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## **Quartus Installation Instructions**

(Last Updated for Quartus v18.0)

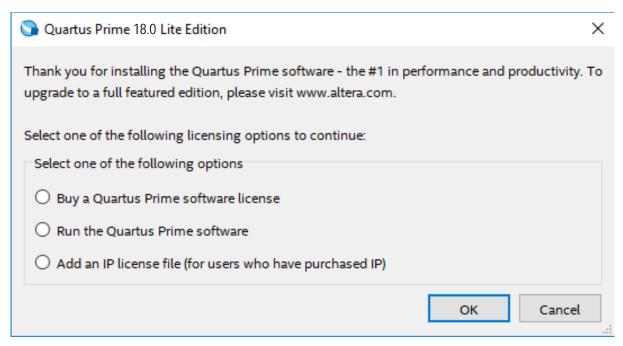
The student version of the Quartus software can be obtained directly from the Altera web site (www.altera.com). The process for successfully installing Quartus is performed in the following manner:

- 1. Go to http://dl.altera.com/?edition=lite. Note that you need the Quartus II **Prime Lite Edition**, v18.0, i.e., select the Lite edition and release 18.0.
- 2. If you are not already signed-in, you will eventually be asked to log in or to make an account. Select LOG IN at the top right of the page.
  - a) If creating a new account, after verifying your account repeat step 1. (If the download is blocked by your firewall or your browser settings, you will be taken back to the screen in step 2. Remove the block and repeat the previous step. I suggest that you "always allow pop-ups from this site.")
- 3. You only need to download Quartus Prime Lite Edition (Quartus Prime and ModelSim) and MAX II, MAX V, Cyclone V device support. You might also want to install the MAX 10 FPGA device support, since we may use that device in the next semester or two in 3701.
  - a) Select what you need by selecting Individual Files.
  - b) Select "Download Selected Files." If prompted to do so, allow the installation of the "Akamai DML3 Download Manager." The total download required files is about 4.28 GB. You may have to first download and install the installer. Depending on your connection speed, downloading these files may take anywhere from 5 minutes (which it took in my office) to an hour.
- 4. If the download is successful, close the download window and then go back to the Altera window. (This Altera window will now say something like "Download complete! ...")
- 5. After the Quartus software has finished downloading, run QuartusLiteSetup-18.0.0.614-windows.exe installation file to install the Quartus software. Note that the numbers after the 18 might change as new versions become available. (Do NOT run ModelSimSetup-18.0.0.614-windows.exe; this file will automatically run as part of the previous setup file.) I suggest that you use all the default responses. The default location of Quartus must **NOT** have any spaces. The installation may take **OVER AN HOUR** (although it took me less than 25 minutes).
- 6. De-select Launch USB Blaster II driver installation.
- 7. Select Finish.
- 8. Follow the instructions to install the device driver. Select Finish.
- 9. When a Quartus Prime 18.0 Lite Edition window appears (see the top of the next page), select the second option, i.e., Run the Quartus Prime software and then select OK.
- 10. Download one of the files below, depending on your operating system. These will configure Quartus to utilize the OOTB CPLD programmer to program your CPLD.
  - For 64-bit Windows computers, download jtag\_hw\_mbftdi\_blaster64.dll and then move or copy it to the folder C:\intelFPGA lite\18.0\guartus\bin64\.
  - For 32-bit Windows computers, download jtag\_hw\_mbftdi\_blasterXX.dll and then move or copy it to the folder C:\intelFPGA\_lite\18.0\quartus\??.
  - For Linux computers, download libjtag\_hw\_mbftdi-blaster.so.txt and then remove the .txt from the file name and copy it the folder ??.

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- 11. Download and install the FTDI USB <u>device driver</u> to allow your USB port to communicate over JTAG. The main driver page can be found here.
- 12. When the installation is affectively done, run the Quartus software. Either select your desktop icon Select the second option, i.e., Run the Quartus Prime software. You can then close Quartus.
- 13. Open Quartus Prime 18.0 Lite Edition, which should be on your desktop. The icon should look like the image to the right. If you used default settings, Quartus should also be in the Program Menu under Intel FPGA 18.0.0.614 Lite Edition | Quartus (Quartus Prime 18.0).



**Note for Mac computer users:** If you have a Mac (i.e., a Macintosh computer from Apple), you will need to install a windows virtual machine in order to install and run Quartus. We suggest that you install *Boot Camp* (free and the best); *Parallels* (not free) or possibly *VMware* (free for students) may also work. UF offers free copies of Windows 10 Software. We do <u>not</u> recommend *Virtual Box*. (Note: My best students use *Boot Camp*!) If you are having problems installing this software, the UF help desk (<u>www.helpdesk.ufl.edu</u> and 352-392-HELP [4357]); you can visit them at the HUB Mon-Thur from 7:30am-10pm, Fri from 7:30am-5:00, and Sat-Sun from noon-6:00pm.