Beykoz University

Department of “Computer Engineering”

“Computer Organisation”

Final Project Report

32 BİT ALU - Logisim

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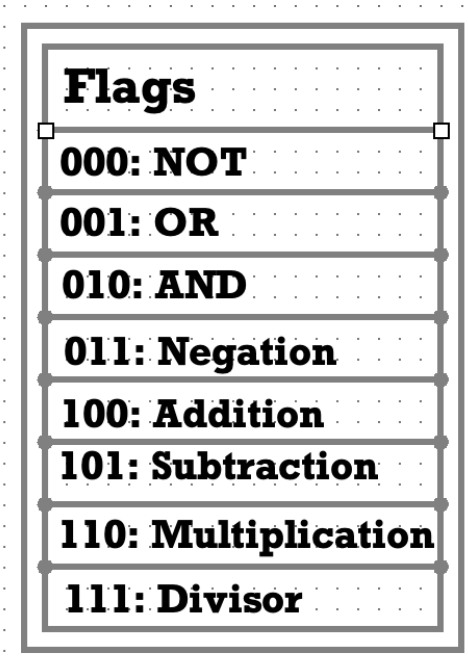
32 BİT ALU

Project Overview

An Arithmetic Logic Unit (ALU) is a functional block of any processor. It is used to perform arithmetical and logical operations. ALU's are designed to perform integer based operations. In this module, we have designed an ALU which performs certain specific operations on 32 bit numbers.

The arithmetic operations performed are: Addition, subtraction and multiplication. The logical operations performed are: AND, OR, XNOR, left shift and right shift.

I've added some flags, so, you can see the name of instructions below:



I've used NOT, OR,AND,Negation, Addition, Subtraction, Multiplication and Divisor gates & instructions in my ALU design and implementation.