Synopsys® Common Licensing Installation Notes Version 2018.06

June 11, 2018

These installation notes describe how to install Synopsys Common Licensing (SCL) on Linux and Windows platforms. For additional information about using SCL version 2018.06, see the *Synopsys Common Licensing Administration User Guide* version 2018.06, which is available in the SCL installation directory at scl_root/doc/SCL_2018.06_Administration_Guide.pdf.

SCL version 2018.06 is based on FlexNet 11.14.1.3, the standard licensing software provided by Flexera Software. For a list of OS platforms and license daemons supported in SCL version 2018.06, see Table 2, Table 3, Table 4, and Table 5.

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

- Synopsys Legacy Vendor Daemons

- System Requirements

- Installing the Software

- Starting Synopsys Common Licensing

- Specifying a Debug License Log File

- Verifying License Keys (After Starting SCL)

- Verifying the Synopsys Common Licensing Installation

- Obtaining and Installing the License Keys

- Setting Up the User Environment

Note:
    These product installation notes contain 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.

To obtain the latest product installation notes, go to the Synopsys Installation Guide page at http://www.synopsys.com/install. For detailed licensing setup and troubleshooting assistance, see the Synopsys Licensing QuickStart Guide page at http://www.synopsys.com/support/licensing-installation-computeplatforms/licensing.

To obtain product documentation, go to the SolvNet® support site at
https://solvnet.synopsys.com/DocsOnWeb.

Synopsys Legacy Vendor Daemons

Table 1 shows the legacy vendor daemons incorporated into SCL version 2018.06. Before starting SCL, these daemon processes must be shut down.

Table 1   Legacy Daemons Incorporated Into SCL Version 2018.06

Acquired Company	Daemons
Analog Design Automation	`adalmd`
Atrenta Inc.	`atrenta`
Avant! Corporation	`anagram`, `avantd`, `chrysalisd`, `hscd`, `metasoftd`, `saber_dmn`, `tmald`
CHIPit	`pdld`
CoWare, Inc.	`cowared`
EVE	`eved`
Extreme DA	`extremed`
Hitachi High-Tech	`SIINT`
Innologic Systems, Inc.	`innologd`
Integrated Systems Engineering	`ISE-TCADd`
Legacy and other daemons	`EPIC`, `ssilmd`, `synopsysd`, `vcsd`
Magma Design Automation	`ACAD`, `magma`, `riod`, `TAVEREN`, `knights`
Nassda Corporation	`nassd`
nSys Design Systems	`nsysnvs`
Numerical Technologies	`numeritchd`, `TE_CATS`, `CADABRA`
PerfectVIPs	`perflmd`
Placeholder for future OEM partners	`snpsOEM2`, `snpsOEM3`

Table 1   Legacy Daemons Incorporated Into SCL Version 2018.06 (Continued)

Acquired Company	Daemons
Sandwork Design	`sandwork`
SIGMA-C	`sigmacd`
Simpleware	`simple`
SpringSoft	`sclmgrd, snslmgrd`
Synfora	`synforad`
Synplicity	`synplctyd`
Target Compiler Technologies	`targetld`
VaST Systems Technology Corporation	`vastlmd`
Virage Logic	`arcd, mwflexd`
WinterLogic	`wlld`
Zenpire Corporation	`snpsOEM1`

Media Availability and Supported Platforms

The Synopsys Common Licensing tool is available by electronic software transfer (EST) download upon initial software release.

SCL runs on various OS platforms. For information about supported compute platforms, operating systems, and Synopsys platform keywords for the SCL server, see Table 2, Table 3, Table 4, and Table 5. For information about the specific OS versions supported by SCL, see the *Synopsys Common Licensing Release Notes* on the SolvNet site or visit:

http://www.synopsys.com/Support/LI/Licensing/Pages/SupportedOS.aspx

Important:

On SUSE platforms, the license server might not start properly when the root file system is configured with the reiserfs file system type. The following error message displays in the license server log file.

```
22:36:30 (snpslmd) Cannot open daemon lock file
22:36:30 (snpslmd) EXITING DUE TO SIGNAL 41 Exit reason 9
22:36:30 (lmgrd) snpslmd exited with status 41 (Exited because another
server was running)
22:36:30 (lmgrd) MULTIPLE "snpslmd" license server systems running.
22:36:30 (lmgrd) Please kill, and run lmreread
22:36:30 (lmgrd)
22:36:30 (lmgrd) This error probably results from either:
22:36:30 (lmgrd) 1. Another copy of the license server manager (lmgrd)
is running.
22:36:30 (lmgrd) 2. A prior license server manager (lmgrd) was killed
with "kill -9"
22:36:30 (lmgrd) (which would leave the vendor daemon running).
22:36:30 (lmgrd) To correct this, do a "ps -ax | grep snpslmd"
22:36:30 (lmgrd) (or equivalent "ps" command)
22:36:30 (lmgrd) and kill the "snpslmd" process.
22:36:30 (lmgrd)
```

Solution: You must reimage your machine to use other SUSE-supported root file system types, such as ext3, ext4, or Btrfs.

To find the root file system on your machine, use the `df -print-type` command:

```
/var/tmp> df -print-type
Filesystem Type 1K-blocks Used Available Use% Mounted on /dev/cciss/
c0d0p2
reiserfs 59438628 9059928 50378700 16% /
```

SCL is platform-independent. This means that you can run any combination of SCL clients and servers, provided client platforms are 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, Table 3, Table 4, and Table 5.

Table 2   Supported Platforms, Operating Systems, and License Daemons in SCL Version 2018.06 Part 1

OS and hardware platform (Synopsys platform keyword)	License daemon support					
	sandwork	**pdld**	**synplctyd**	**vastlmd**	**cowared**	**synforad**
Red Hat Enterprise Linux x86 — 64-bit (linux64)	yes	yes	yes	yes	yes	yes
SUSE Linux Enterprise Server — 64-bit (suse64)	yes	yes	yes	yes	yes	yes
Microsoft Windows x86_64 — 32-bit (win32)	yes	yes	yes	yes	yes	yes

Table 3   Supported Platforms, Operating Systems, and License Daemons in SCL Version 2018.06 Part 2

OS and hardware platform (Synopsys platform keyword)	License daemon support					
	arcd/ mwflexd	**extremed**	**nsysnvs**	**ACAD**	**magma**	**riod**
Red Hat Enterprise Linux x86 — 64-bit (linux64)	yes	yes	yes	yes	yes	yes

Table 3   Supported Platforms, Operating Systems, and License Daemons in SCL Version 2018.06 Part 2 (Continued)

OS and hardware platform (Synopsys platform keyword)	License daemon support					
	arcd/ mwflexd	extremed	nsysnvs	ACAD	magma	riod
SUSE Linux Enterprise Server — 64-bit (suse64)	yes	yes	yes	yes	yes	yes
Microsoft Windows x86_64 — 32-bit (win32)	yes	no	yes	yes	yes	yes

Table 4   Supported Platforms, Operating Systems, and License Daemons in SCL Version 2018.06 Part 3

OS and hardware platform (Synopsys platform keyword)	License daemon support				
	TAVEREN	sclmgrd	snslmgrd	eved	knights
Red Hat Enterprise Linux x86 — 64-bit (linux64)	yes	yes	yes	yes	yes
SUSE Linux Enterprise Server — 64-bit (suse64)	yes	yes	yes	yes	yes

Table 4   Supported Platforms, Operating Systems, and License Daemons in SCL Version 2018.06 Part 3 (Continued)

OS and hardware platform (Synopsys platform keyword)	License daemon support				
	TAVEREN	**sclmgrd**	**snslmgrd**	**eved**	**knights**
Microsoft Windows x86_64 — 32-bit (win32)	yes	yes	yes	yes	yes

Table 5   Supported Platforms, Operating Systems, and License Daemons in SCL Version 2018.06 Part 4

OS and hardware platform (Synopsys platform keyword)	License daemon support						
	perflmd	**targetId**	**SIINT**	**atrenta**	**simple**	**wlld**	**All other Synopsys license daemons[1]**
Red Hat Enterprise Linux x86 — 64-bit (linux64)	yes	yes	yes	yes	yes	yes	yes
SUSE Linux Enterprise Server — 64-bit (suse64)	yes	yes	yes	yes	yes	yes	yes
Microsoft Windows x86_64 — 32-bit (win32)	yes	yes	yes	yes	yes	yes	yes

1.   *All other Synopsys license daemons:* `adalmd`, `anagram`, `avantd`, `chrysalisd`, `hscd`, `metasoftd`, `saber_dmn`, `tmald`, `innologd`, `ISE-TCADd`, `EPIC`, `ssilmd`, `synopsysd`, `vcsd`, `nassd`, `numeritchd`, `TE_CATS`, `CADABRA`, `snpsOEM1`, *and* `sigmacd`.

