

Cadence Installation Guide

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About This Guide

The *Cadence Installation Guide* provides the basic information and procedures required to install Cadence® products. Though [Chapter 8, "Overview of Software Configuration"](#) provides a brief summary of software configuration, refer to your product documentation for detailed configuration information.

To use this guide effectively, you need to determine your level of experience with Cadence product installation and system administration. If you have installed Cadence products earlier and have some experience with system administration, you may use the *Cadence Installation Quick Reference* that is provided as a DVD insert. Otherwise, you should read the entire guide.

Additional Information

Cadence Installation Quick Reference

The *Cadence Installation Quick Reference* is a printed document included in the DVD case. It briefly outlines how to install Cadence products. It contains no details on licensing, configuration, or testing.

InstallScape User Guide

The InstallScape User Guide containing information on how to configure and use InstallScape is available at downloads.cadence.com and also at the top level of your product DVD. It is strongly recommended that you go through this guide and familiarize yourself with InstallScape before starting installation of Cadence software.

Release-Specific Information

A `README` file containing release-specific or product-specific information might exist for your product. If this file exists, you will find it at the top level of your product DVD.

Customer Support Contact Information

For customer support contact information, go to

www.cadence.com/support

Online Technical Support

For online technical support, go to the Cadence Online Support web site:

<http://support.cadence.com>

The Cadence Online Support web site provides important product-related documents. This service is available to all Cadence customers who have a software support services agreement.

In the right column, under Resource Library, click *Installation docs*. The page that appears contains links to versions of this installation guide, a list of frequently asked questions (FAQ), the *Cadence License Manager*, and other installation-related documents.

Customer Training

For information about customer training, go to

www.cadence.com/education

General Information

For general information on Cadence Design Systems or Cadence products, go to

www.cadence.com

About Cadence Installation Software

Cadence uses the following installation programs for various delivery and platform options:

- **InstallShield** installs on Microsoft Windows platform.
- **InstallScope** installs on UNIX and Linux platforms.

Although these two installation programs are different, they follow the same basic format:

1. Mount or locate your installation media.
2. Run the installation program.
3. Follow the on-screen instructions to install the Cadence software.
4. Perform any post-installation tasks described in your product documentation.

Software Delivery

Cadence uses the following software delivery methodology:

- Individual files are grouped into larger collections called *kits*. These kits contain additional information used for tasks such as configuration control and file integrity checking.
- Kits are combined in various ways to create products and allow products to share functionality.
- Each kit may contain special configuration code supplied by the product team.

Cadence has developed utilities to manage these kits and the relationships of these kits between the different products.

The Cadence installation software applies updates to the software using the Update/Hot Fix process (for information regarding Update and Hot Fix , see [step 2](#) on page 11). By managing the inter-product and intra-product dependencies, the installation software updates all products in a coordinated fashion.

Installing Software Online

If you are authorized for electronic software distribution, you can download a DVD image using either FTP or HTTP. Alternatively, you can install Cadence software over the Web using InstallScape. See download.cadence.com for more information.

If you are installing Cadence software using a downloaded DVD image, each DVD downloaded is a tarfile, which must be unpacked with the `tar` (or equivalent compatible) command. The tarfile is not compressed. After you have unpacked the files, use InstallScape or InstallShield to install the Cadence software on UNIX or Windows systems, respectively. See [step 7](#) on page 16 for more information.

If you are installing Cadence software over the Web using InstallScape, refer to the InstallScape documentation located at download.cadence.com.

Important Reminders

- Always use Cadence installation software to install and update your Cadence application software. If you modify or install application software without using the Cadence installation software, the data files used to determine the status of each product can be made obsolete.
- Always use the installation software shipped with the application software you are installing. Older versions might not work with the latest control files.
- Always install products from different releases into separate directories. To ensure that different releases do not corrupt the installation data files, the Cadence installation software does not let you install products from different releases into the same directory.

Before You Begin the Installation

Before installing any Cadence products,

1. Check the Cadence software package and its contents.

This package contains

- A *Software Shipment Report* received as an e-mail message (containing a copy of the license file) or on a DVD.
- One or more Installation Control e-mail files (UNIX only) received as an e-mail message or on a DVD.

