

ImSym - Imaging System Simulator Installation Guide

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SYNOPSYS®

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FOSS Notices

Free and Open Source Software (FOSS) notices are located in the ImSym installation folder under \doc\foss (e.g., C:\Program Files\Synopsys\ImSym 2024.09\doc\foss).

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Chapter 1 Getting Started

This chapter lists system requirements for installing the ImSym - Imaging System Simulator and tells you how to contact ImSym Support.

In this section:

- [System Requirements](#) on page 5
- [License Requirements](#) on page 5
- [Contacting ImSym Support](#) on page 7

System Requirements

To install ImSym, you must have:

- A personal computer with an x64 Intel or AMD processor running the Windows 10 or Windows 11 operating system.

ImSym can take advantage of multiple core processors for many operations. To get maximum performance from multi-threaded simulations, we recommend 4 to 16 CPU cores.
- Random Access Memory (RAM): 8 GB minimum, 16 GB recommended (or more for large models or large simulations)
- Free disk space as listed to install ImSym: components
 - 1210 MB ImSymonly
 - 1353 MB total including Synopsys Common Licensing and Microsoft Visual C++ redistributables
- Free disk space on the *system* drive (i.e., the drive on which the operating system is installed) for prerequisite software and for processes and temporary files required when running the product: 10 GB. If ImSym is installed on a drive other than the system drive, that drive should also have at least 10 GB free disk space. Large models and complex analyses may require significantly more disk space.
- Display:
 - The recommended screen resolution for ImSym is 1920 x 1080 with 100% scaling.
 - An OpenGL compliant graphics card with stable ICD driver support recommended. We recommend that you always use the latest version of the driver for your graphics card.

License Requirements

To use the ImSym - Imaging System Simulator, you must use the Synopsys Common Licensing method with the following modules and licenses.

- To start and operate the ImSym - Imaging System Simulator, you need a license for ImSym. This license enables you to create a project, generate a principal image if you have CODE V, and visualize additive and scene stray light, detector effects, and ISP effects.

- To set up a lens and generate the principal image, you need a license for CODE V 2024.03 SR1 (feature codes CODE_V and CODE_V_Session) in addition to ImSym.
- To set up stray light models, you need LightTools 2024.09 (feature codes LTCore, LTCore_SESSION, LTLUM, and LTOPT). The license codes for the generation and simulation features of the Stray Light Scanner (feature codes IMSYM_SLA_G and IMSYM_SLA_S) are provided with the ImSym license.
- The ImSym license also provides license codes for the LightTools Image Analysis feature (feature code LTSS) to find stray light sources in LightTools.

With Synopsys Common Licensing, you can run ImSym using either a *nodelocked* license or *network* license.

- A nodelocked license allows you to run ImSym only on the computer on which it is installed.
- A network license, which is installed on a network server, allows you to run ImSym on any computer on the same network.

The number of users that can use ImSym concurrently is limited by the licensing software.

Note: The ImSym installer includes and automates the Synopsys Common Licensing server installation. If you already use Synopsys Common Licensing in your organization, contact ImSym Support before installation.

The ImSym installer installs both ImSym and the required Synopsys Common Licensing components. The installation process differs depending on the intended use of your system:

- When you install ImSym with a Nodelocked license, the license is installed on the system, rather than having it managed by a Synopsys Common Licensing server. A nodelocked license allows you to run ImSym only on the system on which it is installed.
- When you install ImSym with a Network (Client Installation) license, the license is managed by a Synopsys Common Licensing server.

If you will be running ImSym with a network license, you must also have:

- TCP/IP network protocol
- The port and server name of the system running the Synopsys Common Licensing server.
- The client systems and the server system must be on the same network.
- When you install ImSym with a Network (Server Installation), you are installing the Synopsys Common Licensing server. The Synopsys Common Licensing license administrator uses this system to manage licensing for the site. A site may have more than one license server. The system must:
 - be on the same network as the network clients running ImSym.
 - use the TCP/IP network protocol.

While the ImSym application is installed on this system, it does not use a network license unless you run ImSym on that system.

If you will be running ImSym with a nodelocked license or the network (Server) license, you may need a USB dongle acquired by you or your site's license administrator from your local Synopsys Sales Representative. Your ImSym or IT Administrator should inform you if one is required. If you are the ImSym or IT Administrator, contact your ImSym representative. If you do require a dongle, you need the dongle and a USB2.0 (or higher) port (using a USB Type A socket).

If you are the ImSym license administrator or IT administrator who will install the Synopsys Common Licensing server, see also [Selecting a Synopsys Common Licensing License Server](#) on page 13.

Contacting ImSym Support

Need expert help using our software?

- Open a support ticket in [SolvNetPlus](#). [Learn more](#) about how to access and use SolvNetPlus.
- Email imsym_support@synopsys.com .
- The [SolvNetPlus Knowledge Base](#) features a collection of searchable technical articles, example files, macros, release notes, FAQs, and more, available at any time. First log into [SolvNetPlus](#), then go to the [Collection of Optical and Photonic Solutions Knowledge Article](#).
- Visit our main [Support](#) page for an overview of how to access product learning, self-help, and other resources.
- Visit our [Licensing and Installation Help](#) page.
- View our list of [global support contacts](#).

Chapter 2 Installing ImSym with Synopsys Common Licensing

ImSym can support Host IDs compatible with Synopsys Common Licensing.

The instructions in this section are intended for ImSym customers installing the application on their systems. If you are the ImSym or IT Administrator and need to install the Synopsys Common Licensing server, go to [Installing and Managing the Synopsys Common Licensing Server](#) on page 13.

Note: The ImSym installer includes and automates the Synopsys Common Licensing installation and configuration.

If you are already using Synopsys Common Licensing for other applications, contact ImSym Support before continuing.

In this section:

- [Installing ImSym with a Nodelocked License](#) on page 9
- [Installing ImSym Network \(Client Installation\)](#) on page 10

Installing ImSym with a Nodelocked License

When you install ImSym with an Synopsys Common Licensing nodelocked license you can configure your licensing information as you run through the installation.