See the Release Specific Support page at http://www.synopsys.com/qsc for the latest release-specific information about supported hardware, operating systems, and required operating system patches. If the required patch described on this page is not available from the platform vendor, install the most recent patch instead.

System Requirements

To install and run the Synopsys Common Licensing tool on Linux, your system must have:

- An x86-64 processor.

- One of the supported Linux operating systems listed in the Supported OS page at https://www.synopsys.com/scl-os and *Table 6 in SCL Release Notes*.

- A minimum of 4 GB of physical RAM is required (8 GB is recommended).

Disk Space Requirements

The disk space requirement varies depending on the platform and the tool selected for installation. To determine how much disk space is required on a particular platform, see the information provided when running the Synopsys Installer.

Downloading Synopsys Common Licensing Software

To download SCL through Electronic Software Transfer (HTTPS),

1. Go to http://www.synopsys.com/download.

2. Click HTTPS Authenticated Access.

3. Enter your Synopsys SolvNet user name and password.

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

4. Click Synopsys Common Licensing from the list of products releases.

5. Choose the latest product version (2018.06).

6. Click Download Here.

7. After you read the Electronic Software Transfer legal content, click Yes I agree to the above terms.

8. Choose Synopsys Common Licensing from the Product Listing pull-down list.

9. Choose the latest product version (2018.06) from the Version pull-down list.

10. Click the download button for each file that you want to download.

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

For Linux, make sure to download the following files:

*   the platform-specific file, scl_v2018.06_linux64.spf

*   the common file, scl_v2018.06_common.spf

*   the scl_INSTALL_README.txt file

For Windows, download a single .exe file.

After downloading the Synopsys Common Licensing software, you must install the software, retrieve your license key file, start SCL, and define the `SNPSLMD_LICENSE_FILE` or `LM_LICENSE_FILE` environment variable. These steps are described in the next sections.

Installing the Software

The Synopsys Common Licensing tool uses the Synopsys Installer, which allows you to install the product using either a text script or a graphical user interface (GUI). SCL version 2018.06 requires Synopsys Installer version 4.1 or later. For information about downloading the Synopsys Installer, see *Installing Synopsys® Tools* which is included in the Installation Guide PDF package on the Synopsys Installation Guide page at http://www.synopsys.com/install.

To install the Synopsys Common Licensing tool, follow the procedures described in *Installing Synopsys® Tools* and in these installation notes.

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

This section includes:

*   Installing the Software on a Linux Platform

*   Installing the Software on a Windows Platform

Installing the Software on a Linux 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 one time 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 version 2018.06, you must stop your license server and then restart it using the updated lmgrd and snpslmd daemons. 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.

Installing the Software on a Windows Platform

For the Windows platform, SCL is installed using the Synopsys Windows installation setup program that is integrated into a single *.exe download. To install SCL on Windows, download the scl_v2018.06_windows.exe file and follow these steps:

1. Double-click scl_v2018.06_windows.exe to start the setup. The program starts automatically and the InstallShield appears.

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".

4. Enter your site information: 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\2018.06. Click Next to install in this folder, or click Change to install in a different folder.

   Note:
   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.

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 replace your expired, uncounted, node-locked license keys with the new file retrieved from the Synopsys SmartKeys website at:

   http://www.synopsys.com/SmartKeys

Starting Synopsys Common Licensing

SCL version 2018.06 requires that you use FlexNet version 11.14.1.3 tools to start the license daemon. To start SCL on Linux and Windows systems, log on as the license server administrator and follow these steps:

1. For the SCL version 2018.06 license server, stop all Synopsys daemons, including `ACAD`, `adalmd`, `anagram`, `arcd`, `atrenta`, `avantd`, `CADABRA`, `chrysalisd`, `cowared`, `EPIC`, `eved`, `extremed`, `hscd`, `innologd`, `ISE-TCADd`, `knights`, `magma`, `metasoftd`, `mwflexd`, `nassd`, `nsysnvs`, `numeritchd`, `pdld`, `perflmd`, `riod`, `saber_dmn`, `sandwork`, `sclmgrd`, `sigmacd`, `SIINT`, `simple`, `snpsOEM1`, `snslmgrd`, `ssilmd`, `synforad`, `synopsysd`, `synplctyd`, `targetld`, `TAVAREN`, `TE_CATS`, `tmald`, `vastlmd`, `vcsd`, `wlld`, and so on (see Table 1). For example, enter the code or the given platforms as follows:

   For Linux:

   ```
   % 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. Start SCL version 2018.06 by using the following command:

   For Linux:

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

Note:

An example SCL startup script (scl_start.sh) is available in the *scl_root*/examples directory.

For Windows:

Use LMTOOLS to start SCL version 2018.06. Choose Start > All Programs > Synopsys > SCL 2018.06 > Launch lmtools.exe.

Note:

For more information about using LMTOOLS, see the *Synopsys Common Licensing Administration Guide*, version 2018.06.

3. 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, an error message displays. For details, see the Specifying a Debug License Log File section.

Note:

Use the error message to debug the problem, or send the license file and debug log information to your local Synopsys support center. Click Enter a Call to the Support Center on the SolvNet website:

http://solvnet.synopsys.com

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). You must have write access to the directory containing the debug license log file.

Example 1-1 shows an example of a debug log file output after the SCL 2018.06 vendor daemon starts.

Example 1-1   Debug Log File Output

```
 0:06:03 (lmgrd) -----------------------------------------------
 0:06:03 (lmgrd)   Please Note:
 0:06:03 (lmgrd)
 0:06:03 (lmgrd)   This log is intended for debug purposes only.
 0:06:03 (lmgrd)   In order to capture accurate license
 0:06:03 (lmgrd)   usage data into an organized repository,
 0:06:03 (lmgrd)   please enable report logging. Use Flexera Software LLC's
 0:06:03 (lmgrd)   software license administration  solution,
 0:06:03 (lmgrd)   FlexNet Manager, to  readily gain visibility
 0:06:03 (lmgrd)   into license usage data and to create
 0:06:03 (lmgrd)   insightful reports on critical information like
 0:06:03 (lmgrd)   license availability and usage. FlexNet Manager
 0:06:03 (lmgrd)   can be fully automated to run these reports on
 0:06:03 (lmgrd)   schedule and can be used to track license
 0:06:03 (lmgrd)   servers and usage across a heterogeneous
 0:06:03 (lmgrd)   network of servers including Windows NT, Linux
 0:06:03 (lmgrd)   and UNIX.
 0:06:03 (lmgrd)
 0:06:03 (lmgrd) -----------------------------------------------
 0:06:03 (lmgrd)
 0:06:03 (lmgrd)
 0:06:03 (lmgrd) Server's System Date and Time: Wed Apr 25 2018 00:06:03 PDT
 0:06:03 (lmgrd) SLOG: Summary LOG statistics is enabled.
 0:06:03 (lmgrd) FlexNet Licensing (v11.14.1.3 build 212549 x64_lsb) started on
hostname1 (linux) (4/25/2018)
 0:06:03 (lmgrd) Copyright (c) 1988-2017 Flexera Software LLC. All Rights Reserved.
 0:06:03 (lmgrd) World Wide Web:  http://www.flexerasoftware.com
 0:06:03 (lmgrd) License file(s): test.lic
 0:06:03 (lmgrd) lmgrd tcp-port 27020
 0:06:03 (lmgrd) (@lmgrd-SLOG@) ==============================================
 0:06:03 (lmgrd) (@lmgrd-SLOG@) === LMGRD ===
 0:06:03 (lmgrd) (@lmgrd-SLOG@) Start-Date: Wed Apr 25 2018 00:06:03 PDT
 0:06:03 (lmgrd) (@lmgrd-SLOG@) PID: 881
 0:06:03 (lmgrd) (@lmgrd-SLOG@) LMGRD Version: v11.14.1.3 build 212549 x64_lsb ( build
212549 (ipv6))
 0:06:03 (lmgrd) (@lmgrd-SLOG@)
 0:06:03 (lmgrd) (@lmgrd-SLOG@) === Network Info ===
 0:06:03 (lmgrd) (@lmgrd-SLOG@) Listening port: 27020
 0:06:03 (lmgrd) (@lmgrd-SLOG@)
 0:06:03 (lmgrd) (@lmgrd-SLOG@) === Startup Info ===
 0:06:03 (lmgrd) (@lmgrd-SLOG@) Server Configuration: Single Server
 0:06:03 (lmgrd) (@lmgrd-SLOG@) Command-line options used at LS startup: -c test.lic
-l ser.log -reuseaddr
 0:06:03 (lmgrd) (@lmgrd-SLOG@) License file(s) used:  test.lic
 0:06:03 (lmgrd) (@lmgrd-SLOG@) ==============================================
 0:06:03 (lmgrd) Starting vendor daemons ...
 0:06:03 (lmgrd) Started snpslmd (internet tcp_port 36277 pid 883)
 0:06:03 (snpslmd) FlexNet Licensing version v11.14.1.3 build 212549 x64_lsb
04/25/2018 00:06:03 (snpslmd) INFO: Pooling on VENDOR_STRING is Disabled (to enable,
set SCL_POOL_VS=1)
04/25/2018 00:06:03 (snpslmd) Synopsys Corporate Licensing (SCL) Release: version
SCL_2018.06
04/25/2018 00:06:03 (snpslmd) [SCL] File descriptor limit (soft, hard) for snpslmd:
1024, 1024
04/25/2018 00:06:03 (snpslmd) INFO: [SCL] TCP - tcp_keepalive_time - 7200 |
tcp_keepalive_intvl - 75 | tcp_keepalive_probes - 9 | tcp_fin_timeout - 60
 0:06:03 (snpslmd) SLOG: Summary LOG statistics is enabled.
```