These files include the software installation control file.

Note: Not all orders contain an Installation Control file. This is because Cadence has been using a new order entry/tracking system over the past few years which no longer generates an installation control file.

Note: The subject of the e-mail containing the Installation Control file has the following format:

```
#INSTALLSCAPE PRODUCT "product details"
```

```
#INSTALLSCAPE SOURCE "product source"
```

For example, a partial entry of InstallScape control file for ICOA5251 is shown below

```
#INSTALLSCAPE PRODUCT "P111" "111: Cadence(R) Design Framework II"
```

```
#INSTALLSCAPE SOURCE "is/ICOA5251/hppa/Base" "Base ICOA5251 HPPARISC 11.0 Release" "Version  
Base ICOA5251 HPPARISC 11.0 Release"
```

- One or more e-mail files with attachment containing the licenses in ASCII format.
 - One or more sets of DVDs for Cadence products or, if you have purchased the electronic distribution option, FTP scripts (Bourne shell) that let you download DVD images from Cadence
2. Determine the type of release received by looking on the DVD label below the words "electronic design software."

There are three different types of releases. Different product families have different release schedules and your product may use a combination of these release types:

- Base
A complete software release.
- Update
A periodic update of a base software release.
- Hot Fix
A collection of critical fixes, released intermittently between regularly scheduled releases.

Note: A DVD containing InstallScape for all ports is also shipped with the product DVDs. By default, the product DVD contains InstallScape of the same platform as the products, such as sun4v InstallScape for sun4v products. However, if you want to use InstallScape for a platform other than the one in the product DVD, you will need to install it. See the README file in the top level of the DVD for the installation instructions.

3. Go to support.cadence.com.

- a. Log in to Cadence Online Support.

- If you do not have a Cadence Online Support account, click *Sign up as a new user*, and follow the instructions.
- If you already have a Cadence Online Support account, click *Login*, type your login name and password, and click *Login*.

The Cadence Online Support window appears.

- b. Scroll to "Installation" and click on *Installation, Licensing & System Configuration Information*.

The page that appears has important information about configuration, system patches, and other requirements that relate to all Cadence products.

- c. Click *Platform Requirements*.
- d. Click *Supported Hardware Platforms*.

Check your system hardware and software configuration to make sure it is properly set up before you attempt to load the Cadence software onto your system. The Cadence family of products runs on a variety of UNIX-based and PC-based systems.

- e. Go back to the Cadence Online Support window, scroll to "Installation" and click *Recommended OS patches*.

You can also contact the manufacturer of your platform or Cadence Customer Support at www.cadence.com/support.

- f. Go back to the Cadence Online Support window, scroll to "Releases" and click *Manuals & Release Information (KP&S, Release Alerts ...)*.
- g. Click on a release.

A product documentation window appears, listing all the documentation for the release. You can read the full documentation before installing the products to learn what is new in this release. This library also includes configuration manuals.

If the release you are interested in is not listed, go back to the Cadence Online Support window, click on the *Search All* tab, and, in the *Search for* field, type "Release Documentation Index Page".

4. Set the default compiler to the standard ANSI C compiler if you have other compilers on your system.

Some Cadence products use the ANSI C compilers to link in customer C code or libraries.

For information on the compilers required for your operating system, contact the manufacturer of your platform or search in Cadence Online Support.

5. Verify that your system has enough free disk space for the products you are installing.

See your product documentation for more information about memory, disk, and swap requirements for design databases of various sizes.

6. Determine the type of installation.

- If your shipment contains only Baseline or both Baseline, Update, and Hot Fix DVDs, follow the instructions in [Chapter 4, "Installing Products into a New Hierarchy."](#)
- If you have previously installed products from this release and now want to install additional products from these DVDs, follow the instructions in [Chapter 5, "Installing Additional Products into an Existing Hierarchy."](#)
- If you have previously installed products from this release and now want to update those products using Update and Hot Fix DVDs, follow the instructions in [Chapter 6, "Updating an Existing Hierarchy."](#)

Note: The type of DVD you mount first (Baseline, Update, and Hot Fix DVD#1) determines the resulting installation type. That is, if you start with Baseline DVD#1, you will install the baseline version of the selected products. If you start with an Hot Fix DVD#1, you will install the Hot Fix version of the products as they existed on the date that the Hot Fix DVD set was created. To complete the installation, you may need to mount and install additional products from the baseline version after installing from the Update and Hot Fix DVDs disk.

