

TetraMAX Installation Notes

Version C-2009.06

June 8, 2009

These installation notes describes how to install TetraMAX version C-2009.06 in the following sections:

- [Media Availability and Supported Platforms](#)
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- [Setting Up the User Environment](#)
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If you are installing TetraMAX stand-alone, to ensure a successful installation, complete the following procedures before beginning the installation process:

- Create the Synopsys root directory.
- Define the `SYNOPSYS` environment.

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

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Media Availability and Supported Platforms

TetraMAX is available by 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 1-1](#) shows the supported platforms for the C-2009.06 release.

Note:

You must download a common file and a platform file for either TetraMAX stand-alone (txs) or TetraMAX overlay (tx). If your site is licensed for TetraMAX IddQTest, also download the TetraMAX IddQTEST (idq) common and platform files.

Table 1-1 Supported Operating Systems and Keywords

Platform	Operating system	Platform keyword	Path keyword
AMD Opteron	Red Hat Enterprise Linux v4, v5 ¹	amd64 (64-bit mode)	AMD.64
EM64T	SUSE Enterprise Linux 9, 10 ¹	suse64 (64-bit mode) suse32 (32-bit mode)	SUSE.64 SUSE.32
IA-32 (x86)	Red Hat Enterprise Linux v4, 5 ¹	linux	IA.32
Sun SPARC	Solaris 9, 10 ¹	sparcOS5 (32-bit) sparc64 (64-bit)	SUN.32 SUN.64

1. Binary-compatible hardware platform or operating system. Note, however, that binary compatibility is not guaranteed. See <http://www.synopsys.com/products/platforms/a-foundation.html> for latest information.

Disk Space and Memory Requirements

The TetraMAX 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.

Installing TetraMAX

This section describes Synopsys license key requirements and the two types of installation for TetraMAX ATPG and TetraMAX IddQTest, version C-2009.06.

You can install TetraMAX as a stand-alone product or as an overlay product.

- Stand-alone (txs)

Install TetraMAX stand-alone in its own directory. The product ID for the stand-alone version is txs.

- Overlay (tx)

Install TetraMAX overlay in the same directory as the appropriate release of the synthesis tools. See “[Overlay Installation](#)” The product ID for the overlay version is tx.

Note:

If you are going to install TetraMAX IddQTEST, you must install it first (see “[Optional Installation of IddQTest](#)”), then install TetraMAX ATPG as an overlay to the synthesis tools.

License Key Requirements

TetraMAX version C-2009.06 uses the Synopsys Common Licensing (SCL) system. For information about downloading SCL, installing SCL, or setting the license variable, see *Installing Synopsys Tools* at <http://www.synopsys.com/install>.

Note:

Optional features such as at-speed fault models, power-aware ATPG and scan compression require separate licenses. For specific information on the licenses required for TetraMAX commands, install the product and see the online Help topic “Understanding TetraMAX License Usage.”

Running TetraMAX in 64-Bit Mode

In 64-bit mode, TetraMAX supports both the shell and GUI on Solaris, AMD64, and Suse64 platforms.

To invoke TetraMAX ATPG in 64-bit mode, use the `-64` switch.

```
% tmax -64 [other options]
```

An alternative method is to set the `TMAX_64BIT` variable to true (or to any string other than null).

```
% setenv TMAX_64BIT true
% tmax [other options]
```

Stand-Alone Installation

TetraMAX uses the Synopsys Installer tool, which allows you to use a text script or a graphical user interface (GUI). For information about downloading Synopsys Installer and TetraMAX, see *Installing Synopsys Tools* at <http://www.synopsys.com/install>.

TetraMAX stand-alone is a complete installation of all TetraMAX applications. It must be installed in its own directory and not over an existing synthesis release.

To perform stand-alone installation,

1. To install TetraMAX follow the procedures described in the document *Installing Synopsys Tools* at <http://www.synopsys.com/install>. (For stand-alone installation, download the `txs_version_platform.tar` files and the `txs_version_common.tar` file.) The *Installing Synopsys Tools* document provides a Synopsys media installation script for the synthesis tools. TetraMAX is installed in a similar manner.

Note:

When you are prompted to select the product you want to install, enter **txs** to perform a stand-alone installation.

2. Make sure that your licensing software is installed the license environment variable is set. See "[Setting the SNPSLMD_LICENSE_FILE Environment Variable.](#)"

Overlay Installation

TetraMAX 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 TetraMAX, see *Installing Synopsys Tools* at <http://www.synopsys.com/install>.