```
 0:06:03 (snpslmd) SLOG: FNPLS-INTERNAL-CKPT1
 0:06:03 (snpslmd) SLOG: VM Status: 0
 0:06:03 (snpslmd) Server started on hostname1 for:DC-Expert
 0:06:03 (snpslmd) DC-Ultra-Features DC-Ultra-OptDesign-Compiler Designware
 0:06:03 (snpslmd) HDL-CompilerISE-TCAD_feat1all_feat
 0:06:03 (snpslmd) SSS
 0:06:03 (snpslmd)
 0:06:03 (snpslmd) Licenses are case sensitive for TE_CATS
 0:06:03 (snpslmd)
 0:06:03 (snpslmd) EXTERNAL FILTERS are OFF
 0:06:03 (lmgrd) snpslmd using TCP-port 36277
 0:06:03 (snpslmd) Serving features for the following vendor names:
 snpslmd  ACAD  adalmd  anagram  arcd  atrenta  avantd  CADABRA  chrysalisd  cowared
EPIC  eved  extremed  hscd  innologd  ISE-TCADd  knights  magma  metasoftd  mwflexd
nassd  nsysnvs  numeritchd  pdld  perflmd  riod  saber_dmn  sandwork  sclmgrd  sigmacd
SIINT  simple  snpsOEM1  snslmgrd  ssilmd  synforad  synopsysd  synplctyd  targetld
TAVEREN  TE_CATS  tmald  vastlmd  vcsd  wlld
04/25/2018 00:06:03 (snpslmd)
----------------------------------------------------------------
04/25/2018 00:06:03 (snpslmd) Checking the integrity of the license file...
04/25/2018 00:06:03 (snpslmd) Valid SSS feature found.
04/25/2018 00:06:03 (snpslmd) The feature is needed to enable the other keys in your
license file.
04/25/2018 00:06:03 (snpslmd) Licensed to Synopsys R & D
04/25/2018 00:06:03 (snpslmd) Siteid: xxxxx, Server Hostid: xxxxx, Issued on:
4/25/2018
04/25/2018 00:06:03 (snpslmd)
----------------------------------------------------------------
 0:06:03 (snpslmd) SLOG: Statistics Log Frequency is 240 minute(s).
 0:06:03 (snpslmd) SLOG: TS update poll interval is 0. TS update is detected by
midnight reread only.
 0:06:03 (snpslmd) SLOG: Activation borrow reclaim percentage is 0.
 0:06:03 (snpslmd) (@snpslmd-SLOG@) ============================================
 0:06:03 (snpslmd) (@snpslmd-SLOG@) === Vendor Daemon ===
 0:06:03 (snpslmd) (@snpslmd-SLOG@) Vendor daemon: snpslmd
 0:06:03 (snpslmd) (@snpslmd-SLOG@) Start-Date: Wed Apr 25 2018 00:06:03 PDT
 0:06:03 (snpslmd) (@snpslmd-SLOG@) PID: 883
 0:06:03 (snpslmd) (@snpslmd-SLOG@) VD Version: v11.14.1.3 build 212549 x64_lsb (
build 212549 (ipv6))
 0:06:03 (snpslmd) (@snpslmd-SLOG@)
 0:06:03 (snpslmd) (@snpslmd-SLOG@) === Startup/Restart Info ===
 0:06:03 (snpslmd) (@snpslmd-SLOG@) Options file used: None
 0:06:03 (snpslmd) (@snpslmd-SLOG@) Is vendor daemon a CVD: Yes
 0:06:03 (snpslmd) (@snpslmd-SLOG@) Is TS accessed: No
 0:06:03 (snpslmd) (@snpslmd-SLOG@) TS accessed for feature load: -NA-
 0:06:03 (snpslmd) (@snpslmd-SLOG@) Number of VD restarts since LS startup: 0
 0:06:03 (snpslmd) (@snpslmd-SLOG@)
 0:06:03 (snpslmd) (@snpslmd-SLOG@) === Network Info ===
 0:06:03 (snpslmd) (@snpslmd-SLOG@) Listening port: 36277
 0:06:03 (snpslmd) (@snpslmd-SLOG@) Daemon select timeout (in seconds): 1
 0:06:03 (snpslmd) (@snpslmd-SLOG@)
 0:06:03 (snpslmd) (@snpslmd-SLOG@) === Host Info ===
 0:06:03 (snpslmd) (@snpslmd-SLOG@) Host used in license file: hostname1
 0:06:03 (snpslmd) (@snpslmd-SLOG@) Running on Hypervisor: Not determined - treat as
Physical
 0:06:03 (snpslmd) (@snpslmd-SLOG@) ============================================
```

Verifying License 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 possible SSS errors. The following is an example of 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 previous error message indicates that the file is corrupt. If the problem is not corrected, you will see license denials. The following is an example of a denial message:

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

For additional information to resolve SSS errors, see the information in the Synopsys License Verification help document at

https://www.synopsys.com/content/dam/synopsys/support/documents/licensing/scl-license-verification.pdf

Verifying the Synopsys Common Licensing Installation

To verify the Synopsys Common Licensing installation and configuration are completed successfully on Linux and Windows platforms,

1. Check the debug log file for SSS or fingerprint errors as described in the Verifying License Keys (After Starting SCL) section.

2. Verify that lmstat shows the licenses are available:.

   ❍ For Linux,

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

   ❍ For Windows,

      ```
      cd C:\Synopsys\2018.06\windows\bin
      C:\Synopsys\2018.06\windows\bin>/
      lmstat -a -c license_file\lmstat -a -c license_file
      ```

3. 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 27020@my_server
   ```

