

# Synopsys Common Licensing Installation Notes

## Version 11.1

December 7, 2009

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These installation notes describe how to install Synopsys Common Licensing (SCL) on UNIX and Windows platforms. For additional information about using SCL 11.1, see the *Synopsys Common Licensing Administration User Guide* version 11.1, which is available in the SCL installation directory at `scl_root/doc/SCL_11.1_Administration_Guide.pdf`.

SCL 11.1 is based on FLEXnet 11.6.1.6, the standard licensing software provided by Acreso Software (formerly Macrovision, Inc.). For a list of OS platforms, and license daemon support in SCL 11.1, see [Table 2](#).

These installation notes present information about installing Synopsys Common Licensing version 11.1 in the following sections:

- [Synopsys Legacy Vendor Daemons](#)
- [Disk Space and Memory Requirements](#)
- [Downloading Synopsys Common Licensing Software](#)
- [Installing the Software](#)
- [Installing the Software on a UNIX Platform](#)
- [Installing the Software on a Windows Platform](#)
- [Setting Up the Licensing Environment](#)
- [Obtaining the Latest License File](#)
- [Customizing the License File](#)
- [Verifying the Synopsys Common Licensing Installation](#)

Note:

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

See also <http://www.synopsys.com/install> for additional installation and licensing information.

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## Synopsys Legacy Vendor Daemons

[Table 1](#) shows the legacy vendor daemons incorporated into SCL 11.1 . (Other vendor daemons are not supported. Tools based on such daemons are not compatible with SCL 11.1 .) Before starting SCL, these daemon processes must be shut down.

*Table 1 Legacy Daemons Incorporated Into SCL 11.1*

<b>Acquired Company</b>	<b>Daemons</b>
Analog Design Automation	adalmd
Avant! Corporation	anagram, avantd, chrysalisd, hscd, metasoftd, saber_dmn, tmalld
Innologic Systems, Inc.	innologd
Integrated Systems Engineering	ISE-TCADD
Legacy and other daemons	EPIC, everest, la_damon, leda, ssilmd, synopsysd, vcsd
Nassda Corporation	nassd
Numerical Technologies	numeritchd, TE_CATS, CADABRA
Placeholder for future OEM partners	snpsOEM2, snpsOEM3
SIGMA-C	sigmacd
Zenpire Corporation	snpsOEM1
Sandwork Design	sandwork
CHIPit	pdlld
Synplicity <sup>1</sup>	synplctyd

*1. This daemon was added in the 11.1 release. It is supported in version 11.1 only.*

## Media Availability and Supported Platforms

Synopsys Common Licensing is available by electronic software transfer (EST) download upon initial software release, and at a later date on DVD (or CD depending on image size).

### Supported Platforms

SCL runs on various OS platforms. For information about supported platforms, operating systems, and keywords for the SCL server, see [Table 2](#) or the *Synopsys Common Licensing Release Notes* in SolvNet.

SCL is platform-independent. This means that you can run any combination of SCL clients and servers, providing the client platform is supported by the Synopsys tools. Each client requires network access to a server through the Transmission Control Protocol (TCP).

For a list of platforms supported by SCL, see [Table 2](#), which shows a list of supported platforms.

*Table 2 Supported Platforms, Operating Systems, and License Daemons in SCL 11.1*

Platform	Keyword	Support for sandwork	Support for pdld	Support for synplctyd	All other Synopsys license daemons <sup>1</sup>
Red Hat Enterprise Linux x86 — 32-bit	linux	Yes	Yes	Yes	Yes
Red Hat Enterprise Linux x86-64 — 64-bit	amd64	Yes	Yes	Yes	Yes
SUSE Linux Enterprise Server x86 — 32-bit	suse32	Yes	Yes	Yes	Yes
SUSE Linux Enterprise Server x86-64 — 64-bit	suse64	Yes	Yes	Yes	Yes
Sun Solaris x86 — 32-bit	x86sol32	No	No	No	Yes
Sun Solaris x86-64 — 64-bit	x86sol64	Yes	No	No	Yes
Microsoft Windows XP Professional — 32-bit	windows	Yes	Yes	Yes	Yes
Sun Solaris SPARC — 32-bit	sparcOS5	Yes	Yes	Yes	Yes
Sun Solaris SPARC — 64-bit	sparc64	Yes	Yes	No	Yes