Installing Products into a New Hierarchy

To install, configure, and test your Cadence® products and licensing for a new release,

1. Do one of the following:
 - If you received an `Installation Control` file for this release via e-mail, save it to a known location.
 - If you received an `Installation Control` file on DVD, mount the DVD and access the file. Then save the file to a known location.
2. Verify that you have read permission for the `Installation Control` file.
3. Save the ASCII license file that you received as an email attachment in a known location and ensure that you have read permission.
4. Identify the DVD to use for installation.

If you have received only a set of Baseline DVDs, use the Baseline DVD#1 first. The disk should be labeled `Disk # of n for platform`.

If you have received both a set of Base, Update, and Hot Fix DVDs (and the `Installation Control` e-mail file), use the Update and Hot Fix DVD#1 first. After installing the Update or Hot Fix DVDs, InstallScape may ask you to then mount the baseline DVD to complete the installation in a new hierarchy.

Note: For Windows users, the Update/Hot Fix DVDs contains the full release. The baseline DVD will not be required to complete the installation in a new hierarchy.

Note: The type of DVD you mount first (Baseline, Update, and Hot Fix DVD#1) determines the resulting installation type. That is, if you start with Baseline DVD#1, you will install the baseline version of the selected products. If you start with an Hot Fix DVD#1, you will install the Hot Fix version of the products as they existed on the date that the Hot Fix DVD set was created.

5. Mount the DVD.

Note: The installation starts automatically when you insert the DVD on a Microsoft Windows system. If you are using a dongle, attach it to your computer before inserting the DVD.

- a. Log in as `root`.

Note: You do not normally need root permission to mount a DVD on Solaris.

- b. If it does not already exist, create the DVD directory by typing

```
mkdir /dvd_dir
```

- c. Insert the DVD into the DVD drive.
- d. Mount the DVD drive on the DVD directory, using the appropriate command:

Solaris	<pre>/etc/mount -F hsfs -o ro /dev/ device / dvd_dir</pre> <p>Note: Normally, the Solaris OS automounts the DVD. In case the automount fails, see Solaris does not mount the DVD automatically for troubleshooting tips.</p>
HP-UX	<pre>/etc/mount -F cdfs -o ro /dev/dsk/ device / dvd_dir</pre> <p>Note: Typically, the device name to represent DVD in HP-UX is <code>c0t0d0</code>.</p>
AIX	<pre>/etc/mount -v cdrfs -o ro /dev/ device / dvd_dir</pre> <p>Note: Typically, the device name to represent DVD in HP-UX is <code>dvd0</code>.</p>
Linux	<pre>/bin/mount -o ro /dev/ device / dvd_dir</pre> <p>Note: Typically, the device name to represent DVD in Linux is <code>dvd</code>.</p>

- e. Log out as `root`.

6. Check the top level of your DVD for `README` file.

If this file exists, it contains information that might be necessary for the installation of your product.

7. Start the interactive setup utility, `SETUP.SH`.

On a UNIX system, type

```
dvd_mount_point/SETUP.SH
```

For example, if `dvd_dir` is the DVD mount point, then the command to run `SETUP.SH` will be

`/dvd_dir/SETUP.SH`

On a Microsoft Windows system, the installation should start automatically. If it does not, go to the top-level directory of the DVD and run the `setup.exe` program.

8. When `SETUP.SH` asks you to specify the path to `your_install_dir`, do one of the following:

- Type the path to an empty existing directory.
- Type a name for a directory (`SETUP.SH` will create the path for you).

9. Answer the prompts, and proceed as directed.

The appropriate installation utility, `InstallScape` or `InstallShield`, should start automatically.

On Windows, double-click on `setup.exe` at the top level of the DVD.

10. Do one of the following:

- Load the products and licensing using `InstallShield`.
 - `InstallShield` is a GUI-based installation wizard.
 - Each screen includes instructions. `InstallShield` allows you to install the license manager, install products, and update your license file.
 - The installation is customized for each product family: see the `README` file at the top level of your DVD for appropriate information.
- Load the products using `InstallScape`. See the `InstallScape User Guide` for details on how to use `InstallScape` for installing products.

