

Lab 2 Report

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1 Results

1.1 Time taken for Mean calculations

Number of threads	Time(ms)
1	2.742
2	2.747
4	3.809
8	3.819
16	4.069
32	5.152
64	5.34
128	6.151
256	9.152
512	13.127
1024	22.221
2048	42.229

Table 1: Time taken to find Mean

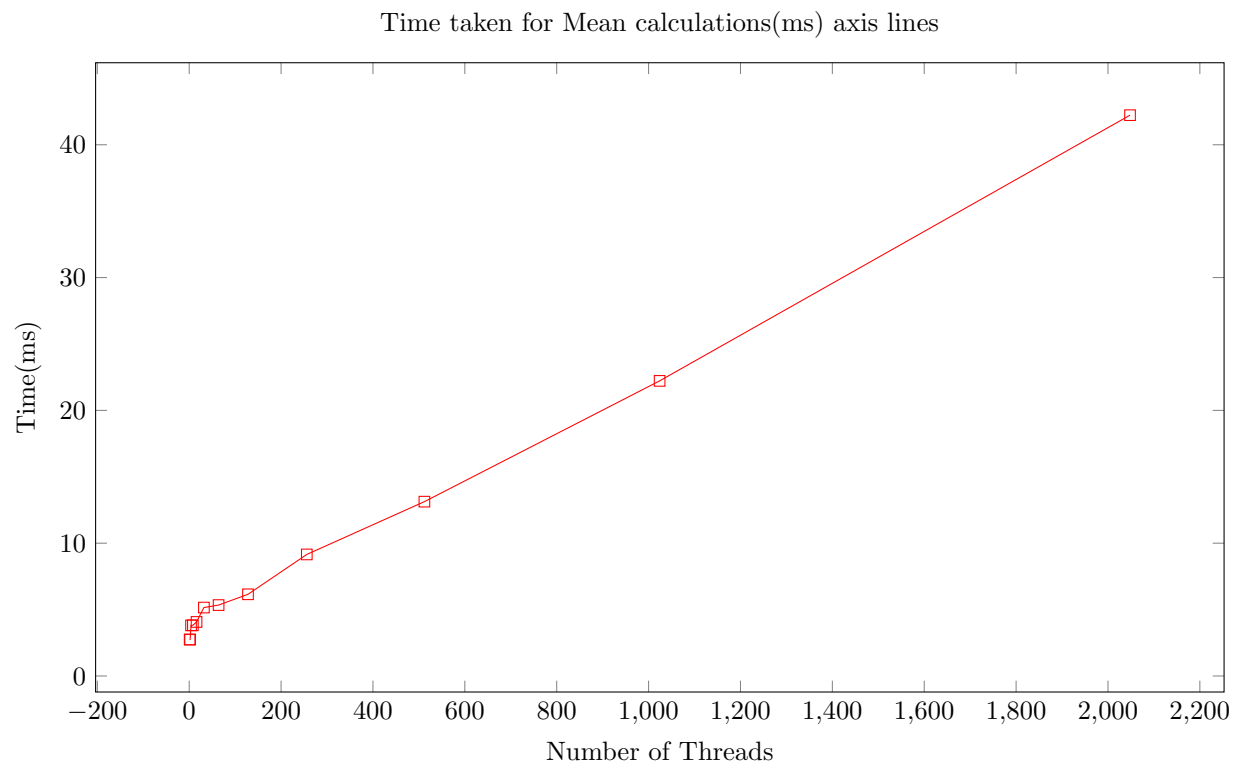


Figure 1: Scatter plot of results

1.2 Time taken for Median calculations

Number of threads	Time(ms)
1	200.055
2	210.683
4	258.087
8	289.732
16	303.855
32	335.455
64	404.053
128	565.813
256	995.430
512	1529.267
1024	2847.666
2048	5511.868

