

# **Cadence OrCAD X and Allegro X 23.1 Release Installation Guide for Windows**

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# Quick Overview: Installing OrCAD X and Allegro X 23.1 Products on Windows

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**Note:** Your system must have a supported operating system and should meet the recommended hardware and software requirements for the 23.1 products to run. See [Hardware and Software Requirements](#) on page 5 for the requirements.

## Installing Base Release

If you downloaded the ZIP archive, extract the content to an accessible location.

**Note:** For detailed installation steps, see [Installing the Products](#) on page 9.

1. Browse to and double-click the Setup launcher file (`setup.exe`).

This file is located above the *Disk1* folder; in the root if you have a CD or in the folder where you extracted the ZIP for a downloaded media.

If asked, click *Yes* to allow the app to make changes to your system.

2. Click *Install* for *OrCAD X and Allegro X Products Installation*.
3. Read and accept the license agreement and click *Next*.
4. Verify the options in the *Installation Settings* page and click *Next*.

The *Only for me* option, selected by default, allows access to only the current user installing the applications. Select *Anyone who uses this computer (All Users)* for all users of the computer to access the installed applications.

By default, *Allegro X Products (Includes EDM)* and *OrCAD X Products* are selected. Select *Allegro X Products with Pulse Server* only if you are an administrator and want a Pulse server installation on your system.



### Tip

Click *Custom Installation* if you want to install only selected products.

5. Verify the options in the *Input License Details* page and click *Install*.

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### Quick Overview: Installing OrCAD X and Allegro X 23.1 Products on Windows

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*Connect to Existing License Server* is selected and *Port Number* and *Host Name* are populated by default if the installer detects an existing license server.

Selecting *Install License Server* will install and configure a Cadence License Server. You must have a valid Cadence license file or a dongle to install and configure license server.

The installer will start installing the products. This might take several minutes.

#### 6. Click *Finish* in the Setup Complete page.

You can select to install third-party tools right away or install at a later stage.

You can access the installed products from the *Start* menu by choosing from any one of the following:

- ☐ *Cadence Help 23.1*
- ☐ *Cadence IC Packaging 23.1*
- ☐ *Cadence PCB 23.1*
- ☐ *Cadence PCB Utilities 23.1*
- ☐ *Cadence PCB Viewers 23.1*

## Installing Hotfix

#### 1. Extract the ZIP archives to a folder.

##### *Important*

Ensure you extract the contents of the compressed archives to a single directory.

#### 2. Double-click the application file.

##### *Important*

It is recommended that you end *node.exe* from Task Manager before installing Hotfix.

#### 3. Click *Next*.

#### 4. Accept the license agreement and click *Next*.

#### 5. Click *Install*.

#### 6. Click *Finish*.



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# Part I - Getting Started

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The chapters in this section provides a brief overview of installation and describes the various requirements and options.

- [Hardware and Software Requirements](#) on page 5
- [Installation Overview](#) on page 17

# **Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows**

## **Part I - Getting Started**

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# Hardware and Software Requirements

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This manual is designed so that you can quickly find the information you need to install Cadence® Allegro® X and OrCAD® X release 23.1 products.

## Important

Refer to the *README* file in the *OrCAD X/Allegro X 23.1 (SPB231)* tabs of the Cadence® [Downloads](#) page for current and detailed requirements information listing the hardware and software requirements across products and compatibility information for different software.

This section describes the system requirements for Windows.

Cadence Allegro X and OrCAD X products are integrated directly with Windows; the products support hardware and peripherals supported by Windows. A list of hardware and peripherals officially supported by Windows can be obtained from the Microsoft web page.

The products require updating certain Microsoft libraries in the Windows directory. You must install the Cadence software using either a standalone install or a client install. You may not be able to point to the software without installing.

## Operating System

Windows 11 Professional and Enterprise; Windows 10 (64-bit) Professional and Enterprise, including Dark Theme mode; Windows Server 2016 (All Service Packs); Windows Server 2019; Windows Server 2022.

**Note:** Cadence Allegro X and OrCAD X products do not support Windows 10 Starter and Home Basic. In addition, Windows Server support does not include support for Windows Remote Desktop. Windows RT and Tablets/Phones, including Windows 10 Phone, are not supported.

**Note:** 64-bit Windows require 64-bit Flex software dongle drivers if using dongle-based licensing.

**Note:** Allegro X EDM Flow Manager is not supported on Windows Server 2016 and Windows Server 2019.

# Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows

## Hardware and Software Requirements

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<b>Recommended Hardware</b>	Intel® Core™ i7 4.30 GHz or AMD Ryzen™ 7 4.30 GHz with at least 4 cores
	Faster processors are preferred.
	16 GB RAM
	50 GB free disk space (SSD drive is recommended)
	1920 x 1200 display resolution with true color (at least 32bit color)
	A dedicated graphics card supporting OpenGL, minimum 2GB (with additional support for DX11 for 3D Canvas)
	Dual monitors (For physical design)
	Broadband Internet connection for some service
	Ethernet port/card (for network communications and security hostID)
	Three-button Microsoft-compatible mouse

## Network Interface Cards (NICs)

A network interface card (NIC) is the preferred locking method used in licensing to enable the products to run on a computer. Each NIC is programmed with an address that is sufficiently unique to enable its use as a hardware lock.

You can use the NIC in a laptop computer as your locking method, but you should be aware that in some laptops NICs are disabled if the laptops are not attached to a network. If your laptop's NIC is disabled, you will not be able to run any products.

## Dongles

If your locking method is a dongle, attach the dongle to the appropriate parallel or USB port of the computer before you begin the installation. Click *Cancel* when the Windows generated *Found New Hardware* dialog appears. The dongle drivers will automatically install during the License Manager Installation.

The following dongle is supported for Release 23.1:

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### **Hardware and Software Requirements**

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- FLEXid USB dongle (version 10)
- FLEXid USB dongle (version 9)

### **Cadence License File**

In order to run the Cadence Allegro X and OrCAD X products, you must have a valid license file (`LICENSE.TXT`) issued by Cadence.

# **Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows**

## **Hardware and Software Requirements**

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## Part II - Licensing

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The chapter in this section explains the licensing requirements and how to manage your licensing environment for Allegro® X and OrCAD® X products.

- [Configuring and Using the License Manager](#) on page 11
- [Using and Managing Single User License](#) on page 1

# **Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows**

## **Part II - Licensing**

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# Configuring and Using the License Manager

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Although the installer installs and configures the license server, you can configure the server at any time using the License Client Configuration Utility. The license path to an existing license server is in the form of `<port_number>@<host_name>`, such as `5280@corporatelicenseserver`.



## Tip

You can specify and get the license path information from the Cadence license file. The license path is specified in the license file by the `SERVER` keyword in the following form:

```
SERVER <host_name> <license text> <port_number>
```

For example, in the line `SERVER corporatelicenseserver 83065c2 5280`, `corporatelicenseserver` is the host name and 5280 is the port number.

## Types of License Manager

Two types of installations are possible for the license manager:

- Standalone Installation
- Network Installation

### Standalone Installation

To install the licensing for a single user on an isolated computer that will not depend on access to a network, install the License Manager directly on that computer.

### Network Installation

In a network installation, you install the License Manager on a computer that is accessible over a network, referred to as a *license server*. In this configuration, multiple users can run the Cadence products at the same time across the network by accessing the license and file server.

You may have up to three license servers running simultaneously. These are referred to as *redundant license servers*. The licensing system remains operational as long as any two of the three License Managers are functioning properly.

## Uninstalling the License Manager

To uninstall the License Manager

1. Open *Programs – Programs and Features* from the Control Panel of Windows.
2. Navigate to *Cadence License Manager* and click *Uninstall*.

## The License Server Configuration Utility

The License Server Configuration Utility (*Start – Cadence – License Manager – License Server Configuration Utility*) lets you configure licensing on a license server without having to reinstall the License Manager.

Use the License Server Configuration utility for the following conditions:

- You received a replacement license file from Cadence.