These instructions assume that you have already downloaded ImSym from the Synopsys SolvNetPlus website or that you ordered and received a ImSym DVD.

These instructions also assume you have a license key for this product.

If you do not have either the installer or the license key, see [Using SolvNetPlus to Obtain Software and Licenses](#) on page 19.

Installing ImSym with a Nodelocked License

Follow these instructions to install ImSym on your system using the Synopsys Common Licensing method with a nodelocked license.

You should know the location of your license key file.

If you do not have a license key file yet because you need a Host ID, you can run the installer without providing valid values to install all the Synopsys Common Licensing utilities. Then you can follow the instructions in [Obtaining the Host ID for a Dongle for a Synopsys Common Licensing Installation](#) on page 16 to get your Host ID so you can retrieve your license key file as explained in [Retrieving License Keys](#) on page 23.

You may need a USB dongle acquired by you or your site's license administrator from your local ImSym Sales Representative. Your ImSym or IT Administrator should inform you if one is required. If you are the ImSym or IT Administrator, contact your ImSym representative. If you do require a dongle, it should be plugged into your machine.

1. Log on to your computer as Administrator.
2. Navigate to the folder where the ImSym setup file is located. If you have a DVD, insert it into the DVD drive and navigate to that drive.
3. Double-click the setup file `ImSymversionFCS.exe`
where *version* is the version number for the release (e.g., `ImSym202409FCS.exe`).
The Setup window is displayed at the Welcome screen.
4. Click **Next** to continue.
The License Agreement screen is displayed.
5. Click **I Agree** to continue.
The Choose Install Location screen is displayed.
6. Specify a location.
The default location is `C:\Program Files\Synopsys\ImSym version`. If you want to install the program in a different folder, click the **Browse** button to locate and specify that folder.
7. Click **Install**.
The ImSym installer starts the Synopsys Common Licensing installation process.
The License Type Setup screen is displayed.
8. Select **Nodelocked** and click **Next**.
The License Key File Setup screen is displayed.
9. Click **Browse** and navigate to the location of your License Key File. Select your file and click **Open**.
Then click **Next** after confirming your license key file is selected.
The SCL Installer Setup screen is displayed.
The ImSym installer installs all the required Synopsys Common Licensing components.
If you receive a warning that some applications are running, select **Do not close the applications**.
10. Click **Next**.
The Setup window shows the progress of the installation.
When the process is complete, Installation Complete is displayed in the Setup window.
11. Click **Close**.

Note: ImSym will not be able to run if it is blocked by Data Loss Prevention software or anti-malware software installed on your computer. Contact your system administrator to ensure that such software has a policy that adds ImSym software to your allowed software list.

If you were unable to configure your Synopsys Common Licensing license key during installation, you can configure it later. See [Modifying License Options](#) on page 16.

Installing ImSym Network (Client Installation)

Using this type of license, the licenses are installed and managed by an Synopsys Common Licensing server.

You need the Synopsys Common Licensing server host name and the port used by your organization. This should be provided by your ImSym or IT administrator.

These instructions assume that you have already downloaded ImSym from the Synopsys SolvNetPlus website or that you ordered and received a ImSym DVD.

If you do not have the installer, see [Using SolvNetPlus to Obtain Software and Licenses](#) on page 19.

If you are the ImSym or IT administrator, you need to install the Synopsys Common Licensing server first. See [Installing ImSym with a Network \(Server Installation\)](#) on page 13.

1. Log on to your computer as Administrator.
2. Navigate to the folder where the ImSym setup file is located. If you have a DVD, insert it into the DVD drive and navigate to that drive.
3. Double-click the setup file `ImSymversionFCS.exe`
where *version* is the version number for the release (e.g., `ImSym202409FCS.exe`).

The Setup window is displayed at the Welcome screen.

4. Click **Next** to continue.
The License Agreement screen is displayed.
5. Click **I Agree** to continue.
The Choose Install Location screen is displayed.
6. Specify a location.

The default location is `C:\Program Files\Synopsys\ImSym version`. If you want to install the program in a different folder, click the **Browse** button to locate and specify that folder.

7. Click **Install**.
The ImSym installer starts the Synopsys Common Licensing installation process.
The License Type Setup screen is displayed.

8. Select **Network (Client Installation)** and click **Next**.

The Network Client Setup screen is displayed.

9. Enter the information for the Synopsys Common Licensing server.

This information should be provided by your ImSym or IT Administrator.

Enter the name of the port and the computer on which the Synopsys Common Licensing Network (Server Installation) software is installed using the format *port@server name* as shown in the following example:

`27020@mySCLServer.`

Some organizations may have multiple Synopsys Common Licensing servers. In this case, enter the server names separated by semi-colons (;), as shown in the following example:

`27020@mySCLServer1;27020@mySCLServer2.`

Synopsys Common Licensing checks the servers in the order they are listed here.

10. Click **Next**.
The SCL Installer Setup screen is displayed.

If you receive a warning that some applications are running, select **Do not close the applications** and click **Next**.

The Setup window shows the progress of the installation.

When the process is complete, Installation Complete is displayed in the Setup window.

11. Click Close.

The installation is complete.

Note: ImSym software will not be able to run if it is blocked by Data Loss Prevention software or anti-malware software installed on your computer. Contact your system administrator to ensure that such software has a policy that adds ImSym software to your allowed software list.

Chapter 3 Installing and Managing the Synopsys Common Licensing Server

If you are using Synopsys Common Licensing network licensing, you need to install the Synopsys Common Licensing server.

The Network (Client Installation) capability is supported by the Synopsys Common Licensing server.

If you are already using Synopsys Common Licensing in your organization, contact ImSym Support before continuing.

Synopsys Optical Solutions software products cannot share licenses with each other; they share only the license server software. A single license server can be used to serve all Synopsys Optical Solutions products that support Synopsys Common Licensing. If you would like to consolidate your license serving needs, contact your local Synopsys Sales Representative for guidance on procuring licenses.

