CustomExplorer and Custom WaveView Installation Guide

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CustomExplorer and Custom WaveView Installation Guide, C-2009.09-SP2

Installing CustomExplorer and Custom WaveView

This document describes how to install the CustomExplorer and Custom WaveView product.

Note:

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

This document provides instructions for the UNIX, Linux, and Windows platforms. The document includes the following sections:

Important:

Do not install later versions of the CustomExplorer and Custom WaveView tools over earlier versions of the tools.

Preparing for Installation

Before beginning the installation process, read the *CustomExplorer and Custom WaveView Release Notes.* The release notes are in Portable Document Format (PDF) and are located in the electronic software transfer (EST) download directory. They require a PDF file reader to view and print them. Check for the following information:

- Changes in licensing requirements
- Changes in memory requirements
- The operating system versions on which the software is supported
- Changes made from prior releases

If you have not already done so, retrieve your license keys from the SmartKeys Web page at http://solvnet.synopsys.com/smartkeys.

For detailed licensing information, see the Synopsys Licensing QuickStart Guide Web page at http://www.synopsys.com/keys.

UNIX: Root or administration privileges are not required.

Windows: Administration privileges are required for installing and uninstalling the tool. To ensure a successful installation, confirm that previous releases have been uninstalled (see *Installing Synopsys Tools*, available at http://www.synopsys.com/install/). If licensing will be installed with this installation, you must stop any existing license servers (lmgrd or avantd), then uninstall licensing. To stop the avantd FLEXlm license server or FLEXlm license server, choose **Administrative Tools > Services** from the Control Panel.

Supported Platforms and Compilers

CustomExplorer and Custom WaveView is available on CD or by EST. Obtain the appropriate binary executable files for your operating system. Table 1 lists the supported platforms for this release.

Table 1 Supported Platforms, Operating Systems, and Keywords

Platform	Operating system	Synopsys platform keyword	Window environment
Sun SPARC	Solaris 9, 10 (32-bit and 64-bit)	sparcOS5	CDE
IA-32 (X86) AMD Opteron (64-bit)	Red Hat Enterprise Linux v4, v5	linux (32-bit mode) linux (64-bit mode)	GNOME
IA-32 (X86)	XP Professional v2002	winXP	
IA-32 (X86)	Windows 2000/ME/NT	win2000, winme, winnt	
X86_64	Solaris 10 (32-bit and 64-bit)	X86-Solaris	

Disk Space and Memory Requirements

The disk space requirement varies depending on the platform and the features selected for installation. Table 2 shows the maximum space required for installing all CustomExplorer and Custom WaveView features on a particular platform. Each CD also includes this information in the top-level INSTALL_README.wri file.

Table 2 Disk Space and Memory Requirements (in Megabytes)

Platform	Software (maximum)	Default temporary directory location	Temporary disk space from CD	Temporary disk space from EST
Solaris	83	/var/tmp	83	83
Linux	83	/tmp	83	83
Windows	12	%TEMP% or C:\My Documents\temp	12	12

Installing CustomExplorer and Custom WaveView (UNIX and Windows)

Custom WaveView is released as part of Synopsys CustomExplorer product suite. The license key determines if the application can be started in the "full CustomExplorer" mode, the "Custom WaveView only" mode, or both. The default startup mode can be configured in the Preference Settings.

You can install CustomExplorer and Custom WaveView using a GUI or by using text commands. By default, the CustomExplorer and Custom WaveView installer invokes the installation GUI. To install CustomExplorer and Custom WaveView using text commands, see *Installing Synopsys Tools*.

Downloading CustomExplorer and Custom WaveView by EST

Download the following required product files to a temporary directory:

- A platform-independent (common) file, which contains the binaries for the amd64_re4, i86_re4, sun4_u5, sun4_u5_64, x86sol_32, and x86sol_64 platforms.
- The platform-dependent tar files for the platforms you want to install.
- The Synopsys Installer, which includes the scripts for text or GUI installation. (To determine the latest installer version, see *Installing Synopsys Tools*.) For more information on downloading and configuring the installer, see the installer_INSTALL_README.txt file in the rev/installer_x.y directory, where x.y is the latest version of the installer.

  Note:

  The Synopsys Installer is required only for products that have a "common" file. The installer needs to be downloaded only once per release and can be used to install all software with a "common" file.

