

# Installing Sentaurus Lithography

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## Installing Sentaurus Lithography

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This document contains specific information to prepare for and verify the installation of Sentaurus Lithography, as well as links to installation instructions.

**Note:** The installation instructions in this document are the most up-to-date instructions available at the time of production. However, changes might have occurred. For the latest installation information, see the product release notes or documentation.

This document contains the following sections:

- [Media Availability and Supported Platforms](#)
- [Disk Space Requirements](#)
- [Installing the Software](#)
- [Setting Up the User Environment](#)
- [Verifying the Sentaurus Lithography Installation](#)
- [Accessing Sentaurus Lithography Documentation](#)

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

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## Media Availability and Supported Platforms

The Sentaurus Lithography tool is available by electronic software transfer (EST) download or as tangible media (DVD or CD, depending on the image size). Obtain the appropriate binary executable files based on the operating system (OS) you need.

[Table 1](#) lists the supported compute platforms, operating systems, corresponding Synopsys platform keywords, and window environments for this release. Many platforms require operating system patches.

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Media Availability and Supported Platforms

For detailed information, see the Supported Platforms Guide page on the Synopsys Web site. Go to [http://www.synopsys.com/products/platforms/sw\\_platform.html](http://www.synopsys.com/products/platforms/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 Supported Platforms, Operating Systems, and Keywords*

Platform	Operating system	Synopsys platform keyword	Window environment
x86_64	Red Hat Enterprise Linux v4	amd64 (64-bit mode)	GNOME
x86	Microsoft Windows Server 2003 R2 Standard Edition 64-bit		Microsoft Windows
x86	Microsoft Windows XP Professional, Service Pack 2		Microsoft Windows

**Note:** Versions or releases other than those listed may work correctly with the software, but they are not supported explicitly.

**Note:** While Windows versions of Sentaurus Lithography are supported, for the common installer, no Windows version is available.

**Note:** The Sentaurus Lithography software is configured so that multiple platforms of this version can be installed in a single installation directory (`install_dir`).

If you have any questions, contact your Synopsys sales representative.

For more information on platform support, go to Synopsys Compute Platforms Roadmap at: <http://www.synopsys.com/Support/Licensing/SupportPlatform/Pages/PlatformsRoadmap.aspx>

## Disk Space Requirements

To install Sentaurus Lithography, you need approximately 340 MB of free disk space.

For real work, you may require more space, depending on the size of your data files.

For requirements regarding virtual memory (swap space), refer to the product-specific documentation.

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## Installing the Software

Sentaurus Lithography uses the Synopsys Installer tool, which allows you to use a graphical user interface (GUI) or a text script. For information about downloading Synopsys Installer and Sentaurus Lithography, see *Installing Synopsys Tools*, available at [http://www.synopsys.com/support/installation/install\\_guide.html](http://www.synopsys.com/support/installation/install_guide.html).

To install Sentaurus Lithography by EST or from the DVD or CD, follow the procedures described in *Installing Synopsys Tools*.

*Installing Synopsys Tools* shows an example Synopsys media installation script for the synthesis tools. Sentaurus Lithography is installed in a similar manner.

Sentaurus Lithography is a stand-alone product and cannot be installed over an existing Synopsys product, including a prior version of Sentaurus Lithography. You must create a new directory for Sentaurus Lithography.

For Sentaurus Lithography, additional installation instructions can be found in `slitho_INSTALL_README.txt`.

**Note:** If you are installing both Sentaurus Lithography and Sentaurus Lithography PWA, they should be installed one after the other and *not* at the same time. If you install both packages at the same time, select two different target directories.

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## Synopsys License Daemon Required

Sentaurus Lithography uses the Synopsys common license daemon `snpslmd`. Version 10.9.3 of the Synopsys daemon is required.

Download `snpslmd v10.9.3` from the Synopsys Website and follow the instructions there:

<http://www.synopsys.com/Support/Licensing/Licensing/Pages/default.aspx>

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Contact Synopsys export personnel if there are any questions.

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## Setting Up the User Environment

A platform-independent wrapper script is provided for Sentaurus Lithography. This script automatically determines the OS platform at runtime, which simplifies the setup required to use Sentaurus Lithography.

The platform-independent wrapper script is located at `install-dir/bin` and includes `-32bit` and `-64bit` options.

**Note:** If you select a platform executable file that is not available, an automatic switch is made to an available platform based on your current environment. No warning message is issued.

To set up the user environment, you must:

- Specify the executable file location
- Set the `SNPSLMD_LICENSE_FILE` or `LM_LICENSE_FILE` variable

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## Specifying the Executable File Location

Add the Sentaurus Lithography directory containing the executable file to the `PATH` environment variable.

