

# ESP Installation Notes

## Version A-2007.12

December 10, 2007

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These installation notes present information about installing ESP version A-2007.12 in the following sections:

- [Media Availability and Supported Platforms](#)
- [Disk Space and Memory Requirements](#)
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To ensure a successful installation, complete the following procedures before beginning the installation process:

- Create the Synopsys root directory.
- Define the `SYNOPSYS` environment variable.
- Have your license server running and have the appropriate license keys installed.

See also <http://www.synopsys.com/install> for additional installation and licensing information.

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## Media Availability and Supported Platforms

ESP is available by electronic software transfer (EST) download upon initial software release. At a later date, it becomes available on DVD (or CD depending on image size). The following table shows the supported platforms for the A-2007.12 release.

Platform	Operating System	Keyword
AMD Opteron	Red Hat Enterprise Linux 4, 5 <sup>1</sup>	amd64 (64-bit mode) linux (32-bit mode)
AMD Opteron	SUSE Enterprise Linux 9, 10 <sup>1</sup>	suse64 (64-bit mode) suse32 (32-bit mode)
EM64T	Red Hat Enterprise Linux 4, 5 <sup>1</sup>	amd64 (64-bit mode) linux (32-bit mode)
EM64T	SUSE Enterprise Linux 9, 10 <sup>1</sup>	suse64 (64-bit mode) suse32 (32-bit mode)
IBM RS/6000	AIX 5.3	rs6000 (32-bit mode)
IA-32 (x86)	Red Hat Enterprise Linux 4, 5 <sup>1</sup>	linux (32-bit mode)
IA-32 (x86)	SUSE Enterprise Linux 9, 10 <sup>1</sup>	suse32 (32-bit mode)
Sun SPARC	Solaris 9, 10 <sup>1</sup>	sparc64 (64-bit mode) sparcOS5 (32-bit mode)

*1. Binary-compatible hardware platform or operating system. Note, however, that binary compatibility is not guaranteed. For latest information: [www.synopsys.com/products/platforms/a-foundation.html](http://www.synopsys.com/products/platforms/a-foundation.html)*

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## Disk Space and Memory Requirements

The ESP tool has the following minimum memory requirements:

- Physical Memory – 256 MB (1 GB recommended)
- Swap space – 512 MB (2 GB recommended)

The disk space requirement varies, depending on the platform and tool selected for installation. During the installation process, Synopsys Installer displays the required disk space.

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

In general, UNIX-based systems support a maximum memory of 2 GB for 32-bit processes. However, the ESP tool can extend memory beyond 2 GB.

Note:

Available memory is space not used by the OS, the windowing system, or other applications.

To access memory beyond 2 GB,

1. Make sure your server has Solaris 9 (or later) loaded.
2. 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, and stack size is used before data size. Therefore setting stack size to a large value causes problems for designs that need to go over 2 GB. If you set the stack size too high, you cannot get enough memory for your data. To check the settings, use the `limit` command at the system prompt.

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

ESP uses the Synopsys Installer tool, which supports a graphical user interface (GUI) to simplify installation. The installer tool also allows you to use an installation text script.

To install ESP, download the Synopsys Installer tool from the Synopsys EST/FTP site and follow the installation guidelines described in the "Installing Synopsys Tools" document, located at <http://www.synopsys.com/install>. The "Installing Synopsys Tools" document describes the installer tool installation along with general Synopsys installation guidelines. This ESP installation release note describes ESP specific installation information.

Note: Download the latest version of the Synopsys Installer even if you downloaded the installer for a previous release.

ESP is a stand-alone product and cannot be installed over an existing Synopsys product, including a prior version of ESP. You must create a new directory for ESP.

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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 environment variable.

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### Specifying the Executable File Location

To set up a new ESP tool user, add the ESP bin directory to the `PATH` environment variable.

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

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

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

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

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### Setting the `SNPSLMD_LICENSE_FILE` Environment Variable

You must install the Synopsys Common Licensing (SCL) software and define the `SNPSLMD_LICENSE_FILE` variable before you can verify the ESP installation. For information about downloading SCL, installing SCL, or setting the license variable, see *Installing Synopsys Tools* at <http://www.synopsys.com/install>.

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## Verifying the ESP Installation

To verify the ESP installation, run a small test case from the installation doc directory for the release.

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

```
% cd $HOME
```

2. Obtain a copy of test source files.

```
% mkdir ~/testinstall
% cd ~/testinstall
% cp $SYNOPTSYS/doc/esp/demo/install/* .
```

3. Run a test case.

```
% espcv test.v
```

or

```
% $SYNOPTSYS/bin/espcv test.v
```

