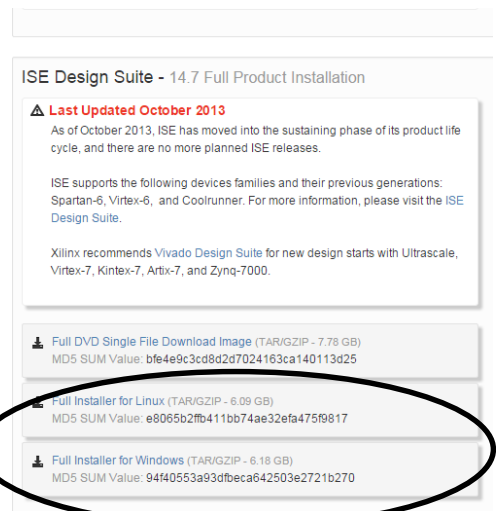
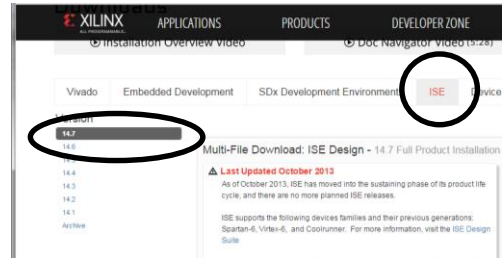


Xilinx ISE Webpack + Project Setup Instructions

1. Downloading

- The Xilinx tools are free for download from their website and can be installed on your Windows-based PC's. Go to the following URL:
<http://www.xilinx.com/support/download/index.htm>
- CLICK ON THE "ISE DESIGN TOOLS TAB"
- The current version of Xilinx ISE is 14.7
- Scroll down to the ISE Design Suite area FULL Installer for your desired OS (Windows or Linux) as shown below. **We will reference the Windows install in this document.**
- You will likely be prompted to login or create an account before you can download the tool. Create your account and supply the requested information.
- After the download is completed, unzip the downloaded file (Xilinx_ISE_DS_Win_13.2_O.61xd.0.0) using Winzip or 7-zip to a known directory (7-Zip is available at: <http://www.7-zip.org/>)



2. Installation and License Acquiring

2.1. Follow the guidelines below based on your OS:

Windows 7: In the same folder, right-click on xsetup.exe and select "Troubleshoot compatibility" and click "Try recommended settings". Windows XP (Service Pack 2) will be applied and click "Start the program ..." then "Next" at the end.

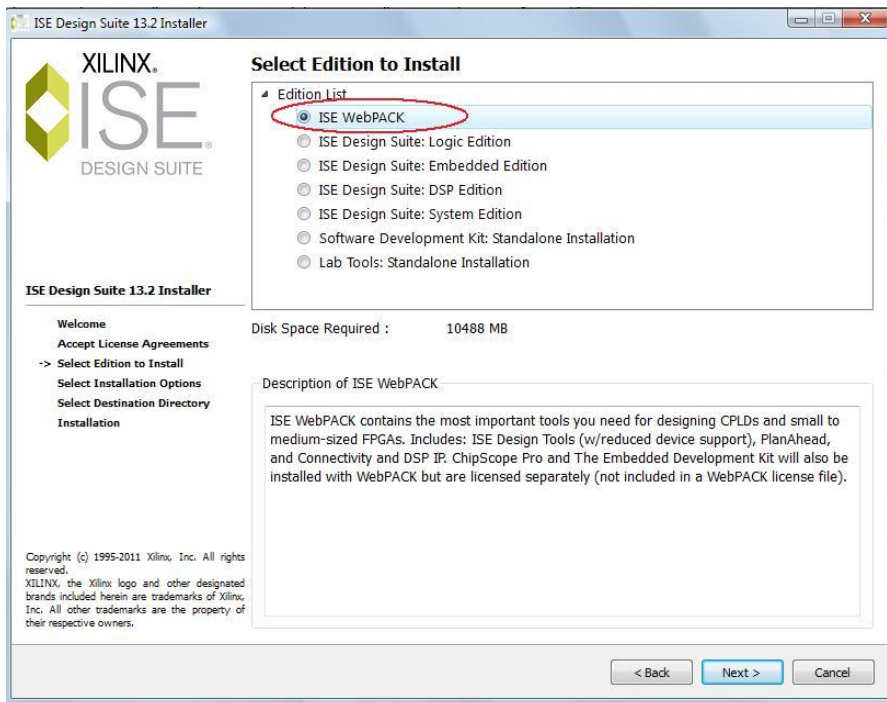
Windows 8 or 10: The Xilinx tools have a compatibility issue on Windows 8/10. However there is a fix. (<http://www.xilinx.com/support/answers/62380.html>)

