

ISE 7.1i Release Notes and Installation Guide

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About This Guide

This guide explains how to install the Xilinx® Integrated Software Environment (ISE) 7.1i software and how to use the Xilinx online documentation.

Information on technical support and known issues of the ISE 7.1i release are also included.

Guide Contents

This guide covers the following topics:

- **Chapter 1, “Introduction,”** provides details about the contents of the CDs in your software package, as well as the operating system, equipment, and system memory requirements needed to install and use the software.
- **Chapter 2, “Installation Instructions,”** describes how to install the Xilinx software tools, online documentation, and ModelSim Xilinx edition, as well as how to set up the system environment.
- **Chapter 3, “Known Issues,”** describes the most critical Known Issues in the ISE 7.1i release at press time.
- **Chapter 4, “Software Service and Support,”** describes how to find up-to-date information about Xilinx products.

Additional Resources

For additional information, go to <http://www.xilinx.com/support>. The following table lists some of the resources you can access from this website. You can also directly access these resources using the provided URLs.

Resource	Description/URL
Tutorials	Tutorials covering Xilinx design flows, from design entry to verification and debugging http://www.xilinx.com/support/techsup/tutorials/index.htm
Answer Browser	Database of Xilinx solution records http://www.xilinx.com/xlnx/xil_ans_browser.jsp
Application Notes	Descriptions of device-specific design techniques and approaches http://www.xilinx.com/xlnx/xweb/xil_publications_index.jsp?category=Application+Notes

Resource	Description/URL
Data Sheets	Device-specific information on Xilinx device characteristics, including readback, boundary scan, configuration, and debugging http://www.xilinx.com/xlnx/xweb/xil_publications_index.jsp
Documentation and Literature	Latest Technical Documentation and Product Literature http://www.xilinx.com/literature/index.htm
Problem Solvers	Interactive tools that allow you to troubleshoot your design issues http://www.xilinx.com/support/troubleshoot/psolvers.htm
Tech Tips	Latest news, design tips, and patch information for the Xilinx design environment http://www.xilinx.com/xlnx/xil_tt_home.jsp

Conventions

This document uses the following conventions. An example illustrates each convention.

Typographical

The following typographical conventions are used in this document:

Convention	Meaning or Use	Example
Courier font	Messages, prompts, and program files that the system displays	speed grade: - 100
Courier bold	Literal commands that you enter in a syntactical statement	ngdbuild <i>design_name</i>
Helvetica bold	Commands that you select from a menu	File → Open
	Keyboard shortcuts	Ctrl+C
Italic font	Variables in a syntax statement for which you must supply values	ngdbuild <i>design_name</i>
	References to other manuals	See the <i>Development System Reference Guide</i> for more information.
	Emphasis in text	If a wire is drawn so that it overlaps the pin of a symbol, the two nets are <i>not</i> connected.
Square brackets []	An optional entry or parameter. However, in bus specifications, such as bus[7:0] , they are required.	ngdbuild [<i>option_name</i>] <i>design_name</i>

Convention	Meaning or Use	Example
Braces { }	A list of items from which you must choose one or more	<code>lowpwr = {on off}</code>
Vertical bar	Separates items in a list of choices	<code>lowpwr = {on off}</code>
Vertical ellipsis .	Repetitive material that has been omitted	IOB #1: Name = QOUT' IOB #2: Name = CLKIN' . . .
Horizontal ellipsis ...	Repetitive material that has been omitted	<code>allow block block_name loc1 loc2 ... locn;</code>

Online Document

The following conventions are used in this document:

Convention	Meaning or Use	Example
Blue text	Cross-reference link to a location in the current document	See the section “ Additional Resources ” for details. Refer to “ Title Formats ” in Chapter 1 for details.
Red text	Cross-reference link to a location in another document	See Figure 2-5 in the <i>Constraints Guide</i> .
Blue, underlined text	Hyperlink to a website (URL)	Go to http://www.xilinx.com for the latest speed files.

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Introduction

This chapter provides details about the contents of the CDs in your software package, as well as the operating system, equipment, and system memory requirements needed to install and use the software. There is also information about finding software features, software documentation, and Xilinx® device architectures supported in this release.

This chapter contains the following sections:

- [“Software CD Contents”](#)
- [“New Software Features”](#)
- [“System Requirements”](#)
- [“Equipment and Permissions”](#)
- [“Architecture Support”](#)
- [“Software Documentation”](#)
- [“License Agreements”](#)

Software CD Contents

This section lists the titles and contents of the CDs in your package.

The Xilinx Integrated Software Environment (ISE) 7.1i CD titles in your software package are as follows. Table 1-1 lists the contents of the ISE 7.1i Installation CDs.

Table 1-1: ISE 7.1i Installation CDs

CD Title	Description
ISE 7.1i Disc 1 of 3 - Windows®/Solaris®/Linux® Design Environment and Documentation	Contains all the software necessary to synthesize, compile, and program FPGA and CPLD devices. The software components available for installation depend on the product configuration that you have purchased. Refer to the “Product Configurations” section for more information. This CD also contains the online software documentation. There is a separate installation CD for each platform.
ISE 7.1i Disc 2 of 3 - Windows/Solaris/Linux Device Files	Contains device files for the following devices: CPLD, Spartan™-II/-IIE/-3, and Virtex™/-E/-II/-II Pro

Table 1-1: ISE 7.1i Installation CDs

CD Title	Description
ISE 7.1i Disc 3 of 3- Windows/Solaris/Linux Device Files	Contains device files for the following devices: Spartan-3E™ and Virtex-4™
ISE 7.1i Standalone Programming Tools- Windows/Solaris/Linux Standalone Programming Tools for Lab Installations	Contains tools and data files necessary to program all Xilinx CPLDs and FPGAs. May be used as a standalone installation to create an environment for the sole purpose of programming Xilinx devices.

New Software Features

A list of the new features in this software release is found in the `whatsnew.htm` file under the `usenglish` directory of the Design Environment CD, or by selecting **Start** → **Xilinx ISE 7.1i** → **Documentation** → **What's New** after the software is installed.

The latest versions of software manuals, which are in PDF format, include information about how to use the software features. For more detailed information, see the *ISE Quick Start Tutorial*, which describes these new features.

System Requirements

This section provides information on supported operating systems, Web browser, cable installation, and system memory requirements.

Supported Operating Systems

The following table lists the Xilinx® Integrated Software Environment ISE 7.1i software operating systems and versions.

Table 1-2: Supported Operating Systems

Platform Type	Version Number
Windows®	2000 SP2, SP3, SP4 XP Pro SP1, SP2
Japanese Windows®	2000 SP2, SP3, SP4 XP Pro SP1, SP2
Chinese Windows®	2000 SP2, SP3, SP4 XP Pro SP1
Korean Windows®	2000 SP2, SP3, SP4 XP Pro SP1
Solaris®	8, 9
Linux®	Red Hat® Enterprise 3.0 (32 bit and 64 bit)

Web Browser

You must use a web browser to view the online Help and documentation. Your browser must be XML-enabled to view reports generated by the CPLD software. The following table lists Xilinx supported web browsers.

Table 1-3: **Web Browser Support**

Web Browser	Versions
Windows [®]	Netscape 4.7 or higher Internet Explorer 5 or higher Mozilla 1.4 or higher
Solaris [®]	Netscape 4.7 or higher Mozilla 1.4 or higher
Linux [®]	Netscape 7.01 or higher Mozilla 1.4 or higher

Cable Installation Requirements

To install cable drivers on Linux, you must have root privileges. To install platform cable USB for USB 2.0 port, you must have Win2K SP4 or WinXP SP1. The platform cable USB is a high-performance download cable that attaches to user hardware for programming or configuring.

System Memory Recommendations

This section gives the RAM and swap space needed to run ISE 7.1i on your system.

While the following table lists the system recommendations for typical designs, the unique characteristics of each design affect the system resources required. Design complexity and constraints affect whether the design can be implemented using more or less memory. Each designer must monitor the system resources and adjust the systems resources, if necessary.

The following table lists the memory recommendations for Xilinx® devices.

