¹	amd64 (64-bit mode) linux (32-bit mode) ²	GNOME
EM64T	SUSE Enterprise Linux 9, 10 ¹	suse64 (64-bit mode) suse32 (32-bit mode)	KDE
IBM RS/6000	AIX 5.3	rs6000 (32-bit mode) aix64 (64-bit mode)	CDE
IA-32 (x86)	Red Hat Enterprise Linux v4, 5 ¹	linux (32-bit mode)	GNOME
IA-32 (x86)	SUSE Enterprise Linux 9, 10 ¹	suse32 (32-bit mode)	KDE
Sun SPARC	Solaris 9, 10 ¹	sparc64 (64-bit mode) sparcOS5 (32-bit mode)	CDE

1. Binary-compatible hardware platform or operating system. Note, however, that binary compatibility is not guaranteed. See <http://www.synopsys.com/products/platforms> for latest information.

2. The 32-bit (x86) and 64-bit (x86_64) Linux software is binary compatible with Intel EM64T or AMD Opteron running Red Hat Enterprise Linux. See <http://www.synopsys.com/products/platforms> for latest information.

Product Availability. Products are initially made available for download by electronic software transfer (EST), with CD or DVD media available at a later date. Only eligible sites can receive CD or DVD media.

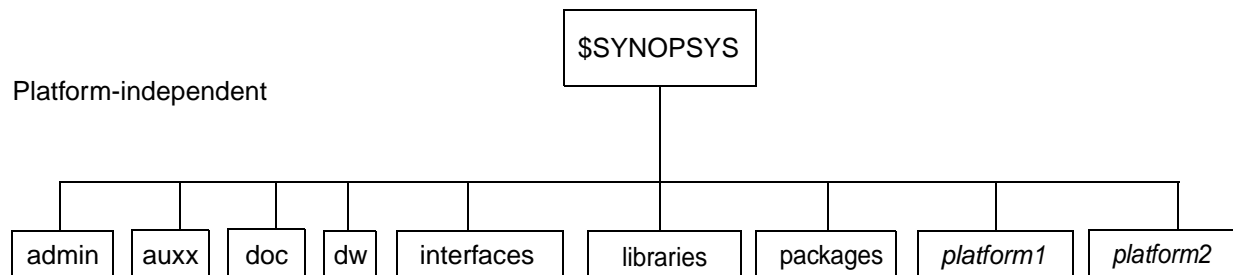
The main contact at each customer site is automatically notified by e-mail when Synopsys products are available for download. Sites eligible for CD or DVD media receive a notification when CD or DVDs are available.

64-Bit Platform Support. The Synopsys tools support 64-bit operation on Solaris, Linux, and AIX platforms. When you run the tools in 64-bit mode, the upper limit for virtual address space is extended beyond the 4-gigabyte limit imposed by the 32-bit mode, allowing you to process larger designs. With both the 32-bit and 64-bit platforms installed, you have the flexibility to run either 32-bit or 64-bit applications without running out of memory.

You can install the 64-bit version of the Synopsys tools in the same root directory as the 32-bit version or in a separate directory.

Multiple-Platform Installation. When you install tools on a network that connects different platforms, the result is the directory tree shown in [Figure 1-1](#).

Figure 1-1 Illustration of a Multiple-Platform Installation



Each Synopsys product includes a platform-independent package containing files common to all platforms (indicated by the shaded box in [Figure 1-1](#)). When you select multiple platforms, the installation script installs one platform-independent package and a platform-dependent package for each selected platform.

If you have previously installed a product on one platform and want to install it on another platform,

1. Rerun the installation script for the product.
2. In the installation script,
 - Answer **n** to the query about installing the platform-independent package.
 - Specify the new platform when queried about which platform to install.

Note:

This option is applicable only if you are performing a text script installation. It does not apply to GUI (installer -gui) installation.

Configuring the Environment

The UNIX kernel defines hard per-process limits on the maximum amount of memory that can be used, and the limit command creates soft limits. These limits can cause processes (jobs) to fail even when memory is available.

Obtaining Swap Space Information

If you receive an “out of memory” error message, make sure that you are not running out of swap space on the system. For example, say you have a large job running on a machine that has abundant swap space. You try to run Design Compiler on the machine, but the application terminates with a fatal out-of-memory message before the machine runs out of swap space.

