

# PrimeTime<sup>®</sup> Suite Installation Notes

## Version D-2010.06

June 7, 2010

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These installation notes present information about installing PrimeTime Suite version D-2010.06 in the following sections:

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The PrimeTime installation includes all products in the PrimeTime Suite: PrimeTime, PrimeTime SI, PrimeTime PX, and PrimeTime VX.

**Note:**

The installation instructions in this chapter 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.

See also <http://www.synopsys.com/Support/LI/Installation/Pages/default.aspx> for additional installation and licensing information.

## Media Availability and Supported Platforms

PrimeTime Suite is available by electronic software transfer (EST) download upon initial software release, and at a later date on DVD (or CD depending on image size). Obtain the appropriate binary executable files based on the operating system you need.

**Table 1** shows the supported compute platforms, operating systems, Synopsys platform keywords, and windowing environments for this release. For detailed information, see the Release Specific Support page on the Synopsys Qualified System Configuration Web site at the following address:

<http://www.synopsys.com/Support/LI/SupportPlatform/ReleaseSupport/Pages/default.aspx>

Select the appropriate foundation for your release. This Web page provides information about supported hardware, operating systems, and required operating system (OS) patches. If the required patch described on this page is not available for the platform vendor, install the most recent patch instead. Synopsys products, including the Synopsys Installer, have been verified against the supported platforms as listed in **Table 1**.

*Table 1 Supported Platforms, Operating Systems, and Keywords*

Compute platform	Operating system	Synopsys platform keyword	Desktop windowing environment
x86_64	Red Hat Enterprise Linux v4, 5 <sup>1</sup>	amd64 (64-bit mode) linux (32-bit mode) <sup>2</sup>	GNOME
x86_64	SUSE Linux Enterprise Server v9, 10 <sup>1</sup>	suse64 (64-bit mode) suse32 (32-bit mode)	KDE
x86_64	Solaris 10	x86sol64 (64-bit mode) x86sol34 (34-bit mode)	CDE
x86	Red Hat Enterprise Linux v4, 5 <sup>1</sup>	linux (32-bit mode) <sup>2</sup>	GNOME
Sun SPARC	Solaris 9, 10 <sup>1</sup>	sparc64 (64-bit mode) sparcOS5 (32-bit mode)	CDE
IBM RS6000	AIX 5.3, 6.1 <sup>1</sup>	aix64 (64-bit mode) rs6000 (32-bit mode)	CDE

1. Binary-compatible hardware platform or operating system. Note, however, that binary compatibility is not guaranteed. See <http://www.synopsys.com/Support/LI/SupportPlatform/ReleaseSupport/Pages/default.aspx> for the latest on supported platforms, including required OS patches.

2. The 32-bit (x86) and 64-bit (x86\_64) Linux software is binary compatible with the Intel EM64T or AMD Opteron processors running Red Hat Enterprise Linux.

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## Disk Space and Memory Requirements

The disk space requirement depends on the platform. [Table 2](#) shows the minimum space required for installing PrimeTime Suite on a particular platform.

*Table 2 Disk Space Requirements (in Megabytes)*

Synopsys platform keyword	Megabytes
common (platform-independent files)	405
amd64	345
linux	320
suse64	345
suse32	320
sparc64	500
sparcOS5	450
x86sol64	485
x86sol32	550

The minimum physical memory required is 150 MB. The recommended minimum physical memory is 1 GB. The minimum swap space is 256 MB. The recommended minimum swap space is 2 GB. For large designs, the expected amount of required memory is approximately 1 million bytes per 2,000 gates.

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## Accessing Memory Beyond 2 GB With 32-Bit Tools

PrimeTime Suite can extend memory beyond 2 GB.

**Note:**

The available memory is calculated as space not used by the operating system (OS), the windowing system, or other applications.

To access memory beyond 2 GB,

1. Make sure your server has at least 4 GB of memory (physical and swap space) available.

Note:

Physical memory equals data size plus stack size. Stack size is used before data size. Therefore, setting stack size to a large value causes problems for designs that are larger than 2 GB. If you set the stack size too high, you cannot get enough memory for your data. To check the settings, enter the `limit` command at the system prompt.

2. Make sure the system you are using does not have restrictions that prevent you from using more than 2 GB of memory.
3. Create unlimited data size using the C, Bourne, Korn, or Bash shell. If there are system-wide limits on the data size you can create, you can remove them or override them.
  - Enter one of the following commands based on the shell you are using:
    - For the C shell,

```
% limit datasize 3800000
```
    - For the Bourne, Korn, or Bash shell,

```
# ulimit -s -d 3800000
```
  - Modify the kernel of your server. This approach allows everyone using your server to extend memory beyond 2 GB.

