Skeletor: An Open Source EDA Tool Flow from Hierarchy Specification to HDL Development

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What is Skeletor?
- Skeletor is an open-source EDA tool which can be used to bootstrap large RTL projects.

How does it work?
- This tool is intended to generate the set of files required in any HDL project including Verilog files, test benches, configuration files and scripts from a high level specification language similar to Verilog, based on C++
  - Defines, instantiates and connects modules according to their specification

Why use it?
- Productivity: avoid the tedious and error prone tasks when translating from the specification. Focus on the implementation!
- Enhance the documentation of your design

Current Status and Implemented Features
- First release in github on May 2019
- Regular updates with new features being added
- Fully usable tool which is currently being used in different student assignments at the Universitat Politècnica de Catalunya, as well as in research projects at the Barcelona Supercomputing Center (BSC).
- Assertions for verification
- Enables by default the `default_nettype none` verilog option to avoid bugs from typos
- Syntax highlighting for the Sublime Text editor
- Supporting hierarchical sheets in KiCad. No need to learn Skeletor if don't want to!
- Supports for verilog code into the skeletor specification of a module (Note: the logic isn't verified by the skeletor compiler)
- Automatic testbench and script generation for QuestaSim and Verilator (Basic infrastructure for development and testing)
- Create automatically a hierarchical KiCad schematic from skeletor in order to understand or document your design

If you want to know more, pass by our booth to see it in action, checkout our github or attend our presentation on Friday in the W05 2nd Workshop Open-Soure Design Automation (OSDA 2020)