This situation occurs because UNIX limits the amount of memory a process can consume while it is running. If a process reaches these limits before the system runs out of swap space, the job terminates with the fatal out-of-memory error message. These limits are built into the UNIX OS to prevent a single job or process from consuming all system resources (swap space, CPU time, number of processes, and so on), thereby depleting resources for other processes.

You can use the `swap -l` command for Sun SPARC systems to obtain swap space information. For example,

```
% swap -l
swapfile          dev    swaplo  blocks   free
/dev/dsk/c0t3d0s1 32,25      8  822520  628872
```

Note:

To determine available swap space on systems other than Sun SPARC, contact your system administrator.

System Limits

The following limits are applicable to Synopsys tools:

- Data size – The maximum data size (including stack) for the process. This is the most important limit. It can be set at two levels:
 - The system level – Limits are enforced for everyone who runs on that system.

- On a per-user basis – Limits are enforced only for the user running on a particular system
- CPU time – The maximum CPU seconds per process
- Core dump size –The maximum size of a core dump

Changing Personal Limits

You can change your personal limits on all machines by using the `limit` command (C shell) or `ulimit -s -d` command (Bourne, Korn, or Bash shell).

Checking the Data-Size Limit

If you have enough swap space but still encounter OS limits, use the `limit` command to find out what the `datasize` variable is set to. The `limit` command is a built-in C shell (`cs`) command. Make sure you are in `cs` before you execute `limit`.

The `limit` command displays user-level limits:

```
% limit
cputime          unlimited
filesize        unlimited
datasize        524280 kbytes
stacksize       8192 kbytes
coredumpsize    unlimited
descriptors     256
memorysize      unlimited
```

Note:

In this example, a single process is permitted to use up to 524 MB.

Increasing the Data-Size Limit

If your user-level data-size limit is too low, you can increase it by entering,

```
% limit datasize xxxxm
```

where `xxxx` is the number of megabytes and `m` stands for megabytes.

Changing an Unlimited Data Size

On some Solaris systems, setting the data size to unlimited defaults to a data size of only 2 GB. To set a larger data size, set the data size explicitly. For example, set it to 3.8 GB by using the following command:

```
% limit datasize 3891m
```

Checking the stack size

If you still encounter OS limits and the data size is sufficient, check the stack size. Do not set a stack size of "unlimited."

The default stack size is sufficient. (Depending on the OS, it is typically set to 8,192 or 10,240 KB). A stack size that is larger than the default will cause the data size to be smaller than required. Because the stack size is taken at the beginning of the process, it uses memory that would normally be available for data. Therefore you should set the stack size higher than the default only when absolutely necessary.

Overview of Installation Process

To install a Synopsys tools, follows these steps:

- Download the Synopsys Installer tar file by EST or copy them from CD (or DVD).
- Untar and uncompress the Synopsys Installer tar files and install the Synopsys Installer to my_installer_directory.
- Download the Synopsys product files by EST or copy them from CD (or DVD).
- Untar (and uncompress if needed) Synopsys product installation files to my_product_install_file directory.
- Run the Synopsys installer and select Synopsys product installation files in my_product_install_file.

The Synopsys Installer and product tar files are available by EST or from CD (or DVD depending on size). The Installer can be run in text or in GUI mode.

Synopsys Installer Download and Installation

Use the Synopsys Installer to install product installation files. You can the Installer by EST or copy it from CD. Afterwards you untar the Synopsys Installer tar file in it's own directory, you can download product installation files from EST or copy from CD (or DVD). This section covers the following sections:

- [About the Synopsys Installer Software](#)
- [Synopsys Installer Download Methods](#)

About the Synopsys Installer Software

You install most Synopsys products by using the Synopsys Installer. You must download the `installer_version.tar.Z` file (where *version* is the latest version of the Synopsys Installer) located in the `installer_version` directory at the top level of the `rev` directory. The `installer_version` file includes the scripts and files for text command or GUI installation.

When you install a new product release, always download the latest version of the installer. (The Synopsys Installer is backward compatible.)

Instead of downloading the Synopsys Installer into each product's temporary directory, you can download it and untar it in an empty stand-alone directory. If you do that, when you run the installation script, you will be prompted to provide a path to the temporary directory containing the product files. (It is recommended that you add the installer directory to the UNIX path.)

The CosmosScope, Magellan, Saber, and Saber HDL do not support the installer and continue to use their current installation methods, as documented in the individual product installation notes.