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### Configuring and Using the License Manager

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You will receive a replacement file in the following conditions:

- ☐ Current license file is about to expire.
- ☐ You purchased additional licenses for products that you have already installed.
- You received a new license file from Cadence.

#### To Use the License Server Configuration Utility

1. From the *Start* menu, choose *Cadence – License Manager – License Server Configuration Utility*.

The License File Location dialog box appears.

2. Specify the location of the Cadence license file or browse to it, and then click *Next*

The License Server Data dialog box appears.

3. Review the license server information and modify the host name if necessary, and click *Next*.

The Restart License Server dialog box appears informing you that the license server is running and will restart.

4. Click *Next*.

The Configuration Status dialog box appears.

5. Click *Finish* to exit the License Server Configuration utility.

Configuring the license file is complete.

## The License Client Configuration Utility

Use the License Client Configuration Utility (*Start – Cadence – License Manager – License Client Configuration Utility*) to change the `CDS_LIC_FILE` variable to point to a different or an additional license server. After remote client product installations, either interactive or unattended, you must use the License Client Configuration Utility to set up the client machine to find the license server.

### To Use the License Client Configuration Utility

1. From the *Start* menu, choose *Cadence – License Manager – License Client Configuration Utility*.

The License Path dialog box appears.

2. Specify the port and hostname of the license server(s) you want to use, and then click *Next*.

**Note:** You can use semicolon (;) to specify multiple license servers, such as `port1@host1;port1@host2`. You can also specify a fault tolerant or triad license server. Use the comma to separate the triad hosts, such as `port1@host1,port1@host2,port1@host3`.



#### *Tip*

You can get the license path information from the Cadence license file. The license path is specified by the `SERVER` keyword in the following form:

```
SERVER <host_name> <license text> <port_number>
```

For example, in the line `SERVER corporatelicenseserver 83065c2 5280`, `corporatelicenseserver` is the host name and 5280 is the port number.

The Configuration Status dialog box appears to confirm that the `CDS_LIC_FILE` variable is updated.

3. Click *Finish* to exit the License Client Configuration utility.

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# Using and Managing Single User License

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In the Single User License (SUL) mode, you can register a user name and password and then use the login details to be able to install and use the OrCAD X and Allegro X Release 23.1 products that support Single User license. If you use only products that support Single User license, a License Manager is not required. However, if you also use products that require a license server, you must install and configure a license server.

Single User license requires the system to be connected to the Internet at the time of the first login and later on periodically for verification. You will see a message when a verification is required.

You will receive an email giving you a link to your dashboard. You can manage your license online using your dashboard. If you are an administrator, you can assign licenses to different users and manage their licenses.

If you are a user, you can view your entitlement and account informations and also remove entitlement from the dashboard. If you are an administrator, you can create users and then assign and remove users from entitlements.

**Note:** It is recommended that you do not change user assignments very frequently.

## Single User License: Frequently Asked Questions

Following are some of the frequently asked questions about Single User License:

- Which products support Single User License in release 23.1?
- Do I need a License Server if I access all products using only Single User License?
- Can I change from using Single User License to using License Server or vice versa?
- What do I do if Allegro X PCB Editor starts in the Single User License mode although I changed the license mode to License Server (license server)?
- Can I set the licensing mode to Single User License at the operating system-level? on page 3
- If I set the license mode at the operating system-level and from a product, which takes precedence? on page 3

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### Using and Managing Single User License

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- My Single User License has stopped working the licensing mode is SUL, can I switch to License Server mode? on page 4
- Do I need to be connected to the net when I access my products using Single User License?
- What is the meaning of Entitlement?
- Why is the license system trying to write to the disk or to update registry?
- Can I use Single User License to install and access Cadence products from multiple systems?
- Do I need to update my proxy details before installing products using Single User License?
- I get the ORCOMMN-12005 message stating that a valid license was not found although I use SUL. How do I run the application?

### Which products support Single User License in release 23.1?

Single User License mode is supported by the following products in release 23.1:

1. OrCAD X PCB Presto
2. OrCAD X Capture
3. Cadence PSpice A/D
4. OrCAD X PCB Editor

### Do I need a License Server if I access all products using only Single User License?

No, you do not need a License Server if all the products you use support Single User License. But, if you access products that do not support Single User License, you must set up a Cadence License Server.

### Can I change from using Single User License to using License Server or vice versa?

The products that support Single User License have settings to change the licensing mode. You must restart the product for the change to be effective.

**Note:** You must have a Cadence License Server configured if you change to License Server mode.

## Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows

### Using and Managing Single User License

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Change the licensing mode of the various products by doing the following steps:

OrCAD X PCB Presto	OrCAD X Capture	PSpice A/D	OrCAD X PCB Editor
<ol style="list-style-type: none"><li>1. Choose <i>Edit - Preferences</i>.</li><li>2. Select the licensing mode from the <i>License</i> list.</li></ol>	<ol style="list-style-type: none"><li>1. Choose <i>Options - Preferences</i>.</li><li>2. Click <i>More Preferences</i>.</li><li>3. Select the licensing mode from <i>Extended Preferences - Licensing Mode</i> list.</li></ol>	<ol style="list-style-type: none"><li>3. Choose <i>Tools - Options</i>.</li><li>4. In the General tab, select the licensing mode from the <i>License Mode</i> list.</li></ol>	<ol style="list-style-type: none"><li>1. Choose <i>Setup - User Preferences</i></li><li>2. Expand UI and select <i>License</i>.</li><li>3. Set <i>allegro_license_mode</i> to the license mode.</li></ol>

**Note:** You must restart the products for the new licensing mode to take affect.

#### What do I do if Allegro X PCB Editor starts in the Single User License mode although I changed the license mode to License Server (license\_server)?

If you changed the *allegro\_license\_mode* variable under *UI - License* in the User Preferences Editor (*Setup - User Preferences*) to *license\_server* but the licensing mode does not change, use the following command to start PCB Editor:

```
allegro -safe
```

#### Can I set the licensing mode to Single User License at the operating system-level?

You can set the environment variable *allegro\_license\_mode* to configure the licensing mode. Set the variable to *single\_user\_licensing* to set the Single User License mode. Set the variable to *license\_server* to set the License Server mode.

#### If I set the license mode at the operating system-level and from a product, which takes precedence?

The variable set in *pcbenv* or from the products takes precedence over the value set at the operating system level.

**My Single User License has stopped working the licensing mode is SUL, can I switch to License Server mode?**

To switch to the License Server mode, do the following:

1. Edit the ENV file to delete the `allegro_license_mode` entry in `pcbenv`.
2. Delete the environment variable `allegro_license_mode` or set the value to `license_server`.
3. Ensure that `CDS_LIC_FILE` is set correctly and a Cadence License is running with valid licenses.

**Do I need to be connected to the net when I access my products using Single User License?**

You need not be connected all the time you access products using SUL. But, the system must be connected at least once in 24 hours to verify license validity. You will receive a message stating that the license needs to be validated. If the license is not validated for long or the stated period in the message, the product will exit.

**What is the meaning of Entitlement?**

Entitlement is the ability to access selected Cadence products using Single User License. After you are registered, you must be entitled to a product to be able to access that product using Single User License.

When you register, you receive an email with a link to a dashboard. If you are an administrator or a single user, you can open the dashboard and change entitlement. If you are not an administrator or a single user, an administrator gives adds entitlement to products for which your email is registered.

**Why is the license system trying to write to the disk or to update registry?**

The configuration and validation process involves accessing your local system and Windows registry. Ensure the Cadence installer has write permissions on `%APPDATA%`.

**Can I use Single User License to install and access Cadence products from multiple systems?**

Only one system can have a valid installation at a time. Change of any of the following in the system after installation can cause license related errors:



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### Using and Managing Single User License

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- CPU count
- Hardware serial number
- Host UUID (Universal Unique Identifier)
- MAC (Media Access Control) address

**Note:** Get in touch with Cadence support if you need to install and configure Cadence products accessed using Single User License in a different system. It is recommended that continue using one system to install and access Cadence products.

#### Do I need to update my proxy details before installing products using Single User License?

It is recommended that you set up correct proxy details, such as by adding Windows credentials, before starting installation.