1. Assuming you are using ISE 14.7 and have installed it to the default location
2. Open the following directory: C:\Xilinx\14.7\ISE_DS\ISE\lib\nt64
3. Find and rename libPortability.dll to libPortability.dll.orig
4. Make a copy of libPortabilityNOSH.dll (copy and paste it to the same directory) and rename it libPortability.dll
5. Copy libPortabilityNOSH.dll again, but this time navigate to C:\Xilinx\14.7\ISE_DS\common\lib\nt64 and paste it there
6. In C:\Xilinx\14.7\ISE_DS\common\lib\nt64 Find and rename libPortability.dll to libPortability.dll.orig
7. Rename libPortabilityNOSH.dll to libPortability.dll

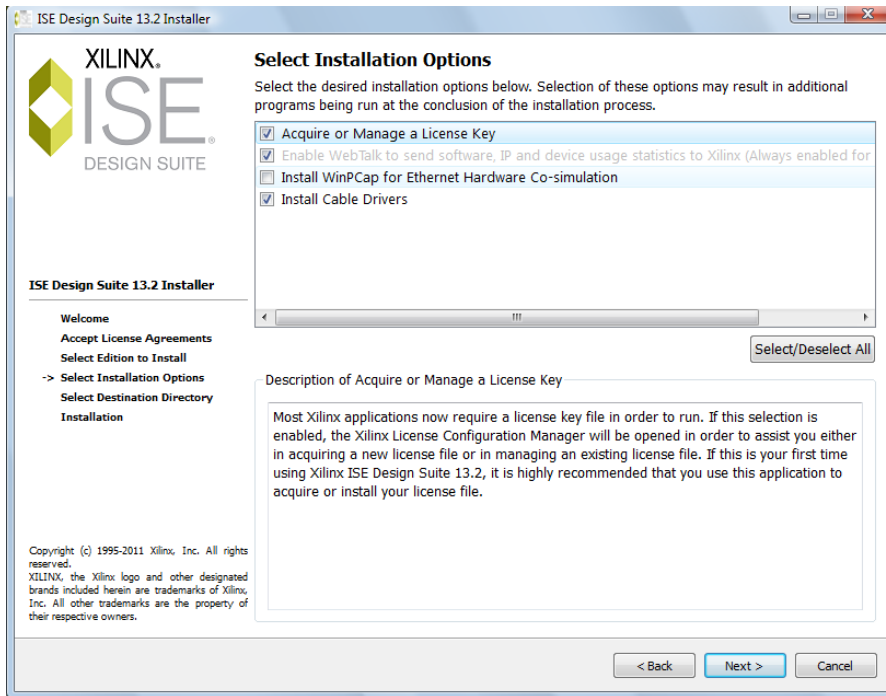
If you still encounter errors installing or using Xilinx, you are encouraged to use the tools on the PCs in SAL or the virtual desktop system provided by Viterbi IT.

Mac: Mac OS is NOT supported by Xilinx. If you install Parallel's or other Windows emulation software you can likely install Xilinx. Otherwise use the **Viterbi virtual desktop interface**.

- 2.2. Click "Next" on the Welcome screen.
- 2.3. Accept the next two license agreement screens.
- 2.4. Select "ISE WebPACK" to install and click "Next" on the next screen.