Installing Synopsys Common Licensing server should be done by your ImSym or IT administrator. It requires system-administration-level training and should be performed by someone who is familiar with your network structure. To perform this installation, you must be logged on as administrator.

In this section:

- [Installing ImSym with a Network \(Server Installation\)](#) on page 13
- [Working with Synopsys Common Licensing](#) on page 15

Installing ImSym with a Network (Server Installation)

This procedure should be followed by the ImSym or IT administrator who manages all the Optical Solutions licenses for an organization.

The Optical Solutions installer streamlines the ImSym installation and the Synopsys Common Licensing installation. When you select the **Network (Server Installation)**, the ImSym installer installs the Synopsys Common Licensing server. It also installs the ImSym product.

As long as you do not run the ImSym product on the Synopsys Common Licensing server machine, you do not use a license.

In this section:

- [Selecting a Synopsys Common Licensing License Server](#) on page 13
- [Installing ImSym Network \(Server\)](#) on page 14

Selecting a Synopsys Common Licensing License Server

Before installing any software, you must identify the computer that will act as the license server. This must be a computer connected to a network through which it can communicate with one or more client computers.

Note: By default, Synopsys Common Licensing communicates via port 27020 and 27021. If you will be running ImSym across different subnets, you will have to configure your routers or firewalls to allow two-way communication across your designated ports.

When specifying the server name for a network client, specify the port and the server name or IP address. By default, the server uses port 27020, therefore enter, for example, `27020@MyServer` or `27020@123.456.78.90`.

The ImSym installer supports installing Synopsys Common Licensing on the following Windows operating systems: Windows OS 10, Windows Server 2016, Windows Server 2019.

Installing ImSym Network (Server)

Follow these instructions to install ImSym and the Synopsys Common Licensing server.

These instructions assume that you have already downloaded ImSym from the Synopsys SolvNetPlus website or that you ordered and received an ImSym DVD.

These instructions also assume you have a license key for this product.

If you do not have either the installer or the license key, see [Using SolvNetPlus to Obtain Software and Licenses](#) on page 19.

Your installation may also require a dongle. Contact your ImSym representative to confirm. If you do require a dongle, it should be plugged in to your machine.

1. Log on to your computer as Administrator.
2. Navigate to the folder where the ImSym setup file is located. If you have a DVD, insert it into the DVD drive and navigate to that drive.
3. Double-click the setup file `ImSymversionFCS.exe`
where *version* is the version number for the release (e.g., `ImSym202409FCS.exe`).
The Setup window is displayed at the Welcome screen.
4. Click **Next**.
The License Agreement screen is displayed.
5. Click **I Agree** to continue.
The Choose Install Location screen is displayed.
6. Specify a location.
The default location is `C:\Program Files\Synopsys\ImSym version`. If you want to install the program in a different folder, click the **Browse** button to locate and specify that folder.
7. Click **Install**.
The ImSym installer starts the Synopsys Common Licensing installation process.
The License Type Setup screen is displayed.
8. Select **Network (Server Installation)** and click **Next**.
The License Key File Setup screen is displayed.
9. Click **Browse** and navigate to the location of your License Key File. Select your file and click **Open**.
Then click **Next** after confirming your license key file is selected.

The SCL Installer Setup screen is displayed.

If you receive a warning that some applications are running, select **Do not close the applications** and then click **Next**.

The Setup window shows the progress of the installation.

When the process is complete, Installation Complete is displayed in the Setup window.

10. Click **Close**.

The installation is complete.

Note: ImSym software will not be able to run if it is blocked by Data Loss Prevention software or anti-malware software installed on your computer. Contact your system administrator to ensure that such software has a policy that adds ImSym software to your allowed software list.

Working with Synopsys Common Licensing

Synopsys Common Licensing is a stand-alone application with many features and utilities. This section highlights some common tasks you may need to perform to install ImSym.

The ImSym installer includes the version of Synopsys Common Licensing recommended by Optical Solutions for working with ImSym. The ImSym installer automates the installation and configuration of Synopsys Common Licensing for you.

ImSym includes tools to simplify the interaction with the Synopsys Common Licensing server that are specific to ImSym.

The complete documentation for Synopsys Common Licensing is installed with the Synopsys Common Licensing components installed by the ImSym installer. By default, that location is `C:\Synopsys\SCL\SCL version\doc`. You can also find the documentation on SolvNetPlus.

In this section:

- [Obtaining the Host ID for a Synopsys Common Licensing Installation](#) on page 15
- [Obtaining the Host ID for a Dongle for a Synopsys Common Licensing Installation](#) on page 16
- [Modifying License Options](#) on page 16
- [Administering Licenses](#) on page 17

Obtaining the Host ID for a Synopsys Common Licensing Installation

If you install a nodelocked or Synopsys Common Licensing server, Synopsys Common Licensing includes the FlexNet `lmhostid` command to determine the Host ID of a machine.

The ImSym installer for nodelocked or Synopsys Common Licensing server installs a utility to quickly check your Host ID.

From the Windows Start menu, select **Synopsys SCL > Imhostid *version***.

where *version* is the version number for the utility (e.g., `lmhostid 2022.12`).

This opens a command prompt that displays the Host ID information, similar to the example below.

You can also run the command manually.

The ImSym installer installs the Synopsys Common Licensing utilities in `C:\Synopsys\SCL\SCL Version\win32\bin`.

You can install Synopsys Common Licensing for nodelocked or Synopsys Common Licensing server without configuring it with valid values for the license key. This installs all the utilities you need to get the Host IDs.

1. From a command prompt, navigate to `C:\Synopsys\SCL\SCL Version\win32\bin`.
2. Enter the command `lmhostid`.

```
C:\Synopsys\SCL\2022.12\win32\bin>lmhostid
lmhostid - Copyright (c) 1989-2022 Flexera. All Rights Reserved.
The FlexNet host ID of this machine is "1234567ab89"
```

This command may return multiple values depending upon your machine. You can use any single value.

Obtaining the Host ID for a Dongle for a Synopsys Common Licensing Installation

You can use the `lmhostid` command to retrieve the Host ID for a dongle, but you need an extra option.

