Lab 7 Using Buses in ElectricVLSI

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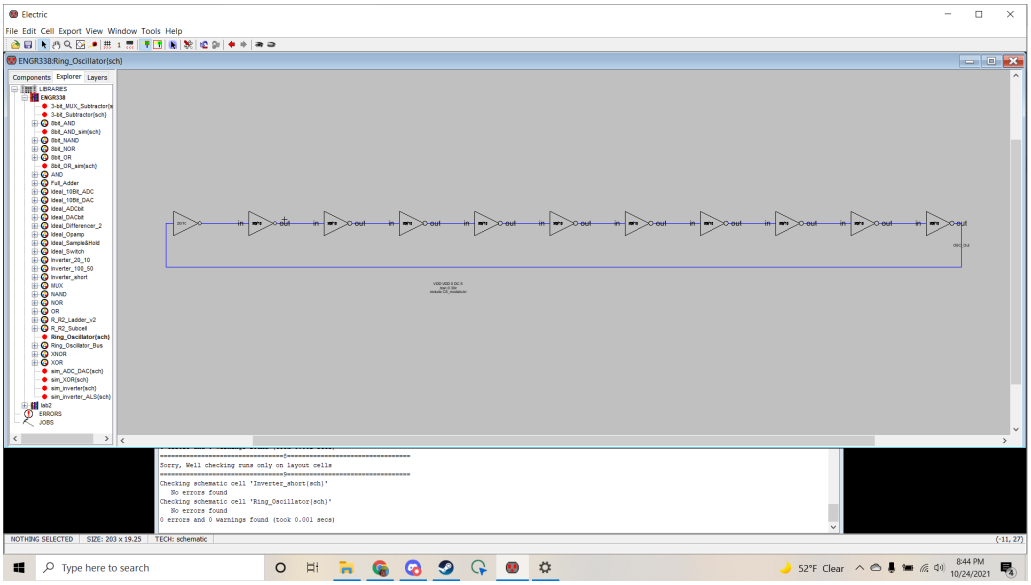
1 Introduction

This report will go over the process of making busses in ElectricVLSI.

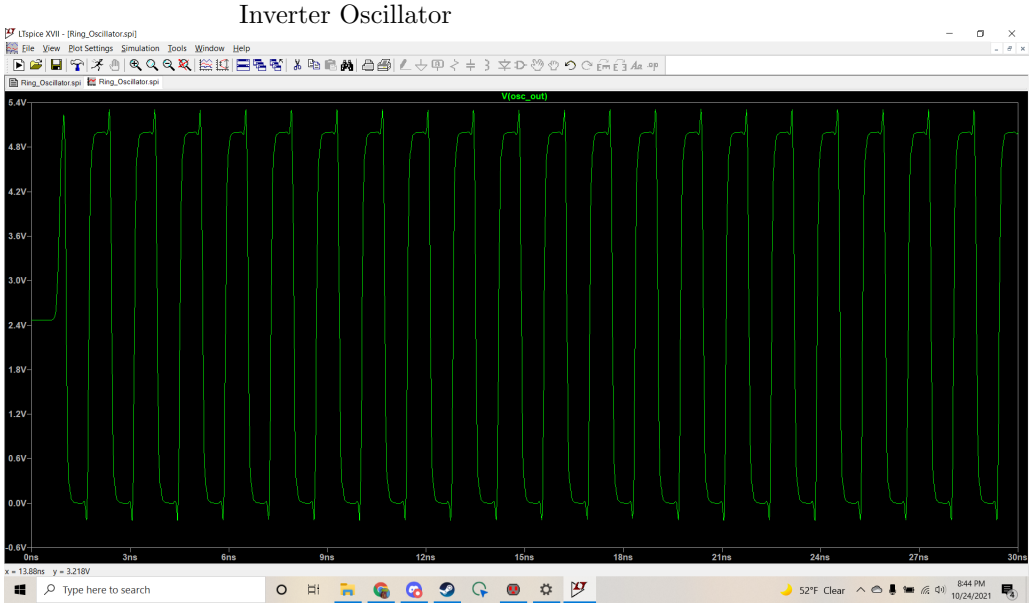
2 Materials and Methods

Busses are denoted by the [:] after a name to indicate the number of times the inputs and outputs are repeated, starting at the first and ending with the second . The tutorial for making these exact example in ElectricVLSI are found in /urlhttp://www.yilectronics.com/Courses/ENGR338L$_{C}E/f2021/lab7_{T}heBus/Lab7.html$.

