

EE477L Lab3 part1

Tong Jia

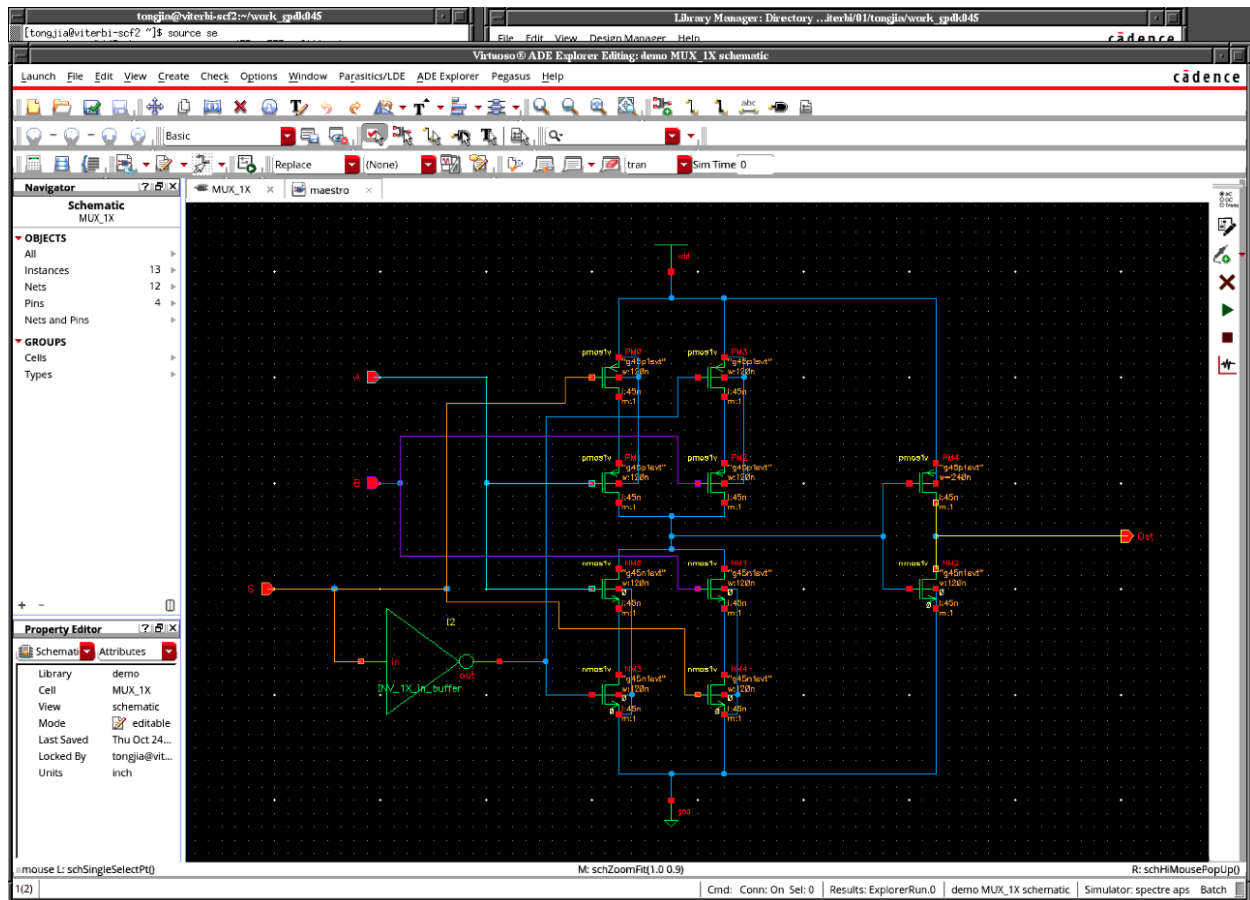
4035791621

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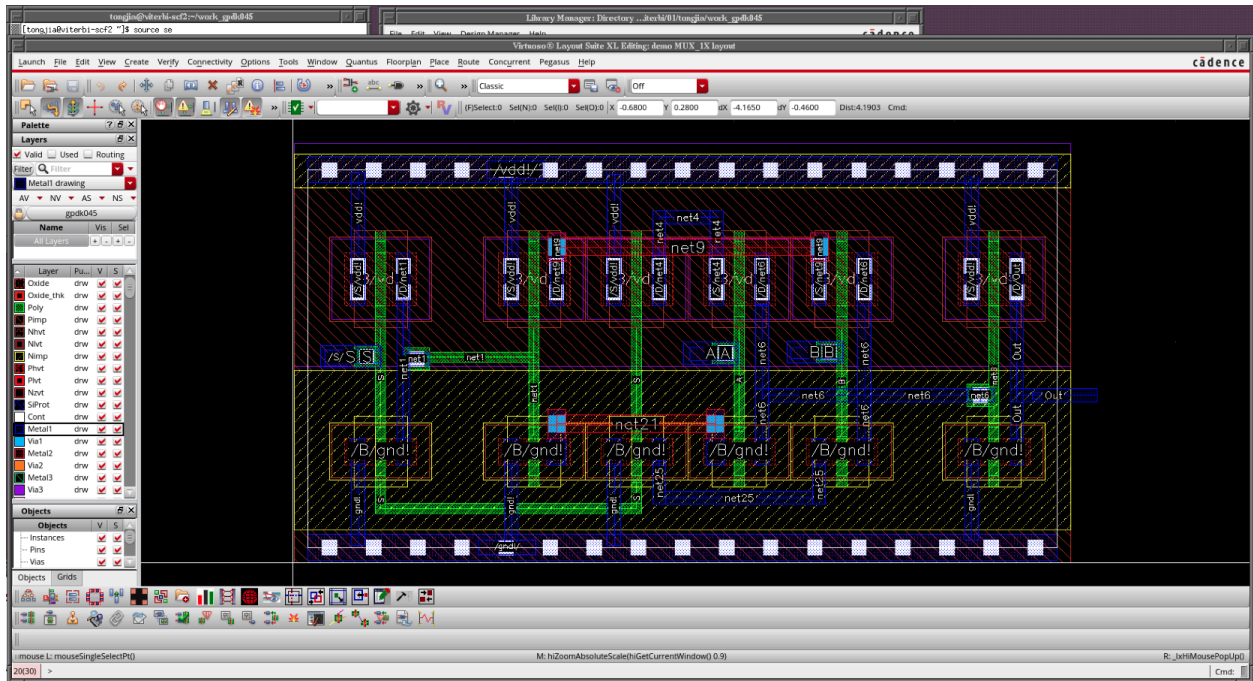
