

Report for Stereo Vision Multithreaded implementation using OpenMP

Nikunj Arora – 2646352

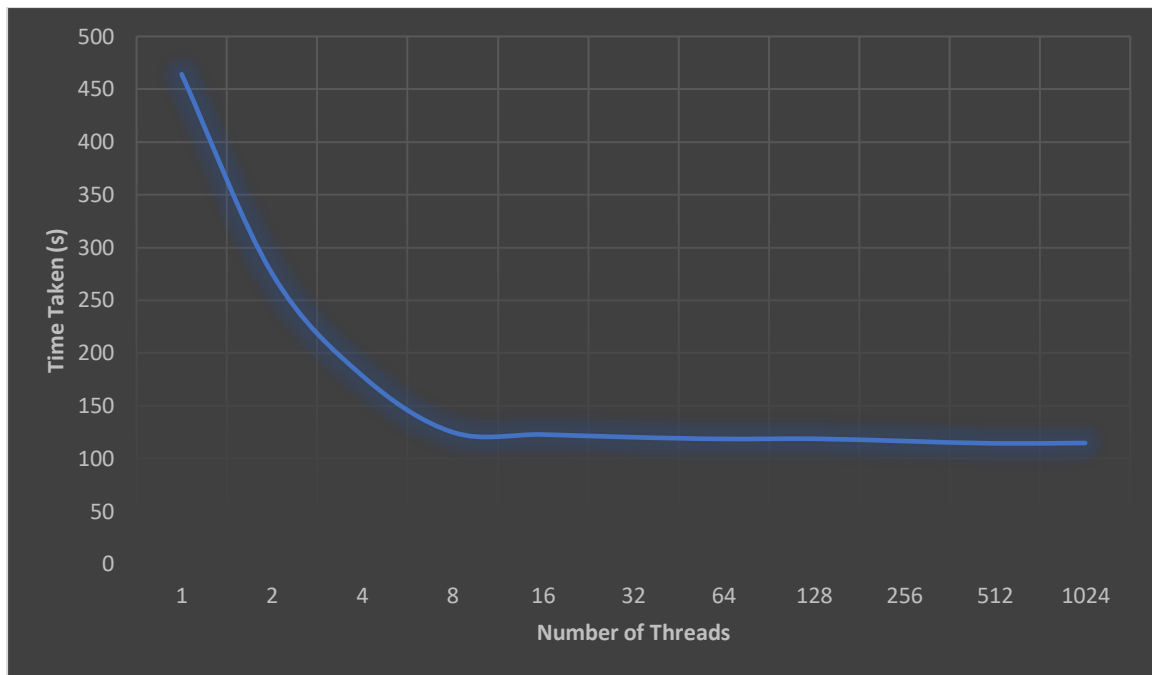
Dennis Goyal – 2627601

Processor used for recording performance: Intel i5 8th gen (4 cores, 8 threads)

```
C:\Users\nikun\Documents\Visual Studio 2019\Projects\OpenCL\Debug\StereoVisionParallelCpp.exe
Reading Left Image...Done (2.7134 s)
Reading Right Image...Done (2.63155 s)
Calculating Left Disparity Map...Done (53.1813 s)
Calculating Right Disparity Map...Done (52.264 s)
Performing cross checking...Done (0.0122885 s)
Performing Occlusion Filling...Done (0.0127654 s)
The program took 114.845 s
_
```

1024 threads

Number of Threads	Time Taken (seconds)
1024	114.8
512	114.4
256	116.6
128	118.8
64	118.6
32	120.2
16	122.8
8	125.0
4	178.4
2	275.4
1	464.1



We observe that, increasing the number of threads halves the time taken by the program, until we reach the physical limitation of the CPU (8 threads in this case). After this, the difference is only a few seconds.