For example:

This example assumes that you are in the rev directory. If you are in another directory, (rev_o or auth, for example), replace rev with the appropriate directory.

```
# Get the product files

% cd  /usr/tmp/tmpdir1
% ftp ftp.synopsys.com
220 Synopsys FTP server ready

Name: <your_synopsys_username>
Password: <your_synopsys_password>
230 User <your_synopsys_username> logged in.

ftp> binary
ftp> cd rev
ftp> cd customexplorer_vC-2009.09-SP2
ftp> get

     cx_INSTALL_README.txt
     cx_vC-2009.09-SP2_common.tar
     cx_vC-2009.09-SP2_amd64_re4.tar
     cx_vC-2009.09-SP2_i86_re4.tar
     cx_vC-2009.09-SP2_sun4_u5.tar
     cx_vC-2009.09-SP2_sun4_u5_64.tar
     cx_vC-2009.09-SP2_x86sol_32.tar
     cx_vC-2009.09-SP2_x86sol_64.tar
     checksum_info.txt
```

The checksum_info.txt file includes the following information:

```
CRC            size           filename
-------------------------------------------------------------
4233352349     17305600       product_version_common.tar
-------------------------------------------------------------
```

You can use the UNIX `cksum` command to validate the integrity of the downloaded files.

For example:

```
UNIX> cksum product_version.common.tar

4233352349      17305600        product_version.common.tar
```

Note:

You no longer need to download the EST (or FTP) files for multiple products into a separate temporary directory. For specific product download instructions, see the SolvNet Download Center at https://solvnet.synopsys.com/DownloadCenter/dc/product.jsp

The UNIX release directory contains the following files and directories:

File or Directory	Description
LICENSE	License agreement
bin/	CustomExplorer/Custom WaveView wrapper script
doc/	Documentation
etc/	
include/	Header file and examples for the WDF writer
syntax/	Syntax rules for VIM editors
packages/	
SX-CDS-Link/	CDS-Link package
SX-DAIC-Link/	DAIC-Link package
SX-VSDE-Link/	VSDE-link package
platforms/sun4_u5/	
bin/	32-bit CustomExplorer executables
lib/	32-bit NanoSim/VPI/WDF-writer libraries
lic/	32-bit FlexIm license management tools
platforms/sun4_u5_64/	
bin/	64-bit CustomExplorer executables
lib/	64-bit NanoSim/VPI/WDF-writer libraries
lic/	64-bit FlexIm license management tools

The MS Windows version of Custom WaveView is distributed in a self-extracting executable file. To install the software on Windows systems, download the file to your PC, and double click the file icon to activate the automated installation sequence.

The automated installation sequence adds Custom WaveView entries to the Windows **Start** menu and a shortcut to Custom WaveView on the Windows Desktop. Double click the shortcut, or select the **CustomExplorer** entry from the **Start** menu to launch a Custom WaveView job.

Installing CustomExplorer and Custom WaveView

To install the software:

1. Get the Synopsys Installer (if needed).
2. Add the installer directory to your UNIX path.

   ```
   % set path=(/usr/synopsys/installer $path)
   ```

3. Enter one of the following installer commands to start the installation:

   ```
   % installer #To use a text script
   ```

   ```
   % installer -gui (or setup.sh) #To use a GUI
   ```

   If you invoked the installer from either the installer directory or a directory that does not contain product files (such as $HOME), you are prompted to provide a source path to the temporary directory containing the product files.

   If you invoke the installer from the temporary product file directory, you are not asked to provide a source path.

4. Answer the installer prompts.

   When you are prompted to choose a location for installing the software, do not select the temporary directory. You must specify a new location.

   If you are installing multiple operating system platforms, you need to install the platform-independent package only once for each product. The platform-independent package contains files that are common to all the supported platforms.

5. After installation is complete, each user must modify the path, set a licensing variable, and set any product-specific variables.

Installing CustomExplorer and Custom WaveView from a CD

Mounting the CD might require root access privileges. If you do not have root access privileges, see your system administrator for instructions on mounting the CD. For detailed instructions, see *Installing Synopsys Tools*.

Setting Up Licenses

Note:

You must have the SCL daemon version SCL10.9.3 or later to set up your license.

