

Multi-cycle Simulator Overview

The multi-cycle simulator was built by extending the single cycle simulator. Each instruction is handled differently by the simulator and each instruction takes a different number of cycles. The total number of cycles is recorded while evaluating the instruction type. The total number of cycles is printed at the end of execution.

Understanding what needed to be changed from the single cycle simulator to the multicycle simulator took a while. Once it was determined that the cycles per instruction was the only difference it was easy to implement into the single cycle simulator.

There were no shortcomings. The multicycle simulator works as expected and prints the correct performance statistics for all instructions and machine code files.