**Table 2** Supported Platforms, Operating Systems, and License Daemons in SCL 11.1

Platform	Keyword	Support for sandwork	Support for pdld	Support for synplctyd	All other Synopsys license daemons <sup>1</sup>
IBM AIX RS6000 — 32-bit	rs6000	No	No	No	Yes
IBM AIX RS6000 — 64-bit	aix64	No	No	No	Yes

1. All other Synopsys license daemons (excluding sandwork, pdld, and synplctyd): adalmd, anagram, avantd, chrysalisd, hscd, metasoftd, saber\_dmn, tmald, innologd, ISE-TCADD, EPIC, everest, la\_damon, leda, ssilmd, synopsisd, vcsd, nassd, numeritchd, TE\_CATS, CADABRA, snpsOEM1, snpsOEM2, snpsOEM3, and sigmacd.

#### Important:

- For Synplicity tools on a Linux platform, if you have a dongle, you must install the 32-bit daemon. You can run the 32-bit daemon on a 64-bit OS.
- For Synplicity tools, if you are using a Sun Solaris SPARC 64-bit platform, you must use the Sun SPARC 32-bit version of the SCL version 11.1 daemon because Synplicity Combined Vendor Daemon keys are supported only on the 32-bit version. If you prefer, you can move to the Red Hat Enterprise Linux x86-64 64-bit (amd64) platform by rehosting your license keys. In order to rehost keys, contact your Account Manager and execute a License Key Rehost Agreement.

## Disk Space and Memory Requirements

The disk space requirement depends on the platform. [Table 3](#) shows the minimum space required for installing Synopsys Common Licensing on a particular platform.

**Table 3** Disk Space Requirements (in Megabytes)

Platform	Megabytes
Full installation on all platforms	950
Single platform installation	250

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## Downloading Synopsys Common Licensing Software

To download SCL via Electronic Software Transfer (HTTPS), follow the instructions below:

1. Point your web browser to <http://www.synopsys.com/download>.
2. Click “HTTPS Authenticated Access.”
3. Enter your Synopsys SolvNet username.
4. Enter your Synopsys SolvNet password.
5. Click the “Sign In” button.
6. After reading the legal page, Click “Yes I agree to the above terms.”
7. Choose the product name “Synopsys Common Licensing” from the pull-down list of available products.”
8. Choose the latest product version (11.1) from the pull-down list of available versions.”
9. Click the download buttons next to the file names of the files you want to download.

For instructions on the alternate FTP method of downloading Synopsys Common Licensing, you can see the SolvNet Release Library at <http://solvnet.synopsys.com/ReleaseLibrary>.

### Note:

Authenticated access is required to download SCL. Before attempting to download the software, ensure that you have a SolvNet user name and password.

For UNIX, make sure to download both the platform-specific file (for example, `scl_v11.1_amd64.tar`) and the common file (for example, `scl_v11.1_common.tar`). Also download the `scl_INSTALL_README.txt` file.

For Windows, download a single `.exe` or `.zip` file.

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## Installing the Software

Synopsys Common Licensing uses the Synopsys Installer, which allows you to use a text script or a graphical user interface (GUI). For information about downloading the Synopsys Installer, see *Installing Synopsys Tools*, which is available at the following address:

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

To install Synopsys Common Licensing, follow the procedures described in the *Synopsys Installation Guide*.

Synopsys Common Licensing is a standalone product and must be installed in an empty directory, using the latest version of the Synopsys Installer. Do not install Synopsys Common Licensing over an existing Synopsys product, including prior versions of Synopsys Common Licensing. You must create a new directory for Synopsys Common Licensing.

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## Installing the Software on a UNIX Platform

Note the following requirements:

- SCL is a standalone product and cannot be installed over an existing Synopsys product, including a prior version of SCL. You must create a new directory for SCL.
- You must download a platform file, a platform-independent (common) file, and the Synopsys Installer.
- If you are installing multiple platforms, install the platform-independent package only once for each product. The platform-independent package contains files that are common to all the supported platforms.
- Before running the installer, ensure that you set the `DISPLAY` environment variable correctly. For example,  

```
% setenv DISPLAY my_display:0.0
```
- If you are upgrading to SCL 11.1, you must stop your license server and then restart it using the updated `lmgrd` and `snpslmd` versions. If you are not upgrading the SCL version but are moving to your latest license file, you must shut down and restart your license server with the new license file.