Custom WaveView uses Flexlm for license management. If you receive an uncounted node-locked evaluation or demo license, no license server needs to be started.

UNIX Platforms: To install an uncounted, node-locked evaluation license, append the full path of the license file (including the license file name) to the SNPSLMD_LICENSE_FILE environment variable.

Windows Platforms: To install an uncounted node-locked evaluation license, start the Custom WaveView application. Select the **Specify the License File** option, and follow the automated steps to setup the license file. You need to do this only once when you start Custom WaveView for the first time.

To install a production or floating license, you need to start the license server by entering the following line:

```
lmgrd -c license.dat
```

The `lmgrd` license server automatically invokes the `snpslmd` vendor daemon. Make sure the path to the `snpslmd` vendor daemon is appended to the VENDOR line in your license file. You can find `lmgrd` and `snpslmd` in the bin/ directory for different platforms. Please consult your system administrator to install the floating license. A copy of Flexlm end user's manual is included in the doc/ directory. An online user's manual is also available at http://www.macrovision.com/.

Invoking CustomExplorer and Custom WaveView on Windows

To invoke CustomExplorer and Custom WaveView on Windows platforms,

1. Start the tool by choosing **Start > Programs > CustomExplorer *version number***. The CustomExplorer window opens.
2. To check the product version, choose **Help > About CustomExplorer**.
3. To exit CustomExplorer, choose **File > Exit**.

Installing the CX-CDS Link Package

The CX-CDS Link package requires the "sx_cdslink" license from Synopsys. The post-layout cross-probing functions require the "sx_cdslink_ext" license.

The CX-CDS Link package consists of the following files:

- sx_link.ile: the encrypted CX-CDS Link SKILL module.
- sx_menu.il: the SKILL module for CX-CDS tool menu.
- sx_user.il: the user-customizable SKILL module.
- schematic.menus: the menu file for the Composer integration.
- simui.menus: the menu file for the Virtuoso ADE integration.

Synopsys CX-CDS Link supports schematic to viewer cross probing in two different Cadence schematic entry environments:

1. Virtuoso Analog Environment mode: Also referred to as the Analog Artist mode involving integrated ADE window, Parametric analysis window, Composer, calculator, and waveform viewer.
2. Composer-only mode: Uses only the Composer schematic entry tool without the ADE environment. If the Cadence "SE" (Simulation Environment) is available, simulation jobs can be launched from the simulator menu in Composer. If the "SE" option is not available, users usually run simulation manually in an outside shell window.

Depending on your Cadence working environment, the CX-CDS Link package can be installed using two different methods. The following table summaries the needed components for each installation method.

Table 3 CX-CDS Link Installation Components

	Method 1: Trigger Function		**Method 2: Menu File**	
	Composer	**ADE Mode**	**Composer**	**ADE Mode**
sx_link.ile	X	X	X	X
sx_menu.il	X	X		
sx_user.il	optional	not needed	optional	not needed
simui.menus				X

Table 3 CX-CDS Link Installation Components

	Method 1: Trigger Function		Method 2: Menu File	
	Composer	**ADE Mode**	**Composer**	**ADE Mode**
schematic.menus			X	

Installation Method 1: User Trigger Function

This is the preferred installation method for CX-CDS Link. The following files from the CX-CDS Link package: sx_link.ile, sx_menu.il, and sx_user.il are required. The sx_user.il SKILL file is required only if you want to customize the CX-CDS Link for the Cadence SE integration. The two menu files, schematic.menus and simui.menus, are not required.

Advantage: No root authority is needed to install the package. A single installation works for both the "Virtuoso ADE" and the "Composer-only" mode. CX-CDS Link tool menu is automatically updated when users switch between the "Virtuoso ADE" and the "Composer-only" mode.

Disadvantage: The CX-CDS Link tool menu always appears in the Composer schematic window. The menu cannot be inserted into the top tool menu of the "Artist Design Environment (ADE)" window. If you prefer to add the CX-CDS menu to the ADE window, you will have to install CX-CDS Link using the menu file simui.menus. (See the next section)

Follow the steps below to install the CX-CDS Link package:

1. Add the following `load` commands to your .cdsinit file:

   ```
   load("/path_to/sx_link.ile" "sandwork")
   load("/path_to/sx_menu.il")
   load("/path_to/sx_user.il")
   ```

   The .cdsinit file is usually located in your home directory. If the .cdsinit file also exists in the working directory, the settings override those in the .cdsinit file in the your home directory. Use absolute paths to load the CX-CDS SKILL modules into .cdsinit.