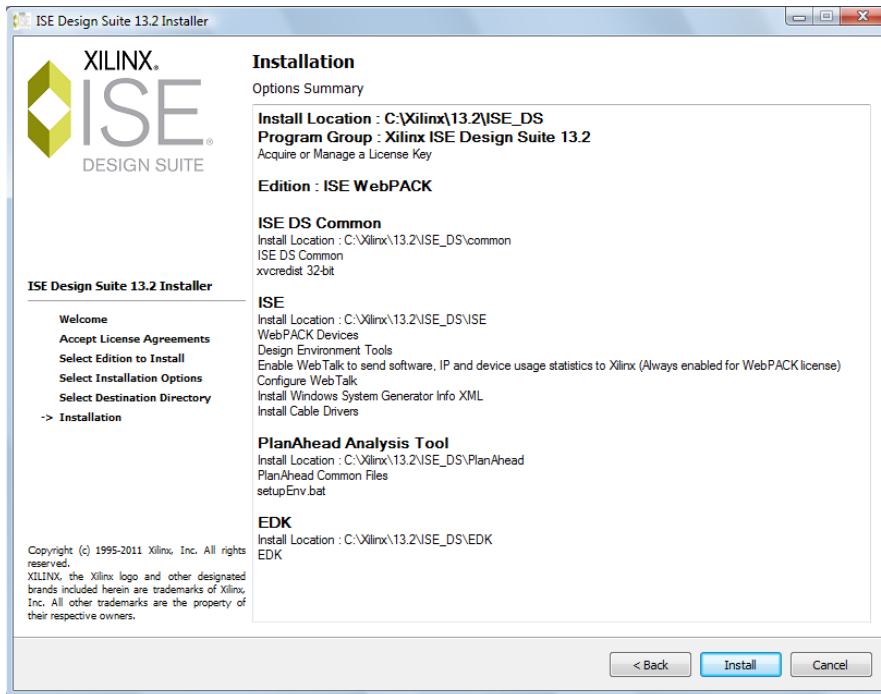


2.5. On the next screen, select the installation options as shown below and click “Next”.

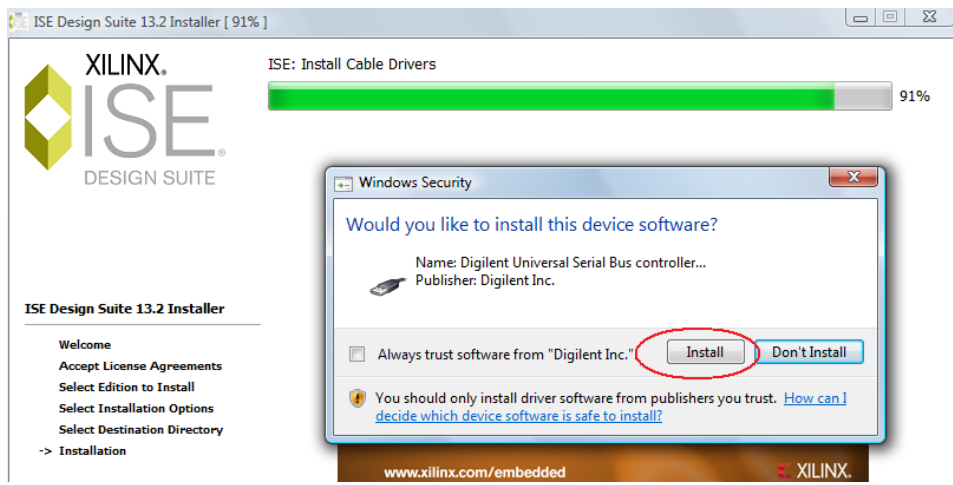


2.6. Accept the suggested destination directory and the program folder. Keep the “Import tool preferences from previous version and change project file association to ISE Design Suite 13.2” checked. Then click “Next”.

