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Lab 2 – 01/29/2024

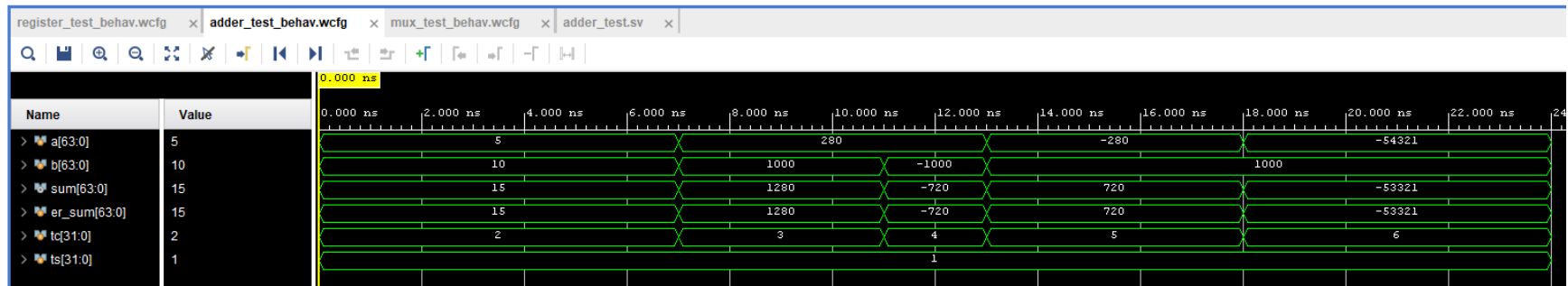


Figure 1: adder_test Waveform

Adder_Test Results

***** BEGIN TEST RESULTS *****

Test Case 1

Inputs: a = 5 | b = 10

+++ Step 1: Pass: |sum| time = 7 ns | er = 15 | ar = 15 | er_bits = 64 | ar_bits = 64 +++

Test Case 2

Inputs: a = 280 | b = 1000

+++ Step 1: Pass: |sum| time = 11 ns | er = 1280 | ar = 1280 | er_bits = 64 | ar_bits = 64 +++

Test Case 3

Inputs: a = 280 | b = -1000

+++ Step 1: Pass: |sum| time = 13 ns | er = -720 | ar = -720 | er_bits = 64 | ar_bits = 64 +++

Test Case 4

Inputs: a = -280 | b = 1000

+++ Step 1: Pass: |sum| time = 18 ns | er = 720 | ar = 720 | er_bits = 64 | ar_bits = 64 +++

Test Case 5

Inputs: a = -54321 | b = 1000

+++ Step 1: Pass: |sum| time = 24 ns | er = -53321 | ar = -53321 | er_bits = 64 | ar_bits = 64 +++