You will need to configure the license file before you can start using it. For more information, see the `Cadence License Manager`. This document is available on Cadence Online Support or in the Installation with the product manuals. Or, if you have a previously licensed Cadence hierarchy available, you can read this document using Cadence Help. If your installation consists of more than one DVD, either because the release is on two volumes or because you began the installation with a Update and Hot Fix DVDs DVD, `InstallScape` installs the selected products from the first disk and then prompts you to dismount that DVD and continue the installation using the next disk. For Update and Hot Fix installations, you finish by installing the non-updated products from the baseline DVD.

Creating the Tools Link (if required)

Some Cadence tools require a tools directory to be present in the installation hierarchy. This tools directory should be a symbolic link to the `tools.<platform>` directory that is created at the time of installation. Typically, this link is created automatically when you run product configuration scripts such as licensing configuration.

If your product requires this link and if this link does not exist, do the following:

1. Change to the installation directory by specifying the following command at the command prompt:

```
cd <install_dir>
```

2. Create the tools link by specifying the following command at the command prompt:

```
ln -s tools.<platform> tools
```

Installing Additional Products into an Existing Hierarchy

You can install software from only a single release in a given installation directory. InstallScape does not let you install products from different releases in the same hierarchy.

You can add products using Update and Hot Fix DVDs or Baseline DVDs. You can add products using a DVD set that was the same release identified as the release in the hierarchy.

Note: If you are adding products using Update and Hot Fix DVDs, you will also need the corresponding Baseline DVD set.

Protecting Your Production Environment

To protect your production environment during the installation process,

- Do not install your software in a directory that is your current production hierarchy. Install your software in a new hierarchy or a copy of your production hierarchy.
- Do not install software from more than one baseline release into the same hierarchy.
- Test the installation fully before making it your production hierarchy.

To add products into an existing hierarchy,

1. Log in to the proper account.
2. Create a duplicate hierarchy from the original Baseline DVD using the same method you used to install the production hierarchy.

Alternatively, you can create a duplicate of the Cadence hierarchy you want to update by using operating system commands such as the UNIX `tar` command.

Do not use the `cp` command because it does not preserve file system links.

3. Identify the DVD to use first.

If you have received only a set of Baseline DVDs, use the Baseline DVD#1 first.

If you have received only a set of Update and Hot Fix DVDs (and the `Installation Control` e-mail file), use the Update and Hot Fix DVD#1 first.

Note: You will need the corresponding Baseline DVD set to complete installation. The InstallScape utility asks you to mount the baseline DVD after installing the Update and Hot Fix DVD.

If you have received both a set of Baseline and Update or Hot Fix DVDs (and the `Installation Control` e-mail file), use the Update or Hot Fix DVD#1 first.

Note: The type of DVD you mount first (Baseline, Update or Hot Fix DVD#1) determines the resulting installation type. That is, if you start with Baseline DVD#1, you will install the baseline version of the selected products. If you start with an Hot Fix DVD#1, you will install the Hot Fix version of the products as they existed on the date that the Hot Fix DVD set was created.

4. Mount the DVD.

Note: The installation starts automatically when you insert the DVD on a Microsoft Windows system.

- a. Log in as `root`.

Note: You do not normally need root permission to mount a DVD on Solaris.

- b. If it does not already exist, create the DVD directory by typing

```
mkdir /dvd_dir
```

- c. Insert the DVD into the DVD drive.
- d. Mount the DVD drive on the DVD directory, using the appropriate command:

Solaris	<code>/etc/mount -F hsfs -o ro /dev/ device / dvd_dir</code>
HP-UX	<code>/etc/mount -F cdfs -o ro /dev/dsk/ device / dvd_dir</code>
AIX	<code>/etc/mount -v cdrfs -o ro /dev/ device / dvd_dir</code>

e. Log out as `root`.

5. Start the interactive setup utility, `SETUP.SH`.

On a UNIX system, type

```
dvd_mount_point/SETUP.SH
```

On a Microsoft Windows system, the installation should start automatically. If it does not, go to the top-level directory of the DVD and run the `setup.exe` program.

