

PA5 Analysis

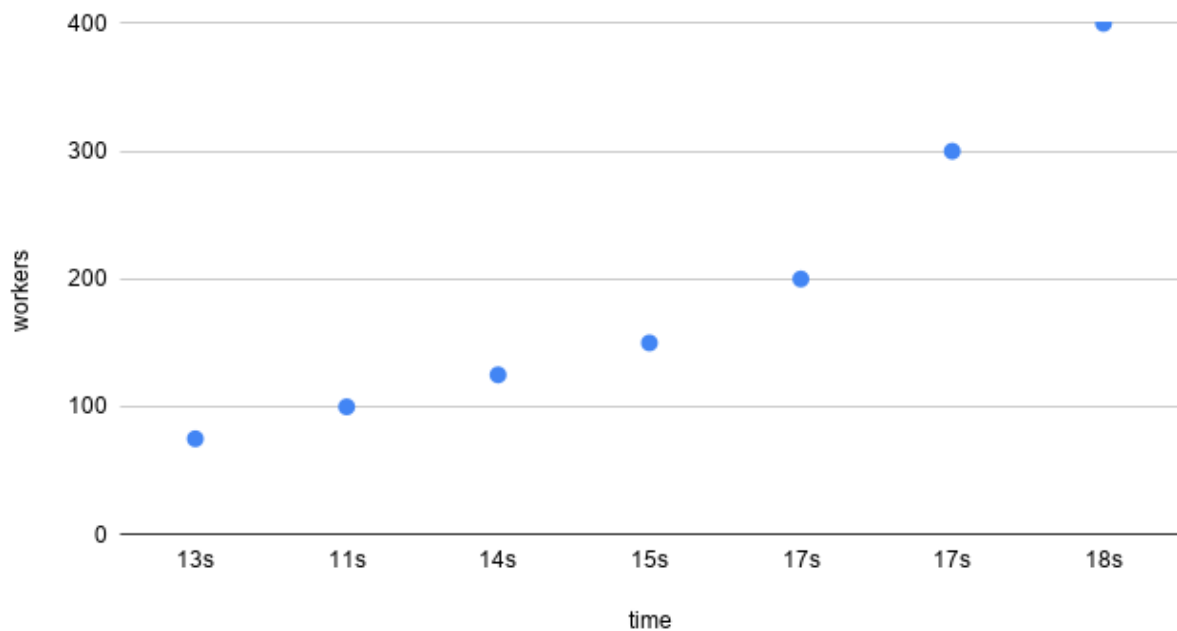
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Note: All testing was done on a 2015 MacBook Pro, Intel i7 4770HQ, 16 GB RAM.

Testing Procedures: The tests were conducted as followed. For the runtime vs. number of workers test, n was held at 15000, p was held at 15, and b was held at 30 while w was changed. For the multiple client runtime test, the number of workers for three different clients requesting data from the same patient were recorded. For the file request tests for multiple clients, three clients requested the same file but with different number of workers.

Analysis: The graph below shows the relationship between the number of workers and completion time. From the data, it can be said that TCP is slower than ICP named pipes.

workers vs. time



The next table shows the results of running three different clients with different numbers of workers concurrently. Compared to running one client, it is in line with the results as 100 workers gives the optimal runtime

Client	Number of Workers	Time
1	50	35s
2	100	23s
3	200	37s

The next table shows three clients running concurrently with differing number of workers to request a 2M file. Interestingly, for concurrent file transfers, more workers does help.

Client	Number of Workers	Time
1	50	37s
2	100	31s
3	200	22s