ModelSim Tutorial

Starting the tool

- *Start → All Programs → ModelSim XE II 5.7c → Licensing Wizard*
  - No changes need to be made here, but this must be run to configure the license.
  - When the program starts click *Continue*, then *OK*, then *Yes* and finally *OK.*
- *Start → All Programs → ModelSim XE II 5.7c → ModelSim*

Using the tool

- Click on *File → New Project* to create a new project

- You will now be asked to select the new project's location
  - This should be a location on the Z drive

- Then choose a name for your project. When you are finished, click *OK*.

- The next window you can *Close*.

- You will now be in the main ModelSim window.

- To add a source file go to *File → New → Source → Verilog*. Type in your verilog code and then save the file as a *.v file. When asked if you would like to "add the file to the current project," select *Yes*. You will then see the file added to your work space.

- This last step can be repeated a number of times depending on how you would like to break up your code into different files. This must also be done for your testbench verilog code.

- Once all your verilog code is in the work space compile it using *Compile → Compile All*.

- Now to simulate click Simulate → Simulate. When the window pops up, open up "work" (the default library) and select your testbench file and click *OK*. This will move you from the *Project* tab to the *sim* tab in the bottom left corner.

- To see what is happening in the simulation, select *View → Signals* and *View → Waveform*. In the Signals window select *Add → Wave → Signals* in Design. This will place signals in your wave window.

- In the wave window click the icon with the page and the down arrow (Run) to advance the simulation one step. You can also advance the simulation from the prompt in the main window by typing "*run*".

- If you change the source code after running the simulation, you must recompile (Compile → Compile All) and then reload the design (Simulate →Simulate and select your testbench to load from the work directory)