Synopsys Installer Download Methods

Obtain the Synopsys Installer by EST download or from CD. Only authorized sites are eligible to order CD (or DVD) media. You can download the Synopsys Installer software in one of the following ways:

- By File Transfer Protocol (FTP)
- By CD or DVD
- From the Web by using HTTPS
- From the Web (FTP)

For help with Synopsys Installer download problems, contact the Synopsys Electronic Software Transfer (EST) department:

E-mail support: est-adm@synopsys.com

Telephone support: 650-584-1631

Note:

The EST department does not help with installation or licensing issues. For help with such issues, contact your local Support Center.

Installing the Synopsys Installer by FTP

To download the Synopsys Installer by FTP, follow these steps:

1. Start an ftp session to ftp.synopsys.com.

```
% ftp ftp.synopsys.com
```

2. Enter your Synopsys SolvNet username.
3. Enter your Synopsys SolvNet password.
4. Type binary at the FTP prompt to set the transfer mode to binary.

```
ftp> binary
```

5. Type the following commands to download the files:

```
ftp> cd /rev  
ls installer* #Look for the latest "installer" directory  
cd installer_v<lastest_version>  
get installer_INSTALL_README.txt  
get installer_v<lastest_version>.tar.Z
```

6. To install the Synopsys Installer, untar and uncompress your files. See [“Untarring and Uncompressing Installation Files” on page 1-19](#) for more information. After untarring and uncompressing the Synopsys Installer tar file, you can download by EST (or copy from CD) the Synopsys product files. See [“Synopsys Product File Download Methods” on page 1-12](#).

Installing the Synopsys Installer by HTTPS

To download the Synopsys Installer by HTTPS using a web browser, follow these steps:

1. Enter URL in web browser to <http://www.synopsys.com/download>.
2. Click the "HTTPS Authenticated Access" button.
3. Enter your Synopsys SolvNet username.
4. Enter your Synopsys SolvNet password.
5. Click the "Sign In" button.
6. After reading all legal information, Click on "Yes I agree to the above terms."
7. Choose "Synopsys Installer" from the pull-down list of available products.
8. Choose the latest product version from the pull-down list of available versions.
9. Click the download button next to the file names of the files you want to download.

10. Follow browser prompts to select a destination directory.
11. You may download multiple files simultaneously.
12. To install the Synopsys Installer, untar and uncompress your files. See “[Untarring and Uncompressing Installation Files](#)” on page 1-19 for more information. After untarring and uncompressing the Synopsys Installer tar file, you can download by EST (or copy from CD) the Synopsys product files. See “[Synopsys Product File Download Methods](#)” on page 1-12.

Synopsys Product File Download Methods

After installing the Synopsys installer, you can download Synopsys product installation files in one of the following ways:

- By File Transfer Protocol (FTP)
- By CD or DVD
- From the Web by using HTTPS
- From the Web (FTP)

For help with download problems, contact the Synopsys Electronic Software Transfer (EST) department:

E-mail support: est-adm@synopsys.com

Telephone support: 650-584-1631

Note:

The EST department does not help with installation or licensing issues. For help with such issues, contact your local Support Center.

To access the online EST Troubleshooting Guide, go to

<http://www.synopsys.com/cgi-bin/est.cgi>

Important:

Install each version of the software in a new directory. Do not install different versions of Synopsys software in the same directory.

Using the Product Files

Depending on file size, product files are packaged by one of three processes, tar, tar.Z, or tar.gz. These instructions cover each process.

The product files use the following naming convention:

For .tar files

```
productname_productversion_common.tar  
productname_productversion_platform.tar
```

For tar.Z files

```
productname_productversion_common.tar.Z  
productname_productversion_platform.tar.Z
```

For tar.gz files

```
productname_productversion_common.tar.gz  
productname_productversion_platform.tar.gz
```

For each tool you want to install, substitute the appropriate product ID and version for *productname_productversion* and platform keyword for *platform*. (See the “Supported Operating Systems and Keywords” table in your product chapter.)

Important:

For each product except Sentaurus documentation, you must download one common file (platform-independent package) and one or more platform-specific files. (See [Figure 1-1 on page 1-6](#).)

For TetraMax, download one common file and one or more platform-specific files for TetraMax overlay over synthesis (tx) or TetraMax stand-alone (txs). If you are licensed for TetraMax IddQTest, also download TetraMax IddQTest (idq).

