

Derek Skeba

CS 163

Section 1

Term Project: Voter Simulation

Voter Simulation - Derek Skeba - skebad - CS 163 - Section 1

Current Time: 79
Avg CheckIn Q Len: 1.718...
Max CheckIn Q Len: 3 [X]
Avg Booth Q Len: 0.75 [X]
Max Booth Q Len: 1
Avg CheckIn Wait: 5.5632...
Max CheckIn Wait: 17
Avg Booth Wait: 0.0 [Gatekeeper] X [X]
Max Booth Wait: 0
Avg Time In Center: 27.08...
Min Time In Center: 0
Max Time In Center: 69 X [X]
Num Ballots Cast: 8 [X]
Num Voters In Line: 2
Num Mad Voters: 1

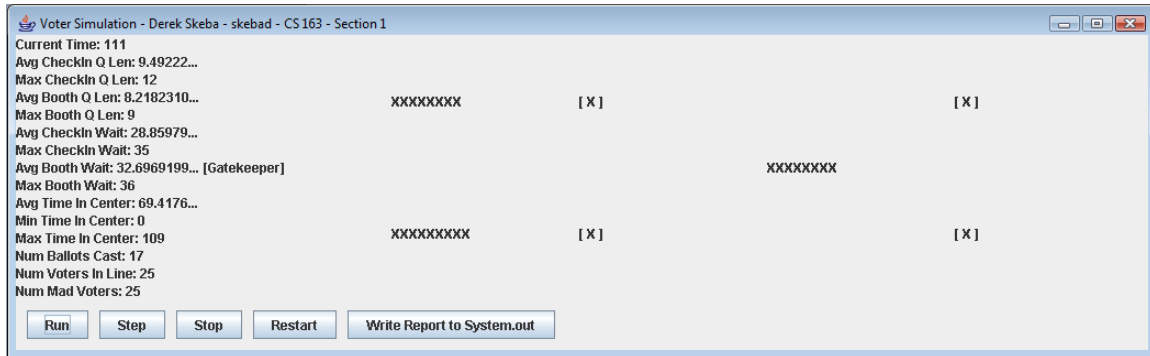
Run Step Stop Restart Write Report to System.out

Please enter the following simulation parameters:

```
numCheckInTables: 2  
meanVoterArrivalTime: 5  
meanVoterCheckInTime: 10  
numBooths: 3  
meanVoterBoothTime: 15  
meanVoterWaitTolerance: 30  
specialNeedPercentage: 0.2  
limitedTimePercentage: 0.25  
randomSeed: 68126
```

Sample Run #1

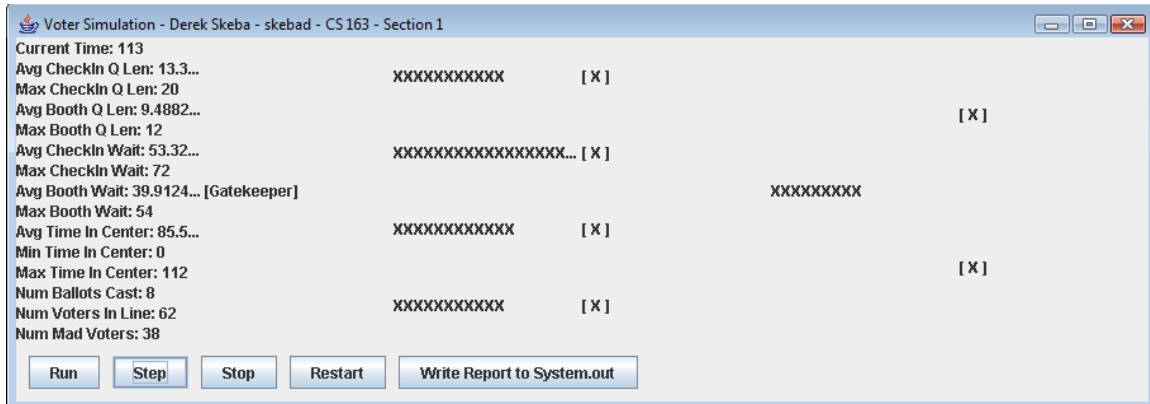
```
numCheckInTables: 2
meanVoterArrivalTime: 2
meanVoterCheckInTime: 6
numBooths: 2
meanVoterBoothTime: 10
meanVoterWaitTolerance: 30
specialNeedPercentage: 0.2
limitedTimePercentage: 0.2
randomSeed: 12353
```



```
- Begin Report -
currentTime: 113
averageCheckInQueueLength: 10.46826395790367
maximumCheckInQueueLength: 12
averageBoothQueueLength: 8.05455776121754
maximumBoothQueueLength: 9
averageCheckInWaitTime: 28.42989904571555
maximumCheckInWaitTime: 35
averageBoothWaitTime: 32.69691998992912
maximumBoothWaitTime: 36
averageTimeInCenter: 71.20884100983437
minimumTimeInCenter: 0
maximumTimeInCenter: 113
numberBallotsCast: 18
numberVotersInLine: 26
numberMadVoters: 26
- End Report -
```

