

OpenCL Tutorial



David Castells-Rufas

Microelectronics & Electronics Systems Department

Universitat Autònoma de Barcelona

david.castells@uab.cat

Let's feel the pain

Goals

- Refresh some concepts about HDL languages
- Familiarize with the tutorial infrastructure setup
- Use the Quartus tool to create HDL designs

Different Styles

- Structural
- RTL
- Behavioural

YOU DO...

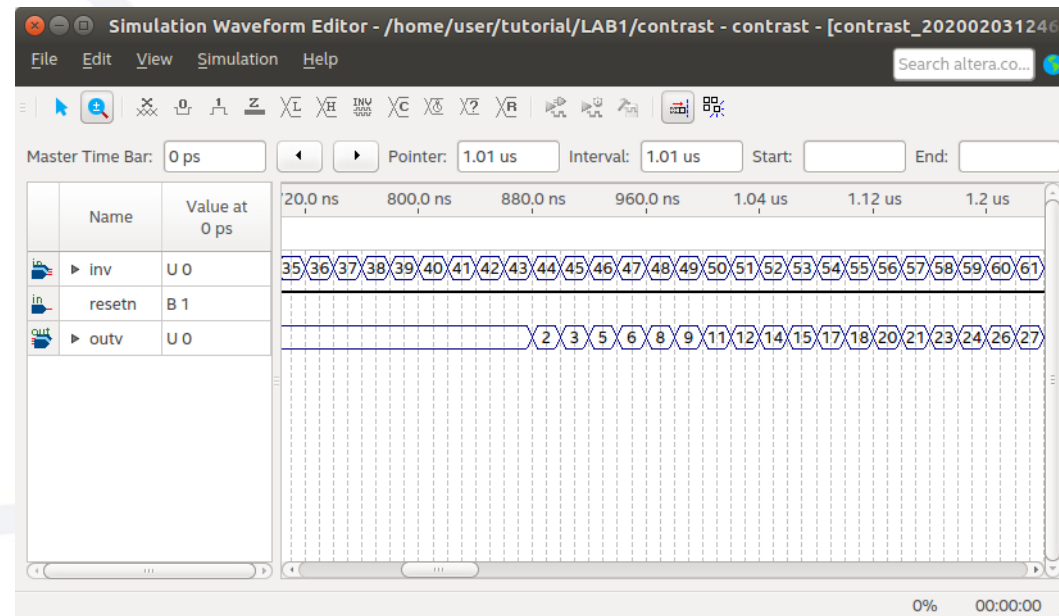
- Create Project

- Open Quartus (in your desktop)
- load the file “contrast.v” (LAB1.1)
- Do save as (with the same name) to trigger the default project creation
- Follow the Wizard until the end

YOU DO...

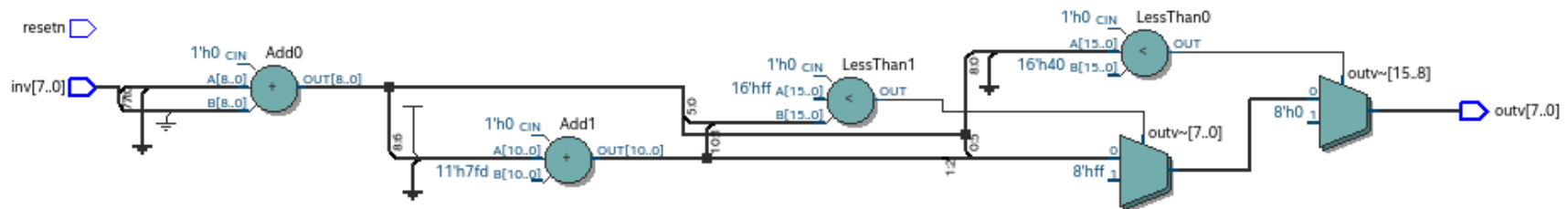
- Simulate

- Run analysis task
- Create a waveform (University Program)
- Select inputs/outputs
- Create a testbench
- Run simulation



