

VCS MX Installation Notes

Version Y-2006.06

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These installation notes present the latest information about installing VCS MX (VHDL Simulation and Verilog Simulation) tool in the following sections

- [Media Availability and Supported Platforms](#)
- [Installing the Software](#)
- [Setting the Environment Variables](#)
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The instructions in this chapter also apply to VCS MXi.

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

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Media Availability and Supported Platforms

When VCS MX is initially released, it is available by electronic software transfer download. At a later date, it becomes available on DVD (or CD depending on image size). Obtain the appropriate binary executable files based on the operating system you need. [Table 1-1](#) shows the supported operating systems and keywords for this release. See http://www.synopsys.com/products/sw_platform.html for latest information

Table 1-1 Platforms and Keywords

Platform	Operating system	Synopsys platform keyword
AMD Opteron	Red Hat Enterprise Linux v3	amd64 (64-bit mode) linux (32-bit mode) ¹
EM64T	SUSE Enterprise Linux 9	suse64 (64-bit mode) suse32 (32-bit mode) ²
HP PA-RISC 2.0	HP-UX 11.0, 11.11 (11i) ²	hp32 (64-bit mode)
IA-32 (X86)	Red Hat Enterprise Linux v3	linux (32-bit mode) ²
IBM RS/6000	AIX 5.3	rs6000 (32-bit mode)
Sun SPARC	Solaris 9, 10 ²	sparc64 (64-bit mode) sparcOS5 (32-bit mode)

1. The 32-bit (x86) Linux software is binary compatible with Intel EM64T or AMD Opteron running Red Hat Enterprise Linux. Note, however, that binary compatibility is not guaranteed.

2. Binary-compatible hardware platform or operating system. Note, however, that binary compatibility is not guaranteed.

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 VCS MX 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. For more information, see [“Configuring the Environment” on page 1-10](#).

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.

Installing the Software

VCS MX uses the Synopsys Installer tool, which allows you to use a graphical user interface (GUI) or a text script. For information about downloading Synopsys Installer and VCS MX, see [“Synopsys Product File Download Methods” on page 1-17](#).

To install VCS MX by EST or from the DVD (or CD depending on image size), follow the procedures described in [“Installing Products with the Synopsys Installer” on page 1-29](#).

[Example 1-1 on page 1-35](#) shows a Synopsys media installation script for the synthesis tools. VCS MX is installed in a similar manner.

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

Setting the Environment Variables

This section discusses the following environment variables:

- VCS_HOME
- SNPSLMD_LICENSE_FILE

It is recommended that you place these variables in your \$HOME/.cshrc or \$HOME/.profile file as your default settings.

Setting the VCS_HOME Environment Variable

Follow these steps.

1. Set the VCS_HOME environment variable in the shell that you are using in which the *root_directory* argument is the name of the VCS MX root directory.

- If you are using the C shell, enter

```
% setenv VCS_HOME /vcs_mx/build/vcs_mx/vcs_mxY-2006.06
```

- If you are using the Bourne shell, enter

```
% VCS_HOME=/vcs_mx/build/vcs_mx/vcs_mxY-2006.06
export VCS_HOME
```

2. Add the directory containing the VCS MX executable files to the PATH environment variable.

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

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

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

```
PATH=(path:$VCS_HOME/bin)
export PATH
```

Setting the SNPSLMD_LICENSE_FILE Environment Variable

You must install the SCL software and define the `SNPSLMD_LICENSE_FILE` variable before you can verify the VCS MX installation. See the *Synopsys Common Licensing Installation Notes* at <http://www.synopsys.com/install> for information about downloading and installing SCL.

Verifying the VCS MX Installation

To verify the VCS MX installation,

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

```
% cp -r $VCS_HOME/doc/examples/verilog/comp_run .
% cd ./comp_run
% vcs ./addr4.v -R -debug
```

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

2. Run the DVE GUI on each installed platform by entering

```
% dve
```

3. Exit the GUI by choosing File > Exit in the DVE window.