2. Enter `which sx` in a shell window to verify that sx is located in your search path. If sx cannot be found in your search path, you need to append the path to the sx executable in the path (or PATH) variable in your shell init file. For example:

```
set path=($path  /directory_path_to_sx )
```

3. If you have already used the SKILL user trigger function to customize the menu for other applications in the Cadence Composer schematic entry tool, you might need to manually merge the CX-CDS trigger functions with your existing user trigger functions. The user trigger registration functions for CX-CDS Link can be found in the sx_menu.il text SKILL module.

Installation Method 2: Menu Files

This method requires the use the schematic.menus and simui.menus menu files to add the CX-CDS Link tool menu to the Cadence tools. The sx_link.ile SKILL module (and sx_user.il module, if you want to customize the CX-CDS Link for SE integration), are also required. The sx_menu.il SKILL module is not required.

Note:

The two menu files cannot co-exist in the menu file directory. You can only select one menu file to install: either schematic.menus or simui.menus.

Advantage: The CX-CDS Link menu can be inserted into the top menu bar of the ADE window in the "Virtuoso ADE" mode.

Disadvantages: The "Composer-only" and the "Virtuoso ADE" mode cannot co-exist in one DFII environment. Users need re-installation to switch between the "Composer-only" and the "Virtuoso ADE" mode. Root authority is usually needed if the menu file is to be installed in the public Cadence tool directory.

Composer-Only Mode

To install the CX-CDS Link package for the Composer-only mode:

1. Add the following line to your .cdsinit file:

   ```
   load("/path_to/sx_link.ile" "snpslmd")
   ```

2. Copy schematic.menus to the following directory:

   ```
   $cadence_install_dir/dfII/local/menus
   ```

3. Enter `which sx` in a shell window to verify that sx is located in your search path. If sx cannot be found in your search path, you need to append the path to the sx executable in the path (or PATH) variable in your shell init file. For example:

```
set path=($path  /directory_path_to_sx)
```

The .cdsinit file is usually located in your home directory. If .cdsinit also exists in the working directory, the settings override those in the .cdsinit file in the your home directory. Use absolute paths to load the CX-CDS SKILL modules into .cdsinit.

If you have an existing schematic.menus menu definition file under the `$cadence_install_dir/dfII/local/menus directory`, you might need to merge the content from the provided schematic.menus menu definition into the existing schematic.menus menu file.

To limit the installation to your private working environment without changing your Cadence site setup, move the `menus/schematic.menus` directory to your home directory. Create a directory named `menus` under your home directory if necessary.

CX-CDS link is developed based on DFII 4.4.6. Minor modifications of schematic.menus might be required for integration into earlier versions of DFII. For example, the Composer program in DFII version 4.4.3 does have the **Option** top menu entry. As a result, the schSOptionPulldown entry that is near the end of schematic.menus needs to be commented out with leading semi-colons (;).

Virtuoso ADE Mode

To install the CX-CDS Link package for the Virtuoso ADE mode:

1. Add the following line to your .cdsinit file:

   ```
   load("/path_to/sx_link.ile" "snpslmd")
   ```

2. Copy simui.menus to the following directory:

   ```
   $cadence_install_dir/dfII/local/menus
   ```

3. Enter `which sx` in a shell window to verify that sx is located in your search path. If sx cannot be found in your search path, you need to append the path to the sx executable in the path (or PATH) variable in your shell init file. For example:

   ```
   set path=($path  /directory_path_to_sx)
   ```

   The .cdsinit file is usually located in your home directory. If .cdsinit also exists in the working directory, the settings override those in the .cdsinit file in the your home directory. Use absolute paths to load the CX-CDS SKILL modules into .cdsinit.

If you have an existing simui.menus menu definition file under the `$cadence_install_dir/dfII/local/menus/` directory, you might need to merge the content from the provided simui.menus menu definition into the existing simui.menus menu file.

