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PA5 - Interprocess Communication Mechanisms Report
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Data and Tables: https://1drv.ms/x/s!Atki56B5xg4Clku9pK1ztlDL-2Ld?e=gngNk2

PA4 Report (for graph comparison):
https://docs.google.com/document/d/1O02yRlquhQ-C2Yfa-rE6jJaI10l0RJwWck_vwxgYO9Y/edit?usp=sharing

Based on the data that I acquired above, interprocess communication is much faster using the Message Queue Request Channel. This is because Message Queues can be used between two or more processes.This similarities is that as I decrease the message size the performance increases (the time decreased).

The maximum w for the Message Queue Request Channel is 127 and for the FIFORequestChannel is 5380. This was more than that of PA4, and the performance is better than PA4 (the time decreased).

The major limitation is limiting the worker threads. Whenever I pass a certain limit I get a memory allocation message or a segmentation fault. Whenever this happens the Operating System becomes very slow. I opened the Task Manager in Xubuntu to figure out that my server executable is persisting and is taking up 99% of the system allocation. I have to kill this process to return the operating system to normal speed.

When coming to cleaning up or destructing the mechanisms of interprocess communication for the FIFORequestChannel there is a destructor that detees the pipe file. For the Message Queue Request Channel the destructor deletes the channel by using the mq_close and mq_unlink functions.