ISE Design Suite 12: Installation, Licensing, and Release Notes

UG631 (v 12.2) July 23, 2010

XILINX®

Revision History

The following table shows the revision history for this document.

Date	Version	Revision
04/19/10	12.1	Initial Xilinx release.
07/23/2010	12.2	Updated for the 12.2 Quarterly Release.

About This Guide

This guide explains how to install and license ISE® Design Suite 12, which includes the Integrated Software Environment (ISE) software, ChipScope™ Pro software, Embedded Tools (including Embedded Development Kit (EDK) and standalone Software Development Kit (SDK), System Generator for DSP software, and PlanAhead™ design tools. It also describes how to use Xilinx® online documentation.

Information on what is new, known issues, and technical support for ISE Design Suite 12 software is also included.

Guide Contents

This manual contains the following chapters:

- Chapter 1, "What's New, Release Notes, and Known Issues for 12.2"
- Chapter 2, "Operating Systems, Architecture Support, and System Requirements"
- Chapter 3, "Download and Installation"
- Chapter 4, "Obtaining and Managing a License"
- Chapter 5, "Technical Support, Services, and Documentation"

This manual contains the following appendix:

- Appendix A, "Third-Party Licenses"

Additional Resources

To find additional documentation, see the Xilinx website at:

http://www.xilinx.com/support/documentation/index.htm.

To search the Answer Database of silicon, software, and IP questions and answers, or to create a technical support WebCase, see the Xilinx website at:

http://www.xilinx.com/support/.

To obtain the current version of the USB Cable Installation Guide, see the Xilinx website at:

http://www.xilinx.com/support/documentation/user_guides/ug344.pdf

To obtain the current version of the data sheet for Platform Cable USB II, see the Xilinx Website at:

http://www.xilinx.com/support/documentation/data_sheets/ds593.pdf

To obtain the current version of the data sheet for Parallel Cable IV, see the Xilinx Website at:

http://www.xilinx.com/support/documentation/data_sheets/ds097.pdf

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`** *design_name*
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`** *design_name*
	References to other manuals	See the *Command Line Tools User Guide* for more information.
	Emphasis in text	If a wire is drawn so that it overlaps the pin of a symbol, the two nets are *not* connected.
Square brackets [ ]	An optional entry or parameter. However, in bus specifications, such as **`bus[7:0]`**, they are required.	**`ngdbuild`** [*option_name*] *design_name*
Braces { }	A list of items from which you must choose one or more	**`lowpwr ={on|off}`**
Vertical bar |	Separates items in a list of choices	**`lowpwr ={on|off}`**

Convention	Meaning or Use	Example

Vertical ellipsis
.
.
.
	Repetitive material that has been omitted	`IOB #1: Name = QOUT'`
		`IOB #2: Name = CLKIN'`
		.
		.
		.

Horizontal ellipsis ...	Repetitive material that has been omitted	**`allow block`** *block_name loc1 loc2 ... locn;*

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 *Virtex-5 Platform FPGA User Guide.*
Blue, underlined text	Hyperlink to a website (URL)	Go to http://www.xilinx.com for the latest speed files.

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Chapter 4: Obtaining and Managing a License

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Chapter 1

What's New, Release Notes, and Known Issues for 12.2

This chapter discusses important product details and describes how to access the list of new features that are included in the products that comprise ISE® Design Suite 12. It also describes how to access the Known Issues for ISE Design Suite 12. This chapter comprises the following sections:

- "What's New and Release Notes"
- "Known Issues"

What's New and Release Notes

This section describes the different ways to access the What's New documentation.

Microsoft Windows Only

The What's New documentation is now available only on www.xilinx.com. For links to this and other documentation you use the ISE Design Suite InfoCenter. Select **Start > All Programs > Xilinx ISE Design Suite 12.2 > Documentation > InfoCenter**.

Online

You can find the What's New documentation online at:

www.xilinx.com/support/documentation/sw_manuals/xilinx12_2/whatsnew.htm

System Generator for DSP is included in ISE Design Suite 12. For more information on System Generator for DSP see Release Notes section of the System Generator for DSP Getting Started Guide:

www.xilinx.com/support/documentation/dt_sysgendsp_sysgen12-2_userguides.htm

PlanAhead software has many new features for 12.2. For more information on What's New in PlanAhead software see the What's New file:

www.xilinx.com/support/documentation/dt_planahead_planahead12-2_releasenotes-knownissues.htm

Known Issues

Xilinx Answer Record #34466 contains information on Known Issues for ISE Design Suite 12:

www.xilinx.com/support/answers/34466.htm

Chapter 2

Operating Systems, Architecture Support, and System Requirements

This chapter describes the operating systems and architectures that the ISE® Design Suite 12 software supports. It also describes system requirements for ISE Design Suite 12. This chapter comprises the following sections:

- "Operating Systems"
- "Architectures"
- "System Requirements"

Operating Systems

ISE Design Suite 12 supports three operating systems: Microsoft Windows®, Red Hat® Enterprise Linux, and SUSE Linux Enterprise.

Microsoft Windows

The following table lists Microsoft Windows support.

Table 2-1: **Microsoft Windows Support (English and Japanese)**

Product	XP Professional		Vista Business	
	32-bit	64-bit	32-bit	64-bit
Design Entry and Implementation Tools (ISE Design Suite 12 software)	Yes	Yes	Yes	Yes
ISE Simulator (ISim) software	Yes	Yes	Yes	Yes
ISE WebPACK™ software	Yes	Yes	Yes	Yes
ChipScope™ Pro software and ChipScope Pro Serial I/O Toolkit	Yes	Yes	Yes	Yes
Embedded Development Kit (EDK)	Yes	Yes	Yes	No
System Generator for DSP software	Yes	Yes	Yes	Yes
ModelSim Xilinx Edition-III (MXE-III) software	Yes	Yes	Yes	Yes

Red Hat Enterprise Linux

The following table lists Red Hat Enterprise Linux support.

Table 2-2: **Red Hat Enterprise Linux Support**

Product	4 Workstation		5 Desktop	
	32-bit	64-bit	32-bit	64-bit
Design Entry and Implementation Tools (ISE Design Suite 12 software)	Yes	Yes	Yes	Yes
ISE Simulator (ISim) software	Yes	Yes	Yes	Yes
ISE WebPACK software	Yes	Yes	Yes	Yes
ChipScope Pro software and ChipScope Pro Serial I/O Toolkit	Yes	Yes	Yes	Yes
Embedded Development Kit (EDK)	Yes	Yes	Yes	Yes
System Generator for DSP software	Yes	Yes	Yes	Yes
ModelSim Xilinx Edition-III (MXE-III) software	No	No	No	No

SUSE Linux Enterprise

The following table lists SUSE Linux Enterprise 10 support.

Table 2-3: **SUSE Linux Enterprise 10 Support (English and Japanese)**

Product	32-bit	64-bit
Design Entry and Implementation Tools (ISE Design Suite 12 software)	Yes	Yes
ISE Simulator (ISim) software	Yes	Yes
ISE WebPACK software	Yes	Yes
ChipScope Pro software and ChipScope Pro Serial I/O Toolkit	Yes	Yes
Embedded Development Kit (EDK)	Yes	Yes
System Generator for DSP software	Yes	Yes
ModelSim Xilinx Edition-III (MXE-III) software	No	No

Architectures

ISE Design Suite 12 supports the Virtex® device, Spartan® device, and CPLD device architecture families. The following table lists the architecture support.

Table 2-4: **Architecture Support**

	ISE WebPACK software	ISE Design Suite (Logic Edition, Embedded Edition, DSP Edition, System Edition)
Virtex Series	Virtex-4 devices: LX: XC4VLX15, XC4VLX25 SX: XC4VSX25 FX: XC4VFX12 Virtex-5 devices: LX: XC5VLX30, XC5VLX50 LXT: XC5VLX20T, XC5VLX30T, XC5VLX50T FXT: XC5VFX30T Virtex-6 devices: LXT: XC6VLX75T, XC6VLX75TL	Virtex-4 devices: LX: All SX: All FX: All Virtex-5 devices: LX: All LXT: All SXT: All TXT: All FXT: All ***Note:*** Embedded Development Kit (EDK) does not support Virtex-5 TXT devices. Virtex-6 devices: LX/T: All including "L" (lower power) devices CXT: All • SXT: All including "L" devices HXT: All ***Note:*** Embedded Development Kit (EDK) does not support Virtex-6 HXT devices.
Spartan Series	Spartan-3 devices: XC3S50 - XC3S1500 Spartan-3A devices: All Spartan-3AN devices: All Spartan-3A DSP devices: XC3SD1800A Spartan-3E devices: All Spartan-3L devices: XC3S1000L, XC3S1500L XA* Spartan-3 devices: All XA* Spartan-3E devices: All XA* Spartan-3A devices: All XA* Spartan-3A DSP devices: XC3SD1800A Spartan-6 devices: LX: XC6SLX4(L)-XC6SLX75(L) LXT: XC6SLX25T, XC6SLX45T, XC6SLX75T XA* Spartan-6 devices: All *Xilinx Automotive	Spartan-3 devices: All Spartan-3A devices: All Spartan-3AN devices: All Spartan-3A DSP devices: All Spartan-3E devices: All Spartan-3L devices: All XA* Spartan-3 devices: All XA* Spartan-3E devices: All XA* Spartan-3A devices: All XA* Spartan-3A DSP devices: All Spartan 6 device: LX/T: All including "L" (lower power) devices XA* Spartan-6 devices: All *Xilinx Automotive

Table 2-4: **Architecture Support**

	ISE WebPACK software	ISE Design Suite (Logic Edition, Embedded Edition, DSP Edition, System Edition)
CoolRunner™ XPLA3 devices CoolRunner-II devices XA* CoolRunner-II devices *Xilinx Automotive	All	All ***Note:*** Embedded Development Kit (EDK) does not support CPLDs.
XC9500 Series devices	All (Except 9500XV family)	All (Except 9500XV family) ***Note:*** Embedded Development Kit (EDK) does not support CPLDs.

System Requirements

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

ISE Design Suite

Cable Installation Requirements

Platform Cable USB II and Parallel Cable IV are high-performance cables that enable Xilinx® design tools to program and configure target hardware.

To install Platform Cable USB II, a system must have at least a USB 1.1 port. For maximum performance, Xilinx recommends using Platform Cable USB II with a USB 2.0 port.

To install Parallel Cable IV, a system must have a parallel port connector and support parallel port communication.