#### I get the ORCOMMN-12005 message stating that a valid license was not found although I use SUL. How do I run the application?

You can run the `<Installation Hierarchy>tools\capture\tclscripts\capUtils\OrcadLicence.tcl` script to change the license mode for Capture and PSpice to the Single User License (SUL) mode or to the License Server (FLEXLM) mode.

To run the script, use `tclsh` if installed or use `<Installation Hierarchy>tools\tcl\tcl\bin\tclsh80.exe`.

Assuming you have Tclsh installed, use the following syntax:

```
tclsh OrcadLicence.tcl {Capture or PSpice} {SUL or FLEXLM}
```

For example, to change the license mode to the Single User License (SUL) mode for Capture, enter the following command:

```
tclsh80.exe <Installation  
Hierarchy>tools\capture\tclscripts\capUtils\OrcadLicence.tcl  
Capture SUL
```

Similarly, to change the license mode to the License Server (FLEXLM) mode for PSpice, enter the following command:

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### **Using and Managing Single User License**

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```
tclsh80.exe <Installation  
Hierarchy>tools\capture\tclscripts\capUtils\OrcadLicence.tcl  
PSPice FLEXLM
```

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## Part III - Interactive Installations

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The chapters in this section describes the interactive installation of products, client, and libraries using the Cadence® Allegro® X and OrCAD® X installer. The silent or unattended installation is discussed in [Part IV - Silent Installations](#).

- [Installing the Products](#)
- [Installing Client on a Remote Computer](#)
- [Installing Design Entry HDL - Allegro PSpice System Designer Library](#)
- [Configuring and Managing Installations](#)

# **Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows**

## **Part III - Interactive Installations**

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# Installing the Products

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You can use the Cadence Allegro® X and OrCAD® X installer to install products in two modes, interactive and unattended. The interactive mode uses a installation wizard to guide you through the installation steps. The unattended mode lets you edit a template in the installation CD and run the installation process without intervention.

You can also run the installer to maintain installed products. Maintenance allows you to modify or repair the current installation.

You can remove the installation from the Programs and Features tool of Windows Control Panel by clicking the *Uninstall* button.

**Note:** This chapter discusses interactive installation. To learn about silent or unattended installation, refer to [Performing Silent Installations](#) on page 29.

## *Important*

Although you can install the Cadence products without administrative privileges using the *Only for me* option, you must run the System Configuration Utility with administrative privileges after completing the installation to be able to use the installed products.

This chapter describes:

- [Performing Interactive Product Installation](#) on page 10
- [Performing Maintenance Installation](#) on page 13
- [Uninstalling the products](#) on page 15

## Performing Interactive Product Installation

By default, all OrCAD X and Allegro X products are installed by the installer. You can choose to install only a selected set of products or install the Allegro Pulse Server.

1. Browse to and double-click the Setup launcher file (`setup.exe`).

This file is located above the *Disk1* folder; in the root if you have a CD or in the folder where you extracted the ZIP for a downloaded media.

2. Click *Install for OrCAD X and Allegro X Products Installation*.

3. Read and accept the license agreement and click *Next*.

4. Under *Install this application for*, choose the option to restrict access to only your login or allow all users access to the installed products. Choose *Only for me (Recommended)*, the default, to allow access to only the current user installing the applications or if you do not have administrative privileges. Select *Anyone who uses this computer (All Users)* for all users of the computer to access the installed applications.

5. Change *Installation Directory* if needed by browsing to the directory where you want to install the products.

**Note:** If you are installing in per-user mode (Only for me) and there are other installations in the system, ensure that you specify a unique location to not overwrite other existing installations.

6. Specify *Working Directory*, set the path for your default working directory or accept the default directory.

**Note:** If you have already set the `HOME` environment variable, that is what appears as the default directory in this dialog box. If you have not previously set a `HOME` variable, then the default is `%APPDATA%\SPB_Data` for per user installation (Only for me) and `C:\SPB_Data` for a all user installation. You must specify the working directory you want to use. After the installation is finished, the `HOME` environment variable equals the working directory you specify.

If a working directory is already specified in your system, retain the working directory value if you do not want to change existing configurations. Changing this value will alter the value of the `HOME` variable, which might affect other applications that use this variable and existing configurations for the tools might become ineffective.



### Caution

**Avoid changing the *HOME* environment variable as it might impact other programs.**

7. Select *Allegro X Products with Pulse Server* if you want to install a Pulse Server.
8. Click *Custom Installation* to select specific features for installation. By default, all products will be installed.
  - a. If you have a control file received from Cadence, specify the file location. The features available in the control file will be selected for installation.
  - b. Verify and make changes to the list of features selected.
  - c. Click *Next*.
  - d. Verify the footprint library path.
  - e. Click *Next*.

9. Verify the options in the *Installation Settings* page and click *Next*.

The *Only for me* option, selected by default, allows access to only the current user installing the applications. Select *Anyone who uses this computer (All Users)* for all users of the computer to access the installed applications.

**Note:** If you are installing in per-user mode (Only for me) and there are other installations in the system, ensure that you specify a unique location to not overwrite other existing installations.

**Note:** Avoid long path names and spaces and special characters in the installation path.

10. Verify the options in the *Input License Details* page and click *Install*.

*Connect to Existing License Server* is selected and Port Number and Host Name are populated by default if the installer detects an existing license. Selecting *Install License Server* will install and configure a Cadence License Server.

If the installer does not detect an existing license, the *Install License Server* option is selected and you have to specify the path of the license file received from Cadence.

**Note:** If you have multiple license servers and you want to access all of them, you can specify the port and host information for each of the license server delimited by a semi-colon (;) as follows:

```
port1@host1;port1@host2;port1@host3
```

For example:

## Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows

### Installing the Products

---

5280@sunny;5280@blue;5280@sky

If your license server has a fault-tolerant server configuration, you can specify the port and host information for each server separated by a comma as follows:

port@host1,port@host2,port@host3

For example:

5280@sunny,5280@blue,5280@sky



#### Tip

You can get the license path information from the Cadence license file. The license path is specified by the `SERVER` keyword in the following form:

```
SERVER <host_name> <license text> <port_number>
```

For example, in the line `SERVER corporatelicenseserver 83065c2 5280`, `corporatelicenseserver` is the host name and 5280 is the port number.



#### Caution

**If you edit the License Path box, ensure that the value is correct because the new value will overwrite the original CDS\_LIC\_FILE value.**

**Note:** The 23.1 installer also installs Microsoft® Visual C++® Redistributable Packages, namely 2005, 2008, and 2012. Depending on the products selected and the operating system used, the installer might also install SAP® Crystal Reports® runtime engine for .NET Framework (64-bit) version 13.0.11.1467, .NET Framework 4.5, and SQLite® ODBC Driver for Win64.

**Note:** Select *Single User License* if you have registered and received a Single user License and plan to use only products that use SUL. If you plan to use a mix of products, some of which need a License Server, you must have access to a License Server.

If you select *Single User License*, log in using the registered user ID.

**Note:** Refer to [Using and Managing Single User License](#) on page 1 for more information.

#### 11. Click *Finish* in the Setup Complete page.

You can select to install third-party tools right away or install at a later stage.

The installation might take several minutes.

You can access the installed products from the *Start* menu by choosing from any one of the following:



## Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows

### Installing the Products

---

- ☐ *Cadence Help 23.1*
- ☐ *Cadence IC Packaging 23.1*
- ☐ *Cadence PCB 23.1*
- ☐ *Cadence PCB Utilities 23.1*

The Licensed Products Not Installed dialog box appears if a product listed in the control file is a license only (no software) product.

The Installer detects if any locked files (.EXE, .DLL) are found. If so, the Restart Windows dialog box appears reminding you to reboot the system.

**Note:** The shortcuts will be added to the All Users profile only if installation is performed for *all users*. This means that if installation is performed for a single user, other users logging into the system will not be able to view the shortcuts from the Start menu. Users can configure an installation to make it accessible from their user ID. For more information, see [Enabling Access to Installations in Current User Mode](#) on page 21.

**Note:** If you have an earlier release installed in your system, you can remove the Cadence paths from the PATH variable. The Release 23.1 products do not need any paths to be set.

**Note:** If you installed without administrative privileges, configure the installation with administrative rights. See [Performing Administrative Tasks](#) on page 20 for more information.

**Note:** To be able to use Allegro X Pulse, the Pulse Server administrator must deploy and configure Pulse by running the setup files in `<installation_location>tools\ecw\SchemaSetup` directory. Also, the Allegro X Pulse server must have Microsoft 2012 Redistributable Packages for 32- and 64-bit installed. Refer to *Allegro X Pulse Configuration Guide* for more information.

## Performing Maintenance Installation

You can perform maintenance of a installed hierarchy to incrementally add new products and to repair an existing installation. In the repair mode, the installer reinstalls all program features installed in the system.

1. Click on *setup.exe* in the top-level of the Windows DVD images (above the Disk 1 folder).
2. Click *Modify/Repair*.
3. Select one of the following depending on your requirements:
  - ☐ *Modify*: To add new features

- ☐ *Repair*: To reinstall all program features installed in the system
- ☐ *Remove*: To remove all installed features

**Note:** If you select *Remove* and click *Next*, the wizard will start immediately and the installation will be removed.

## Modifying an Installation

If you selected *Modify* and clicked *Modify*, the Control File Location page appears. Perform the following steps to add or remove features:

1. Specify the path to the control file you received from Cadence, including the name of the control file. The control file determines which products are selected by default in the Select Products dialog box.

If you do not have a control file, leave it blank.

The products selected during the previous installation are selected by default. You can:

- ☐ select new products to install incrementally
- or
- ☐ run installation without changing any selection to repair an installed hierarchy

2. Click *Next*.

**Note:** If you are installing Allegro X Design Authoring CIS or OrCAD X Capture CIS, the Footprint Viewer Option page appears. Verify that the footprint library path is correct.

3. Click *Next*.
4. Verify that the license details are correct and click *Install*.
5. Click *Finish* in the Setup Complete page.

Any new product that you installed is incrementally is added to the shortcut menus.

## Repairing an Installation

If you selected *Repair* and then clicked *Repair*, click *Install* to repair the installation.

The installer reinstalls all installed features and adds any files missing from the hierarchy.

## Removing an Installation

If you select *Remove* and then click *Uninstall*, the wizard will start, and the installation will be removed from your system.

## Uninstalling the products

1. Open *Programs and Features* from the Control Panel of Windows.

**Note:** Cadence Allegro X and OrCAD X products will appear in Programs and Features for all users only if installed using the *all users* option. If installed using the *Only for me*, it will appear only for the login ID used for installation.

2. Select *Cadence OrCAD X and Allegro X 23.1* from the list of currently installed programs.
3. Click *Uninstall* to launch the installation wizard.

The wizard prepares to remove the installation and then displays a message asking if you want to completely remove the selected application and all its product.

4. Click *Yes* to uninstall the products.
5. Click *Finish* in the Uninstall Complete page.

**Note:** If you perform a series of installations, removing installations, and reinstallations, you run the risk of corrupting the CDS\_LIC\_FILE environment variable on the file server or on the remote client computer. If this variable is corrupted, you may be unable to run any products that are still installed. For example, if you had a previous Cadence release installed, then installed and uninstalled a new release, you may be unable to run any products from the previous Cadence release. Once the CDS\_LIC\_FILE environment variable is corrupted, the only remedy is to manually edit the environment variable and reset its value to reflect the license server information, in the form of `<port_number>@<host_name>`. For example, the value of the CDS\_LIC\_FILE environment variable for a single license server might be:

```
CDS_LIC_FILE = 5280@pc1
```

and for redundant license servers, it might be:

```
CDS_LIC_FILE = 5280@pc1;5280@pc2;5280@pc3
```

**Note:** You can also use the License Client Configuration Utility to update the CDS\_LIC\_FILE variable. For more information, see [The License Client Configuration Utility](#) on page 14.

**Note:** You can similarly uninstall the Cadence SPB Manufacturing Option 23.1 from

## **Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows**

### **Installing the Products**

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Programs and Features of Windows Control Panel.

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## Installing Client on a Remote Computer

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After installing the License Manager software and products on a file server, you can set up remote client computers. The file server can be any computer on which you have installed Cadence® Allegro® X and OrCAD® X products.

**Note:** The system that has Cadence Allegro and OrCAD X products installed acts as a file server. You can also run all installed products from the file server and *Start* menu entries are created in the file server along with the creation of all environment variables required to run the installed products.

You can install the client either interactively using the Installation Wizard or unattended in the silent mode. Both types of installations will add a standard shortcut to the start menu.

**Note:** This chapter discusses interactive installation of the client. To learn about silent or unattended installation, refer to [Performing Silent Installations](#) on page 29.

Remote client computers access the license server and the products (on the file server) over a network. The remote client computer itself does not have the License Manager software or any of the products installed on it. Instead, a minimum of files are installed (system DLLs, registry entries, and environment variables) and icons that point to the products on the file server are put into the Start menu on the remote client computer. In addition, the remote client installation creates a Start menu command (*Start–Cadence–License Manager–License Client Configuration Utility*) that updates the `CDS_LIC_FILE` environment variable on the remote client computer with the licensing information on the file server.

**Note:** You can use a UNC path or a mapped drive to specify the file server location. If you use a mapped drive and UAC (User Account Control) is on, browse to the location instead of typing the path to the server location. Specifying a UNC path is recommended as mapped drive might not be accessible due to company specific IT policies.

### Installing a Client Interactively on a Remote Computer

1. Browse to and double-click the Setup launcher file (`setup.exe`).

This file is located above the *Disk1* folder; in the root if you have a CD or in the folder where you extracted the ZIP for a downloaded media.

2. Click *Install for Client Installation*.
3. Read and accept the license agreement and click *Next*.

## Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows

### Installing Client on a Remote Computer

---

4. Verify the options in the *Installation Settings* page and click *Next*.

5. Verify the options in the *Input License Details* page and click *Install*.

*Connect to Existing License Server* is selected and Port Number and Host Name are populated by default if the installer detects an existing license. Selecting *Install License Server* will install and configure a Cadence License Server.

6. Click *Finish* in the Setup Complete page.

You can select to install third-party tools right away or install at a later stage.

You can access the installed products from the *Start* menu by choosing from any one of the following:

- ☐ *Cadence Help 2023*
- ☐ *Cadence IC Packaging 2023*
- ☐ *Cadence PCB 2023*
- ☐ *Cadence PCB Utilities 2023*

## Uninstalling the Client

1. Open Programs and Features from the Control Panel of Windows.

**Note:** Cadence OrCAD X and Allegro will appear in Programs and Features for all users only if installed using the *all users* option. If installed using the *Only for me*, it will appear only for the login ID used for installation.

2. Select *Cadence OrCAD X and Allegro 23.1* from the list of currently installed programs.

3. Click *Uninstall* to launch the installation wizard.

The wizard prepares to remove the installation and then displays a message asking if you want to completely remove the selected application and all its product.

4. Click *Yes* to uninstall the client.

5. Click *Finish* in the Uninstall Complete page.

---

# Configuring and Managing Installations

---

You can use the Cadence Installation and Setup utility to:

- Configure and complete a installation performed using standard user privileges
- Update environment variables and the switch release shortcut
- Enable access to installations performed by another user in the per user mode
- Remove a release from the Programs and Features list

This chapter discusses the following topics:

- ❑ [Starting the Installation and Setup Utility](#) on page 19
- ❑ [Performing Administrative Tasks](#) on page 20
- ❑ [Updating Environment Variables and Switch Release Shortcut](#) on page 20
- ❑ [Enabling Access to Installations in Current User Mode](#) on page 21
- ❑ [Removing a Release](#) on page 22

## Starting the Installation and Setup Utility

You can start the utility by double-clicking

<installation\_location>\tools\Installutils\InstallConfig.

This utility is also available from the installation CD in the Disk1/Install\_Uilities folder.

Start the utility in the normal mode and perform the following to get the page from where you can choose the correction option:

1. Click *Next* in the Installation Setup Utility page.

The Select an Option page appears. This page has the following options:

- ❑ *Perform one time system level configuration:* Select to complete installation and configure the system to be able to access products installed without administrative rights. See [Performing Administrative Tasks](#) on page 20 for more details.

- ❑ *Configure*: Select to create and update environmental variables and the Switch Release shortcut. See [Updating Environment Variables and Switch Release Shortcut](#) on page 20 for more details.
- ❑ *Configure environment to use another user installation*: Configure environment to use installation performed by another user in per user mode. See [Enabling Access to Installations in Current User Mode](#) on page 21 for more details.
- ❑ *Remove Program and Feature Entry*: Select to remove failed installations. See [Removing a Release](#) on page 22 for more details.

## Performing Administrative Tasks

To complete installation and configure system to be able to access products installed without administrative privileges, perform the following steps:

**Note:** It is recommended that you run the batch command `<install_location>\tools\InstallUtils\AdminActions.bat` to perform these steps with default values.

1. Select *Perform one time system level configuration*.
2. Click *Next*.
3. Specify the installation location and working directory, if needed. The default values are displayed.
4. Click *Configure*.
5. Click *Finish*.

## Updating Environment Variables and Switch Release Shortcut

Perform the following steps to create and update environment variables such as CDSROOT, HOME, CHDL\_LIB\_INST\_DIR, CONCEPT\_INST\_DIR, OA\_PLUGIN\_PATH, CDS\_LIC\_FILE:

1. Select *Configure*.
2. Click *Next*.
3. Specify whether you want to update for per user or all user mode.
4. Specify if you want to configure only environment variable or shortcut or both.



The Cadence SPB Switch Release might point to an incorrect destination after uninstalling Cadence release from a system. To ensure that SPB Switch Release utility is pointing to the correct release, select *Update Switch Release Shortcut*.

You can use the Cadence SPB Switch Release utility from the Start menu to switch between different versions of Cadence installations in your system. For example, if you install the latest release in a system where an earlier release already exists, the earlier or older installation will not be accessible or visible. You can then switch release to be able to access the earlier release.

5. Specify if you want to install other updates and configure firewall.
6. Click *Next*.
7. Specify the paths and additional environment variables.
8. Click *Configure*.
9. Click *Finish*.

## Enabling Access to Installations in Current User Mode

Cadence® Allegro® X and OrCAD® X products can be installed in two user modes, all users (*Anyone who uses this computer*) or current user (*Only for me*). If installed in the current user mode, the installation is accessible only to the user who installed the products. The menu from the *Start* menu will display the product options only when the user who installed the product is logged into the system. Other users will not be able to access the installation.

**Note:** When you configure an installation for access, the installed products are not affected in any way.

You know you need to configure an existing installation, if you see only the *Configure* option and not any products listed when you choose from the *Start* menu.

To configure an installation to make it accessible from your user ID, perform the following steps:

1. Select *Configure environment to use another user installation*.
2. Click *Next*.
3. Specify the installation location and home directory, if needed.
4. Click *Configure*.
5. Click *Finish*.

You can now access the installed products from the *Start* menu.

## Removing a Release

**Note:** Use *Uninstall* from *Programs and Features* of Windows Control Panel to remove installed releases. Using *Remove Program and Features Entry* will not uninstall shortcuts.

Perform the following steps:

1. Select *Remove Program and Features Entry*
2. Click *Next*.
3. Specify the release you want to clean up for removal in the *Cleanup Release* box.
4. Click *Cleanup*.
5. Click *Finish*.

---

# Diagnosing and Repairing Installation and Licensing

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Use the Allegro® Install Diagnose utility to identify and repair installation and licensing issues on your system.

## ■ Running Install Diagnose

### Running Install Diagnose

1. Start the utility by double-clicking  
`<installation_location>\tools\InstallUtils\InstallDiagnose.`
2. Select a release, say *23.1*.
3. Click *Run*.

The diagnostic tasks performed and their results are listed.

4. Click *Repair* if any failures, marked by a red cross, are listed.

Click *Run* and specify the feature name and release to test the performance of the license server for that feature.

# **Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows**

## **Diagnosing and Repairing Installation and Licensing**

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# Downloading, Installing, and Deploying Releases and Updates using Download Manager

---

Use Cadence® Download Manager to install and update the Cadence® OrCAD® X and Allegro® X products. Download Manager lists all releases and add-on products available for installation. The Status column displays the current status of a release; not installed (*Get*), update available (*Update*), or installed (*Updated*). Clicking *Get* installs the latest update, if available.

- Click *Get* or *Update* or a listed release or add-on to download and install the release or add-on. You can also click *Install* for a selected release to start installation.
- Choose *Check for update* from the account icon on the toolbar to view refresh the listed releases and updates.
- Choose *Setting* from the account icon on the toolbar to open the Settings form to specify download settings and to schedule automatic updates.

## Setting Installation Source

Choose the *Work offline/online* option from the Setting to toggle the source of your downloads to either a local cache or the Internet. You can use the Internet option only if you have a valid Cadence login ID. You can set the login and proxy information in the Preferences dialog box.

## Setting Silent Install

You can perform silent or unattended installation from Download Manager. You can set the *Always perform silent installation for downloaded media* option in Settings dialog box to perform all installations in the silent mode. You can also choose *Silent Install* from the more (...) button to perform silent install of a specific release or update.

When you perform a silent installation, you need to select a silent install file that defines the various installation parameters.

**Note:** See the installation guides of the releases for more information on silent installation.

## Scheduling Automatic Updates

1. Open the Settings dialog box from the account icon on the toolbar.
2. In the Update Mode list, select the update mode.
  - ☐ Select *Download*, which is the default, to automatically download the latest updates for the selected package.
  - ☐ Select *Download and Install* to automatically download and then install the latest updates.
  - ☐ Select *Notify* to receive a notification whenever a latest update is available.
3. In the Schedule Time group, specify the frequency and recurrence of the updates.

## Setting Local Cache

1. Open the Settings dialog box from the account icon on the toolbar.
2. Specify the Path or browse to a location.

By default, the Path field specifies the Windows Roaming Application Data directory (%AppData%\Roaming\Cadence\DownloadManager\LocalCache\) as the local cache.

All downloads are stored in this directory.

3. You can choose to always perform silent installation.

## Deploying Across an Enterprise

You can download available releases and updates to a local cache and give access to users to be able to install releases from the cache using Download Manager. If you set the group on policy, users will not be able to view or download releases from the Internet using the download Manager.

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## Part IV - Silent Installations

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The chapter in this section describes how to perform silent or unattended installation for products, clients, and maintenance.

■ Performing Silent Installations

# **Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows**

## **Part IV - Silent Installations**

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# Performing Silent Installations

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Silent or unattended installation does not require user intervention. You start silent installation from the command line using a simple text file called the silent installation file.

You can find templates of the silent installation files in the `Disk1` folder of the installation CD. To perform silent installation modify these files and at the Windows command prompt, enter the relevant command. See the [The silentinstall-SPB.ini file](#) section of this chapter for more information on the different fields of the silent installation files.

The following sections provide details about silent or unattended installation:

- [Installing Products in the Silent Mode](#)
- [Installing Client in the Silent Mode](#)
- [Installing Design Entry HDL-Allegro PSpice System Designer Library in the Silent Mode](#)
- [Performing Maintenance in the Silent Mode](#)

## Installing Products in the Silent Mode

1. Modify the `Disk1\silentinstall-SPB.ini` file. Change the following variables:

- ☐ **TargetDir:** Specify the location where you want to install the products.
- ☐ **MODE:** Specify if you want to install all the products (`MODE=COMPLETE`) or a selected list of products (`MODE=CUSTOM`). Edit the Features section for the `CUSTOM` mode.
- ☐ **WorkingDir:** Specify the default working directory.
- ☐ **ALLUSERS:** Specify if the installation is for all users, (`ALLUSERS=YES`), or the current user (`ALLUSERS=NO`), which is the default.
- ☐ **OVERWRITE\_HOME:** Specify if the value of `HOME` should be overwritten with the value specified for `WorkingDir`. By default, the value is set to `Y`.
- ☐ **CONNECT\_TO\_EXISTING\_SERVER:** Specify the license server configuration information, the host name and the port number. If you do not have a license manager installed and configured, use the `LIC_FILE_PATH` variable.

## Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows

### Performing Silent Installations

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- ❑ **LIC\_FILE\_PATH:** Specify the path to the license file received from Cadence. Installer will install a License Manager and configure the server with the license file information. This variable will be ignored if you also specify **CONNECT\_TO\_EXISTING\_SERVER** along with this variable.

2. Save the .ini file.

3. In the Run dialog box, type the following and then click *OK*:

```
<path_to_DVD_image>\Disk1\setup.exe !quiet=<path_to_your_silentinstall-SPB.ini  
file>\silentinstall-SPB.ini
```

## Installing Client in the Silent Mode

1. Modify the `Disk1\silentClientinstall-SPB.ini` file. You need to modify these three variables:

- ❑ **WorkingDir:** Specify the home directory
- ❑ **FileServerLocation:** Specify the server location.
- ❑ **OVERWRITE\_HOME:** Specify if the value of `HOME` should be overwritten with the value specified for `WorkingDir`. By default, the value is set to `Y`.

2. Run the setup by using the command:

```
<path_to_Disk1>\setup.exe -client !quiet=<path to silentClientinstall-SPB.ini  
file>\silentClientinstall-SPB.ini.
```

For example, if you saved the modified `silentClientinstall-SPB.ini` to `C:\temp`, then the command will be:

```
<path_to_Disk1>\setup.exe -client !quiet=C:\temp\silentClientinstall-SPB.ini
```

## Installing Design Entry HDL-Allegro PSpice System Designer Library in the Silent Mode

1. Modify the .ini file. You need to modify these three variables:

- ❑ **TargetDir:** Specify the location where you want to install the library file
- ❑ **ALLUSERS:** Specify if the installation is for all users, (`ALLUSERS=YES`), or the current user (`ALLUSERS=NO`), which is the default.
- ❑ **Features:** Specify the products that you want to install

2. Run the setup by using the command:

```
<path_to_Disk1>\setup.exe !quiet=<path to .ini file>\<.ini file>.
```

**Note:** Similar to uninstalling the other installed products, as described in [Performing Maintenance in the Silent Mode](#) on page 31, specify `OnMaintenance = REMOVEALL` in the `[state]` section to remove installed libraries.

## Performing Maintenance in the Silent Mode

You might perform maintenance installation:

- To incrementally add new products: In this, the specified products are added to the existing installation. The installation of third party products is optional, except the following in case of installing Capture CIS or Design Entry HDL CIS for the first time: Crystal Reports and .NET Framework,
- To repair an existing installation: The installer will update the registry settings and environmental variables.

**Note:** In addition, you can also perform maintenance to remove or rollback installation. In case of updating a release for a HotFix or performing a rollback, you use the two variables, `Rollback` and `IsrBackup`. Refer to [Updating the Products](#) on page 41 for more details.

To perform unattended maintenance installation:

1. Navigate to the `silentinstall-SPB.ini` file template from the `Disk1\Documents` folder in the Windows DVD image.
2. Edit the following in the template:
  - ☐ `OnMaintenance`: Specify whether you want to modify (`OnMaintenance=MODIFY`), repair (`OnMaintenance=REPAIR`), or remove (`OnMaintenance=REMOVEALL`) the existing installation.
  - ☐ `UPDATE_VC_REDIST`: Specify Y if you want to update Microsoft Visual C++ Redistributable.
  - ☐ `CONFIGURE_FIREWALL`: Specify Y if you want to create firewall entries.
3. Update the `Features` section by removing the comments (`;`) if you want to incrementally add new products.
4. Save the `.ini` file.
5. In the Run dialog box, type the following and then click OK:

```
<path_to_DVD_image>\Disk1\setup.exe !quiet=<path_to_your silentinstall-SPB.ini  
file>/silentinstall-SPB.ini
```

## The silentinstall-SPB.ini file


The template `Disk1\documents\silentinstall-SPB.ini` for silent installation contains various variables to set the different installation parameters. The file has three sections; *State*, *Features*, and *Data*. Most variables are commented using the semicolon (;). You can edit the file using any text editor and remove the comments, if needed, to use the variables. The following table describes the different variables.

Variable	Description
State	
TargetDir	<p>Specify the location where you want to install the products. This variable is in the State section of the template. For example, to install the products at the location <code>D:\Cadence\SPB_23.1</code> edit the template to read <code>TargetDir=D:\Cadence\SPB_23.1</code>.</p> <p>If you use a mapped drive for the path and UAC is on, ensure that the mapped drive is accessible from your system by using the Windows command prompt or any other shell.</p>
RebootIfReqd	<p>Specify <code>RebootIfReqd=Y</code> if you want the computer to reboot when installation is completed. The default value is <code>N</code>.</p>
CONNECT_TO_EXISTING_SERVER	<p>Specify the license server configuration information, the host name and the port number. If you do not have a license manager installed and configured, use the <code>LIC_FILE_PATH</code> variable.</p>
LIC_FILE_PATH	<p>Specify the path to the license file received from Cadence. Installer will install a License Manager and configure the server with the license file information. This variable will be ignored if you also specify <code>CONNECT_TO_EXISTING_SERVER</code> along with this variable.</p>
FileServerLocationDir	<p>Specify the server location. This is the shared location where products are installed. This variable is required for client installation.</p> <p>If you use a mapped drive for the location and UAC is on, ensure that the mapped drive is accessible from your system by using the Windows command prompt or any other shell.</p>

## Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows

### Performing Silent Installations

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OnMaintenance	<p>You can specify whether you want to modify, repair, or remove installation. The possible values are <code>MODIFY</code>, <code>REPAIR</code>, and <code>REMOVEALL</code>. <code>MODIFY</code> allows you to add new products by editing the Feature section of the silent installation file. <code>REPAIR</code> will update the environment variables and the registry settings. <code>REMOVEALL</code> will uninstall the current installation.</p>
Rollback	<p>Specify <code>Rollback=Y</code> in combination with <code>OnMaintenance=REMOVEALL</code>, if you want to perform rollback to uninstall or remove specific HotFixes.</p> <p>To remove the current installation,</p> <ol style="list-style-type: none"><li>Specify <code>Rollback=N</code> in combination with <code>OnMaintenance=REMOVEALL</code>.</li><li>Enter the command <code>setup.exe -removeonly !quiet=&lt;path to .ini&gt;</code></li></ol>
IsrBackup	<p>Specify <code>IsrBackup=Y</code> if you want to back up files while installing HotFixes. This makes it possible to rollback specific HotFixes. For more details, see <a href="#">Updating the Products</a> on page 41.</p>
ALLUSERS	<p>Specify if the installation is for all users (<code>ALLUSERS=YES</code>), or the current user (<code>ALLUSERS=NO</code>), which is the default. An installation for all users allows any user logging into the installed computer to access the installed products. A single user installation only allows the login ID used during installation to access and uninstall the applications.</p>
GEN_DOC_INDEX	<p>Specify <code>Y</code> to generate document index. Document index are generated and used the online help tool, Cadence Help.</p>
	<div> <b>Important</b></div> <p>Generate document index if you are installing a server that will be accessed by users without write permission on the installation hierarchy. Users will not be able to view or search installed documents if the index is not generated.</p>
REMOVE_CADENCE_PATH	<p>Specify <code>Y</code> to remove Cadence paths from the <code>PATH</code> environment variable. By default <code>N</code> is specified to ensure paths are not removed.</p>

## Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows

### Performing Silent Installations

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MODE	<p>Specify if you want to install all the products or a selected list of products. This variable is in the State section. To install all products, edit the file to <code>MODE=COMPLETE</code>. To install specific product, edit to <code>MODE=CUSTOM</code>.</p> <p>If you specify the value of <code>MODE</code> as <code>CUSTOM</code>, you need to modify the <code>Features</code> section. In the <code>Features</code> section of the template, remove the semicolon (;) from the lines that contain the product to be installed. For example, to install all Cadence Allegro products, remove the semicolon from the beginning of the line <code>Feature7=Allegro Products</code>, as shown below.</p> <pre>[Features]  ;Feature0=OrCAD Products ;Feature1=OrCAD Products\OrCAD Capture CIS ;Feature2=OrCAD Products\OrCAD PSpice Designer ;Feature3=OrCAD Products\OrCAD FPGA System Planner ;Feature4=OrCAD Products\OrCAD PCB Designer ;Feature5=OrCAD Products\OrCAD PCB SI ;Feature6=OrCAD Products\PSpice Feature7=Allegro Products</pre>
UPDATE_CRSTAL	<p>Specify <code>Y</code> if you want to update Crystal Reports. If you install Capture CIS or Design Entry HDL CIS for the first time, the value for this variable should be <code>Y</code>.</p>
UPDATE_VC_REDIST	<p>Specify <code>Y</code> if you want to update Microsoft Visual C++ Redistributables.</p> <p><b>Note:</b> Installed products might not run if <code>UPDATE_VC_REDIST</code> is set to <code>N</code>.</p>
CONFIGURE_FIREWALL	<p>Specify <code>Y</code> if you want to create firewall entries.</p>
IKNOWBEST	<p>Specify <code>IKNOWBEST=YES</code> if you do not want the installer to check disk space before installation. The valid values are <code>YES</code> and <code>NO</code>.</p>
OVERWRITE_HOME	<p>Overwrites the value of <code>HOME</code> with the value specified for <code>WorkingDir</code> if set to <code>Y</code>.</p>

## Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows

### Performing Silent Installations

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USE_CTRL_FILE	Specify Y if you want installer to use a control file.
CTRL_FILE_PATH	Specify the absolute path to the control file. Used if USE_CTRL_FILE is set to Y.
Features	Specify the products that you want to install in this section, if you had specified the MODE=CUSTOM. Refer to the description of MODE in this table for more information.
Data	
WorkingDir	Specify the default working directory. This variable is in the Data section. For example, to specify C:\SPB_Data as the working directory, edit to WorkingDir=C:\SPB_Data.
FootprintPath	Specify the footprint path; commented by default.
overwrite-lic-path	Specify the port and host information to overwrite CDS_LIC_FILE. Commented by default.
append-lic-path	Specify the port and host information to append in CDS_LIC_FILE. Commented by default.

# **Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows**

## **Performing Silent Installations**

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## Part V - Additional Information

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The chapters in this section gives you additional information that help you perform installation smoothly. These chapters have troubleshooting information, frequently asked questions, and details about specific scenarios that you might encounter while performing installation.

- [Getting Help](#)
- [Performing Special Tasks](#)
- [Troubleshooting: Frequently Asked Questions](#)



## Getting Help

This document describes available resources for information, recommendations, and websites to help you use the Cadence® Allegro® X and OrCAD® X tools.

Resource	Found in...
Documentation	Context sensitive help, user guides, tutorials, and white papers to help you in the adoption of Cadence tools.
<i>What's New in PCB Editor</i>	<i>Help – What's New</i>
<i>Known Problems and Solutions</i>	<i>Help – Documentation – Release Info</i>
<i>System Requirements</i>	<i>Help – Documentation – Release Info</i>
<i>Allegro Platform Migration Guide</i>	<i>Help – Documentation – Release Info</i>
White papers, Application Notes	<i>Help – Web Resources – Community</i>
Best Practices	<i>Help – Documentation – Best Practices</i>
Tutorials	<i>Help – Documentation – Tutorials</i>
Training	Formal, structured, instructor led, hands-on training in a classroom environment.
	<i>Help – Web Resources – Education Services</i>
<b>Additional Resources</b>	
Workshops	Contact your Cadence Account Manager for more information.
Webinars	<i>Help – Web Resources – Online Support</i>
Feature demos	<i>Help – Documentation – Demos</i>
SKILL updates	<install_location>/share/pcb/examples/skill/DOC
<b>Customer Support</b>	<a href="http://support.cadence.com/wps/myportal/cos/psa/contacts.html">http://support.cadence.com/wps/myportal/cos/psa/contacts.html</a>

## Cadence Online Support

Cadence Online Support gives you answers to your technical questions. Find the latest in hotfixes, case and product change release (CCR) information, technical documentation, solutions, software updates and more.

**Note:** To register on Cadence Online Support you will need your email address and your host-ID or serial number.

**To Access Cadence Online Support, go to:**

<http://support.cadence.com/>

**Note:** OrCAD X customers need to contact Cadence Channel Partners. Cadence Channel Partners are listed at:

[http://www.cadence.com/Alliances/channel\\_partner/pages/default.aspx](http://www.cadence.com/Alliances/channel_partner/pages/default.aspx)

## Requesting a License

If you need to change your license (for instance, you want to upgrade to a newer version or purchase additional products), or if you need additional licenses for other users, contact Cadence Product Sales at:

North America Customers - Phone: 800.746.6223

International Customers - Phone: 408.943.1234

Email: [salesinfo@cadence.com](mailto:salesinfo@cadence.com)

or check the following website for contact information in your local area:

<http://www.cadence.com/contact.html>

## Customer Support

Cadence Customer Support is available online. There are specific email addresses, phone and FAX numbers for different regions of the world. The website provides contact details for your particular area.

**To Contact Cadence Customer Support, go to:**

<http://support.cadence.com/wps/myportal/cos/psa/contacts.html>

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# Performing Special Tasks

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## Updating the Products

### Hotfix Update Information

Hotfixes are made available periodically after a main release ships. These typically contain bug fixes and minor performance or functional enhancements based on the current main release.

The Cadence software update process works on an “as-requested” model. You must subscribe in order to be alerted about an update. Under this process, you will receive an email when selected product updates are available. These emails will contain a link to an online order form. When you are ready to receive and install the release, complete and submit your order.

**Note:** You must have a current maintenance agreement to be eligible for software updates.

### Backup Hotfix

You can enable backup option while installing HotFix. This option needs to be enabled for every installation. If you enable this option for an installation, then you can uninstall the complete installation or rollback the last HotFix that was installed. Rollback is possible for the last two installed HotFixes in sequence, provided backup is enabled for both the installations. For example, you installed three hotfixes with backup enabled: hotfix1, hotfix2, and hotfix3. You can only rollback hotfix3 and hotfix2, and not hotfix1.

Note that if you did not select backup in the current installation, rollback will not be available even if the last installation was with backup enabled. For example, you installed hotfix1 with backup on and then installed hotfix2 with backup off. Later on, if you install hotfix3 with backup on, you can only rollback hotfix3.

**Note:** You can use Programs and Features of the Windows Control Panel to uninstall. In Programs and Features, select the Cadence Allegro X and OrCAD X release and click *Uninstall*. The uninstall process lets you select between HotFix and full release uninstall.

To install HotFix in silent mode with backup on:

## Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows

### Performing Special Tasks

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**Note:** Installation might take more time if backup is on.

1. In the INI file to set the `IsrBackup` variable to `Y`. The following sample file has the variable set to `Y`.

