

ECE 3401 Digital Systems Design – Spring 2025

PA0

Create a folder named ECE3401 where you want your PA implementations to be stored. Inside the folder create a folder PA0.

1. Download Makefile, lab0.vhd, test0.vhd and move it inside PA0 folder
2. Open the terminal
3. Your current directory should be the folder containing the *.vhd files.
4. Run the “make” command to generate the waveform
 - a. See the output waveform running the following command.
“gtkwave pa0.vcd”
 - b. Alternatively, you can observe the testbench inputs and output on command line
test0.vhd:79:17:@60ns:(report note): A: 0
test0.vhd:80:17:@60ns:(report note): B: 0
test0.vhd:81:17:@60ns:(report note): CIN: 1
test0.vhd:82:17:@60ns:(report note): SUM: '1'
test0.vhd:83:17:@60ns:(report note): COUT: '0'
test0.vhd:84:17:@60ns:(report note): -----
and so on...

Submit the waveform image with A, B, CIN, SUM and COUT signals from 0 to 500ns