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 ECE: 425
 2/28/2017
 Lab 5

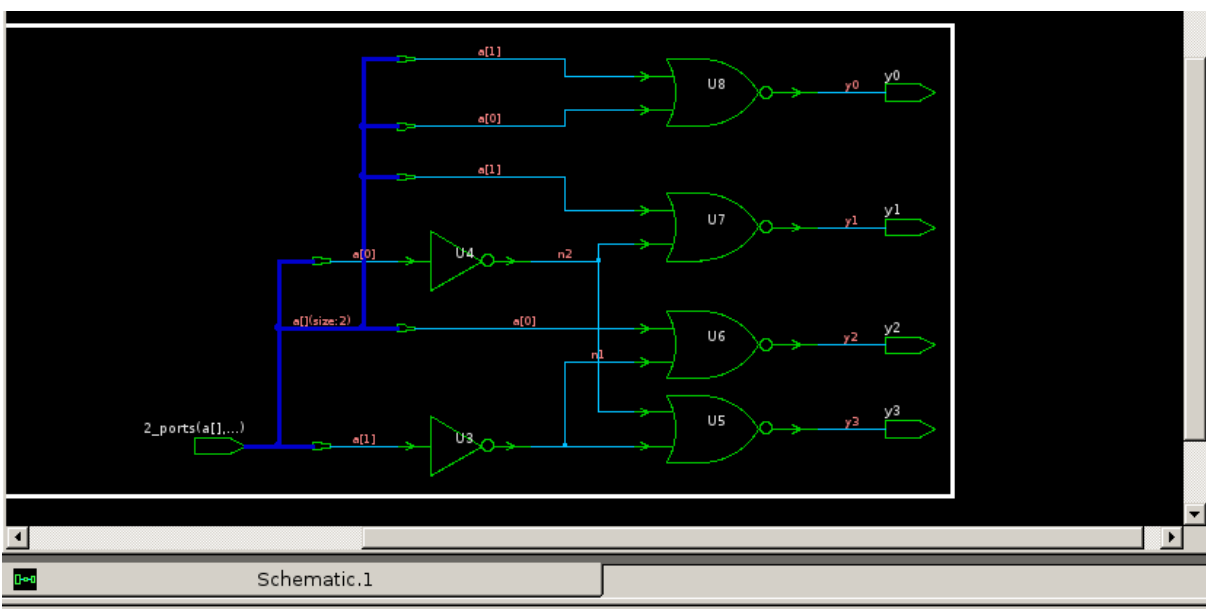


Figure 1: Schematic of Example Decoder

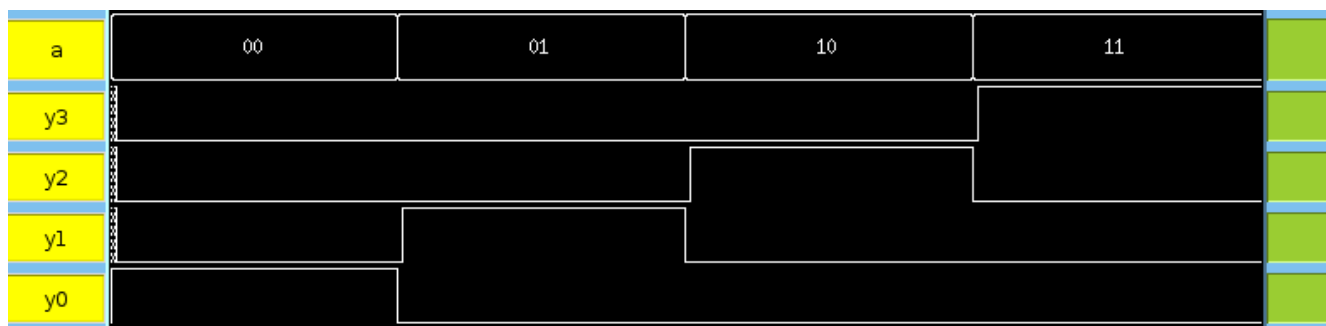


Figure 2: Waveform of Example Decoder

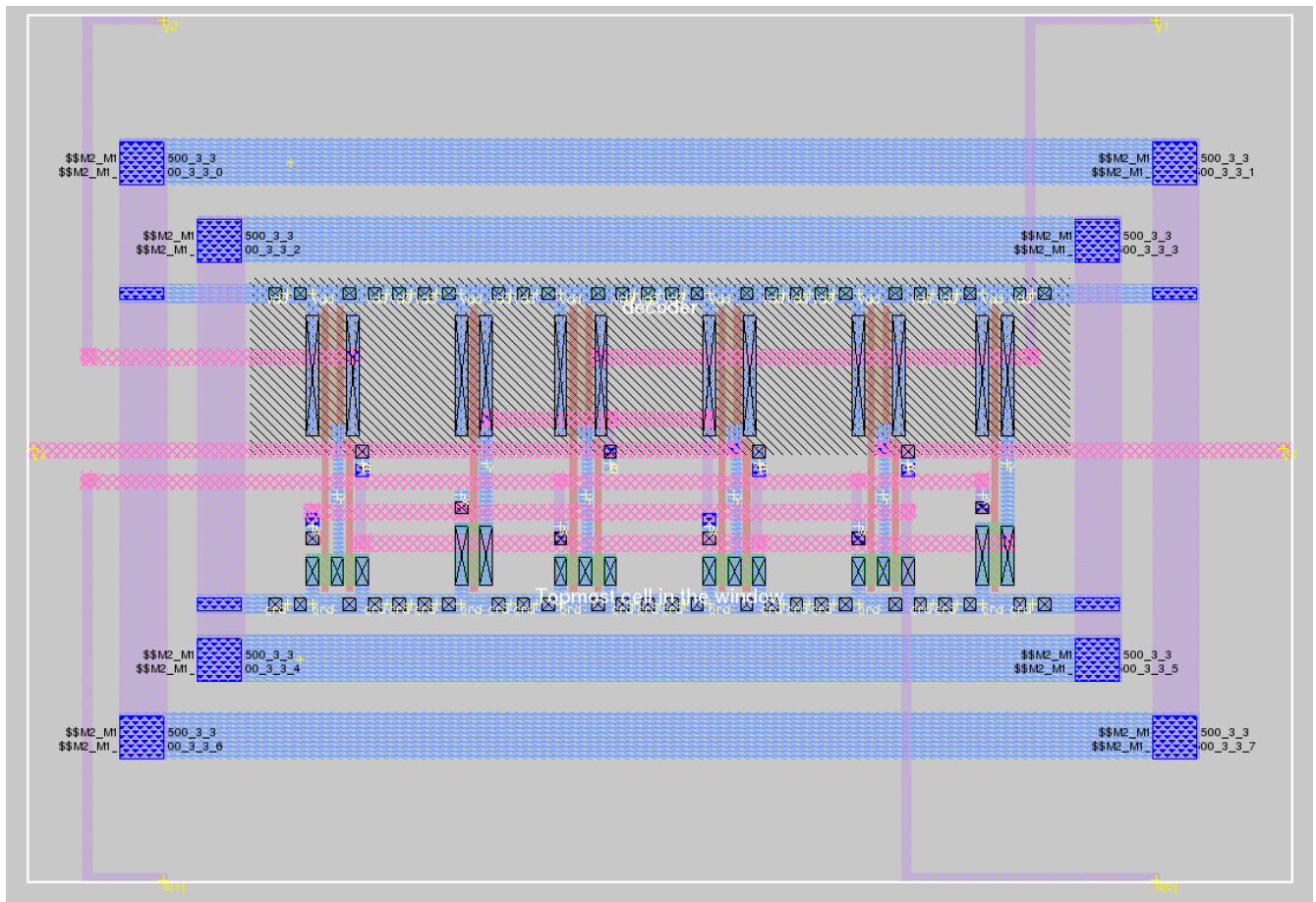


Figure 3: Magic Layout of Example Decoder