Sample Run #2

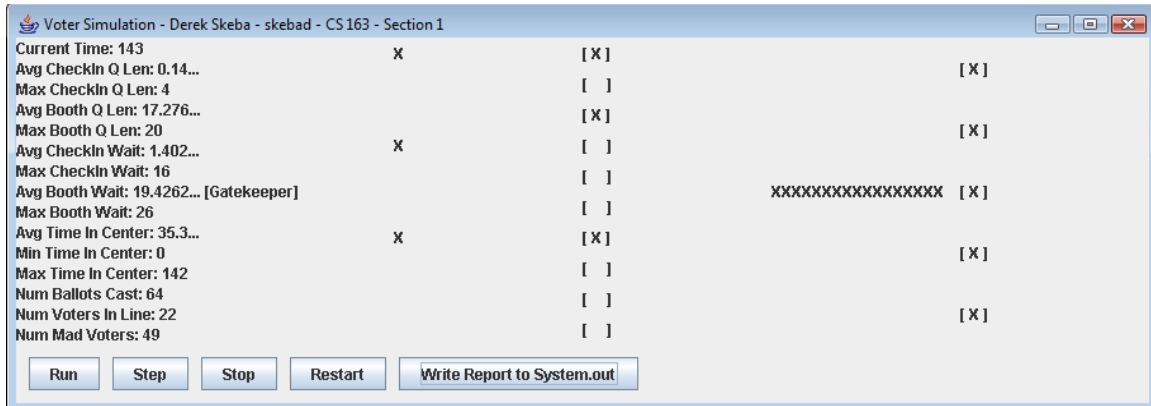
```
numCheckInTables: 4
meanVoterArrivalTime: 1
meanVoterCheckInTime: 15
numBooths: 2
meanVoterBoothTime: 20
meanVoterWaitTolerance: 60
specialNeedPercentage: 0.1
limitedTimePercentage: 0.05
randomSeed: 12353
```



```
- Begin Report -
currentTime: 116
averageCheckInQueueLength: 13.083575415393927
maximumCheckInQueueLength: 20
averageBoothQueueLength: 9.811037151140338
maximumBoothQueueLength: 12
averageCheckInWaitTime: 55.914266856972375
maximumCheckInWaitTime: 73
averageBoothWaitTime: 39.913725490117166
maximumBoothWaitTime: 54
averageTimeInCenter: 85.55294117646193
minimumTimeInCenter: 0
maximumTimeInCenter: 112
numberBallotsCast: 8
numberVotersInLine: 64
numberMadVoters: 39
- End Report -
```

Sample Run #3

```
numCheckInTables: 10
meanVoterArrivalTime: 1
meanVoterCheckInTime: 5
numBooths: 5
meanVoterBoothTime: 10
meanVoterWaitTolerance: 20
specialNeedPercentage: 0.3
limitedTimePercentage: 0.1
randomSeed: 1234
```