For All MUX below, Use a k-ratio of 2, VDD = 1V, rise/fall transition time = 10ps

MUX_1X:

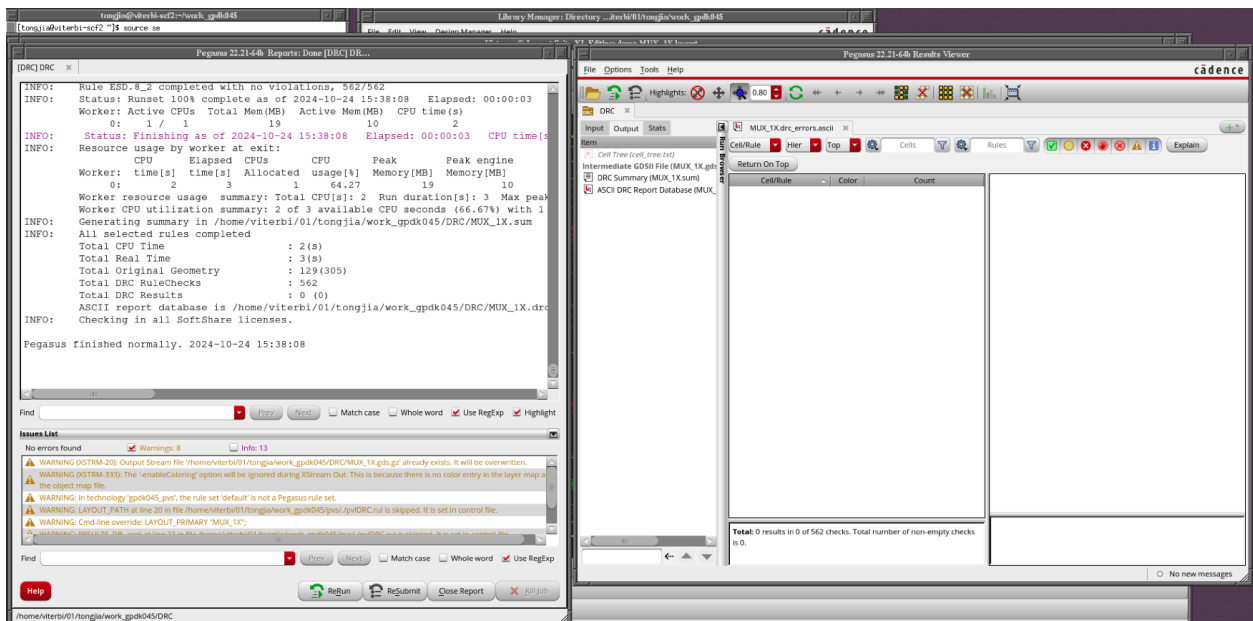
Schematic:



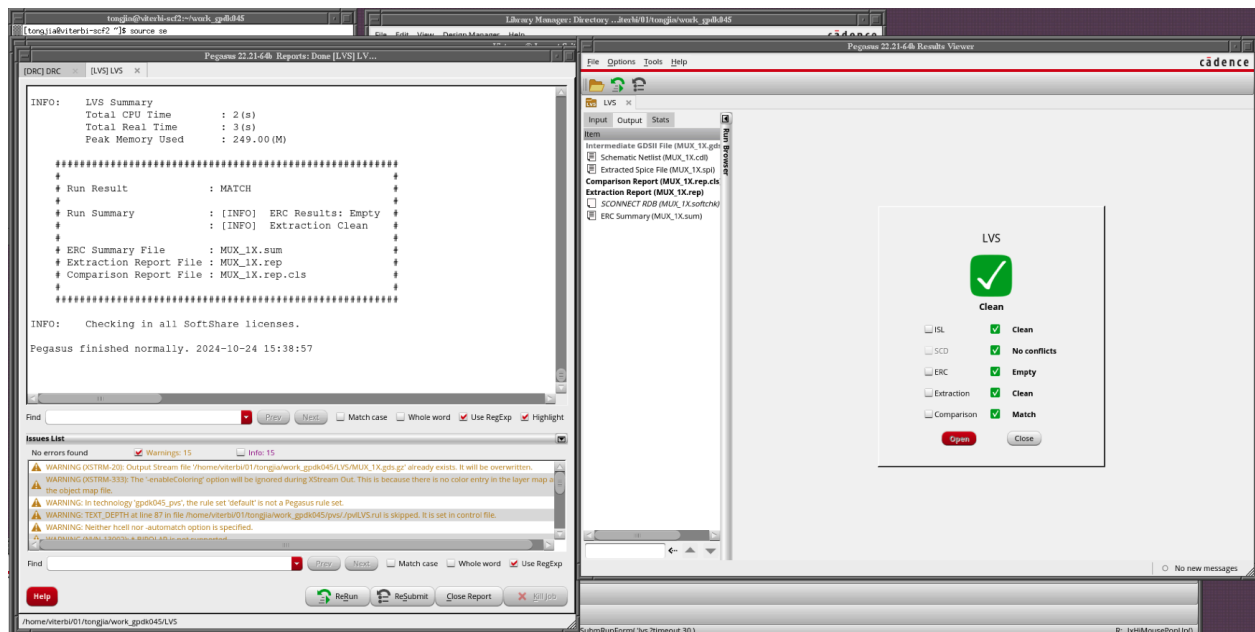
Layout:



DRC :

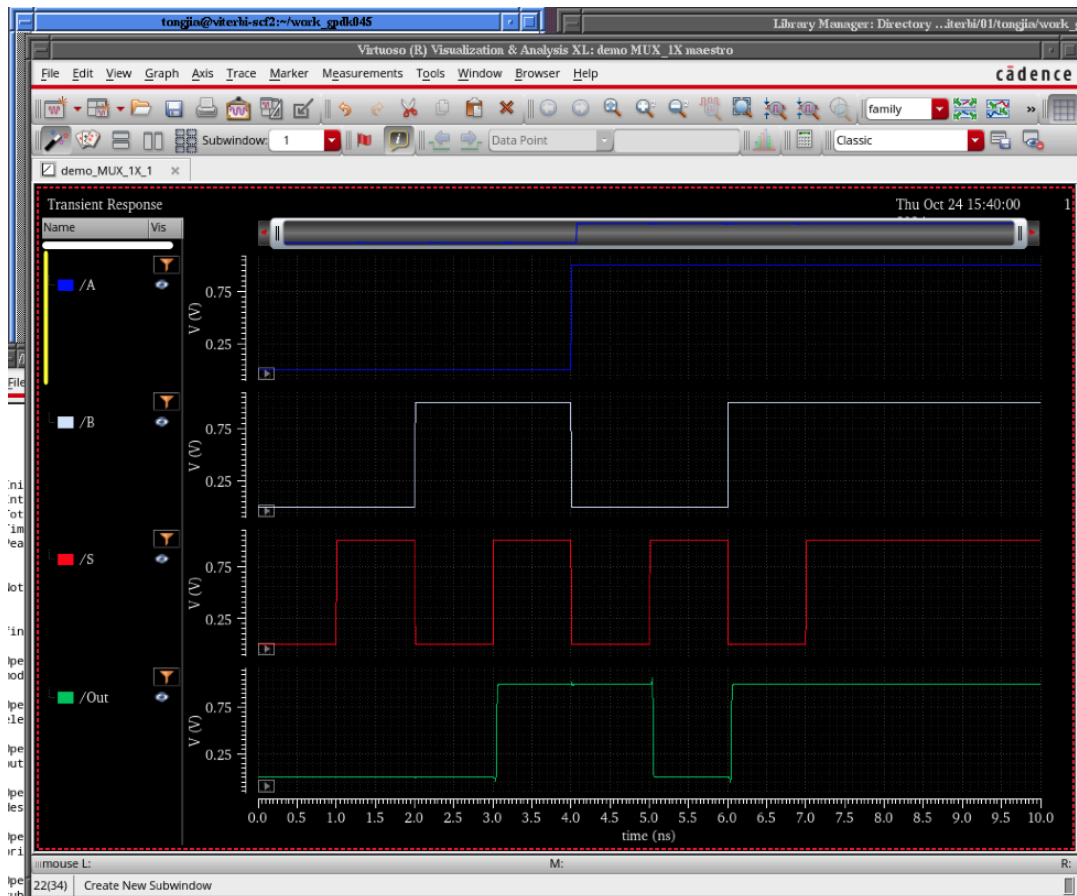


LVS :



