Design notes

CPUUnits:

The class of CPUUnits is a collection of the units in a processor, including all types of registers and memory.

CPU

The class of CPU realize the simulation of instruction cycle, including instruction fetch, decode, execute and write back. In this class, there are three kinds of working mode, which are “go”, “debug” and “SingleStep”. For “go” and “debug” mode, the CPU runs all the instructions stored in memory. However, there are differences between these two modes. Besides running all the instructions, CPU running in “debug mode” prints the log of every instruction. When running on “SingleStep” mode, the CPU execute only one instruction.