Processor Design
CS 3220

Real Project 4 Report

Yoel Ivan
Partner: Wenduo Yang

Approach

On this assignment, we decide to divide work so that one person convert the existing I/O device to separate module and implement the bussing, and the other write the assembly and the Timer device module. We did that so we can both start together immediately, and don't have to worry for bug due to changes in the I/O device when writing the assembly code. For the module design, our approach is just trying to read the requirement slides, and follow what it says.

Problems

The way we divide the task, create a problem such that the person who write the assembly code need to be able to integrate the Timer device which based on bussing to the current pipelined processor without making too many changes. Another problem is that it's been a very long time since the last assembly code I wrote, so I already forgot how to make subroutine and stack convention, this and time constraint force me to write an extremely serial, redundant, and somewhat unreadable code. Despite the style, the code works pretty well. More problem come when it was the time to merge our work together. Since our approach to the bussing are different, we have trouble putting things together. We eventually fixed the problem by changing some of the module we wrote so it fit together.

Contributions

I contributed to the project by writing the *write-only* assembly code and the Timer device module.