

C6461 Simulator - Part 2

The simulator component has been updated from part 1 to include several new components:

1. All instructions have been implemented except CHK and part 4 instructions.
2. A cache of size 16 words has been implemented between the computer and memory. This cache utilizes a simple FIFO replacement policy: as soon as a cache miss occurs, the least recently used word is replaced.
3. In addition, we have developed the program located at `data/program.txt` to test the functionality of the simulator. This program first prompts the user to enter 20 numbers. Once they have done that, the program prompts the user to enter a guess number. Finally, the program prints out the closest of the first 20 numbers to the guess number.