The ImSym installer installs the Synopsys Common Licensing utilities in `C:\Synopsys\SCL\SCL Version\win32\bin`.

You can install Synopsys Common Licensing for nodelocked or Synopsys Common Licensing server without configuring it with valid values for the license key. The ImSym installer installs the application, and all the utilities you need to get the Host ID.

You can update the Synopsys Common Licensing configuration after installation as described in [Modifying License Options](#) on page 16.

1. Insert the USB dongle in an active USB port. A light glows at the end of the dongle when it's inserted correctly in an active USB port.
2. From a command prompt, navigate to `C:\Synopsys\SCL\SCL Version\win32\bin`.
3. Enter the command `lmhostid -flexid`.

```
C:\Synopsys\SCL\2022.12\win32\bin>lmhostid -flexid
lmhostid - Copyright (c) 1989-2022 Flexera. All Rights Reserved.
The FlexNet host ID of this machine is "FLEXID=10-3abc4cba"
```

Modifying License Options

While the ImSym installer enables you to install and configure Synopsys Common Licensing during the installation process, you can make the following changes after the installation is complete.

- Switch between nodelocked and network license types
 - Install a license key file
 - Change the Synopsys Common Licensing server host name or port a network client points to
1. Do either of the following to open the Setup dialog box:
 - From the Windows Start menu, select the menu `ImSymversion > Configure Licensing (ImSymversion)`.
 - In Windows File Explorer, go to `C:\Synopsys\PhotonicSolutions\2024.09\RSoft\bin` and double-click `rsconflic.exe`.

The License Type Setup screen in the Setup dialog box opens.

2. If you select Synopsys Common Licensing, click the **Setup SCL Licensing** button to make changes to your Synopsys Common Licensing license type or settings.

Use this option to:

The **Setup SCL Licensing** button opens the ImSym installer at the License Type Setup screen. See the appropriate procedure for the license type you want to switch to for details on making changes:

- Nodelocked - [step 8](#) on page 10 in [Installing ImSym with a Nodelocked License](#) on page 9
 - Network (Client Installation) - [step 8](#) on page 11 in [Installing ImSym Network \(Client Installation\)](#) on page 10
 - Network (Server Installation) - [step 8](#) on page 14 in [Installing ImSym Network \(Server\)](#) on page 14
3. You may need to restart ImSym for the changes to take effect.

Administering Licenses

As a Synopsys Common Licensing administrator, you can configure and control how licenses are distributed in your organization.

A single ImSym license may contain multiple sessions.

For example,

Synopsys Common Licensing offers tools to enable you to fine tune how your licenses and sessions are distributed using Options files.

For more information about using Options Files see "Using an Options File" in the *Synopsys Common Licensing Administration Guide*.

For nodelocked and Synopsys Common Licensing server installations, the ImSym installer installs the Synopsys Common Licensing documentation in `C:\Synopsys\SCL\version\doc`. The documentation is also available on SolvNetPlus.

Appendix A Using SolvNetPlus to Obtain Software and Licenses

Software and license keys for ImSym are available for download from the Synopsys SolvNetPlus website. This appendix describes how to use the website to download these software products and the license keys required to use them.

Note: For customers working with distributors, please contact your local ImSym software distributor to obtain your software and license. See the <https://www.synopsys.com/optical-solutions/support/support-global-contacts.html> page for contact information.

Special terms used in these instructions are explained in the [Glossary](#) on page 33.

The process is described in the following procedures:

1. [Signing Up for a SolvNetPlus Account](#) on page 19
2. [Downloading Software from SolvNetPlus](#) on page 20
or
[Ordering Media \(CDs/DVDs\)](#) on page 21
3. [Installing ImSym](#) on page 22
4. [Retrieving License Keys](#) on page 23

In this section:

- [Signing Up for a SolvNetPlus Account](#) on page 19
- [Downloading Software from SolvNetPlus](#) on page 20
- [Ordering Media \(CDs/DVDs\)](#) on page 21
- [Installing ImSym](#) on page 22
- [Obtaining the Host ID](#) on page 23
- [Retrieving License Keys](#) on page 23

Signing Up for a SolvNetPlus Account

Before you can download ImSym software and license keys, you must sign up for a Synopsys SolvNetPlus account.

If you already have a SolvNetPlus account, you can skip to [Downloading Software from SolvNetPlus](#) on page 20.

During the registration process, you also need to enter your company's Site ID. If you do not know your company's Site ID, please contact solvnetplusfeedback@synopsys.com to request it. Be sure to include your company name and address in the email request.

1. Go to <https://solvnetplus.synopsys.com> and click **REGISTER - CREATE ACCOUNT**.

2. Follow the instructions for SolvNetPlus Self Registration.

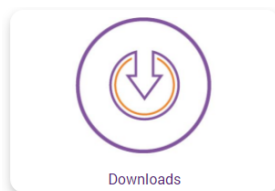
SolvNetPlus will send a verification code to the email address you specified. You must retrieve the code and enter it on the SolvNetPlus site to complete your registration.

Downloading Software from SolvNetPlus

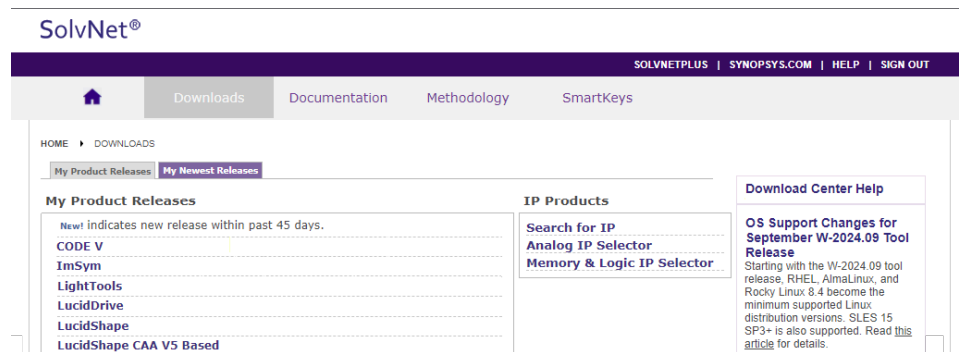
Follow these steps to download any of the software products in the Optical Solutions family of products.

