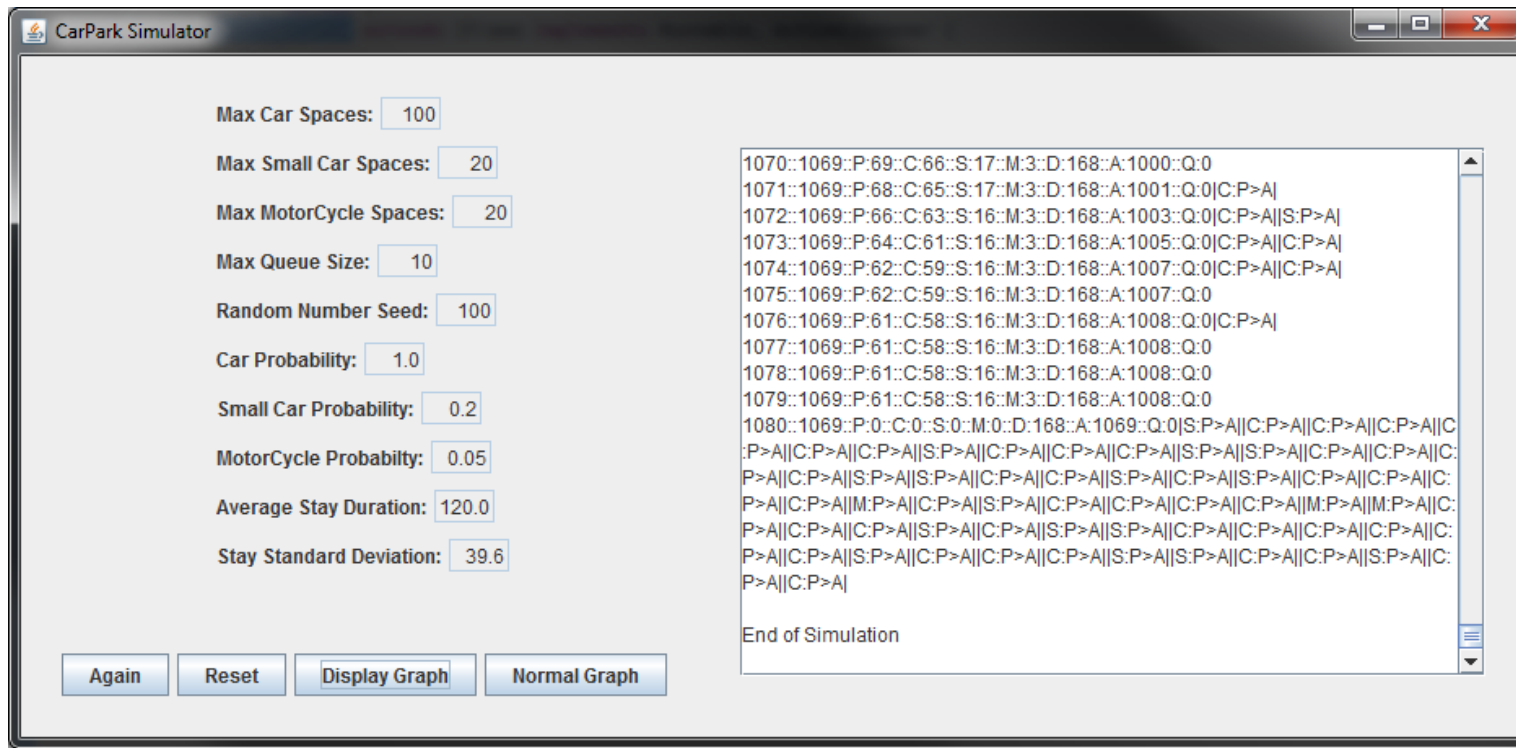# GUI Test 1

User presses the start button without altering any of the values given in the edit boxes.
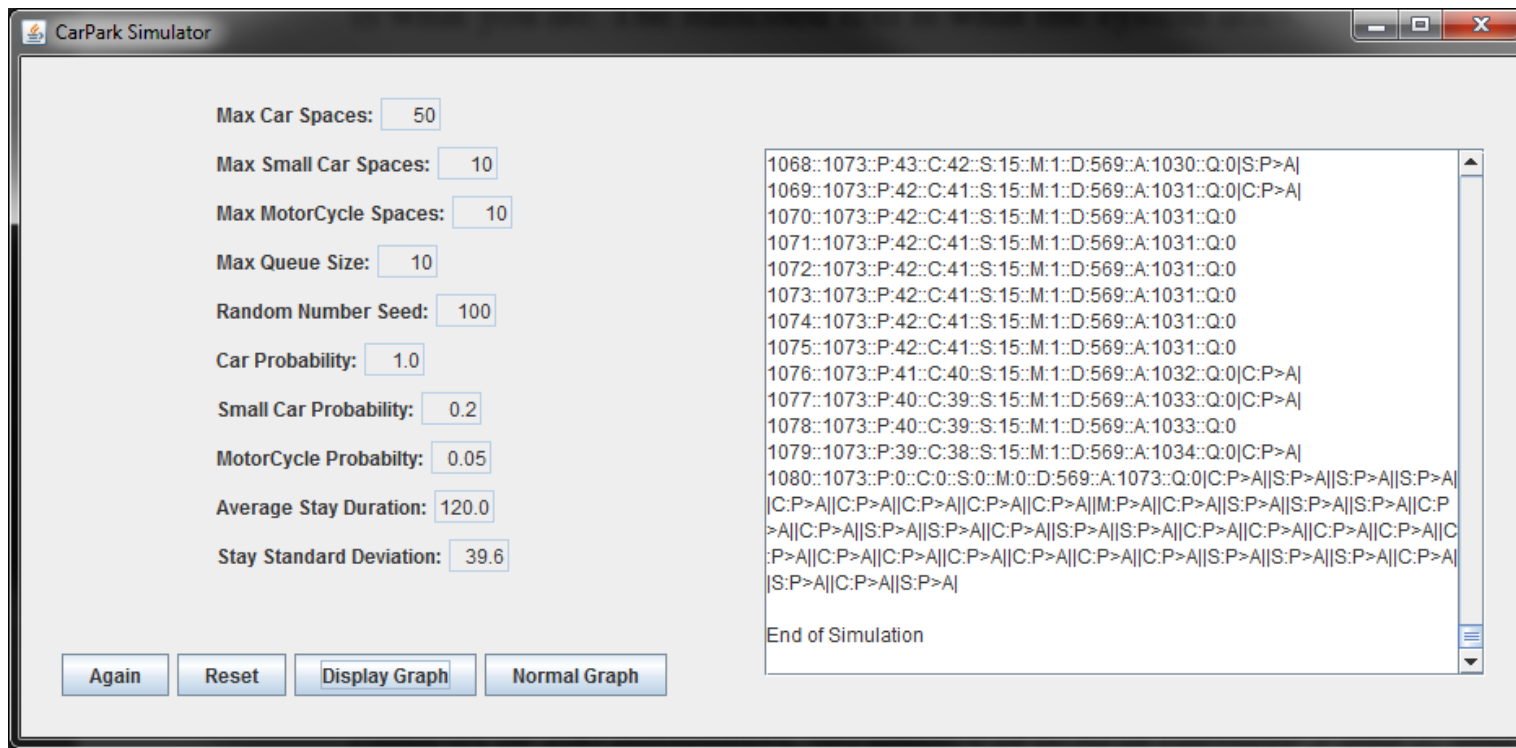
Result: The simulators text box, throughout the simulation, fills with text relating to the simulation of the car park. The final pieces of text in the text box display indicate that total number of cars involved in the simulation was 1069, no vehicles remain in the car park, 168 vehicles were disappointed and there are no vehicles remain in the queue. Both graphs display the correct information generated by the simulation.

