Installing Xilinx Vivado

Summary

During the course of the semester, it may be useful to install a copy of Xilinx' Vivado FPGA Programming software unto a personal computer. Doing so will allow one to create project files before lab, run simulations, complete lab exercises, and program the FPGA before lab. It is recommended in most prelabs for student to complete the bulk of the Digital Electronics code before the lab, and installing a copy of Vivado will allow for even more progress before the lab period.

1 Requirements (recommended)

Operating System:	Windows, Linux	Memory (RAM):	8 Gb (more is better)
Storage:	15.3 Gb Install		

2 Installing Vivado

2.1. Visit https://www.xilinx.com/support/download.html, then scroll down and select: '**Vivado HLx 2018.2: WebPACK and Editions - Windows Self-Extracting**'

2.2. Xilinx will ask for login information, sign up for a free educational account by using your @student.nmt.edu email address.

2.3. The next page after selecting the download and logging in will ask for personal information. Fill out the questionnaire with any relevant information and select 'Next' to continue to download.

2.4. Once downloaded, open the Xininx_Vivado_SDK. This will open an installation menu.

2.5. **NOTE:** The following instructions will install the same program that is installed unto the NMT EE Digital Lab computers. These instructions are for the Vivado WebPACK edition, and will install to about 15Gb.

2.6. First, after opening the installer, select 'Next', fill out your Xilinx Student login information in the next page, and continue by again selecting 'Next', agreeing to the Xilinx terms and conditions, and selecting 'Next' again.

2.7. Select to install 'Vivado HL WebPACK' edition. Select 'Next' to continue.

2.8. The next menu is where (if done correctly) the user will reduce the overall install size of Vivado from 32+ Gb to 15.3 Gb. Complete the following install options:

- From 'Design tools', **deselect** 'Software Development Kit (SDK)' and 'DocNav'

- From 'Devices', only **select** the 'Spartan-7' family, **deselecting** 'SOCs', the 'Artix-7' and 'Kintex-7' board families under '7 Series', 'UltraScale', and finally 'UltraScale+'

2.9. After the previous steps have been followed, the download and install sizes should be **3.6 Gb** and **15.3 Gb**, respectively.

2.10. Lastly, select the install location of Vivado, select 'Next' to review your choices, then download and install Vivado.

Congratulations! if successful, after the download and installation, you should be able to open Vivado and create projects, run simulations, and program your FPGA!