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YML2HDL tool

Thursday 13 June 2024 09:00 (20 minutes)

As the technology advances, FPGA devices become more powerful and enable more complex projects. As a result, developers with diverse backgrounds, including different hardware description languages, are required to work together. This is increasingly challenging since the current implementation tools impose constraints on mixed language designs. One key hindrance is that custom type libraries are not shared between languages, resulting in error prone practices. Another is that only basic signal types can be used between modules of different languages, preventing elaborated custom types. This contribution will describe the YML2HDL, a tool that provides the means to overcome those issues by allowing the description of custom types in a series of centralized YAML files. This is used then to generate libraries for each language, containing also resources to easily convert signals between custom and basic types. It is already used by multiple upgrade projects of the ATLAS Experiment at CERN.

Talk's Q&A

During the talk

Talk duration

15'+7'

Will you be able to present in person?

Yes

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