Table 2: Time taken to find Median

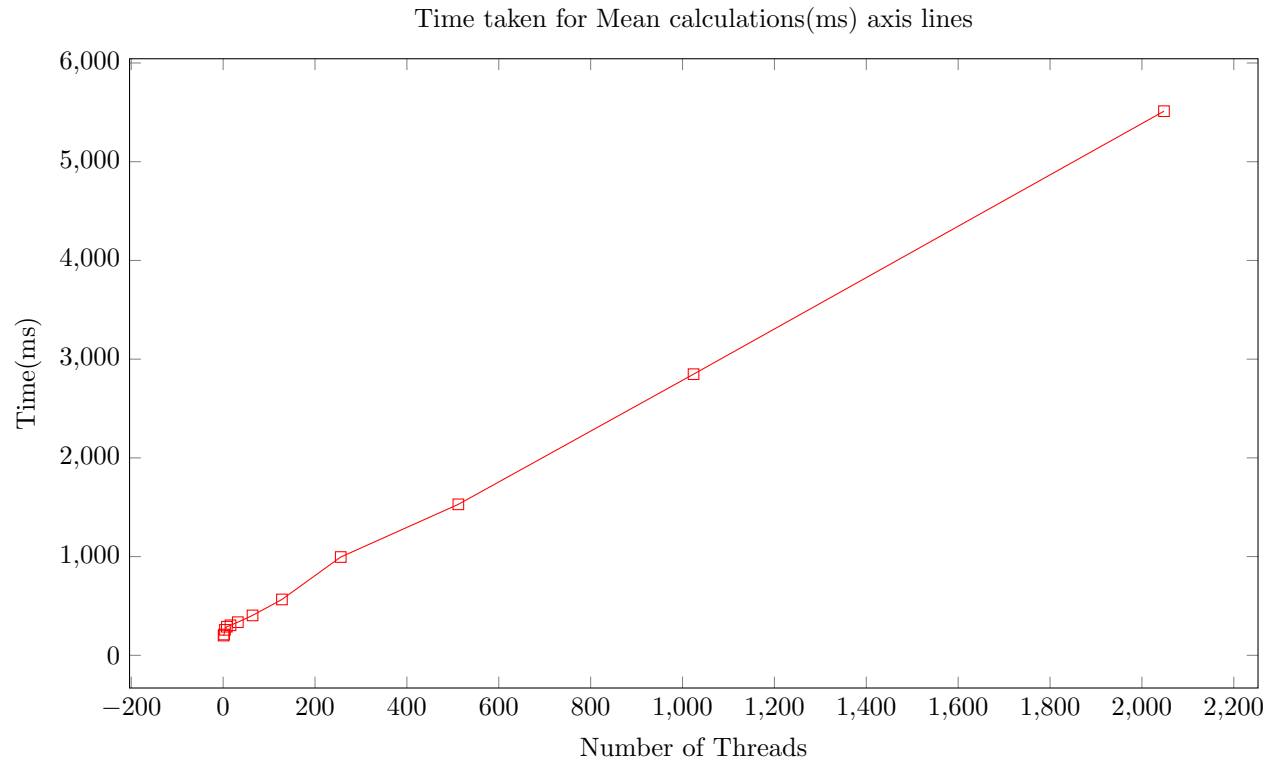


Figure 2: Scatter plot of results

2 Screenshots

```
arroyo@arroyo:~/Documents/multithread-lab$ ./meanthread input.txt 4
Temp mean 0 = 4996.885914
Temp mean 1 = 5005.010750
Temp mean 2 = 5005.844906
Temp mean 3 = 5000.335964
Global mean = 5002.019383
Time elapsed = 3.333000ms
```

Figure 3: Screenshot of mean calculator in action

```
9999
9999
9999
9999
9999
9999
9999
9999
9999
9999
Time elapsed = 250.604000ms
Median of dataset = 5002.000000
```

Figure 4: Screenshot of median calculator in action