Course Name: Digital System Design

Course Number and Section: **14:332:437:03**

Experiment: 1– Full Adder

Lab Instructor: Sumit Maheshwari and Chen Wang

Date Performed: 10/15/2017

Date Submitted: 10/15/2017

Submitted by: Pawel Derkacz - 151 00 5994

PURPOSE

To allow students become at least slightly familiar with the necessary programs, having them learn the basics of how to operate within the programs. The secondary purpose was to have students create and simulate a full adder, using said programs. Possibly, as a tertiary purpose, have students learn about full adders, if they did not already know about them.

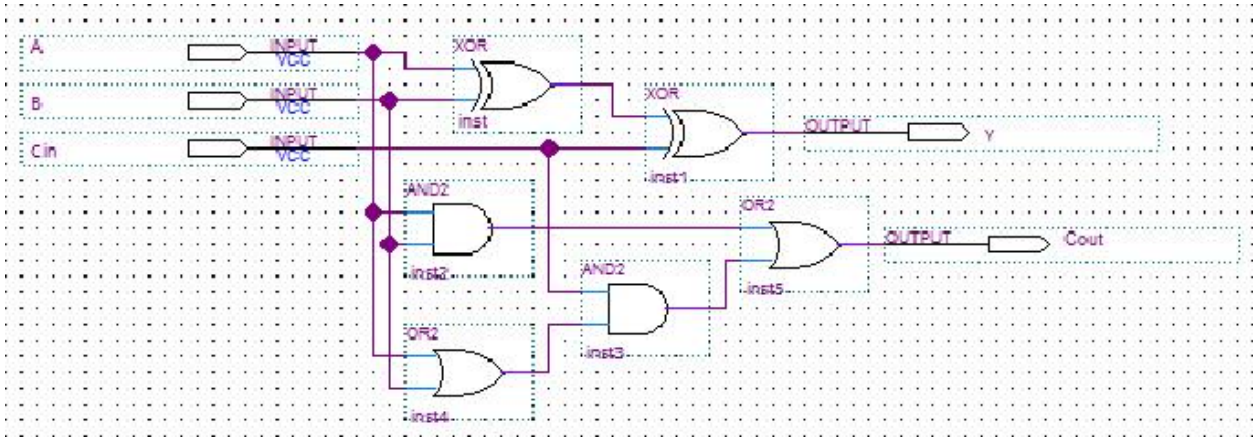
RESULTS

- Time Taken: Around 3 hours time, including download and installation of necessary programs

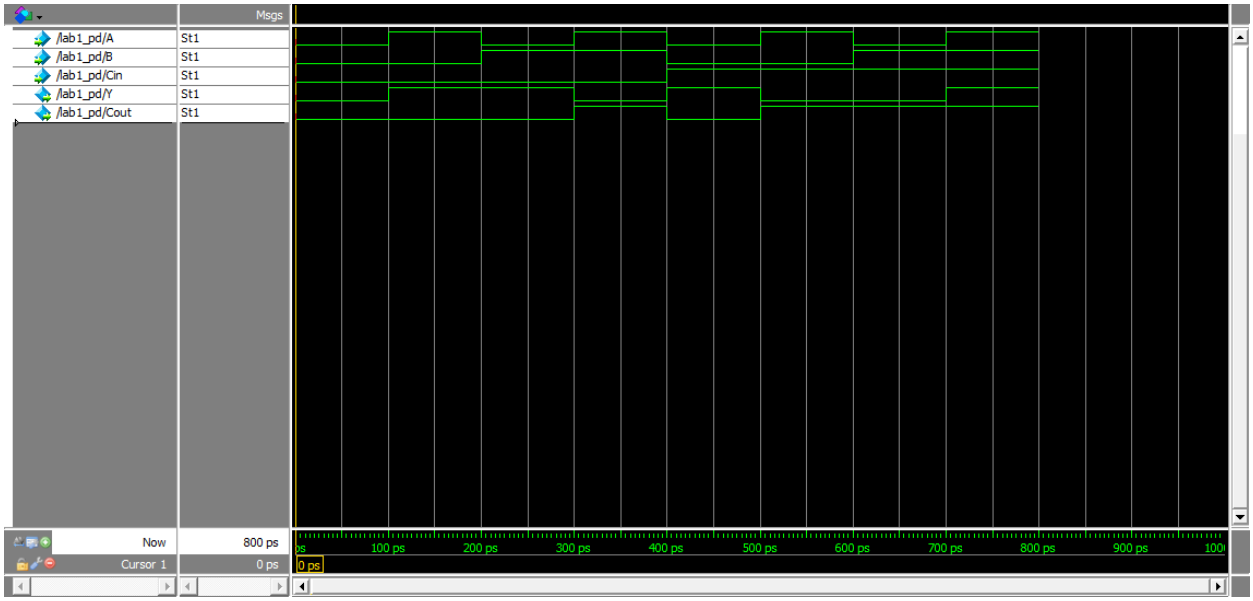
- Truth Table:

C_{in}	A	B	C_{out}	S (Y in schem.)
0	0	0	0	0
0	0	1	0	1
0	1	0	0	1
0	1	1	1	0
1	0	0	0	1
1	0	1	1	0
1	1	0	1	0
1	1	1	1	1

- Completed Schematic:



- Complete Output:



Conclusion

The lab was relatively simplistic - the most difficult part being finding all the right buttons to press, but the instructions were clear for the most part. No suggestions to improve the lab, it is fine as it is - could possibly do something more complex, but this is fine as an intro the software. I apologize that this lab report does not have a more formal look to it, however my excuse is that the lab itself was simplistic, and thus does not require a load of fluff thrown at it (such as each section requiring a dedicated page, or writing out experimental analysis). Overall, very nice starter lab.