Pass Count = 5

Fail Count = 0

***** END TEST RESULTS *****

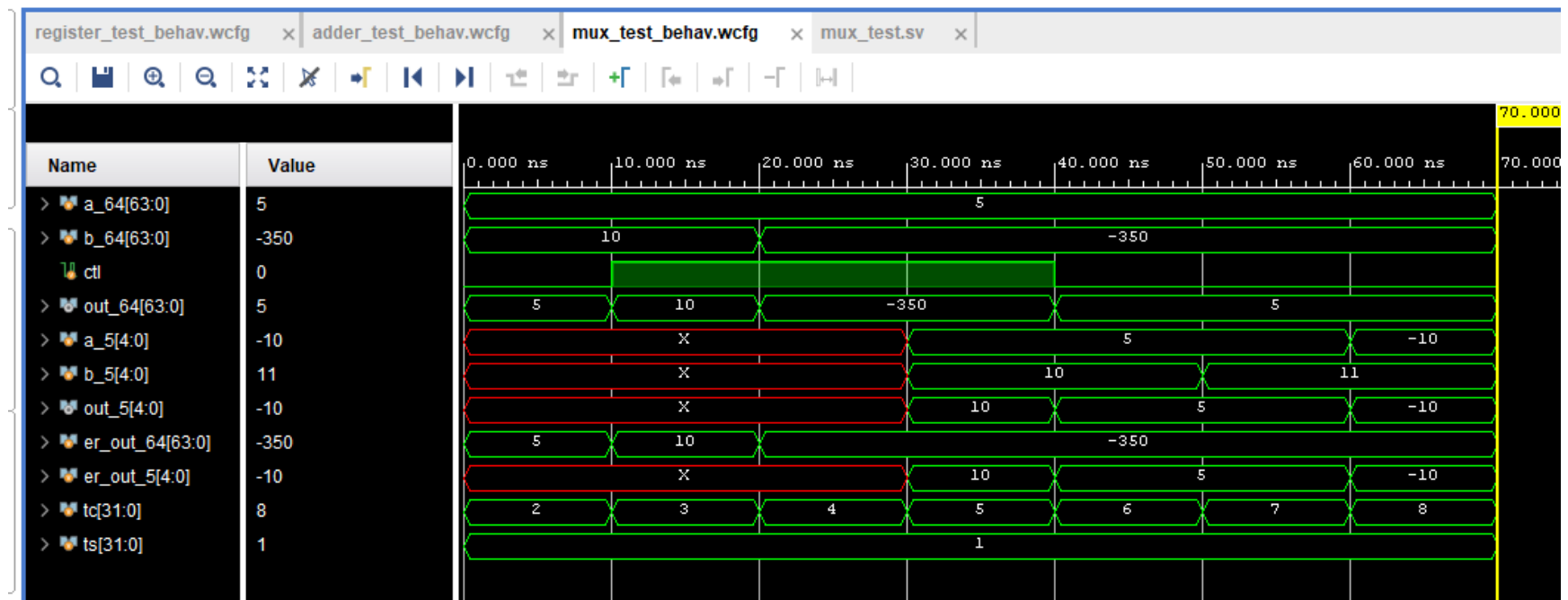


Figure 2: mux_test Waveform

Mux_Test Results

***** BEGIN TEST RESULTS *****

Test Case 1

Inputs: a_64 = 5 | b_64 = 10 | ctl = 0

+++ Step 1: Pass: |out_64| time = 1 ns | er = 5 | ar = 5 | er_bits = 64 | ar_bits = 64 +++

Test Case 2

Inputs: a_64 = 5 | b_64 = 10 | ctl = 1

+++ Step 1: Pass: |out_64| time = 11 ns | er = 10 | ar = 10 | er_bits = 64 | ar_bits = 64 +++

Test Case 3

Inputs: a_64 = 5 | b_64 = -350 | ctl = 1

+++ Step 1: Pass: |out_64| time = 21 ns | er = -350 | ar = -350 | er_bits = 64 | ar_bits = 64 +++

Test Case 4

Inputs: a_5 = 5 | b_5 = 10 | ctl = 1

+++ Step 1: Pass: |out_5| time = 31 ns | er = 10 | ar = 10 | er_bits = 5 | ar_bits = 5 +++

Test Case 5

Inputs: a_5 = 5 | b_5 = 10 | ctl = 0

+++ Step 1: Pass: |out_5| time = 41 ns | er = 5 | ar = 5 | er_bits = 5 | ar_bits = 5 +++

Test Case 6

Inputs: a_5 = 5 | b_5 = 11 | ctl = 0

+++ Step 1: Pass: |out_5| time = 51 ns | er = 5 | ar = 5 | er_bits = 5 | ar_bits = 5 +++

Test Case 7

Inputs: a_5 = 22 | b_5 = 11 | ctl = 0

+++ Step 1: Pass: |out_5| time = 61 ns | er = 22 | ar = 22 | er_bits = 5 | ar_bits = 5 +++

Pass Count = 7

Fail Count = 0

***** END TEST RESULTS *****