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## Installing the Software

PrimeTime Suite uses the Synopsys Installer, which allows you to use a text script or a graphical user interface (GUI). For information about downloading the Synopsys Installer, see *Installing Synopsys Tools*, which is available at the following address:

<http://www.synopsys.com/Support/LI/Installation/Pages/default.aspx>

To install PrimeTime Suite, follow the procedures described in *Installing Synopsys Tools*. PrimeTime Suite is a standalone product and must be installed in an empty directory, using the latest version of the Synopsys Installer. Do not install PrimeTime Suite over an existing Synopsys product, including prior versions of PrimeTime Suite.

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## Setting Up the User Environment

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

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### Specifying the Executable File Location

A platform-independent wrapper script is provided for PrimeTime Suite. This script automatically determines the operating system platform at runtime, which simplifies the setup required to use PrimeTime Suite.

The platform-independent wrapper script is located at *install\_dir/bin* and includes the following options:

```
-32bit | -64bit
```

#### Note:

If you select a platform executable file that is unavailable, an automatic switch is made to an available platform based on your current environment. No warning message is issued.

To set up the environment by using the platform-independent wrapper script, add the PrimeTime Suite bin directory to the `PATH` environment variable.

- To set up the environment using the C shell, add the following line to the `.cshrc` file:

```
set path=(install_dir/bin $path)
```

- To set up the environment using the Bourne, Korn, or Bash shell, add the following lines to the `.profile`, `.kshrc`, or `.bashrc` file:

```
PATH=install_dir/bin:$PATH
export PATH
```

Replace *install\_dir* with the PrimeTime Suite installation directory.

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### Setting Up a PrimeTime Suite User

To set up a new PrimeTime Suite user,

1. Add the directory containing the `pt_shell` executable file to the `PATH` environment variable.

- If you are using the C shell, add the following line to the `.cshrc` file:

```
set path=(install_dir/bin $path)
```

- If you are using the Bourne, Korn, or Bash shell, add the following line to the .profile, .kshrc, or .bashrc file:

```
PATH=install_dir/bin:$PATH
export PATH
```

Replace *install\_dir* with the PrimeTime Suite installation directory.

2. (Optional) Place a .synopsys\_pt.setup file in your home directory.

This step enables you to customize the default setting for the setup file.

- If you are using the C shell, enter

```
% cp install_dir/admin/setup/.synopsys_pt.setup
```

- If you are using the Bourne, Korn, or Bash shell, enter

```
# cp install_dir/admin/setup/.synopsys_pt.setup
```

You can modify this file to customize the settings for each user.

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## Setting the License File Environment Variable

You must install the Synopsys Common Licensing (SCL) software, retrieve your license key file, and define the `LM_LICENSE_FILE` environment variable before you can verify the PrimeTime Suite installation.

For information about downloading SCL, installing SCL, or setting the license file variable, see the *Synopsys Licensing Quickstart Guide*, which is available at the following address:

<http://www.synopsys.com/Support/LI/Licensing/Pages/default.aspx>

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## Installing Make CCS Noise

The Make CCS Noise program is installed automatically with Liberty NCX.

Note:

Make CCS Noise still runs with either a PrimeTime SI license key or a Liberty NCX key, the same as in previous releases. However, starting with PrimeTime version B-2008.12 the Make CCS Noise executable is no longer included in the PrimeTime SI installation. For information about using Make CCS Noise, see the *Make CCS Noise User Guide*.

Before running `make_ccs_noise`, you must ensure that Liberty NCX is installed. Next, you must set the `SYNOPSYS_NCX_ROOT` environment variable to point to the specific path where Liberty NCX is installed, as shown:

```
% setenv SYNOPSYS_NCX_ROOT $synopsys
```

where `$synopsys` is the directory where Liberty NCX was installed, as specified in the Synopsys installer script.

You must also set the `path` environment variable to the appropriate platform, as shown:

```
% set path = (install_dir/ccsn/platform $path)
```

where `install_dir` is the installation directory and `platform` is the name of the platform on which `make_ccs_noise` is being invoked. The supported platforms are: `linux`, `sparcOS5`, `sparc64`, `suse32`, `suse64`, or `amd64`.

You no longer need to set the `MTB_TPATH` or the `CCSN_TPATH` environment variables to `install_dir/ccsn/platform`. The `MTB_TPATH` and `CCSN_TPATH` environment variables are not required.

Note:

You no longer need to set the Perl environment to run Perl scripts. Liberty NCX infers the Perl path automatically.

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## Verifying the PrimeTime Suite Installation

To verify the PrimeTime Suite installation,

1. Make sure you are in a directory where you have read/write privileges.

```
% cd $HOME
```

2. Invoke the tool by entering one of the following commands on a licensed machine.

- To start PrimeTime Suite in shell mode, enter

```
% install_dir/bin/pt_shell
```

- To start PrimeTime Suite in GUI mode, enter

```
% install_dir/bin/pt_shell -gui
```

Replace `install_dir` with the PrimeTime Suite installation directory.

If you see information about the product version, production date, and copyright or if the GUI appears, the installation was successful.