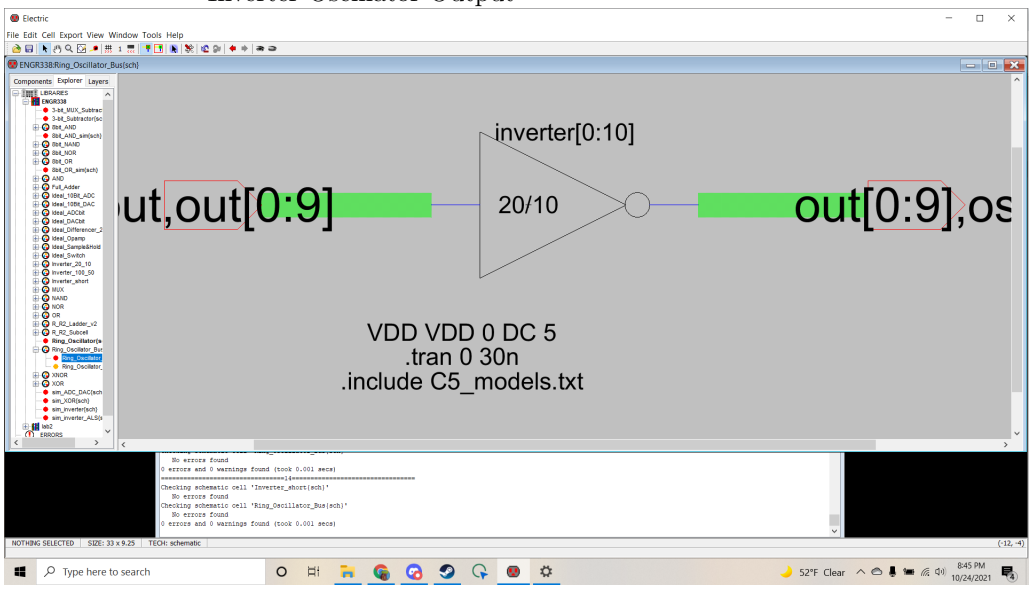
3 Results



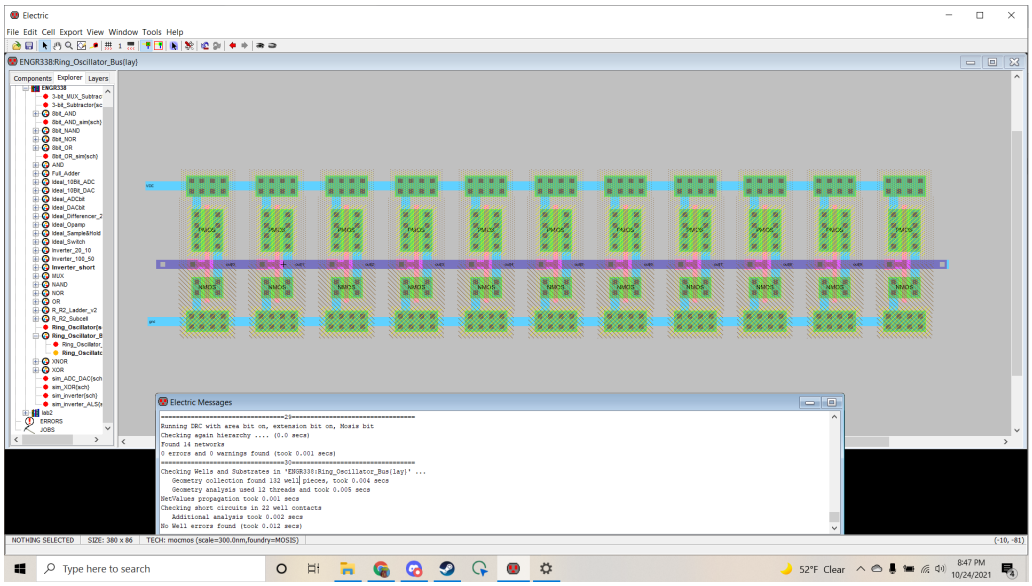
Inverter Oscillator



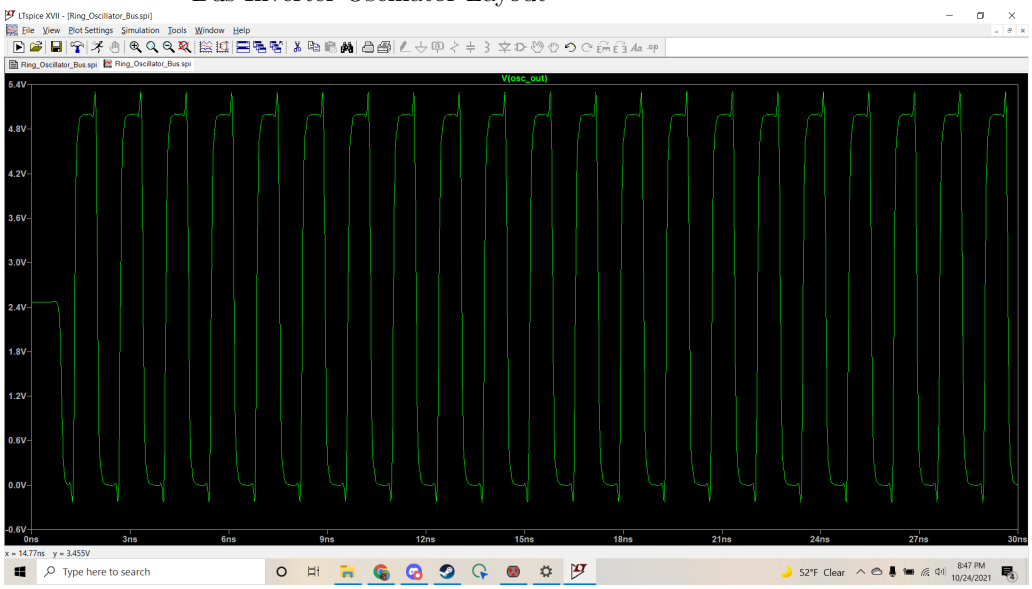
