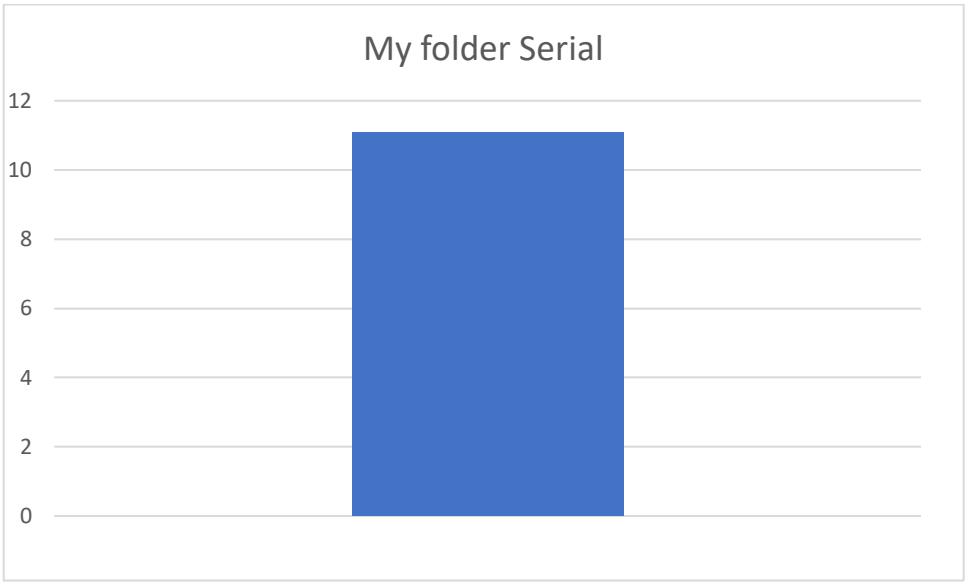
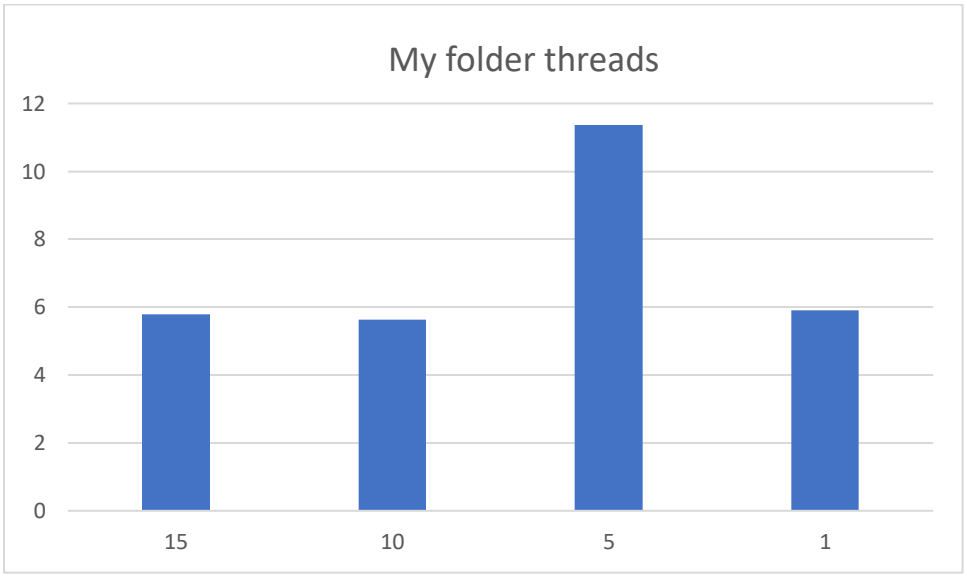
Joseph Cybul:

Testing linear and multithread architecture:

For testing both methods in this study we compare the time each one takes to perform the same tasks. First, we are going to start with the results of running both in a folder containing a few files/folders:



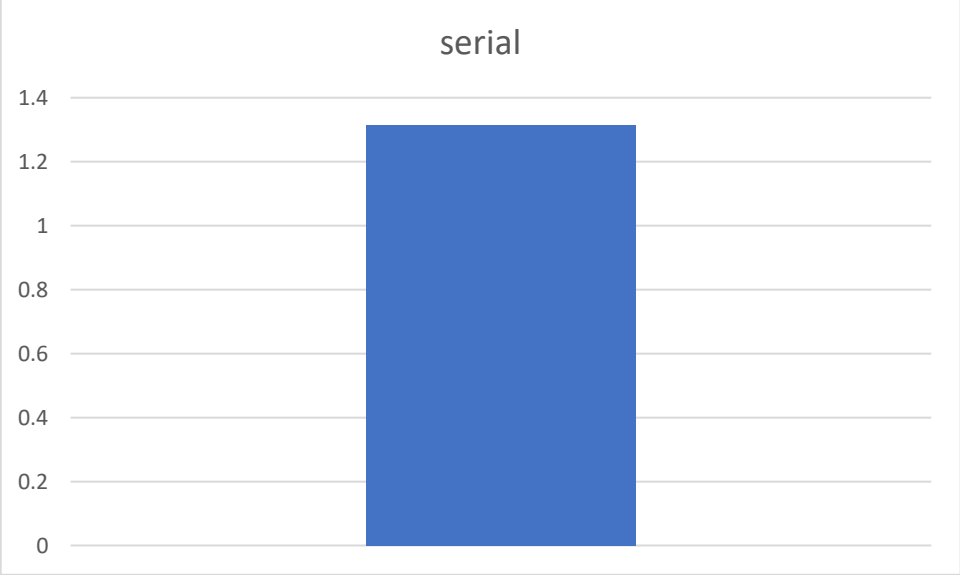
On this part of the experiment we examined a small folder, the Y axis represents the time it took in milliseconds, and the X axis represents the Serial architecture.



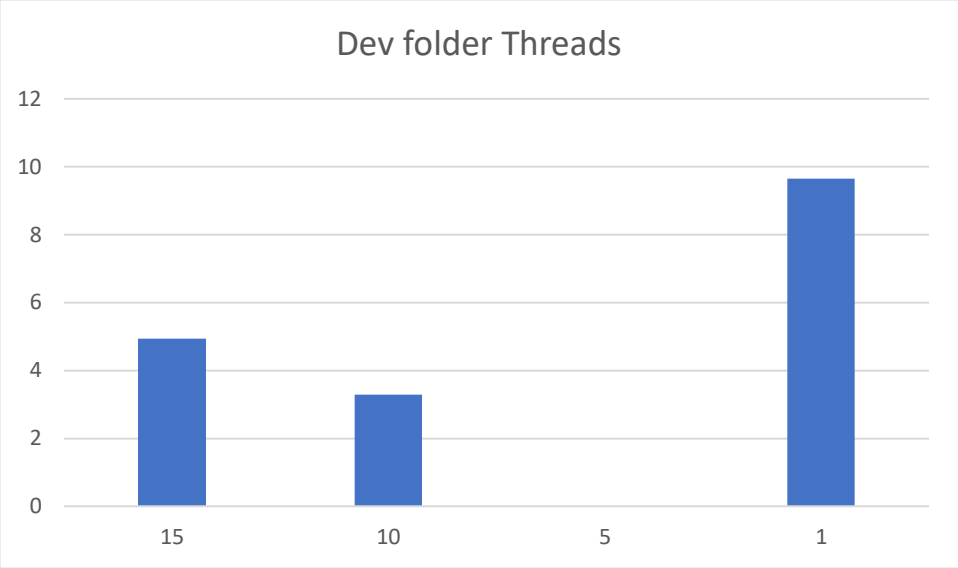
This graph represents, running the program on the small folder, as before the Y axis represents the time in milliseconds, and the X axis is the number of threads used.

Conclusion:
As expected, the multithread approach gave a better time in most cases, compared to the serial method. Except for the time when 5 threads were used were the time it took it was a little more, I suspect that these could be caused by external factors.

Now I ran the experiment on a folder containing more items.



The result shows running the serial approach on a big file, as before time was on the Y axis, and serial approach on the X axis.



The result for multithread approach shows the Y axis as time and X axis as the number of threads.

Over all the result seem to be affected by various external factor, causing some of the results to be unexpected low and high values, but the thread approach showed consistency regardless of the number of threads used, hence the serial approach is as effective.