Downloading the Files by FTP

In addition to downloading the product files, you must download the `installer_version.tar.Z` file, which includes the files necessary for text script and GUI installation. It is recommended that you download the installer into a separate directory. This enables you to use the same installer for each Synopsys product that uses the common installation method.

If you encounter any installer problems, see SolvNet article 015678, “Troubleshooting Synopsys Installer Problems,” at <https://solvnet.synopsys.com/retrieve/015678.html>

Note:

You can download multiple product files into the same temporary directory.

To download the files by FTP,

1. Create an empty directory to download your product files into. For example,

```
% mkdir -p /usr/synopsys/installer
% mkdir /tmp/product
% cd /tmp/product
```

2. Start an FTP session to ftp.synopsys.com.

```
% ftp ftp.synopsys.com
```

3. Enter your SolvNet user name and password.

4. At the ftp prompt, enter the following commands:

```
ftp> binary
ftp> cd ./rev
ftp> cd productname_productversion
ftp> get productname_productversion_common.tar
ftp> get productname_productversion_platform.tar
```

For a list of products and supported platforms for this release, see [“Supported Platforms and Operating Systems” on page 1-4](#). For product-specific supported platforms, see the “Supported Operating Systems and Keywords” table in your product chapter.)

5. Untar and uncompress your files (see [“Untarring and Uncompressing Installation Files” on page 1-19](#)).

Note:

You can obtain the latest product-specific download instructions from the Release Library, which is accessible through SolvNet.

Downloading the Files From the Web by Using HTTPS

In addition to downloading the product files, you must download the `installer_version.tar.Z` file, which includes the files necessary for text script and GUI installation. It is recommended that you download the installer into a separate directory. This will enable you to use the same installer for each Synopsys product that uses the common installation method.

If you encounter any installer problems, see SolvNet article 015678, “Troubleshooting Synopsys Installer Problems,” at

<https://solvnet.synopsys.com/retrieve/015678.html>

Note:

You can download multiple product files into the same temporary directory.

To download files from the Web,

1. Create an empty directory to download your product files into. For example,

```
% mkdir -p /usr/synopsys/installer
% mkdir /tmp/product
% cd /tmp/product
```

2. Go to the electronic software transfer (EST) Web page at <http://www.synopsys.com/download>
3. Click the HTTPS Authenticated Access button.
4. Enter your SolvNet user name and password.
5. Read the legal page and, if you agree, click “Yes, I agree to the above terms.”
A new page appears.
6. Select the product name from the Product list.
7. Select the product version from the Version list.
8. Click Download next to the product you want to download. You can download multiple files simultaneously.

Remember to download the installer into a separate, stand-alone directory (in the previous example, the directory is /usr/synopsys/installer). Add this directory to the UNIX path.

Note:

For each product, you must download one common file (platform-independent package) and one or more platform-specific files.

9. Follow the browser prompts to select a destination location.
10. Untar and uncompress your files (see “[Untarring and Uncompressing Installation Files](#)” on page 1-19).

Note:

You can obtain the latest product-specific download instructions from the Release Library, which is accessible through SolvNet.

Downloading the Files From the Web (FTP)

In addition to downloading the product files, you must download the `installer_version.tar.Z` file, which includes the files necessary for text script and GUI installation. It is recommended that you download the installer into a separate directory. This will enable you to use the same installer for each Synopsys product that uses the common installation method.

If you encounter any installer problems, see SolvNet article 015678, “Troubleshooting Synopsys Installer Problems,” at

<https://solvnet.synopsys.com/retrieve/015678.html>

Note:

You can download multiple product files into the same temporary directory.

To download files from the Web,

1. Create an empty directory to download your product files into. For example,

```
% mkdir -p /usr/synopsys/installer
% mkdir /tmp/product
% cd /tmp/product
```

2. Go to the electronic software transfer (EST) Web page at <http://www.synopsys.com/download>.

3. Click the FTP Authenticated Access button.

4. Enter your SolvNet user name and password.

5. Read the legal page and, if you agree, click “Yes, I agree to the above terms.”

A new page appears.

6. Click the rev folder.

7. Select the products you want to install (including the Synopsys Installer) and download the files into the empty directory.

Remember to download the installer into a separate, stand-alone directory. (In the previous example, the directory is /usr/synopsys/installer.) Add this directory to the UNIX path.

Note:

For each product, you must download one common file (platform-independent package) and one or more platform-specific files.

