Machine Problem 7 Report

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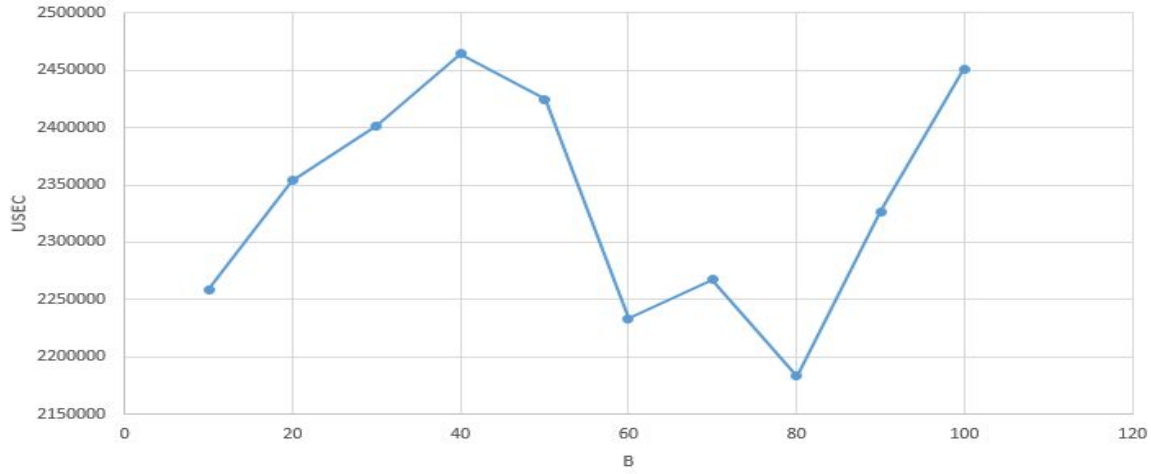
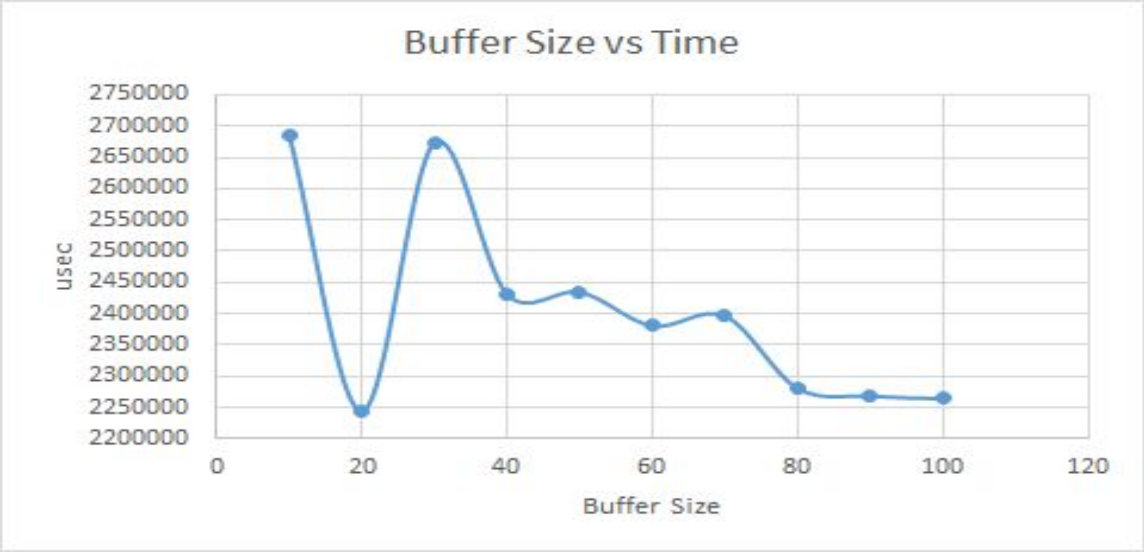
Overall there wasn't much of a performance difference between MP6 and MP7. As we see in the second set of graphs, MP6 and MP7 performed almost the same when comparing the number of threads/channels vs time. The only difference was when we increased the size of the bounded buffer, MP7 performed better. This is shown in the first set of graphs below.

