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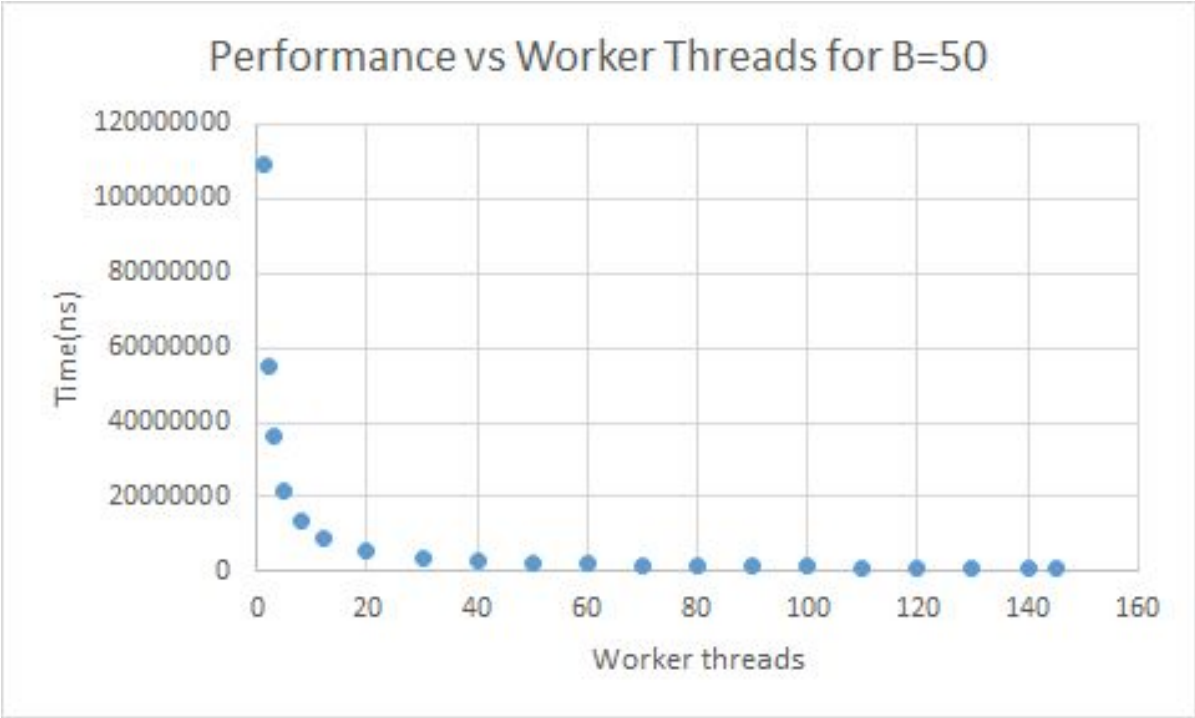
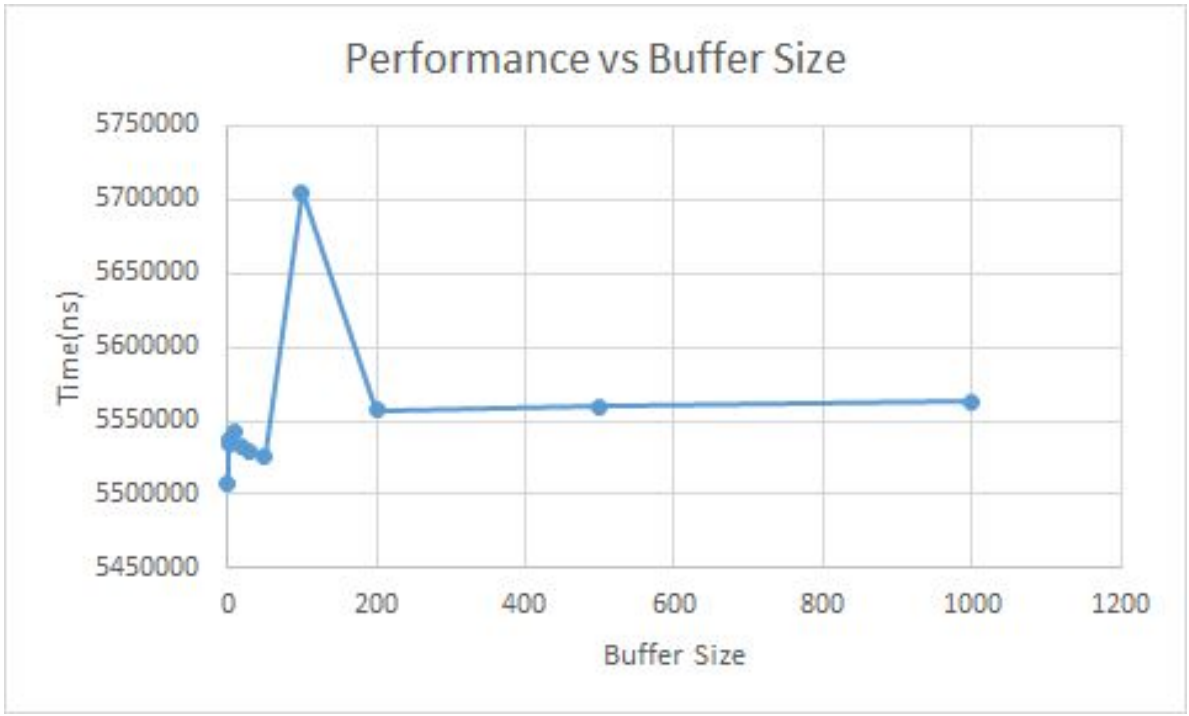
MP8 Report

The purpose of this Machine Problem was to use MP7 and adapt it so that it can be used across a network. To achieve this, we used a modified request channel which now created a TCP connection to transfer the data, and can work across different machines. Doing so, we learned about network connections and the protocols required to send data.

The implementation of this was mostly done in the *NetworkRequestChannel* files, with some small modifications to *dataserver* and the *client* files. The *client* and *dataserver* files were modified in order to make use of the new *NetworkRequestChannel* properly, and without errors.

The performance of the client was very similar to that of MP7, for corresponding buffer sizes and worker threads. There was only a very small time increase, but in general the overall shape of the graphs and time taken is about the same for both cases. For the varying worker graph the performance increases exponentially , this is expected because the client can take advantage of increasing worker threads to handle the requests. The buffer size didn't seem to matter as the graph was mostly linear, which makes sense as the machine problem used the blocking *send* and *recv* functions and thus can only benefit so much from more threads. Below are the two graphs representing our findings.




Performance vs Buffer Size
5750000
5700000
5650000
5600000
5550000
5500000
5450000
Time(ns)
0
200
400
600
800
1000
1200
Buffer Size