Organization of Digital Computer Lab EECS112L/CSE 132L

Assignment 1 Working with CAD tools

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1 What I've learned

1.1 QuestaSim

- Questasim can only be used on zuma or crystalcove Unix servers
- How to setup a project that uses Questasim
- Install Questasim for my use on the server for the project
- Compile the VHDL(.vhd) design files and the System Verilog(.sv) testbench files
- Optimize the VHDL design
- Simulate the design
- View the waveform

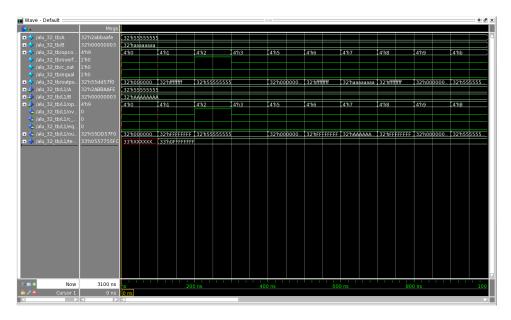
1.2 Cadence

- Cadence can only be used on malibu or vivian Unix servers
- Enable Cadence for use on my account
- How to setup a project that uses Cadence
- Compile the VHDL(.vhd) design files and the System Verilog(.sv) testbench files
- Elaborate the VHDL design
- Simulate the design
- View the waveform

2 MentorGraphics QuestaSim toolset

2.1 Simulation waveform

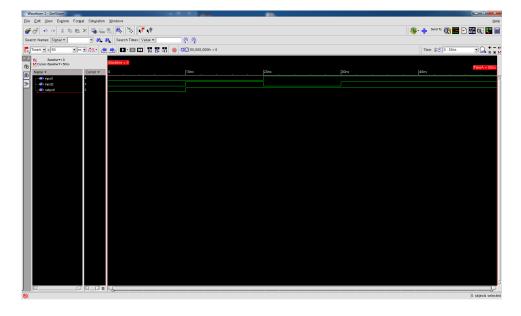
Simulation Waveform is as follows:



3 Cadence Incisive toolset

3.1 Simulation waveform

Simulation Waveform is as follows:



4 Conclusion

I would prefer to use MentorGraphics QuestaSim toolset for the 112L course and because I found the compiling and optimization of the code to be easier and the display of the waveform more intuitive.