FPGA_Project

Team: Active_High

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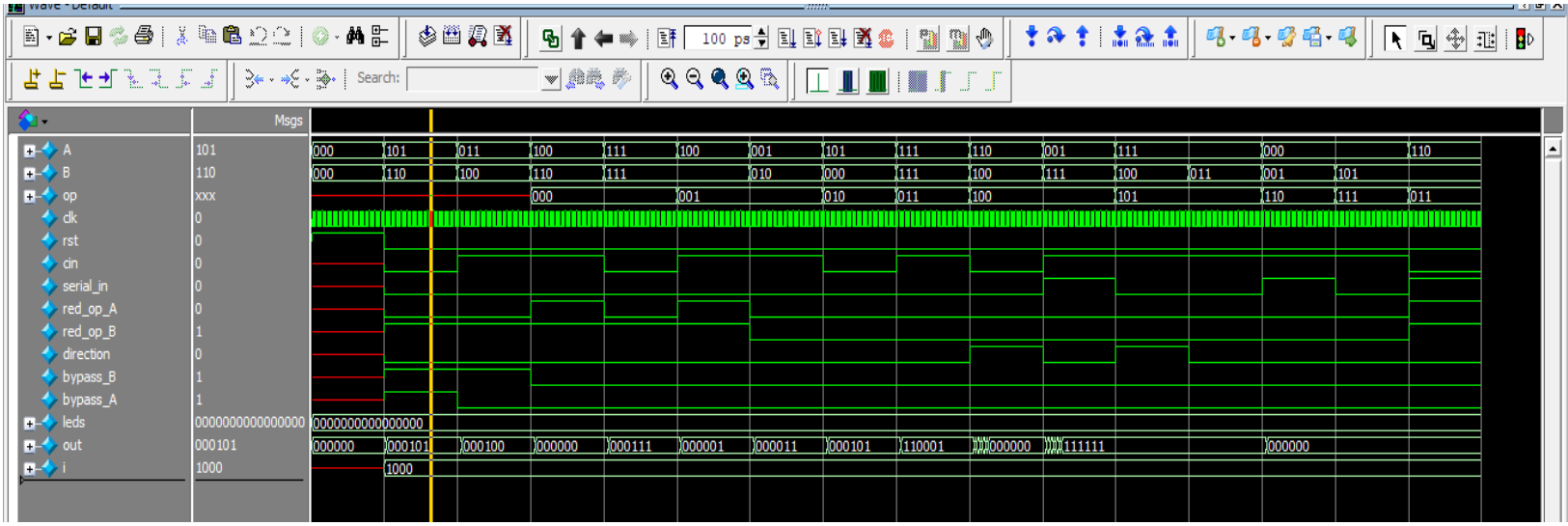
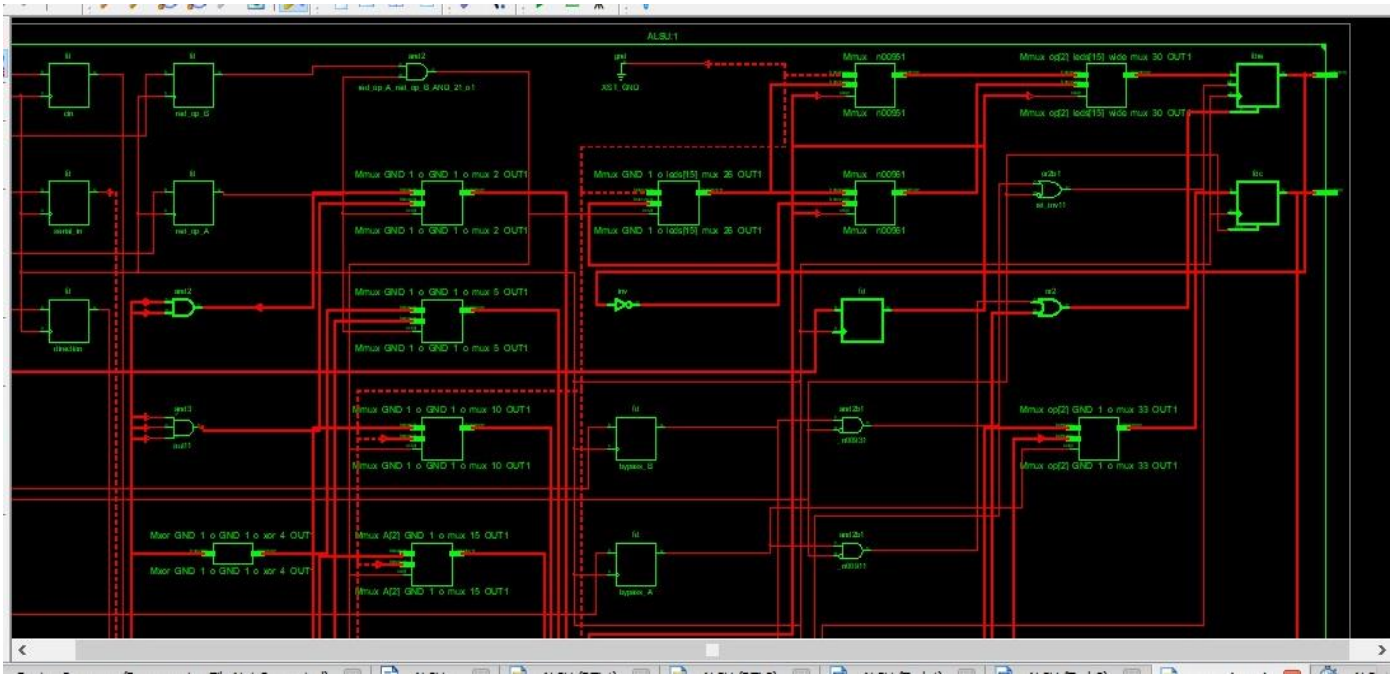
- **Snippets for ModelSim: -**

