Project 0: Simple OpenMP Experiment

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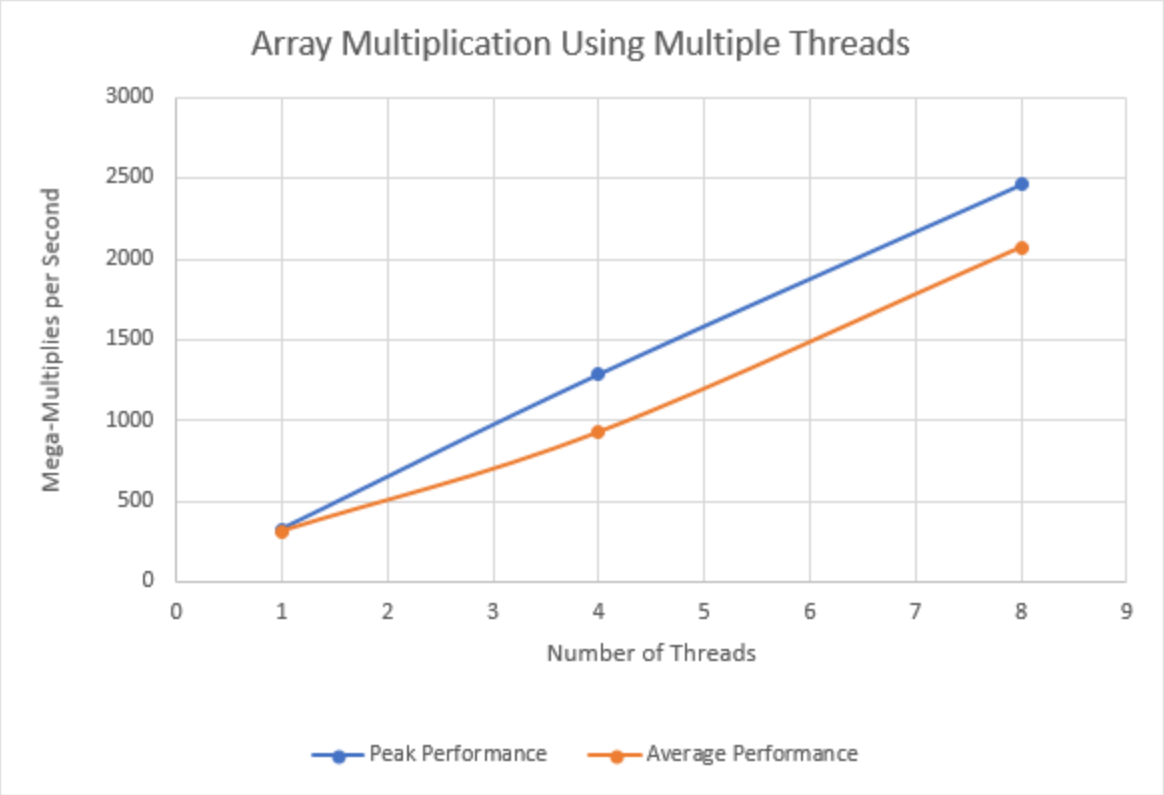
Tables and Graphs

Number of Threads	Peak Performance (Mega-Multiplies per second)	Average Performance (Mega-Multiplies per second)	Peak Time Elapsed (µSec)	Average Time Elapsed (µSec)
1	327.9	315.84	30497.02	32416.82
4	1284.93	927.37	7782.53	9418.38
8	2462.33	2071.13	4061.19	4555.85



Explanation and Analysis

1. **Tell what machine you ran this on**

   All development and benchmarking took place on the OSU flip1 linux server.

2. **What performance results did you get?**

   Higher thread counts were able to compute the multiplications faster than lower thread counts. Specific values can be seen in the above table.

3. **What was your 4-thread-to-one-thread speedup?**

   S = (30497.02 / 7782.53) = 3.918651133

4. **If the 4-thread-to-one-thread speedup is less than 4.0, why do you think it is this way?**

   The 4-thread-to-1-thread speedup is slightly under 4.0. I think this is the case because not all of the program can utilize multiple threads. There could also be other issues like other processes occupying thread cycles while the benchmarking is occurring.

5. **What was your Parallel Fraction, Fp?**

   Fp = 0.993080198