4. Check the output produced by the `lmstat` utility to ensure that the license server is running and the licenses are available.

   In Example 2, the `lmstat` output identifies the status of all active licenses served by the server1 server and specified in the synopsys.lic file.

Example 2   Example lmstat Output

```
lmutil - Copyright (c) 1989-2018 Flexera Software, Inc. All Rights Reserved.
Flexible License Manager status on DDD MM/DD/YYYY hh:min
License server status: 27020@server1

License file(s) on server1: /synopsys/scl/admin/license/synopsys.lic
server1: license server UP (MASTER) v11.14
Vendor daemon status (on server1): snpslmd: UP v11.14
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)
```

Obtaining and Installing the License Keys

You must obtain and install the license keys before you start Synopsys Common Licensing, version 2018.06. This section includes:

- Obtaining the Latest License File

- Customizing the License File

- Verifying New Keys Obtained From Synopsys

Obtaining the Latest License File

Before starting SCL version 2018.06, you must first obtain the license file.

Note:
> SCL version 2018.06 requires that on a given server, all license files for all supported Synopsys daemons be aggregated into a single license file and a single 2018.06 `snpslmd` vendor daemon.

To obtain the latest license key file for your site, do the following:

1. Go to the SmartKeys site 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*).

3. (Optional) You may specify a hostid.