Cables are officially supported on the 32-bit and 64-bit versions of the following operating systems: Windows XP Professional, Windows Vista Business, Red Hat Linux Enterprise, and SUSE Linux Enterprise 10. Additional platform specific notes are as follows:

- All Linux: Root privileges are required to install cable drivers on Linux.
- SUSE Linux Enterprise 10: The fxload software package is required to ensure correct Platform Cable USB II operation. The fxload package is not automatically installed on SUSE Linux Enterprise 10 distributions, and must be installed by the user or System Administrator.
- Linux LibUSB support: Preliminary support for Platform Cable USB II based upon the LibUSB package is now available from the Xilinx website. See Answer Record #25249 for details.

For additional information regarding Xilinx cables, refer to the following documents:

- USB Cable Installation Guide (UG344)
- Platform Cable USB II Data Sheet (DS593)
- Parallel Cable IV Data Sheet (DS097)

System Memory Recommendations

This section gives the RAM and swap space needed to run ISE Design Suite 12 on your system.

While the memory recommendation table, available at the link below, 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. For more information on memory recommendations, see:

http://www.xilinx.com/ise/products/memory.htm

Operating Systems and Available Memory

The Microsoft 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 Design Suite 12 has optimized memory and enabled software support for applications to increase RAM memory available to Xilinx software.

Windows XP Professional 32-bit

Xilinx applications are enabled to take advantage of the memory increase feature on Windows 32-bit. You must then modify Windows setting to get access to this larger memory.

The standard Windows OS architecture limits the maximum memory available to a Xilinx process to 2 Gigabyte (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 enabling 3 GB support for Xilinx applications, please read the 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.

Additionally, 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 Design Suite 12 supports both Linux 32-bit and Linux 64-bit. The latter allows greater memory allocation. Xilinx has documented Linux kernel modifications that allow a Xilinx application to address over 3 GB of memory.

For 32-bit Red Hat Enterprise Linux systems, the operating system can use the hugemem kernel to allocate 4 GB to each process. More information can be found on the Red Hat support site: http://www.redhat.com/docs/manuals/enterprise/

ISE supports the 64-bit version of Red Hat Enterprise Linux, which allows greater memory allocation out of the box.

Equipment and Permissions

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

Table 2-5: **Equipment and Permissions Requirements**

Item	Requirement
Directory permissions	Write permissions must exist for all directories containing design files to be edited.
Monitor	16-bit color VGA with a minimum recommended resolution of 1024 by 768 pixels.
Drive	You must have a DVD-ROM for ISE Design Suite (if you have received a DVD, rather than downloading from the web), and CD-ROM for MXE on your system.
Ports	To program devices, you must have an available parallel, or USB port appropriate for your Xilinx programming cable. Specifications for ports are listed in the documentation for your cable. ***Note:*** Installation of the cable driver software requires Windows XP Pro SP1 (or later), or Windows Vista Business. If you are not using one of these operating systems, the cables may not work properly.

Note: X Servers/ Remote Desktop Servers, 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.

ChipScope Pro Analyzer

Cable Installation Requirements

For Linux, cable drivers require root privileges to install. To install Platform Cable USB II for USB 2.0 port, you must have Windows XP SP2. The Platform Cable USB II is a high-performance download cable that attaches to user hardware for use with the ChipScope Pro Analyzer tool for device programming, configuring, and debugging.

System Memory Recommendations

The ChipScope Pro Analyzer software requires 1024 megabytes (MB) of system memory. The ChipScope Pro Core Inserter tool has the same requirements as ISE. For more information on ISE memory recommendations, see:
http://www.xilinx.com/ise/products/memory.htm.

System Generator for DSP System Requirements and Recommendations

Hardware Recommendations

Table 2-6: **System Generator for DSP Hardware Recommendations**

Recommendation	Notes
2.00 GB of RAM	N/A
600 MB of hard disk space	Minimum Requirement
Xilinx Hardware Co-Simulation Platform	Required for the Hardware Co-Simulation Flow

OS and Software Requirements

Table 2-7: **System Generator for DSP OS and Software Requirements**

Requirement	Notes
Windows XP Professional SP2, 32-bit/64-bit or Windows Vista Business SP1, 32-bit/64-bit or Red Hat Linux 4u7, 32-bit & 64-bit	N/A
Xilinx ISE Design Suite 12.2	N/A
MathWorks MATLAB Version 2010a or 2009b	MATLAB 2010a requires Red Hat Enterprise Desktop 5.2, 32-bit/64-bit Operating System. It does not work with Red Hat Enterprise Linux WS v4.7.
MathWorks Simulink with Fixed-Point Toolbox Version 2010a or 2009b	MATLAB must be installed in a directory with no spaces (e.g., C:\MATLAB\R2010a) Fixed-Point Toolbox required for signals greater than 53 bits

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Chapter 3

Download and Installation

This chapter describes how to download and install ISE® Design Suite 12 software, as well as ModelSim Xilinx® Edition 6.5c. It includes the following sections:

Downloading ISE Design Suite 12

This section explains how to download the ISE Design Suite 12 software.

To begin, open an internet browser and navigate to http://www.xilinx.com/support/download/index.htm

All files in the Xilinx Download Center will be downloaded using the Akamai download manager. For the optimum download experience, perform the following:

- Allow pop-ups from http://xilinx.entitlenow.com
- Set security settings to allow for secure and non-secure items to be displayed on the same page
- Allow the Akamai download manager to run Java processes

To Download ISE Software, do the following:

1. Ensure the Design Tools tab in the web page is selected.
2. Under the Version heading, click on the version of the tools you are interested in downloading.
3. Click in the link for the installer you wish to download.

   Note: For 12.x, the installers under the ISE Design Suite heading also contain the standalone selections for the Software Development Kit and Lab Tools. Depending on your use case, you may not need to download these separate installation programs if you are downloading the ISE Design Suite installers.
4. Enter your User ID and Password to log into your Xilinx account.

Note: If you do not have a Xilinx account, you will need to create one in order to download products.

An address verification screen will appear.

5. Once the current address is correct, click **Next**.
6. The Akamai download manager will launch in your browser to complete the download process.

   Most files in the Xilinx Download Center are packaged using TAR methods. You will need to use software from a third party provider to unpack them. Consult your IT department for assistance. Commonly used tools for TAR files are 7-ZIP, GNU built-in tools, WinZIP, and WinRar, and these are licensed solely by each respective developer and not Xilinx. Xilinx hereby disclaims any warranties, express or implied, including warranties of merchantability, fitness for a particular purpose, or noninfringement with respect to these suggested software tools.

Installing ISE Design Suite 12: Overview for All Platforms

This section explains the installation process for all platforms for ISE Design Suite 12. Installation for each platform should be preceded by these steps:

1. Ensure that you have appropriate privileges on the system that the software will be installed on. Some components, such as programming cable device drivers, require administrator-level permissions.
2. Close all programs before you begin installation.
3. Ensure that your system meets the requirements described in Chapter 2, "Operating Systems, Architecture Support, and System Requirements."
4. Check the links found in Chapter 1, "What's New, Release Notes, and Known Issues for 12.2"for any installation issues that pertain to your system or configuration.
5. If EDK is installed, make sure the installation is in a directory structure that does not contain spaces.

   Note: The ISE Design Suite 12 installers will no longer set global environment variables, such as XILINX, on Windows. To find out if this affects the way you execute Xilinx software, see "Platform Specific Instructions."

Platform Specific Instructions

This section provides platform-specific details of the ISE Design Suite 12 installation.

Microsoft Windows

This section describes how to start the installation for Microsoft Windows operating systems.

To Start Installation

The method of starting the installation depends on how you have obtained the installation program. See "Downloading ISE Design Suite 12" for details on your options.

- If you have downloaded an installation file, decompress that file and run the **`xsetup.exe`** program contained therein.
- If you have ordered and received an ISE Design Suite DVD, load the DVD. If you have the auto-run feature of your DVD drive enabled, the setup program should start automatically. If it does not, browse to the DVD in Windows Explorer and run the **`xsetup.exe`** found at the root of the disc.

To Set Environment Variables

At the completion of the installation process, the installation program creates an environment variable batch file for you. All appropriate Desktop and Program Group shortcuts call this file before launching the target application. A shortcut to a command-line prompt which sets the environment has been created for you. The shortcut is located at **Xilinx ISE Design Suite 12.2 > Accessories > ISE Design Suite Command Prompt**

To set environment variables in make or script files:

Add **`<XILINX installation directory>\settings32.bat`** or **`settings64.bat`** to your script. 32 or 64 corresponds to the bit-width of the operating system installed on the machine

Linux

This section describes how to start the installation and set the environment variables for Linux operating systems.

To Start Installation

The method of starting the installation depends on how you have obtained the installation program. See "Downloading ISE Design Suite 12" for details on your options.

- If you have downloaded an installation file, decompress that file and run the **`xsetup`** program contained therein.
- If you have ordered and received an ISE Design Suite DVD, load the DVD. Click the setup file in your file manager, or browse to the root of your DVD drive and type **`./xsetup`**.

To Set Environment Variables

At the completion of the installation process, the installation program creates an environment variables file for you.

1. Go to your XILINX installation directory.
2. Type either `source settings32.(c)sh` or `source settings64.(c)sh`, whichever is appropriate to your shell.

To set your environment variables manually or from within your setup script, it is recommended that you copy the settings from the appropriate file for your operating system, as listed above. Xilinx environment variables settings are specific to each operating system platform.

Installation Flow

The following section describes important screens that you will encounter during the installation process.

Note: For each of the following installation steps, click on the text of any item that has a checkbox next to it to obtain more information. Information is displayed in the "Description" area near the bottom of the screen.

Accept Software Licenses

After the Welcome screen there are two Accept Software License Agreement Screens you will have to click through. To proceed:

1. Click the **I accept the terms of this software agreement** checkbox.
2. Click **Next** on each screen.

Select Xilinx Products to Install

The following figure shows the screen that allows you to select the Xilinx products you wish to install.