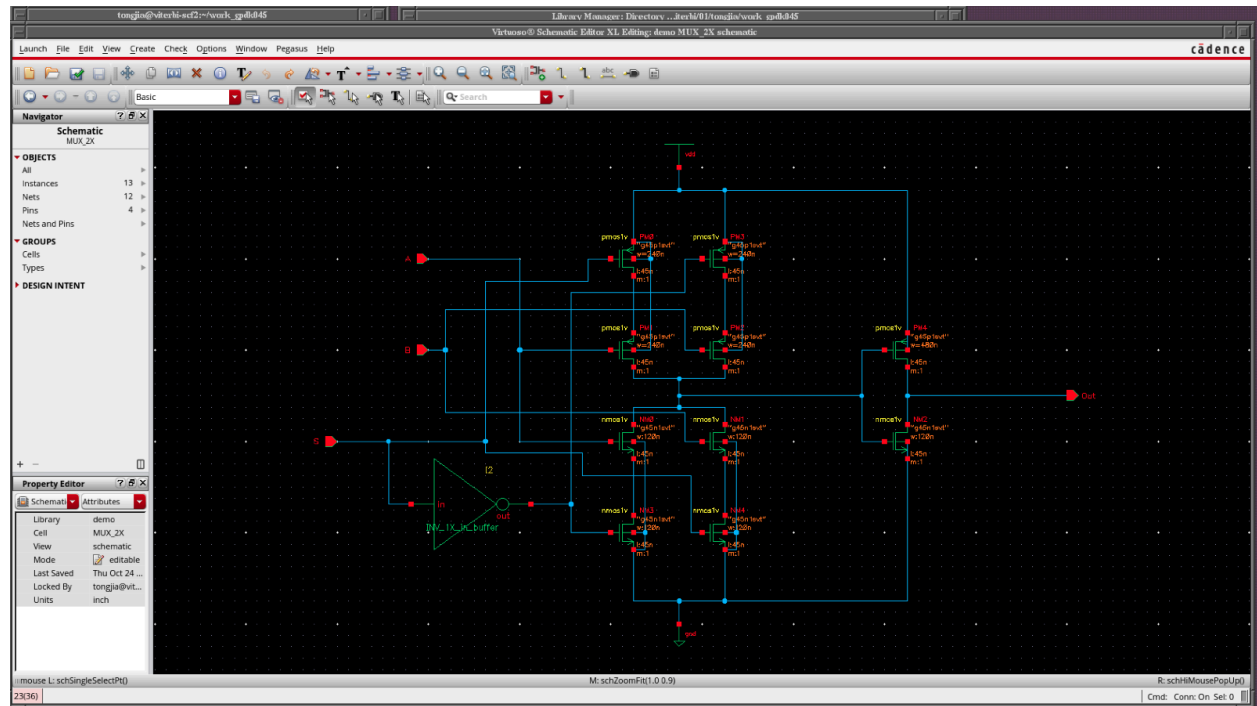
Functionality verification:

(A = 00001111, B = 00110011, S = 01010101, which contains all the possible input patterns)

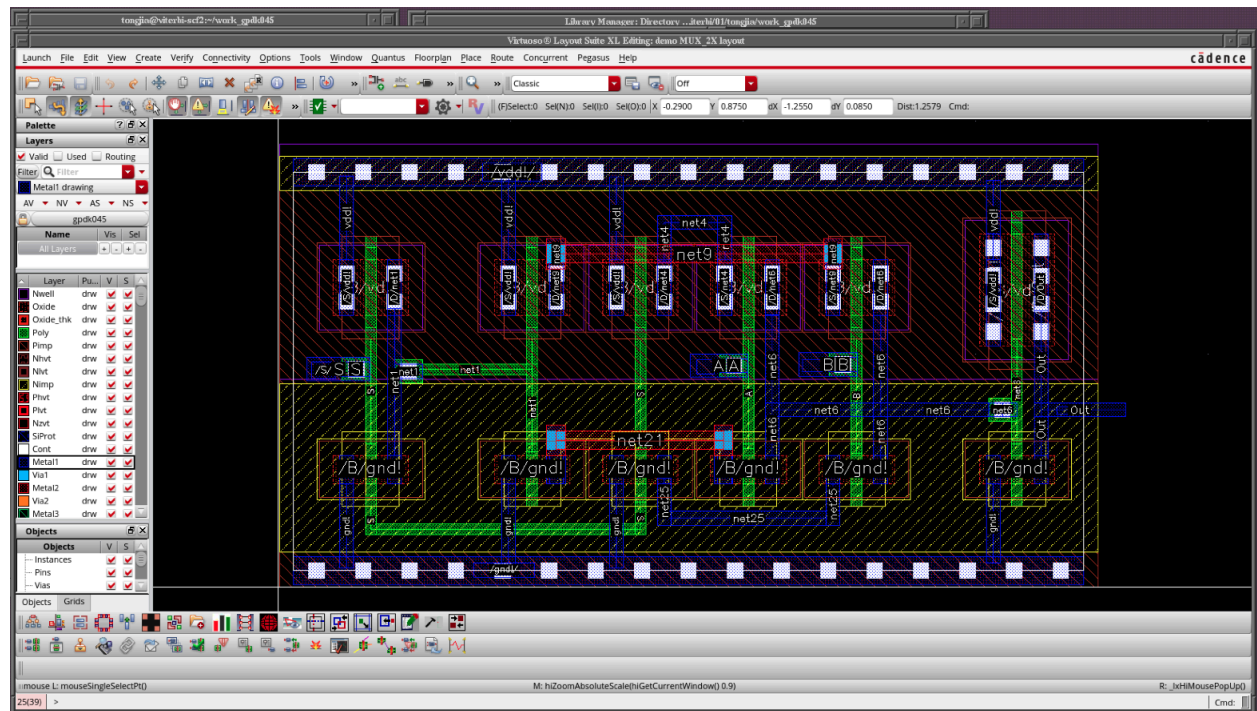


MUX_2X:

Schematic:



Layout:



DRC:

Pegasus 22.21.4-6b Reports: Done [DRC] DR...