8. Untar and uncompress your files. (See “[Untarring and Uncompressing Installation Files](#)” on page 1-19.)

Note:

You can obtain the latest product-specific download instructions from the Release Library, which is accessible through SolvNet.

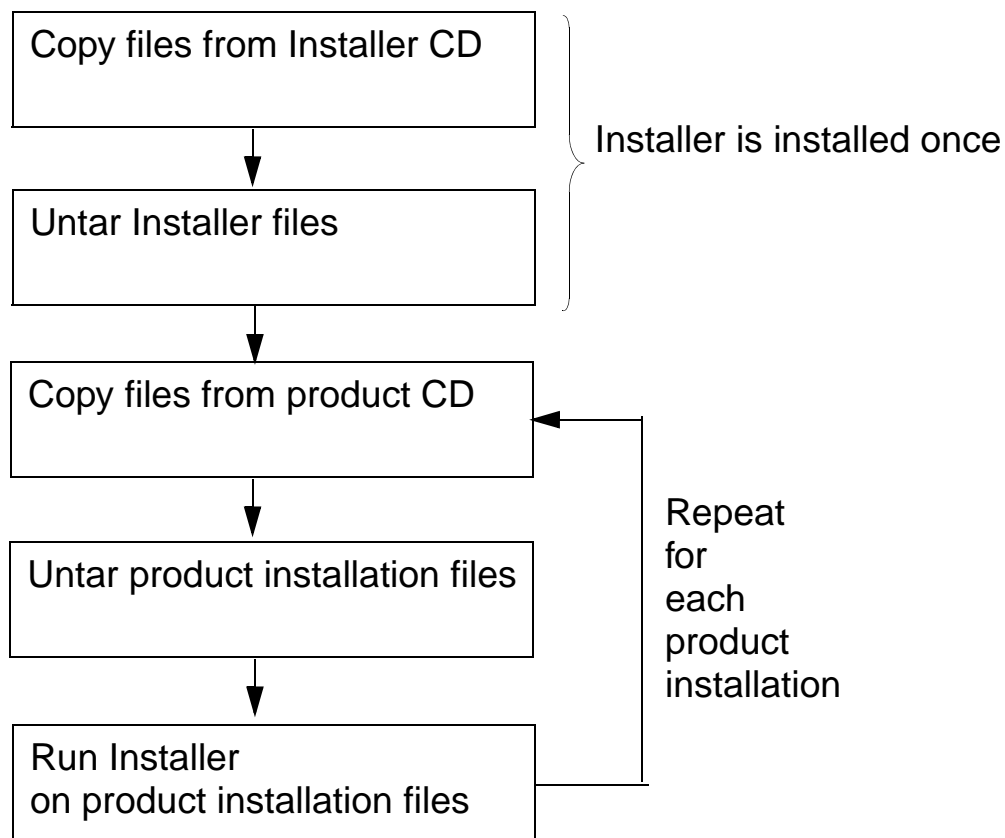
Installing Product Files From CD or DVD

You can install Synopsys products from CD or DVD. Only authorized sites are eligible to order CD or DVD media.

For brevity, the remainder of this document uses CD for CD or DVD. If your product is on a DVD, substitute DVD for CD in the instructions below and use the commands appropriate for your specific DVD-ROM configuration.

There are two steps to installing a product from CD. First, you install the Synopsys Installer. Then, you install an individual Synopsys product. An overview of the CD installation is shown in the flow diagram below.

Figure 1-2 *Installing Synopsys products by CD or DVD*



The Synopsys Installer comes on a separate CD. It is not included on a product CD. You need to install the Synopsys Installer first, and the Installer needs to be installed only once.

The instructions for installing the Synopsys Installer from CD are identical to those for installing it by EST with the exception that instead of downloading the Installer files using FTP, you copy them from the CD to your system.

Once copied, you uncompress (untar) the files in the same way that you uncompress files by EST downloaded. After uncompressing the files, you run the Synopsys installer to complete the installation for each product.

To copy and install a Synopsys product from a CD, follow these steps:

1. Create a product installation directory. For example,

```
% mkdir installation_directory
```

2. Insert the product CD into the CD-ROM drive.

3. Mount the CD if necessary. For example, enter

```
% mount -o ro /dev/dsk/c2t1d4s0 /cdrom
```

Mounting the CD might require root access privileges. If you do not have root access privileges, see your system administrator for assistance. If you have the proper privileges, complete the following steps.

Mounting instructions vary by operating system. See your system man pages for the correct CD mounting commands.