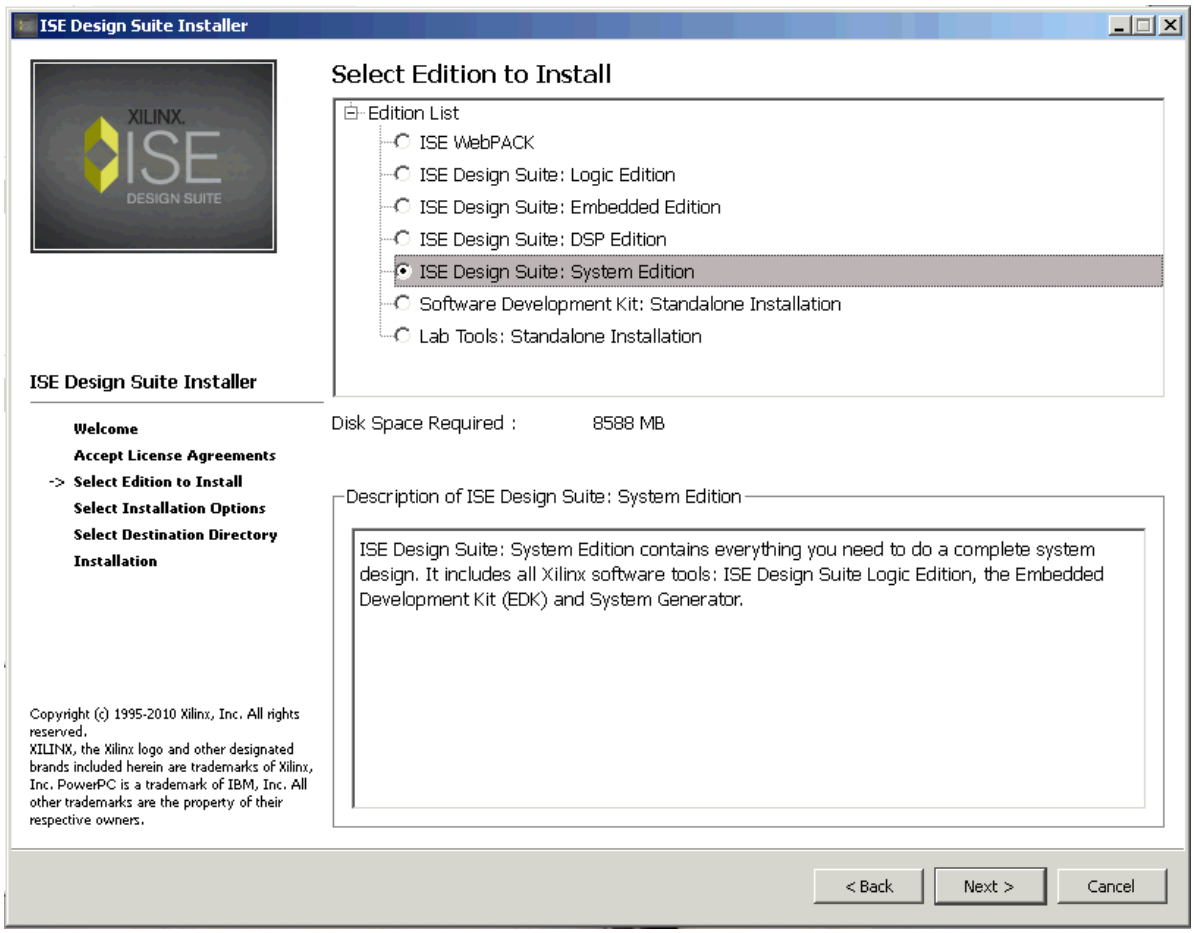

Figure 3-1: **ISE Design Suite 12 Installation - Select Xilinx Products Screen**

For 12.2, the product selection choices are WebPACK software, various ISE Design Suite Editions, and two standalone tools.

Note: The ISE WebPACK product installer will install both ChipScope PRO software and the Embedded Development Kit. Although installed, these applications will require a separate license to run.

Select Installation Options

There are several optional installation steps that can be performed during the installation process. If selected, these options will install toward the end of the installation process, after the main software installation has completed. Several of these options will open dialog boxes which will pause the installer until a response is given.

The following figure shows the screen from the Installation Software that enables you to select Xilinx installation options.

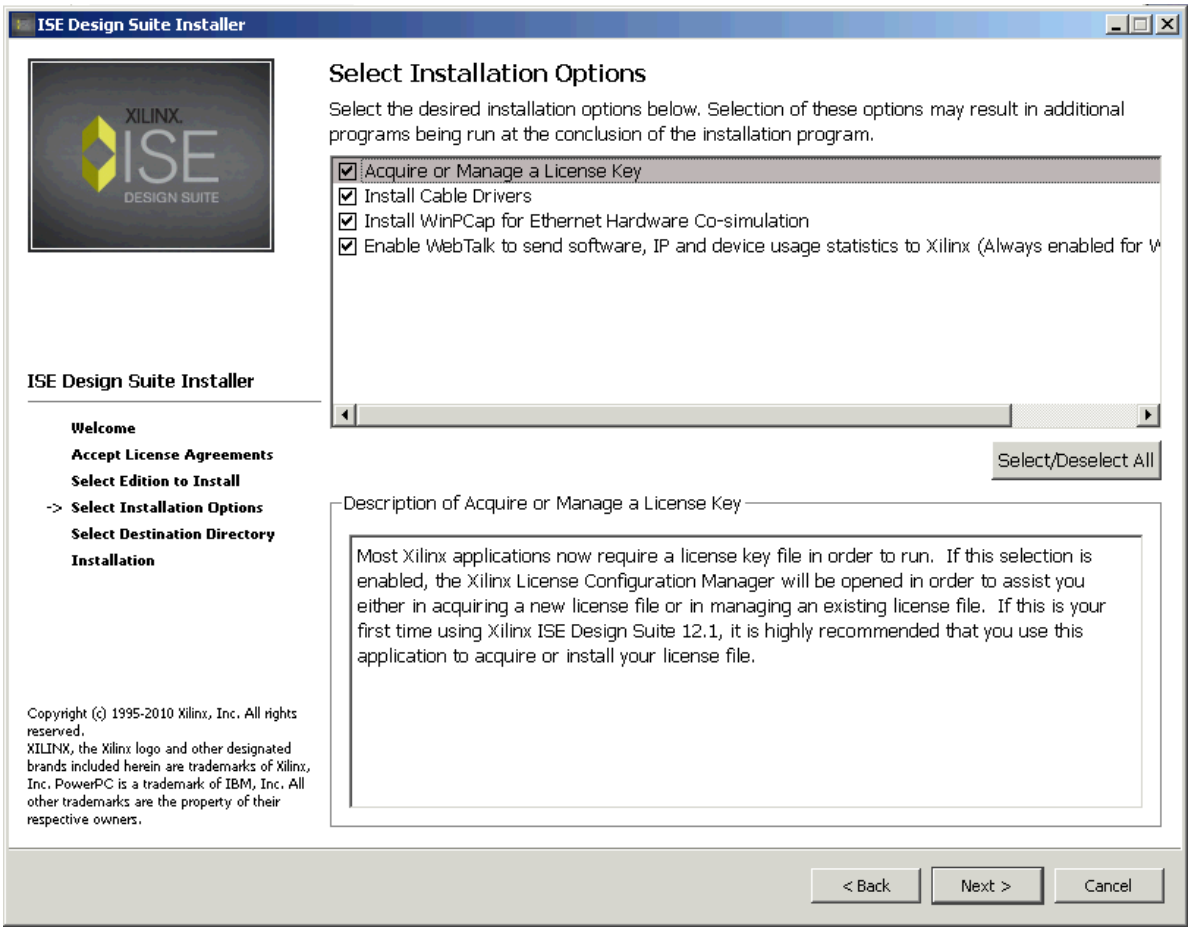

Figure 3-2: **ISE Design Suite 12 Installation - Xilinx Modules and Devices**

Note: Web Talk is always enabled when using WebPACK software. If the ISE WebPACK product is selected on the previous screen, the “Enable Web Talk” option will not be selectable. If you install an Edition product, the installer will allow you to deselect “Enable Web Talk.” However, if a WebPACK license is used to process the design, the “Enable WebTalk” preference will be ignored. Please click on the “Enable WebTalk” item, in the installer, and read the description box for full details.

Select Destination Directory

In the Select Destination Directory screen, select the directory in which to install the software, and enter a name for the Program Folders list. Please note that the installer will add a level of hierarchy underneath the installation path you specify. The name of the directory will vary depending upon the type of product you are installing. Any Editors or WebPACK software installation will create a directory named \ISE_DS. Lab tool standalone installations will create \LabTools and SDK software standalone installations will create \SDK. This is done to ensure that Edition and Standalone tools can coexist properly on your hard drive.