6. When `SETUP.SH` asks you to specify the path to `your_install_dir`, type the path to an existing Cadence installation directory (this could be the duplicate hierarchy you created previously).
7. Answer the prompts, and proceed as directed.

The appropriate installation utilities, InstallScape or InstallShield, should start automatically. If it does not start, do one of the following:

- On UNIX, type

```
./iscape/bin/iscape.sh&
```

- On Windows, double-click on `setup.exe` at the top level of the DVD.

8. Do one of the following:

- Load the Products and Licensing Using InstallShield.

InstallShield is a GUI-based installation wizard. Each screen includes instructions.

InstallShield allows you to install the license manager, install products, and update your license file.

The installation is customized for each product family: see the `README` file at the top level of your DVD for appropriate information.

- Load the Products Using InstallScape.

If InstallScape has not started, type

```
./iscape/bin/iscape.sh&
```

See the InstallScape User Guide for more details on how to use InstallScape for installing Cadence products.

Creating the Tools Link (if required)

Some Cadence tools require a tools directory to be present in the installation hierarchy. This tools directory should be a symbolic link to the `tools.<platform>` directory that is created at the time of installation. Typically, this link is created automatically when you run product configuration scripts such as licensing configuration.

If this link does not exist, do the following:

1. Change to the installation directory by specifying the following command at the command prompt:

```
cd <install_dir>
```

2. Create the tools link by specifying the following command at the command prompt:

```
ln -s tools.<platform> tools
```

Updating an Existing Hierarchy

In a given installation directory, you can install software only from a single release. InstallScape does not let you install products from different releases in the same hierarchy.

You can update a hierarchy using a Baseline DVD or an Update or Hot Fix DVD. You can update a hierarchy with a DVD set that has the same release identifier as the release identifier of the release installed in the hierarchy.

Protect Your Production Environment

To protect your production environment during the installation process,

- Do not install your software in a directory that is your current production hierarchy. Install your software in a new hierarchy or a copy of your production hierarchy.
- Do not install software from more than one baseline release into the same hierarchy.
- Test the installation fully before making it your production hierarchy.

Updating the Existing Hierarchy

To install the release into an existing hierarchy,

1. Log in to the proper account.
2. Create a duplicate hierarchy from the original Baseline DVD using the same method you used to install the production hierarchy.

Alternatively, you can create a duplicate of the Cadence hierarchy you want to update by using operating system commands, such as the UNIX `tar` command.

Do not use the `cp` command because it does not preserve file system links.

3. Identify the DVD to use first.

If you have received only a set of Baseline DVDs, use the Baseline DVD#1 first.

If you have received only a set of Update or Hot Fix DVDs (and the `Installation Control e-mail` file), use the Update or Hot Fix DVD#1 first.

Note: You will need the corresponding Baseline DVD set to complete the installation.

If you have received both a set of Baseline and Update or Hot Fix DVDs (and the `Installation Control e-mail` file), use the Update or Hot Fix DVD#1 first.

Note: The type of DVD you mount first (Baseline, Update, or Hot Fix DVD#1) determines the resulting installation type. That is, if you start with Baseline DVD#1, you will install the baseline version of the selected products. If you start with an Hot Fix DVD#1, you will install the Hot Fix version of the products as they existed on the date that the Hot Fix DVD set was created.

4. Mount the DVD.

Note: The installation starts automatically when you insert the DVD on a Microsoft Windows system.

- a. Log in as `root`.

Note: You do not normally need root permission to mount a DVD on Solaris.

- b. If it does not already exist, create the DVD directory by typing

```
mkdir /dvd_dir
```

- c. Insert the DVD into the DVD drive.
- d. Mount the DVD drive on the DVD directory, using the appropriate command:

Solaris	<pre>/etc/mount -F hsfs -o ro /dev/<device> / dvd_dir</pre> <p>Note: Normally, the Solaris OS automounts the DVD. In case the automount fails, see Solaris does not mount the DVD automatically for troubleshooting tips.</p>
HP-UX	<pre>/etc/mount -F cdfs -o ro /dev/dsk/<device> / dvd_dir</pre> <p>Note: Typically, the device name to represent DVD in HP-UX is <code>c0t0d0</code>.</p>

AIX	<pre>/etc/mount -v cdrfs -o ro /dev/<device> / dvd_dir</pre> <p>Note: Typically, the device name to represent DVD in HP-UX is dvd0.</p>
Linux	<pre>/bin/mount -o ro /dev/ <device> / dvd_dir</pre> <p>Note: Typically, the device name to represent DVD in Linux is dvd.</p>

e. Log out as `root`.