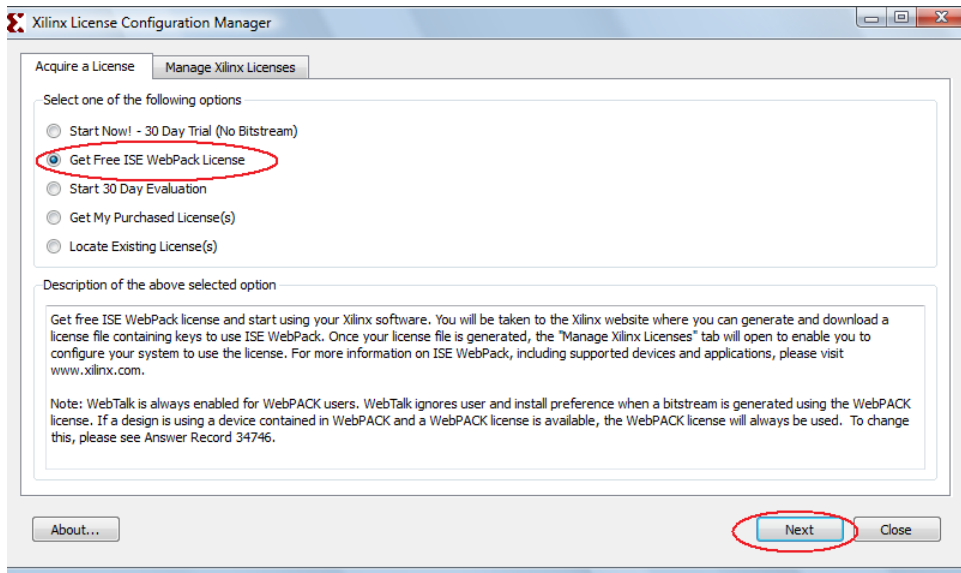
2.7. A summary window appears. Click “Install” to start the installation process.



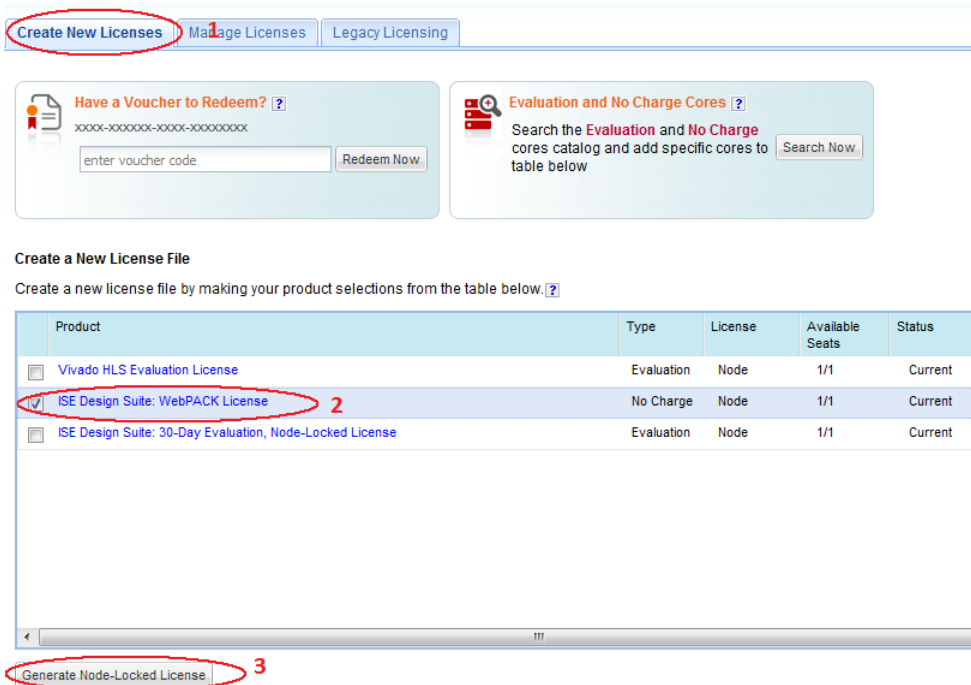
- 2.8. The installation appears to be stuck at “Install Cable Drivers” around 91%. A window pops up asking whether to install “Digilent Universal Serial Controller ..”, click “Install” and the process shall continue.



