TerosHDL

an open source HDL IDE

FOSDEM 2021

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What is TerosHDL?

An open source HDL IDE

- Based in Atom

- Based in Vscode

- Based in...

Software tools for Hardware designers

What is TerosHDL?

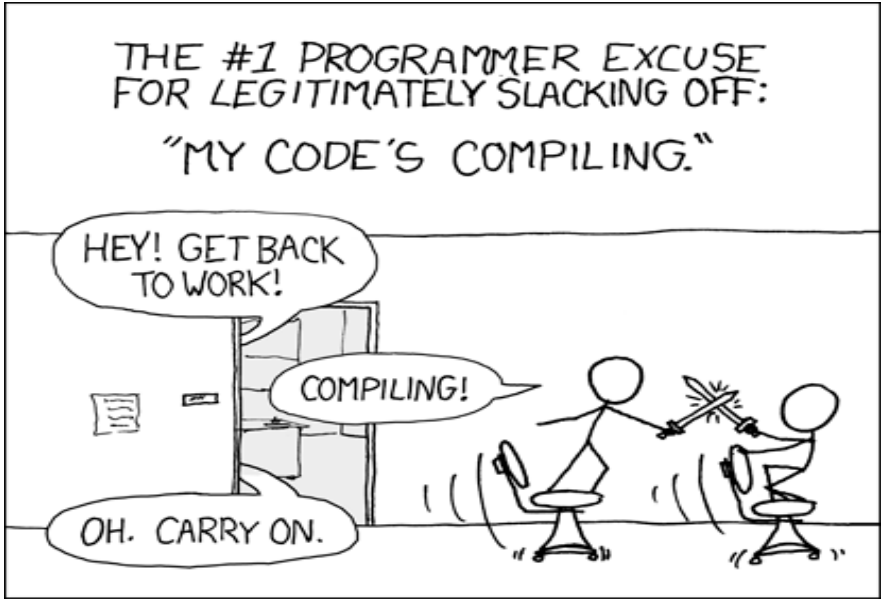
– Non-intrusive
Keep your files and folders structure

– Closing the gap with software tools

– Multi platform
Linux, Mac, Windows

– From begginers to experts

– Task automation
Do not repeat loads of commands



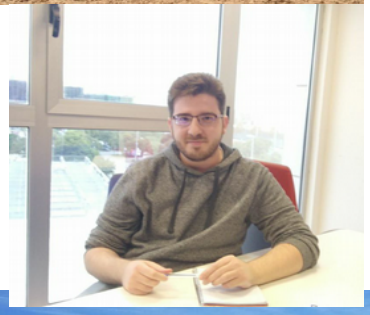
The team

Carlos Alberto:

– DSP FPGA engineer in the company SRS (Software Radio Systems)

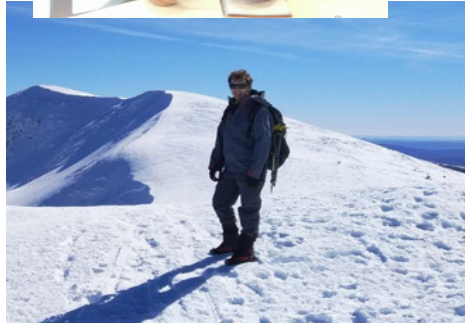
Alfredo:

– Software engineer

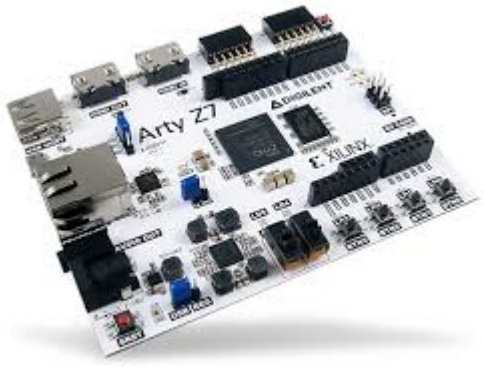


Ismael:

– FPGA & electronics engineer



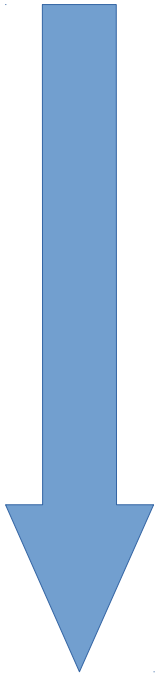
- **Multiple boards, multiple IDEs.**

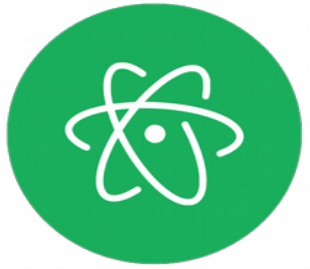


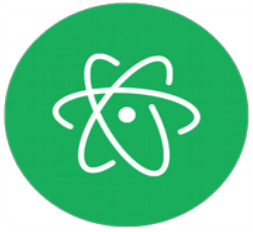
Homemade scripts

TerosHDL:
- Atom plugin
- Python backend

TerosHDL:
- VSCode plugin
- JS backend
- Self contained
- Multi platform







TerosHDL Atom Flavour

- Version 1.1.9
- Atom store
- Only bug fixing
- Limited features
- VHDL

TerosHDL VSCode Flavour

- Version 0.1.0
- Newest editor features
- VHDL & Verilog/SV
- Ongoing development

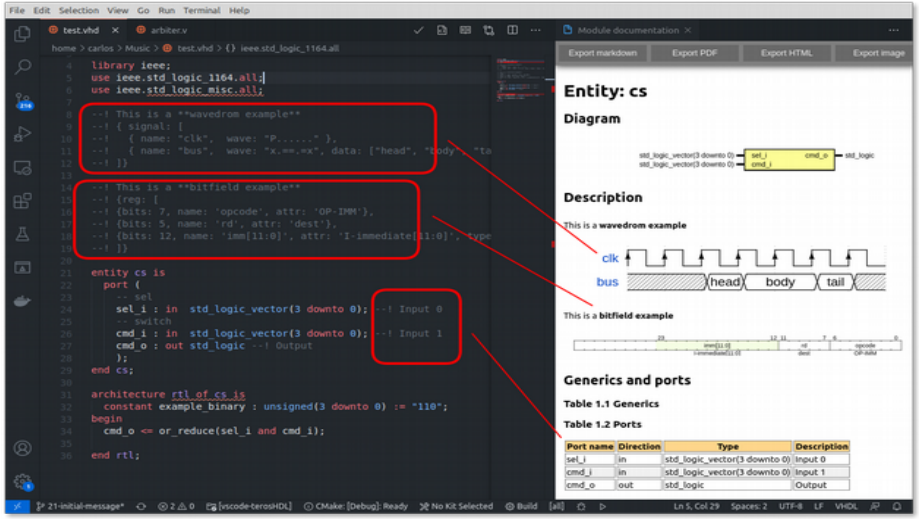
Thanks!

- Verilog HDL/SystemVerilog of mshr-h
- VUnit (https://vunit.github.io/)
- VHDL Style Guide (VSG) (https://github.com/jeremiah-c-leary/vhdl-style-guide)
- Wavedrom (https://github.com/wavedrom/wavedrom)
- GHDL (http://ghdl.free.fr/)
- Tree-sitter-VHDL, Tree-sitter-Verilog

GHDL

Features

- Linter.
- Documentation generator.
- Go to definition.
- Templates.
- Snippets.
- Formatter.
- State machine viewer.
- State machine designer.
- Project manager.
- Dependencies viewer.



