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HDL on git (Hog)

Thursday 13 June 2024 11:50 (30 minutes)

The coordination of firmware development among numerous developers is a major issue in any collaboration. This requires standardised tools for ensuring binary file traceability and firmware synthesis with Place and Route repeatability.

To address these problems, we present Hog, a free and open-source tool for maintaining HDL on git.

Hog integrates within HDL IDEs (Intel Quartus, MicroSemi Libero, AMD Vivado and ISE) on both Windows and Linux platforms, minimizing overhead labour, and easing the use of advanced git features.

Hog is a set of Tcl/Shell scripts with an appropriate workflow for managing HDL designs in a git repository. Hog is included as a submodule, a simple method of maintaining HDL code on git requiring no further installation.

This method allows for automatic detection of any change in the source code, embedding the git tag and commits SHA in the bitstream.

Hog exploits the use of the git CI to automatically compile and simulate the project generating tags and releases.

Talk's Q&A

During the talk

Talk duration

20'+10'

Will you be able to present in person?

Yes

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