



MRV

Magillem Registers View

Overview

Magillem Register View (MRV) provides a cost-effective, scalable and collaborative solution to manage register views of systems and IPs. Based on the IP-XACT standard, MRV addresses today's challenges of hardware and software integration of complex systems on chip (SoCs).

At the junction of software, hardware and documentation flows, MRV enables you to connect with other Magillem tools : Magillem Sequence Editor (MSE), Magillem Platform Assembly (MPA), and Magillem Content Platform (MCP).

Main features

- Integration of configurable IP register descriptions (up to thousands of registers) delivered by multiple different vendors in a hierarchical system.
- Register and System management: IP/System Memory Map capture and management GUI to address register complexity (50-100k registers) that integrates seamlessly with any client legacy format.
- Import/Export: import and capture of register descriptions defined in different formats (CSV, Excel, XML) into a single database.
- Diff/update mechanism to manage incremental design flow, enable collaborative work and synchronize register-oriented IP and SoC views.
- Generators : extensive generator customization performed with native object-oriented API using a template-based editor. Comprehensive generator library natively integrated in open source edition (MRV Premium version).
- Design rule checks : syntax and semantic error detection with on-the-fly markers and contextual resolution help facility.

Benefits

- Reduce errors and tedious tasks : synchronization ensured between HW, SW and documentation databases and automatic generation of multiple and customizable output formats.

- Tool and register description format independence: support of native IP-XACT/IEEE1685 standard which guarantees a « correct by construction » IP-XACT description, without requiring IP-XACT expertise.
- Seamless integration in existing flows due to customizable importer/exporter/register property definitions.
- An intuitive, powerful and extensible register editor GUI.

Related resources

- Datasheet Magillem Registers View (MRV)
- [Virtual prototype Design solution](#)
- [RTL Design solution](#)
- [Digital Design solution](#)
- [Hybrid Analog-Mix-Signal \(AMS\) Design solution](#)
- [All in a box Design solution](#)
- Poster projet EMC² MP
- Book: [Software Engineering of Embedded Systems : Methods, Practical, Techniques](#)
- SafeCer Project