Inverter Oscillator Output



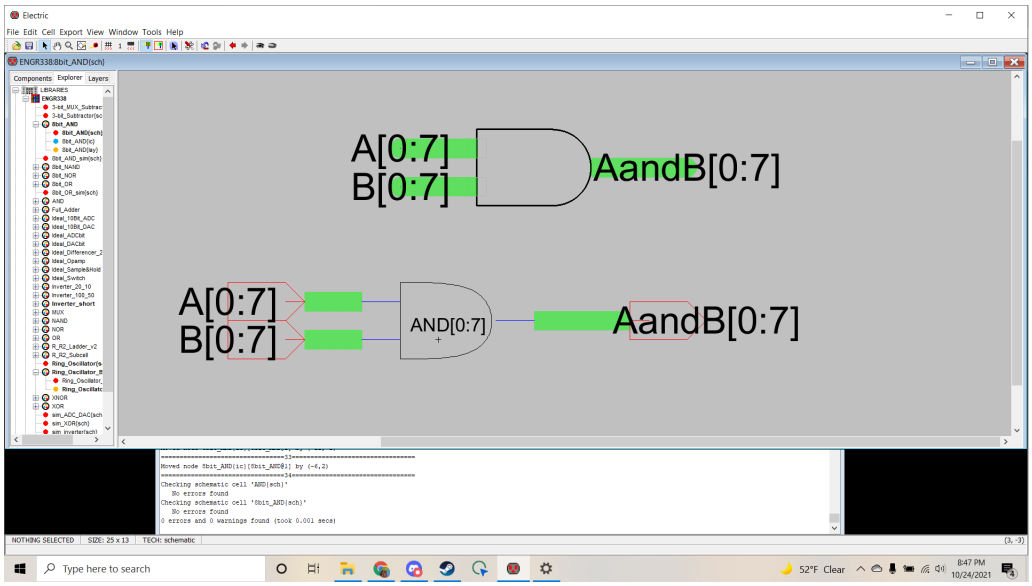
Bus Inverter Oscillator



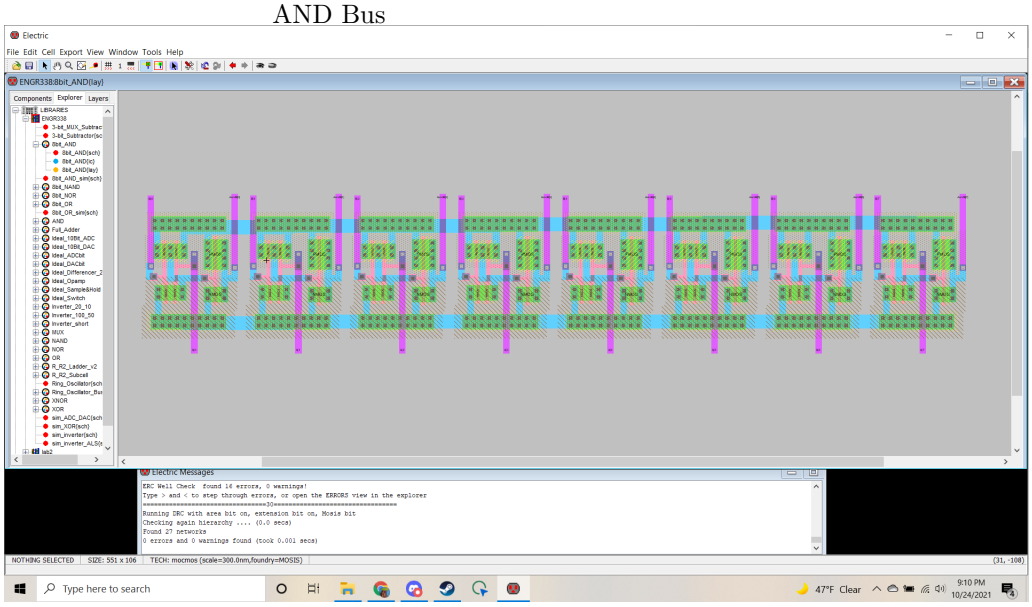
Bus Inverter Oscillator Layout