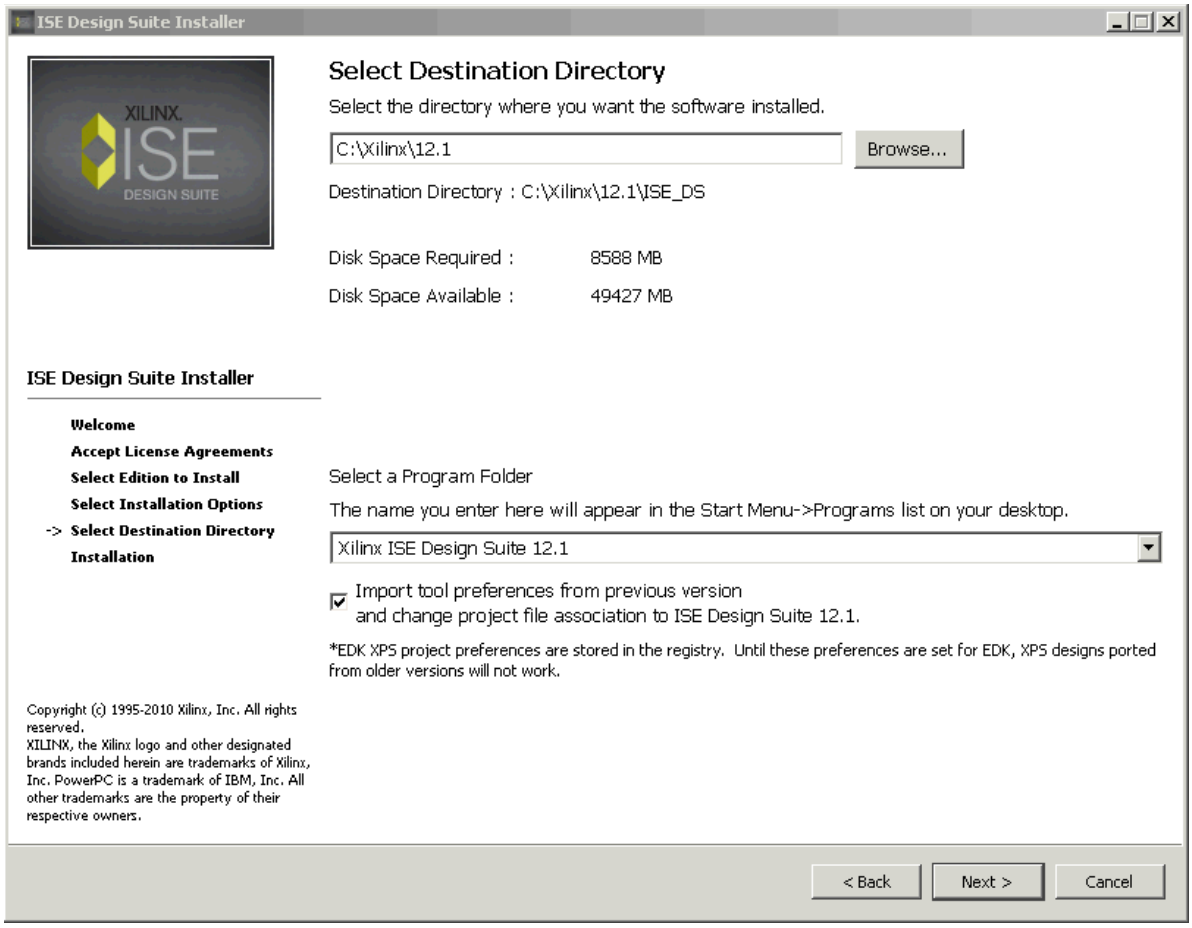

Figure 3-3: **ISE Design Suite 12 Installation - Select Destination Directory**

Installation Options Summary

The Installation Options Summary screen gives you a summary of the tools, products, and options to be installed. If you want to change anything, select the **Back** button and make the desired changes. To begin the installation, click **Install**.

Towards the end of the installation process, the Xilinx License Configuration Manager will open by default. Follow the instructions in the Manager to obtain or locate a license file.

Note: EDK tools require the Cygwin tools distributed by RedHat. A copy of these tools is distributed with EDK installation.

USB FLEXid Dongle Driver Installation

If you have purchased a USB FLEX ID Dongle for use with Windows operating systems, you will need to install the appropriate driver prior to creating a FLEXnet license for use with it.

1. Install Xilinx ISE Design Suite 12.2 software first. This will contain the installer for the USB FLEXid dongle driver.
2. Run **`FLEXId_Dongle_Driver_Installer.exe`** found in `<Xilinx Installation Directory>\12.2\ISE_DS\ISE\bin\nt`.
3. On the Select Options screen, ensure that only **FLEXid 9 Drivers** is checked.

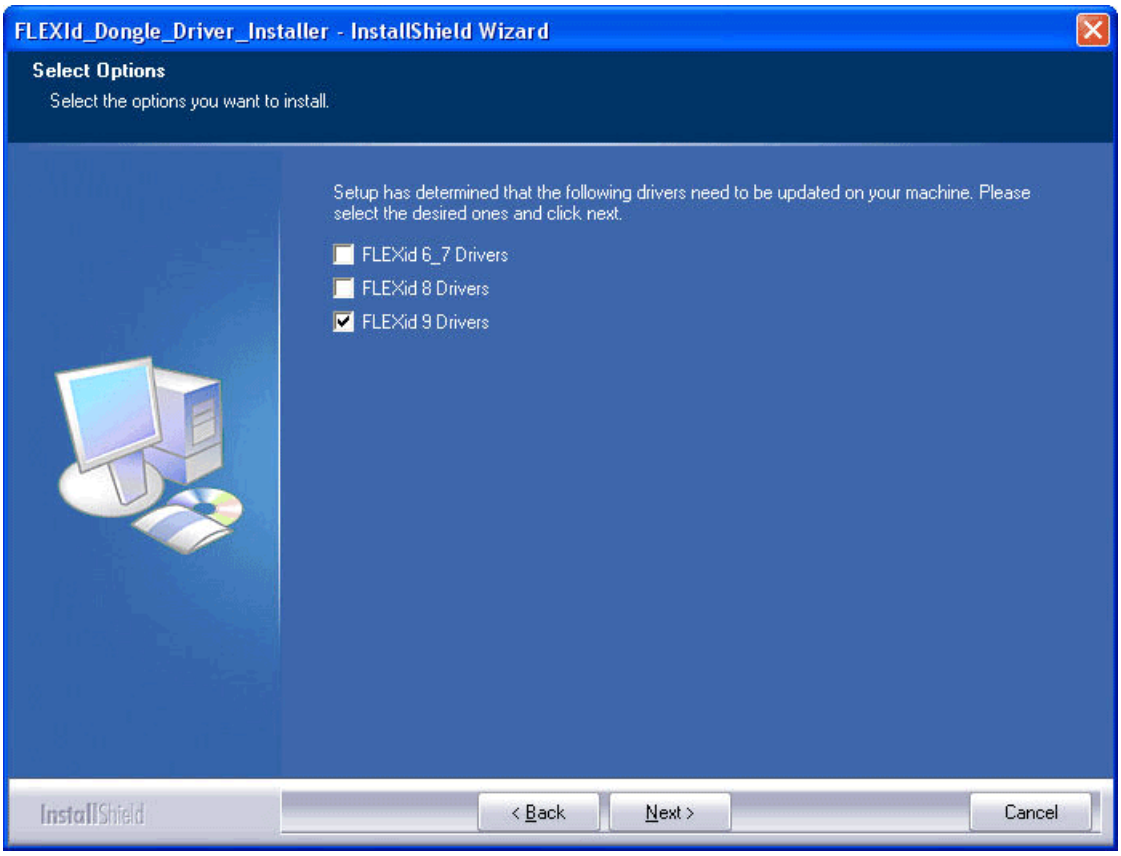

Figure 3-4: **Select Options Screen**

4. Click **Next** twice, and the driver will install.

After installation, a screen will appear asking you if you wish to reboot. You will need to reboot to ensure that the dongle operates correctly.

Network Installations

Installing software to a network location provides a way for 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.

UNIX Clients

Each software user must source **`settings32.(c)sh`** or **`settings64.(c)sh`** (whichever is appropriate for your OS) from the $XILINX area where the software is installed. This points the Xilinx environment variable, path, and LD_LIBRARY_PATH to the installed location.