5. Start the interactive setup utility.

On a UNIX or Linux system, type

```
dvd_mount_point/SETUP.SH
```

On a Microsoft Windows system, the installation should start automatically. If it does not, go to the top-level directory of the DVD and run the `setup.exe` program.

6. When `SETUP.SH` asks you to specify the path to `your_install_dir`, type the path to an existing Cadence installation directory (this could be the duplicate hierarchy you created previously).
7. Answer the prompts, and proceed as directed.

The appropriate installation utilities, `InstallScape` or `InstallShield`, should start automatically. If it does not start, do one of the following:

- On UNIX, type

```
./iscape/bin/iscape.sh&
```

- On Windows, double-click on `setup.exe` at the top level of the DVD.

8. Do one of the following:

- Load the Products and Licensing Using `InstallShield`.

`InstallShield` is a GUI-based installation wizard. Each screen includes instructions.

`InstallShield` allows you to install the license manager, install products, and update your license file.

The installation is customized for each product family: see the `README` file at the top level

of your DVD for appropriate information.

- Load the Products Using InstallScape.

If InstallScape has not started, type

```
./iscape/bin/iscape.sh&
```

See the InstallScape User Guide for more details on how to use InstallScape for installing Cadence products.

Creating the Tools Link (if required)

Some Cadence tools require a tools directory to be present in the installation hierarchy. This tools directory should be a symbolic link to the `tools.<platform>` directory that is created at the time of installation. Typically, this link is created automatically when you run product configuration scripts such as licensing configuration.

If this link does not exist, do the following:

1. Change to the installation directory by specifying the following command at the command prompt:

```
cd <install_dir>
```

2. Create the tools link by specifying the following command at the command prompt:

```
ln -s tools.<platform> tools
```

Advanced Installation Topics

- [Automating an InstallScape Installation](#)

Automating an InstallScape Installation

See the InstallScape User Guide for details on how to automate product installation using InstallScape command line options.

Overview of Software Configuration

Before you can run or configure Cadence® products, you must install and configure licensing. This section covers the following topics:

- [About License Servers](#)
- [About Your Work Order and License File](#)
- [Installing and Configuring Licensing with InstallScope](#)
- [Default and Customized Licensing](#)
- [Licensing Tips](#)

About License Servers

A license server or standalone workstation must

- Be a supported platform and operating system (it cannot be a clone)
- Have a host ID that matches the host ID in the license file
- Have a local disk that contains the UNIX operating system and UNIX file systems, such as `/usr/tmp` (a license server cannot be diskless)

- Have TCP/IP running
- Have license daemons running

About Your Work Order and License File

Your work order includes a license file for your license server's host ID. Depending on the hardware platform, the host ID is the PROM ID, Ethernet address, or another unique identifier for the workstation.

Host IDs are case-insensitive, but host IDs in the license file must match the host IDs of the license servers. In fault-tolerant licensing, the three host IDs in the license file must match the host IDs of the three license servers.

Installing and Configuring Licensing with InstallScape

The *Cadence License Manager Guide* fully describes the licensing environment and includes instructions on configuring licensing. The guide is available in Cadence Help and in Cadence Online Support (under "Installation," click *Installation, Licensing & System Configuration information*).

To configure licensing from Cadence InstallScape,

1. If you have already been using Cadence products, copy to your new `your_install_dir/share/license` directory any files you customized for your older software, such as a clients file or a license file containing valid temporary licenses.

Your current temporary licenses are merged into your new license file if

- Your temporary licenses are for the same license server
- Your temporary licenses are still valid
- You configure licensing from InstallScape or with `configure` or `lic_config`

As the utilities proceed, you see several different types of license files depending on any previous licensing.