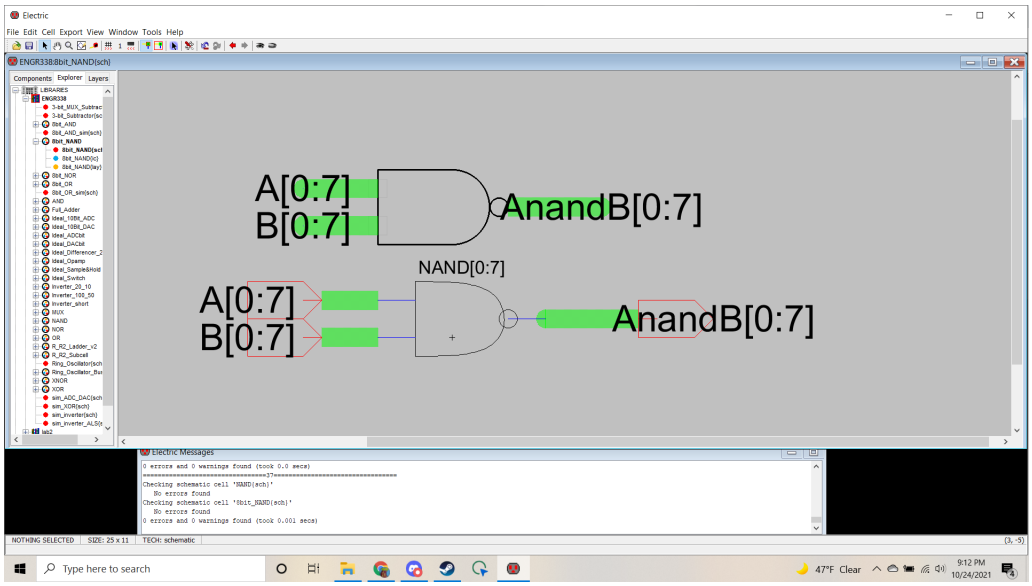
Bus Inverter Oscillator Output



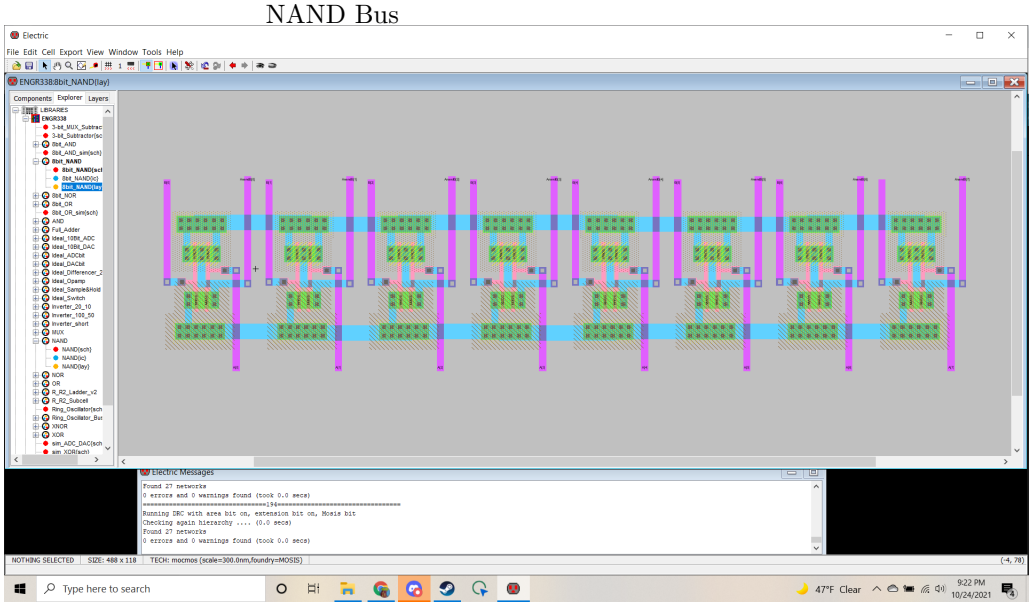
AND Bus



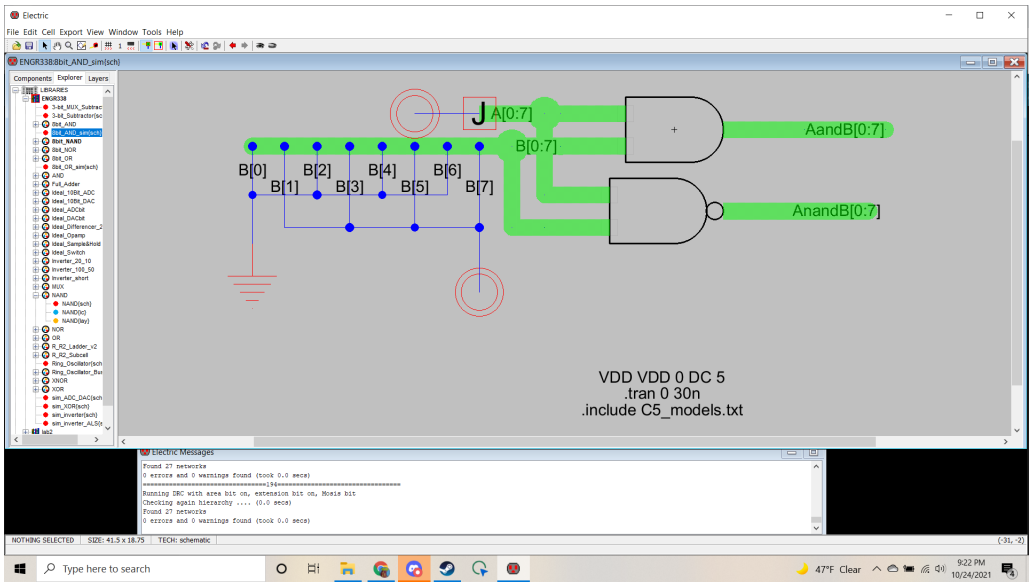
AND Bus Layout