Table 1-4: **Memory Recommendations**

Xilinx Device	RAM	Virtual Memory
XC9500™/XL/XV Automotive 9500XL CoolRunner™, CoolRunner-II™ Automotive CoolRunner-II Spartan-II™ XC2S15 through XC2S200 Spartan-IIE™ XC2S50E through XC2S200E Automotive Spartan-IIE A2S50E through A2S200E Spartan-3™ XC3S50 through XC3S200 Automotive Spartan-3 A3S50 through A3S200 Spartan-3E™ XC3S100E through XC3S150E Virtex™ XCV50 through XCV150 Virtex-E™ XCV50E through XCV200E Virtex-II™ XC2V40 through XC2V250	128 Megabytes	128 MB
Spartan-IIE XC2S300E through XC2S600E Automotive Spartan-IIE A2S300E Spartan-3 XC3S400 Automotive Spartan-3 A3S400 Spartan-3E XC3S500E Virtex XCV300 through XCV400 Virtex-E XCV400E Virtex-II XC2V500 Virtex-II PRO XC2VP2	256 MB	256 MB
Spartan-3 XC3S1000 Automotive Spartan-3 A3S1000 Spartan-3E XC3S1200E Virtex XCV600 through XCV800 Virtex-E XCV600E Virtex-II XC2V1000 Virtex-II PRO XC2VP4 through XC2VP7 Virtex-4 XC4VLX15 through XC4VLX25 Virtex-4 XC4VFX12 through XC4VFX20 Virtex-4 XC4VSX25	512 MB	512 MB

Table 1-4: Memory Recommendations

Xilinx Device	RAM	Virtual Memory
Spartan-3 XC3S1500 through XC3S2000 Virtex XCV1000 Virtex-E XCV1000E through XCV2000E Virtex-II XC2V1500 Virtex-II PRO XC2VP20 through XC2VP40 Virtex-II PRO X XC2VPX20 Virtex-4 XC4VLX40 through XC4VLX60 Virtex-4 XC4VFX40 through XC4VFX60 Virtex-4 XC4VSX35 through XC4VSX55	1 Gigabyte	1 GB
Spartan-3 XC3S4000 through XC3S5000 Virtex-E XCV2600E through XCV3200E Virtex-II XC2V2000 through XC2V6000 Virtex-II PRO XC2VP50 through XC2VP70 Virtex-II PRO X XC2VPX70 Virtex-4 XC4VLX80 through XC4VLX100 Virtex-4 XC4VFX100	2 GB	2 GB
Virtex-II XC2V8000 Virtex-II PRO XC2VP100 Virtex-4 XC4VLX160 through XC4VLX200 Virtex-4 XC4VFX140	3 GB	3 GB

Note: QPro Hi-Rel and QPro Rad-Hard device memory recommendations are equal to the standard device memory recommendations. For example, the memory recommendations for an XC2V3000 are the same as for an XQR2V3000.

Note: System memory recommendations may be skewed depending on design size.

Enhanced RAM Support for Targeting Large Devices and Complex Designs

The MS Windows and Linux[®] operating system (OS) architectures have limitations on the maximum memory available to a Xilinx[®] program. Users targeting the largest devices and most complex designs may encounter this limitation. ISE 7.1i has optimized memory and enabled software support for applications to increase RAM memory available to Xilinx software.

Windows XP

Xilinx[®] applications are enabled to take advantage of this feature. You must also enable this feature in Windows XP by modifying your OS.

Before enabling 3GB support for Xilinx applications, please read Microsoft Knowledge Base Article #328269 at <http://support.microsoft.com/?kbid=328269>. If you upgrade your computer to Windows XP Service Pack 1 (SP1) and you are using the /3GB switch,

Windows may not restart without a patch from Microsoft. Please see (Xilinx Answer 17905) for more information.

The standard Windows OS architecture limits the maximum memory available to a Xilinx program to 2 GB. In Windows XP Professional, Microsoft created an option to support the ability of an application to address 3 GB of RAM. Xilinx ISE applications have built-in support for this option. To take advantage of this capability, you must also modify your Windows XP OS to enable this feature, which requires that you modify your "boot.ini" file by adding a "/3GB" entry to the end of the "startup" line.

Before making this change, please read:

- Microsoft Bulletin Q17193 <http://support.microsoft.com/default.aspx?scid=kb;en-us;Q171793>, which contains information on "Application Use of 4GT RAM Tuning".
- Microsoft Bulletin Q289022 <http://support.microsoft.com/default.aspx?scid=kb;en-us;q289022>, contains instructions for editing your "boot.ini" file.

Linux

ISE 7.1i now supports Lin64 which allows greater memory allocation. Xilinx has documented Linux kernel modifications that allow a Xilinx application to address over 3 GB of memory.

Solution 1:

Red Hat Enterprise Edition WS 3.0 can utilize the hugemem kernel to allocate 4GB to each process. More information can be found on the Red Hat support site:

<http://www.redhat.com/docs/manuals/enterprise/RHEL-3-Manual/release-notes/ws-x86/>

Solution 2:

A kernel rebuild can be attempted for Red Hat numbered releases: The following steps apply only to the specific kernel mentioned (2.4.7).

Background of System Parameters:

- The system parameter TASK_SIZE is the basic limit on the per-process address space available in user mode.
- TASK_SIZE is defined to be the same as PAGE_OFFSET in "include/asm-i386/processor.h".
- PAGE_OFFSET depends on __PAGE_OFFSET, which depends on PAGE_OFFSET_RAW in "include/asm-i386/page.h".
- PAGE_OFFSET_RAW is defined in "include/asm-i386/page_offset.h" according to the definitions of CONFIG_1GB, CONFIG_2GB, or CONFIG_3GB from "linux/config.h".

Steps for A Kernel Rebuild:

The kernel can be compiled from the existing source tree in "/usr/src/linux-2.4.7-10". Please refer to the Linux support documentation for any questions. The steps required to rebuild the kernel are:

1. Unpack the sources if necessary, and cd to the sources directory.
2. Edit "include/asm/page_offset.h" header to modify PAGE_OFFSET_RAW to the new value of 0xF0000000 (3.75GB).

3. Run "make clean". (Start with a clean slate.)
4. Run "make mrproper". (This does more clean up, inside modules too.)
5. Run "make oldconfig". (This picks up the old configuration for i686 smp architecture.)
6. Run "make dep".
7. Run "make bzImage". (This makes the kernel in "arch/i386/boot".)
8. Run make modules. (This makes all kernel modules.)
9. Run "make modules_install". (This installs the modules in "/lib/modules/2.4.7-10custom".)
10. Copy the bzImage from "arch/i386/boot" to "/boot".
11. Configure GRUB to boot from "/boot" area kernel from Hard Disk.
12. Optionally, you can also create a bootable floppy using "make bzdisk". (This creates a boot floppy disk.)

Problems/Solutions:

1. "linux/compile.h" not found.
Touch the "include/linux/version.h" file as "linux/compile.h" (which is generated at run time).
2. "/lib/modules/2.4.7-10custom/modules.dep" not found.
Perform a "modules_install", as the kernel needs this file while booting to look for modules dependency.
3. ypbind is not able to bind to NIS Domain.
This happens when you compile only the kernel and not modules. You must compile and install modules along with the core kernel.
4. Mount points do not work.
Because of the way in which mount points are set on Linux machines, they will not work with the new kernel as the name of the kernel is now changed to 2.4.7-10custom, and automounter looks for 2.4.7-10Linux. You must add links on the ypserver to make the automounts work.

Equipment and Permissions

The following table lists related equipment, permissions, and network connections.

Table 1-5: Equipment and Permissions Requirements

Item	Requirement
Directory permissions	Write permissions must exist for all directories containing design files to be edited.
Monitor	Color VGA with a minimum recommended resolution of 1024 by 768 pixels.
CD Drive	You must have an ISO9660-compliant drive on your system.

Item	Requirement
Ports	To program devices, you must have an available serial, parallel, or USB port appropriate for your Xilinx programming cable. Specifications for ports are listed in the documentation for your cable. Note: To use the new Platform Cable USB, you must have a Win2K SP4 or WinXP SP1 supported operating system.
Networks	The Xilinx installation program supports Microsoft, Sun, and Red Hat networks with TCP/IP. Novell Netware TCP/IP is not supported.

Note: Emulators such as Exceed, ReflectionX, and XWin32 are not supported.

Network Time Synchronization

When design files are located on a network machine, other than the machine with the installed software, the clock settings of both machines must be set the same. These times must be synchronized on a regular basis for continued proper functioning of the software.

Architecture Support

The ISE 7.1i software supports the following architecture families:

- Virtex™/-E/-II/-II Pro/-II Pro X/-4
- QPro Virtex™/-E/-II Hi-Rel
- QPro Virtex™/-II Rad-Hard
- Spartan™ -II/-IIE/-3/-3E
- Automotive Spartan-IIE/-3
- XC9500™/XL/XV
- Automotive 9500XL
- CoolRunner™ XPLA3/-II
- Automotive CoolRunner-II

Product Configurations

Following is a list of the product configurations for this release:

- ISE *Foundation*
- ISE *BaseX*
- ISE *WebPACK*

Note: ISE WebPACK is a free software configuration available on this CD or for download at <http://www.xilinx.com/ise/webpack>.

The following table lists the contents of each product configuration.

Table 1-6: Product Configurations

Feature	ISE WebPACK (MS Windows & Linux)	ISE BaseX (MS Windows & Linux)	ISE Foundation (MS WINDOWS, Linux & Solaris)
Schematic Editor	Yes	Yes	Yes
State Diagram Entry	Yes	MS Windows Only	MS Windows Only
XST Synthesis	Yes	Yes	Yes
Synplify/Synplify Pro Integration	Yes	Yes	Yes
Leonardo Spectrum Integration	Yes	Yes	Yes
Precision Integration	Yes	Yes	Yes
Waveform Editor	MS Windows Only	MS Windows Only	MS Windows Only
ISE Simulator	No	MS Windows only Limited version included	MS Windows only Limited version included Unlimited version available as option
Modelsim Xilinx Edition	MS Windows only Starter included Full MXE available as option	MS Windows only Starter included Full MXE available as option	MS Windows only Starter included Full MXE available as option
Modelsim Integration	Yes	Yes	Yes
CORE Generator	No	Yes	Yes
Floorplanner	Yes	Yes	Yes
FPGA Editor	No	Yes	Yes
Device Programming Support	Yes	Yes	Yes

The following table lists the contents of each product configuration.

