

IC Compiler Installation Notes

Version D-2010.03

March 8, 2010

These installation notes present information about installing IC Compiler version D-2010.03 in the following sections:

- [Media Availability and Supported Platforms](#)
- [Disk Space and Memory Requirements](#)
- [Installing the Software](#)
- [Setting Up the User Environment](#)
- [Verifying the IC Compiler Installation](#)

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.

To obtain the latest product Installation Guide, go to <http://www.synopsys.com/install>. For detailed licensing setup and troubleshooting assistance, see the *Licensing QuickStart Guide* at <http://www.synopsys.com/licensing>.

Media Availability and Supported Platforms

IC Compiler 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).

[Table 1](#) shows the supported compute platforms, operating systems, Synopsys platform keywords, and windowing environments for this release.

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 ¹	amd64 (64-bit mode) ² linux (32-bit mode) ²	GNOME
x86_64	SUSE Linux Enterprise Server v9, 10 ¹	suse64 (64-bit mode) suse32 (32-bit mode)	KDE
x86_64	Solaris 10	x86sol64 (64-bit mode) x86sol32 (32-bit mode)	CDE
x86	Red Hat Enterprise Linux v4, 5 ¹	linux (32-bit mode) ²	GNOME
x86	SUSE Linux Enterprise Server v9,10 ¹	suse32 (32-bit mode)	KDE
Sun SPARC	Solaris 9, 10 ¹	sparc64 (64-bit mode)	CDE

1. *Binary-compatible hardware platform or operating system. Note, however, that binary compatibility is not guaranteed. See <http://www.synopsys.com/qsc> 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 or AMD x86_64 processors running Red Hat Enterprise Linux.*

For detailed platform support information, see the Release Specific Support page on the Synopsys Qualified System Configuration Web site at the following address:

<http://www.synopsys.com/qsc>

This Web page provides release-specific information about supported hardware, operating systems, and required operating system patches. If the required patch described on this page is not available from 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](#).

Disk Space and Memory Requirements

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

Table 2 Disk Space Requirements (in Megabytes)

Synopsys platform keyword	Megabytes
linux, amd64	1120
suse32, suse64	1090
x86sol32, x86sol64, sparc64	1340

The recommended minimum physical memory is 2 GB. The recommended minimum swap space is 4 GB. For large designs, the expected amount of required memory is approximately 1 GB per 1 million gates.

Accessing Memory Beyond 2 GB With 32-Bit Tools

IC Compiler 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.

Installing the Software

IC Compiler 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/install>

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

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.

Specifying the Executable File Location

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

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

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

To set up the environment by using the platform-independent wrapper script, add the IC Compiler 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 IC Compiler installation directory.

Setting the License File Environment Variable

You must install the Synopsys Common Licensing (SCL) software, retrieve your license key file, and define the `SNPSLMD_LICENSE_FILE` or `LM_LICENSE_FILE` environment variable before you can verify the IC Compiler 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/licensing>

Configuring the Man Pages for Viewing in UNIX

To access the man pages for IC Compiler commands and variables from the UNIX command line, you must add the Synopsys man directory to the `MANPATH` environment variable. For example,

```
% setenv MANPATH ${MANPATH}:install_dir/doc/icc/man
```

Replace *install_dir* with the IC Compiler installation directory.

Due to the structure of the error message man pages, you cannot use the `MANPATH` environment variable to access these man pages from the UNIX command line. [SolvNet article 016026](#) provides a script that you can use to access these man pages.

Configuring the Browser for Online Help

The online Help system is a browser-based HTML Help system designed for viewing in Firefox and Mozilla Web browsers. You can use any of the following browsers:

- Firefox 2.0 or 1.5
- Mozilla 1.7

If you prefer to use other browsers, note the following limitations:

- Online Help does not work in Netscape version 6.0.
- Online Help might work in Netscape versions 4.7x, 4.8, and 7.0, or in other browsers such as Internet Explorer or Opera, but it is not tested or supported in these browsers.

Important:

When you use online Help from within the GUI, the directory containing the browser executable file must be in the search path specified by your `PATH` environment variable.

The default browser is Firefox. To use a different browser, change the `gui_online_browser` variable in your `.synopsys_icc_gui.tcl` setup file. You can also change the browser for the current session by setting this variable from within the GUI. For example,

```
icc_shell> set gui_online_browser "mozilla"
```

The choices are `firefox` or `mozilla`.

Verifying the IC Compiler Installation

To verify the IC Compiler 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 IC Compiler in shell mode, enter

```
% install_dir/bin/icc_shell
```

- To start IC Compiler in GUI mode, enter

```
% install_dir/bin/icc_shell -gui
```

Replace `install_dir` with the IC Compiler installation directory.

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