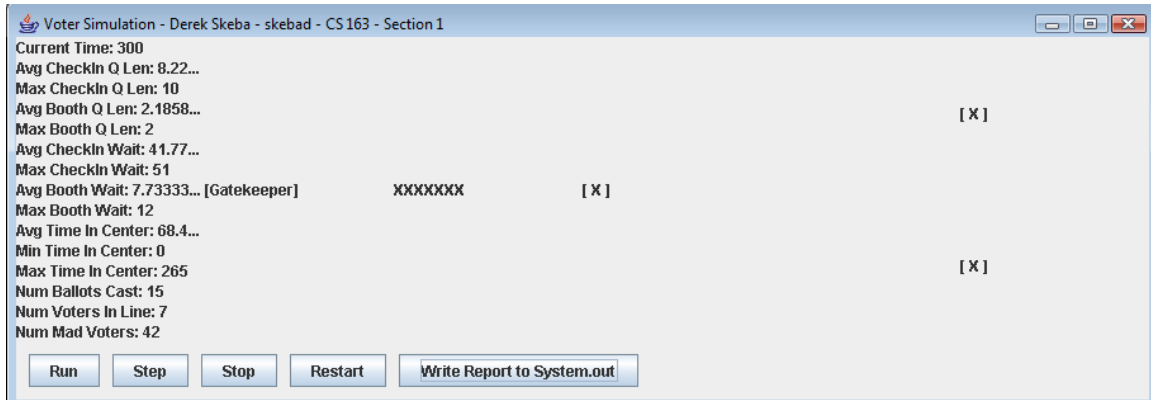
- Begin Report -

```
currentTime: 143
averageCheckInQueueLength: 0.14856159139355418
maximumCheckInQueueLength: 4
averageBoothQueueLength: 17.276432884077554
maximumBoothQueueLength: 20
averageCheckInWaitTime: 1.4028379559941877
maximumCheckInWaitTime: 16
averageBoothWaitTime: 19.42622462183449
maximumBoothWaitTime: 26
averageTimeInCenter: 35.33427004829281
minimumTimeInCenter: 0
maximumTimeInCenter: 142
numberBallotsCast: 64
numberVotersInLine: 22
numberMadVoters: 49
```

- End Report -

Sample Run #4

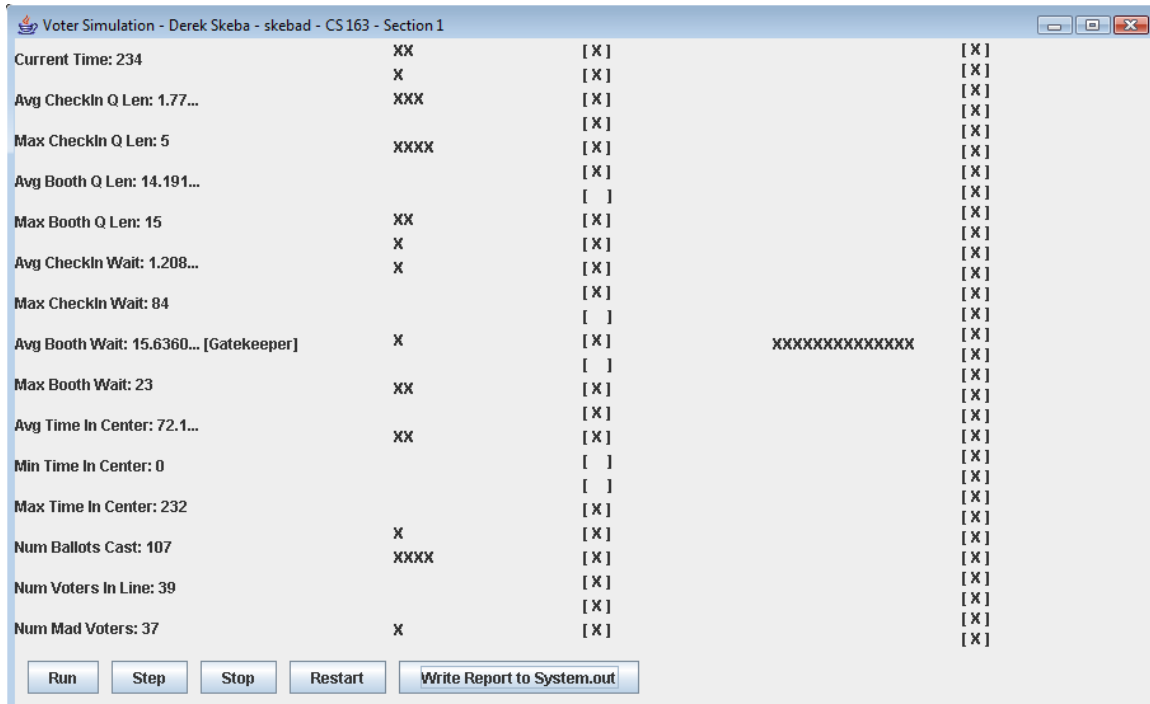
```
numCheckInTables: 1
meanVoterArrivalTime: 5
meanVoterCheckInTime: 15
numBooths: 2
meanVoterBoothTime: 20
meanVoterWaitTolerance: 30
specialNeedPercentage: 0.05
limitedTimePercentage: 0.35
randomSeed: 682
```



```
- Begin Report -
currentTime: 300
averageCheckInQueueLength: 8.226383018814772
maximumCheckInQueueLength: 10
averageBoothQueueLength: 2.1858190947251962E-16
maximumBoothQueueLength: 2
averageCheckInWaitTime: 41.77608319155267
maximumCheckInWaitTime: 51
averageBoothWaitTime: 7.733333333333333
maximumBoothWaitTime: 12
averageTimeInCenter: 68.43629261146886
minimumTimeInCenter: 0
maximumTimeInCenter: 265
numberBallotsCast: 15
numberVotersInLine: 7
numberMadVoters: 42
- End Report -
```