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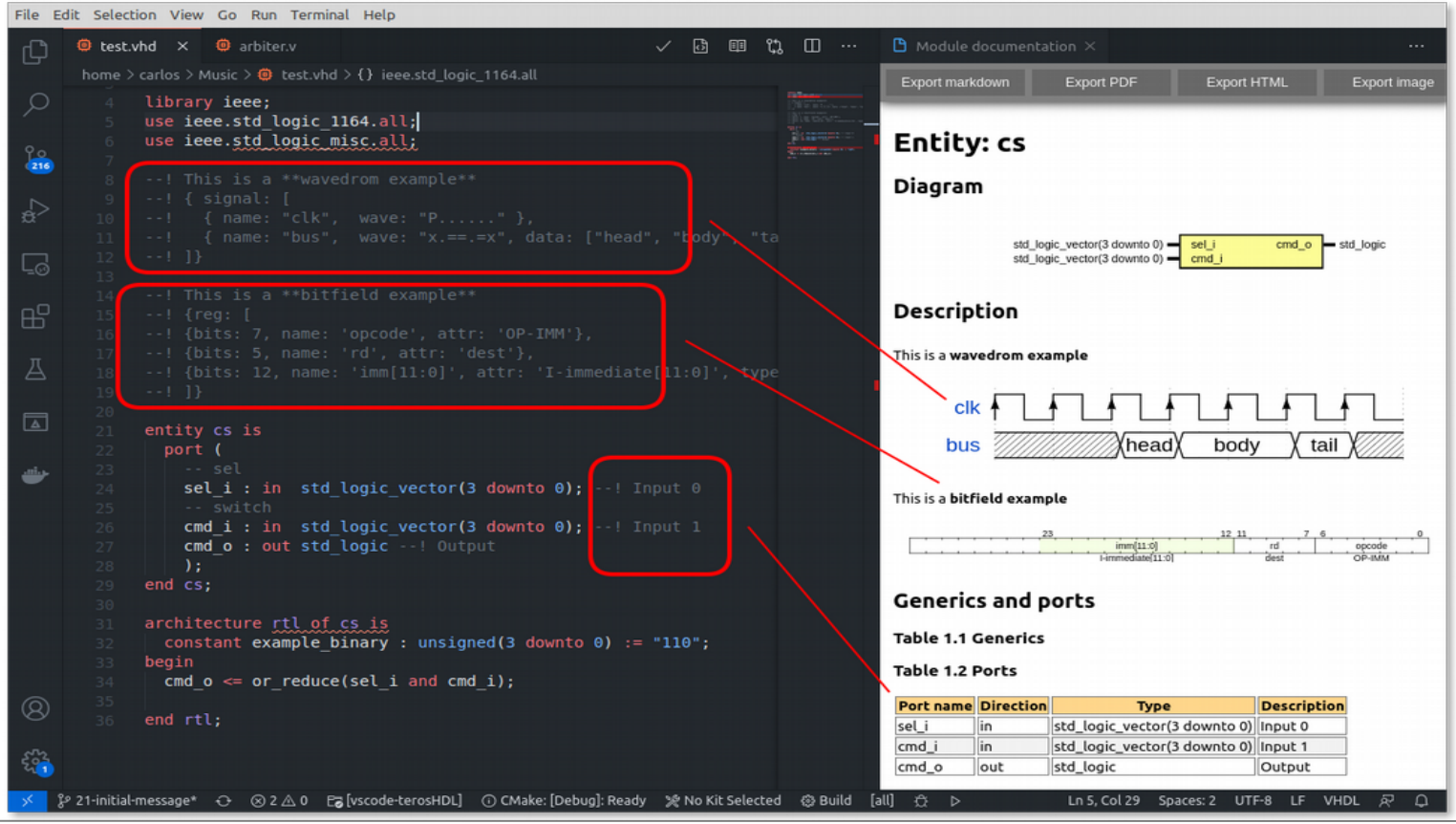
Features: documenter