To run the software applications from a remotely installed location, run an X Windows display manager, and 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
```

Microsoft Windows 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`*`\common\bin\nt` and run the program **`shortcutSetup.bat`**.

   Running this program sets up the Windows settings batch files and Program Group or Desktop shortcuts to run the Xilinx tools from the remote location.
3. From the client machine, launch the ISE tools via the Program Group or Desktop shortcuts, or by running the applications on the network drive.

Installing to a Mounted Network Drive

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").

Obtaining 12 Quarterly Releases

Xilinx will release quarterly versions of the ISE Design Suite 12 software throughout the year. Each quarterly version will contain device support updates, new features and bug fixes. Unlink pervious releases, 12 quarterly releases will only be available in the full installation version. There will be no way to update from, for example, 12.1 to 12.3. Instead, the 12.3 installer will install a complete 12.3 version into separate directory on the target machine. The following sections describe the ways to obtain to software updates through XilinxNotify and the Download Center.

XilinxNotify

The XilinxNotify tool is the preferred method of obtaining software updates. It provides the following features:

- Compares the latest version of Xilinx software updates available on http://www.xilinx.com/support with what you have installed, and notifies you if a newer version is available.

Provides a "Download" button that will launch a browser, allowing you to login to the Xilinx Download Center. Once you login, the download of your selected product will begin. XilinxNotify can be run in any of the following ways:

- Automatic periodic checks at Project Navigator startup time.
- Select **Help > Check for Updates** from Project Navigator.
- Select **Start > All Programs > Xilinx ISE Design Suite 12.2 > Accessories > Check for Updates**.
- Type `xilinxnotify` in a Linux shell

Note: 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

XilinxNotify Network Installations

By default, the **Automatically check for software updates** option at Project Navigator startup is enabled on the machine used to install the ISE software to the network location. All clients pointing to this network location have this option disabled by default. Client users have the option of enabling this option (**Edit > Preferences > XilinxNotify** from Project Navigator) and also running manual checks.

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

Download Center

Quarterly releases for all platforms are regularly made available on the Download Center at:

http://www.xilinx.com/support/download/index.htm

Uninstalling ISE Design Suite 12

Microsoft Windows

The following sections describe how to uninstall the products that comprise ISE Design Suite on Microsoft Windows.

To uninstall any Xilinx product, select the Uninstall item from that product's Start Menu folder. For instance, to uninstall ISE WebPACK software or an ISE Design Suite: Edition, select **Start > All Programs > Xilinx ISE Design Suite 12.2 > Accessories > Uninstall**.

Depending on what you have installed, some ancillary applications may also need to be uninstalled, such as WinPcap 4.0 (optional component of DSP Tools).

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

Linux

To uninstall the Xilinx Design Suite product, you need to remove the Xilinx installation directory from the shell.

Installing ModelSim Xilinx Edition 6.5c Software (Windows Only) - Optional

If you have already purchased ModelSim Xilinx Edition (MXE) 6.5c, 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 ModelSim Xilinx Edition website:

http://www.xilinx.com/ise/optional_prod/mxe.htm

To install MXE software, perform the following steps:

1. Insert the ModelSim Xilinx Edition CD.
2. If the CD does not automatically 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: MXE is not a supported simulator for Xilinx Platform Studio.

Compatible Third-Party Tools

Third-Party Tool	Red Hat Linux	Red-Hat Linux-64	SUSE Linux	SUSE Linux-64	Windows XP	Windows XP-64	Windows Vista	Windows Vista-64
Simulation								
MTI ModelSim® Xilinx Edition III (6.5c)	N/A	N/A	N/A	N/A	√	√	√	√
Mentor Graphics ModelSim SE (6.5c)	√	√	√	√	√	√	√	√
Mentor Graphics ModelSim PE, DE (6.5c)	N/A	N/A	N/A	√	√	√	√	√
Cadence Incisive® Enterprise Simulator (IES) (9.2)	√	√	√	√	N/A	N/A	N/A	N/A
Synopsys VCS® and VCS MX (D2009.12)	√	√	√	√	N/A	N/A	N/A	N/A
The MathWorks MATLAB® (2009b, 2010a)	√	√	√	√	√	√	√	√
The MathWorks Simulink® with Fixed-Point Toolbox (2009b, 2010a)	√	√	√	√	√	√	√	√
Synthesis								
Synopsys Synplify®/Synplify Pro (D-2010.03)	√	√	√	√	√	√	√	√
Mentor Graphics Precision® RTL/Plus (2010a)	√	√	√	√	√	√	√	√
Equivalence Checking								
Cadence Encounter® Conformal® (9.1)	√	√	√	√	N/A	N/A	N/A	N/A

XILINX®

Chapter 4

Obtaining and Managing a License

The Xilinx® Product Licensing Site is an online service for licensing, and administering evaluation, and full copies of Xilinx software and IP products. This chapter describes the FLEXnet license generation functionality of the Product Licensing Site. It includes the following sections:

Accessing the Product Licensing Site

The Product Licensing Site is accessible in various ways depending upon the type of license being generated.

- If you purchased products, follow the link included in your order confirmation email. It will provide direct access to an account containing your product entitlements.
- If you want to evaluate ISE® Design Suite 12 products, go to www.xilinx.com/ise_eval.
- If you want to evaluate IP products, go to www.xilinx.com/ipcenter and follow the "Evaluate" link on the IP product page of interest.
- You may also access the Product Licensing Site directly by going to www.xilinx.com/getlicense. You will need to register or enter your registration information first.

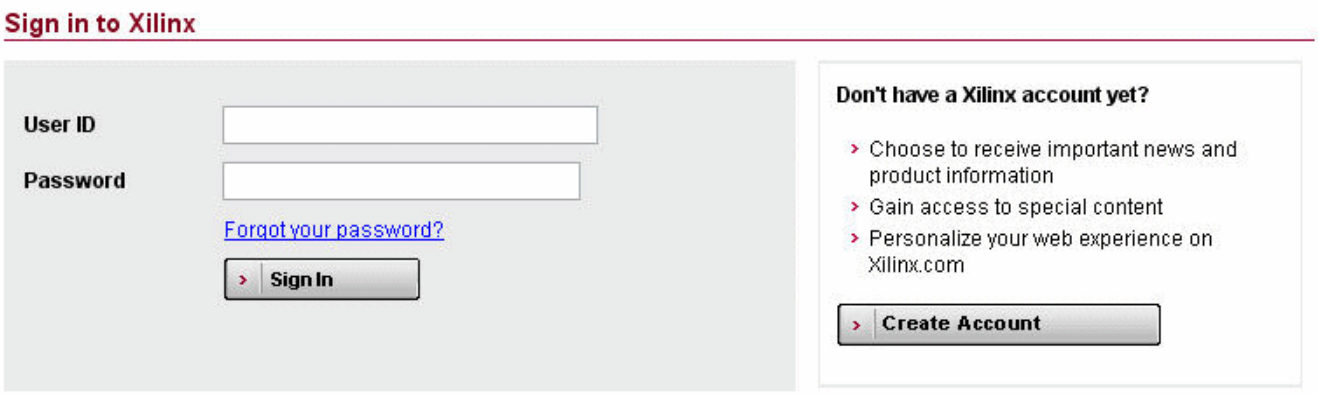

Figure 4-1: **Xilinx Sign In Page**

You must first sign in. If you already have a Xilinx user account, enter your user ID and password, and then validate that your contact information is current. If you do not have an account, click the **Create Account** button.

Product Licensing Accounts

When you purchase a software or IP product from Xilinx, you are purchasing a license to use and receive updates for that product for one year. The license to use Xilinx software and IP products is managed through the use of product entitlements. A product entitlement is the determination of:

- Which product was purchased
- The number of seats purchased
- The license type (floating or node-locked)
- The product subscription period (product updates are provided throughout the year)

In addition to managing the product entitlements for your purchased software tools and IP, you can also access product entitlements for "No Charge" or "Evaluation" products. Full and No Charge licenses have a subscription period of one year. Software tools evaluations are for 30 days, and IP evaluations are for 120 days.

Activating a product entitlement results in one or more license keys being generated by the website. When installed, the license keys enable the use of the software and IP that was purchased or is being evaluated. Your product entitlements and resulting license key files are managed in a product licensing account on the Xilinx website.

Product licensing accounts are specific to the individual listed on the Xilinx Software Purchase Order, which is either the end-user or administrator of the software. All purchases made can be managed in the same product licensing account if a single administrator is named, or a company site can have multiple accounts managed by different administrators. The latter is helpful if a site has multiple design teams working on differing projects with different budget pools.