To limit the installation to your own working environment without changing your Cadence site setup, move `menus/simui.menus` to your home directory. Create the `menus` directory under your home directory if necessary.

Special Note for IC5141 USR3 (or later) Users

In the Cadence IC5141 USR3 release, the default output format of Spectre and spectreVerilog was changed from PSF/WSF to SST2. Since Custom WaveView does not support the Cadence SST2 format, the following configuration is required to restore the default format to PSF:

- Spectre: Add the following line to your `$HOME/.cdsenv` file:

  ```
  spectre.envOpts simOutputFormat string "psfbin"
  ```

- UltraSim: From the ADE window go to [Simulation - Options - Analog] and select PSF as the output format.
- spectreVerilog: Add the following lines to your `$HOME/.cdsenv` file:

  ```
  spectreVerilog.envOpts simOutputFormat string "psfbin"
  spectreVerilog.envOpts logicOutputFormat string "WSF"
  ```

- UltraSimVerilog: From the ADE window, choose **Simulation > Options > Analog**, and select PSF as the output format. Then, add the following line to your `$HOME/.cdsenv` file:

  ```
  UltraSimVerilog.envOpts logicOutputFormat string "WSF"
  ```

CX-CDS Link for AMS Designer

CX-CDS Link supports cross-probing in AMS Designer only with the Synopsys WDF format. The following line must be added to the `$HOME/.cdsenv` file:

```
ams.envOpts simOutputFormat string "wdf"
```

When the WDF format is used with AMS Designer, the simulation results are stored in two files under the psf/ directory: (1) ams_database.vcd for logic waveforms from ncsim, and (2) tran.tran.wdf or amsControl.-1.wdf for analog waveforms from Spectre or UltraSIm. CX-CDS link looks for these output files automatically if "ams" is selected as the simulator in Virtuoso.

Installing the CX-DAIC Link Package

The CX-DAIC Link package requires the "sx_daiclink" license.

The installation processes differ depending on the DAIC release version that you are using. Choose one of the following installation processes:

- Installing CX-DAIC Link for DAIC Version 2002.2 and Earlier
- Installing CX-DAIC Link for DAIC Versions 2002.3 through 2003.4
- Installing CX-DAIC Link for DAIC Versions 2004.1 and Later

Installing CX-DAIC Link for DAIC Version 2002.2 and Earlier

Custom WaveView utilizes AMPLE functions in schematic.ample to communicate with DAIC. The provided schematic.ample AMPLE module contains a modified version of the AMPLE functions from the original install tree, which is located here:

```
$MGC_HOME/shared/pkgs/daicsim/userware/default/
schematic.ample
```

If the same AMPLE functions are already modified in your setup, you need to manually merge the changes. Please refer to the comment or documentation in the provided schematic.ample file for details.

To install the CX-DAIC Link package:

1. Copy the Custom WaveView executable (sx) to the `$MGC_HOME/bin` directory. If you prefer to place the executable in a different location, please modify the initial value of the sx_command_default AMPLE variable in schematic.ample.
2. You can merge the provided schematic.ample into the following public file, or keep the provided schematic.ample file in a non-public directory (the user AMPLE directory):

   ```
   $MGC_HOME/shared/pkgs/daicsim/userware/default/
   schematic.ample
   ```
3. Modify the AMPLE_PATH variable to include the directory, and copy schematic.ample to `$AMPLE_PATH/da_ic`.

Installing CX-DAIC Link for DAIC Versions 2002.3 through 2003.4

Custom WaveView utilizes AMPLE functions in schematic_sim.ample and daic_sim_mgr.ample to communicate with DAIC. The provided schematic_sim.ample and daic_sim_mgr.ample AMPLE modules contain modified versions of the AMPLE functions necessary for the cross-probing integration. The original AMPLE modules are located in the install tree here:

`$MGC_HOME/shared/pkgs/da_ic/userware/default`

If the same AMPLE functions are already modified in your setup, you need to manually merge the changes. Please refer to the comment or documentation in the AMPLE modules file for details.

