SPECADOR

Documentation Generator

- For SystemVerilog, Verilog, Verilog-AMS, e, and VHDL

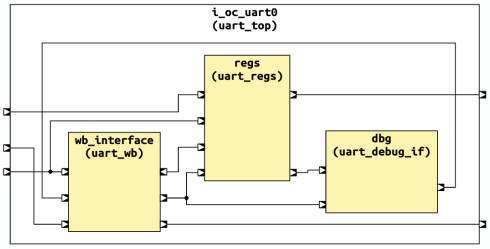
Well organized documentation in no time

Instances

apb_subsystem_top : apb_subsystem_top
↳ i_apb_subsystem : apb_subsystem_0
↳i_oc_uart0 : uart_top #(.uart_data_width(32), .uart_addr_width(5))
↳i_oc_uart1 : uart_top #(.uart_data_width(32), .uart_addr_width(5))

Submodules

uart_top #(.uart_data_width(32), .uart_addr_width(5))
↳dbg : uart_debug_if
↳regs : uart_regs
↳wb_interface : uart_wb



Flow Diagram of uart_top

BENEFITS

- Generates well organized and effective documentation, even from source code without comments
- Integrates easily into existing development flows, allowing design and verification groups to automate the documentation process
- Keeps the generated documentation in sync with the source code, saving time and reducing maintenance costs
- Enhances IP packaging
- Simplifies and encourages documenting the source code

OVERVIEW

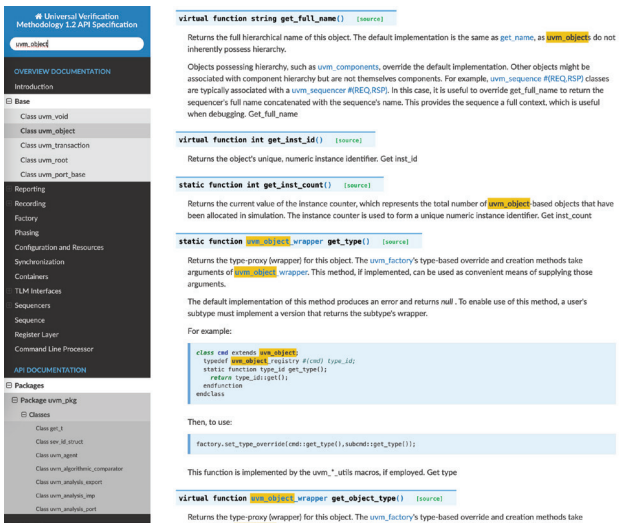
Specador is a tool that automatically generates accurate HTML and PDF documentation from the source code. It works in batch mode (command line) and uses dedicated language compilers.

The tool enables your design and verification engineers to effortlessly generate and maintain proper and well-organized documentation. Users can generate meaningful documentation of a design or verification environment even from poorly documented source code. This is because Specador compiles the code and understands the project structure. Thus it can generate for example cross-linked class inheritance trees, design hierarchies, and diagrams.

