CS 342000 / CS343000
Instructor: Professor Izidor Gertner
Spring 2022
Azwad Shameem, 3/21/2022
Midterm Lab Submission

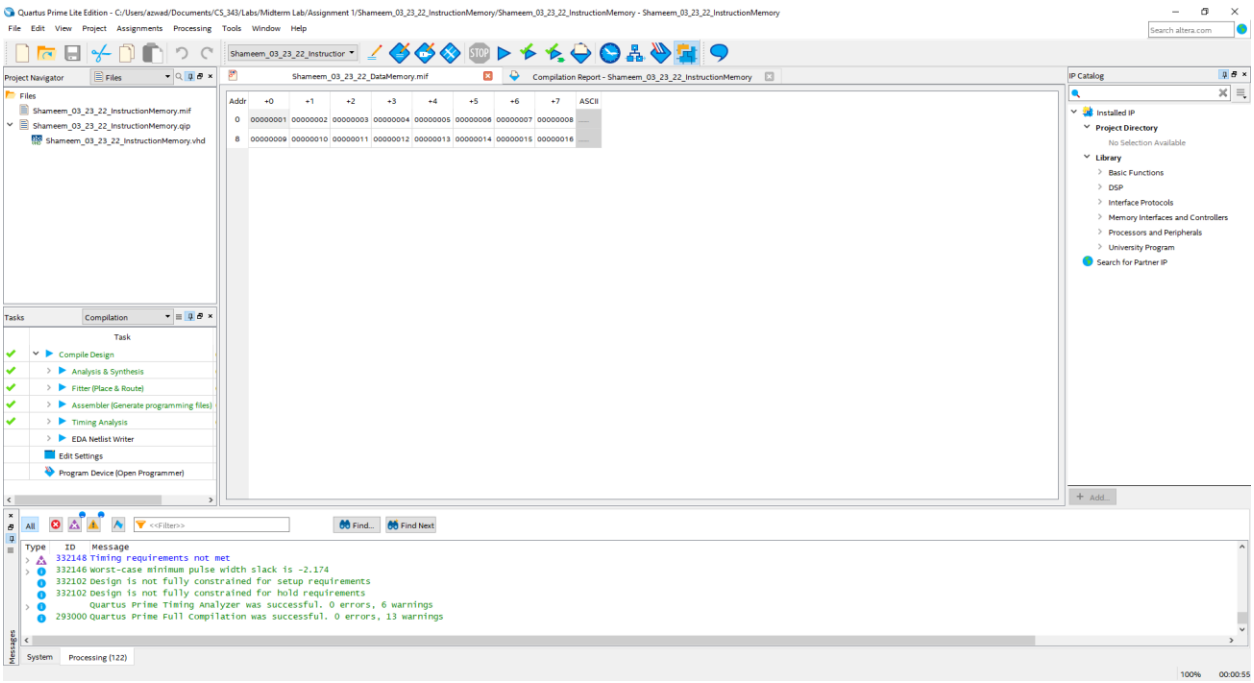

Figure 1: Simulation of Data Memory

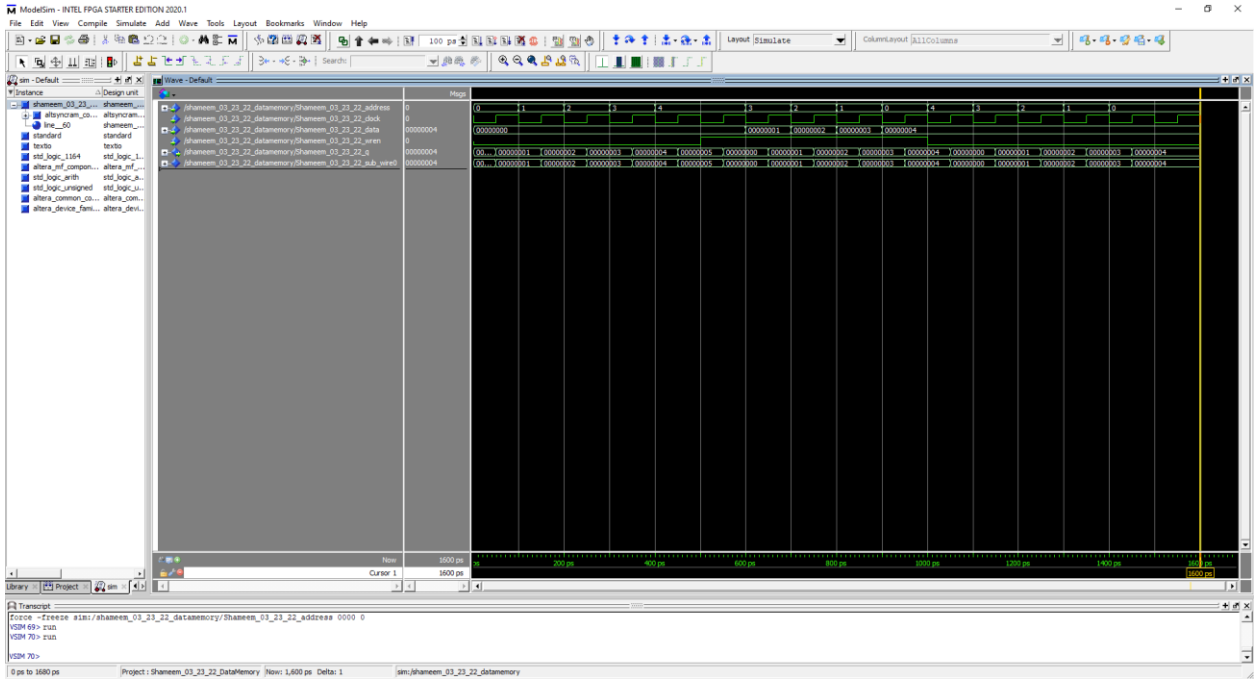

Figure 2: Simulation of Data Memory NOTE: The radix is **Hexadecimal** in simulation.

From 0 ps to 500 ps the Data memory is reading 5 integers from the .mif file from addresses 0 to 4. From 500 ps to 1000 ps the Data Memory is writing to SRAM memory by enabling wren=1 and using data as the input to write 5 different numbers to SRAM memory. From 1000 ps to 1600 ps the Data memory reads from the addresses 4 to 0 to make sure the 5 different numbers written to SRAM memory is written correctly.

