

ModelSim PE Student Edition testing at USC (EE101/EE201L/EE457/EE560)

1 Before you start:

- 1.1** We assume that you have installed ModelSim PE Student Edition on your computer already. We also assume that you obtained the license through email and place the license file in the stated directory already.

2 Download and save the test design files on your PC

- 2.1** Create the following directory (if you have not done so before):

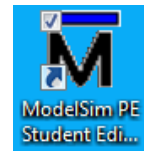
`C:\ModelSim_projects`

- 2.2** You are being given a **zip file** `ee201L_Middle_Finder.zip`.

Download the zip files from the webpage specified separately into the directory `C:\ModelSim_projects` on your PC and extract to form a directory `C:\ModelSim_projects\ee201L_Middle_Finder`.

3 Testing the ModelSim PE installation including creating a new project

- 3.1** Invoke ModelSim PE either by double-clicking the icon added to your desktop or by

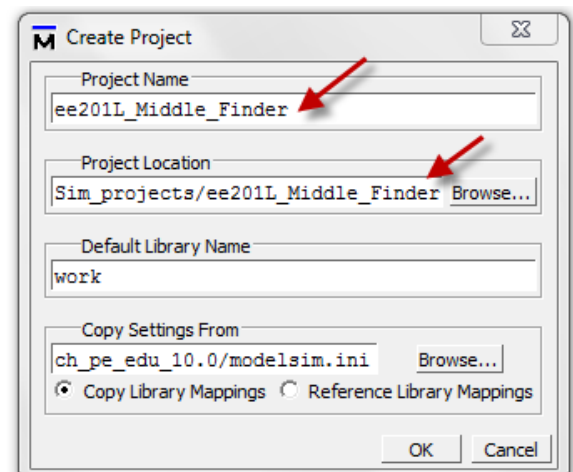


`Start => All Programs => ModelSim PE Student Edition 10.0 => ModelSim.`

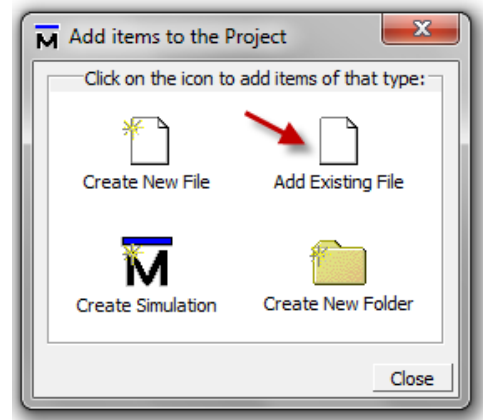
- 3.2** In the welcome to ModelSim dialog box click on **Jumpstart**.
Click on **Create Project**.



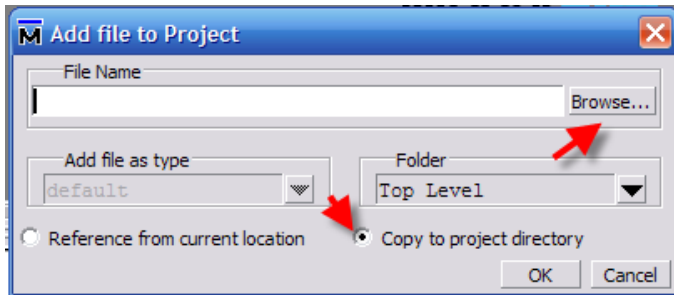
- 3.3** Choose suitable project location and project name. Type-in the **project name**, say `ee201L_Middle_Finder` (or something appropriate for your project), **project location** as `C:/ModelSim_projects/ee201L_Middle_Finder`. Leave the **Default Library Name** as `work` (as chosen by the tool). Click OK. Note that, though the tool does not require it, we are naming our project as well as the folder holding the project files as `ee201L_Middle_Finder`.



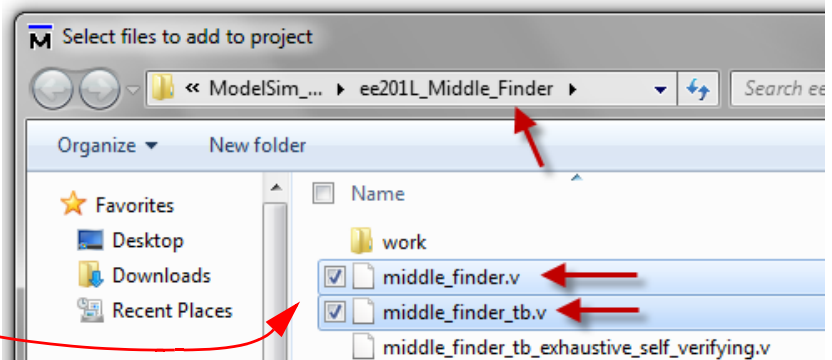
3.4 You will see the *Add items to the Project* dialog box . This box allows you to create a new hdl file or add an existing file. We suggest that you **close** this box as we intend to show another way to add existing files.



