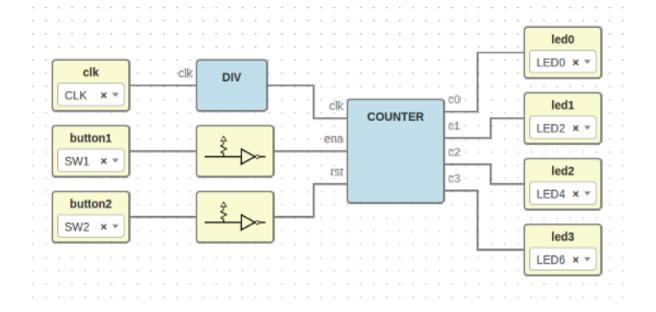
Workshop: open FPGAs tools





Jesús Arroyo Torrens

https://github.com/Jesus89





Stack of tools

Apio IDE Icestudio

Apio

Icestorm Iverilog GTKWave

Apio

Micro-ecosystem for open FPGAs

Requirements

Python 2.7

Installation

\$ pip install apio

\$ apio install —all



Source code

https://github.com/fpgawars/apio

Documentation http://apiodoc.readthedocs.io/en/stable



Apio IDE

Development IDE for open FPGAs

Requirements

Apio, Atom

Installation

Preferences > Install

Configure PATH



Source code

https://github.com/fpgawars/apio-ide

Documentation

https://github.com/fpgawars/apio-ide/wiki



Icestudio

Graphic editor for open FPGAs

Requirements

Python 2.7

Installation

Download and execute

Tools > Install toolchain



Source code

https://github.com/fpgawars/icestudio

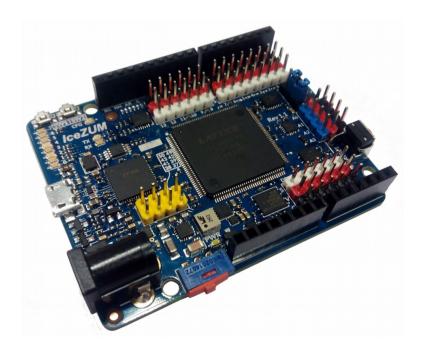
Documentation http://icestudio.readthedocs.io/en/stable



Examples

- Verilog
 - •
- Icestudio

•



IceZUM Alhambra https://github.com/FPGAwars/icezum/wiki

Workwhop https://github.com/FPGAwars/workshops

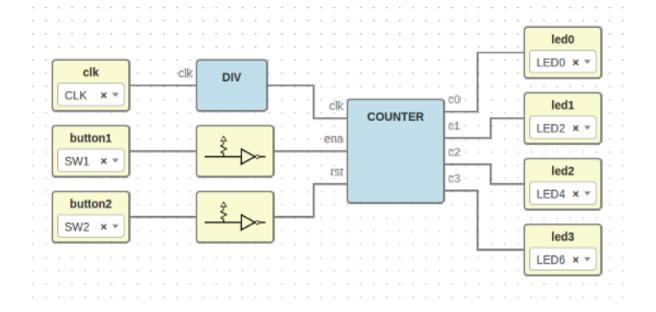
Challenges

- Verilog
 - •
- Icestudio
 - ullet



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