Joseph Nguyen

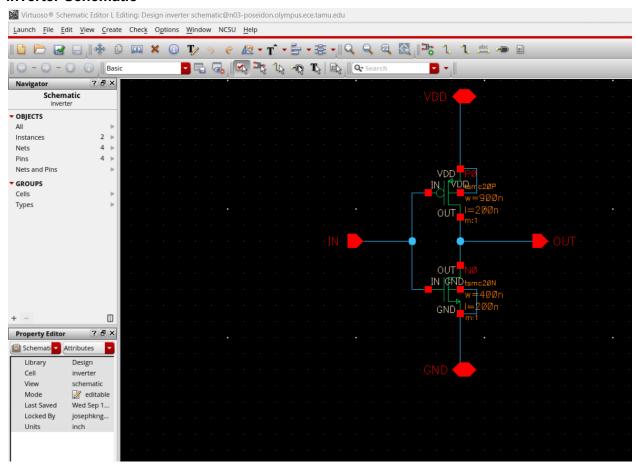
ECEN 454 Section 510

Lab date: 12 September 2024

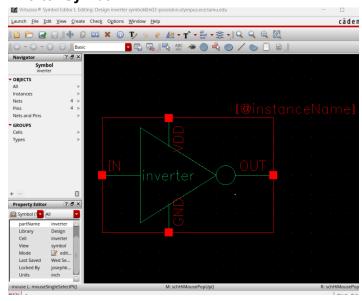
Due date: 18 September 2024

# Lab 2: Cadence Custom layout: Design Rules, Extraction, and Verification

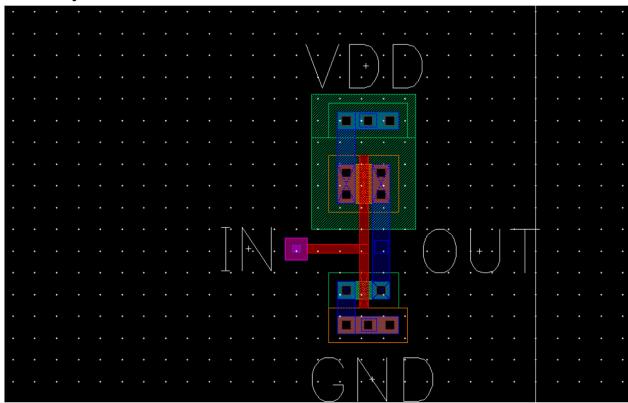
#### **Inverter Schematic**



### **Inverter Symbol:**



# **Inverter layout:**



## **Inverter LVS:**

Terminal correspondence points NO N2 GND IN

N2 N0 N1 N3 N1 OUT

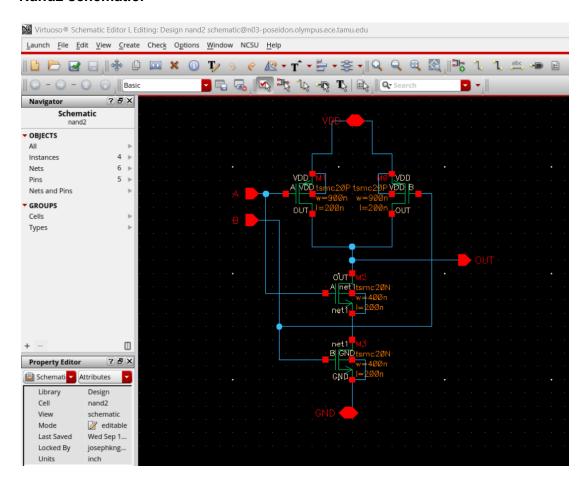
Devices in the netlist but not in the rules: pcapacitor
Devices in the rules but not in the netlist:
cap nfet pfet nmos4 pmos4

The net-lists match.

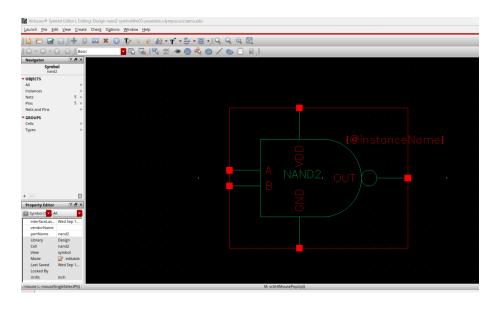
layout schematic yout schem instances 0 0 0 0 0 0 0 0 0 2 2 2 2 2 2 un-matched rewired size errors pruned active total nets un-matched 0 0 0 4 4 0 merged pruned 0 active total terminals un-matched matched but different type total