INFO: Rule ESO-8.2 completed with no violations, 562/562
INFO: Status: Runset 100% complete as of 2024-10-24 15:49:29 Elapsed: 00:00:04
Worker: Active CPUs Total Mem(MB) Active Mem(MB) CPU time(s)
0: 1 / 1 19 10 1
INFO: Status: Finishing as of 2024-10-24 15:49:29 Elapsed: 00:00:04 CPU time(s)
INFO: Resource usage by worker at exit:
CPU Elapsed CPUs CPU Peak
Worker: time(s) time(s) Allocated usage(s) Memory(MB) Memory(MB)
0: 1 4 1 48.91 19 10
Worker resource usage summary: Total CPU[s]: 1 Run duration[s]: 4 Max peak
Worker CPU utilization summary: 1 of 4 available CPU seconds (25.00%) with 1
Generating summary in /home/viterbi/01/tongjia/work_gpd045/DRC/MUX_2X.sum
INFO: All selected rules completed
Total CPU Time : 2(s)
Total Real Time : 4(s)
Total Original Geometry : 150(309)
Total DRC RuleChecks : 562
Total DRC Results : 0 (0)
ASCII report database is /home/viterbi/01/tongjia/work_gpd045/DRC/MUX_2X.drc
INFO: Checking in all SortShare licenses.
Pegasus finished normally. 2024-10-24 15:49:29

Issues List
No errors found Warnings: 8 Info: 14
WARNING (DSTRM-20): Output Stream file "/home/viterbi/01/tongjia/work_gpd045/DRC/MUX_2X.gds.gr" already exists. It will be overwritten.
WARNING (DSTRM-333): The "enableColoring" option will be ignored during XStream Out. This is because there is no color entry in the layer map or the object map file.
WARNING: In technology "gpd045_pvr", the rule set "default" is not a Pegasus rule set.
WARNING: LAYOUT_PATH at line 20 in file "/home/viterbi/01/tongjia/work_gpd045/pvr/pvldrcrul" is skipped. It is set in control file.
WARNING: Cmd-line override LAYOUT_PRIMARY "MUX_2X";
WARNING: Neither "fcell" nor "automatch" option is specified.

Find

Help

Pegasus 22.21.4-6b Results Viewer

File Options Tools Help

DRC

Item
Intermediate GDSII File (MUX_2X.gds)
Intermediate Netlist (MUX_2X.cd)
DRC Summary (MUX_2X.sum)
ASCII DRC Report Database (MUX_2X.drc)

Cell/Rule Color Count

Total: 0 results in 0 of 562 checks. Total number of non-empty checks is 0.

No new messages

LVS:

Pegasus 22.21.4-6b Reports: Done [LVS] LV...

INFO: LVS Summary
Total CPU Time : 2(s)
Total Real Time : 4(s)
Peak Memory Used : 249.00 (M)

Run Result : MATCH
Run Summary : [INFO] ERC Results: Empty
: [INFO] Extraction Clean

ERC Summary File : MUX_2X.sum
Extraction Report File : MUX_2X.rep
Comparison Report File : MUX_2X.rep.cls

#####

INFO: Checking in all SortShare licenses.
Pegasus finished normally. 2024-10-24 15:50:06

Issues List
No errors found Warnings: 15 Info: 16
WARNING (DSTRM-20): Output Stream file "/home/viterbi/01/tongjia/work_gpd045/LVS/MUX_2X.gds.gr" already exists. It will be overwritten.
WARNING (DSTRM-333): The "enableColoring" option will be ignored during XStream Out. This is because there is no color entry in the layer map or the object map file.
WARNING: In technology "gpd045_pvr", the rule set "default" is not a Pegasus rule set.
WARNING: TEXT_DEPTH at line 87 in file "/home/viterbi/01/tongjia/work_gpd045/pvr/pvllvsrul" is skipped. It is set in control file.
WARNING: Neither "fcell" nor "automatch" option is specified.