Table 1-7: Device Configurations

Family	ISE WebPack (MS Windows & Linux)	ISE BaseX (MS Windows & Linux)	ISE Foundation (MS Windows, Linux & Solaris)
Virtex devices	No	Up to V600	All
Virtex-E devices	Up to V300E	Up to V600E	All
Virtex-II devices	Up to 2V250	Up to 2V500	All
Virtex-II Pro devices	2VP2	Up to 2VP7	All

Table 1-7: Device Configurations

Family	ISE WebPack (MS Windows & Linux)	ISE BaseX (MS Windows & Linux)	ISE Foundation (MS Windows, Linux & Solaris)
Virtex-II Pro X devices	No	No	All
Virtex-4 devices	4VLX15, 4VLX25	4VLX15, 4VLX25, 4VSX25, 4VFX12	All
QPro Virtex Hi-Rel devices	No	Up to QV600	All
QPro VirtexE Hi-Rel devices	No	Up to QV600E	All
QPro Virtex2 Hi-Rel devices	No	No	All
QPro Virtex Rad-Hard devices	No	Up to QVR600	All
QPro Virtex2 Rad-Hard devices	No	No	All
Spartan-II devices	All	All	All
Spartan-IIIE devices	Up to 2S300E	All	All
Automotive Spartan-IIIE devices	All	All	All
Spartan-3 devices	Up to 3S1500	Up to 3S1500	All
Automotive Spartan-3 devices	All	All	All
Spartan-3E devices	Up to 3S500E	All	All
XC9500/XL/XV devices	All	All	All
Automotive 9500XL devices	All	All	All
CoolRunner/II devices	All	All	All
Automotive CoolRunner-II devices	All	All	All
Device Programming Support	All	All	All

Software Documentation

The following sections provide answers to your questions about using the Xilinx® ISE software documentation and help tools.

Software Manuals and Help Online

ISE Software manuals are provided on ISE 7.1i, Disc 1 of 3, as well as on the Web. For documentation, refer to the **Software Manuals** web collection at the following URL: http://www.xilinx.com/support/software_manuals.htm.

Context-sensitive online help is available for most Xilinx® programs that are available with a graphical user interface (GUI). From Project Navigator, select **Help** → **ISE Help Contents** to access the online help. HTML Help is now available from the software manuals area on the web. To access the Help collection on the Web refer to http://www.xilinx.com/support/sw_manuals/xilinx7/index.htm.

The updated *Constraints Guide* now includes Virtex-4 constraints.

Note: The *Constraints Guide* is only available from the Software Manuals collection on the Web.

Xilinx Support Website Resources

The Xilinx MySupport Website, <http://www.xilinx.com/support>, provides additional help resources such as Application Notes, Data Sheets, Tutorials, Problem Solvers, Tech Tips, and Answer Records.

License Agreements

Xilinx supports the following licensing agreements.

PERL License Agreement

XILPERL is a modified version of PERL licensed to Xilinx® and to you under the Artistic license. The text of the artistic license may be seen at: <http://www.perl.com/language/misc/Artistic.html>

XILPERL is invoked implicitly by ISE applications when it is needed and there is no need for the user to invoke it directly. The only difference between XILPERL and unmodified PERL is that XILPERL picks up its input script file from the location specified in the Xilinx environment variable, and not from STDIN.

XILPERL is not packaged in ISE to be used as a standalone PERL by the end user. The unmodified version of PERL may be obtained in source or executable form from <http://www.perl.com>.

Regex++ Licensing Terms

Regex++, Index.

(Version 3.20, 29th Sept 2001)

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Dr. John Maddock

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Acknowledgement

Some of the features in the Xilinx software tools were implemented using ANTLR, a language recognition tool. See <http://www.ANTLR.org>.

Installation Instructions

This document describes how to install the Xilinx® software tools, online documentation, and ModelSim Xilinx Edition II, as well as how to set up the system environment. This chapter comprises the following sections:

- “Installing Xilinx ISE Software”
- “Running Multiple Versions of Xilinx Software”
- “Platform Specific Instructions”
- “Installing ModelSim Xilinx Edition III Software (MS Windows Only) - Optional”
- “Installing Standalone Programming Tools (Lab Environment)”
- “Network Installations”
- “Installing Documentation”
- “Obtaining Software Updates”
- “Troubleshooting with Xinfo”
- “Using Other Versions of ModelSim”
- “Uninstalling ISE Software”

Installing Xilinx ISE Software

ISE 7.1i has a multi-CD installation system. For a first-time installation, the operating system specific CD and at least one device CD must be installed to have a complete installation of programs and selected FPGA or CPLD devices

This section explains the ISE 7.1i installation process for all platforms. Platform-specific details of the installation procedure follow these steps:

1. Close all programs before you begin installation.
2. Locate the Product ID number located on a sticker on the software package from Xilinx.
3. Ensure that your system meets the requirements described in the “Introduction” chapter.
4. Check the “Known Issues” chapter and *Xilinx Hotsheet* for any installation issues that pertain to your system or configuration.
5. Insert the ISE 7.1i Disc 1 of 3.
6. Run the setup program and follow the instructions on the screen to install the software.
7. If not already done by the installer, manually set your XILINX Environment Variable before installing Disc 2. See Platform Specific Instructions for more information.
8. Insert ISE 7.1i Disc 2 of 3 and run the installation program for Disc 2.

9. If not already done by the installer, manually set your XILINX Environment Variable before using the ISE 7.1i software. See Platform Specific Instructions for more information.

Installing Adobe Acrobat Reader+Search

You must have Adobe Acrobat Reader installed to view and search the PDF manuals. If you do not have Acrobat Reader, you can install version 6 from the usenglish subdirectory on ISE 7.1i Disc 1 of 3.

To ensure that you can view and search the Software Manuals, upgrade to Adobe Acrobat Reader+Search as follows:

MS Windows:

1. Go to the root directory of the CD.
2. Go to the usenglish\acrobat\pc directory.
3. Double-click the executable file.

Solaris:

1. Go to the root directory of the CD.
2. Go to the usenglish/acrobat/sol directory.
3. Copy the file in this directory to a local directory.
4. Go to the local directory.
5. Unzip the file and then extract the contents of the tar file.
6. Run the INSTALL script.

LINUX:

1. Go to the root directory of the CD.
2. Go to the usenglish/acrobat/lin directory.
3. Copy the file in this directory to a local directory.
4. Go to the local directory.
5. Unzip the file and then extract the contents of the tar file.
6. Run the INSTALL script.

Note: The Acrobat Reader+Search functionality is available on Windows and Macintosh.

Running Multiple Versions of Xilinx Software

To maintain multiple versions of software, read the following document for information about which configurations are supported, about setting up your user environment, and about switching among software versions:

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=8915

The ISE 7.1i installer does not allow you to install to a directory that contains an older version of Xilinx® software. You must either uninstall the older version, or install ISE 7.1i to a different location. If you attempt to install ISE 7.1i over ISE 6.3i, the installer gives you the option of automatically uninstalling older versions of the Xilinx software before continuing.

Note: To retain your ISE installation and also install ISE 7.1i, select the option to install in a different directory.

Note: Before uninstalling, be sure you have moved any project files you want to keep outside your Xilinx installation directory structure, or it will be deleted.

See the uninstall information later in this chapter for issues when running multiple installations.

Platform Specific Instructions

This section explains the platform-specific details of the ISE 7.1i installation.

MS Windows

This section describes how to start installation and set environment variables.

To Start Installation

The installer automatically starts when the CD is inserted. If it does not, from Windows select **Start** → **Run**. Type **D:\setup.exe** where D:\ is the CD drive.

To Set Environment Variables

The installer provides an option to have these variables set automatically to the appropriate values. The variables are set by default to:

```
PATH=%XILINX%\bin\nt;%PATH%
```

To verify or change your Windows environment variables, see

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=11630

Solaris

This section describes how to start installation and set environment variables.

To Start Installation

Click the setup file in your file manager, or at the Solaris prompt, type `cd /cdrom/cdrom0`. Then type `./setup`.

To eject cdrom, cd out of the directory `/cdrom/cdrom0` or `/mnt/cdrom` and then type `eject cdrom`.

To Set Environment Variables

At the completion of the installation process, the installation program creates an environment variables file for you. Go to your XILINX installation directory and type `source settings.csh` or `source settings.sh` as appropriate to your shell.

To set your environment variables manually or from within your own setup script, copy the settings in the `settings.sh` (or `settings.csh`) file. Xilinx® environment variables settings are specific to each OS platform.

Linux

This section describes how to start installation and set environment variables.

To Start Installation

Click the setup file in your file manager or at the Solaris prompt, type `cd /mnt/cdrom`. Then type `./setup`.

Note: Mozilla browser users may need a JRE plug-in to access the Xilinx download pages.