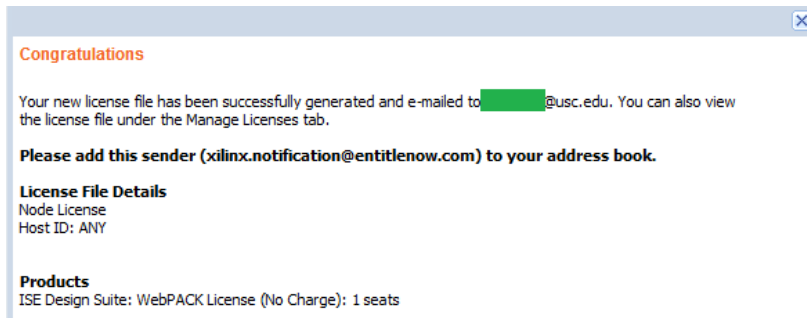
- 2.9. After the installation process completed, the **License Configuration Manager** window should pop up. (If not, you can invoke this manually by start → All Programs → Xilinx ISE Design Suite 13.2 → Accessories → Manage Xilinx Licenses). Under “Acquire a License” tab, select “**Get Free ISE WebPACK License**” and click “Next”.



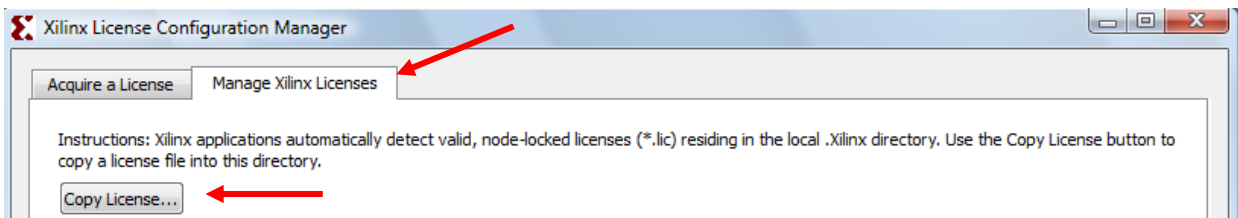
- 2.10. Click “**Connect Now**” on the next window showing your local system information.
- 2.11. Sign in to your Xilinx account in the internet browser. Under “Create New Licenses” select “ISE Design Suite: WebPACK License” and click “Generate Node-Locked License”.



- 2.12. In the next two “Generate Node License” screens, click “Next”.
- 2.13. A license file will be generated and sent to your registered email along with the instructions to install license in the email.



- 2.14. Follow their “Quick-Start License Installation Instructions”. In step 2: “Xilinx License Configuration Manager” is probably opened already (if not, go to All Programs → Xilinx ISE Design Suite 14.7→ Accessories → Manage Xilinx Licenses). Switch to “Manage Xilinx Licenses” tab shown below.



- 2.15. Click “OK” in the “License installation was successful” window.