```
[State]

TargetDir=C:\Cadence\SPB_23.1

IsrBackup=Y
```

2. At the command prompt, give the following command:

```
<hotfix_path>\SPB221_ISR.exe !quiet=C:\Silent_ISR.ini
```

Where, `C:\Silent_ISR.ini` is the INI file with `IsrBackup` set to `Y`.

To install HotFix in silent mode with backup off:

1. In the INI file, set the `IsrBackup` variable to `N` as shown in the sample file:

```
[State]

TargetDir=C:\Cadence\SPB_23.1

IsrBackup=N
```

2. At the command prompt, give the following command:

```
<hotfix_path>\SPB221_ISR.exe !quiet=C:\Silent_ISR.ini
```

Where, `C:\Silent_ISR.ini` is the INI file with `IsrBackup` set to `N`.

## Switching Versions

You can use Cadence Switch Release to switch between the different Cadence installations earlier than 23.1 in your system. To start this program choose *Cadence – Cadence Switch Release* from the Start menu.

Once you install 23.1, you should only use the latest version of the Cadence Switch Release program to change releases.

## Uninstalling Software

**Note:** If you perform a series of installations, uninstallations, and reinstallations, you run the risk of corrupting the `CDS_LIC_FILE` environment variable on the file server or on the remote

## Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows

### Performing Special Tasks

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client computer. If this variable is corrupted, you may be unable to run any products that are still installed. For example, if you had a previous Cadence release installed, then installed and uninstalled a new release, you may be unable to run any products from the previous Cadence release. Once the CDS\_LIC\_FILE environment variable is corrupted, the only remedy is to manually edit the environment variable and reset its value to reflect the license server information, in the form of `<port_number>@<host_name>`. For example, the value of the CDS\_LIC\_FILE environment variable for a single license server might be:

```
CDS_LIC_FILE = 5280@pc1
```

and for redundant license servers, it might be:

```
CDS_LIC_FILE = 5280@pc1;5280@pc2;5280@pc3
```

## Uninstalling the License Manager

### To Uninstall the License Manager

1. Open Programs and Features from Control Panel of Windows.
2. Navigate to the *Cadence License Manager* and click *Uninstall*.

## Troubleshooting Installation

The Cadence Allegro and OrCAD installer creates a log file that you can use to troubleshoot installation problems. The log file allows you to identify the steps executed during installation, the user inputs, error conditions that lead to termination of installation, environment variables before and after installation, and third party software installed before and after installation.

The log file is saved in the install directory with the name `InstLog<date>_<time>.txt`. The file is organized into different sections that helps in finding information quickly.

## Server Model License Expiration Notification

The `lmCheckExpiration.exe` utility checks all licenses in the specified license file. You can schedule the utility to run periodically on your system using a job scheduler to notify you when licenses are close to expiring.

The utility has the following syntax:

```
lmCheckExpiration.exe
```

## Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows

### Performing Special Tasks

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```
[-c license_file] [-d days_to_expire] [-m email_address]  
[features]
```

#### Where:

Parameter	Description
-c license_file	Use the specified license file. You can specify a path to the license file, or port@host, or both as a concatenated, colon-separated list.  The default is to look for and check the <i>CDS_LIC_FILE</i> , the clients file, or the <i>LM_LICENSE_FILE</i> , in that order.
-d days_to_expire	Include only those licenses expiring within the specified number of days.  The default is to return only those licenses expiring today.
-m email_address	Send the expiration report to the specified address. The report is also written to the command prompt.
features	Specify a list of features (products) to check. If you do not specify any features, the default is to return information for all licenses served by the license server(s).

The utility returns 0 for success, 1 if it cannot connect to any of the license servers, and 2 for an invalid argument.

If a license is going to expire within the specified number of days, the utility writes a warning message, and optionally sends mail to a specified user. The message includes the license name, version, expiration date, and the number of days before expiration.

You can download the licensing utilities from the Windows tab of the Cadence Downloads page at <http://downloads.cadence.com>.



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# Troubleshooting: Frequently Asked Questions

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This chapter contains frequently asked troubleshooting questions and their solutions.

- [How do I configure or enable the license manager?](#)
- [Do I need a new license file for the 23.1 release?](#)
- [Can I invoke tools from previous releases such as 22.1 with the 23.1 license file?](#)
- [Which Operating Systems are supported by Cadence License Manager?](#)
- [Which patches need to be installed on Linux based systems for 23.1 release to work?](#)
- [Our IT plans to host our license server on Linux, will I be able to invoke the 23.1 tools installed on my Windows client systems?](#)
- [Is Cadence License Manager supported on virtual machines?](#)
- [Our IT has implemented IPv6 network at our site, will I be able to invoke 23.1?](#)
- [Why will my licensing not work when I cut and paste the new 23.1 features into the existing 22.1 license file?](#)
- [Should I use lmreread to update my license server with the new 23.1 license file?](#)

## How do I configure or enable the license manager?

**Answer:** From the start menu, choose *Cadence – Release <version> - License Client Configuration Utility*. Specify the port and hostname of the license server(s) you want to use, and then click *Next*. Specify the port and host name in the form of `portname@hostname`; for example, `5280@sjlic01`. You can use semicolon (;) to specify multiple license servers, such as `port1@host1;port1@host2`. You can also specify a fault tolerant or triad license server, you can use the comma (,) to separate the hosts, such as `port1@host1,port1@host2,port1@host3`.

**Do I need a new license file for the 23.1 release?**

Yes, you need a new license file to invoke 23.1 release if you use product that require a License Server. The license file can be generated by logging to *support.cadence.com* – *Software – Order Licenses*. You might also contact your Cadence Sales Representative.

**Can I invoke tools from previous releases such as 22.1 with the 23.1 license file?**

Yes, you can. All Cadence license files are backward compatible, which means that earlier releases are supported. There should not be any issues invoking earlier releases such as 22.1.

**From where can I download the latest version of License Manager?**

Visit <https://downloads.cadence.com> site to download and install the latest version of Cadence License Manager. The name of the release is *Lic+Config\_Utils*.

**Which Operating Systems are supported by Cadence License Manager?**

**For Windows:**

- ☐ Microsoft® Windows® 10
- ☐ Microsoft® Windows 11
- ☐ Microsoft® Windows® 2016 Server<sup>1</sup>
- ☐ Microsoft® Windows® 2019 Server
- ☐ Microsoft® Windows® 2022 Server

**For Linux:**

- ☐ RHEL 7.4 or later
- ☐ RHEL 8
- ☐ SLES 12
- ☐ SLES 15
- ☐ CentOS 7.4 or later

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1. Windows Server 2016 is no longer supported by FlexNet. Any support requiring FlexNet involvement must be reproduced in another Windows flavor listed in this table to be addressed by FlexNet.

## Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows

### Troubleshooting: Frequently Asked Questions

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#### **Which patches need to be installed on Linux based systems for 23.1 release to work?**

Cadence provides the list of recommended patches for supported Linux-based distributions. This list can be accessed by logging to *support.cadence.com – Software – Computing Platforms – Recommended platform patches* for systems running Cadence products.

#### **Our IT plans to host our license server on Linux, will I be able to invoke the 23.1 tools installed on my Windows client systems?**

The Cadence License Manager works on TCP/IP protocol. Check if you are able to ping or telnet/ssh from your Windows client systems to the Linux server. If this is achieved, there should be no problems for the Windows clients to check out licenses from the Linux server.

#### **Is Cadence License Manager supported on virtual machines?**

Yes, Cadence license servers can be hosted on virtual machines. However, desktop virtualization is not supported. For more information, visit the link <https://www.cadence.com/support/Pages/downloads.aspx> and look at the section Cadence Virtual Machine License server.

#### **Our IT has implemented IPv6 network at our site, will I be able to invoke 23.1?**

Release 23.1 products will not invoke because client-side implementation of IPv6 is still not supported. You would need to configure a dual-stack network consisting of both IPv4 and IPv6.

#### **Why will my licensing not work when I cut and paste the new 23.1 features into the existing 22.1 license file?**

Copying features from one license file to another is not allowed. All licensed features must be generated at the same time or they will not work. Attempting to add these kinds of features into your existing license file will cause licensing errors when trying to invoke products. Use the new license file in its entirety to invoke your Cadence products.

Restart the license server, and avoid using *Imreread*.

#### **Should I use Imreread to update my license server with the new 23.1 license file?**

Cadence recommends that you restart the license sever. Cadence applications can handle a license server restart.

## **Cadence OrCAD X and Allegro X 23.1 Installation Guide for Windows**

### **Troubleshooting: Frequently Asked Questions**

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Cadence does not recommend *Imreread* and advises to restart the license server for any license updates. *Imreread* has issues with certain keywords in the license and options files. Flexera (the company that now owns FLEXnet) has no plans for fixing *Imreread* for all cases and any issues.