Note:

By default, some systems mount the CD-ROM drive automatically.

4. Change your directory to the CD-ROM directory. On Red Hat Linux, the CD-ROM directory is /mnt/cdrom. On Solaris (with the vold daemon running), it is /cdrom/cdrom0. For example,

```
% cd /cdrom/cdrom0
```

5. View the README.*productname* file, if provided, for the most up-to-date disk space requirements.

6. Copy the product files on the CD-ROM to a temporary directory on your system. For example,

```
% mkdir -p /tmp/my_product_dir  
% cp * /tmp/my_product_dir
```

7. Untar your product files. (See [“Untarring and Uncompressing Installation Files” on page 1-19.](#))

8. Run the Synopsys installer on the product files copied from CD. When prompted for the source directory, enter the path to the temporary directory specified in the previous step. (See “Running the Installer on Product Installation Files” on page 1-22.)

9. Unmount the CD by using the appropriate command for your operating system. For example, enter

```
% umount /cdrom
```

Note:

If you are running the Solaris vold daemon, use the `eject` command to unmount the CD.

10. Remove the CD from the drive.

Note:

Before you can run Synopsys tools, the Synopsys Common Licensing (SCL) software must be installed. In addition, a licensing variable such as `SNPSLMD_LICENSE_FILE` or `LM_LICENSE_FILE` must be set. For details about Synopsys licensing software, see the Synopsys Licensing QuickStart Guide Web page at <http://www.synopsys.com/keys>.

Untarring and Uncompressing Installation Files

After you download the files by EST or copy them from CD (or DVD),

1. Untar the .tar files, or uncompress and untar the tar.Z or tar.gz files. For example,

For tar files

```
% tar xvf productname_productversion_common.tar  
% tar xvf productname_productversion_platform.tar
```

For tar.Z files

```
% cat productname_productversion_common.tar.Z | uncompress | tar xvf -  
% cat productname_productversion_platform.tar.Z | uncompress | tar xvf -
```

or

```
% zcat productname_productversion_common.tar.Z | tar xvf -  
% zcat productname__productversion_platform.tar.Z | tar xvf -
```

For tar.gz files

```
% gzip -dc productname_productversion_common.tar.gz | tar xvf -  
% gzip -dc productname_productversion_platform.tar.gz | tar xvf -
```

If you want to perform this process in two steps, do the following:

```
% gzip -d productname_productversion_common.tar.gz
% tar xvf productname_productversion_common.tar

% gzip -d productname_productversion_platform.tar.gz
% tar xvf productname_productversion_platform.tar
```

Substitute the appropriate product ID and version for *productname_productversion* and the platform keyword for *platform*. (See the “Supported Operating Systems and Keywords” table in your product chapter.)

Note:

If you do not want to see the list of unpacked files, omit the *v* from *xvf* -.

2. Uncompress and untar the *installer_version.tar.Z* file in the separate installer directory, using whatever uncompress utility you have available. For example,

```
% cd /usr/synopsys/installer
% cat installer_version.tar.Z | uncompress | tar xvf -
```

3. Install the software.

- To install the software by EST, see [“Running the Installer in Text Mode” on page 1-23](#).
- To install the software by using a GUI, see [“Running the Installer in GUI Mode” on page 1-21](#).

Installing Products with the Synopsys Installer

This chapter provides information about installing Synopsys tools. You install most Synopsys tools by using the Synopsys Installer on product installation tar files that are available by EST downloaded or from CD (or DVDs). See [“Installing Product Files From CD or DVD”](#) for more information on CD (or DVD) installation.

Before installing Synopsys tools, make sure your umask setting is correct. In general, a umask of 022 is recommended. However, if your specific product requires stricter access rights, they will be applied automatically during installation. See the UNIX man pages for more information about umask.

To install Synopsys tools, it is recommended that you log on as root or have system administrator privileges. You need write permission for the installation directory.