Note: A license key can be generated for a product entitlement that has expired; however, it will only enable product releases up to the subscription end date. Applying a product update that was made available after the subscription end date of your license will result in an error.

LogiCORE IP License Generation In ISE Design Suite 12

Beginning in ISE Design Suite 12, LogiCORE™ IP licenses are no longer generated through lounges on the Xilinx web site. Instead, the entitlement process for LogiCORE IP has been automated and will use the same electronic entitlement process used for other software. When a purchase order for LogiCORE IP is entered into the Xilinx system, it will be processed in less than 2 hours, following which you can generate LogiCORE IP licenses on the Product Licensing Site, as described in this section.

Any IP and software entitlements you have purchased will appear in your list of entitled products when you log into the Product Licensing Site. Licenses for Evaluation and No Charge IP will also be available on the site in a separate area. Licenses for all your software and IP can now be generated in one pass and are emailed to you in a single license file. In addition, IP core FLEXnet licenses now feature more licensing options, such as single or Triple-Redundant Floating Server support, and more host options for node-locked license keys: Ethernet MAC address, Hard Drive Serial Number or USB Dongle ID.

User Types and Actions

There are three user types for the Product Licensing Site: customer account administrator, end user, and evaluation user.

Customer Account Administrator

An example of a typical customer account administrator is a CAD tools manager. Every product licensing account *must* have at least one customer account administrator. A customer account administrator can manage more than one product licensing account.

The responsibilities as the customer account administrator include:

- Generating node-locked or floating licenses for Xilinx software and IP products.
- Adding and removing users from the product licensing account (as desired).
- Assigning administrative privileges to other users (as desired).
- Ordering product DVDs (if applicable).

The original customer account administrator is the “Ship To” contact that is identified during the product ordering process. That person will receive an email with instructions on how to download and license each of the products that were purchased. It is important that the customer account administrator follow the link in the email, as it will ensure that he can obtain access to the purchased products.

End User

Adding end users to a product licensing account allows an engineer or design team member the flexibility to manage and generate license keys on their own. The end user may generate license keys for node-locked products entitlements within the account as well as evaluation and "no charge" license keys for software and IP products. A customer account administrator can also configure the end user account so that an end user may generate floating licenses. The following are some restrictions that are placed on the role of end user.

- An end user is not able to view or generate floating license keys by default. This privilege may be assigned to them by the customer account administrator.
- An end user is not able to view the license keys generated by other users.

- An end user is not able to add or remove other users to or from the product licensing account.

Evaluation User

An evaluation user is someone who would like to test-drive ISE Design Suite 12 products. Evaluation users can:

- Generate a 30-day free evaluation license key for ISE Design Suite 12: System Edition.
- Generate license keys for evaluation and no charge IP products.
- Request an ISE Design Suite 12 DVD. Evaluation users must pay for the shipping of DVDs.

Note: A customer who is already licensed for a full version of an ISE Design Suite product edition can test-drive other ISE Design Suite product editions or IP. These product entitlements are made available in the same product licensing account.

All user types can download products electronically and request an ISE Design Suite 12 DVD.

Creating a License Key File

As shown in the figure below, the Create New Licenses tab on the Product Licensing Site is the starting point for license key file generation. The software tool and IP product entitlements you have purchased or wish to evaluate are presented in the product entitlement table.

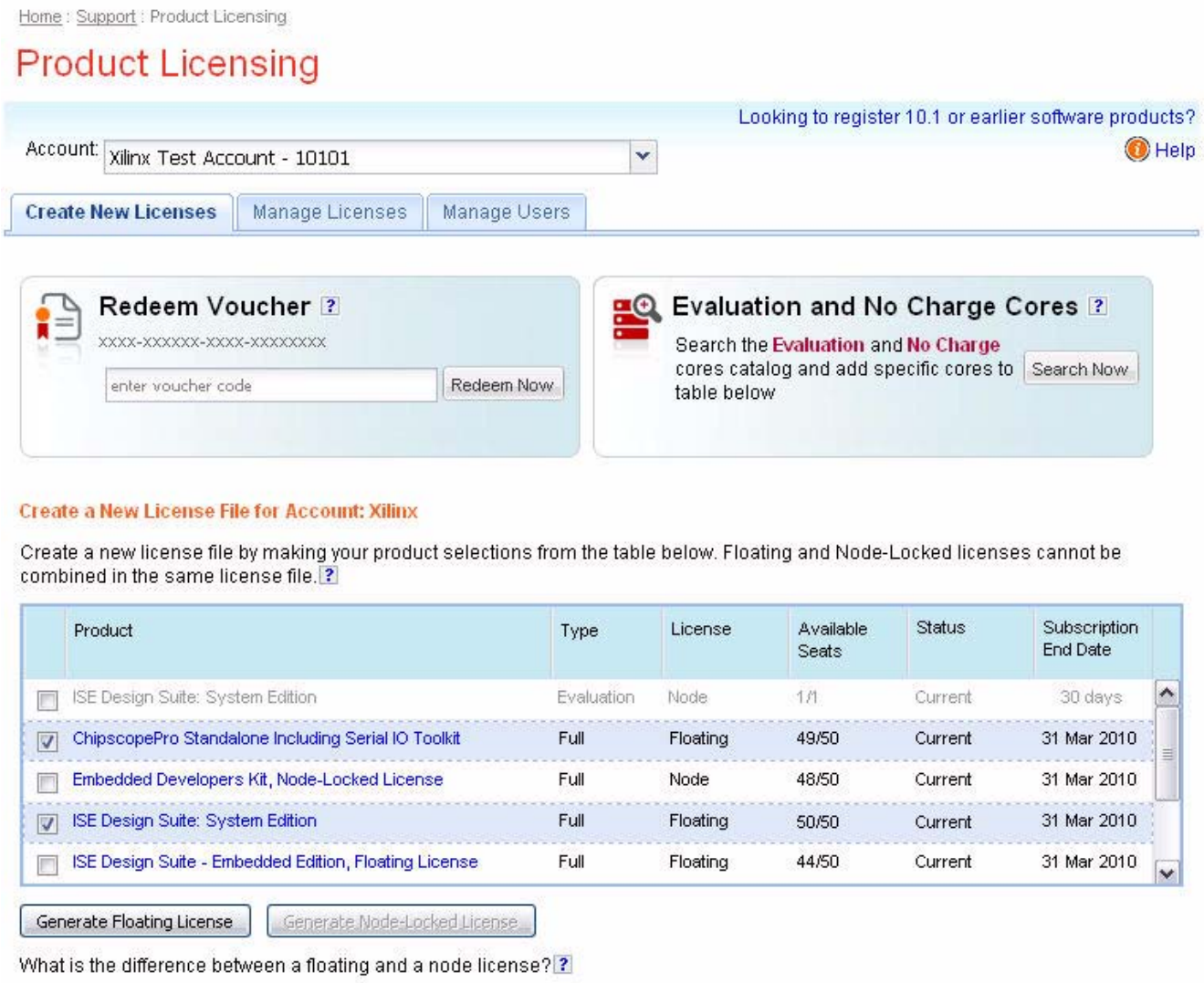

Figure 4-2: **Create New License**

Selecting Products

You begin the license generation process for products you have purchased or wish to evaluate by performing the following actions:

1. Select a product licensing account from the Account drop-down list.

   Note: This selection will not be available if you are only entitled to evaluation or free products.

2. Enter product voucher codes for Software or IP product licenses purchased with kits (optional).

3. Add evaluation or no-charge IP product entitlements to the product entitlement table (optional).
4. Make your product selections from the product entitlement table.

The type of product entitlements available are Full (purchased), No Charge, or Evaluation. Full and No Charge licenses have a subscription period of 1 year. Software tools evaluation is for 30 days, and IP evaluations are for 120 days.

Floating and node-locked licenses cannot be combined in the same license key file, and the interface is designed to prevent this.

Note: A floating license resides on a network server and enables applications to check out a license when they are invoked. At any one time, the number of licenses for simultaneous users is restricted to that of the license seats purchased. A node-locked license allows for the use of a single seat of a product entitlement on a specific machine.

For software tools, available seats represents the number of seats available for licensing over the total number of seats purchased. For IP, seats are managed according to the terms of the site wide license agreement.

Products with a status of "Current" are within their warranty period. Products with a status of "Expired" have a warranty period end date that has passed. If seats are available, licenses can be generated for either "Current" or "Expired" product entitlements.

The ISE Design Suite: System Edition evaluation product entitlement provides access to all the capabilities in the ISE Design Suite tool set. This product entitlement is automatically included in your product licensing account.

Product vouchers for Software and IP product licenses may be shipped with a Xilinx or partner development board or design kit. If you have a product voucher card, you may enter the voucher code on the card into the associated text field and click the "Redeem Now" button. This will place the corresponding Software or IP product entitlement in the product entitlement table which you can use to generate a license key.

Evaluation and No Charge IP can be added to the list of product entitlements by clicking the "Search Now" button within the "Evaluation and No Charge IP Cores" section of the page. This brings up an IP product finder tool pictured below.

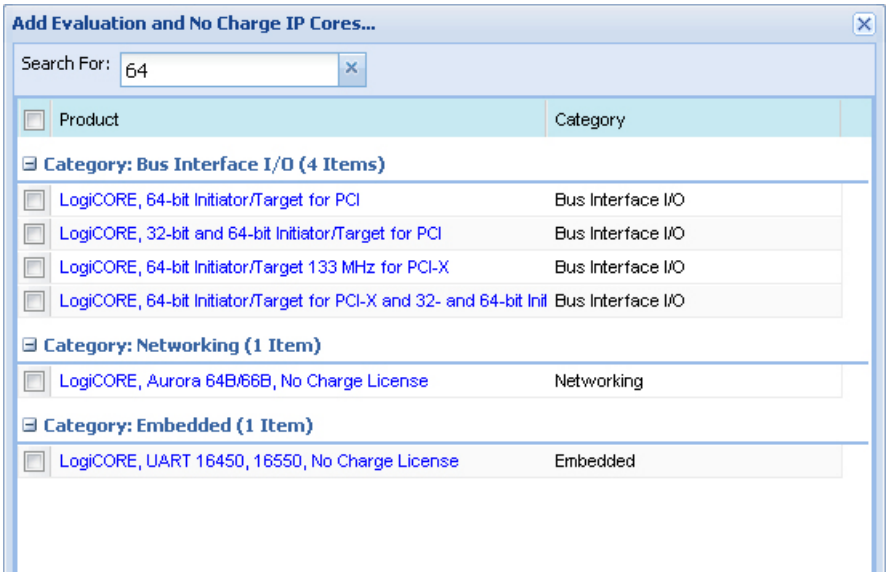

Figure 4-3: **IP Product Selector**

Note: IP products are typically sold as site licenses providing the administrator the ability to generate license keys for floating and node-locked license types. End users will only see product entitlements for node-locked products. The customer account administrator, or an End User who has been granted Floating License generation status by the administrator will see product entitlements for both node-locked and floating products.