If you are unable to download software, you can order a CD or DVD instead. See [Ordering Media \(CDs/DVDs\)](#) on page 21 for instructions.

1. Go to <https://solvnetplus.synopsys.com> and enter your User Name and Password to sign in.
2. Click **Downloads**.



All Synopsys products currently licensed at your company will be listed.



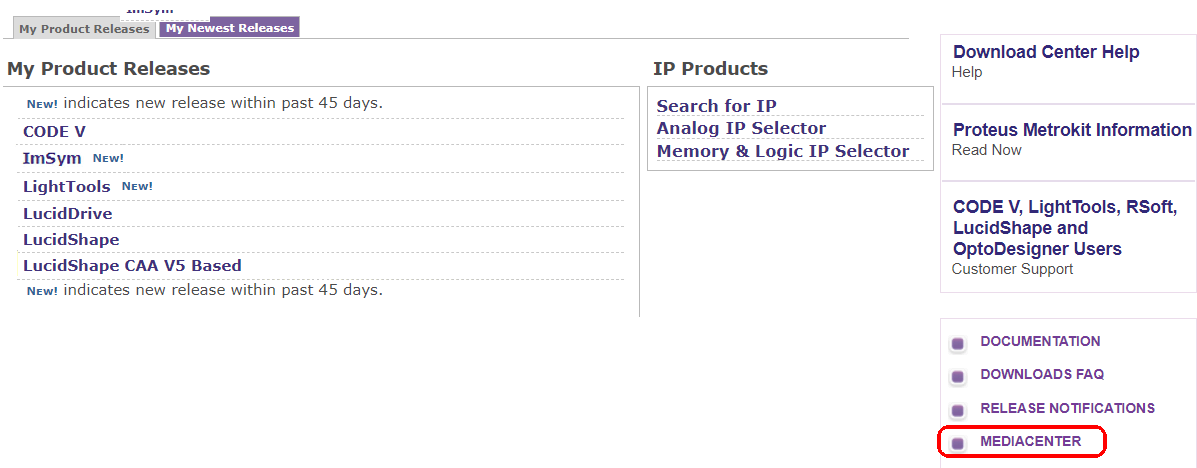
3. Select the product you want to download.
4. Select the version you would like to download.
The Download Details page is displayed.
5. Under Release Alerts, click the **Sign up** link to display Release Alerts options that allow you to subscribe to Release Notification emails from SolvNetPlus.
These emails let you know when a new version of ImSym is available for download.
 - a. Click the product name for which you would like to receive notifications or click **ALL** to receive notifications for all products in the list.
 - b. Click the **Add** button.
 - c. Click the **Include patch notifications** check box. This allows you to receive notifications of ImSym service releases.
 - d. Click the **Update** button.
You are returned to the Download Details page.
6. On the Download Details page, click **Download Here**.
7. On the Notice page, click **Agree and Sign In** to continue.
8. From the list of available files, click the name of the file and then use your browser to open or save the file.
 - `checksum_info.txt` is a file used for internal purposes.
 - `ImSym202409FCS.exe_.exe` is the installation file for ImSym.

Ordering Media (CDs/DVDs)

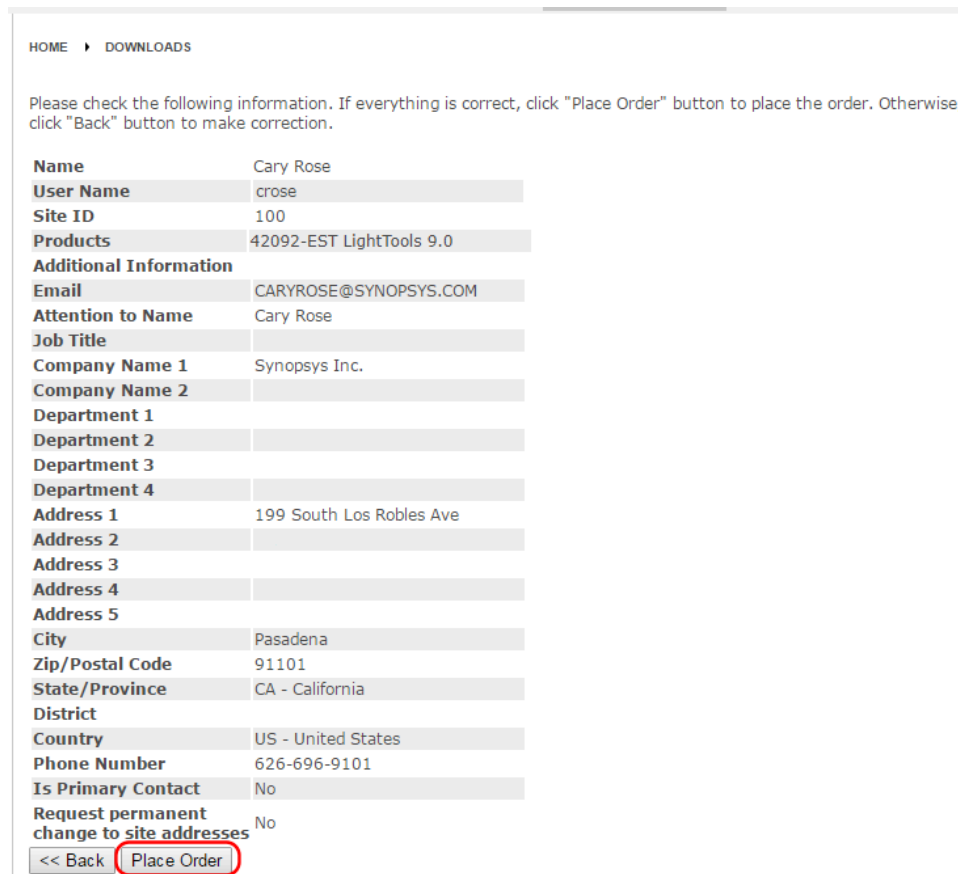
If you are unable to download software and would like to order media (CD or DVD) instead, you can do this directly on the Synopsys SolvNetPlus website.