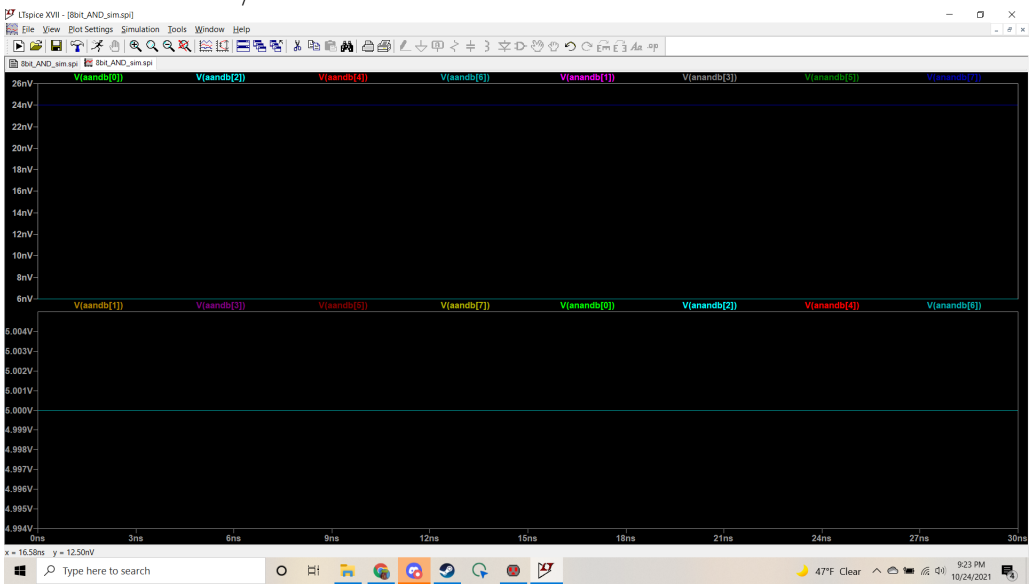
NAND Bus



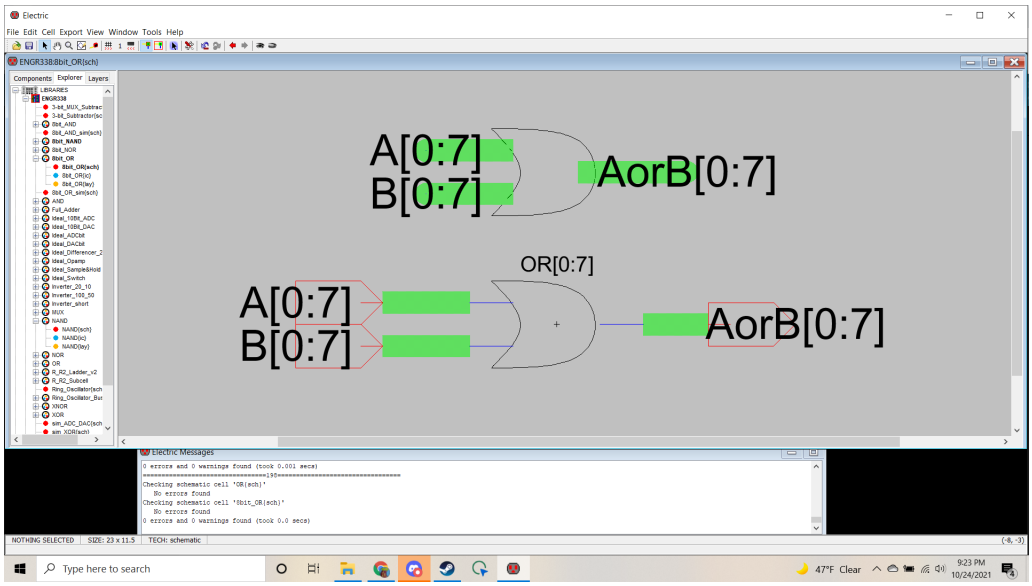
NAND Bus Layout



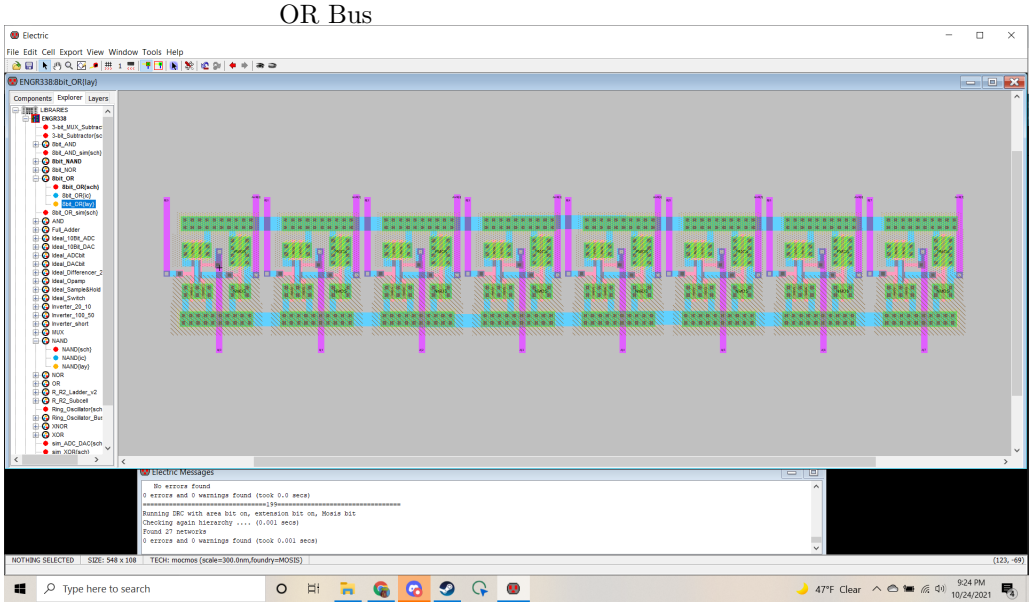
N/AND Bus Simulator