You can install many Synopsys products by using a graphical user interface (GUI mode), or from the command line (text mode). This chapter includes procedures for using both methods in the following sections:

- [Running the Installer in Text Mode](#)
- [Running the Installer in GUI Mode](#)

Running the Installer in GUI Mode

To install the software by using the Synopsys Installer in GUI mode,

1. Set the `DISPLAY` environment variable. For example,

```
% setenv DISPLAY my_display:0.0
```

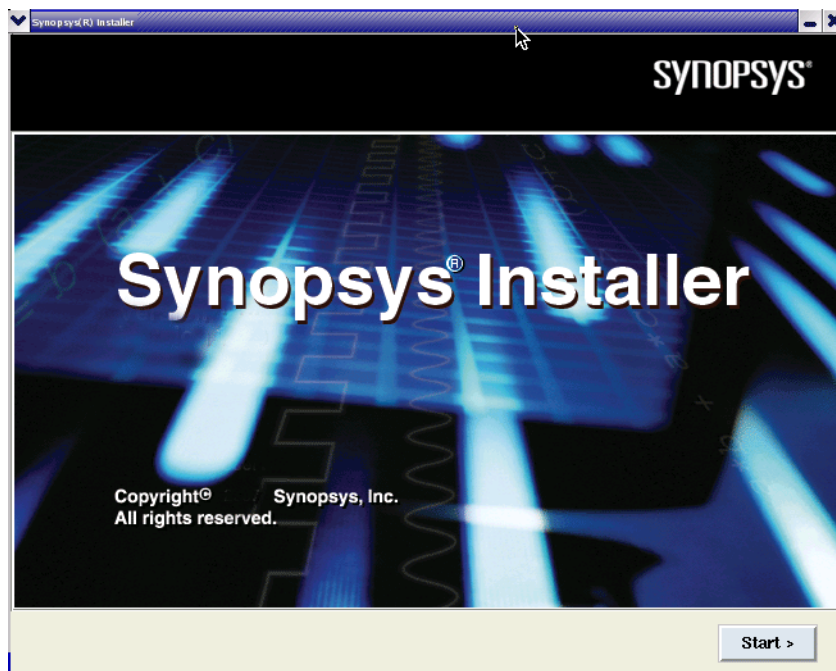
2. Add the stand-alone installer directory to the UNIX path. For example,

```
% set path=(/usr/synopsys/installer $path)
```

3. To use the GUI to install Synopsys products, start the GUI by entering

```
% installer -gui (or setup.sh)
```

This brings up the Installer GUI.



Note:

The installer -gui (or setup.sh) installation file should be in a separate stand-alone directory. When you run the installation script, you will be prompted to provide a path to the temporary directory containing the product files.

Running the Installer on Product Installation Files

The program starts automatically and the Synopsys Installer screen appears. Click Start to begin the installation and respond as necessary to each screen.

Note:

During the installation process, you can exit the installation at any time. If you click Cancel during the product-specific installation, you will be returned to the Synopsys installation setup program. To exit completely, you must click Finish.

1. Browse or enter the path to the product files. If you are running the Synopsys Installer in a location different from where the product files reside, browse for the directory containing the files or enter the path to the directory.

Click Continue to view the next screen.

2. Select the version of the release you want to install.

Click Next to continue.

3. Enter your site ID and the name and e-mail address of your license administrator.

Your site ID was shipped in the package with your Synopsys tools, or if you download the software, it is in your Synopsys Order Notification e-mail. For additional ways to locate your site ID, see [“Finding Your Site Identification Number” on page 1-2](#).

Note:

The default site identification number is 000. When you are prompted to enter your site ID during the installation process, you can leave the default value of 000 and press Enter to continue the installation.

Click Next to continue.

4. Select the products you want to install. Each stand-alone product must be installed in an empty directory.

Click Next to continue.

5. Review the product package. The platform-independent package, or common file, is selected automatically. This file is required when you are installing a new version of a product for the first time. If you do not want to install the common file, deselect the box next to the appropriate tool.

Click Next to continue.

6. Select the platform. You can select one or more platforms on which to install the products.

Click Next to continue.

7. Select the directory in which you want to install the product. You can browse for a directory or enter the full path to the destination directory in the “Install to” box.

Click Next to continue.

8. Verify the selected information, then click Install to begin the installation or click Back to change information.
9. Wait while the products are installed. Click Cancel to return to the Synopsys installation setup program.

The “Installation progress” bar lets you track progress as the program installs the products. You can also see where you are by checking the current action.

10. When the program completes the installation, click Install Another Product if you want to install additional products, or click Finish to exit the program.

Running the Installer in Text Mode

To install the software by using the Synopsys Installer in text mode,

1. Set the `DISPLAY` environment variable. For example,

```
% setenv DISPLAY my_display:0.0
```

Note:

The text installer will not run unless a valid `DISPLAY` variable is set. The text installer requires this step because some products’ post installation scripts are GUI-based.

