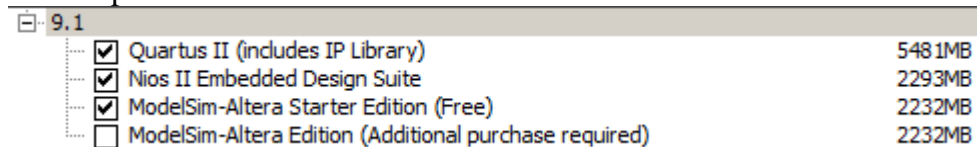Install Altera Design Suite

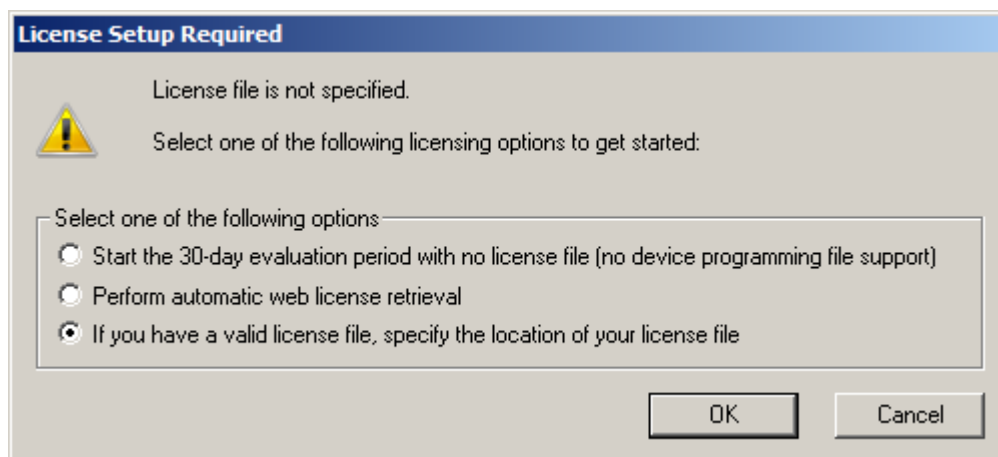# Goals

This document contains a tutorial on how to:

- Install Altera Complete Design Suite 9.1 software on you computer
- Install driver for USB blaster
- Setup license file path for ModelSim
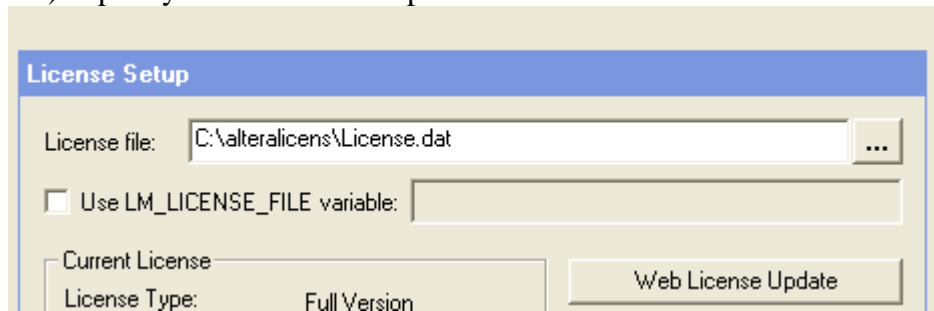
Software installation

1.) Log on to the IHA network, either on location or via VPN.
2.) Copy the *\\apps1\studapps\Altera Design Suite\alteralicens* folder to *c:\alteralicens*
3.) Chose *\\apps1\studapps\Altera Design Suite\installer\altera_installer.exe*
4.) Click on *Next* in the *Welcome* form.
5.) *Agree* to the terms of the license agreement and click on *Next*.
6.) Click on *Next* in the *Installation Directory* form.
7.) Click on *Next* in the *Select Software* form with the selection below. If you are low on HDD resources and you are a VDL-A student then you can exclusively select the Quartus II component.

```
□ 9.1
    ☑ Quartus II (includes IP Library)              5481MB
    ☑ Nios II Embedded Design Suite                 2293MB
    ☑ ModelSim-Altera Starter Edition (Free)        2232MB
    □ ModelSim-Altera Edition (Additional purchase required)   2232MB
```

8.) Click on *Next* in the *Select Features* form. If you are low on HDD resources and you are only using the DE2 board you can exclusively select the *Cyclone II* family.
9.) Click on *Next* in the *Installation Summary* form.
10.) Wait on the installation of the software to finish.
11.) Click on *OK* and then *FINISH* confirming the installation.
12.) The Quartus II Launches by itself (otherwise start Quartus II).
13.) **IMPORTANT:** Make sure you select Quatus II in *"Look & Feel"* and click on *OK*.
14.) Quartus II asks for license setup select the radio button below and click on *OK*.

License Setup Required

License file is not specified.

Select one of the following licensing options to get started:

Select one of the following options
- ○ Start the 30-day evaluation period with no license file (no device programming file support)
- ○ Perform automatic web license retrieval
- ● If you have a valid license file, specify the location of your license file

[OK]   [Cancel]

15.) Specify the filename and path of the license file and click on OK.

16.) Close the form and click on *No* if you don't want to make a new project.
17.) The installation is done.
18.) **Remember that the software is only working when you are on the IHA VPN network due to the license server.**

Install USB blaster driver

Do **not** make you OS search for an appropriate drive on the internet – this will fail. You will have to manually specify the following location *c:\altera\91\quartus\drivers\usb-blaster* of the driver when attaching the DE2 board. Use the USB connector marked with *Blaster* on the DE2 board. A Windows XP tutorial is in the document: **tut_initialDE2.pdf** (step 3), placed on the campusnet.

Hint: Go to the Device Manager and click on the USB-Blaster (probably under Other devices) and click on the Update Driver button. Browse the computer for driver software and specify the path of the driver above and click on ok. These steps can vary depending of the operating system.

Setup license file for ModelSim

Note: If you are a VDL-A student you can skip this.

This tutorial is for the Windows XP operating system. Please refer to the user manual on how to change the environment variables in you operating system - or simply use google.

1.) Open *Control Panel => System*
2.) Select the *Advanced tab*
3.) Click on the *Environment Variables* button
4.) Click on the *New* button on in the System variables
5.) Write **LM_LICENSE_FILE** in the *Variable name* field
6.) Write **C:\alteralicens\License.dat** in the *Variable value* field
7.) Test that ModelSim starts without asking for a valid license.