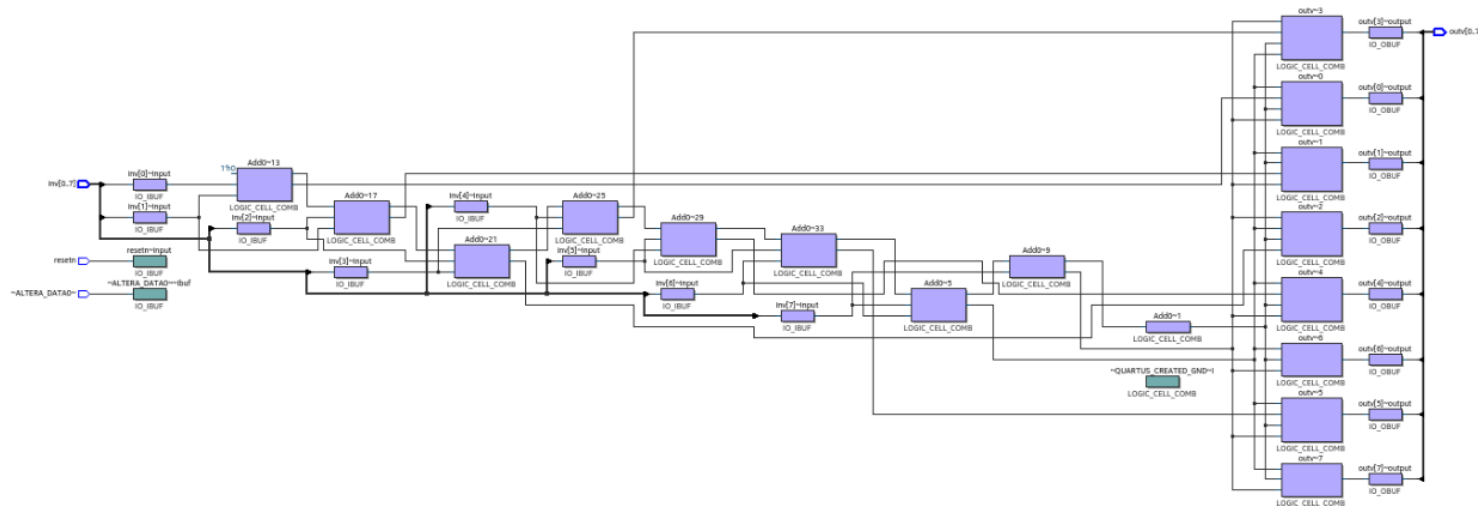
YOU DO...

- Run Fitter
- View circuit
 - Open circuit in Netlist Viewer



QUESTION: Where are the Mult and Div?

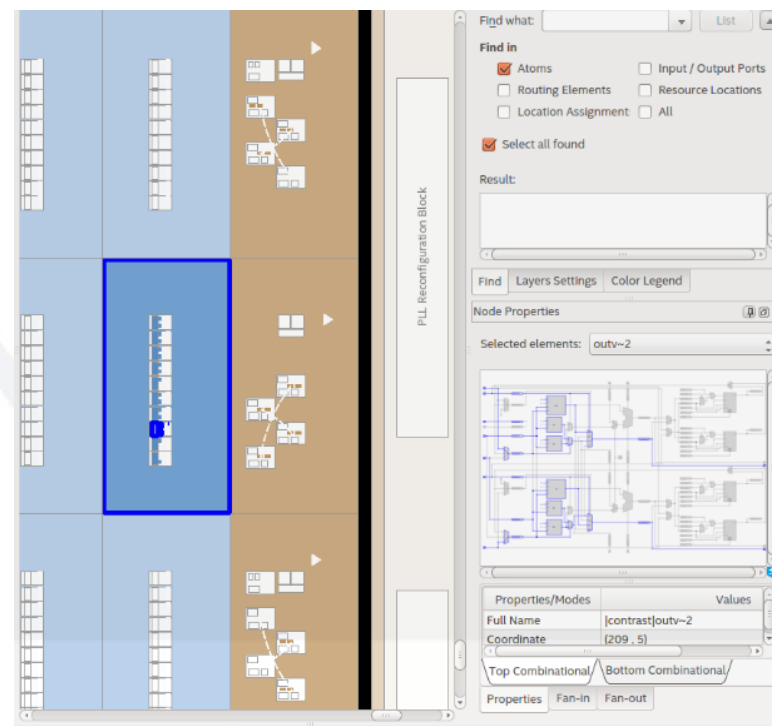
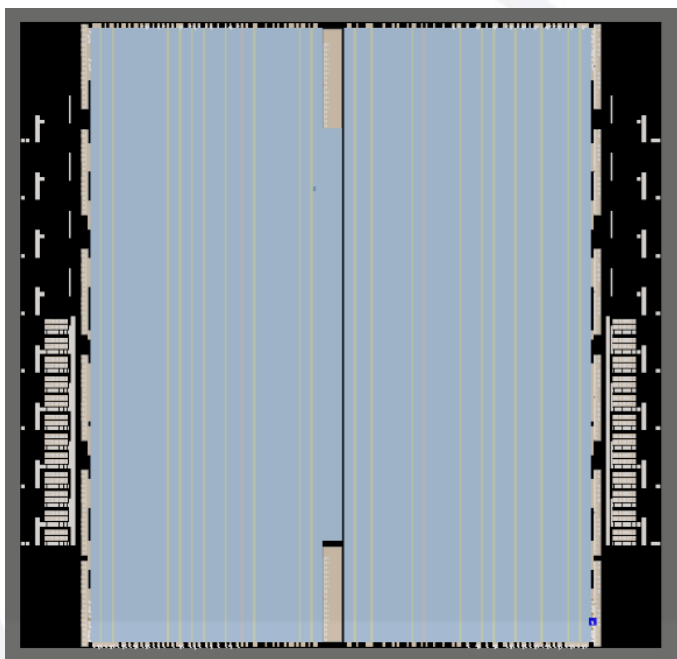
- YOU DO:
 - Open Technology Mapper



QUESTION: Where are the Comparators?

YOU DO

- Find your active cells in Chip Planner



Questions?