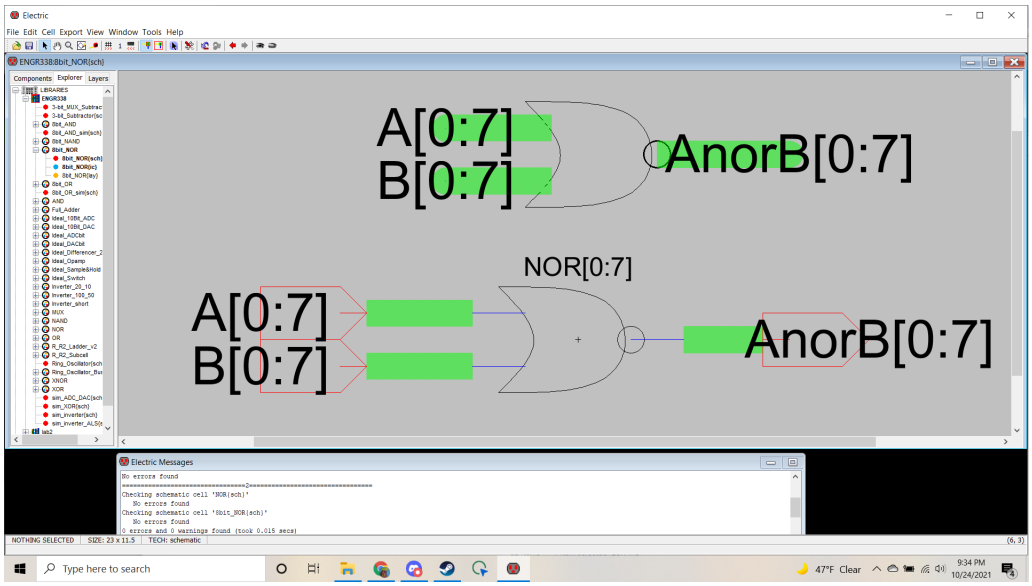
N/AND Bus Output



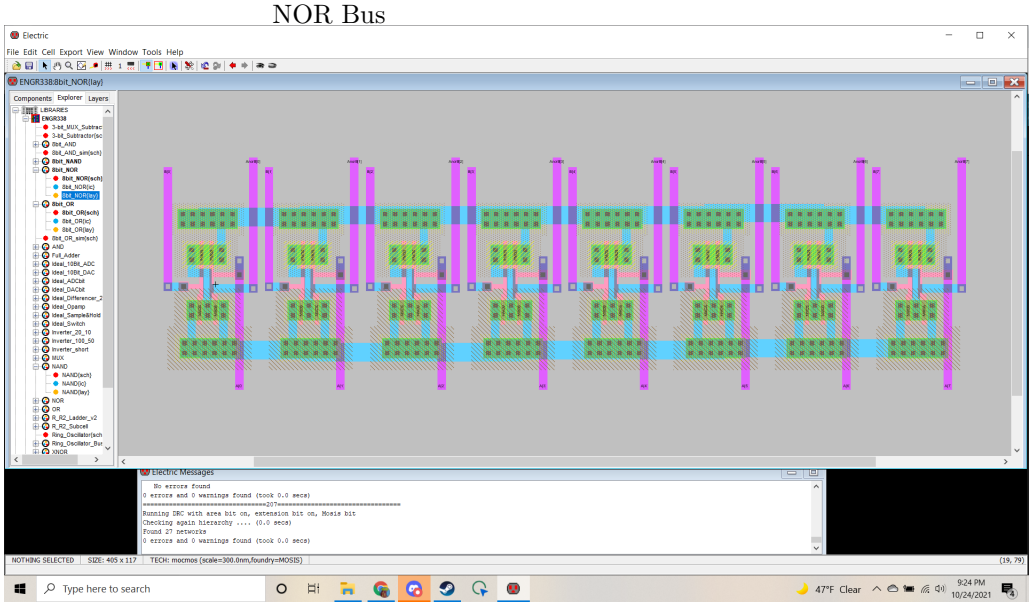
OR Bus



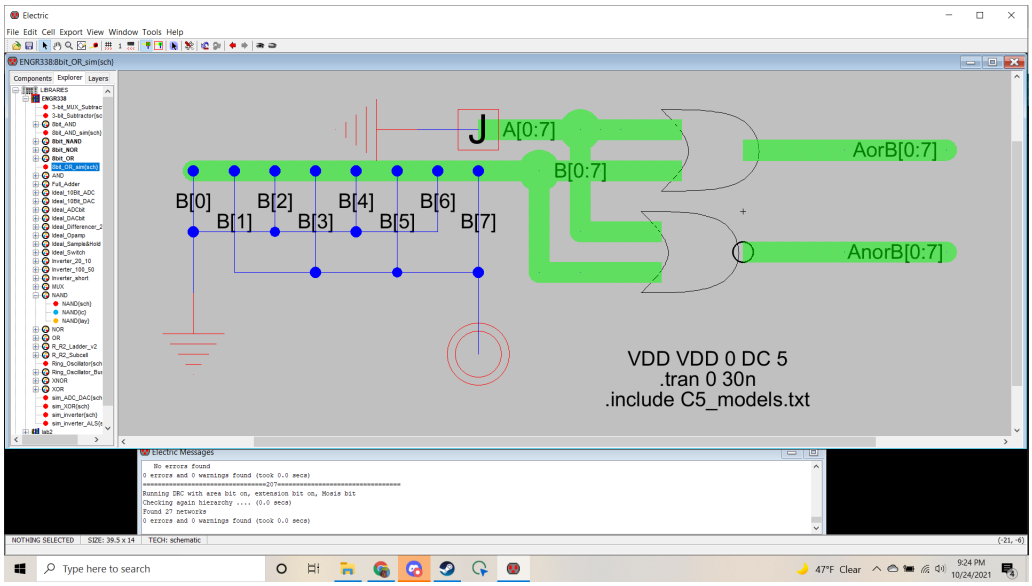
OR Bus layout



