MASTERTHESIS

DEVELOPMENT OF AN INTERPRETER FOR MODEL DRIVEN PROCESS ENGINEERING

Ansprechpartner

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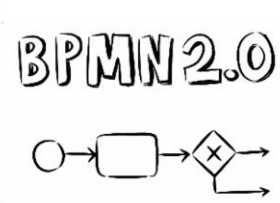
From now on, the Chair for Software Engineering at the RWTH Aachen offers the following master thesis:

TASK

Agile development continues to revolutionize software systems engineering nowadays. Key to establish and maintain agility during large-scale projects are well-conceived and optimized business processes. Model driven techniques allow to analyze these processes and find automated optimizations. A nowadays established syntax for modelling such processes is the Business Process Modeling Notation developed by the Object Management Group. Optimization, validation and interpretation of such models requires a formal basis grounding to establish a common understanding among all project participants and to enable automation as well as reuse.



You will enable tool development for automated model checking, simulation and testing of business processes by means of formal semantics. The focus lays particularly on verification, simulation of business processes, automated testing and workflow derivation. By evaluating your approach in realistic use cases you contribute actively to our research and gain insight into software project management.

FOCUS AREAS

- Develop an expressive BPMN semantics
- Simulation of BPMN models
- BPMN model checking
- Automated testing

PREFERABLE EXPERIENCE

- Software Language Engineering
- Interpreting behavior models