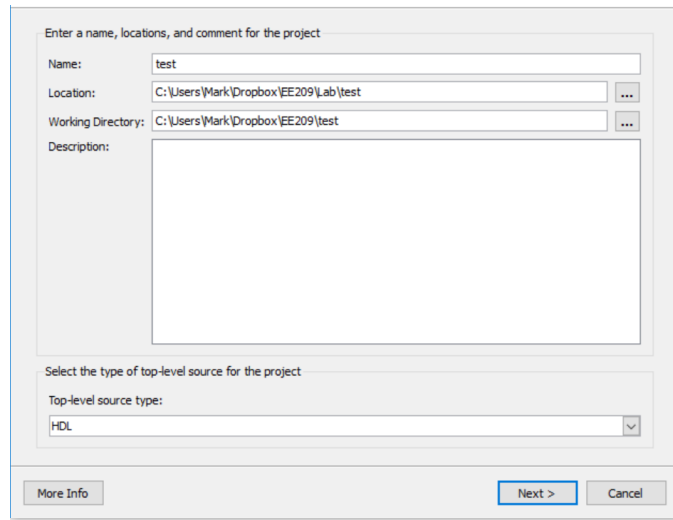
- 2.16. You should see WebPACK in the list of licenses in “Manage Xilinx Licenses” window. Click “Close” to complete this part. **The Xilinx ISE installation and license acquiring tasks are COMPLETE in this step!**

Feature	S/W or IP Core	Version Limit	Expiration Date	License Type	Count
PlanAhead	S/W	2013.09	Permanent	Nodelocked	Uncounted
V_WebPACK	S/W	2013.09	Permanent	Nodelocked	Uncounted
WebPACK	S/W	2013.09	Permanent	Nodelocked	Uncounted
Web_Package	S/W	2013.09	Permanent	Nodelocked	Uncounted

Xilinx Project Creation Settings

For most labs in this course, we will provide you a set of source schematics or Verilog files as well as simulation testbenches. You will need to create a Xilinx project and then import these files into the project. Below is a description of how to do this.

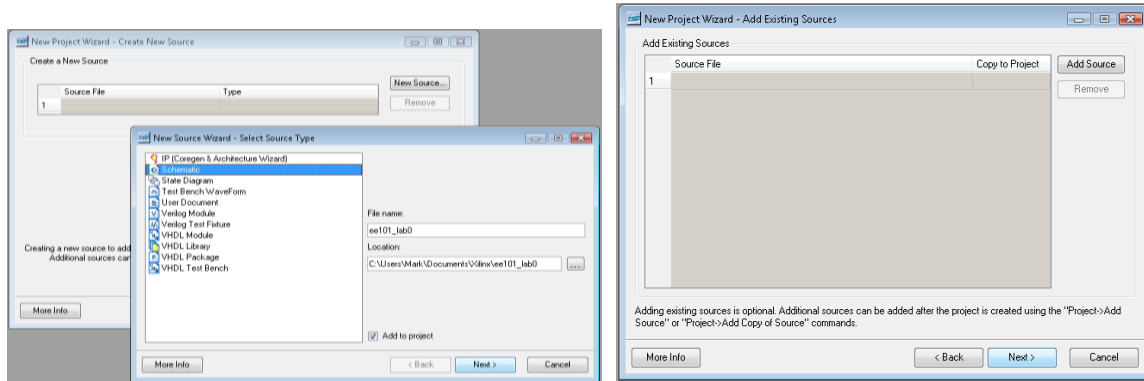
- Start Xilinx. Click Start..All Programs..Xilinx Design Tools..ISE Design Suite 14.7..XX-bit Project Navigator. To create a new project, click File..New Project to start the new project wizard.
- Select the desired folder under Project Location. Enter a Project Name which will create a subfolder under the Project Location with that name. Finally, for a Verilog based design, choose “HDL” under Top-Level Source Type. Click Next.



- In the “Device Properties” dialog box select the following values then click Next.

Family	Spartan 3E
Device	XC3S500E
Package	FG320
Speed	-4
Synthesis Tool	XST (VHDL/Verilog)
Simulator	ISim (VHDL/Verilog)
Preferred Language	Verilog

- d. Click Next...Then Finish.
- e. If this is the start of a new project you can create a new source file by choosing Project..New Source. If you will be adding source files provided to you (or that you've already created, wait until after the project has been fully created), click Project..Add Source or Add Copy of Source and find and select the desired source files. (In the file dialog box you can select multiple source files and add them all together).



From the “Project” menu, click “New Source” and walk through the dialog sequence or “Add Copy of Source” and select the files you’ve downloaded or created.