Find

Help

Pegasus 22.21.4-6b Results Viewer

File Options Tools Help

LVS

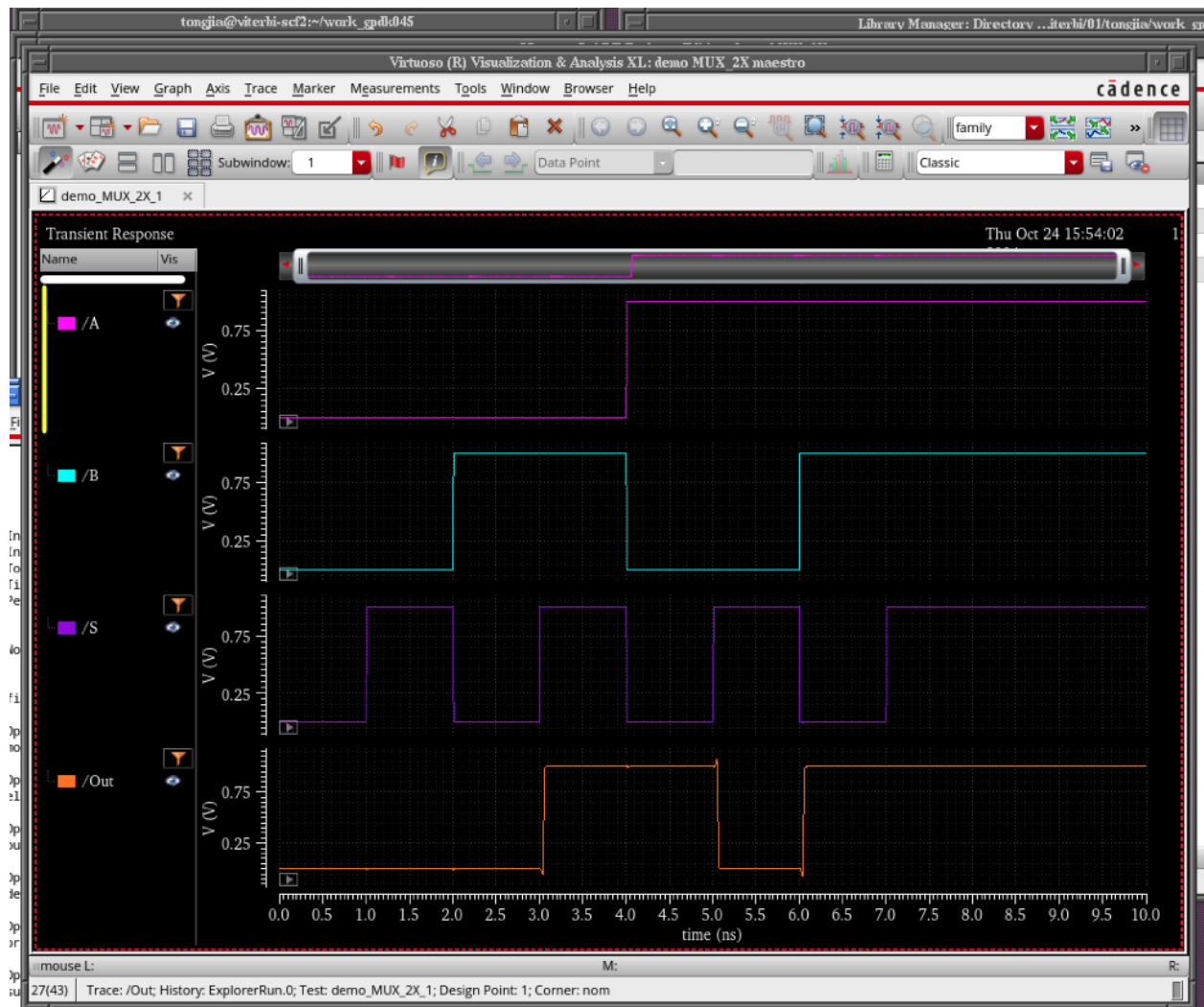
Item
Intermediate GDSII File (MUX_2X.gds)
Schematic Netlist (MUX_2X.cd)
Extracted Spice File (MUX_2X.sp)
Comparison Report (MUX_2X.rep.cls)
Extraction Report (MUX_2X.rep)
SCONNECT RDB (MUX_2X.schchk)
ERC Summary (MUX_2X.sum)

