

## SystemC Model Parser

### Project Description:

Conversion of projects created with a certain EDA (Electronic Design Automation) tool and language into a format used by another EDA tool is often a big issue. One of first steps needed to provide a general conversion tool is to implement HDL parsers that extract relevant information out of the HDL source files. A HDL parser must be able to extract the hierarchical structure of models, as well as their port and parameter definitions, associated source files, etc. The main task of this project is the development of a specific HDL parser for the SystemC language that parses a set of SystemC source files and generates a Java object structure including all relevant information about the models. The SystemC parser is intended to be applied for importing SystemC models into the SyAD IP-Library, syntax highlighting, and synchronizing model meta-data with the model definition.

Following subtasks are to fulfill in this project:

- Literature research and introduction into scanner and parser technology,
- Literature research and basic understanding of SystemC,
- Development of a SystemC parser and integration into the SyAD framework,
- Evaluation of the implemented solution,
- Documentation.

Desired skills:

- Java programming language,
- Basic knowledge of scanner and parser technology (e.g. JFlex, CUP).

For more details about this and/or other projects/theses, please take a contact.

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