**Lab 4 – Experiment with OpenMP**

The serial code for Count 3 was run each 20 times and the average time for the runs was recorded on the attached Excel Sheet.

The serial code for Estimating Pi was run each 20 times and the average time for the runs was recorded on the attached Excel Sheet.

The parallel code for Count 3 was run 10 times for a ranging number of threads 1 – 8, and the average for each run was recorded on the attached Excel Sheet.

The parallel code for Estimating Pi was run 10 times for a ranging number of threads 1 – 8, and the average for each run was recorded on the attached Excel Sheet.

Increasing the number of threads from 1 -8 always achieved a faster run time as the speedup gained from increasing the number of threads due to splitting down the array data and work was greater than the overheads of parallelism.

Moreover, I don’t believe any speedup will be achieved from using the task directive in either code because by definition it is used “when you want to identify a piece of code to be executed in parallel with the code outside the task region” and in the examples of Count3 and Estimating Pi that would not be applicable as there is no code outside the region that could benefit from tasks.

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