LVS
☒ Clean
☒ No conflicts
☒ Empty
☒ Clean
☒ Match

No new messages

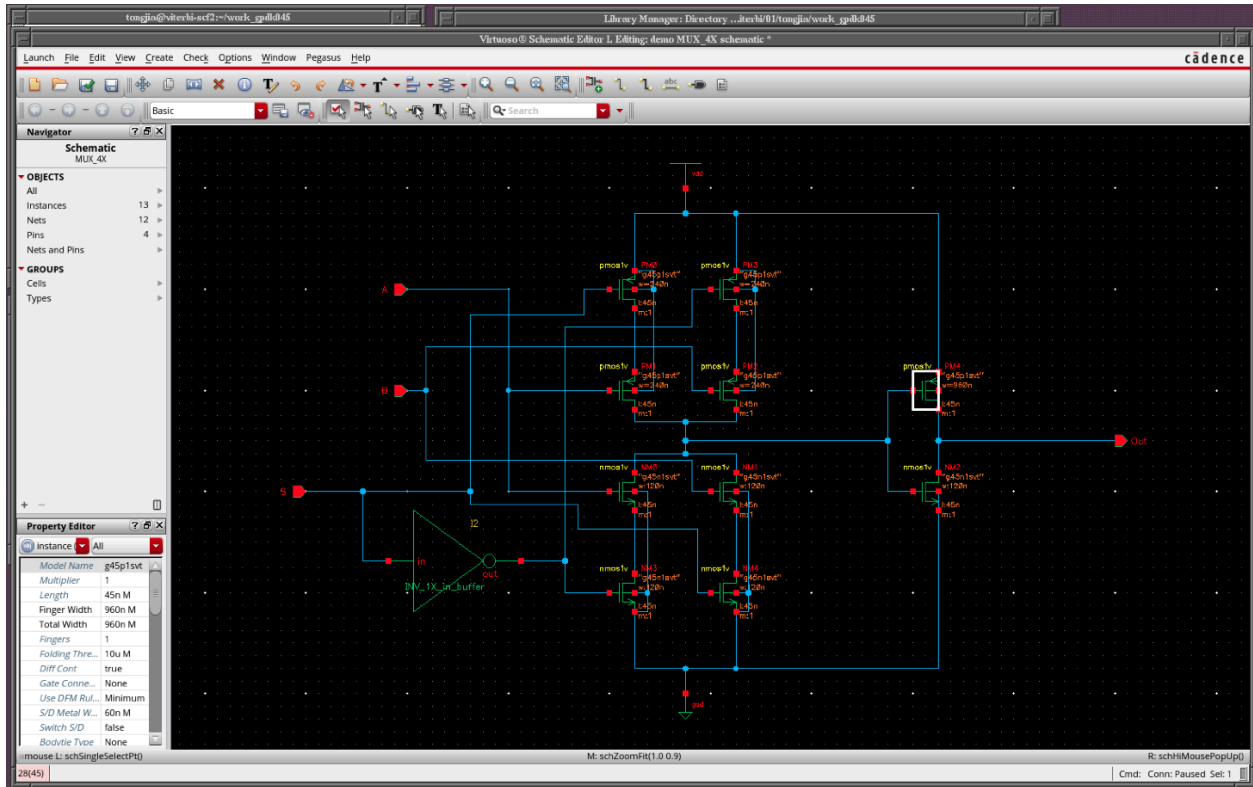
Functionality verification:

(A = 00001111, B = 00110011, S = 01010101, which contains all the possible input patterns)

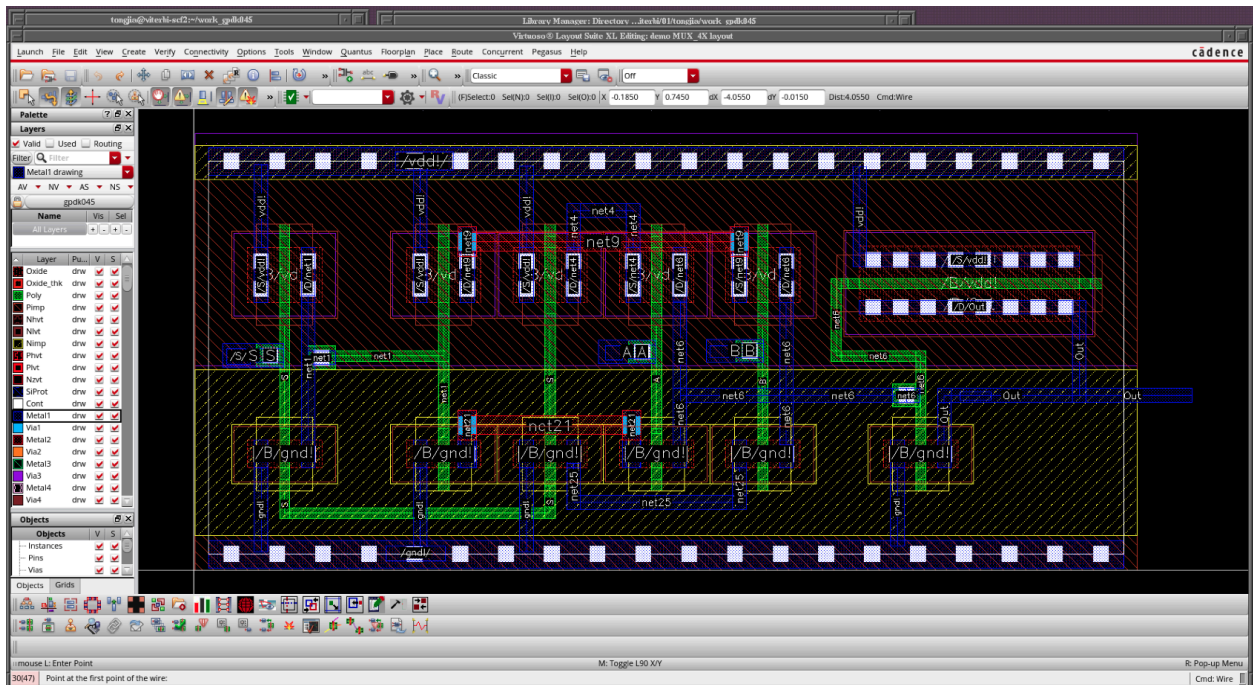


MUX_4X:

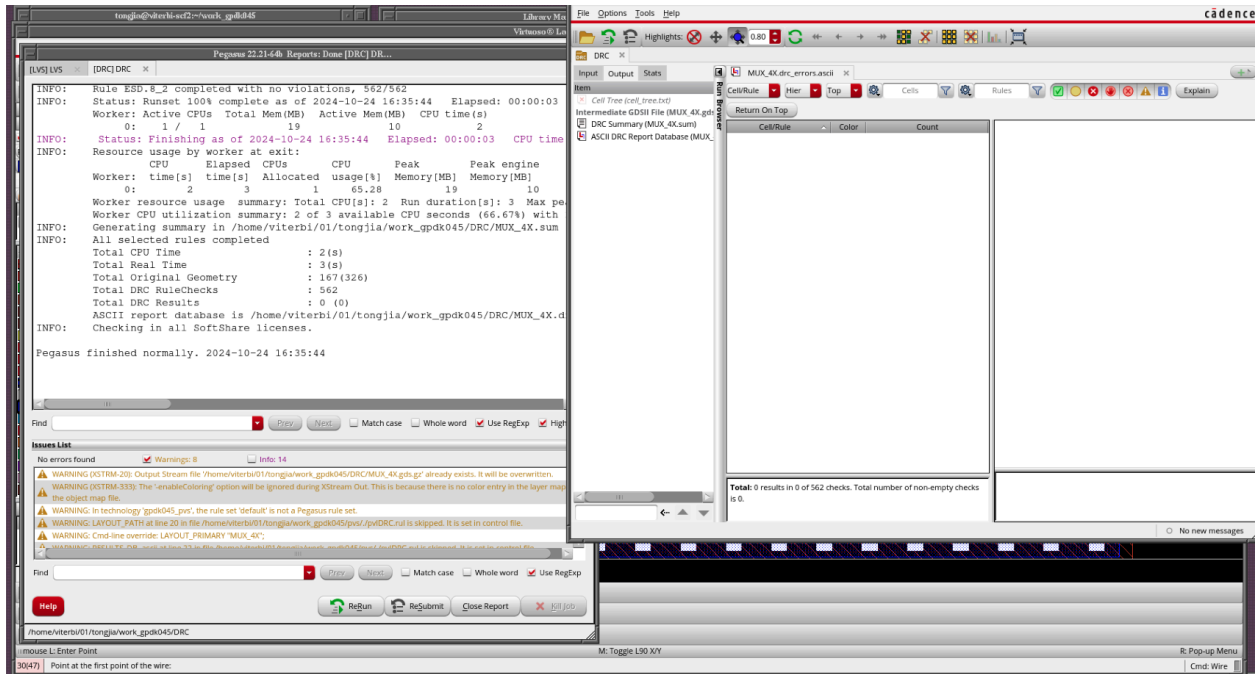
Schematic:



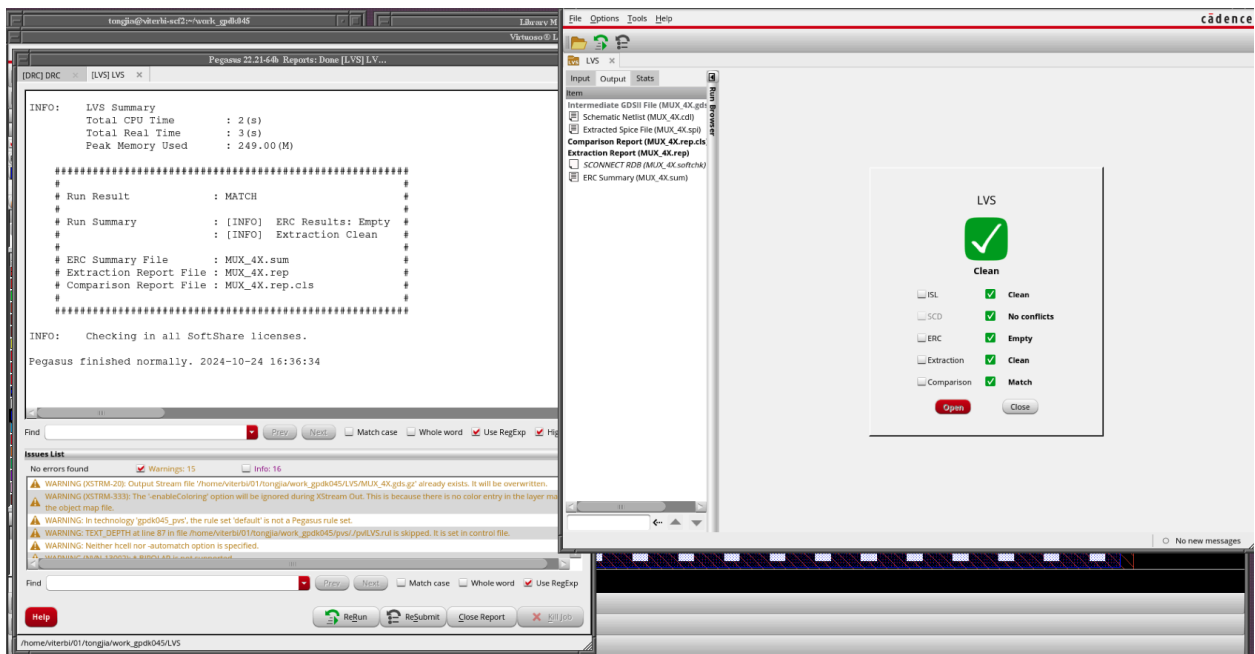
Layout:



DRC:



LVS:



Functionality verification:

(A = 00001111, B = 00110011, S = 01010101, which contains all the possible input patterns)