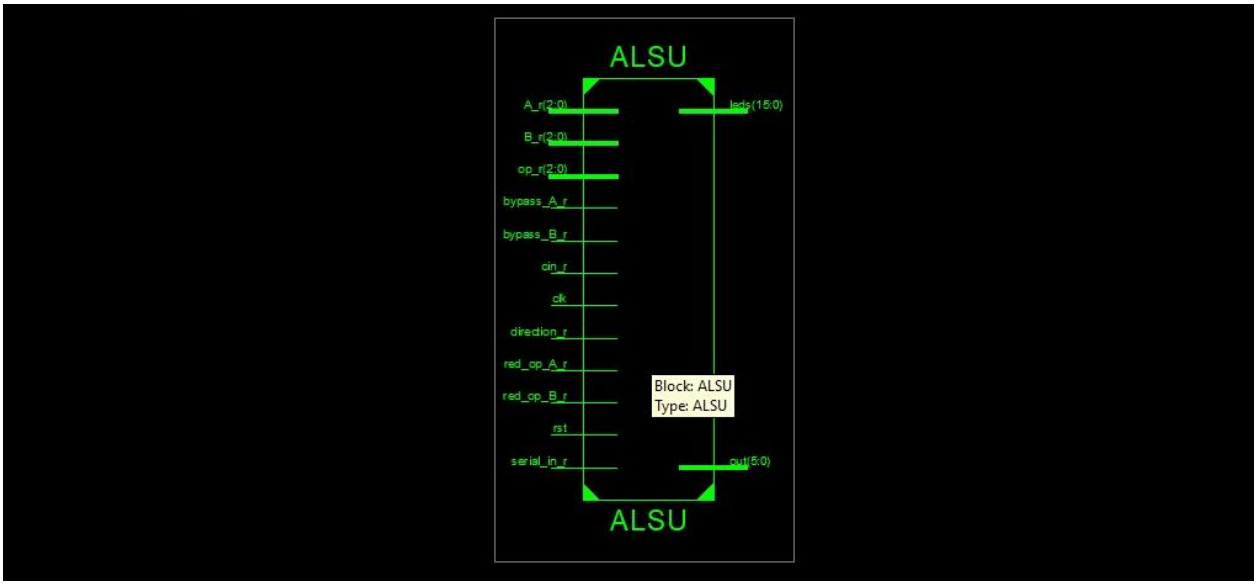


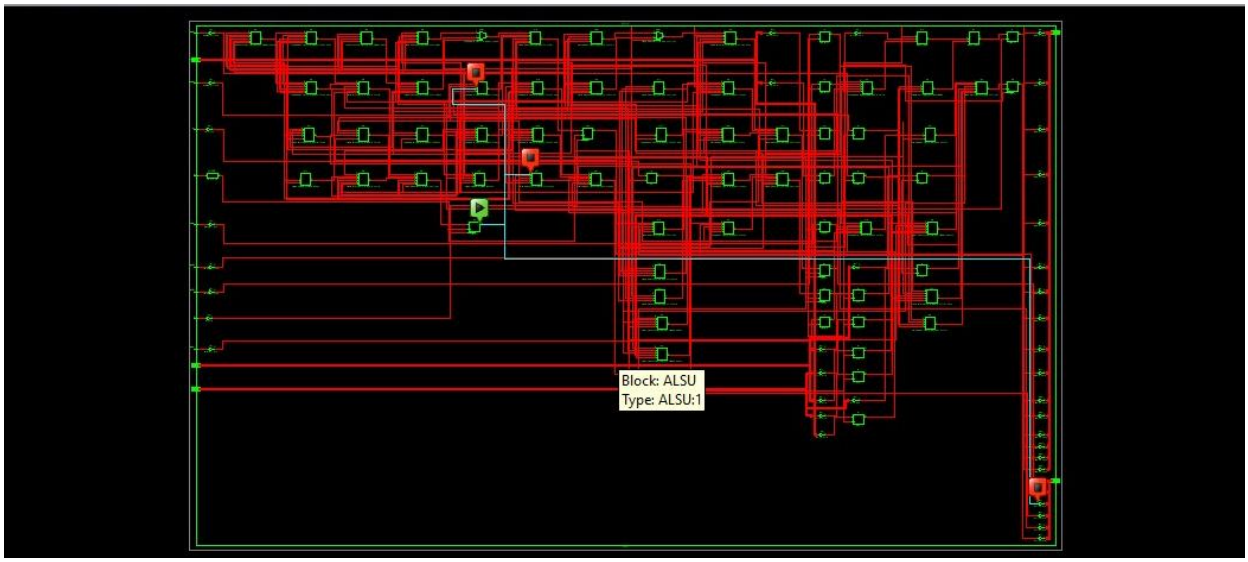
- **Transcript**

```
# Loading work.ALSU_tb
# Loading work.ALSU
# A=000, B=000, bypass_A=x, bypass_B=x, op=xxx, direction=x, red_op_A=x, red_op_B=x, serial_in=x, out=000000
# A=101, B=110, bypass_A=1, bypass_B=1, op=xxx, direction=0, red_op_A=0, red_op_B=1, serial_in=0, out=000000
# A=101, B=110, bypass_A=1, bypass_B=1, op=xxx, direction=0, red_op_A=0, red_op_B=1, serial_in=0, out=000101
# A=011, B=100, bypass_A=0, bypass_B=1, op=xxx, direction=0, red_op_A=0, red_op_B=1, serial_in=0, out=000101
# A=011, B=100, bypass_A=0, bypass_B=1, op=xxx, direction=0, red_op_A=0, red_op_B=1, serial_in=0, out=000100
# A=100, B=110, bypass_A=0, bypass_B=0, op=000, direction=0, red_op_A=1, red_op_B=1, serial_in=0, out=000100
# A=100, B=110, bypass_A=0, bypass_B=0, op=000, direction=0, red_op_A=1, red_op_B=1, serial_in=0, out=000000
# A=111, B=111, bypass_A=0, bypass_B=0, op=000, direction=0, red_op_A=0, red_op_B=1, serial_in=0, out=000000
# A=111, B=111, bypass_A=0, bypass_B=0, op=000, direction=0, red_op_A=0, red_op_B=1, serial_in=0, out=000111
# A=100, B=111, bypass_A=0, bypass_B=0, op=001, direction=0, red_op_A=1, red_op_B=1, serial_in=0, out=000111
# A=100, B=111, bypass_A=0, bypass_B=0, op=001, direction=0, red_op_A=1, red_op_B=1, serial_in=0, out=000001
# A=001, B=010, bypass_A=0, bypass_B=0, op=001, direction=0, red_op_A=0, red_op_B=0, serial_in=0, out=000001
# A=001, B=010, bypass_A=0, bypass_B=0, op=001, direction=0, red_op_A=0, red_op_B=0, serial_in=0, out=000011