2. From the InstallScape Main Menu, click *Configure*, then click *System Environment*.
3. Choose the *SoftShare Licensing Server* (*host_id*) to configure.

Respond to the prompts.

If you are setting up fault-tolerant licensing, do not start the license daemons when prompted.

4. Back up the *your_install_dir* /share/license files you customized.
5. If you are setting up fault-tolerant licensing, follow the steps in the *Cadence License Manager Guide*.
6. If the license file is in ASCII,
 - a. Copy the license file to *your_install_dir* /share/license.
 - b. Configure the license file (*your_install_dir* /share/license/configure)

Default and Customized Licensing

If you are installing Cadence products for the first time in this hierarchy, use InstallScape to configure Cadence SoftShare licensing. InstallScape configures SoftShare licensing and work orders by

- Creating a link between the *your_install_dir* /tools.*platform* and *your_install_dir* /tools directories
- Editing the `SERVER` and `DAEMON` lines in the license file
- Creating a script to start the license daemons
- Editing your workstation's boot script to run the license daemon start-up script
- Editing a Cadence-specific file that is used to locate the license files client workstations use

InstallScape runs the licensing configuration script, which lets you choose a default licensing configuration or override any of the defaults. The *Cadence License Manager Guide* describes your options. You can use the default licensing configuration when

- The user workstation is the license server
- The licensing log file is `/usr/tmp/license.log`
- The license server does not use an options file (described in the *Cadence License Manage Guide*)
- Applications use a `clients` file to locate their license server

The default `clients` file lets all workstations use the software controlled by the license file.

- You want to start the `lmgrd` daemon without options using the following command:

```
your_install_dir/tools/bin/lmgrd -c license_file > /usr/tmp/license.log
```

You can minimize the chance of users inadvertently shutting down the license daemons by starting the `lmgrd` daemon with one of these methods instead of using the default options:

- `lmgrd -2 -p`

When you use this command, only members of the `lmadmin` group can run `lmdown`, `lmremove`, and `lmreread`. If `root` should be able to use `lmdown`, `root` must be in the `lmadmin` group. If no `lmadmin` group exists, only a user belonging to the `wheel` group can use these utilities. (Typically, `root` is in `wheel`.)

- `lmgrd -x lmdown`

When you use this command, no one, not even `root`, can run `lmdown`. The license daemons can only be stopped with `kill`. Do not use `kill -9`.

Note: Do not kill the license daemons while licenses are in use because of possible loss of data.

- `lmgrd -x lmremove`

When you use this command, no one, not even `root`, can run `lmremove` to return licenses to the license pool.

Licensing Tips

Here are some tips on setting up and configuring licensing:

- InstallScape can configure licensing only from work orders or e-mail files.
- You can choose the license file in `your_install_dir/share/license` that you want to configure.
- You must configure SoftShare licensing before you configure your products and libraries and before you use Cadence software.
- If you need more information about a particular screen, click *Help* or see the *Cadence License Manager Guide*.
- If you are setting up fault-tolerant licensing, do not start the license daemons when prompted.
- To start the license daemons, you must have write permission for the licensing debug log file.
- Some Cadence products use the `clients` file to locate the correct license file. If you did not override the `clients` file defaults when configuring licensing, all workstations can access the `license` file. The online *Cadence License Manager* guide describes other methods of locating license files and modifying the `clients` file.

Overview of User Environment Configuration

All users must include the path to the Cadence software in their search paths.

To set up user environments,

- For the C shell

- In the user's `.cshrc` file, set the search path as follows:

```
set path = ($path your_install_dir/tools/bin)
```

Note: Do not set the `DISPLAY` variable in the `.cshrc` file. Doing so can cause licensing and other problems when running remote applications.

- Source the user's `.cshrc` file.

- For the Bourne or Korn shell

- Add the following lines to the `.profile` file:

```
PATH=$PATH:/your_install_dir/tools/bin  
export PATH
```

- Force the new lines to be read by typing

```
. ./profile
```

Overview of Client Workstation Configuration

If the Cadence software does not reside on user workstations, you must set up the user workstations because client workstations must access the software on the file server.

- Check for adequate memory and swap space.

