Contribution ID: **1** Type: **not specified**

COLIBRI: Towards a CERN-wide common cores library

Tuesday, 11 June 2024 16:20 (30 minutes)

In modern Data Acquisition (DAQ) gateware, developers use many basic parts to make custom features. These parts come from vendors or are made by developers themselves. This often leads to a fragmented codebase difficult to test, integrate, and use with different tools. To fix this, a new open-source core library has been made.
This library is a collection of commonly used cores and blocks developed in pure VHDL, which ensures vendor-independence. The functionality of these blocks is verified through a set of self-checking testbenches and, wherever possible, formal verification tests.
This library not only addresses the current challenges but also offers benefits such as improved code maintainability, reduced development time, and enhanced interoperability across various vendor environments
In conclusion, the proposed open-source core library stands as a robust solution to the challenges of gateware development, offering a pathway to more efficient and reliable system implementation.

Talk's Q&A

During the talk

Talk duration

20'+10'

Will you be able to present in person?

Yes

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Session Classification: Sharable HDL Cores

Track Classification: Sharable HDL cores