Parallelizing a Traffic Simulation

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Contents

Are we there yet

Why a simulation?

Real world is always much more fun than the imaginary one.
However, sometimes it is better to test in the second one

Are we there yet

Traffic all around us, literally!

- Public transportation user? It is sooo slow!
- You have a car? Well I don't!
- Why not take a walk? Wonderful idea, not everybody can afford that though

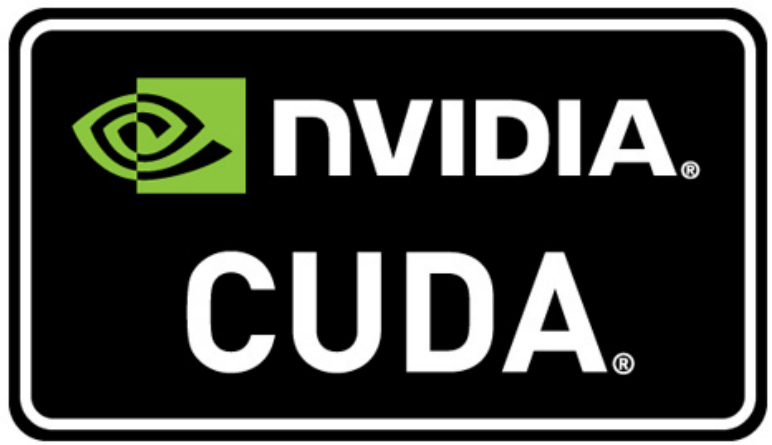
Are we there yet

Parallelism is easy, right?

What we need?

- Fast computers
- Cool new technology to play with
- Free time

But what if you have only the technology?



Welcome to OpenCL

- Open specification

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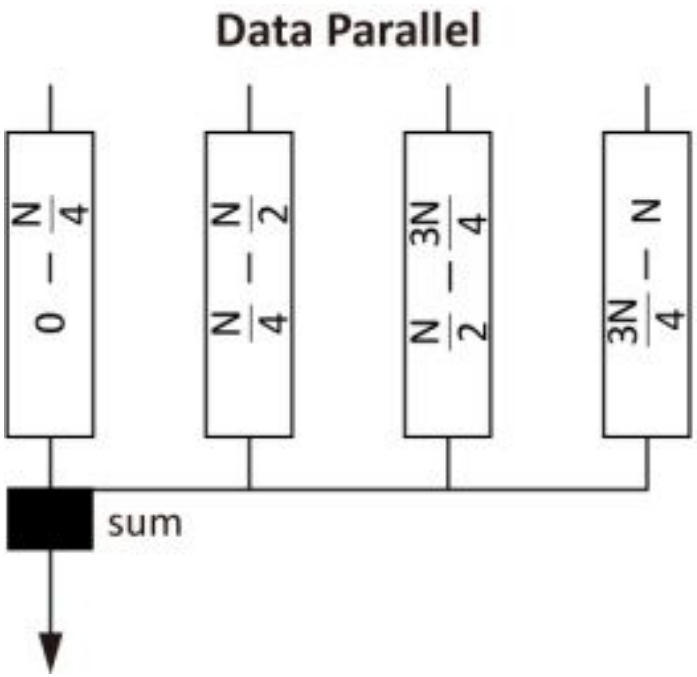
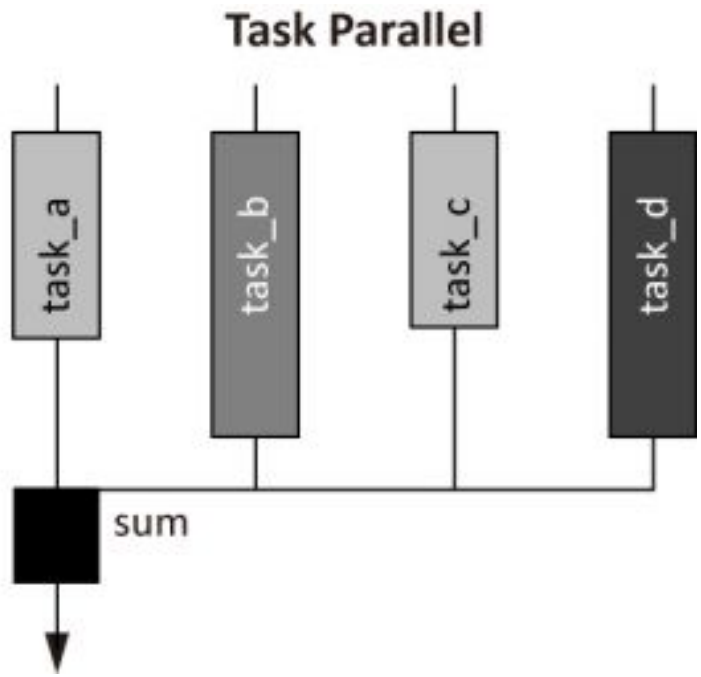
- Write once, run everywhere (yeah... almost)

Are we there yet





Are we there yet

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- Come up with a mathematical model for the simulation (or better yet - steal one)

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- Come up with a mathematical model for the simulation (or better yet - steal one)
- Writing some code is never bad idea
- Design a fancy UI for the jury

Thanks!

The End

Resources

- Khronos Group official OpenCL page
- OpenCL diagram
- OpenCL Overview