To Set Environment Variables

At the completion of the installation process, the installation program creates an environment variables file for you. Go to your XILINX installation directory and type `source settings.csh` or `source settings.sh` appropriate to your shell.

To set your environment variables manually or from within your own setup script, it is recommended that you copy the settings in the `settings.sh` (or `settings.csh`) file. Xilinx environment variables settings are specific to each OS platform.

Registration

To complete your software installation, you must register your software with Xilinx. Use the links provided on the Welcome screen of the installer to register by Web, e-mail, or fax. You will need the Product ID number located on a sticker on the software package from Xilinx. After completing the registration process, a Registration ID and any necessary license files will be sent to you. Return to the installation program to continue with the software installation.

Installation of ISE Programs and Devices

ISE 7.1i has a multi-CD installation system. For a first-time installation, the operating system specific CD and at least one device CD must be installed to have a complete installation of programs and selected FPGA or CPLD devices

Selecting Xilinx Modules

The following figure shows the screen from Installation Disc 1 of 3 to select which Xilinx® modules you wish to install.

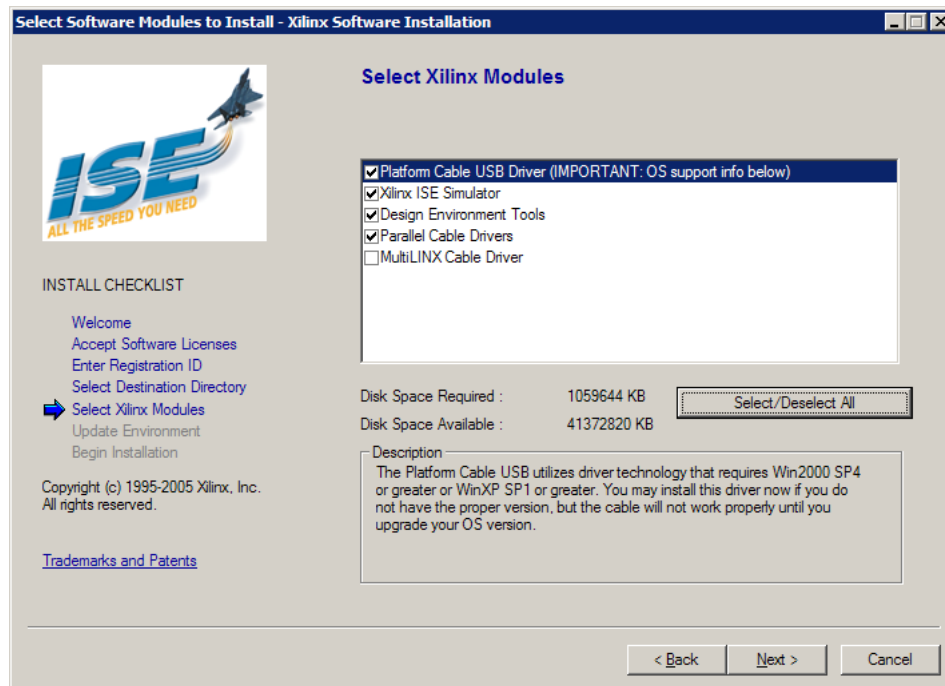


Figure 2-1: ISE 7.1i Disc 1 of 3 - Select Xilinx Modules Screen

Adding Programs

After a complete installation using ISE 7.1i Disc 1 of 3 and 7.1i Disc 2 of 3, add devices by re-running ISE 7.1i Disc 2 of 3 only. The Software Install includes the software documentation.

Figure 2-2 shows the screen from Installation Disc 2 of 3 to select which Xilinx® Modules you wish to install.

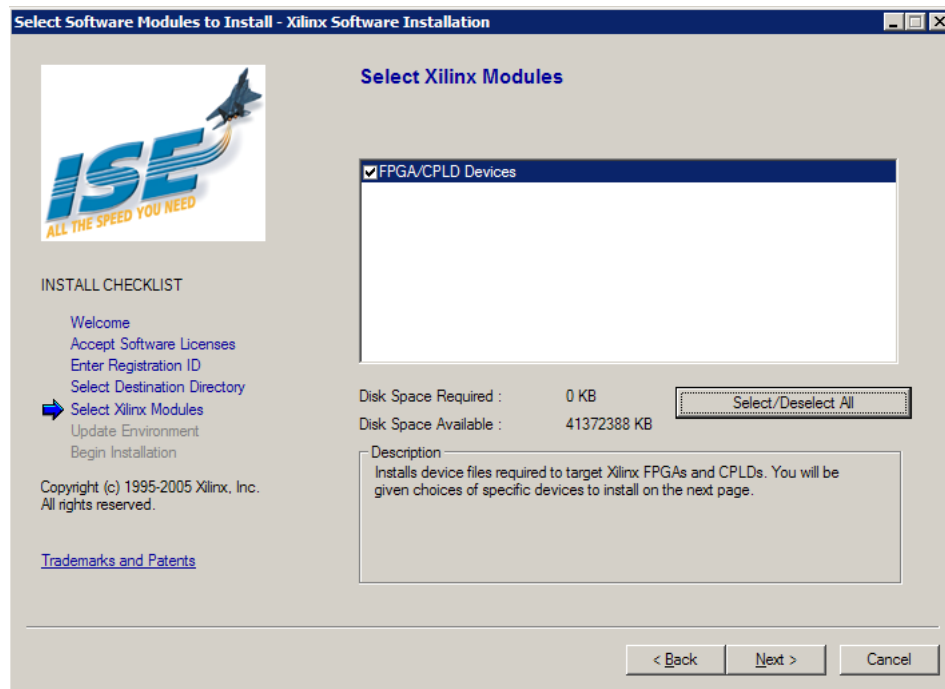


Figure 2-2: ISE 7.1i Disc 2 of 3 - Select Xilinx Modules Screen

Selecting Device Families

Figure 2-3 shows the screen from Installation Disc 2 of 3 to select the Device Families that you wish to install.

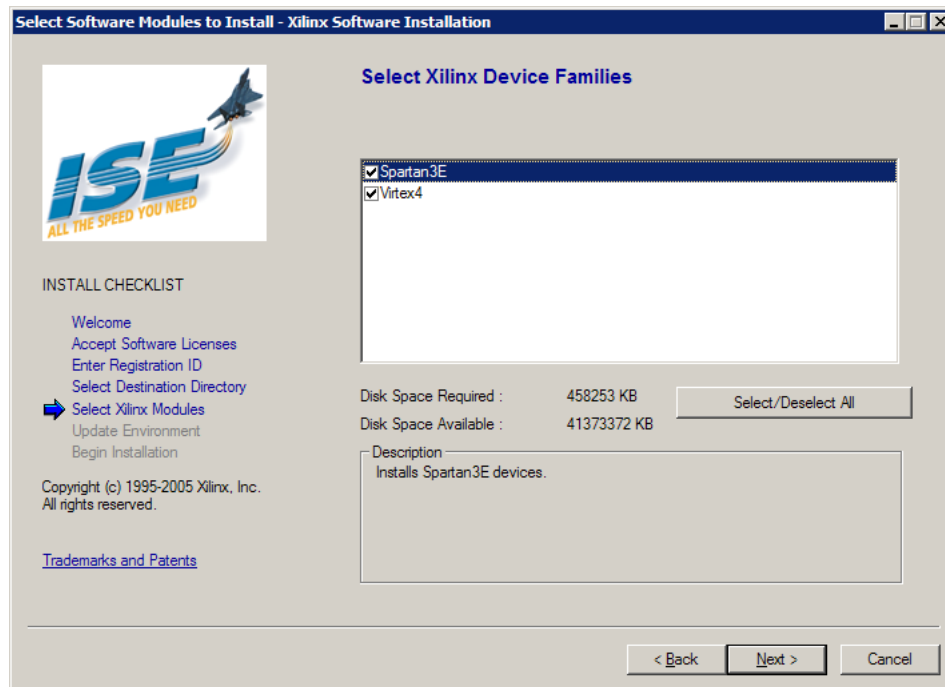


Figure 2-3: ISE 7.1i Disc 3 of 3 - Select Xilinx Device Families Screen

Installing ModelSim Xilinx Edition III Software (MS Windows Only) - Optional

If you have already purchased MXE, you will receive a license file after registering the MXE software after installation. For complete product and purchasing information for MXE, contact your local Xilinx representative or visit the following Xilinx website:

http://www.xilinx.com/xlnx/xil_prodcats/product.jsp?title=modelsim_xe

To install MXE software, perform the following steps:

1. Insert the ModelSim Xilinx Edition CD.
2. If the CD does not auto run, select **Start** → **Run** → **D:\setup.exe**.
3. Follow the instructions to complete the installation.
4. Follow the instructions provided to complete a license request. A license file will be e-mailed to you.
5. Put the license in a location pointed to by the LM_LICENSE_FILE variable as follows:

```
set LM_LICENSE_FILE=<path_to_license>\license.dat
```

You can also cut and paste the contents into your existing license.dat file.

Note: For versions of ModelSim, other than MXE III, see “Using Other Versions of ModelSim” later in this chapter.