Follow these steps to order media.

1. Go to <https://solvnetplus.synopsys.com> and enter your User Name and Password to sign in.
2. Click **Downloads**.
3. Click the **MEDIACENTER** link.



4. On the Media Center page, select the product (e.g., ImSym, LucidShape, etc.) and click the **Add** button.
5. Complete the Shipping Address information and click **Continue**.
6. Review the shipping request, shown in the following figure, and click **Place Order**.



Installing ImSym

Instructions for installing ImSym products and license keys are provided in the following chapters:

- [Getting Started](#) on page 5 - lists ImSym system requirements and tells you how to contact ImSym Support.

- [Installing ImSym with Synopsys Common Licensing](#) on page 9 - Install ImSym on a client system and configure the license.
- [Installing and Managing the Synopsys Common Licensing Server](#) on page 13 - If you are using a network license, you install the license key on a network server. You also install the Synopsys Common Licensing server on the network server to manage the licenses.

After you install the ImSym product, continue with [Obtaining the Host ID](#) on page 23.

Obtaining the Host ID

A license key is designed to work for only one Host ID, so the license key is associated with a unique value called a Host ID. Because of this, you need to know the Host ID for the machine or license dongle before you can retrieve a license key.

For Synopsys Common Licensing, the `Imhostid` utility is provided for this purpose.

- To retrieve the Host ID for a machine, see [Obtaining the Host ID for a Synopsys Common Licensing Installation](#) on page 15.
- To retrieve the Host ID for a USB Dongle, see [Obtaining the Host ID for a Dongle for a Synopsys Common Licensing Installation](#) on page 16.

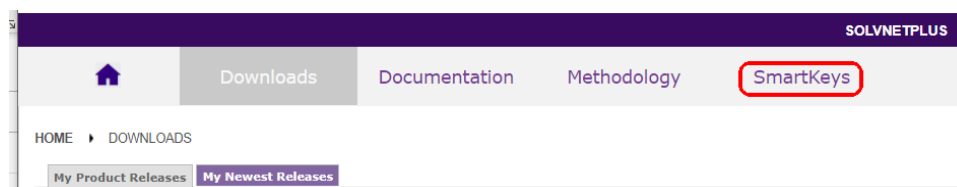
After you obtain the Host ID, continue with [Retrieving License Keys](#) on page 23.

Retrieving License Keys

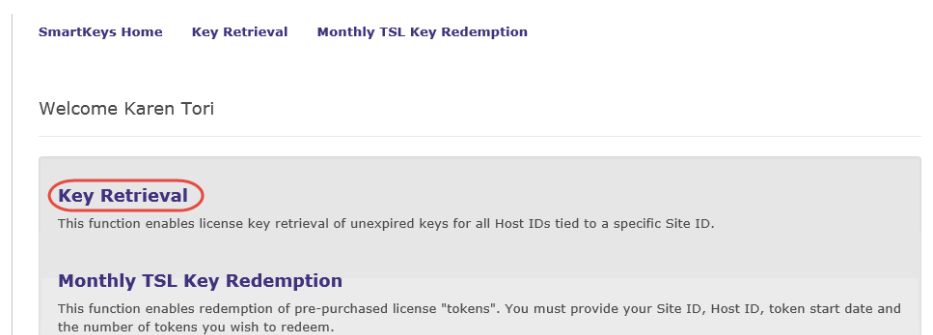
A license key is a file containing licensing information for your specific USB dongle. You can obtain license keys using the SmartKeys web page on the Synopsys SolvNetPlus website.

Follow these steps to obtain your license keys.

1. On the SolvNetPlus home page, click **Downloads** and then click the SmartKeys tab.



2. On the SolvNetPlus SmartKeys Home page, click the **Key Retrieval** link.



The SmartKeys Key Retrieval page is displayed.

You can retrieve a license key for a single USB dongle, or you can retrieve license keys for all Host IDs at your company.

- To obtain a license key for a single USB dongle, enter the Host ID of your ImSym USB dongle in the Host ID (Optional) field. If you do not know the Host ID value for your USB dongle, see [Obtaining the Host ID](#) on page 23.

To obtain license keys for all products and all Host IDs at your company, leave the Host ID (Optional) field blank and go on to [step 4](#) on page 24.

- Click **Retrieve Key**, shown in the following figure.

SolvNet®

SOLVNETPLUS | SYNOPSIS.COM | HELP | SIGN OUT

Downloads Methodology SmartKeys

SmartKeys Home Key Retrieval Monthly TSL Key Redemption

Key Retrieval

Site ID – Retrieve keys for site IDs for which you are registered. Multiple site IDs may be selected using the Ctrl or Shift key. You may register for additional site IDs by updating your **SolvNet** profile.

Host ID (Optional) – Retrieve a key for a specific host ID. For redundant server configurations, enter only one of the hostids.
CODE V & LightTools Users: [Click here for information on obtaining the host ID.](#)

Key Retrieval

Site ID

Site ID (Override)

Host ID (Optional)

Attachment Option

Your ImSym license key will be delivered as a text file attached to an email from the SmartKeys system. If you did not enter a Host ID in [step 3](#) on page 24, you will receive a separate email with a single license key attached for each Host ID at your company. The email will include the Host ID for which the license key is valid.

- Save the license key to a convenient location on your computer. You need to access this file to activate ImSym.
- See one of the following procedures for instructions on installing the license key to activate your ImSym product.
 - [Installing ImSym with a Nodelocked License](#) on page 9
 - [Installing ImSym Network \(Server\)](#) on page 14

Appendix B Troubleshooting Synopsys Common Licensing

This appendix lists licensing errors that you might encounter with Synopsys Common Licensing and describes probable causes and resolutions.

If you are unable to correct the problem, please contact ImSym Support (see [Contacting ImSym Support](#) on page 7).