To install the CX-DAIC Link package:

1. Copy the Custom WaveView executable (sx) to the `$MGC_HOME/bin` directory. If you prefer to place the executable in a different location, please modify the initial value of the sx_command_default AMPLE variable in schematic_sim.ample.
2. You can merge the provided AMPLE modules into the following public directory, or keep the provided modules in a non-public directory (the user AMPLE directory):

   `$MGC_HOME/shared/pkgs/da_ic/userware/default/`
3. Modify the AMPLE_PATH variable to include the private AMPLE directory, and copy schematic_sim.ample and daic_sim_mgr.ample to `$AMPLE_PATH/da_ic`.

Installing CX-DAIC Link for DAIC Versions 2004.1 and Later

The installation steps are the same as those for Installing CX-DAIC Link for DAIC Versions 2002.3 through 2003.4, except that the daic_sim_mgr.ample.2004.1 and schematic_sim.ample.2004.1 AMPLE codes are used instead.

Installing the CX-VSDE Link Package

The CX-VSDE Link package requires the CustomExplorer-Cadence Link "sx_cdslink" license.

To install the CX-VSDE package:

1. Copy the waveform.cfg file to the `$ACV_ROOT/admin` directory. If waveform.cfg already exists in `$ACV_ROOT/admin`, append the content from the included waveform.cfg file to the existing one.
2. Copy sx_run to the `$ACV_ROOT/bin` directory.
3. Modify the path of the Custom WaveView executable in the sx_run file.

Viewing and Printing CustomExplorer and Custom WaveView Documentation in Portable Document Format (PDF)

To view and print CustomExplorer and Custom WaveView documentation in Portable Document Format (PDF), you must have Adobe Acrobat Reader installed on your machine. To determine which version of Adobe your operating system requires, see Table 4.

Table 4 shows which version of Adobe Reader you need to use with a particular release.

Table 4 Platform and Supported Version

Platform	Product documentation version	Adobe Reader version
Linux	A-2008.03 or later	Adobe Reader 7.0
Sun SPARC (Solaris)[1]	A-2008.03 or later	Adobe Reader 7.0
Windows	A-2008.03 or later	Adobe Reader 6.0 or 7.0

1. On Solaris operating systems, the GNOME desktop manager must be installed to support Adobe Reader 7.0.

Troubleshooting CustomExplorer and Custom WaveView Installation on Solaris Platforms

If you encounter the following error message while running CustomExplorer:

```
ld.so.1: ./sx: fatal: libXm.so.3: can't open file: errno=2
Killed
```

Append `/usr/dt/lib` to your LD_LIBRARY_PATH environment variable. For example:

```
setenv LD_LIBRARY_PATH /usr/dt/lib:$LD_LIBRARY_PATH
```

By default, the CDE window manager environment allows popup dialog windows to appear behind the main application window. This default setting can make it difficult to locate a dialog window that is hidden behind the main window. To change the default setting, choose **Style Manager > Window**, and deselect the "Allow Primary Windows On Top" option. The **Style Manager** can be started from the **Tools** menu.

Uninstalling CustomExplorer and Custom WaveView

To uninstall CustomExplorer and Custom WaveView on UNIX, delete the entire software installation directory.

To uninstall the CustomExplorer and Custom WaveView on Windows, go to **My Computer > Control Panel > Add/Remove Programs**, select **CustomExplorer** from the list, and click the **Add/Remove** button to uninstall.

The uninstall operation varies slightly on other Windows O/S (Windows 2000/ XP/ME/NT). Please follow the standard application removal procedure in each Windows environment to remove CustomExplorer.

Accessing CustomExplorer and Custom WaveView Documentation

The documentation for CustomExplorer and Custom WaveView is available as PDF files or as online help as described in the following sections:

- Viewing and Printing CustomExplorer and Custom WaveView Documentation in Portable Document Format (PDF)
- Supported Web Browsers
- Setting MIME Types to View PDFs from Help

Viewing and Printing CustomExplorer and Custom WaveView Documentation in Portable Document Format

To view and print CustomExplorer and Custom WaveView documentation in PDF, you must have Adobe Acrobat Reader installed on your machine.

Viewing CustomExplorer and Custom WaveView Online Help

The online Help system is a browser-based HTML Help system.