Generating a License

Click the **Generate License** button that corresponds to the type of license key file you are generating (floating or node-locked). The license generation form shown below appears.

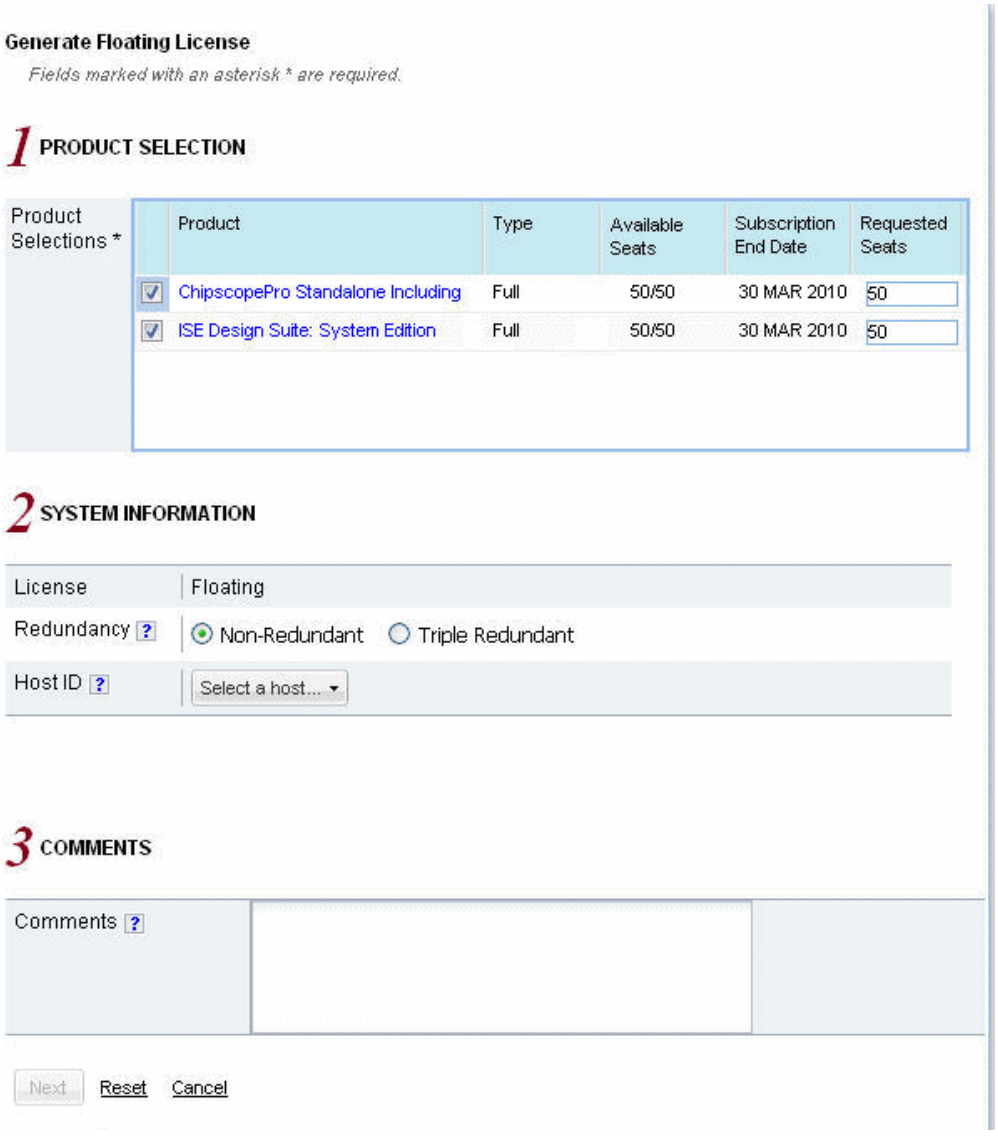

Figure 4-4: **Generate Floating License**

Complete the form as follows:

1. Select the number of seats required for each product license.

   This is for floating licenses only. All node-locked licenses are for one seat. The number of seats available for a product entitlement is automatically maintained by the system. The "Requested Seats" field is populated, by default, with the full number of seats

remaining on the product entitlement. A product is removed from the product entitlement table if all seats have been activated.

2. Enter system information.

   System information is pre-populated in the option menu if you arrived at the Product Licensing Site from a link within the Xilinx License Configuration Manager (XLCM).

   A redundant server configuration provides a fail over for the license manager software. As long as two of the three servers are running, the license manager can continue to run.

   If you do not have pre-populated system information or wish to add a different host, select the **Add a host** option from the option menu.

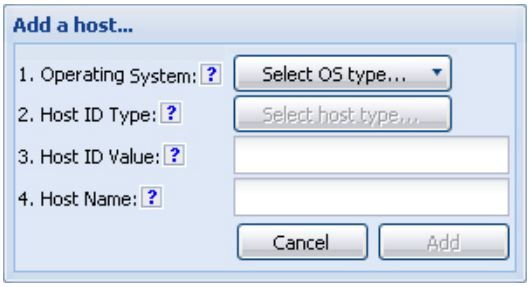

Figure 4-5: **Add a Host**

   The host ID is a value that uniquely identifies the machine to which your software tools or IP is licensed. You may choose a host ID type to be a MAC address, a hard drive serial number, a dongle ID, or a Solaris host ID.

   Note: Not all host ID types are supported for all operating systems. The easiest way to obtain your host ID is to run the XLCM on the machine that will serve as the license host.

3. Enter a comment.

   Adding a comment to the license key file makes it easy for an administrator to keep notes on how software and IP product entitlements are allocated among users.

4. Click **Next**.

   The Review License Request form appears.

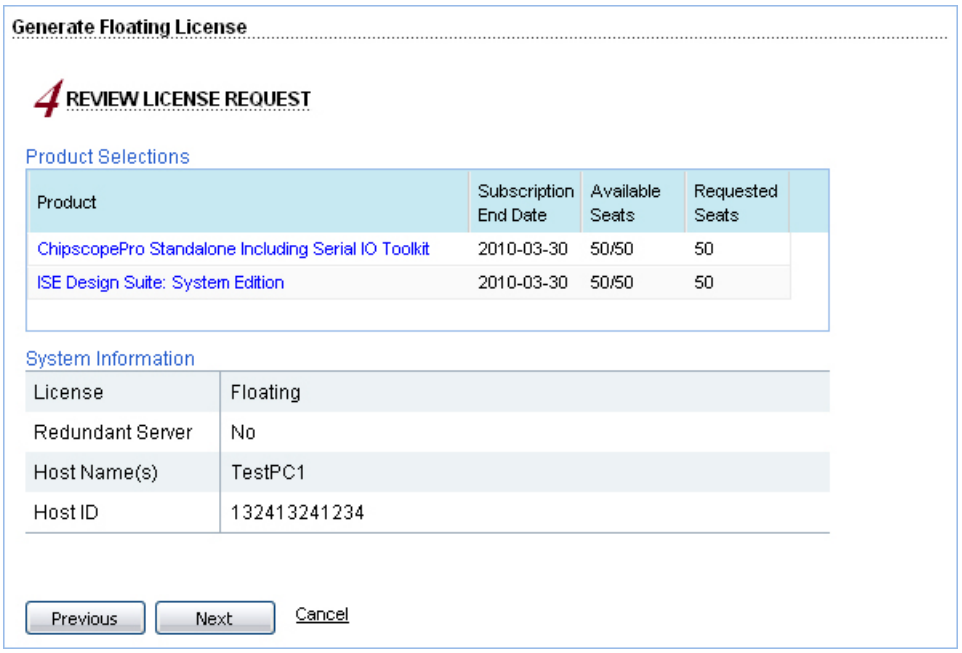

Figure 4-6: **Review License Request**

5. Review your selections.
6. If you are satisfied with your selections, click **Next**.

End User License Agreements (EULAs)

ISE Design Suite Software tools and No Charge IP product EULAs are agreed to during the product installation process. If you license IP products, you must accept the terms of the associated IP product EULAs before the license file can be generated.

Third-Party Licenses

A complete copy of the third-party licenses for 12.2 is located here:
<install_directory>/common/licenses/unified_3rd_party_eulas_12_2.txt

License Generation Confirmation

Upon completion of the license generation process, you will receive a confirmation message providing a summary of your licensing activity.

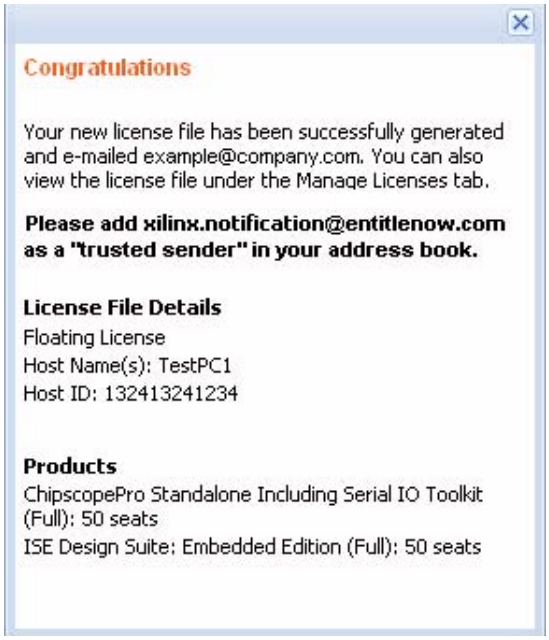

Figure 4-7: **License Generation Confirmation**

You will also receive a license generation confirmation email. This message contains the license key file that was generated as an attachment. Add 'xilinx.notification@entitlenow.com' as a trusted sender in your email address book.

Managing License Key Files

The Product Licensing Site keeps track of the license key files you have generated. Select the 'Manage Licenses' tab to see all of the license key files that have been generated for your product licensing account.

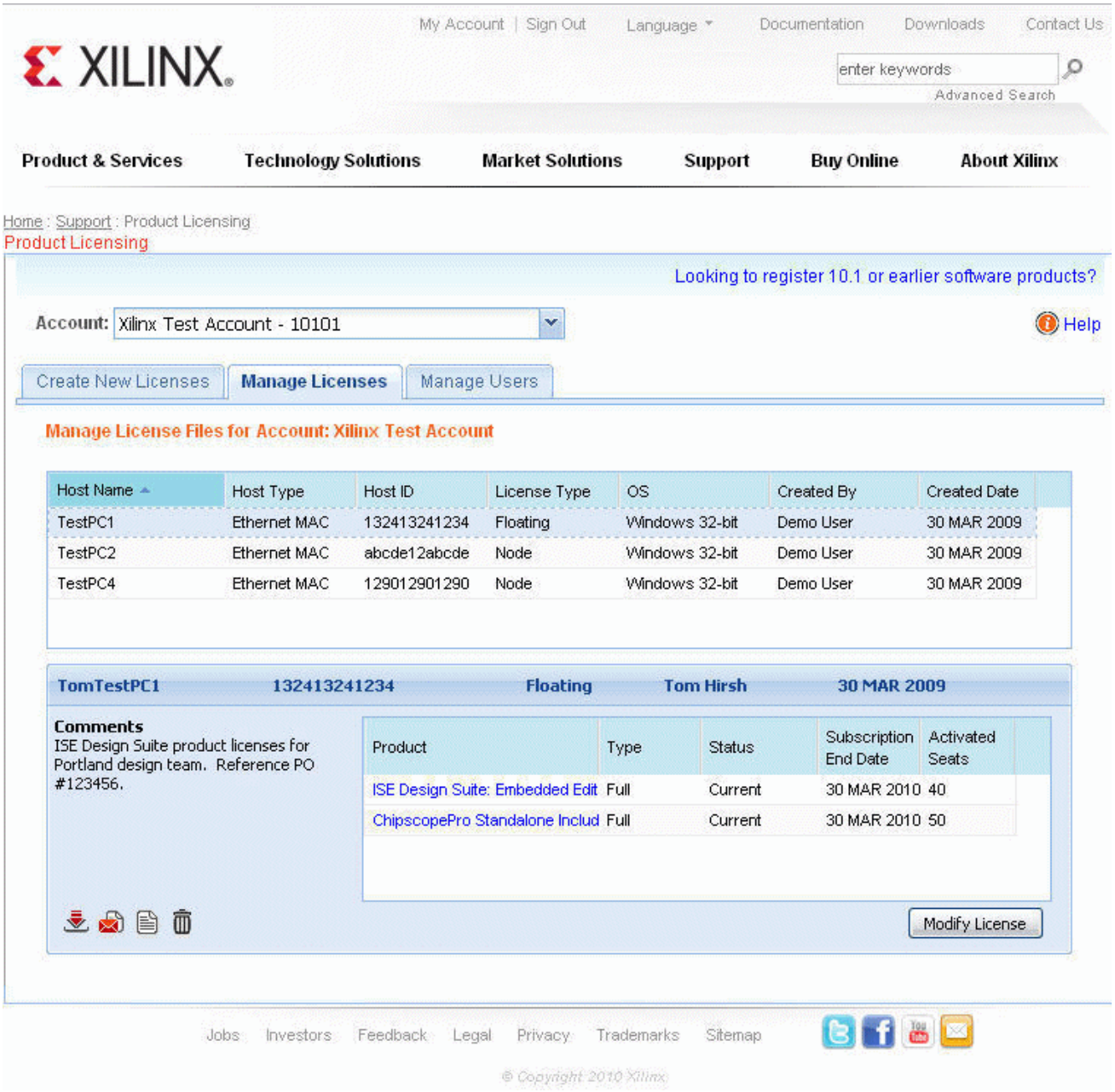

Figure 4-8: **Manage Licenses**

From the Manage Licenses page, the actions described below can be taken depending upon your needs.

Exploring and Retrieving Your Existing License Key Files

Information regarding the license key files that have been generated in your product licensing account are presented in a "master / detail" view. By clicking on a row in the master view in the top table, detailed information about the license key file is displayed in the detail view in the bottom table. The detail view table includes the following:

- A list of product entitlements that have been activated in the key file.
- Comments associated with the key file.
- Ability to download, email, or copy and paste the contents of the license key file (click the corresponding icons on the lower left portion of the detail view).
- Ability to delete a license key file.
- Ability to view the end user license agreement you accepted (if applicable).

Modifying a License Key File

In order to modify an existing license key file, select the license key file in the master view and then click the **Modify License** button in the detail view. A license key file can be modified in one of the following ways:

- Rehosting or changing the license server host for a license key file.
- Activating or adding additional seats to an existing licensed product entitlement.
- Deactivating or removing seats from an existing licensed product entitlement.
- Activating or adding additional product entitlements to a license key file.
- Deactivating or deleting product entitlements from a license key file.

The process for modifying a key file uses the same input form as when the license key file was created except that additional product entitlements of the same license type (floating or node-locked) are made available for licensing.

Reclaiming Deactivated Product Entitlements

A product entitlement is deactivated when one of the following activities occur:

- Rehosting or changing the license server host for a license key file.
- Deactivating or removing seats from an existing licensed product entitlement.
- Deactivating or deleting product entitlements from a license key file.

The license generation facility will allow for the reallocation of the deactivated seats or product entitlements by making the corresponding seats or product entitlements available for activation in the product entitlements table on the Create License page.

Before the reallocation of entitlement occurs, you must first agree to an Affidavit of Destruction. This legal agreement is required to ensure that the deactivated product entitlements are no longer being used.

The number of allocation operations is recorded for each user. Administrators are allowed to reallocate product entitlements five times per major release, and end users are allowed to reallocate product entitlements three times per major release.

What Happens to Your License Key File

For each product entitlement that is activated, a FLEXnet increment line and corresponding package line is added to the license key file. When a license key file is modified to activate (add) seats for an existing or new product entitlement, additional increment or package lines are added to the license key file.

When a license key file is "rehosted" or is modified to deactivate (delete) seats or product entitlements, the corresponding increment lines are regenerated or removed from the modified license key file.

Managing User Access to Product Licensing Account

The responsibility of administering a product licensing account may be transferred or shared with another user. The ability to add or remove users from a product licensing account is managed under the 'Manage Users' tab.

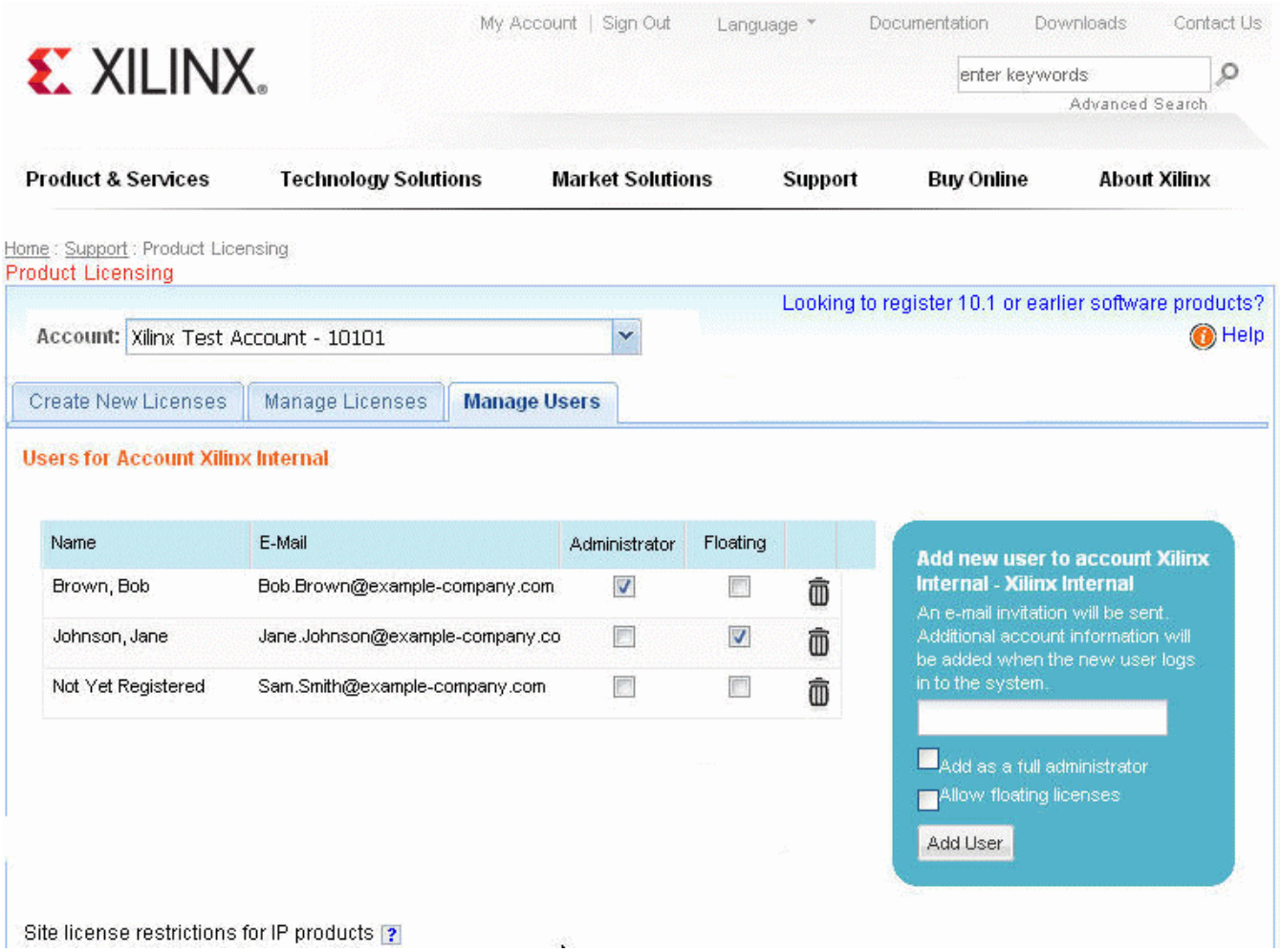

Figure 4-9: **Manage Users**

Adding Users

To add a user to your product licensing account:

1. Type in the corporate email address of the new user.
2. Check the **Add as a full administrator** check box, if you want the new user to have customer account administrative privileges. Check the **Allow Floating Licenses** check box, if you wish the user to be able to generate Floating Licenses, but not have full administrative privileges on the account.

Note: The email address you provide must be the same email address the user supplied or supplies when creating their Xilinx account. If not, the user may not be properly recognized when logging in.

