Lab0 Report

Student Name: Junfei Wang

Student ID:33006896

(1)

junfeiwang@vlsicad2:~$pwd
/home/ece658_2021/junfeiwang
junfeiwang@vlsicad2:~$which hspice
/usr/synopsys/hspice/hspice/bin/hspice
junfeiwang@vlsicad2:~$which cscope
/opt/Synopsys/CosmosScope/F-2011.09/ai_bin/cscope
junfeiwang@vlsicad2:~$which dc_shell
/usr/synopsys/E-2010.12-SP5-2/bin/dc_shell
junfeiwang@vlsicad2:~$which virtuoso
/opt/cadence/installs/ic/tools/dfII/bin/virtuoso
junfeiwang@vlsicad2:~$which pt_shell
/usr/synopsys/primetime_install/F-2011.12/bin/pt_shell
junfeiwang@vlsicad2:~$which icc_shell
/usr/synopsys/L-2016.03-SP5-2-new/bin/icc_shell
junfeiwang@vlsicad2:~$which vsim
/opt/mentor/modelsim/modeltech/bin/vsim

(2)

I use three MEASURE statements to measure the delay of time domain. ALL triggers are V(n1) and targets are V(n2).

Pasting:

```
* Measure delay from v(n1) to v(n2)
.MEASURE TRAN td1 TRIG=v(n1) VAL=0.1 RISE=1 TARG=v(n2) VAL=0.1 RISE = 1
.MEASURE TRAN td2 TRIG=v(n1) VAL=0.5 RISE=1 TARG=v(n2) VAL=0.5 RISE = 1
.MEASURE TRAN td3 TRIG=v(n1) VAL=0.9 RISE=1 TARG=v(n2) VAL=0.9 RISE = 1
.END
```

The result:

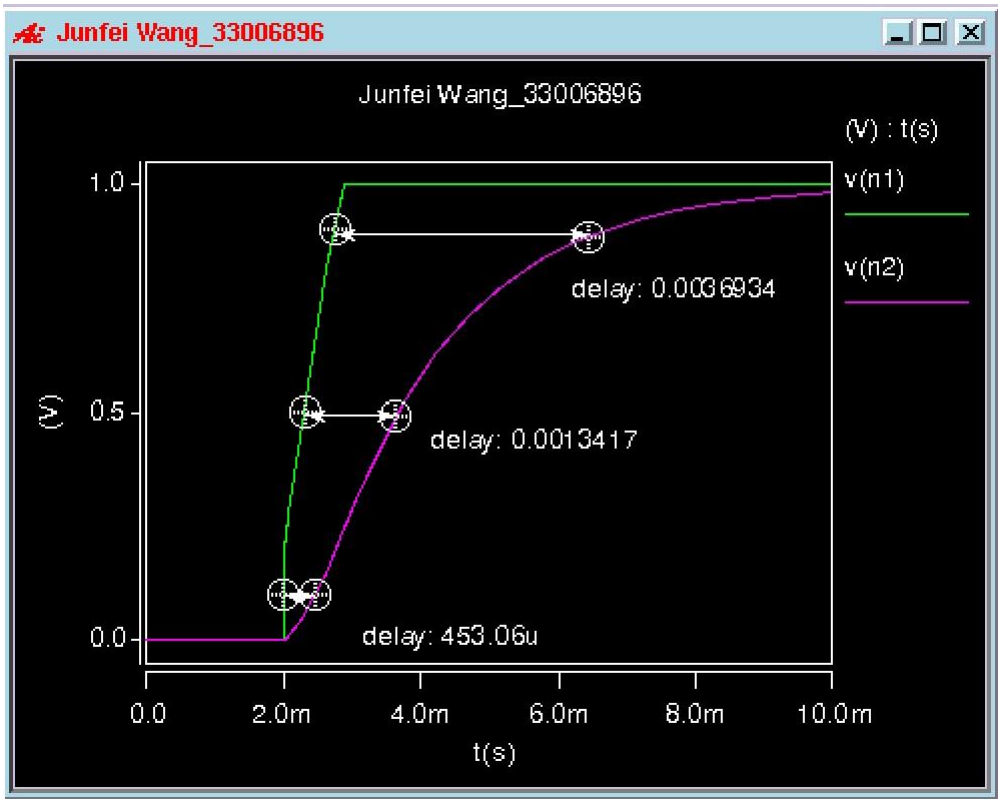
****** transient analysis tnom= 25.000 temp= 25.000 *****

td1= 4.5918E-04 targ= 2.4597E-03 trig= 2.0005E-03

td2= 1.3713E-03 targ= 3.6723E-03 trig= 2.3010E-03

td3= 3.9544E-03 targ= 6.7024E-03 trig= 2.7480E-03

(3)



Obviously, the hspice and cscope results are not consistent with each other, but I do not know why this happen. Theoretically, they both should be consistent.

(4)

The difference between cscope and cscope& is when using cscope, can not continue typing command in unix terminal unless closing cscope, but cscope& can do this well.