N = 10000
W = 50
The size of the buffer does really change the resulting time (compared to the number of threads, graph #2) as the number of channels remains a constant of 50. As we see in MP6 the performance increased until 80 then decreased as it reached 100. However, we see that in MP7 the performance increases steadily as the buffer size increases (excluding the buffer size of 20).

MP6 Buffer Size vs Time



MP7

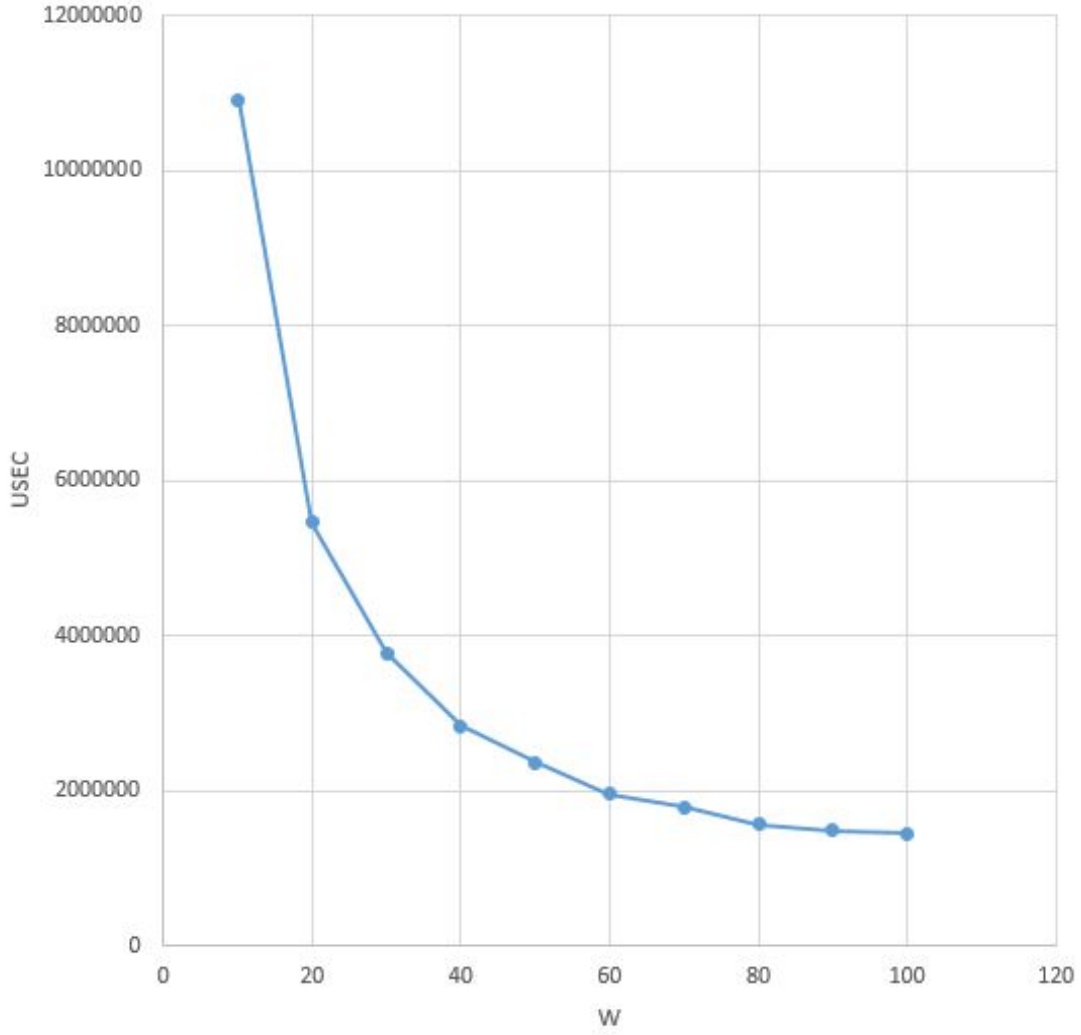


N = 10000

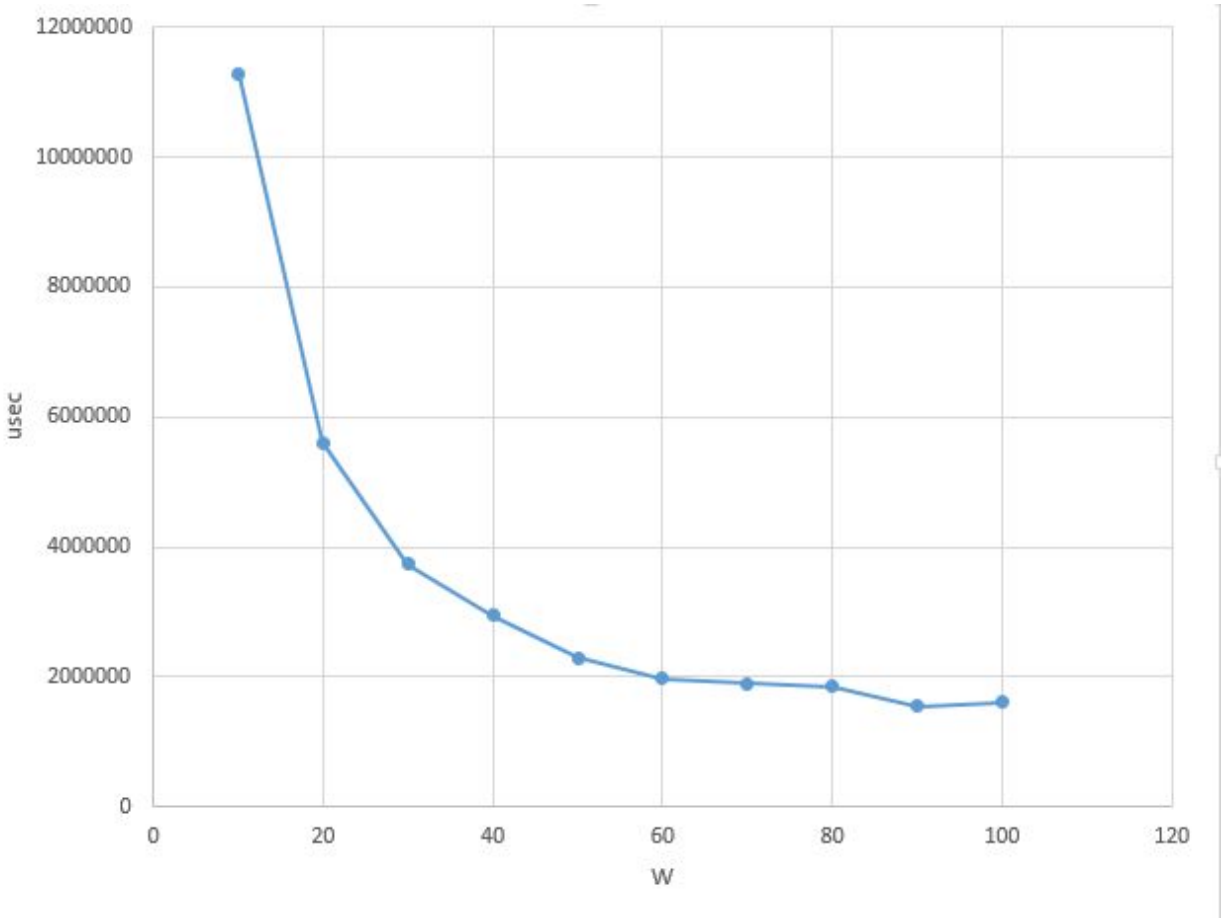
B = 50

From what we can tell, the time that it takes for MP7 to finish is the same as MP6, keep in mind a margin of error.

MP6



MP7



Once you get past 90+ channels (W), we start to see that the results to fluctuate around the 1500000 - 170000.