Part 3

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| --- | --- | --- | --- |
| N | P | Serial execution time (microseconds) | Parallel execution time (microseconds) |
| 64 | 2 | 510 | 207 |
| 1000 | 2 | 81829 | 985 |
| 64 | 4 | 802 | 414 |
| 1000 | 4 | 145495 | 486 |
| 64 | 8 | 1358 | 637 |
| 1000 | 8 | 261142 | 982 |
| 64 | 16 | 2423 | 3392 |
| 1000 | 16 | 495392 | 4091 |
| 64 | 32 | 4612 | 6688 |
| 1000 | 32 | 928028 | 19861 |

What do you observe? Parallel execution time is faster than serial execution time. Also, when lots of data can be dealt with, the parallel execution is much faster.

Why? Pthread has used for Parallel execution. Pthread creates processors fast, doesn’t use lots of memory and can share memory between threads. Therefore, ptherad shows faster results than serial execution.