**Memo: Current Status of Processor Milestone 4**

Team 1a

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October 28, 2015

For this milestone, our group rewrote our integration tests and unit tests. We were much more thorough this time with the unit tests, and made them cover edge and corner cases instead of just base cases. For the integration tests, we scrapped what we had before and completely restarted. For each test we picked a useful and small combination of components, identified which inputs and outputs were needed for testing, and wrote basic, edge, and corner cases to test the limits of the combined units.

The biggest part of the project this milestone was creating the control unit. Our group created the control unit for every single control bit on the datapath. We wrote tests for the control unit to test that it works properly for different instructions. For each control signal, we added a description to the list of inputs and outputs to clarify what each was used for.

We wrote a table detailing the control states, like a control bubble diagram, and a state transition diagram to show which controls are used when and which ones don’t matter.

With this milestone, our processor is missing very little. Next week, we plan on finishing the last milestone and then transitioning to debugging our processor. Once it works, we’ll focus more on extra software for the processor (like a disassembler and a compiler) and making the processor work on a board.