

# Simple OpenMP Experiment (Project # 0)

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## Tell what machine you ran this on

I am running on my PC:

- CPU: **i5-4690K CPU**
- Operating System: **Arch Linux**
- GPU: **NVIDIA GeForce GTX 760**

To compile program, run `./runPro` and the output of the program would be in `output.txt`.

I have made the **number of tries** to be fixed at **100**.

*output.txt*:

```
## _NUMT(Number of Threads) = 1
## |
## .---_NUMS(Number of subdivisions) = 1000
## |
## .---_NUMS(Number of subdivisions) = 2000
## |
## .---_NUMS(Number of subdivisions) = 4000
## |
## .---_NUMS(Number of subdivisions) = 16000
## |
## .---_NUMS(Number of subdivisions) = 64000
## |
## .---_NUMS(Number of subdivisions) = 256000
## |
## .---_NUMS(Number of subdivisions) = 1024000
## |
## .---_NUMS(Number of subdivisions) = 4096000
## -----
## _NUMT(Number of Threads) = 2
## |
## .---_NUMS(Number of subdivisions) = 1000
## |
## .---_NUMS(Number of subdivisions) = 2000
## |
## .---_NUMS(Number of subdivisions) = 4000
## |
## .---_NUMS(Number of subdivisions) = 16000
## |
## .---_NUMS(Number of subdivisions) = 64000
## |
## .---_NUMS(Number of subdivisions) = 256000
## |
## .---_NUMS(Number of subdivisions) = 1024000
## |
## .---_NUMS(Number of subdivisions) = 4096000
## -----
```

```

## _NUMT(Number of Threads) = 4
## |
## .---_NUMS(Number of subdivisions) = 1000
## |
## .---_NUMS(Number of subdivisions) = 2000
## |
## .---_NUMS(Number of subdivisions) = 4000
## |
## .---_NUMS(Number of subdivisions) = 16000
## |
## .---_NUMS(Number of subdivisions) = 64000
## |
## .---_NUMS(Number of subdivisions) = 256000
## |
## .---_NUMS(Number of subdivisions) = 1024000
## |
## .---_NUMS(Number of subdivisions) = 4096000
## -----
##           Speedup[0] =      inf
##           Speedup[1] =      inf
## Parallel Fraction[0] =    2.00
## Parallel Fraction[1] =    1.33

```

**What do you think the actual volume is?**

kkk

**Show the performances you achieved in tables and graphs as a function of NUMNODES and NUMT**

kkk

**What patterns are you seeing in the speeds?**

**Why do you think it is behaving this way?**

kkk

**What is the Parallel Fraction for this application, using the Inverse Amdahl equation?**

kkk

Given that Parallel Fraction, what is the maximum speed-up you could ever get?

kkk