# A=101, B=000, bypass_A=0, bypass_B=0, op=010, direction=0, red_op_A=0, red_op_B=0, serial_in=0, out=000011
# A=101, B=000, bypass_A=0, bypass_B=0, op=010, direction=0, red_op_A=0, red_op_B=0, serial_in=0, out=000101
# A=111, B=111, bypass_A=0, bypass_B=0, op=011, direction=0, red_op_A=0, red_op_B=0, serial_in=0, out=000101
# A=111, B=111, bypass_A=0, bypass_B=0, op=011, direction=0, red_op_A=0, red_op_B=0, serial_in=0, out=110001
# A=110, B=100, bypass_A=0, bypass_B=0, op=100, direction=1, red_op_A=0, red_op_B=0, serial_in=0, out=110001
# A=110, B=100, bypass_A=0, bypass_B=0, op=100, direction=1, red_op_A=0, red_op_B=0, serial_in=0, out=100010
# A=110, B=100, bypass_A=0, bypass_B=0, op=100, direction=1, red_op_A=0, red_op_B=0, serial_in=0, out=000100
# A=110, B=100, bypass_A=0, bypass_B=0, op=100, direction=1, red_op_A=0, red_op_B=0, serial_in=0, out=001000
# A=110, B=100, bypass_A=0, bypass_B=0, op=100, direction=1, red_op_A=0, red_op_B=0, serial_in=0, out=010000
# A=110, B=100, bypass_A=0, bypass_B=0, op=100, direction=1, red_op_A=0, red_op_B=0, serial_in=0, out=100000
# A=110, B=100, bypass_A=0, bypass_B=0, op=100, direction=1, red_op_A=0, red_op_B=0, serial_in=0, out=000000
# A=001, B=111, bypass_A=0, bypass_B=0, op=100, direction=0, red_op_A=0, red_op_B=0, serial_in=1, out=000000
# A=001, B=111, bypass_A=0, bypass_B=0, op=100, direction=0, red_op_A=0, red_op_B=0, serial_in=1, out=100000
# A=001, B=111, bypass_A=0, bypass_B=0, op=100, direction=0, red_op_A=0, red_op_B=0, serial_in=1, out=110000
