

Parallel Program Run History:

Script started on Tue Dec 3 18:09:15 2024

```
[0;dustintr@:~/assignment4[?1034h[dustintr@r2v01 assignment4]$ nvcc -O3 fractal.cu -o fractal_cuda
```

```
[0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal_cuda 1024 576 10  
Fractal v1.6 [parallel]
```

Computing 10 frames of 1024 by 576 fractal

Parallel compute time: 0.002579 s

```
[0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$
```

```
[K[dustintr@r2v01 assignment4]$
```

```
[K[dustintr@r2v01 assignment4]$ srun ./fractal_cuda 1280 720 15
```

```
Fractal v1.6 [parallel]
```

Computing 15 frames of 1280 by 720 fractal

Parallel compute time: 0.005820 s

```
[0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal_cuda 1920 1080 20
```

```
Fractal v1.6 [parallel]
```

Computing 20 frames of 1920 by 1080 fractal

Parallel compute time: 0.016258 s

```
[0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal_cuda 2560 1440 25
```

```
Fractal v1.6 [parallel]
```

Computing 25 frames of 2560 by 1440 fractal

Parallel compute time: 0.036545 s

```
[0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal_cuda 3200 1800 30
```

```
Fractal v1.6 [parallel]
```

Computing 30 frames of 3200 by 1800 fractal

Parallel compute time: 0.067618 s

```
[0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal_cuda 3840 2160 35
```

```
Fractal v1.6 [parallel]
```

Computing 35 frames of 3840 by 2160 fractal

Parallel compute time: 0.116907 s

```
[0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal_cuda 1024 576 40
```

```
Fractal v1.6 [parallel]
```

Computing 40 frames of 1024 by 576 fractal

Parallel compute time: 0.009685 s

```
[0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal_cuda 1920 1080 45
```

```
Fractal v1.6 [parallel]
```

Computing 45 frames of 1920 by 1080 fractal

Parallel compute time: 0.040395 s

```
[0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal_cuda 2560 1440 50
```

```
Fractal v1.6 [parallel]
```

Computing 50 frames of 2560 by 1440 fractal

Parallel compute time: 0.078210 s

```
[0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal_cuda 4096 2160 60
```

Fractal v1.6 [parallel]
Computing 60 frames of 4096 by 2160 fractal
Parallel compute time: 0.216558 s
]0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]\$ exit
exit

Script done on Tue Dec 3 18:12:02 2024

Serial program run history:

[(ea-cisc372-schiller:dustintr)@login00.darwin assignment4]\$ script output_serial.txt
Script started, file is output_serial.txt
[(ea-cisc372-schiller:dustintr)@login00.darwin assignment4]\$./fractal 1024 576 10
Fractal v1.6 [serial]
Computing 10 frames of 1024 by 576 fractal
Serial compute time: 2.9519 s
[(ea-cisc372-schiller:dustintr)@login00.darwin assignment4]\$./fractal 1280 720 15
Fractal v1.6 [serial]
Computing 15 frames of 1280 by 720 fractal
Serial compute time: 6.8507 s
[(ea-cisc372-schiller:dustintr)@login00.darwin assignment4]\$./fractal 1920 1080 20
Fractal v1.6 [serial]
Computing 20 frames of 1920 by 1080 fractal
Serial compute time: 20.3719 s
[(ea-cisc372-schiller:dustintr)@login00.darwin assignment4]\$./fractal 2560 1440 25
Fractal v1.6 [serial]
Computing 25 frames of 2560 by 1440 fractal
Serial compute time: 45.0304 s
[(ea-cisc372-schiller:dustintr)@login00.darwin assignment4]\$./fractal 3200 1800 30
Fractal v1.6 [serial]
Computing 30 frames of 3200 by 1800 fractal
Serial compute time: 84.2178 s
[(ea-cisc372-schiller:dustintr)@login00.darwin assignment4]\$./fractal 3840 2160 35
Fractal v1.6 [serial]
Computing 35 frames of 3840 by 2160 fractal
Serial compute time: 141.0836 s
[(ea-cisc372-schiller:dustintr)@login01.darwin assignment4]\$./fractal 1024 576 40
Fractal v1.6 [serial]
Computing 40 frames of 1024 by 576 fractal
Serial compute time: 11.5371 s
[(ea-cisc372-schiller:dustintr)@login01.darwin assignment4]\$./fractal 1920 1080 45
Fractal v1.6 [serial]
Computing 45 frames of 1920 by 1080 fractal
Serial compute time: 45.3812 s

```
[(ea-cisc372-schiller:dustintr)@login01.darwin assignment4]$ ./fractal 2560 1440 50
Fractal v1.6 [serial]
Computing 50 frames of 2560 by 1440 fractal
Serial compute time: 89.3217 s
[(ea-cisc372-schiller:dustintr)@login01.darwin assignment4]$ ./fractal 4096 2160 60
Fractal v1.6 [serial]
Computing 60 frames of 4096 by 2160 fractal
Serial compute time: 256.3924 s
```

Sorry I couldn't get the output in the script file format because my Darwin window kept disconnecting halfway so I have to gather the output together

Bonus Assignment Script Run History

Script started on Tue Dec 3 19:45:58 2024

```
]0;dustintr@:~/assignment4[?1034h[dustintr@r2v01 assignment4]$ srun ./fractal2_cuda 102
4 576 10
Fractal v2 [parallel]
Computing 10 frames of 1024 by 576 fractal
Parallel compute time: 0.002732 s
]0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal2_cuda 128
0 720 15
Fractal v2 [parallel]
Computing 15 frames of 1280 by 720 fractal
Parallel compute time: 0.004827 s
]0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal2_cuda 192
0 1080 20
Fractal v2 [parallel]
Computing 20 frames of 1920 by 1080 fractal
Parallel compute time: 0.054845 s
]0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal2_cuda 256
0 1440 25
Fractal v2 [parallel]
Computing 25 frames of 2560 by 1440 fractal
Parallel compute time: 0.028917 s
]0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal2_cuda 320
0 1800 30
Fractal v2 [parallel]
Computing 30 frames of 3200 by 1800 fractal
Parallel compute time: 0.157634 s
]0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal2_cuda 384
0 2160 35
Fractal v2 [parallel]
```

Computing 35 frames of 3840 by 2160 fractal

Parallel compute time: 0.085083 s

```
]0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal2_cuda 1024 576 40
```

Fractal v2 [parallel]

Computing 40 frames of 1024 by 576 fractal

Parallel compute time: 0.007265 s

```
]0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal2_cuda 1920 1080 45
```

Fractal v2 [parallel]

Computing 45 frames of 1920 by 1080 fractal

Parallel compute time: 0.073306 s

```
]0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal2_cuda 2560 1440 50
```

Fractal v2 [parallel]

Computing 50 frames of 2560 by 1440 fractal

Parallel compute time: 0.057238 s

```
]0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ srun ./fractal2_cuda 4096 2160 60
```

Fractal v2 [parallel]

Computing 60 frames of 4096 by 2160 fractal

Parallel compute time: 0.150980 s

```
]0;dustintr@:~/assignment4[dustintr@r2v01 assignment4]$ exit  
exit
```

Script done on Tue Dec 3 19:49:14 2024