To view a Help system, Synopsys recommends the following minimum revisions web browsers on the Synopsys-supported platforms (later versions should also work):

Platform	Operating Systems	Supported Browsers
SunSPARC Solaris 32- & 64-bit	Solaris 9 or 10[1]	Firefox 1.5, 2.0 Mozilla 1.7
X86 (IA-32) 32-bit & Linux 32-bit	Red Hat Enterprise Linux 4 or 5 SUSE Linux Enterprise Server 9 or 10	Firefox 1.5, 2.0, 3.0[2] Mozilla 1.7 Netscape Navigator 7.0
X86_64 Linux 64-bit	Red Hat Enterprise Linux 4 or 5 SUSE Linux Enterprise Server 9 or 10	Firefox 1.5, 2.0, 3.0[2] Mozilla 1.7 Netscape Navigator 7.0
X86 Windows 2000	Windows 2000	Firefox 1.5, 2.0, 3.0[3] Internet Explorer 6.0 Mozilla 1.7 Netscape Navigator 7.0
X86 Windows XP Professional	Windows XP Professional v2002	Firefox 1.5, 2.0, 3.0[3] Internet Explorer 6.0 Mozilla 1.7 Netscape Navigator 7.0

1. *Synopsys does not recommend using Netscape Navigator to view Help on Solaris.*
2. *Synopsys recommends using Firefox 3.0 builds 2008052912 or later on Linux.*
3. *Synopsys recommends using Firefox 3.0 builds 2008052906 or later on Windows.*

Supported Web Browsers

To view this Help system, Synopsys recommends the following web browsers on the Synopsys-supported platforms:

Platform	Operating Systems	Supported Browsers
X86 (IA-32) 32-bit & Linux 32-bit	RedHat Enterprise Linux 4 or 5	Firefox 1.5, 2.0, 3.0[1] Mozilla 1.7 Netscape Navigator 7.0
X86_64 Linux 64-bit	Red Hat Enterprise Linux 4 or 5	Firefox 1.5, 2.0, 3.0[1] Mozilla 1.7 Netscape Navigator 7.0

1. Synopsys recommends using Firefox 3.0 builds 2008052912 or later on Linux.

Setting a Default Browser on UNIX or Linux

The Help system searches for HTML browsers on UNIX or Linux systems as follows:

1. Searches for the browser associated with the Synopsys Help browser variable, `SNPS_BROWSER`. The value is a browser executable with full pathname.
2. Searches for the browser associated with the UNIX system variable, `BROWSER`. The value is a browser executable with full pathname.
3. *Optional:* Searches for the browser associated with a preference or other command setting provided by your Synopsys application.
4. Searches for the following browser executables, in order, in your PATH:

   ```
   firefox
   seamonkey
   netscape6
   netscape
   mozilla
   iexplorer
   konqueror
   epiphany
   ```

5. Searches for the executables in each of the following locations in order:

   For `firefox` and then for `seamonkey`:

```
/opt/browser/
/usr/bin/
/usr/bin/browser
/usr/local/browser
/usr/local/bin/
/usr/local/bin/browser/
```

For `netscape6`, then for `netscape`, and then for `mozilla`:

```
/opt/browser/
/usr/local/bin/
/usr/local/browser
/usr/bin/browser/
/usr/dt/bin
```

For `iexplorer`:

```
/usr/local/microsoft/bin
```

For `konqueror` and then for `epiphany`:

```
/opt/browser/
/usr/bin/
/usr/bin/browser
/usr/local/browser
/usr/local/bin/
/usr/local/bin/browser/
```

To set the default browser, you can do either of the following:

- Use the appropriate UNIX or Linux command to set one of the variables described above. For example, in UNIX csh shell or LINUX BSD:

  ```
  setenv SNPS_BROWSER /usr/bin/firefox
  ```

  In UNIX or Linux sh, bash, or ksh:

  ```
  export SNPS_BROWSER=/usr/bin/firefox
  ```

- Use your Synopsys application's preference setting or command, if any, to set the default. The preference setting or command name varies between applications. Some applications do not provide this setting, but rely on the variables described previously. Check your application documentation for information about setting a default Help browser.

Setting MIME Types to View PDFs from Help

Online Help includes PDF versions of the documents, for use in printing. In order for links from the Help to the PDF to work, you must set an association in your browser for MIME type "application/pdf" with an appropriate PDF viewer for your platform. See the documentation for your particular browser for specific instructions on creating MIME-type associations.

Customer Support

For information about accessing customer support, see *Installing Synopsys Tools*.