# A=001, B=111, bypass_A=0, bypass_B=0, op=100, direction=0, red_op_A=0, red_op_B=0, serial_in=1, out=111000
# A=001, B=111, bypass_A=0, bypass_B=0, op=100, direction=0, red_op_A=0, red_op_B=0, serial_in=1, out=111100
# A=001, B=111, bypass_A=0, bypass_B=0, op=100, direction=0, red_op_A=0, red_op_B=0, serial_in=1, out=111110
# A=001, B=111, bypass_A=0, bypass_B=0, op=100, direction=0, red_op_A=0, red_op_B=0, serial_in=1, out=111111
# A=111, B=100, bypass_A=0, bypass_B=0, op=101, direction=1, red_op_A=0, red_op_B=0, serial_in=0, out=111111
# A=111, B=011, bypass_A=0, bypass_B=0, op=101, direction=0, red_op_A=0, red_op_B=0, serial_in=0, out=111111
# A=000, B=001, bypass_A=0, bypass_B=0, op=110, direction=0, red_op_A=0, red_op_B=0, serial_in=1, out=111111
# A=000, B=001, bypass_A=0, bypass_B=0, op=110, direction=0, red_op_A=0, red_op_B=0, serial_in=1, out=000000
# A=000, B=101, bypass_A=0, bypass_B=0, op=111, direction=0, red_op_A=0, red_op_B=0, serial_in=0, out=000000
# A=110, B=101, bypass_A=0, bypass_B=0, op=011, direction=0, red_op_A=1, red_op_B=1, serial_in=1, out=000000
# Break in Module ALSU_tb at ALSU_tb.v line 157
# Simulation Breakpoint: Break in Module ALSU_tb at ALSU_tb.v line 157
```

- **ISE: -**


ALSU:1
Mmux GND 1 o GND 1 o mux 2 OUT1
Mmux GND 1 o GND 1 o mux 5 OUT1
Mmux GND 1 o GND 1 o mux 10 OUT1
Mmux A[2] GND 1 o mux 15 OUT1
Mxor GND 1 o GND 1 o xor 4 OUT
Mmux op[2] GND 1 o mux 33 OUT1


ALSU
A_r(2:0)
B_r(2:0)
op_r(2:0)
bypass_A_r
bypass_B_r
cin_r
clk
direction_r
red_op_A_r
red_op_B_r
rst
serial_in_r
leds(15:0)
out(5:0)
Block: ALSU
Type: ALSU
ALSU


Block: ALSU
Type: ALSU:1