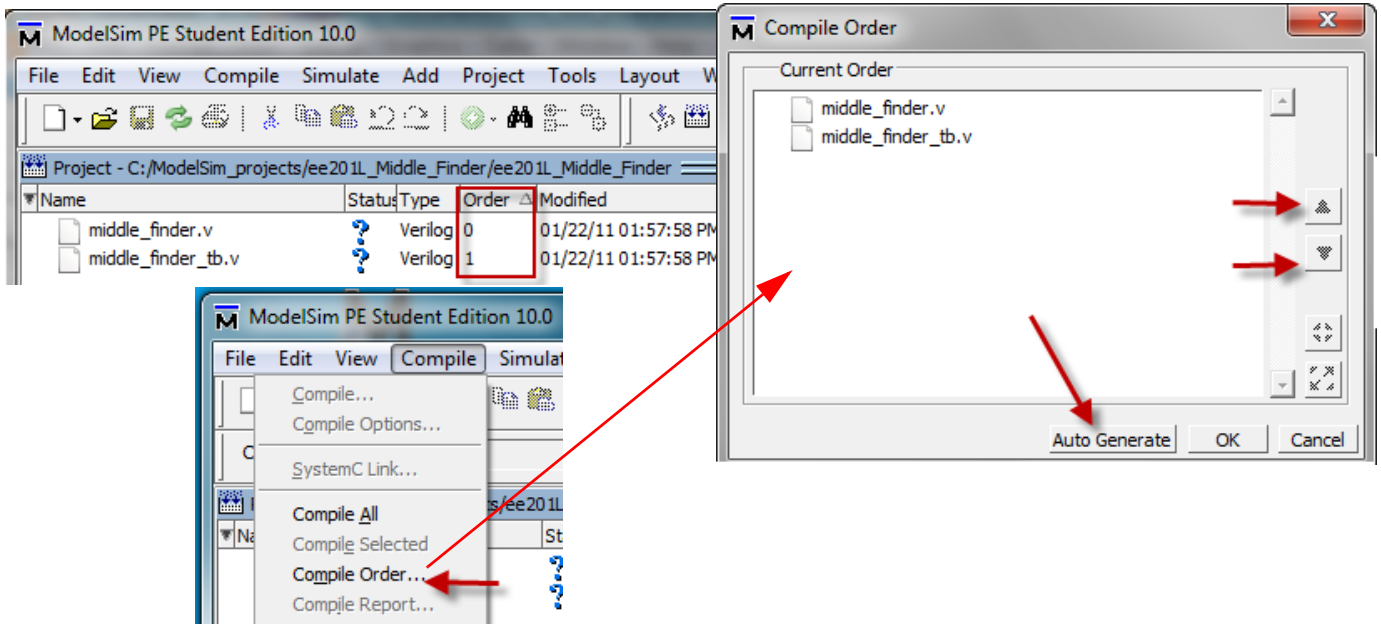
3.5 Another way to add existing files to a project is to use **Project => Add to Project => Existing file.**
Add the two files.



Note that you can select multiple files simultaneously.