Sample Run #5

```
numCheckInTables: 25
meanVoterArrivalTime: 1
meanVoterCheckInTime: 30
numBooths: 30
meanVoterBoothTime: 45
meanVoterWaitTolerance: 70
specialNeedPercentage: 0.1
limitedTimePercentage: 0.1
randomSeed: 5927880
```



The screenshot shows a window titled "Voter Simulation - Derek Skeba - skebad - CS163 - Section 1". It displays a progress report with the following metrics and progress bars:

| Metric | Progress | Value |
|---|----------|-------|
| Current Time: 234 | XX | [X] |
| Avg Checkin Q Len: 1.77... | X | [X] |
| Max Checkin Q Len: 5 | XXX | [X] |
| Avg Booth Q Len: 14.191... | XXXX | [X] |
| Max Booth Q Len: 15 | XXXX | [X] |
| Avg Checkin Wait: 1.208... | XX | [X] |
| Max Checkin Wait: 84 | X | [X] |
| Avg Booth Wait: 15.6360... [Gatekeeper] | X | [X] |
| Max Booth Wait: 23 | XXXX | [X] |
| Avg Time In Center: 72.1... | XX | [X] |
| Min Time In Center: 0 | XX | [X] |
| Max Time In Center: 232 | XX | [X] |
| Num Ballots Cast: 107 | X | [X] |
| Num Voters In Line: 39 | XXXX | [X] |
| Num Mad Voters: 37 | X | [X] |

At the bottom of the window, there are five buttons: "Run", "Step", "Stop", "Restart", and "Write Report to System.out".

```
- Begin Report -
currentTime: 234
averageCheckInQueueLength: 1.7742619744631314
maximumCheckInQueueLength: 5
averageBoothQueueLength: 14.191293421422357
maximumBoothQueueLength: 15
averageCheckInWaitTime: 1.208930053145251
maximumCheckInWaitTime: 84
averageBoothWaitTime: 15.636057780826699
maximumBoothWaitTime: 23
averageTimeInCenter: 72.17309352280353
minimumTimeInCenter: 0
maximumTimeInCenter: 232
numberBallotsCast: 107
numberVotersInLine: 39
numberMadVoters: 37
- End Report -
```