Note: For more information on MXE use, installation, and licensing, see the ModelSim Xilinx Edition Tech Tip found on the main Tech Tips page here: http://www.xilinx.com/xlnx/xil_tt_home.jsp.

Installing Standalone Programming Tools (Lab Environment)

ISE 7.1i allows you to install a subset of the software just for programming all Xilinx® devices and formatting programming files. This option allows users to set up a PC in a bench-top or "lab" environment for programming devices without having to install the full version of the software.

To install, run the installation on the ISE 7.1i Standalone Programming Tools disk.

Network Installations

Installing software to a network location provides a way for various client machines to access the software by pointing to it on the network drive. To run the software on the network, the client machines must be set up correctly to ensure that the environment variables, registry, and program groups all point to the network. The following sections describe the procedure for network setups.

Workstation Clients

1. Each software user must source the `settings.csh` or `settings.sh` from the `$XILINX` area where the software is installed. This points the Xilinx environment variable, path and `LD_LIBRARY_PATH` to the installed location.
2. To run the software applications from a remotely installed location, you must also run an X Windows display manager, and you must include a `DISPLAY` environment variable. Define `DISPLAY` as the name of your display. `DISPLAY` is typically `unix:0.0`. For example, the following syntax allows you to run the software on the host named `bigben` and to display the graphics on the local monitor of the machine called `mynode`:

```
setenv DISPLAY mynode:0.0
xhost = bigbenPC Clients
```

PC Clients

1. Install the ISE software tools to a PC network server. Make sure that your users know the location of the software tools and have access to the installation directory, and that they have Administrator privileges for the following steps.
2. From the local client machine, browse to the following directory:
`network_install_location/bin/nt` and run the program `setXenv.bat`.
Running this program sets up the environment and registry settings needed to run the Xilinx® tools from the remote location.
3. Map a network drive, at `\\name_of_your_server\xilinx`
To verify that the network drive is mapped correctly (for instance, if you call it F:), type "F:" in a dos command, and you will be in your Xilinx server folder.
4. Run `setXenv.bat`, in `F:\bin\nt`.
Note: Network Administrators, in addition read the WebUpdate section for use on network installations.

Installing to a Mounted Network Drive

When installing to a mounted network drive without a subdirectory for Xilinx software. Xilinx software is designed to be installed in a directory under ROOT (typically C:\Xilinx). The installer presents this option normally when installing to a local driver, but when installing to a mounted network drive, a subdirectory might not be defined and it appears to the Installer as if it is installing to a ROOT directory.

To work around this issue, define your target installation directory as "\Xilinx" under the network mount point (For example: "N:\Xilinx"). For more information see, http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=18847.

Installing Documentation

The ISE 7.1i Software Install includes installing the documentation. You must install Adobe Acrobat Reader to view the installed documentation.

Software Manuals Installation

The Xilinx ISE documentation is automatically installed as part of the software installation. After you install the software, you can select the **Help** → **Online Documentation** command from your software tools to access the Software Manuals collection.

For added convenience, Xilinx Software Manuals are also on the Web. See, <http://www.xilinx.com/support>, and click the "Software Manuals" button in the left navigation bar.

Note: The documentation is not installed as part of ISE WebPACK installations.

Obtaining Software Updates

The following sections describe the ways to obtain software updates.

Traditional Service Packs

Service Packs and other Software Updates for all platforms are regularly made available on the Software Updates Page at: http://www.xilinx.com/xlnx/xil_sw_updates_home.jsp.

WebUpdate for PC Platforms

WebUpdate is a new tool that provides an alternative method of obtaining software updates on the PC. It provides the following features:

- Compares the latest version of software updates available on www.xilinx.com/support with the version of ISE that you have installed and notifies you if a newer version is available.
- Downloads and installs the update in one step.
- Downloads only the files necessary to update your installation.

WebUpdate can be run in any of the following ways:

- Automatic periodic checks at Project Navigator startup time.
- **Help** → **Software Updates** from Project Navigator.
- **Accessories** → **WebUpdate** from the Xilinx® ISE Program Group.

WebUpdate provides the ability to check for and install Service Pack updates, as well as CPLD supplemental updates. When a new update is found, a similar dialog to the following figure appears.

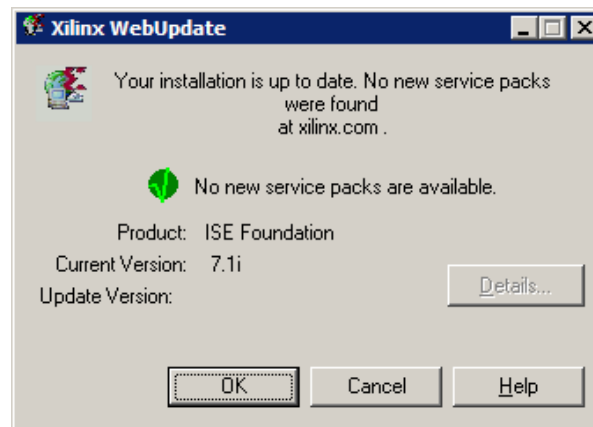


Figure 2-4: WebUpdate Dialog Box

The Details button provides more information on the specific enhancements that are included in the update.

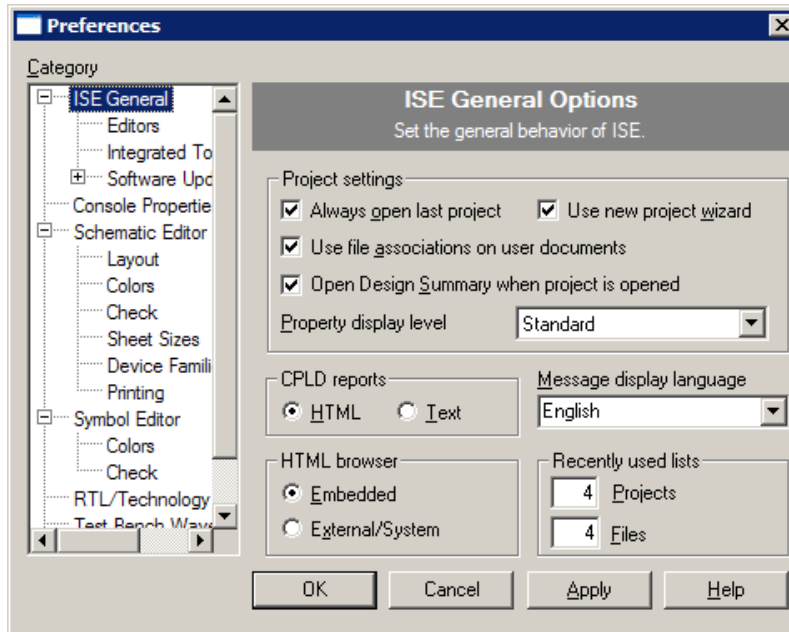


Figure 2-5: Updates Tab (Preferences Dialog Box)

The **Edit** → **Preferences** menu selection in Project Navigator allows you to control the frequency of the automatic checks that happen at Project Navigator startup time.

Note: The Lab Install does not have automatic notification of updates through WebUpdate. You must update with Service Packs available at http://www.xilinx.com/xlnx/xil_sw_updates_home.jsp.

You can also launch WebUpdate anytime from within Project Navigator at **Help** → **Software Updates**, or from the Xilinx ISE 7.1i Program Menu at **Start** → **Xilinx ISE 7.1i** → **Accessories**.

WebUpdate Network Installations

By default, the WebUpdate automatic checks at Project Navigator startup are enabled on the machine used to install the ISE software to the network location. All clients pointing to this network location will have WebUpdate automatic checks disabled by default. Client users have the option of enabling automatic checks (**Edit** → **Preferences** → **Updates** from Project Navigator) and also running manual checks.

Note: To perform a software update installation, you must have write permissions on the \$XILINX installation directory.

Note: The mapped drive to the full installation is the root of the drive mounted from the client PC. Therefore, when setxenv.bat runs the \$XILINX on the client machine is set to the root of the drive. For example, K:\ The Xilinx tools don't like the \$XILINX being set to the root of a drive.

Troubleshooting with Xinfo

Xinfo provides assistance in troubleshooting your installation. The Xinfo tool analyzes your Xilinx® software installation and hardware environment. Before contacting Technical

Support, run `xinfo` to view your system information and then export the results as follows:

PC

1. Select **Start** → **Programs** → **Xilinx ISE 7.1i** → **Accessories** → **Xinfo System Checker**.
2. Select **File** → **Export** to save your report as a text file.
3. If your system does not correctly display the Xinfo GUI, you can run it from the command line and generate an output file by selecting **Start** → **Run** → **cmd** to open a command window, then execute `xinfo [output_summary_file]` to save the report to a text file.
4. If necessary, you can also run `xinfo` from the `root` directory of ISE 7.1i Disc 1 of 3.

Solaris and Linux

1. Set your Xilinx environment variables.
2. Run `xinfo` from the command line.
3. If your system is not correctly displaying the GUI for Xinfo, you can run it from the command line and generate an output file by executing `xinfo [output_summary_file]` to save the report to a text file.
4. If necessary, you can also run `xinfo` from the `root` directory of ISE 7.1i Disc 1 of 3.

