

## John Cierpial CS314 Project 3 Readme

When evaluating how much faster my parallelized files run in comparison to the original sequential execution, I wrote a batch script which executed each of the 5 files 20 times. Each program's output was saved to a text file, which was then passed through sed to remove everything except the time for each iteration of the program's execution. The bash script also used grep to check if any of the output files contained the phrase indicating that the word was misspelled. If that was the case, a warning statement was displayed in the terminal. This ensured that the program remained functional. These times were then input into an Excel spreadsheet, which calculated the average running time over 20 iterations, found the percentage improvements and times speedup between sequential and t2\_singleloop, t2\_fastest, t4\_singleloop, and t4\_fastest. Additionally, the percentage improvement between t2\_singleloop and t2\_fastest and between t4\_singleloop and t4\_fastest was also calculated to measure the performance improvement between the two versions of the same thread's files. Attached below are the results:

0.166295	0.089544	0.087812	0.060768	0.058388
0.166721	0.088891	0.08678	0.061008	0.058361
0.166591	0.088769	0.086681	0.060569	0.060619
0.167187	0.089348	0.086833	0.060868	0.057865
0.165657	0.088985	0.086844	0.057385	0.057699
0.167129	0.087231	0.086959	0.060628	0.060984
0.165634	0.088747	0.086128	0.061546	0.058311
0.174176	0.088907	0.086824	0.061364	0.057841
0.166161	0.088909	0.089765	0.057028	0.061085
0.165678	0.089425	0.086775	0.060934	0.057467
0.165093	0.08881	0.087203	0.060162	0.058743
0.172947	0.089045	0.090816	0.058283	0.05805
0.165704	0.088987	0.08736	0.060442	0.05861
0.166654	0.088824	0.08651	0.05697	0.057791
0.165397	0.088842	0.086685	0.061553	0.057544
0.166324	0.088969	0.08675	0.061354	0.057235
0.165665	0.088946	0.086858	0.055857	0.057584
0.166551	0.08939	0.08678	0.057612	0.058161
0.165323	0.088812	0.086821	0.056363	0.058245
0.166186	0.089366	0.086771	0.061178	0.057273
<b><u>0.16685365</u></b>	<b><u>0.08893735</u></b>	<b><u>0.08719775</u></b>	<b><u>0.0595936</u></b>	<b><u>0.0583928</u></b>
<b>AVERAGE seq</b>	<b>AVERAGE t2singleloop</b>	<b>AVERAGE t2fastest</b>	<b>AVERAGE t4singleloop</b>	<b>AVERAGE t4fastest</b>
 % seq-t2sing	<b>-46.70%</b>	<b>1.876080747</b>	 %t2sing-t2fast	<b>-1.96%</b>
%seq-t2fastest	<b>-47.74%</b>	<b>1.913508663</b>	%t4sing-t4fast	<b>-2.01%</b>
 %seq-t4sing	<b>-64.28%</b>	<b>2.799858542</b>		
%seq-t4fast	<b>-65.00%</b>	<b>2.857435334</b>		