GUI Test 2

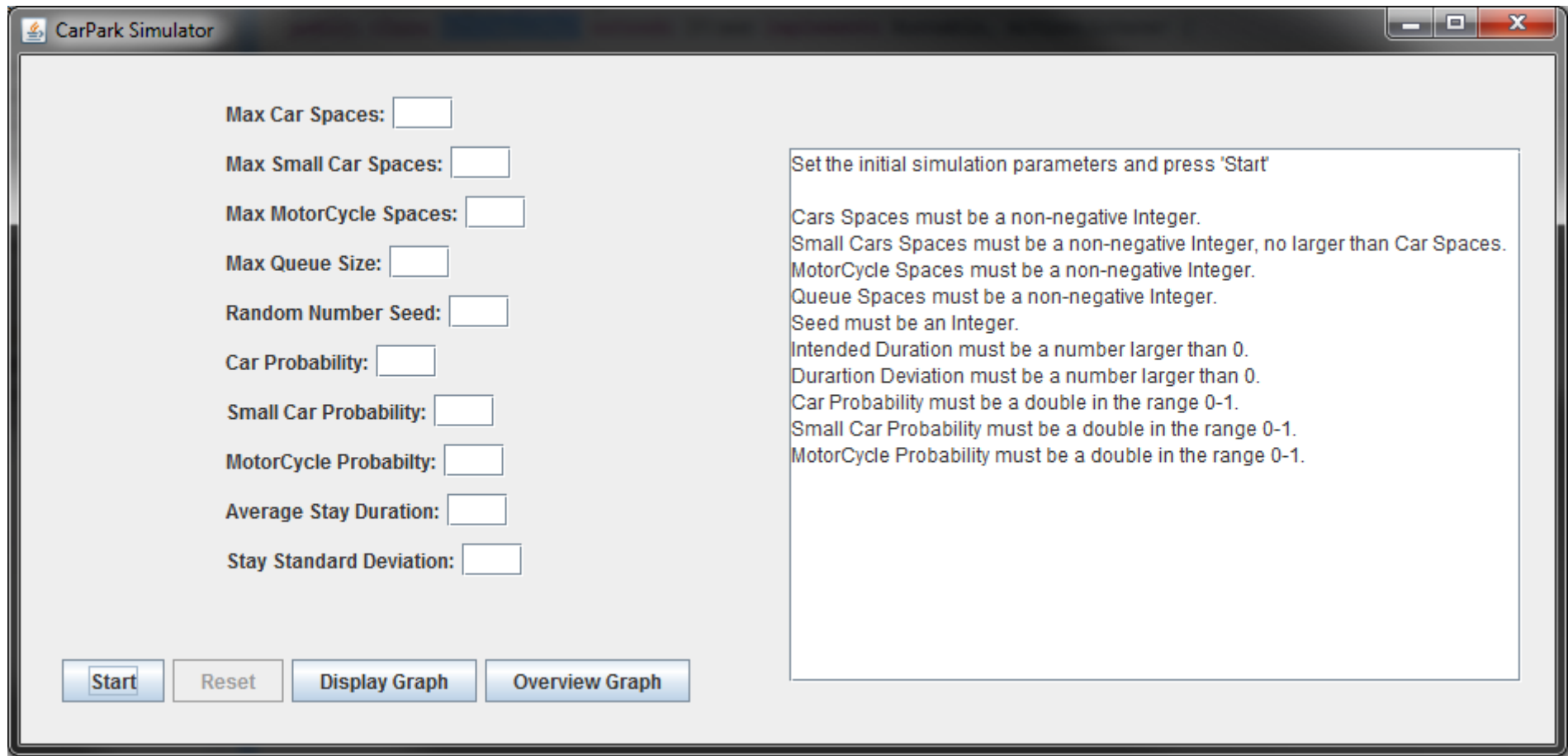User halves the maximum car, small car and motorcycle spaces and then starts the simulation.

Result: The simulators text box, throughout the simulation, fills with text relating to the simulation of the car park. The final pieces of text in the text box display indicate that total number of cars involved in the simulation was 1073, no vehicles remain in the car park, 569 vehicles were disappointed and there are no vehicles remain in the queue. Both graphs display the correct information generated by the simulation.

GUI Test 3

User removes all of the default values in the edit boxes and starts the simulation.

Result: The simulators text box fills with error messages telling the user the requirements for each field. The simulation does not run, the text box and both graphs remain empty of data from the simulation.

CarPark Simulator

Max Car Spaces: [ ]

Max Small Car Spaces: [ ]

Max MotorCycle Spaces: [ ]

Max Queue Size: [ ]

Random Number Seed: [ ]

Car Probability: [ ]

Small Car Probability: [ ]

MotorCycle Probabilty: [ ]

Average Stay Duration: [ ]

Stay Standard Deviation: [ ]

Set the initial simulation parameters and press 'Start'

Cars Spaces must be a non-negative Integer.
Small Cars Spaces must be a non-negative Integer, no larger than Car Spaces.
MotorCycle Spaces must be a non-negative Integer.
Queue Spaces must be a non-negative Integer.
Seed must be an Integer.
Intended Duration must be a number larger than 0.
Durartion Deviation must be a number larger than 0.
Car Probability must be a double in the range 0-1.
Small Car Probability must be a double in the range 0-1.
MotorCycle Probability must be a double in the range 0-1.