Using Other Versions of ModelSim

You can integrate non-Xilinx® editions of ModelSim® with ISE as follows:

1. Within the Project Navigator, select **Edit** → **Preferences** → **Integrated Tools** hierarchical navigation menu.

The Preferences dialog box appears.

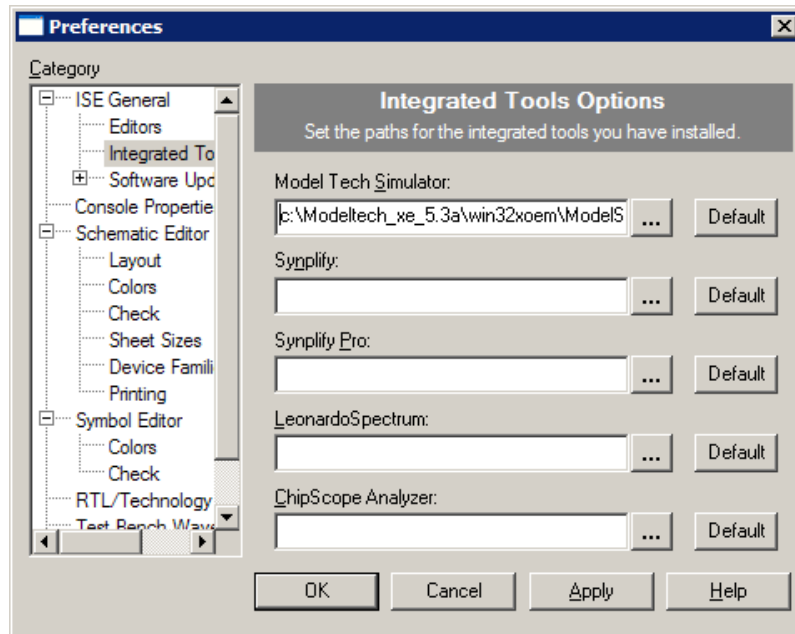


Figure 2-6: Preferences Dialog Box

2. Enter the full path name to the directory containing the desired executable for each of your tools, or browse to the location of the desired executable (that is, `modelsim.exe` for the Modeltech Simulator).

Note: To change the ModelSim[®] path setting in the Preference dialog, your profile must be configured as a Power User or Administrator for Windows 2000 or Windows XP.

Note: ModelSim is not supported on Linux[®].

Uninstalling ISE Software

To uninstall the Xilinx ISE 7.1i software, go to the Xilinx ISE 7.1i uninstall entry in the Add/Remove programs dialog.

Before uninstalling, be sure you have moved any project files you want to keep outside your Xilinx installation directory structure, or it will be deleted.

Known Issues

This chapter lists and describes the most critical known issues in the ISE 7.1i release at press time.

The following sections are in this chapter:

- “Finding All Known Issues”
- “Searching for Answer Records”
- “CORE Generator”
- “CPLD Implementation”
- “Incremental Design”
- “IP Cores”
- “Linux”
- “MAP”
- “Message Filtering”
- “PAR”
- “Partial Reconfiguration”
- “Project Navigator”
- “RocketIO Wizard”
- “Simulation”
- “Speedprint”
- “Wind/U (Solaris and Linux)”
- “XPower”
- “XST”

Finding All Known Issues

The following table lists documents and websites to help you locate answers to your questions concerning any known issues.

Table 3-1: Known Issues Document and Websites

Resource	Description
READ ME FIRST Hot Sheet and Welcome Letter	Introduction to the Release Notes and Installation Guide. Printed document included in the software package.
Technical Support Website	Complete listing of all known issues at http://www.xilinx.com/support
Answers Database	Listing of Answer Records for the Xilinx® software tools. Search this database using the search function at http://www.xilinx.com/support/searchtd.htm
Technical Tips	Latest news, design tips, and patch information for the Xilinx design environment at http://www.xilinx.com/xlnx/xil_tt_home.jsp

Searching for Answer Records

Each known issue references an Answer Record number, as well as the applicable URL at <http://www.xilinx.com/support>. If you are viewing this document electronically, click the URL link to go to the Answer Record through your Web Browser. For users viewing a printed version of this document, the easiest method is to launch your Web Browser to the main support page, <http://www.xilinx.com/support>, and enter the Answer Record number in the Search field.

CORE Generator

The following issue pertains to CORE Generator:

Title: ISE 7.1i CORE Generator - Known Issues for CORE Generator in the ISE 7.1i software release.

Description: This Answer Record contains a list of known issues for ISE 7.1i CORE Generator as well as links to related answer records regarding IP core known issues

Reference: Xilinx Answer Record #20491, or http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20491

CPLD Implementation

The following issues pertain to CPLD implementation:

1. Title: ISE 7.1i CPLD TA Engine - Timing Analysis does not check the duty cycle portion of the PERIOD constraint.
Description: The CPLD Timing Analyzer does not check the duty cycle portion of a period constraint.

Reference: Xilinx Answer Record #16861, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=16861

2. Title: ISE 7.1i CPLD TA Engine - Performance information for timing constraints does not appear displayed in the detailed static timing analysis report.

Description: Timing constraints are listed as "Met" or "Not Met" in the Summary report, but they are not mentioned in the Detail Timing report.

Reference: Xilinx Answer Record #17506, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=17506

3. Title: ISE 7.1i CPLD CPLDFit - Period timing constraint fails to analyze register-to-clock enable path.

Description: A period timing constraint does not cover the path from a register to a downstream register's clock enable.

Reference: Xilinx Answer Record #19546, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=19546

Incremental Design

The following issue pertains to Incremental Design:

Title: ISE 7.1i Incremental Design - All of my Area Groups are reimplemented when using ISE 6 guide files.

Description: Guide Files generated in ISE 6.x cause most or all Area Groups to be reimplemented if they are used in ISE 7.1i. It is recommended that Incremental Design users regenerate all guide files using the ISE 7.1i software to increase quality of results.

Reference: Xilinx Answer Record #20493, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20493

IP Cores

The following issue pertains to IP Cores:

Title: ISE 7.1i - Known Issues for all IP Cores (DSP, System Logic, Networking, System I/O).

Description: For compatibility of various IP cores with respect to ISE 7.1i software, see Xilinx Answer Record 20486.

Reference: Xilinx Answer Record #20486, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20486

Linux

The following issue pertains to Linux:

Title: Some ISE applications may not work with older versions of Red Hat Linux.

Description: Redhat Enterprise 3 is the only officially supported version of Redhat for ISE 7.1i. Older versions, like 9.0, 8.0, and 7.x are no longer officially supported.

Some applications, like Constraint Editor and Coregen, are known to require updated libraries from RedHat in order to run. They may fail with "Error while loading shared library: LibXrandr.so.2: can not open shared object file".

For more information on this issue, please see Answer Record #20607.

Reference: Xilinx Answer Record #20607, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20607

MAP

The following issues pertain to MAP:

1. Title: ISE 7.1i MAP - Timing-driven packing supports the use of cost tables and extra effort modes in ISE 7.1i.

Description: Timing-driven packing makes use of the placement algorithms during packing. Some of the options when running PAR placement in the past are now available to MAP.

Reference: Xilinx Answer Record #20498, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20498

2. Title: ISE 7.1i MAP - Timing-driven packing duplicates registers, if allowed.

Description: ISE 7.1i version has a new feature that allows for register duplication during Timing-driven packing to improve timing. This feature is not enabled by default.

Reference: Xilinx Answer Record #20497, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20497

Message Filtering

The following issue pertains to Message Filtering:

Title: ISE 7.1i Message Filtering - Not all Xilinx applications are supported by Message Filtering.

Description: Not all Xilinx applications are supported by Message Filtering. For an up-to-date list of supported and unsupported applications, please see Xilinx Answer 13142.

Reference: Xilinx Answer Record #13142, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=13142

PAR

The following issues pertain to PAR:

1. Title: ISE 7.1i PAR - Can my old 6.xi NCD file be used now that I have upgraded to 7.1i?

Description: Can my old 6.xi NCD file be used now that I have upgraded to ISE 7.1i? Yes. When an NCD from version 6.xi is used in the ISE 7.1i tools, it is converted automatically to an ISE 7.1i NCD. Before this occurs, the original NCD is copied to a new name and an INFO message is printed.

Reference: Xilinx Answer Record #20495, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20495

2. Title: ISE 7.1i Virtex-4 PAR- The router has a new check to detect unroutable configurations.

Description: In the past, the router has been good at detecting when a design is unroutable due to congestion and quitting early. What was not handled well was the condition where a design was not congested, but due to an unroutable configuration, one or more signals could not be successfully routed. The router would tend to waste time trying to successfully route an unroutable design. In ISE 7.1i, a new check has been added to detect unroutable nets, report the routing conflict and quit before wasting any more time on the design.

Reference: Xilinx Answer Record #20499, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20499

Partial Reconfiguration

The following issue pertains to Partial Reconfiguration:

Title: ISE 7.1i Partial Reconfiguration - Partial Reconfiguration support requires an ISE 7.1i Service Pack.