Customizing the License File

To customize the license file, follow these steps:

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

   ```
   SERVER my_server 001f296516d8 27020
   ```

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

   ```
   VENDOR snpslmd /usr/synopsys/scl/linux64/bin/snpslmd
   ```

   Note:
   > SCL version 2018.06 requires only the `snpslmd` vendor daemon. Remove any `VENDOR` or `DAEMON` lines that refer to `ACAD`, `adalmd`, `anagram`, `arcd`, `atrenta`, `avantd`, `CADABRA`, `chrysalisd`, `cowared`, `EPIC`, `eved`, `extremed`, `hscd`, `innologd`,

ISE-TCADd, knights, magma, metasoftd, mwflexd, nassd, nsysnvs, numeritchd, pdld, perflmd, riod, saber_dmn, sandwork, sclmgrd, sigmacd, SIINT, simple, snpsOEM1, snslmgrd, ssilmd, synforad, synopsysd, synplctyd, targetld, TAVEREN, TE_CATS, tmald, vastlmd, vcsd, and wlld or any other Synopsys vendor daemons incorporated into (supported by) SCL version 2018.06. For a list of vendor daemons incorporated into SCL version 2018.06, see Table 1.

3. USE_SERVER keyword is automatically present in the license file. You do not have to edit the file to add the line.

4. Wrap all lines correctly. Comment lines must start with a pound sign (#) and should 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. When Steps 1 through 3 are performed, the license file should look like the following example:

```
SERVER hostname 001f296516d8 27020
VENDOR snpslmd /usr/synopsys/scl/linux64/bin/snpslmd
USE_SERVER

INCREMENT 1...
INCREMENT 2...
```

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

Verifying New Keys Obtained From Synopsys

You should validate any new license key files received from Synopsys. Before using a new key file, run the sssverify utility on the license file to identify any errors before starting the server. (sssverify is included with SCL version 2018.06.) For example:

% scl_root/linux64/bin> sssverify –v

```
Synopsys Corporate Licensing (SCL) Release: version SCL_2018.06,
Build 20180530;
Label: SCL_2018.06; Build on May 30 2018 at 00:56:39
```

The SCL version must be 2018.06; ignore the Build #.

% scl_root/linux64/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, a message similar to the following appears:

```
% sssverify synopsys.lic

Report generated on 04-June-2018 (SCL_2018.06)
-----------------------------------------------------
Checking the integrity of the license file....
Valid SSS feature found.
Licensed to Synopsys Inc.
Siteid: 1001, Server Hostid: 001f296516d8, Issued on: 6/04/2018
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.
```

This message indicates that it is safe to use the license file since there are no SSS errors.

If the license file is corrupt, you might receive one of the following error messages:

- If the SSS (or SSST) key is missing or corrupt:

  ```
  Integrity check report for license file "test.lic".
  Report generated on 04-June-2018 SCL 2018.06
  ----------------------------------------------------------
  Checking the integrity of the license file...
  No SSS or SSST features were found in the license file.
  Siteid: 1001, Server Hostid: 001f296516d8, Issued on: 6/04/2018
  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 remove any features from the license file:

  ```
  Integrity check report for license file "license_file".
  Report generated on 04-June-2018 (SCL_2018.06)
  Checking the integrity of the license file...
  Valid SSS feature found. INVALID license file fingerprint.
  Siteid: 1001, Server Hostid: 001f296516d8, Issued on: 6/04/2018
  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 add any features to the license file:

```
Integrity check report for license file "license_file".
Report generated on 04-June-2018 (SCL_2018.06)
---------------------------------------------------------
Checking the integrity of the license file...
Valid SSS feature found. INVALID license file fingerprint.
Siteid: 1001, Server Hostid: 001f296516d8, Issued on: 6/04/2018
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 license file as received from Synopsys, Inc.
```

The previous error messages indicate that if the integrity check fails, the license file should not be used to start the license server.

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.")

Setting Up the User Environment

To set up the user environment, you must specify the location of the executable file and set the license file environment variable.

Setup information is given in the following sections:

- Setting Up the Environment for Linux 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.

Setting Up the Environment for Linux 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. Previous 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 previous 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 the `$HOME` setup files for each user.

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, assume that the Synopsys license server is using TCP port 27020, the default. (You can specify another port by modifying the `SERVER` line for the key file of your site; 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 *27020@my_server*

   or

   setenv LM_LICENSE_FILE *27020@my_server*

   ○ If you are using the Bash shell, add these lines to the .bashrc file:

   SNPSLMD_LICENSE_FILE=*27020@my_server*
   export SNPSLMD_LICENSE_FILE

   or

   LM_LICENSE_FILE=*27020@my_server*
   export LM_LICENSE_FILE

   Note:
   > Path syntax (/path/to/synopsys.lic) is not supported unless a `USE_SERVER` line is present at 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 .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: 27020@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.