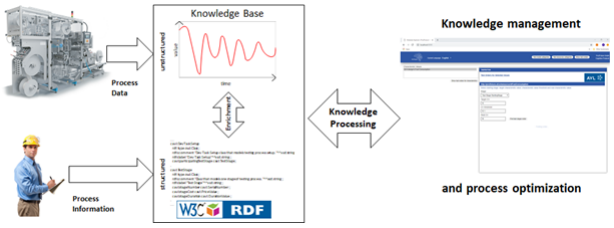
SCIENCE · PASSION · TECHNOLOGY

Open Thesis / Project
Model driven analytics for industrial processes

Motivation

Whether they are manufacturing physical products or delivering virtual services, corporations engage in a wide variety of processes that are interrelated within and across different phases along the product/service lifecycle. Corporations have started collecting and storing this information, expecting that the data might be useful to extract valuable insights about the product and the production process in the future (e.g., for improving individual process steps and individualizing the product/service for customers). One way of achieving this is by means of active integration and utilization of process data. For this, a foundation of models and tools is required that allow creation and management of data-related models, as well as a way to link such models with whatever process data is available.

The goal of this thesis is to develop tools for model driven analytics, which enable a combination of semantic technologies and machine learning. Utilizing model driven analytics it will be possible to leverage and combine the strength of the respective technologies to enable smart data acquisition and processing.



Target Group

Students in ICE/Telematics and Comp. Science.

Thesis Type

Bachelor Thesis / Master Project.

Goals and Tasks

- Develop tools and foundations for model driven analytics
- Demonstrate and investigate applicability developed tools in the context of a usecase

Required Prior Knowledge

- Background in statistics and data analytic
- Background in semantic web technologies and web service development
- Programming skills in Java, Python
- Interested in cloud computing

Used Tools & Equipment

- OpenAPI, Rest
- RDF, SPARQL
- Flux, InfluxDB

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