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## Installing the Software on a Windows Platform

SCL uses the InstallShield installation setup program for Windows platforms. To install SCL on Windows XP, download the single `scl_11.1_windows.exe` file.

1. Double-click `scl_11.1_windows.exe` to start the setup. The program starts automatically and the InstallShield appears. Click Next to continue.
2. View the Welcome Screen. Respond as necessary to each screen.
3. If you agree to the licensing terms, select "I accept the terms of the license agreement," and click Next to continue.

4. Enter your site information. Enter your name, your site ID, and the e-mail address of your system administrator. Your site ID information is at the top of your older license file. If you are a new customer, you can request this information from your Synopsys Account Manager.
5. Choose the destination location. By default, this folder is C:\synopsys\SCL 11.1. Click Next to install in this folder, or click Change to install in a different folder.

Note:

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

6. Verify your settings. Click Install to proceed or Back to change your settings.
7. Wait while the product is installing. During the installation process, you can exit the installation at any time by clicking Cancel.
8. Click Finish to complete the setup.
9. For uncounted, node-locked license keys, you do not need a license server. You can just replace your expired, uncounted, node-locked, license keys with the new file retrieved from Synopsys SmartKeys at

<http://solvnet.synopsys.com/SmartKeys>

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## Setting Up the Licensing Environment

Setup information is given in the following sections:

- [Obtaining the Latest License File](#)
- [Customizing the License File](#)
- [Verifying New Keys Obtained From Synopsys](#)
- [Starting Synopsys Common Licensing](#)
- [Verifying Existing Keys \(After Starting SCL\)](#)
- [Setting Up the Environment for UNIX Users](#)
- [Setting Up the Environment for Windows Users](#)

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

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

You can obtain a soft copy of the *Synopsys Common Licensing Administration Guide* in Portable Document Format (PDF) on the Synopsys Licensing QuickStart Guide web page.

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## Obtaining the Latest License File

Before starting SCL 11.1, you must first obtain the license file.

Note:

SCL 11.1 requires that on a given server, all license files for all supported Synopsys daemons be aggregated into a single license file and a single 11.1 `snpslmd` vendor daemon.

To obtain your site's latest license key file, follow the steps below:

1. Go to SmartKeys at <http://www.synopsys.com/smartkeys>, and click Key Retrieval. A Synopsys user name and password are required.
2. Ensure that the correct site ID is specified under Key Retrieval (See *Installing Synopsys Tools*).

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## Customizing the License File

To customize the license file, follow the steps below:

1. Modify the `SERVER` line so that the `hostname1` field contains the correct system host name. For example,

```
SERVER my_server 87654321 27000
```

2. Modify the `VENDOR` (or `DAEMON`) line so that it contains the full path to `snpslmd`. For example,

```
VENDOR snpslmd /usr/synopsys/scl/amd64/bin/snpslmd
```

Note:

SCL 11.1 requires only the `snpslmd` vendor daemon. Remove any `DAEMON` lines that refer to `avantd`, `tma1d`, `CADABRA`, `innologd`, `ISE_TCAD`, `numeritechd`, `TE_CATS`, `sandwork`, `synplctyd`, `pd1d` or any other Synopsys vendor daemons incorporated into (supported by) SCL 11.1. For a list of vendor daemons incorporated into SCL 11.1, see [Table 1 on page 1-2](#).

3. If not already present, add a `USE_SERVER` keyword to the key file after the `SERVER` line but before any `INCREMENT` lines.
4. Ensure that all lines wrap correctly. Comment lines must start with a pound sign (`#`) and not wrap. Every line must start with either a `#` or one of the following keywords: `SERVER`, `VENDOR`, `INCREMENT`, or `PACKAGE`. Lines can wrap only after a continuation (`\`) character.