If a user has already logged into the Product Licensing Site, their name will automatically appear in the user list. If the user has never been to the site, the words "Not Yet Registered" will appear in the space for their name. Once the user has completed the sign in process, their name will be filled in.

In some instances, a customer account administrator may wish to have design team members administer license key files for their own use. By leaving both Add as full administrator and Allow Floating Licenses check boxes unchecked, the user will have the following restricted privileges:

- Only able to generate node-locked license keys.
- Only able to view and modify license key files they generated for themselves.
- Unable to manage users.

If you only check Allow Floating Licenses, the restriction on node-locked keys is lifted, but the others remain. Checking both boxes is not allowed, as full administrators already have floating license generation capability.

Removing Users

Administrative or floating license generation privileges may be removed from users of an account by unchecking the "Administrator" or "Floating" check box that corresponds to the respective user.

To remove a user from a product licensing account, click the Trash can icon that corresponds to the respective user.

Installing Your License Key File

Node Lock License Installation

After generating a license file, you will receive an e-mail from 'xilinx.notification@entitlenow.com'.

1. Save the license file attached to the e-mail to a temporary directory on your local system.
2. Run the Xilinx License Configuration Manager:
   - For Windows: Select **Start > All Programs > Xilinx ISE Design Suite 12.2 > Accessories > Manage Xilinx Licenses**.
   - For Linux: Type `xlcm` in a command-line shell.
3. Go to the 'Manage Xilinx Licenses' tab.

4. Click the **Copy License** button at the top of the page.
5. Browse to your license file (`Xilinx.lic`) and click **Open**.

   This will copy this license file to the `C:\.Xilinx` (Windows) or `<Home>/.Xilinx` directory of your machine where it will be automatically found by the Xilinx tools.
6. Following the "Copy License" operation, the table on the Manage Xilinx Licenses tab will be updated with licensing information from the license file.
7. Press **Close** to exit the Xilinx License Configuration Manager.

Floating License Installation on Servers

For existing FLEXnet license servers, a common practice is to copy the contents of the license file, mailed from 'xilinx.notification@entitlenow.com', into the existing license file on your FLEXnet server.

Note: Restart the floating license server to enable the Xilinx licenses.

For New License Servers

1. Download the appropriate Xilinx FLEXnet license utilities for your server's operating system from the Xilinx Download Center:

   http://www.xilinx.com/download/index.htm

   Note: Only customer account administrators on the Product Licensing Site have access to FLEXnet license utilities. To see if you are a customer account administrator, refer to the description in "User Types and Actions."
2. Unzip these utilities into a destination directory. It is recommended that you place this directory into your application search path.
3. Once the FLEXnet utilities are installed, you can run the following commands to start the floating license server:
   - For Linux
     - <Server Tool directory>/bin/lin/lmgrd -c <path_to_license>/Xilinx.lic -l <path_to_license>/log1.log
     - <Server Tool directory> bin/lin64/lmgrd -c <path_to_license>/Xilinx.lic -l <path_to_license>/log1.log
   - For Windows
     - < Server Tool directory>\bin\nt\lmgrd -c <path_to_license>\Xilinx.lic –l <path_to_license>\log1.log
     - < Server Tool directory>\bin\nt64\lmgrd -c <path_to_license>\Xilinx.lic –l <path_to_license>\log1.log

Client Machines Pointing to a Floating License

1. Run the Xilinx License Configuration Manager (XLCM).
2. From the Acquire a License screen of the XLCM, click the 'Manage Xilinx Licenses' tab.
3. On the Manage Xilinx Licenses tab, enter the network path to the license server in the port@server format into the XILINXD_LICENSE_FILE field, and press the **Set** button next to it. The default Xilinx port number is 2100.

Note: For Linux operating systems, licensing environment variables cannot be set using the Xilinx License Configuration Manager (XLCM). The environment variable fields are read only, and they are grayed out and there are no "Set" buttons. The environment variable must be set using the appropriate shell and commands.

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Chapter 5

Technical Support, Services, and Documentation

This chapter describes how to access technical support, services, and documentation that are available. This chapter contains the following sections:

Technical Support

For technical questions, visit the Xilinx® support site,

www.xilinx.com/support/

where you can search the Answers Database or utilize the following self support features:

- Documentation Center , www.xilinx.com/support/documentation/index.htm
- Download Center, www.xilinx.com/support/download/index.htm
- Answer Browser, www.xilinx.com/support/answers/index.htm
- Xilinx User Community Forums, http://forums.xilinx.com
- Design Resources - Video Demonstrations, www.xilinx.com/design

If you cannot resolve your issue using our online resources, you can contact Xilinx Technical Support directly at:

www.xilinx.com/support/techsup/tappinfo.htm

Education Services

Xilinx provides targeted, high-quality education services designed by experts in programmable logic design, and delivered by Xilinx qualified trainers. Available are onsite and online instructor led courses, and recorded e-learning for self paced learning.

For more information on training courses, free on-demand training, live online training, and upcoming events, visit the Xilinx Training website,

www.xilinx.com/support/education-home.htm

Documentation

Xilinx offers technical documentation to assistant users with using the ISE® Design Suite tools.

Context-Sensitive Help

Context-sensitive online Help is available for most ISE Design Suite tools that are available with a graphical user interface (GUI). From Project Navigator, select **Help > Help Topics** to access the online Help.

Software Manuals

Detailed software manuals about the ISE Design Suite applications and command-line functions are included as part of the software installation. After you install the software, you can select the **Help > Software Manuals** command in Project Navigator to access the software manuals collection.

Note: If you do not already have Adobe Acrobat Reader installed, you must do so to view the software manuals.

A new documentation navigation page is now the default startup page in Xilinx Platform Studio (XPS). From the documentation tab you can browse to all Embedded Development Kit (EDK) documentation. From outside XPS, open the file `edk_documentation_locator.htm`, which is found at `$XILINX_EDK/doc`.

To locate the Software Manuals on the website:

1. Go to the Documentation Center, http://www.xilinx.com/support/documentation/index.htm
2. Click the **Design Tools** tab.
3. Click the Design Tool category, such as ISE, or click the **See All Design Tools Documentation** link.

User Tutorials

Tutorials can be found online at:

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

Appendix A

Third-Party Licenses

The Third-Party Licenses govern the use of certain third-party technology included in and/or distributed in connection with the Xilinx ISE® Design Suite software tools. Each license applies only to the applicable technology expressly governed by such license and not to any other technology.

To view the Third-Party Licenses details, see the Xilinx Third-Party Licenses Guide.