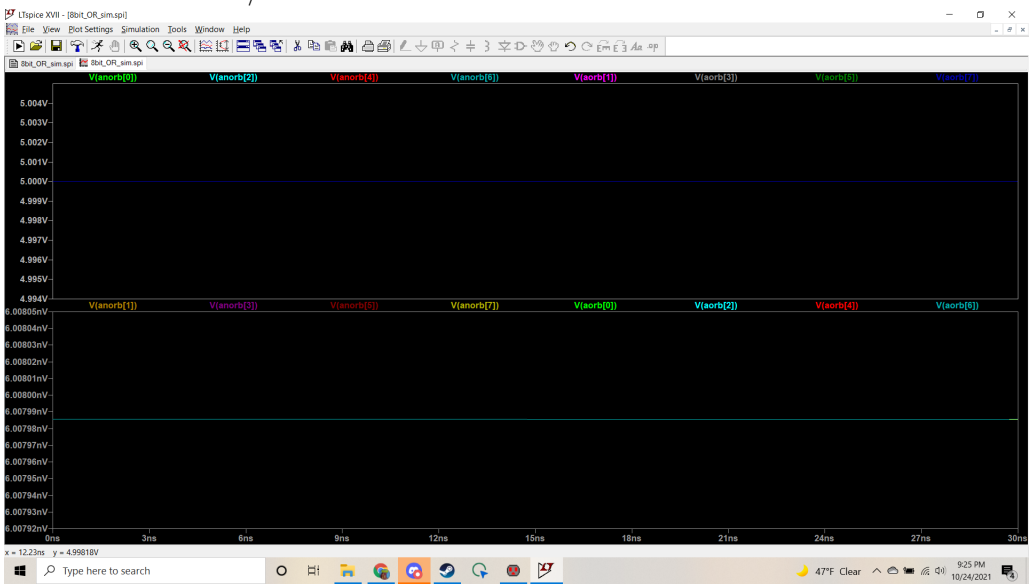
NOR Bus



NOR Bus layout



N/OR Bus Simulator



N/OR Bus Output

4 Discussion

As seen above, the outputs follow the inverter, N/AND and N/OR logics as intended in a bus format. Busses can be most useful when receiving multiple signals that all require the same function applied to it in an organized manner.