

# ECE 4435 Learning Activity 3 Report

Spencer Hernandez - ECE 4435 - February 20, 2023

## I. INTRO

The purpose of this lab was to construct an Arithmetic Logic Unit (ALU) for our RISC processor.

## II. ARITHMETIC LOGIC UNIT

The ALU is responsible for acting as a calculator for the CPU of our RISC processor. The figures below act as my justification as to why I believe my design meets the requirements.

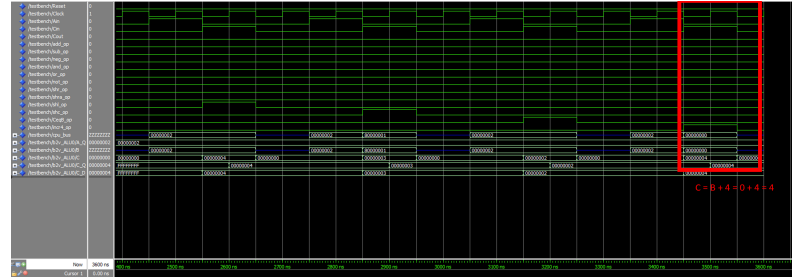


Fig. 4. Verification for Incr4 Operation

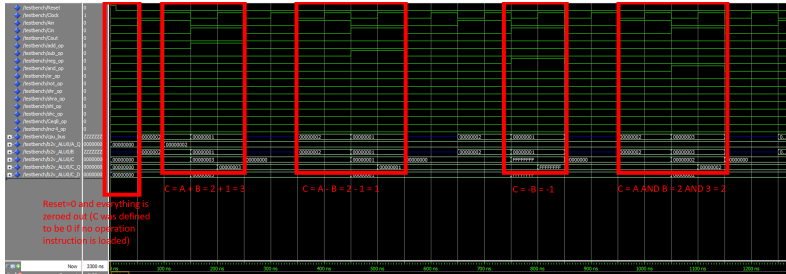


Fig. 1. Verification for Reset, Add, Sub, Neg, and AND Operations

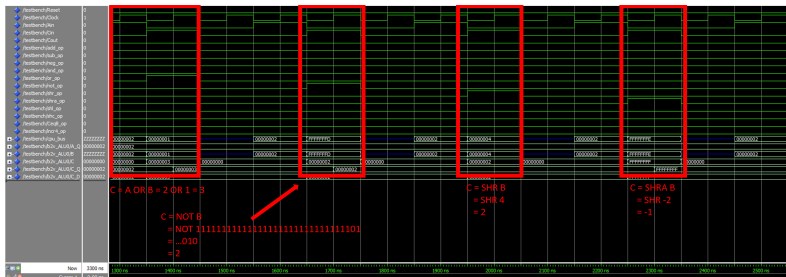


Fig. 2. Verification for Or, Not, Shr, and Shra Operations

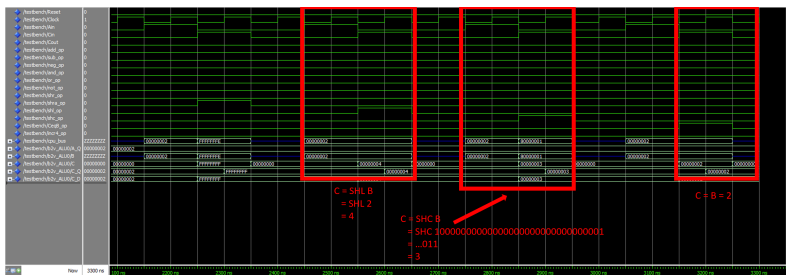


Fig. 3. Verification for Shl, Shc, CeqB Operations