If you are using the C shell, add the following line to the `.cshrc` file:

```
set path=(install_dir/bin $path)
```

If you are using the Bourne, Korn, or Bash shell, add the following line to the `.profile` or `.kshrc` file:

```
PATH=install_dir/bin:$PATH
```

```
export PATH
```

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## Setting the `SNPSLMD_LICENSE_FILE` or `LM_LICENSE_FILE` Environment Variable

You must install the Synopsys Common Licensing (SCL) software, retrieve your license key file, and define the `SNPSLMD_LICENSE_FILE` or `LM_LICENSE_FILE` environment variable before you can verify the Sentaurus Lithography installation.

For information about downloading and installing SCL and on setting the license variable, see the *Synopsys Licensing QuickStart Guide*, which is available from <http://www.synopsys.com/Support/Licensing/Licensing/Pages/default.aspx>.

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## Verifying the Sentaurus Lithography Installation

To verify the Sentaurus Lithography installation,

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1. Make sure you are in a directory where you have read/write privileges.

**% cd \$HOME**

2. Invoke the tool by entering:

**% *product -V***

If you see information about the product version, production date, and copyright, the installation was successful.

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## Accessing Sentaurus Lithography Documentation

The documentation for Sentaurus Lithography is available as PDF files.

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### Viewing and Printing Sentaurus Lithography Documentation in Portable Document Format

To view and print Sentaurus Lithography documentation in PDF, you must have Adobe Acrobat Reader installed on your machine.

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### Viewing Sentaurus Lithography Online Help

The online Help system is a browser-based HTML Help system.

To view a Help system, Synopsys recommends the following minimum revisions web browsers on the Synopsys-supported platforms (later versions should also work):

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<b>Platform</b>	<b>Operating Systems</b>	<b>Supported Browsers</b>
X86_64 Linux 64-bit	Red Hat Enterprise Linux 4	Firefox 1.5, 2.0, 3.0 <sup>1</sup> Mozilla 1.7 Netscape Navigator 7.0
X86 Windows 2000	Windows 2000	Firefox 1.5, 2.0, 3.0 <sup>2</sup> Internet Explorer 6.0 Mozilla 1.7 Netscape Navigator 7.0

<b>Platform</b>	<b>Operating Systems</b>	<b>Supported Browsers</b>
X86 Windows XP Professional	Windows XP Professional v2002	Firefox 1.5, 2.0, 3.0 <sup>2</sup> Internet Explorer 6.0 Mozilla 1.7 Netscape Navigator 7.0

1. *Synopsys recommends using Firefox 3.0 builds 2008052912 or later on Linux.*
2. *Synopsys recommends using Firefox 3.0 builds 2008052906 or later on Windows.*

The following sections describe:

- [Setting a Default Browser on Windows](#)
- [Setting a Default Browser on UNIX or Linux](#)
- [Setting MIME Types to View PDFs from Help](#)

## **Setting a Default Browser on Windows**

On Windows, Help opens the browser associated with .html files (typically Internet Explorer).

To use a browser other than Internet Explorer on Windows:

1. Open the browser that you want to use.
2. Open the Add or Remove Programs applet (available from the Control Panel).
3. Choose Set Program Access and Defaults.
4. Select Custom and click the down arrow to display the custom menu.
5. Choose "Use my current Web browser" and click OK.

**Result:** The next time you click Help, the Help content will appear in your selected default browser.

## **Setting a Default Browser on UNIX or Linux**

The Help system finds HTML browsers on UNIX or Linux by searching for browsers in this order: Netscape, Mozilla, Internet Explorer. It searches for these browsers in the following locations:

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1. It first searches in the directories listed in your \$PATH environment variable for the following executables in the following order:

```
netscape6  
netscape  
mozilla  
iexplorer
```

2. If Help doesn't find these executables in your \$PATH, it searches first for `netscape6`, then `netscape`, then `mozilla`, in the following customary locations:

```
/opt/browser/  
/usr/local/bin/  
/usr/local/browser/  
/usr/bin/browser
```

3. Finally, it looks for the Internet Explorer executable in this location:

```
/usr/local/microsoft/bin/iexplorer
```

To use a browser other than those listed above on UNIX or Linux, there are two methods you can use.

Method A: Open the browser you want to use first:

1. Before you use Help, open the browser you want to use, such as Firefox.
2. Then start Help from your Synopsys application.

The Help document will open in the currently opened browser.

Method B: Link the executable you want to use to one of the executables (`netscape` or `mozilla`) used by Help by default:

- For example, assume that you want to use your Firefox browser executable instead of Mozilla, and that both executables are located in `/usr/bin`. Make a symbolic link from the `firefox` executable to `mozilla` as follows:

```
cd /usr/bin  
ln -s firefox mozilla
```

This will cause Help to start Firefox in place of Mozilla when Help is called.

**Note:** If you make this change, all users on this system will start Firefox instead of Mozilla on this server, in any context.

## **Setting MIME Types to View PDFs from Help**

Online Help includes PDF versions of the documents, for use in printing. In order for links from the Help to the PDF to work, you must set an association in your browser for MIME type "application/pdf" with an appropriate PDF viewer for your platform. See the documentation for your particular browser for specific instructions on creating MIME-type associations.

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