Description: Software support for Partial Reconfiguration is not enabled by default in the ISE 7.1i release. Software support for partial reconfiguration is planned for an ISE 7.1i Service Pack. For more information, please see Answer Record 20494.

Reference: Xilinx Answer Record #20494, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20494

Project Navigator

The following issues pertain to Project Navigator:

1. Title: ISE 7.1i Project Navigator: Drag & Drop of Language Templates does not work correctly on Solaris platform.
Description: To use a Language Template, a user must either 'copy and paste' or click the 'Use in File' icon in the top left corner of the Language Template window.
Reference: Xilinx Answer Record #12069, or
http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=12069
2. Title: ISE 7.1i Project Navigator: Copying a project with open HDL file may cause version control issue.
Description: When an HDL file is open in the Project Navigator HDL Editor and the project is saved to a new location (File → Save Project as...) The old file remains open. Edits to the open HDL file are made to the HDL file in the original directory and not to the new HDL file created during the Save Project as operation.
Reference: Xilinx Answer Record #11748, or
http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=11748
3. Title: ISE 7.1i Project Navigator: Remote sources may not be found when a project is moved from a PC to a UNIX platform.
Description: If a project contains remote sources (sources located in a directory other than the current project directory) and was created and last saved on a PC, Project Navigator has an incorrect path structure for the sources when it is attempted to be opened on UNIX. The user should re-add the sources to the project on the UNIX platform.

Reference: Xilinx Answer Record #12075, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=12075

4. Title: ISE 7.1i Project Navigator: File → Open requests are sent to the user's HTML browser when HTML report is open.

Description: If Project Navigator has an open, selected HTML report, such as a CPLD fitter report, the File → Open option tries to open any selected file in the HTML browser, instead of the preferred text editor.

Reference: Xilinx Answer Record #17495, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=17495

5. Title: ISE 7.1i Project Navigator: CPLD fitter reports require Mozilla directory to point to the JRE on Linux platform.

Description: To read the HTML format version of a CPLD fitter report on a Linux platform, for Mozilla browser version 1.0.1 and Netscape7 browsers the mozilla directory must to point to the JRE.

Reference: Xilinx Answer Record #17498, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=17498

6. Title: ISE 7.1i - ERROR:16 - <file_name>.vhd Line <##>. Circular hierarchy reference found. Breaking cycle at module 'or_tree'.

Description: The Project Navigator HDL parser flags an error on recursively called VHDL source files. However, the design may still be correctly synthesized.

Reference: Xilinx Answer Record #20480, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20480

7. Title: ISE 7.1i - Error Navigation finds the correct file but does not navigate to the correct HDL line number.

Description: The Error Navigation link from an error message in the console window opens the correct file but, does not indicate the line where the error is supposed to be.

Reference: Xilinx Answer Record #20580, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20580

The following issue pertains to Project Navigator w/CORE Generator:

Title: ISE 7.1i - The Refresh button does not update the Language Templates window with templates for newly created cores.

Description: If the Language Templates window is open when a CORE Generator modules is added to a project, the Language Template window will not update, and the new modules are not visible under COREGen/<HDL language>Component Instantiation.

Reference: Xilinx Answer Record #9186, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=9186

The following issue pertains to Project Navigator w/ 3rd Party Tools:

Title: ISE 7.1i Project Navigator: Synplify flows do not support schematic sources.

Description: Projects using the Synplify design flows do not support schematics as sources. If a project with schematic sources is changed from another design flow to a Synplify design flow, the schematics will become user documents.

Reference: Xilinx Answer Record #12081, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=12081

The following issue pertains to Project Navigator w/ Schematic Sources:

Title: 7.1i Project Navigator: Switching Simulation Language for a Schematic project may cause XST to Fail.

Description: If a Schematic project is run, and then run again with the Simulation Language switch from to Verilog to VHDL or from VHDL to Verilog, XST synthesis will fail with FATAL_ERROR:Xst:Portability/export/Port_Main.h:127:1.13 - This application has discovered an exceptional condition from which it cannot recover. To avoid the error run the "Cleanup Project files" process.

Reference: Xilinx Answer Record #17491, or
http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=17491

RocketIO Wizard

The following issue pertains to the RocketIO™ Wizard:

Title: ISE 7.1i RocketIOWizard - Usage of the GT11CLK module.

Description: User should not check the GT11CLK option. This option will be removed in the forthcoming software release. The user is given the option of instantiating the GT11CLK module in order to make the clocking more flexible. Using the current wizard, if more than two clocks are required, the user can make manual edits to the hdl file created by Architecture Wizard. More details are provided in the reference.

Reference: Xilinx Answer Record #17415, or
http://support.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=17415

Simulation

The following issues pertain to Simulation:

1. Title: 7.1i ISE Simulator (ISIM) - Known issues with ISE Simulator.
Description: Xilinx Answer Record 20370 covers all Known Issues with the Xilinx ISE Simulator. Please Reference the Answer Record online for the most accurate information.
Reference: Xilinx Answer Record #20370, or
http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20370
2. Title: ISE 7.1i COMPLIB - When an older version of compplib is run after the ISE 7.1i compplib is run in the same directory, it errors out.
Description: When an older version of compplib is run after the ISE 7.1i compplib is run in the same directory, it errors out.
The ISE 7.1i compplib contains a new compplib.cfg file. Compplib has the ability to read the compplib.cfg, if it exists in the current directory, and when an older version of compplib is run, it not be able to understand the information in the compplib.cfg file.
To work around this problem, ensure that the new compplib.cfg file has been deleted or renamed, prior to running the older version of compplib.
Reference: Xilinx Answer Record #20372, or
http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20372
3. Title: VCS - ISE 7.1i RAMB16 models errors out during compile in VCS_MX7.1.1.

Description: When trying to compile the RAMB16 models, it errors out with the following error message:

```
Assertion failed "0 && "Aggressive 2value optimization failed: x/z
unexpected in the result" at line 1528 in file mop.c
Failure processing module X_RAMB16_S18_S18 in file
```

This is a problem specific to VCS_MX7.1.1 and older releases. The problem is fixed in the VCS_MX7.1.2. Please contact Synopsys to get the latest version of VCS.

Reference: Xilinx Answer Record #20373, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20373

4. Title: ISE 7.1i/6.3i SmartModel, Simulation - Can I use Linux 64 with AMD Opteron machines with the Xilinx SmartModels?

Description: Synopsys does not have a native compiler for SmartModels on the Linux 64 Opteron machines, therefore this is not currently possible. Synopsys is working on a fix for this problem, but there is no set release date.

Reference: Xilinx Answer Record #20374, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20374

Speedprint

The following issue pertains to Speedprint.

Title: ISE 7.1i Speedprint - Incorrect versions are reported unless Service Pack 1 is installed.

Description: Numerous issues with reporting have been seen with Speedprint in ISE 7.1i. To make sure the correct numbers are being reported, please install Service Pack 1 before using Speedprint.

Reference: Xilinx Answer Record #20513, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20513

Wind/U (Solaris and Linux)

The following issues pertain to the Wind/U registry:

1. Title: Wind/U - My GUI application appears to hang, or I receive a "WindU registry" error message on Solaris or Linux.

Description: This can be caused by corruption to GUI library files used in several Xilinx Workstation tools. To determine if a process is hanging, close any open Xilinx applications, and look for any running "windu_registryd44" processes.

To remove corrupt files before restarting the Xilinx application, do the following:

1. Halt "windu_registryd44" processes running using the following command:

```
kill -9 'process ID number
```

2. In your home directory, run the following command:

```
rm -rf .windu*
```

Reference: Xilinx Answer Record #17321, or

http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=17321

2. Title: Wind/U - On Linux or Solaris, I receive the message "OLE API Function CoInitialize is not currently implemented. Further warnings will be suppressed."

Description: After launching the setup program from a Terminal Window, or launching any ISE GUI after installing the software, I receive the error "OLE API Function CoInitialize is not currently implemented. Further warnings will be suppressed." This is a false error generated by Wind/U and can be safely ignored.

Reference: Xilinx Answer Record #14348, or
http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=14348

XPower

The following issues pertain to XPower:

- Title:** ISE 7.1i XPower Web Power Tool - The quiescent power values are different from information in the data sheets

Description: The values quoted by XPower or the Web Power Tool for a design with no stimulus are not equal to the values quoted for quiescent supply current in the data sheets.

Reference: Xilinx Answer Record #13775, or
http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=13775
- Title:** ISE 7.1i XPower - Device support list contains XBR, but not CoolRunner-II.

Description: When selecting the Device Support List from within XPower (Help → List Supported Devices), the CoolRunner-II family is missing, but there is an XBR family listed. What is XBR?

Reference: Xilinx Answer Record #17453, or
http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=17453
- Title:** ISE 7.1i XPower - What power estimation tools are available for Virtex-4?

Description: Virtex-4 support is not available at time of ISE 7.1i release.

Reference: Xilinx Answer Record #20151, or
http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20151
- Title:** ISE 7.1i XPower - Power is not temperature dependant.

