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Project abbreviation: SLAPMAN

Project name: Steaming Language Processing in Manufacturing

Project coordinator: FZI Research Center for Information Technology

Project consortium: FZI Research Center for Information Technology

Funding: Pilot Project (First ELG Open Call)

Project duration: 2020-08-01 – 2021-07-31

Main key words: Industrial IoT, Data Exploration, Information Extraction, Manufacturing

Background of the research topic: Using a graphical no-code approach to enable users to orchestrate NLP services in form of processing pipelines.

Goal of the project: The overall goal of the SLAPMAN project is the development and integration of streaming language technology modules to process, analyze and exploit non-structured or semi-structured data and the integration of these modules into the open source IoT toolbox Apache StreamPipes. The architecture of Apache StreamPipes is centered around a set of standalone microservices to process incoming streaming data based on instantiated data adapters (which connect to the underlying data sources) and forward results to data sinks. In between, corresponding processors allow to apply arbitrary event processing logic on the event stream to generate meaning knowledge.

Project abstract: Often underestimated, (semi-) structured textual data sources are an important cornerstone in the manufacturing sector for product and process quality tracking. SLAPMAN develops novel methods for industrial text analytics in form of scalable, reusable and potentially stateful microservices, which can be easily orchestrated by domain experts in order to define quality anomaly patterns, e.g., by analyzing machine states and error logs. The results are fully available as open source and integrated into the IIoT toolbox Apache StreamPipes, which was originally created by FZI and is now an incubating project in the Apache Software Foundation.

