TECHNISCHE UNIVERSITÄT DRESDEN

PCS PSE

School of Engineering Chair of Process Control Systems & Process Systems Engineering Group

Information modeling of modular plants

Huge amounts of data arise in the life cycle of a process plant. A machine cannot interpret the data. Therefore it cannot put the data into a context. As a result Artificial Intelligences cannot act independently. One solution to the problem is the semantic enrichment of the data by the use of metadata. For this purpose a context model can be used.

In this student thesis a context model for the application scenario of „orchestration and operation of modular plants “ is created. For this purpose, the application scenario is examined. Based on this, the requirements of the context model are determined. Important context informations for the use case are extracted. To apply the context model an information model is reused. The information model has to describe process plants and measurements. For this purpose existing information models in the field are examined. A neutralization plant as an example of a modular plant will be implemented and enriched semantically. The technologies of the semantic web are used for this purpose.

Tutor:	Dr. rer. nat. Valentin Khaydarov
	Dipl.-Ing. Julian Rahm
Supervisor:	Prof. Dr. techn. Leon Urbas
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STUDENT RESEARCH THESIS Author: Nam Van Tran