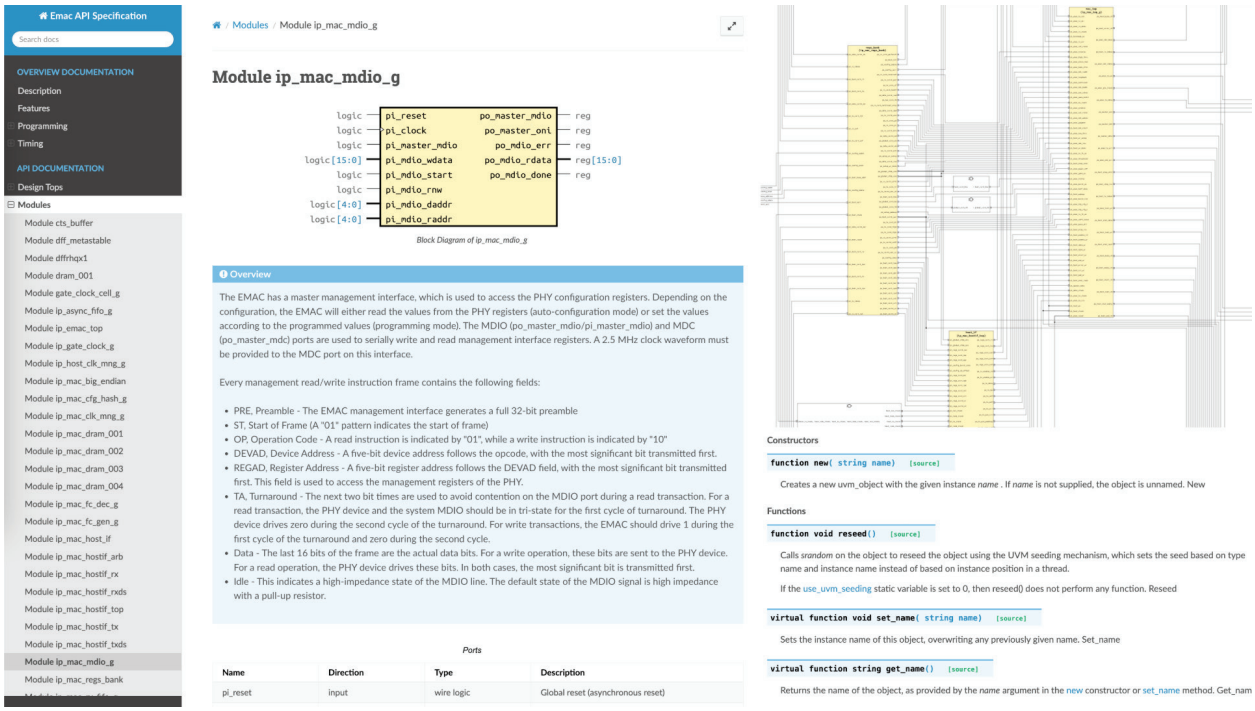
Specador can be integrated easily into existing development flows. The documentation is always in sync with the source code, thus eliminating meticulous and problematic tasks such as maintaining diagrams or updating lists of ports or function arguments to reflect the current version.

Specador is especially useful for packaging IPs, either for the IP providers or for those using an IP-oriented flow in their company.

Specador recognizes the Markdown syntax, which can be used to format the documentation as desired, in order to enhance the readability of the HTML and PDF output.



Users have the ability to search in the documentation generated with Specador



Documentation generated with Specador

FEATURES

- **Language awareness** – the documentation is organized by language-specific concepts, including both relationship and structural information. For example, there are dedicated categories for packages, classes, modules, entities, or structs and one can easily explore the class inheritance, design hierarchy, or entity architectures
- **Cross-linked documentation** – allows users to easily jump from the function documentation to one of its arguments or from the module definition to one of its submodules
- **Hyperlinked diagrams** – Specador automatically generates diagrams such as Schematic and State Machine HDL Diagrams, and Inheritance and Collaboration UML Class Diagrams. The diagrams are hyperlinked and as such, one can click on a class in a diagram and jump to the chapter where it is documented or on a submodule in a schematic to jump to the submodule chapter
- **Bitfield diagrams** – Specador automatically generates bitfield diagrams by parsing packed data types or the UVM register configurations methods
- **Waveform diagrams** – Specador automatically generates waveforms specified using the popular open-source WaveDrom format
- **Customized diagrams** – Specador can take directives in comments, feed them to an external script/tool for processing, and include the generated results in the documentation
- **Review-oriented sections** – Specador generates sections that aggregate information, for example coverage and checking aspects
- **Quick search** – users can easily search through the generated documentation
- **Enhanced readability of the HTML and PDF output** – because Specador recognizes the Markdown syntax, users can beautify the HTML and PDF output by using attributes such as bold, italic, and lists
- **Documentation control** – allows users to control what documentation they generate, for example, by filtering out entire packages or private APIs
- **Additional embedded or linked documentation** – users can easily embed external documentation, add additional menus in the table of contents, add links to MS Word, PDF documents, or extra screenshots, and integrate with other documentation frameworks
- **Scalability** – Specador automatically creates cross-links to pre-generated documentation of other IPs or projects

INTEGRATED SOLUTION

Specador Documentation Generator Specador Documentation Generator is closely integrated with the other design and verification products available from AMIQ EDA, including **DVT Eclipse IDE** and **DVT IDE for VS Code.**

TECHNICAL SUPPORT

The technical support team is available to promptly answer your questions, provide you with training, and work with you to determine your needs.

Your requirements and feedback are important. Whether you are looking for technical support or new features to improve your design and verification flow, AMIQ's technical support team strives to answer your requests in a timely manner.

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