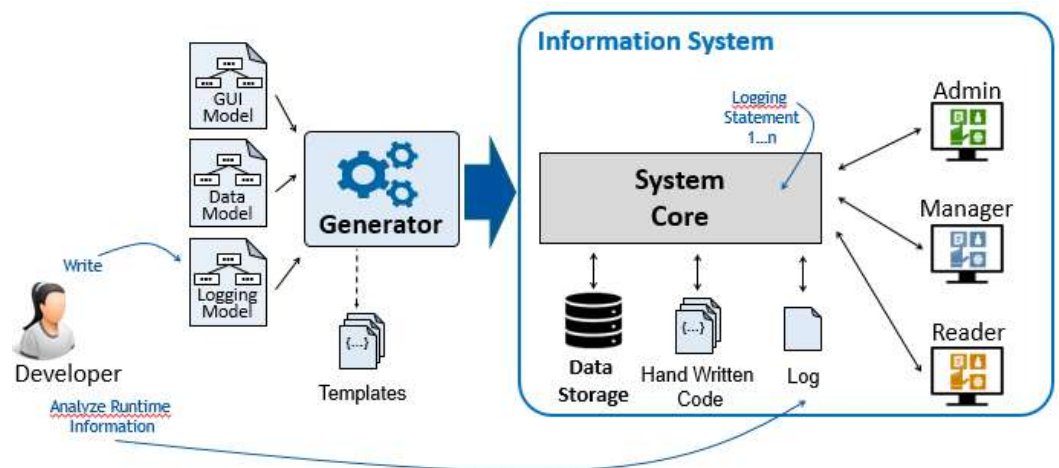# BACHELOR/MASTERTHESIS

A LOGGING DSL FOR SOFTWARE CODE

Logging helps developers at design and run-time to understand the use of software systems as well as identify problems and errors. Capturing the goals for logging and provide automated support for logging statements in the source code reduces development time and improves consistency, thus facilitating debugging and post-mortem analysis.

The aim of this thesis is to develop a domain specific language (DSL) for defining logging goals. The models created with the LoggingDSL should be used as generator configuration for code generation within the Generator Framework MontiGem. The final result should be the generation of logging statements into an enterprise information system (EIS) created by the framework.

AREAS OF FOCUS

- Analyze logging statements in existing code and extract patterns
- Conceptualize what information should be logged in what detail
- Create a LoggingDSL to generate logging statements based on high-level descriptions
- Extend the MontiGem core generator: it should use the LoggingDSL models to add the logging statements in the right places of the code in a generated EIS

DESIRABLE PRIOR KNOWLEDGE

- Interest in modeling
- Coding Experience in Java
- Knowledge about Domain Specific Languages, e.g., in the lecture SLE

Since this work is carried out in collaboration with guest researchers from Brazil, a good command of English is required.

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*Are you **interested** in this topic?*

*For **more information**, please contact one of the following persons.*

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Task Definition

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