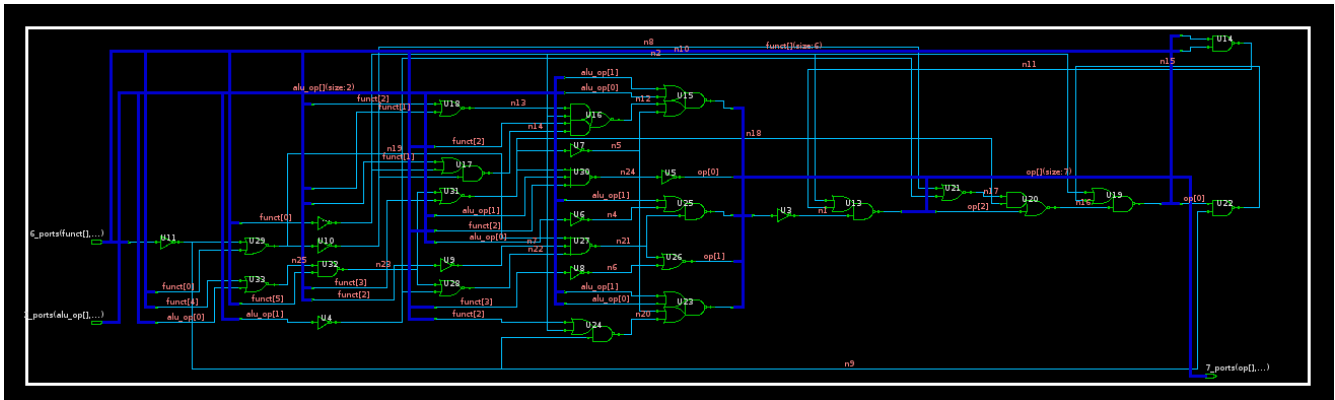


Figure 4: Schematic of ALU_Op Decoder

funct	XX		20	22	24	25	26	27	2a	42	
alu_op	00	01	10								10
op	0101000	1010100	0101000	1010100	0001001	0111001	0110001	1000001	1010110	86	

Figure 5: Waveform of ALU_Op Decoder

Simulation of ALU_Op Decoder is not included here. The command files for testing this system is aludec_test.cmd.

