

Analysis

Timing table

num threads	chunk size	lab 1	lab 3
2	25	0.00527241	0.0217012
4	25	0.00538522	0.021568
8	25	0.00388256	0.021908
2	70	0.00360094	0.022511
4	70	0.00314327	0.0215688
8	70	0.00315208	0.0258088

Conclusion

There seems to be a ~10-fold increase in run time in lab 3 part A2 compared to lab 1 part b. I researched why this would happen and the most I can derive, from a general perspective (algorithm not considered), is that there is a substantial overhead in using OpenMP's dynamic scheduler. This makes sense. OpenMP's dynamic scheduler does a lot of the stuff that I did by hand in Lab 1. The only difference is that I was able to do the same thing (and quite more than likely do a lot more in regards to handling the threads) with a simple pragma. There is naturally overhead in simplifying heavy tasks.