Start   Reset   Display Graph   Overview Graph

GUI Test 4

User starts the simulation but presses the graph buttons during the simulation.

Result: As the simulation runs, both the graphs are gradually filled with data throughout the simulation even when switching back and forth between each graph. The simulators text box still fills with text relating to the simulation of the car park and both graphs display the correct data at the end of the simulation.
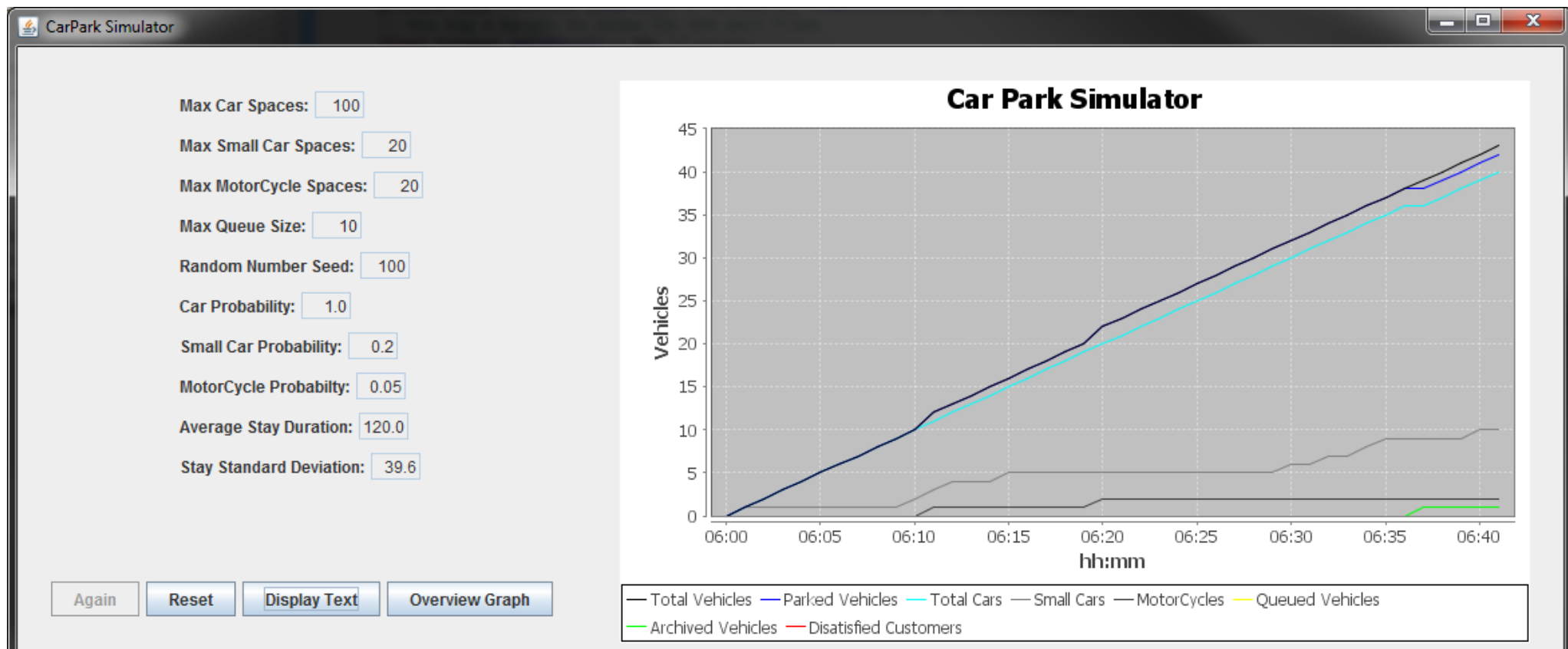
GUI Test 5

User runs the simulation. Upon completing the simulation the user resets the simulator, adds new values in the edit boxes and starts a second simulation.

Result: The simulators runs through the first simulation giving the same results as the first test. Upon pressing the reset button all data from the previous simulation is removed from the text box and the graphs. The second simulation is then run with the different values in edit boxes. The result given in the text box and the graph is correct and different from the first run through of the simulator.