- **Documenter with Wavedrom and Bitfield support.**



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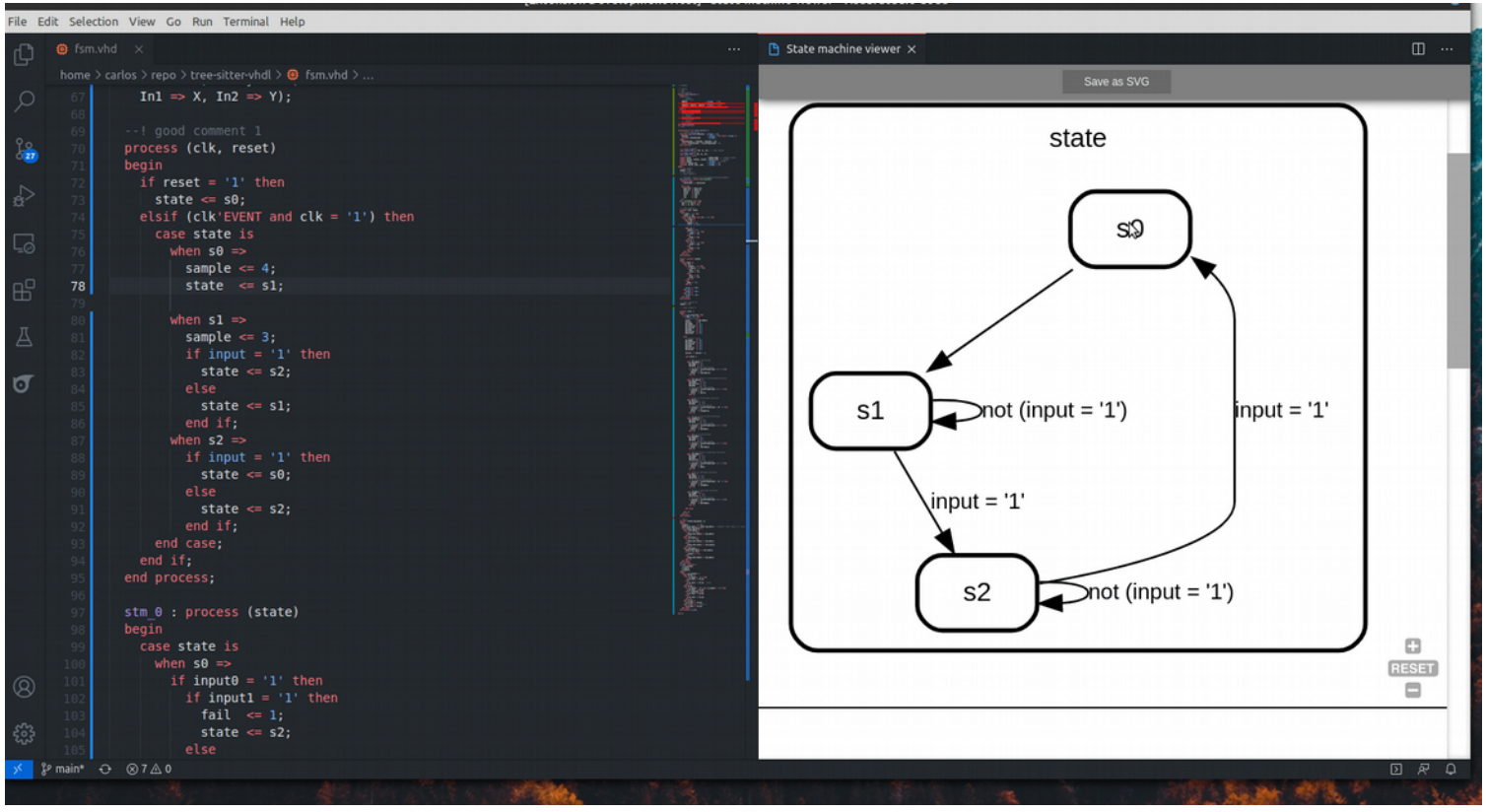
Features: FSM viewer

