

TetraMAX[®] ATPG Installation Notes

Version D-2010.03

March 8, 2010

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

- [Media Availability and Supported Platforms](#)
- [Memory Requirements](#)
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- [Setting Up the User Environment](#)
- [Verifying the TetraMAX Installation](#)

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.

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

TetraMAX 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) sparcOS5 (32-bit mode)	CDE
IBM RS6000	AIX 5.3, 6.1 ¹	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/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](#).

Memory Requirements

The recommended minimum physical memory is 1 GB. The recommended minimum swap space is 2 GB.

Installing the Software

This section describes Synopsys license key requirements and the two types of installation for TetraMAX ATPG and TetraMAX IddQTest, version D-2010.03.

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. For instructions, see [“Stand-Alone Installation.”](#)

- Overlay (tx)

Install TetraMAX overlay in the same directory as the appropriate release of the synthesis tools. For instructions, 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.

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

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 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 (\$SYNOPSYS). You must log on as the same user who installed the Synopsys synthesis tools so that you have write permission in the \$SYNOPSYS 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 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 file environment variable.

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

Note:

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

Specifying the Executable File Location

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

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 TetraMAX 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 TetraMAX 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 TetraMAX 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>

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]
```

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 the TetraMAX installation,

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.