5. After modifications, the license file should look like the following example:

```
SERVER my_server 87654321 27000
VENDOR snpslmd /usr/synopsys/scl/amd64/bin/snpslmd
USE_SERVER
INCREMENT 1...
INCREMENT 2...
```

6. Save any changes in ASCII (.txt) format only.

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## Verifying New Keys Obtained From Synopsys

Validate any new license key files received from Synopsys. Before using any new key file received from Synopsys, run the `sssverify` utility on the license file to identify any errors before starting the server. (`sssverify` is included with SCL 11.1.) For example:

```
% scl_root/amd64/bin> sssverify -v
```

```
Synopsys Corporate Licensing (SCL) Release: version SCL_11.1, Build 1; Label:
SCL_11.1; Built on Sep 22 2009 at 23:41:36
```

The SCL version must be SCL 11.1; ignore the Build #.

```
% scl_root/amd64/bin> sssverify /path/to/synopsys.lic
```

The `sssverify` utility verifies the integrity of the license file and detects any formatting errors in the file. If there are no errors in the license file, you will see a message like the one below:

```
% sssverify synopsys.lic
```

```
Integrity check report for license file "license_file".
Report generated on 31-Oct-2009 (SCL_11.1)
```

```
-----
Checking the integrity of the license file....
Valid SSS feature found.
Siteid: 1001, Server Hostid: a956a4c, Issued on: 10/1/2009
License file integrity check PASSED.
-----
```

```
You may now USE this license file to start your license server.
Please do not edit or manipulate the contents of this license file.
```

As indicated in this message, it is safe to use the license file if there are no SSS errors.

If the license file is corrupt, you will receive one of the following errors:

- If the SSS (or SSST) key is missing or corrupt, you will receive this message:

```
=====
```

```
Integrity check report for license file "test.lic".
Report generated on 06-Mar-2009 using sssverify from SCL 11.0.0
-----
```

```
Checking the integrity of the license file...
No SSS or SSST features were found in the license file.
Siteid: 1001, Server Hostid: a956a4c, Issued on: 3/1/2009
All revenue keys ("SN=RK:..." on feature line) have been excluded.
License file integrity check FAILED!
-----
```

```
This is an INVALID license file. You SHOULD NOT use this license file.
Please use the license file as received from Synopsys, Inc.
=====
```

- If you have removed any features from the license file, you will see this message:

```
Report generated on 31-Oct-2009 (SCL_11.1)
-----
```

```
Checking the integrity of the license file...
Valid SSS feature found. INVALID license file fingerprint.
Siteid: 1001, Server Hostid: a956a4c, Issued on: 10/1/2009
3 features are missing from this file.
All revenue keys ("SN=RK:..." on feature line) have been excluded.
License file integrity check FAILED!
-----
```

```
This is an INVALID license file. You SHOULD NOT use this license file.
Please use the license file as received from Synopsys, Inc.
```

- If you have added any features to the license file, you will see the message below:

```
Integrity check report for license file "license_file".
Report generated on 31-Oct-2009 (SCL_11.1)
-----
```

```
Checking the integrity of the license file...
Valid SSS feature found. INVALID license file fingerprint.
Siteid: 1001, Server Hostid: a956a4c, Issued on: 10/1/2009
You have added 3 new features to this file.
All revenue keys ("SN=RK:..." on feature line) have been excluded.
License file integrity check FAILED!
-----
```

```
This is an INVALID license file. You SHOULD NOT use this license file.
Please use the licensefile as received from Synopsys, Inc.
```

As indicated in the above error messages, if the integrity check fails, the license file should not be used to start the license server.

**Note:**

Do not run `sssverify` on a license file that has only uncounted node-locked licenses. (Uncounted node-locked licenses have a quantity of "0" or "Uncounted.")