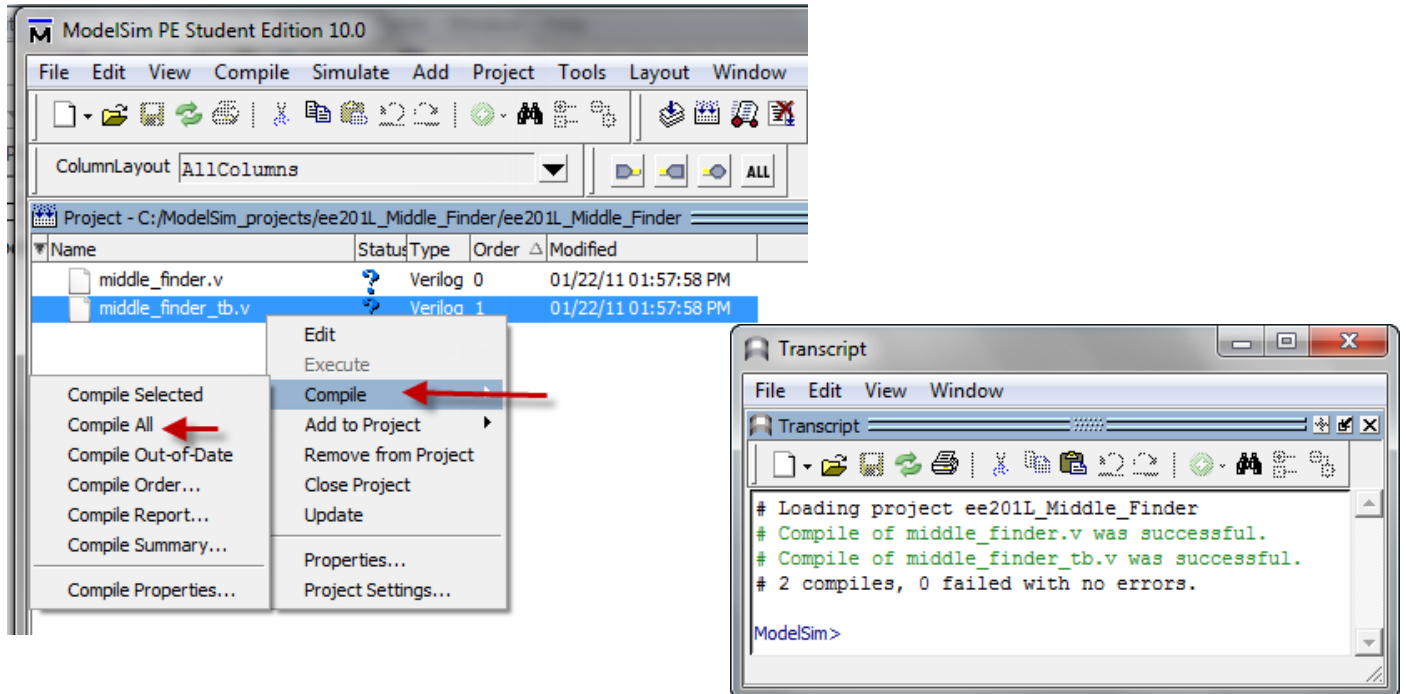


3.6 Notice that the compile order is right here but could be wrong sometimes.



You can change the compile order manually by moving the files up and down or press Auto Generate OK

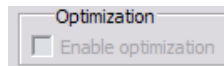
3.7 After changing the compile order, you can compile all. Of course you can always compile one file at a time in the order of your choice and do not have to care about the compile order.



3.8 Now you can start simulating. Select the testbench middle_finder_tb and click OK. .



Make sure that the optimization is not enabled.