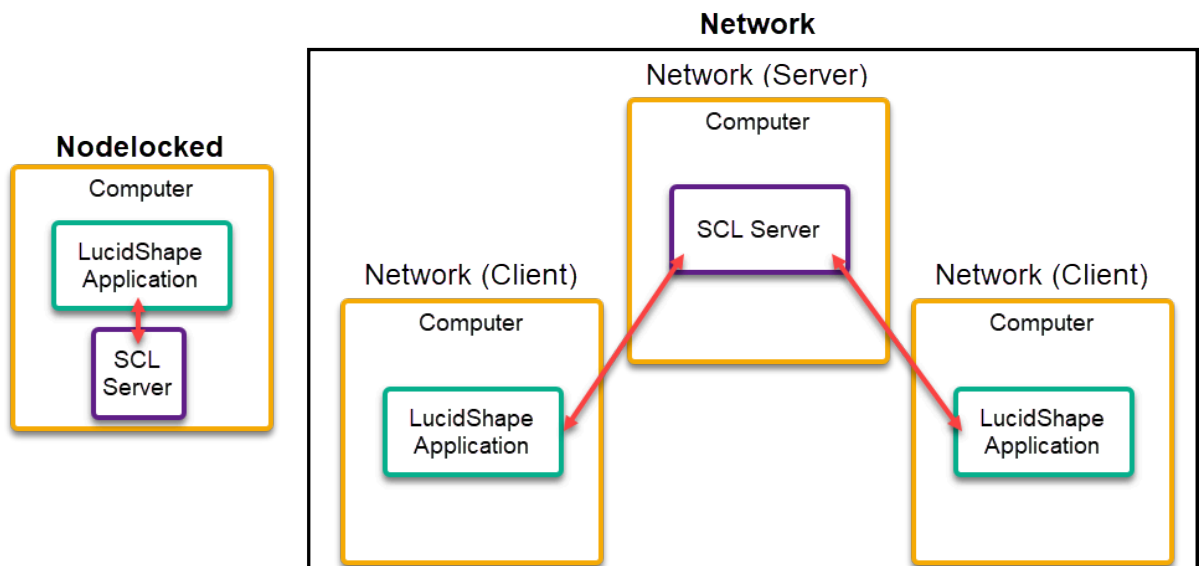
This version of the ImSym installer includes the following components for Synopsys Common Licensing:

- Photonics Solutions Synopsys Common Licensing components version 2024.09
- Synopsys Common Licensing version 2022.12

For nodelocked or Synopsys Common Licensing server installations, the ImSym installer configures the Synopsys Common Licensing server as the Flexlm Service 1 service.

Error messages may refer to the "flex log", which is the log file for Synopsys Common Licensing. The ImSym installer configures this log file to be named `flexlog.txt` in the `C:\Synopsys\PhotonicSolutions\2024.09\RSOft\licenses` directory.

Synopsys Common Licensing always includes a Synopsys Common Licensing server. Even when you have a nodelocked installation, there is an instance of the Synopsys Common Licensing server running on your system. Therefore, even when you are not using a networked license, you may have issues communicating with the Synopsys Common Licensing server.



In this section:

- [There are no remaining licenses for the requested feature](#) on page 26
- [The license does not include the requested feature](#) on page 26
- [Cannot connect to the license server system](#) on page 26
- [A connection to the Synopsys Common Licensing license manager was lost](#) on page 28

- [The license request was denied by the network license server](#) on page 28
- [Time Tamper Error](#) on page 29
- [ImSym cannot find the Synopsys licensing service/daemon \(snpslmd\)](#) on page 29
- [Updating a License File Without Administrator Privileges](#) on page 30
- [Uninstalling Synopsys Common Licensing](#) on page 31

There are no remaining licenses for the requested feature

Problem

Licensed number of users already reached.

Cause

A limited number of users can use this feature at the same time, and the limit has been reached.

Solution

If you are running multiple sessions concurrently, you may have reached the maximum concurrent session limit.

For network licenses, please wait for other users to end their feature usage, then try again.

To further check license usage at your site, please contact your Synopsys Common Licensing license administrator.

The license does not include the requested feature

Problem

No Such Feature Exists

Cause

The license file found does not contain a valid feature for this version of the software.

Solution

Please check with your ImSym administrator for the valid features.

Cannot connect to the license server system

Problem

The license for module ImSym is not available. ImSym cannot run due to a licensing issue.

Cause

The license server manager (lmgrd) has not been started yet, the wrong port@host or license file is being used, or the port or hostname in the license file has been changed.

(lmgrd) daemon is not running.

Solution

The ImSym installer configures this as the **Flexlm Service 1** service. Confirm the Flexlm Service 1 is running on your system (nodelocked) or the Synopsys Common Licensing server system (network). If you cannot find the Flexlm Service 1 service, try the following:

- Reboot the system.
- Configure your licensing again. See [Modifying License Options](#) on page 16 to reconfigure the selected license type.
- Contact ImSym Support.

For nodelocked licenses, there are situations where the licensing processes can be stopped and will not automatically restart. When you try to start the software you will get the `Cannot connect to the license server system` error. Under these circumstances you will need to restart your computer to get the licensing processes to restart.

Cause

Wrong port/host or license is being used.

Solution

See [Modifying License Options](#) on page 16 to update the host name and port number for the license server

Cause

License file is expired.

Solution

If your license agreement is current, you can request an updated license from SolvNetPlus or from ImSym Support.

If you need to renew your license agreement, please contact optics@synopsys.com or your local distributor.

Cause

License file contains an invalid Host ID.

Solution

Contact ImSym Support.

Cause

License file is not installed.

Solution

See [Modifying License Options](#) on page 16 to update the license file.

A connection to the Synopsys Common Licensing license manager was lost

Problem

The complete error message is A connection to the Synopsys Common Licensing license manager was lost, and the application has exhausted all of its retry attempts.

Cause

Cannot connect to license server system.

Solution

For network licenses, check your network connection to your network license server.

If the error persists, contact ImSym Support or your local distributor.

