Meeting Notes 9/3

Some goals

Animate all assembly programs

Visual debugger that follows format of the powerpoint slides, highlight busses and show mux states

Bit propagation through mux and bus

Speed stepping

Make CPU explainable to sophomores

Architecture details

Custom assembly language MIPS-based

Memory is a register file

8-bit CPU (fairly sure)

BIOS can preload code memory through switches

Step, normal speed, and turbo through button combinations

More goals

Emulate the CPU – no interfacing with the actual board during runtime – Visualize the execution

Web interface?

Potentially rewrite compiler in python/C

Machine code -> assembly

From BDF to Verilog, rewrite for VHDL (381-esque?)

Do some research to figure out what will be best to visualize and animate like the slides

MP4 creation of animation

Punchcard reading for bios

Tasks for next meeting (10/4 @ 11AM):

Look into options for animating

Study architecture, assembler and compiler programs