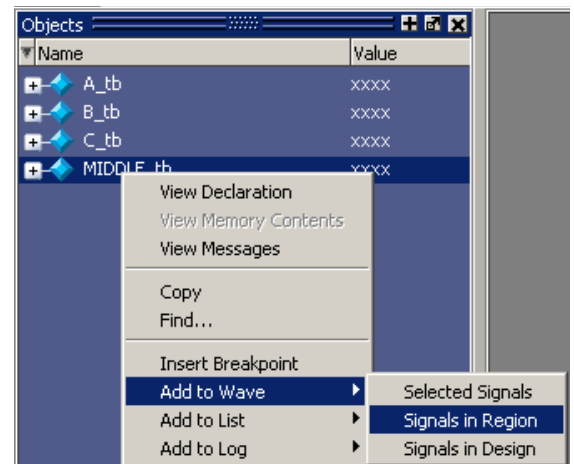


3.9 Create a waveform with the "Signals in Region".

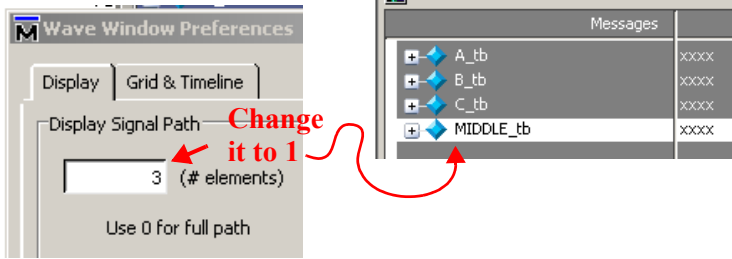
3.10



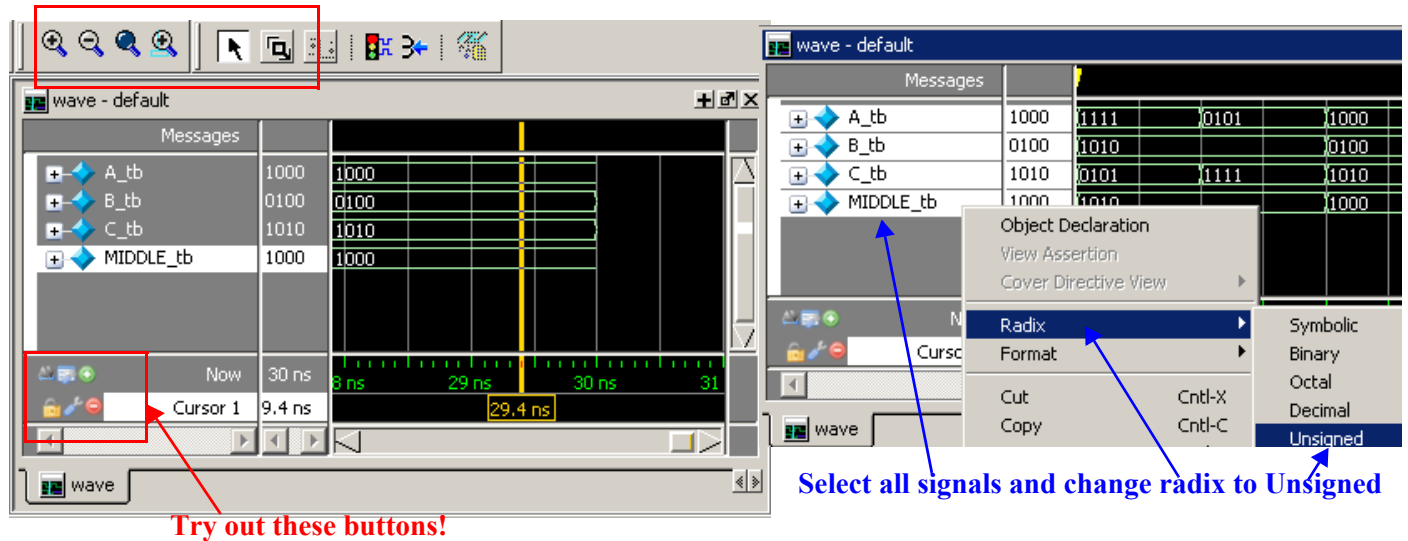
Can change path name Change Radix Dock Out



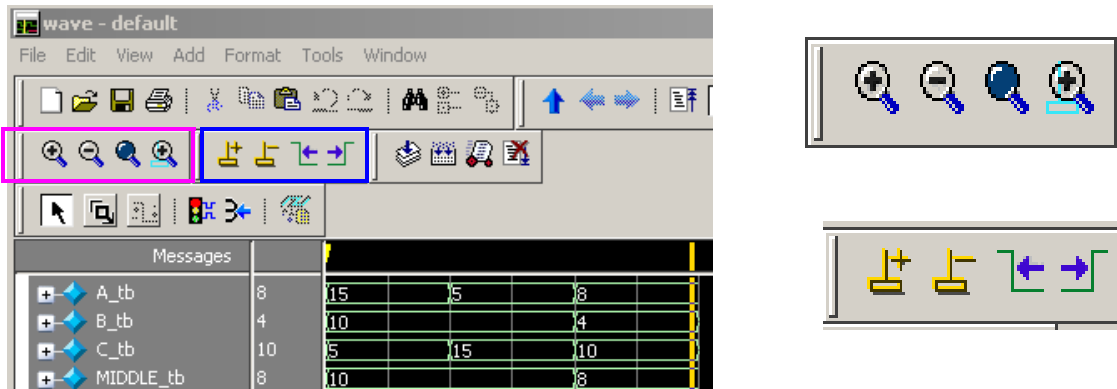
Wave => Wave Preferences



3.11 Run the simulation for say 30ns. run 30ns |V\$IM 4> run 30ns



3.12 Dock out the waveform window and try to use a few more buttons.



3.13 Elaborate documentation is available.

3.14 You finished testing your ModelSim PE installation! Now it is time to celebrate!!!!