Include the following:

- A screenshot of the License Manager Error window
- The following files from the licenses folder (by default, C:\Synopsys\PhotonicSolutions\2024.09\RSOFT\licenses):
 - rsoft.lic
 - flexlog.txt

The license request was denied by the network license server

Problem

This error message can be received from multiple scenarios.

- The User/Host on EXCLUDE list for feature (FlexNet Licensing error: -38, -101)
- User/host not on INCLUDE list for feature (FlexNet Licensing error: -39)
- Checkout exceeds MAX specified in options file (FlexNet Licensing error: -87)

Cause

This error can occur for one of the following reasons:

- Max limit of users has been reached.
- You have been excluded from using this feature.
- The feature is reserved for others.

Solution

Please contact your Synopsys Common Licensing administrator.

Time Tamper Error

Problem

A problem with the system clock has been detected.

Cause

This error may indicate that the system clock is currently set incorrectly, or has been set incorrectly in the past.

Solution

Contact imsym_support@synopsys.com or your local distributor and provide a copy of the error message, including the Host ID mentioned in the error message.

ImSym cannot find the Synopsys licensing service/daemon (snpslmd)

Problem

The Synopsys licensing service/daemon (snpslmd) is either down, or inaccessible.

Cause

The Synopsys licensing service/daemon can terminate because of the following reasons:

- All the features are expired for this version of the software.
- The license file is corrupted.
- The license file contains an invalid server Host ID.

Solution

If you are using a network license your connection with the computer hosting the license service/daemon may have been interrupted. Please check your network connection.

Firewall(s) must be configured to allow the Synopsys Common Licensing server (lmgrd.exe and snpslmd.exe) to communicate on ports 27020 and 27021. If you get an error such as a -96 FlexNet Licensing error, make sure both ports are open in any firewalls.

If you are using a nodelocked license, confirm that the Flexlm License 1 service is running.

Updating a License File Without Administrator Privileges

You should use the tools described in [Modifying License Options](#) on page 16 to update your license files. However, the ImSym installer requires Administrator privileges to install the Synopsys Common Licensing license server and its associated services. If you do not have administrator privileges, the following procedure describes a method to overwrite your existing license key file (C:\Synopsys\licenses\opslic.txt) with a new license key file.

If you upgrade your ImSym installation, gain access to new modules, or otherwise change your licensing, you may need to update your license file.

The ImSym installer automates the installation and configuration of Synopsys Common Licensing for you. Synopsys Common Licensing requires the license key file for nodelocked systems to be updated with information specific to your system. The `rsfixlic` command described below updates the license file for you automatically.

This procedure assumes you already have your new license key file. If you do not, see [Retrieving License Keys](#) on page 23 or contact your local Synopsys account administrator.

1. Optional: Make a backup copy of the current license key.

For example, using a command prompt:

```
copy C:\Synopsys\licenses\opslic.txt C:\Synopsys\licenses\opslic_bak.txt
```

You can restore the old license by renaming `opslic_bak.txt` to `opslic.txt` and restarting the license server.

2. Open a command prompt and navigate to the folder containing your new license key file.
3. Customize the license key for this system using the `rsfixlic` command.

The following example assumes your license key file is named `NewLicense.txt`.

```
rsfixlic NewLicense.txt NewCustomLicense.txt
```

This command creates a new version of the license key file (`NewCustomLicense.txt`) with all the details unique to your system populated. To manually update the license key file, see the Synopsys Common Licensing documentation.

4. Overwrite the current license key with the new, customized license key.

```
copy NewCustomLicense.txt C:\Synopsys\licenses\opslic.txt
```

If prompted to overwrite the file, enter `Y`.

5. Restart the license server using one of the following options.

- Run the following command:

```
rslmd -restartlmgrd
```

- Restart your system.

The license server should be running using the new license key.

Uninstalling Synopsys Common Licensing



CAUTION: Do not remove the Synopsys Common Licensing server unless you have confirmed that no Synopsys products are using the Synopsys Common Licensing server instance.

If instructed to do so by ImSym Support, you can follow these steps to remove the Synopsys Common Licensing components from a system.

The ImSym installer automates the installation and configuration of the Synopsys Common Licensing components. However, the installer treats these components as separate installations, and they are not removed when you run the ImSym Uninstall tool.

Follow these instructions to remove the Synopsys Common Licensing components.

1. Log on to your system as an administrator.
2. Open Add and Remove Programs.
3. Uninstall **Optical/Photonic Solutions Licensing**.
4. Uninstall **SCL *Version***.
5. Restart the system.
6. (Optional) Delete the `C:\Synopsys` folder **only if you have no other Synopsys applications using that folder**.

Glossary

Client (machine)	The client, or client machine, is a computer that has ImSym installed on it, and is configured to request a license from a license server. For Synopsys Common Licensing, this machine runs Network Client software, which uses a network license.
Host ID	<p>A unique ID used to associate a license with a specific computer.</p> <p>For Synopsys Common Licensing, this is a value retrieved using the <code>ImhostID</code> utility. The value may be associated with your computer or with a USB dongle.</p> <p>The Synopsys SmartKeys site and delivery email reference the Host ID value when license keys are requested and delivered.</p> <hr/> <p>Note: The Host ID is unique for each method of licensing and is not interchangeable.</p> <hr/>
License Key File	<p>A file containing the encoded license information needed to run ImSym for a specific computer or USB dongle.</p> <hr/> <p>Note: The license key is unique for each method of licensing and is not interchangeable.</p> <hr/>
Network License	A license managed by the Synopsys Common Licensing server.
Nodelocked License	Used with Synopsys Common Licensing. A license associated with a specific computer. It may also require a USB dongle.
Site ID	A unique number used to identify a specific company. Every company that uses ImSym products and other Synopsys software has a unique site ID.
SmartKeys	The SolvNetPlus page where you submit license key requests.
SolvNetPlus	The Synopsys customer portal (https://solvnetplus.synopsys.com). This is where you go to download ImSym software and license keys.
Synopsys Common Licensing	The license management tool used by Synopsys. It is based on FlexNet Licensing.