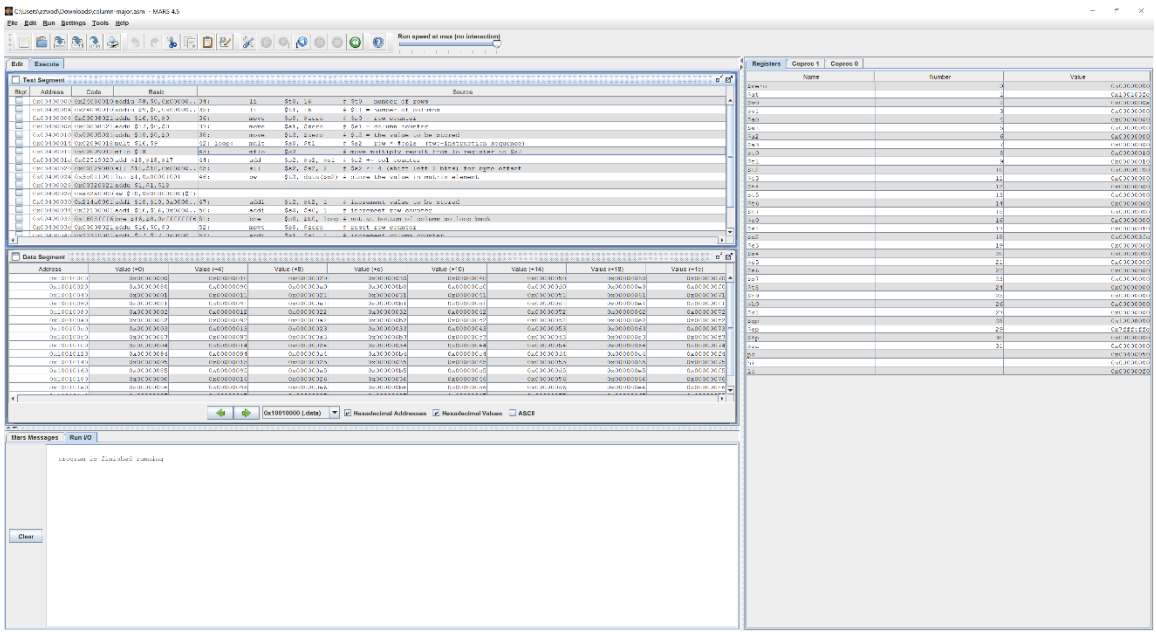

Figure 2: Mars – ran column-major.asm

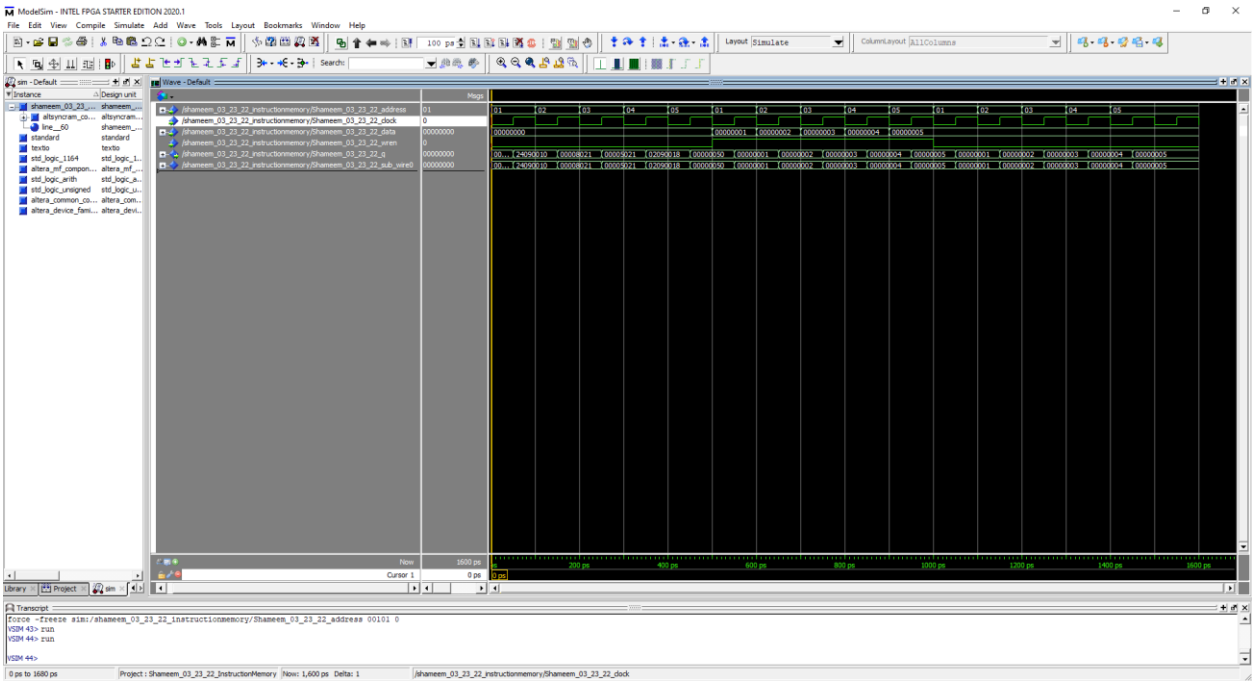

Figure 3: Simulation of Instruction Memory NOTE: The radix is **Hexadecimal** in simulation.

From 0 ps to 500 ps the Instruction Memory is reading 5 integers from Mars instruction from addresses 1 to 5. From 500 ps to 1000 ps the Instruction Memory is writing to SRAM memory by enabling wren=1 and using data as the input to write 5 different numbers to SRAM memory. From 1000 ps to 1600 ps the Instruction Memory reads from the addresses 5 to 1 to make sure the 5 different numbers written to SRAM memory is written correctly.