|  |  |  |
| --- | --- | --- |
| Number of orders | Time (mSec) SINGLE thread | Time (mSec) MULTI thread |
| 4 | 83 | 7 |
| 8 | 111 | 14 |
| 16 | 161 | 29 |
| 32 | 250 | 132 |

Each customer orders have a minimum of 10,000 items and a delta of 1000, each time is the average of 5 trials rounded down because I was getting different times with each trial. To measure the time complexity of each algorithm I double the data set each time. We can clearly see a considerable difference between single-thread and multi-thread approach but we see a significant jump a when we get to 32 orders, but multithread approach is still the clear winner being significantly faster than single thread.