Description: When ambient temperature is changed, the thermal characteristics change, but overall power does not.

Reference: Xilinx Answer Record #20489, or
http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=20489
- Title:** ISE 7.1i XPower - DCM quantity and frequency do not impact VccAux power.

Description: The VccAux power reported by XPower does not change with the number of Digital Clock Managers (DCM) in the design nor their operating frequency.

Reference: Xilinx Answer Record #18493, or
http://www.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=18493

XST

The following issue pertains to XST:

- Title:** ISE 7.1i XST - XST now has limited support for null arrays.

Description: With the release of ISE 7.1i XST, XST now has limited support of null arrays. This support has been improved in ISE 7.1i. In VHDL, a null array is any range that has no value.

Reference: Xilinx Answer Record #19716, or
http://support.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=19716

2. Title: ISE 7.1i XST - XST creates incorrect logic when using signed data types in Verilog.

Description: XST will improperly sign extend signed data type signals when signed and unsigned data type operands are used together in an operation.

Reference: Xilinx Answer Record #19139, or
http://support.xilinx.com/xlnx/xil_ans_display.jsp?getPagePath=19139

Software Service and Support

This chapter describes how to contact Xilinx for Customer and Technical Services and Support and how to find up-to-date information about Xilinx® products. The following sections are in this chapter:

- “Technical Services and Support”
- “Software Customer Service”
- “Customer Education”

Technical Services and Support

Please visit MySupport at <http://www.xilinx.com/support/mysupport.htm> for Xilinx technical services and support. Following are some of the features available from the website.

Global Services

Visit the Global Services website at <http://www.xilinx.com/support/gsd/index.htm> for information on Xilinx® Support Services, including Platinum and Titanium Technical Service, Design Services, Education Services, and the Xilinx Productivity Advantage (XPA) program.

Technical Support

Following are some of the support features available from the website:

MyAlerts and MyXPA

Log in to MySupport at <http://www.xilinx.com/support/mysupport.htm>, and select the categories that are most relevant to your needs. MyAlerts notifies you when information related to these categories is updated on the Xilinx website. MyXPA makes it quick and convenient to check your training credit status, sign up for classes, and much more.

Software Updates

Visit Software at <http://www.xilinx.com/support/software.htm> to access the latest software Service Packs and the Software Update Center.

TechXclusives

Visit TechXclusives at http://www.xilinx.com/xlnx/xweb/xil_tx_home.jsp to access design techniques straight from the industry's foremost application engineers.

Answer Records

Visit Advanced Search at <http://www.xilinx.com/support/searchtd.htm> to fine-tune your search query, or visit the Answers Database at http://www.xilinx.com/xlnx/xil_ans_browser.jsp to view Xilinx answer records. Use the answer records to help troubleshoot issues or find workarounds to common technical issues.

Software Manuals

Visit Software Manuals at http://www.xilinx.com/support/sw_manuals/xilinx7/ to access the Software Manuals and Help collection on the Web. The software manuals available from this collection provide detailed information about the ISE software applications and command line functions and are available for viewing in both PDF and HTML formats. The Help available from this collection provides procedural information for using the ISE software applications.

Note The Libraries Guide and Constraints Guide on the Web are updated periodically with the latest device-specific information. Check the Software Manuals website for the most up-to-date information.

Forums

Visit Forums at <http://toolbox.xilinx.com/cgi-bin/forum> to access the following discussion groups:

- Xilinx General
- Spartan™-3 FPGA
- Virtex-II Pro™ Platform FPGA
- Forge High Level Language Compiler
- Embedded Processors
- XtremeDSP
- eSP Home Networking
- TechXclusives
- comp.arch.fpga
- Japanese Forum

Problem Solvers

Use the Xilinx® Problem Solvers at <http://www.xilinx.com/support/troubleshoot/psolvers.htm> to troubleshoot issues in the following areas:

- Configuration
- Virtex-II™ configuration
- CPLD fitting
- JTAG
- Mapping
- ModelSim® simulation
- Peripheral Component Interface (PCI) configuration
- Timing

WebCase

Visit WebCase at <http://www.xilinx.com/support/clearexpress/websupport.htm> to create a technical support case or to monitor the status of a case.

Contact Technical Support

You can contact Xilinx for additional information and assistance as follows.

Technical Services and Support

The Xilinx website at <http://www.xilinx.com/> contains thousands of online technical solutions and product information for Xilinx® software and devices. The website is updated daily with the latest patches, problem resolutions, application notes, and data sheets. Receive immediate answers 24 hours a day.

Technical Support WebCase and Hotline

If you cannot find your answers on the Xilinx website, use our online support tool, WebCase. If you are not able to contact support through WebCase, contact the Technical Support Hotline at one of the numbers listed in the following table.

Note: For the most up-to-date contact information, visit the Technical Support Web page at http://www.xilinx.com/support/services/contact_info.htm.

Region	Language	Phone*	WebCase	Support Hours
North America	EN	1 800-255-7778 or +1 408-879-5199	Please open a case via WebCase: http://www.xilinx.com/support/clearexpress/websupport.htm	M-F 7:00 - 17:00 PST
Europe, Middle East, and Africa	EN, DE, FR	00 800-5152-5152*** or +353 1-461-5700	WebCase: http://www.xilinx.com/support/clearexpress/websupport.htm	M-F 8:00 - 17:30 GMT
Japan	JP	+81 3-5321-7750	Japan WebCase: http://www.xilinx.co.jp/support/clearexpress/websupport.htm	M-F 9:00 - 17:30 JST
Korea	EN	+82 2-3144-0255	WebCase: http://www.xilinx.com/support/clearexpress/websupport.htm	M-F 10:00 - 19:00 KST
China	CH (Mandarin), EN	+86 21-3318-4505	China WebCase: http://www.xilinx-china.com/support/clearexpress/websupport.htm	M-F 9:00 - 18:00 CST
Taiwan	CH (Mandarin), EN	+886 2-8176-1060	WebCase: http://www.xilinx.com/support/clearexpress/websupport.htm	M-F 9:00 - 18:00 CST

Region	Language	Phone*	WebCase	Support Hours
Hong Kong	CH (Mandarin), EN	+852 3187-3855	WebCase: http://www.xilinx.com/ support/clearexpress/ websupport.htm	M-F 9:00 - 18:00 CST
Singapore	CH (Mandarin), EN	+65 6544-8998	WebCase: http://www.xilinx.com/ support/clearexpress/ websupport.htm	M-F 9:00 - 18:00 CST
Rest of Asia	CH (Mandarin), EN	+86 21-3318-4505	WebCase: http://www.xilinx.com/ support/clearexpress/ websupport.htm	M-F 9:00 - 18:00 CST

Corporate Switchboard + 1-408-559-7778

* For the numbers listed, '+' represents the International Direct Dialing (IDD) prefix of the country from which you are calling. Consult your local telephone service provider for more information on the IDD codes for the country from which you are calling.

** Support Hours listed apply for both standard and daylight savings time.

*** This toll free number is valid when dialing from the following countries: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Israel, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom. When dialing from other countries, use the alternate number provided, which is charged at international direct-dial rates.

Education Services

Take advantage of the latest ISE software features! Go to the Xilinx website, and click **Education** to download e-learning modules and to sign up for updated ISE software training classes that help you maximize productivity and increase your skill set while lowering your overall development costs.

Order Management

Go to the Xilinx website and click **Online Store**, or contact your local Xilinx distributor for products and services available through Xilinx.

Software Customer Service

Visit http://www.xilinx.com/support/services/contact_info.htm to find sales and distributor contact information for your region.

Country	Telephone	E-mail
North America	1-800-624-4782 408-879-6127	isscs@xilinx.com
Europe	Please call your distributor: http://www.xilinx.com/company/ sales/int_reps.htm	m1license@xilinx.com

Country	Telephone	E-mail
Japan	+81-3-5321-7732	cs_1@xilinx.com
All Others	1-800-624-4782 1-408-879-6127	cs_1@xilinx.com

If you are an international customer, contact your local sales representative for customer service issues. A complete list of Xilinx worldwide sales offices is at:

<http://www.xilinx.com/company/sales/offices.htm>

Customer Education

Ways you can learn to use the Xilinx software tools, including using the software manuals and online help, taking a customer education course, or taking an online tutorial are as follows:

1. Training Classes

Xilinx offers specialized training modules and software update classes at many different locations.

For more information about customer training classes and software training for Xilinx products, use the Xilinx Support website at:

<http://www.xilinx.com/support/mysupport.htm>

You can also contact a Xilinx Training Administrator at the following toll-free number:

1-877-XLX-CLASS

International customers please contact your local sales representative or distributor for area-specific training programs.

2. User Tutorials

All tutorials on the Web can be found at:

<http://www.xilinx.com/support/techsup/tutorials/index.htm>

3. Software Manuals Online and Online Help

All manuals and Online Help on the Web can be found at:

http://www.xilinx.com/support/sw_manuals/xilinx7/index.htm

4. E-learning

This is a system that provides in-depth technical training sessions on Xilinx[®] programmable logic products over the Web. For more information, use the following website:

http://www.xilinx.com/support/training/e-learn_sched.htm

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