

Lab 3: MIPS Datapath for R-type Instructions Implementation on Basys-III Board

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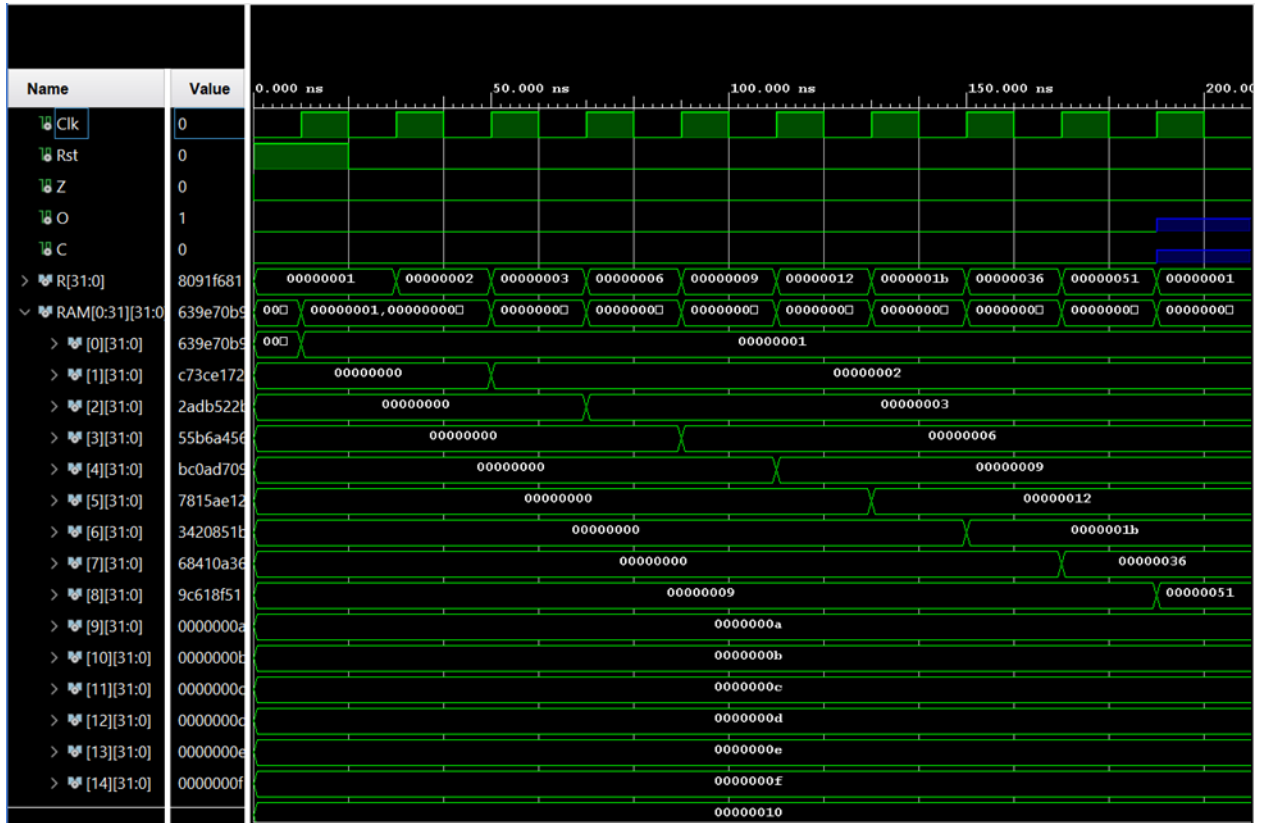
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Introduction: The purpose of this lab is to implement what was completed in Lab 2 onto the Basys 3 board using Vivado's hardware manager and implement new R-type instructions to complete another calculation.

Problem Logic & Solution: We will use a top-level file along with a constraint file to generate a bitstream and implement the design onto the Basys III board. For the other calculation it is simply a matter of determining the instructions and then converting them into 8-byte hexadecimal.

Logic Utilization	Used
# of LUTs	206
# of Flip-Flops	0
# of Slices	319
Maximum Frequency	100 Mhz

- Simulation Result with new R-type instructions



Conclusion: I got the results I expected in the simulation, for submission I can turning in 2 separate folders one for task 1 and the other for task 2.