To enhance performance, verify that each client workstation has enough memory (RAM) and swap space. For memory and swap space requirements, see your product documentation.

- Make sure users can access the license server from the their workstations.
- Make sure the user can access the Cadence software.
- Verify the correct operating system and patches are on the client workstation.

Troubleshooting

- When you run into problems using InstallScape, click *Help* in any InstallScape window.
- If you run into any problems or error messages when using a remote drive, verify that you have `remsh` permission (HP) or `rsh` permission (all other operating systems) on the workstation attached to the drive.
- If a hard disk appears locally on an HP but is NFS-mounted onto a Sun workstation, the installation utility cannot `tar` correctly onto the hard disk.
- Additional troubleshooting tips are located in the *Installation and Licensing FAQ* pages on Cadence Online Support.

Cannot locate device

If you are loading a DVD, click *Help* for information. If you are loading just the work order, specify the device name when prompted.

Inconsistent encryption code for feature

Depending on your mail system, this message appears when you start to use a new license file you installed without InstallScape. Some mail systems wrap lines, reformat the message, or add spaces, tabs, or other characters, such as `>` or `#` when forwarding e-mail. License files cannot have leading spaces. Remove these characters or spaces as described below before processing with InstallScape, then install the license file again.

- For Qualcomm's Eudora, if you still have the original Cadence e-mail message in a *Eudora* folder, turn off the `wordwrap` + `QP` options from the tool bar before forwarding it to a UNIX

system or saving the e-mail message to a file.

- For ZMail from Network Computing Devices, Inc., from the Compose screen, disable *Autoformat* in your Options menu before forwarding mail.

Incompatible installation information in filename (cdsInstPlat)

This message indicates that the e-mail work order is missing the `./install/tmp/cdsInstPlat` file or the format of `cdsInstPlat` is wrong.

Contact Cadence Customer Support at <http://support.cadence.com>

Parameter list is too long

This message indicates that the environment variables are probably using up available space. Unset your environment variables or use a limited `.profile` or `.cshrc` that does not set any unnecessary environment variables, and start InstallScape again. This leaves the maximum space for installation.

Device busy

You see this error when you try to unmount or eject a DVD when one of your windows still has a prompt in the `/dvd_dir` directory, such as `/dvd`. Change to the `/` directory and retry the `umount` or `eject` command.

Cannot locate /usr/lib/X11

On a Sun workstation running OpenWindows, create an additional link (as `root`):

```
ln -s /usr/openwin/lib /usr/lib/X11
```

Problems with tar

If you mount a disk from another vendor's workstation using NFS, InstallScape can have problems when it attempts to use `tar`. For example, if a hard disk (or any other device) appears locally on an HP workstation but is NFS-mounted onto a Solaris workstation, you must use the SunOS version of InstallScape (on the Sun) to install the HP version.

IBM workstations require patch U44283 to successfully install Cadence products. To determine if the patch is installed in the Korn shell, type the following command:

```
lsbpp -lcq bos.rte.archive
```

The third field of the one-line output should indicate 4.1.4.6 or higher:

```
/usr/lib/objrepos:bos.rte.archive:4.1.4.6::APPLIED:F:Archive Commands
```

cds_root: Command not found.

Verify that the proper `your_install_dir/tools/bin` is in your search path.

To create a link to this directory, type

```
cd your_install_dir
ln -s tools.platform tools
```

Product fails to install properly

Error messages appear and product status is listed as `failed` when you choose *List Products* or *Remove Products*. Product status can be `failed` if

- Not all parts of a product are installed properly
- Only documentation for a product is installed
- A software update is available for a product, but the update is not installed

You do not need to remove a failed product before you install it again. Correct the problem and load it again.

Solaris does not mount the DVD automatically

- See your operating system documentation for complete details.
- Run `volcheck`.

If the DVD still does not mount,

1. Terminate the volume manager daemon, `vold`.
2. Restart the volume manager daemon.
3. Insert the DVD.
4. Verify the mounting.
5. If the DVD still does not mount, run `volcheck` again.

If the DVD still does not mount,

- a. Log in as `root`.
- b. Mount the DVD:

```
mount -r -t hsfs /dev/sr0 /dvd
```

If the DVD still does not mount, reboot or see your operating system documentation.