

Lab Assignment 1

1. Ripple Adder 8bits

Number of 4-Input LUTs	16
Number of IOs	26
Critical Path Delay	13.203ns

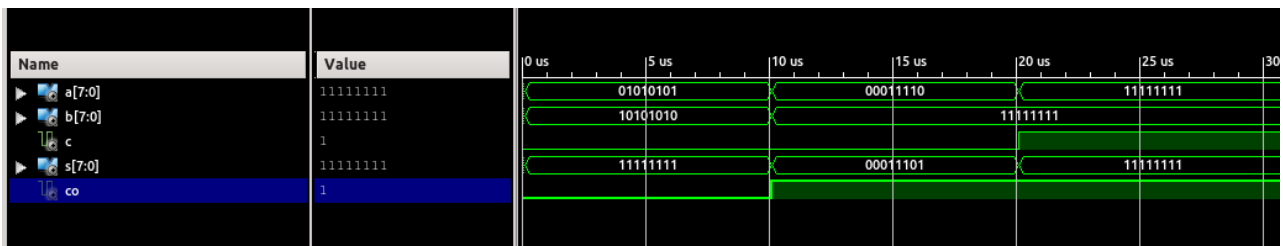


Figure 1 Behavioral Simulation of Ripple Adder 8bits

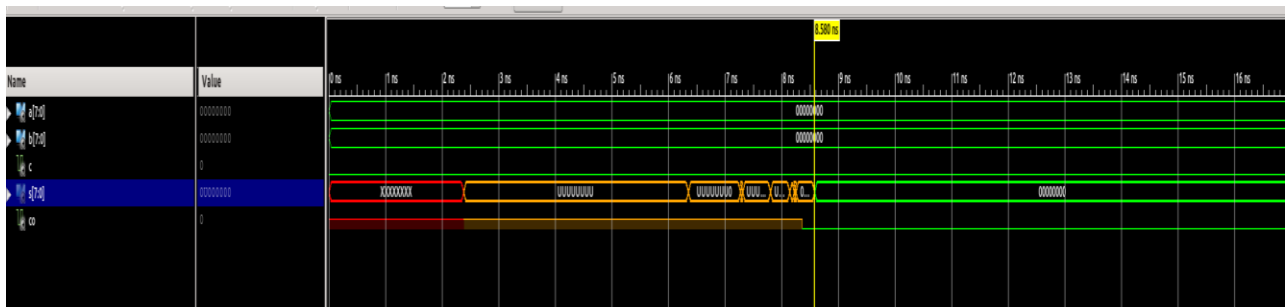


Figure 2 Post-Route Simulation of Ripple Adder 8bits, the critical path delay is 8.580ns

2. Conditional Sum Adder 8bits

Number of 4-Input LUTs	17
Number of IOs	25
Critical Path Delay	10.013ns

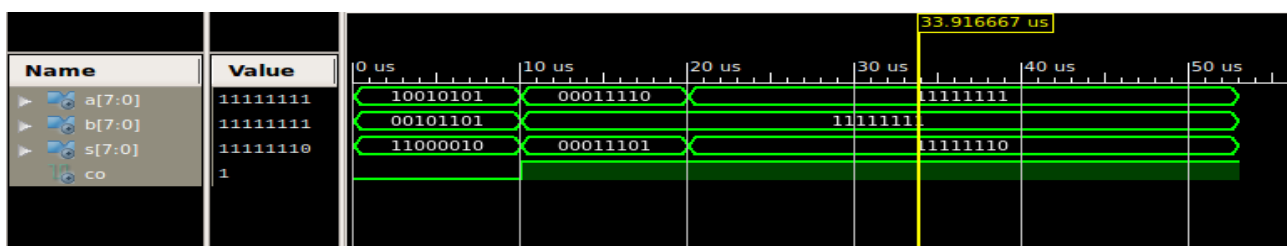


Figure 3 Behavioral Simulation of Conditional Sum Adder 8bits



Figure 4 Post-Route Simulation of Conditional Sum Adder 8bits, the critical path delay is 7.000ns

3. Carry-Lookahead Adder 8bits

Number of 4-Input LUTs	16
Number of IOs	26
Critical Path Delay	13.203ns

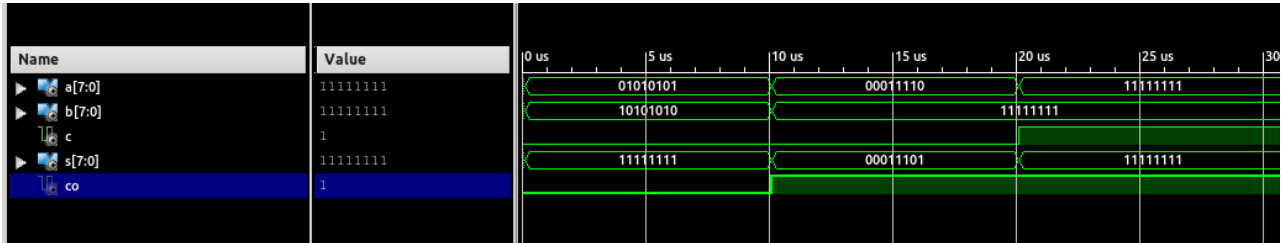


Figure 5 Behavioral Simulation of Carry-Lookahead Adder 8bits

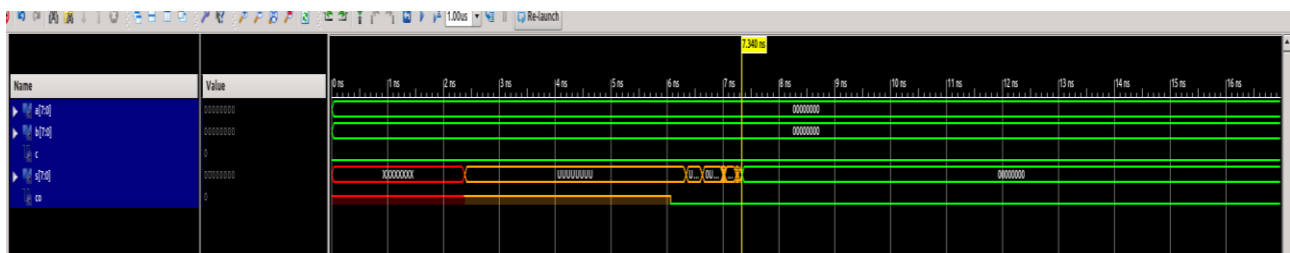


Figure 6 Post-Route Simulation of Carry-Lookahead Adder 8bits,
the critical path delay is 7.340ns