## Starting Synopsys Common Licensing

SCL 11.1 requires that you use FLEXnet 11.6.1.x tools (lmgrd or LMTOOLS) to start the license daemon. To start SCL on UNIX and Windows systems, log on as the license server administrator and follow the steps below:

1. For the SCL 11.1 license server, stop all Synopsys daemons, including `avantd`, `snpslmd`, `tmald`, `CADABRA`, `innologd`, `ISE_TCAD`, `numeritechd`, `TE_CATS`, `sandwork`, `synplctyd`, `pdld`, and so on (see [Table 1 on page 1-2](#)). If these daemons are running, SCL 11.1 will not start. For example, enter the code shown below for the given platforms:

For UNIX:

```
% lmdown -c /path/to/synopsys.lic
```

or

```
% lmdown -c port@host
```

For Windows:

```
c: > lmdown -c \path\to\synopsys.lic
```

or

```
c: > lmdown -c port@host
```

2. Unset all Synopsys license environment variables that are set in the license administrator environment. For example, in C shell enter the following lines:

```
% unsetenv AVANTD_LICENSE_FILE
% unsetenv LM_LICENSE_FILE
% unsetenv NASSD_LICENSE_FILE
% unsetenv SNPSLMD_LICENSE_FILE
% unsetenv TMALD_LICENSE_FILE
% unsetenv SANDWORK_LICENSE_FILE
% unsetenv SYNPLCTYD_LICENSE_FILE
```

Note:

If you use a script to start SCL, modify the script to unset the variables listed above.

3. Start SCL 11.1 by using the following command:

**UNIX:**

```
% scl_root/platform/bin/lmgrd -c scl_root/admin/ \  
license/synopsys.lic -l scl_root/admin/logs/debug.log
```

Note:

A sample SCL startup script (`scl_start.sh`) is available in the `scl_root/examples` directory.

**Windows:**

Use LMTOOLS to start SCL 11.1. Choose Start > Programs > Synopsys > SCL 11.1 > Launch lmtools.exe.

**Note:**

For more information on using LMTOOLS, see the *Synopsys Common Licensing Administration Guide*, version 11.1.

4. Verify that the FLEXnet `lmgrd` utility started correctly by viewing the debug log file. This file shows that `lmgrd` and `snpslmd` started and includes a list of available features. If SCL did not start correctly, you will see an error message. (For details, see [“Specifying a Debug License Log File”](#) on page 1-12.)

**Note:**

Use the error message to debug the problem, or send the license file and debug log information to your local Synopsys support center (go to

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

and click “Enter a Call to the Support Center”).

**Specifying a Debug License Log File**

When you start the `lmgrd` daemon, you can specify a debug license log file to which diagnostic configuration information is directed. The debug license log file receives the output from the `lmgrd` daemon and the `snpslmd` daemon.

You can specify any name for the log file (for example, `license.log`). Note that you must have write access to the directory containing the debug license log file.

**Example 4 Example Debug Log File Output**

```
20:42:05 (lmgrd) FLEXnet Licensing ((v11.6.1.0 build 66138 i86_re3) started on host1
(linux) (10/16/2009)
20:42:05 (lmgrd) Copyright (c) 1988-2008 Acresto Software Inc. All Rights Reserved.
20:42:05 (lmgrd) US Patents 5,390,297 and 5,671,412.
20:42:05 (lmgrd) World Wide Web: http://www.acresto.com
20:42:05 (lmgrd) License file(s): /synopsys/scl/admin/license/synopsys.lic
20:42:05 (lmgrd) lmgrd tcp-port 27000
20:42:05 (lmgrd) Starting vendor daemons ...
20:42:05 (lmgrd) Started snpslmd (internet tcp_port 39844 pid 2795)
20:42:06 (snpslmd) FLEXnet Licensing version v11.6.1.0 build 66138 i86_re3
20:42:06 (snpslmd) Synopsys Corporate Licensing (SCL) Release: version SCL_11.1
20:42:07 (snpslmd) Server started on host1 for:SSS
20:42:07 (snpslmd) DC-Expert DC-Ultra-Features DC-Ultra-Opt
20:42:07 (snpslmd) Design-Compiler DesignWare HDL-Compiler
20:42:07 (snpslmd)
20:42:07 (snpslmd) Licenses are case sensitive for TE_CATS
20:42:07 (snpslmd)
20:42:07 (snpslmd) EXTERNAL FILTERS are OFF
20:42:07 (lmgrd) snpslmd using TCP-port 58416
20:42:07 (snpslmd) Serving features for the following vendor names:
```

```
snpslmd adalmd anagram archprod avantd CADABRA chrysalisd EPIC everest hscd innologd
ISE-TCAdd la_dmon leda metasoftd nassd numeritchd pdld saber_dmn sandwork sigmacd slat
snpsOEM1 snpsOEM2 snpsOEM3 snpsOEM4 snpsOEM5 snpsOEM6 snpsOEM7 snpsOEM8 snpsOEM9
ssilmd synopsysd synplctyd TE_CATS tmalld vcsd
```

```
-----
20:42:09 (snpslmd) Checking the integrity of the license file....
20:42:09 (snpslmd) Valid SSS feature found.
20:42:09 (snpslmd) The feature is needed to enable the other keys in your license
file.
20:42:09 (snpslmd) Licensed to exclusive use of buyer
20:42:09 (snpslmd) Siteid: 1234, Server Hostid: 83915b15, Issued on: 9/30/2009
-----
20:42:10 (snpslmd) TCP_NODELAY NOT enabled
20:42:13 (snpslmd) OUT: "Design-Compiler" user@hostname2
20:42:13 (snpslmd) OUT: "Design-Expert" user@hostname2
20:42:13 (snpslmd) OUT: "HDL-Compiler" user@hostname2
20:42:14 (snpslmd) IN: "Design-Compiler" user@hostname2
```

