

Abstract

Minecraft can be used as an interesting way to explain and visualize electricity in a digital circuit. In Indonesia, Minecraft is still not widely used as a game that visualizes digital electronics with digital logic gates where interconnection of each gate can be configured with the other gate. Meanwhile, the Minecraft's resources holds potential that can combine creativity, game and digital electronics. This study discusses the use of Minecraft for Arithmetic Logical Unit (ALU) modeling on Microprocessors Choosing ALU architecture which is one of the main components in each microprocessor architecture that will be modeled. Due to the consideration of ALU's role as the important microprocessors to form data processing units on the computer. ALU is built on logic architecture (OR, NOR, AND, NAND, XOR, XNOR) and arithmetic architecture (ADD, SUB). The modeling results show that all standard ALU operations have been successful.

Keyword : Minecraft, Redstone, Arithmetic Logical Unit.