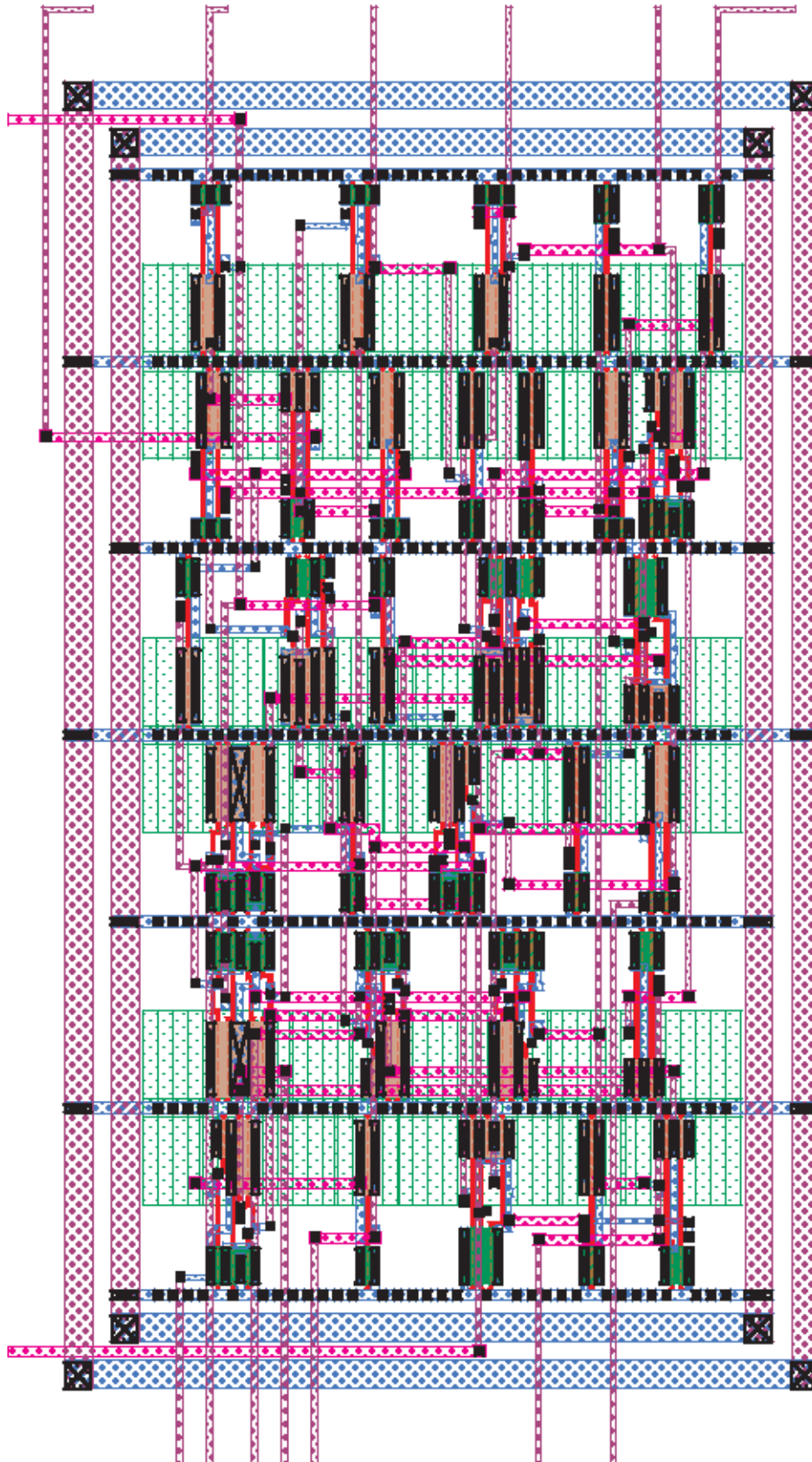


Figure 6: Magic Layout of ALU_Op Decoder called aludecoder.mag

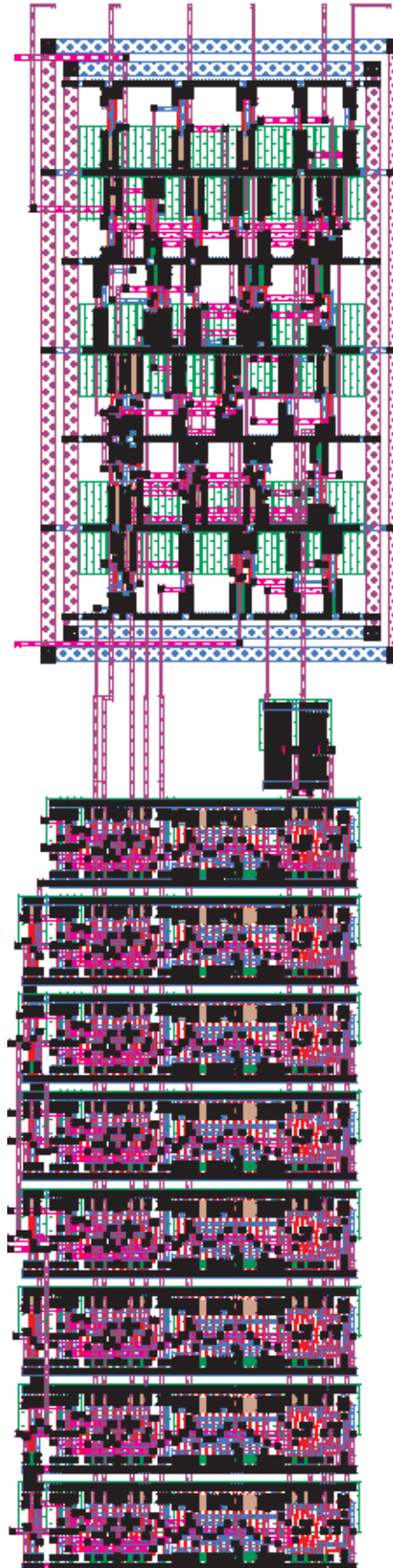


Figure 7: Magic Layout of
 ALU_Op Decoder with Alt_ALU
 called *alu_top.mag*

The simulation of the integration of the two systems is not included. To run our tests, the testgen.py was edited from last lab to run off of a 2-bit op code and a 6-bit function code. The first command file to run is alu_setup.cmd followed by tb.cmd generated by testgen.py. The results from this test were stored in log.txt. Upon inspection of the logfile, no errors can be found.