2. Add the stand-alone installer directory to the UNIX path. For example,

```
% set path=(/usr/synopsys/installer $path)
```

3. Execute the following command:

```
% installer
```

This brings up the Installer in text mode. To install Synopsys tools, it is recommended that you log on as root or have system administrator privileges. You need write permission for the installation directory.

Note:

The installer installation file should be in a separate stand-alone directory. When you run the installation script you will be prompted to provide a path to the temporary directory containing the product files.

4. Answer the installation program prompts.

Important:

When you are prompted to choose a location for installing the software, do not select the download or temporary directory. You must specify the full path to the destination directory. Do not install different versions of Synopsys software in the same directory.

5. Repeat steps 1, 2, and 3 for each tool you want to install.

[Example 1-1](#) shows the steps detailed above in a sample Synopsys media installation script for synthesis tools on the Sun Solaris platform.

Sample Synopsys Media Installation Script

This section contains a sample installation for the synthesis tools. Other tools that use the Synopsys Installer text script are installed in a similar manner.

Example 1-1 Synopsys Media Installation Script for the Synthesis Tools

```
Synopsys (R) Installer 1.8
Version 1.8
Copyright (C) 2008 Synopsys, Inc.
All Rights Reserved
```

```
Instructions:  The list within {} shows the choices for a given option.
               The entry within [] shows the default selection when you
               press the Return key. You can cancel the installation
               by entering quit when prompted for input.
```

```
Enter the path to the top-level directory containing the <product>.taz files for
this release ...
```

```
The following releases are available under...
```

```
[1] A-2007.12 - (syn)
```

```
Select a release to install [1]
```

```
Release selected: A-2007.12
```

```
Your site ID number is in the upper-right corner of your Synopsys license key
certificate. If you have trouble locating it, contact your Synopsys
representative.
```

```
Site ID number [000]:
```

```
Your site administrator is your site's main contact for Synopsys licensing and
other tool issues. You can leave your name or enter a different name.
```

```
Site administrator [customer]:
```

```
The contact information is the phone number and/or e-mail address of the site
administrator.
```

```
Site contact information [customer@synopsys.com]:
```

Select Synopsys product(s) to install:

[1] syn - Core Synthesis Tools

Enter the list of product(s) to install [1]: 1

Product(s) selected: syn

The platform-independent package for a particular product contains support files that are common to all the platforms. The first time you install a product to a directory, you must install the platform-independent package (common file).

Install common file for product syn [yes]:

The common file will be installed for syn

Select platform(s) to install:

[1] amd64 - Linux AMD Opteron; 64-bit
[2] linux - Red Hat Enterprise Linux v4, 5
[3] sparc64 - Solaris 9, 10; 64-bit
[4] sparcOS5 - Solaris 9, 10
[5] suse64 - SUSE Linux Enterprise Server 9; 64-bit

Enter the list of platforms to install [1]: 4

Platform (S) selected: sparcOS5

Enter the full path to the directory where you want to install Synopsys A-2007.12 products. If the directory does not exist, it will be created.

[/usr/synopsys/A-2007.12]

Create a destination directory: /usr/synopsys/syn_A-2007.12

Answer Yes to create the directory or No to select another directory.

[yes]:

Here is your final selection for installing Synopsys tools:

VERSION: A-2007.12

PRODUCTS: syn

PLATFORMS: sparcOS5

Synopsys Media Directory (from) : ...

Synopsys Install Directory (to) : /usr/synopsys/syn_A-2007.12

Platform-Independent Package(s) for : syn

Disk space required ...

Disk space available ...

If all the information is correct, continue with the installation.

Install? [yes]

Install? [yes]

Wait while cksum is being verified.

Installing platform_independent code for product syn
Installing sparcOS5 code for product syn
Run postinstallation scripts

Create site_info

Synopsys tools require that a supported version of Synopsys Common Licensing (SCL) be installed and serving the necessary licenses. For information on how to obtain SCL, or your license key file, see <http://www.synopsys.com/keys>

Installation has finished successfully.

For any postinstallation setup requirements, see the product-specific chapters in the Installation Guide at <http://www.synopsys.com/install>

To receive timely Synopsys support on tool-related issues, you must install ViewConnect support software along with other Synopsys tools. If you have not yet installed ViewConnect, go to <https://solvnet.synopsys.com/viewconnect#d> to download and install the required binary files.

Thank you ...

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