When you attempt to install overlay software over an earlier release, the installation script looks only at the foundation identifier, for example, W or X; it does not look for the release month and year. This enables you to install a later tool version for the same foundation release over an earlier tool version. For example, you could install TetraMAX version V-2004.06 over version V-2003.12 of the synthesis tools.

Do not attempt to install an earlier version of TetraMAX (for example, V-2003.12) over a later version of the synthesis tools (V-2004.06). This installation is not supported, but the installer script will not stop you from doing it if overlay installation is allowed. Also, note that a Y foundation release cannot overlay a X foundation release, nor can a X foundation release overlay a W or V foundation release.

You perform overlay installation in the directory in which you installed the Synopsys synthesis tools (\$SYNOPSIS). You must log on as the same user who installed the Synopsys synthesis tools so that you have write permission in the \$SYNOPSIS directory.

Note:

If you have not installed the Synopsys synthesis tools, install them before proceeding with overlay installation (see *Synthesis Tools Installation Notes*). If you do not have the synthesis tools installed, the installation of TetraMAX overlay will not be allowed.

To perform overlay installation,

1. To install TetraMAX follow the procedures described in the document *Installing Synopsys Tools* at <http://www.synopsys.com/install>. (For overlay installation, download the `tx_version_platform.tar` files and the `tx_version_common.tar` file.) The *Installing Synopsys Tools* document provides a Synopsys media installation script for the synthesis tools. TetraMAX is installed in a similar manner

Note:

When you are prompted to select the product you want to install, enter **tx** to perform an overlay installation.

2. Make sure your Synopsys license server and license key file are set up to work with the synthesis tools. If you encounter problems, see the SCL documentation, Synopsys Common Licensing QuickStart Guide at <http://www.synopsys.com/keys> and the *Common Licensing Installation and Administration Guide*.

Optional Installation of IddQTest

You must install the IddQTest option before you install TetraMAX ATPG. IddQTest requires a separate license.

To install IddQTest,

1. To install IddQTest follow the procedures described in the document *Installing Synopsys Tools* at <http://www.synopsys.com/install>. This document provides a Synopsys media installation script for the synthesis tools. IddQTest is installed in a similar manner.

Note:

When you are prompted to select the product you want to install, enter **idq** to perform the installation.

2. Make sure that your licensing software is installed the license environment variable is set, see "[Setting the SNPSLMD_LICENSE_FILE Environment Variable](#)."
3. Install TetraMAX ATPG as an overlay to the synthesis tools, see "[Overlay Installation](#)."

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.

When you define the TetraMAX root directory, you can now use the `$SYNOPSISYS` environment variable.

Note:

For backward compatibility, you can still set `$SYNOPSISYS_TMAX`. If `$SYNOPSISYS_TMAX` is set, it will override `$SYNOPSISYS`.

Specifying the Executable File Location

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

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

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

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

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

To set up the user environment by using an alias, perform one of the following procedures. Note that these examples are for the C shell. Setups in other shells will differ.

- To set up the user environment by using an alias, enter

```
% alias tmax '$SYNOPSISYS/bin/tmax \!*'
```
- To set up the user environment by using a path, enter

```
% set path=($SYNOPSISYS/bin $path)
```
- To set up the user environment for using SoCBIST, enter

```
% set path=($SYNOPSISYS/bin $SYNOPSISYS/platform/bin $path)
```

Replace *platform* with the required platform.

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 TetraMAX installation.

For information about downloading SCL, installing SCL, or setting the license variable, see *Installing Synopsys Tools* at <http://www.synopsys.com/install>.

Configuring Online Help

TetraMAX Online Help can now be run in most standard HTML browsers, such as Mozilla, Mozilla Firefox, SeaMonkey, Internet Explorer, and Safari. Formerly, Online Help could only be displayed in a proprietary browser. To set up a default browser for Help, do the following:

```
setenv USER_HELP_BROWSER /usr/bin/firefox  
  
alias firefox '/usr/bin/firefox'
```

Verifying the TetraMAX Installation

To verify installation of the TetraMAX tools,

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

```
% cd $HOME
```

2. Invoke the TetraMAX GUI by entering the following command on a licensed machine:

```
% tmax
```

If the GUI appears, the installation was successful.

