

# Quick Start - Part 2

The "Simulator Quick Start" section below still applies to part 2, except that now the UI displays the cache, an OUT display field, as well as a console input field to enter data through the IO stream.

To test the functionality of Program 1, follow the steps below:

1. First determine which program you want to run. Program 1 is located at ``data/program.txt``.
2. Assemble the program selected using the following line:  
``java -jar build/assembler/*.jar data/program.txt``
3. Run the simulator with the following line:  
``java -jar build/simulator/*.jar``
4. The GUI should be preloaded with the correct data/load.txt file generated in step 2, and the octal input field should already be filled in with ``000144``, which is the correct START location to run the program. Select "IPL" to load the program into memory, and select the button under "PC" to set the PC to the correct location. Finally, select "Run" to execute the program.
5. You will be prompted to enter the first 20 numbers into the console input field. You can do so by typing the number, from -32768 to 32767, into the console input field, and pressing enter.
6. You will be prompted to enter a guess number into the console input field. You can do so by typing the number, from -32768 to 32767, into the console input field, and pressing enter.
7. The closest number will be displayed in the OUT display field.
8. Optionally, you can modify the line ``AIR 0, 20 ; R0 = 20`` in the ``data/program.txt`` file to change the number of numbers to be entered.
9. Finally, for troubleshooting, please refer to ``6461 program one.mov`` video for step by step instructions.