**Example 4** shows an example of debug log file output after the SCL 11.1 vendor daemon is started.

## Verifying Existing Keys (After Starting SCL)

Note:

This must be performed after starting a license file for the first time. It should also be performed any time a modification is made to a license file.

Check the Debug Log file

As a precaution, check your `cvd-format` license server debug log files for SSS error. For example, below is an SSS warning from a debug log file without a valid SSS key:

```
-----
6:40:07 (snpslmd) WARNING: SSS errors.
6:40:07 (snpslmd) Use the sssverify utility to check the integrity of your license
file.
6:40:07 (snpslmd) The license file should be used exactly as received from Synopsys,
Inc.
-----
```

**IMPORTANT:**

A license server log file displaying the error message shown above indicates that the file is corrupt. If the problem is not corrected, you will see license denials. An example of a denial message is shown below:

```
-----
8:35:58 (snpslmd) ERROR: SSS feature is required!
8:35:58 (snpslmd) DENIED: hspice - excluded by SSS. Server is unstable.
-----
```

For additional information, please review the information mentioned in the CVD License Verification Checklist at

[http://www.synopsys.com/support/Licensing/Licensing/Documents/Dockkeys/scl\\_cvd\\_license\\_verification.pdf](http://www.synopsys.com/support/Licensing/Licensing/Documents/Dockkeys/scl_cvd_license_verification.pdf)

## Setting Up the Environment for UNIX Users

To reduce tool start-up time, it is recommended that you set the `SNPSLMD_LICENSE_FILE` variable rather than the `LM_LICENSE_FILE` or another legacy licensing variable.

### Note:

`SNPSLMD_LICENSE_FILEsnpslmd` is supported only for tools based on the SCL daemon. Earlier versions of Synopsys tools based on legacy daemons require that you set `LM_LICENSE_FILE` or another legacy licensing variable. If your environment has both earlier and more recent tool versions, consider setting both `SNPSLMD_LICENSE_FILE` and `LM_LICENSE_FILE` to point to the SCL license servers.

To set up a new user, create a Synopsys source file or modify each user's `$HOME` setup files.

1. Set `SNPSLMD_LICENSE_FILE`, `LM_LICENSE_FILE`, or a tool-specific license variable to specify the path to the Synopsys FLEXnet license server.

In the following example, it is assumed that the Synopsys license server is using TCP port 27000, the default. (However, you can specify another port by modifying the `SERVER` line of your site's key file, for example, `SERVER my_server 8308a297 26585`.)

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

```
setenv SNPSLMD_LICENSE_FILE 27000@my_server
```

or

```
setenv LM_LICENSE_FILE 27000@my_server
```

- If you are using the Bourne, Bash, or Korn shell, add these lines to the `.profile`, `.bashrc`, or `.kshrc` file:

```
SNPSLMD_LICENSE_FILE=27000@my_server
export SNPSLMD_LICENSE_FILE
```

or

```
LM_LICENSE_FILE=27000@my_server
export LM_LICENSE_FILE
```

### Note:

Path syntax (`/path/to/synopsys.lic`) is not supported unless a `USE_SERVER` line is added to the top of the license file, before any `INCREMENT` lines.