- **You can navigate in the states and go to the code.**



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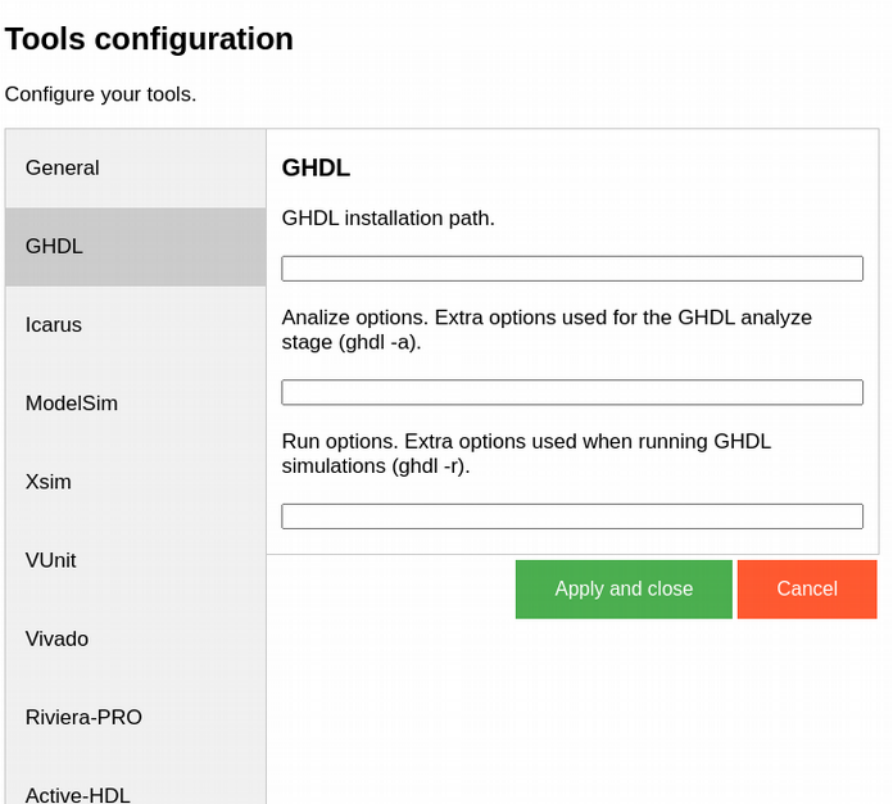
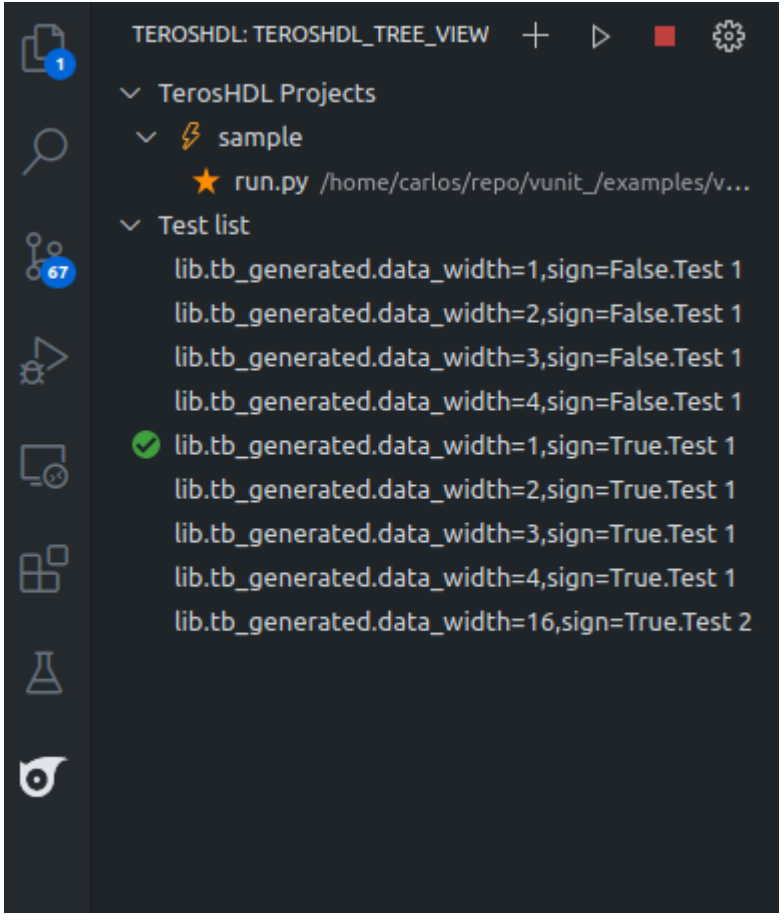
Features: project manager

