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CS471-PARALLEL PROGRAMMING

SHORTEST PATH PROJECT

|  |  |  |
| --- | --- | --- |
| AVERAGE RESULTS | | |
|  | **OPTIMIZED** | **NOT OPTIMIZED** |
| SEQUENTIAL TIME | 1642 | 1562 |
| PARALLEL TIME | 648 | 1321 |
| PROCESSORS | 4 | 2 |
| SPEED UP | 2.53 | 1.18 |
| EFFICIENCY | 63.35% | 29.56 |

NOTE: The execution time is in milliseconds.

Without the addition of the “if condition” before the lock, the lock will not only lock to the condition “newdist < mindst[w]” but also will lock “newdist >= mindist[w]”. The later occurs more. Therefore putting it after the If clause will result in fewer execution of locks. The performance increases more than 100% and makes a huge difference.