2. Add the `lm` utilities (`lmutil`, `lmstat`, and so on) executable files to the user path. For example,

- Add the following line to the `.cshrc` file:

```
set path=(/usr/synopsys/scl/platform/bin $path)
```

- Add the following line to the `.profile`, `.kshrc`, or `.bashrc` file:

```
PATH=/usr/synopsys/scl/platform/bin:$PATH
export PATH
```

## Setting Up the Environment for Windows Users

To set up a new user for Windows platforms, you must set the `SNPSLMD_LICENSE_FILE`, `LM_LICENSE_FILE`, or a tool-specific license variable to specify the path to the Synopsys FLEXnet license server.

To set the variable, follow the steps below:

1. Choose Start > Settings > Control Panel > System > Advanced > Environment Variables.
2. In the System Variables section, click New. Add, for example,

```
Variable name: SNPSLMD_LICENSE_FILE
Variable value: 27000@my_server
```

Note:

Path syntax (`\path\to\synopsys.lic`) is not supported unless a `USE_SERVER` line is added to the top of the license file, before any feature (`INCREMENT`) lines.

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## Verifying the Synopsys Common Licensing Installation

To verify that the installation and configuration were completed successfully on UNIX and Windows platforms, follow the steps below:

1. UNIX: Change to the `/usr/synopsys/SCL_11.1/amd64/bin/snpslmd` directory and enter  
Change directories and enter the following command:

```
% cd scl_root/plat_arch/bin
% ./lmstat -a -c license_file
```

**Windows:** Change to the `C:\synopsys\SCL_11.1\windows\bin\` directory and enter

```
C:\synopsys\SCL_11.1\windows\bin\lmstat -a -c license_file
```

2. The `-a` argument displays all available features. For the `-c license_file` argument, provide the path to the license key file you are using. For example,

```
% lmstat -a -c 27000@my_server
```

3. Check the output produced by the `lmstat` utility to ensure that the license server is up and running and the license key file is installed.

In [Example 5](#), the `lmstat` output identifies the status of all active licenses served by the `pluto` server and specified in the `synopsys.lic` file.

#### *Example 5 Example lmstat Output*

```
lmstat - Copyright (c) 1989-2008 Acresso Software Inc. All Rights Reserved.
Flexible License Manager status on Fri 10/30/2009 13:45
License server status: 27000@pluto
License file(s) on pluto: /synopsys/scl/admin/license/synopsys.lic
pluto: license server UP (MASTER) v11.6
Vendor daemon status (on pluto): snpslmd: UP v11.6
Feature usage info:
Users of SSS: (Total of 1 license issued; Total of 0 licenses in use)
Users of DC-Expert: (Total of 30 license issued; Total of 0 licenses in use)
Users of DC-Ultra-Features: (Total of 10 license issued; Total of 0 licenses in use)
Users of DC-Ultra-Opt: (Total of 10 licenses issued; Total of 0 licenses in use)
Users of Design-Compiler: (Total of 30 licenses issued; Total of 0 licenses in use)
Users of DesignWare: (Total of 5 licenses issued; Total of 0 licenses in use)Users of
HDL-Compiler: (Total of 20 licenses issued; Total of 0 licenses in use)
```

The example shows that the license server called `pluto` at port 27000 is active and that the configuration is for a single server.

Look for the following conditions:

- The “License server” line identifies the server port and host name.

```
License server status: 27000@pluto
```

- The “License file” line shows the location of the license key file used by the server.

```
License file(s) on pluto: /synopsys/scl/admin/license/synopsys.lic
```

- The “license server Up” line indicates that the `pluto` server (the `lmgrd` daemon) is up and that the configuration is for a single server.

```
pluto: license server UP (MASTER) v11.6
```

For single-server configurations, `lmstat` identifies the single server as the master.

If your system uses three-server redundancy, ensure that all three servers are connected with only one of the three servers identified as the master server.

- The “Vendor daemon status” lines indicate that the `snpslmd` vendor daemon is up and running.

```
Vendor daemon status (on pluto): snpslmd: UP v11.6
```

- The remaining lines show the feature usage information.