Probe files from /home/ugrads/j/josephknguyen02/ecen454\_714/LVS/schematic

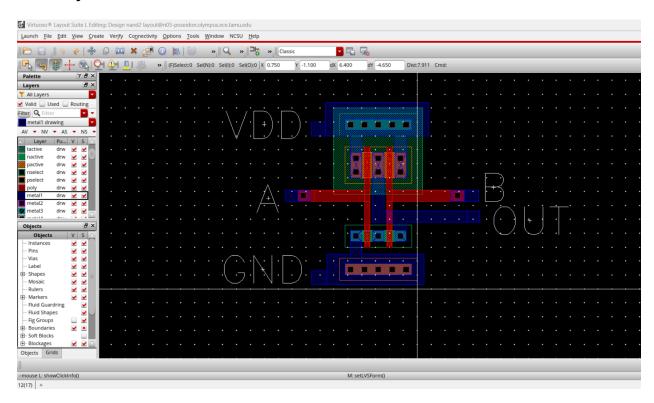
#### Nand2 schematic:



# Nand2 symbol:



# Nand2 layout:



### Nand2 LVS:

Terminal correspondence points NO N2 GND N2 N0 IN N1 N1 OUT N3 N3 VDD

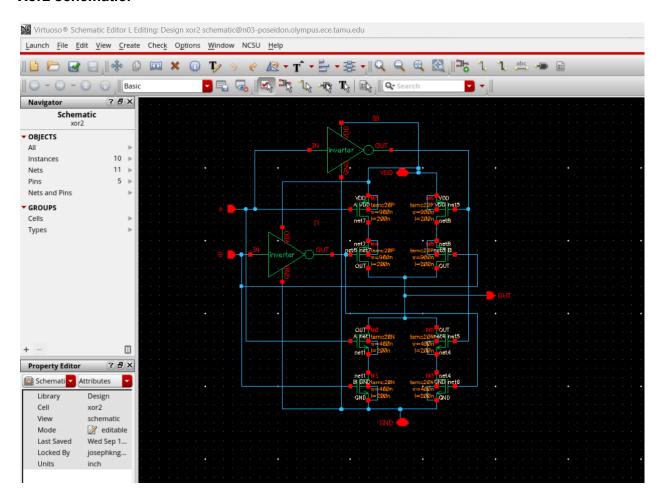
Devices in the netlist but not in the rules: pcapacitor Devices in the rules but not in the netlist: cap nfet pfet nmos4 pmos4

The net-lists match.

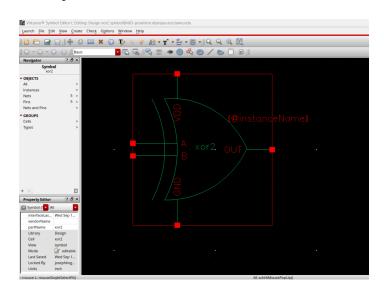
	1ayout	schematic
	instances	
un-matched	0	0
rewired	0	0
size errors	0	0
pruned	0	0
active	2	2
total	2	2
	nets	
un-matched	0	0
merged	0	0
pruned	0	0
active	4	4
total	4	4
	terminals	
un-matched	0	0
matched but		
different type	0	0
total	4	4

Probe files from /home/ugrads/j/josephknguyen02/ecen454\_714/LVS/schematic

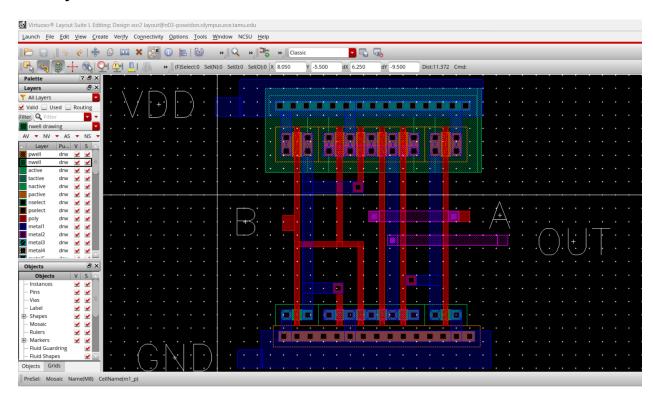
### Xor2 schematic:



# Xor2 symbol:



# Xor2 layout:



### Xor2 LVS:

Terminal correspondence points
N0 N2 GND
N2 N0 IN
N1 N1 OUT
N3 N3 VDD

Devices in the netlist but not in the rules:
 pcapacitor

Devices in the rules but not in the netlist:
 cap nfet pfet nmos4 pmos4

The net-lists match.

	layout	schematic
	instances	
un-matched	0	0
rewired	0	0
size errors	0	0
pruned	0	0
active	2	2
total	2	2
	nets	
un-matched	0	0
merged	0	0
pruned	0	0
active	4	4
total	4	4
	terminals	
un-matched	0	0
matched but		
different type	0	0
total	4	4
		-

robe files from /home/ugrads/j/josephknguyen02/ecen454\_714/LVS/schematic