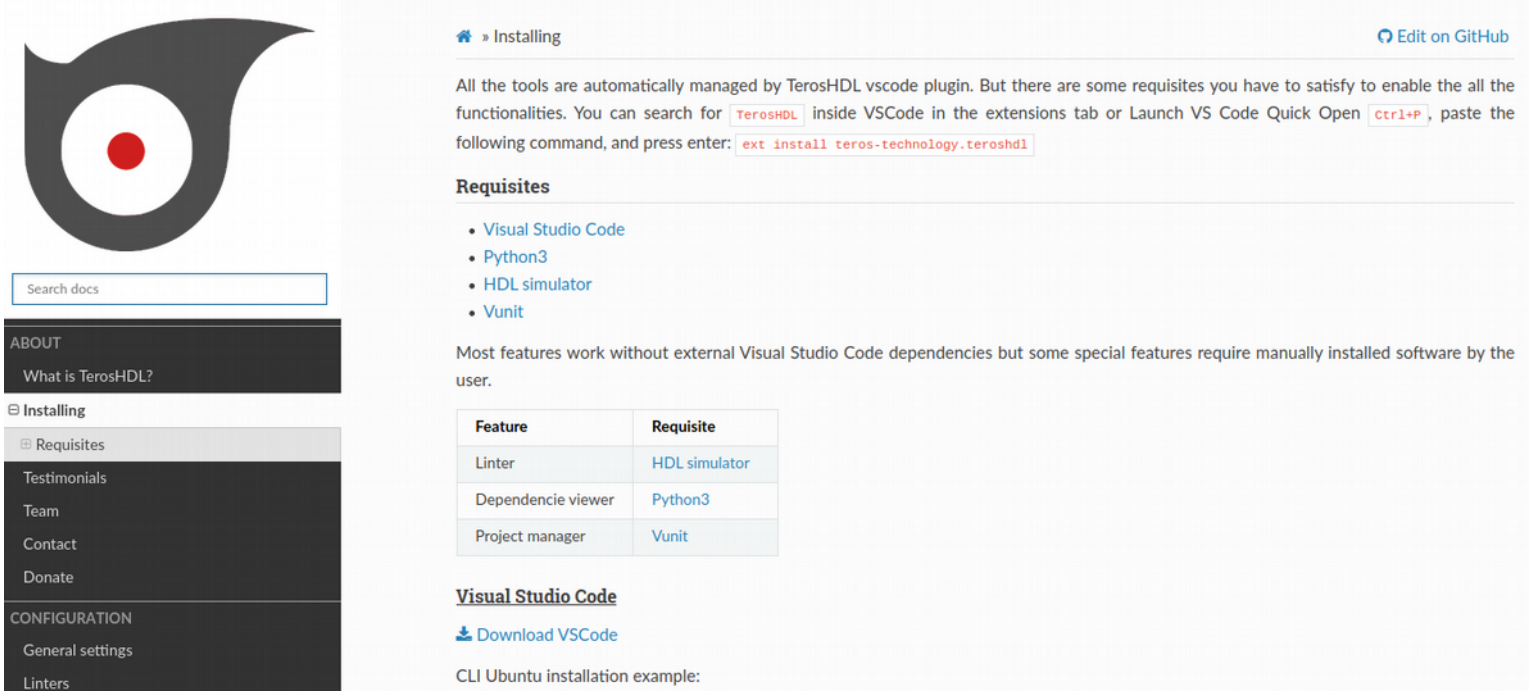
- **Currently only Vunit is supported**





Configuration & docs

https://terostechnology.github.io/



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We need help!

Download the VSCode beta version:

https://marketplace.visualstudio.com/items?itemName=teros-technology.teroshdl

Documentation, features, configuration:

https://terostechnology.github.io/

Feedback!
New features?
Bugs?
Donations.

Many thanks from Teros Team :)

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