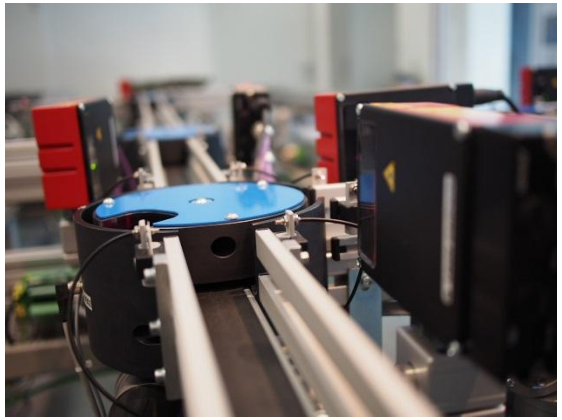
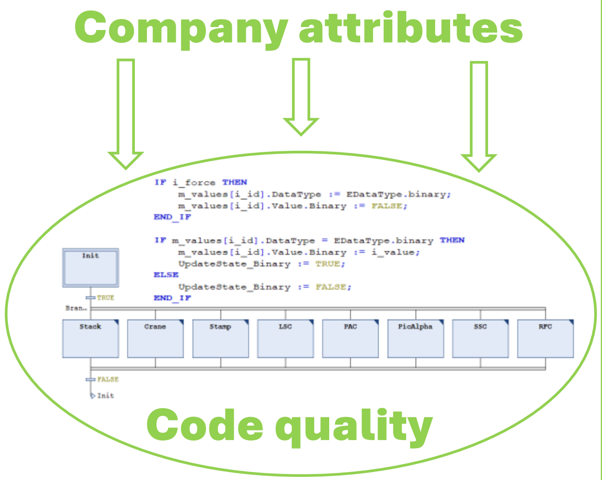


Data-Driven Effect Analysis in the Software Development Process (SA/MA)

Lehrstuhl für Automatisierung und Informationssysteme
Technische Universität München
Prof. Dr.-Ing. Birgit Vogel-Heuser

Task Description:

The quality of a software architecture largely depends on the process with which it was developed. The software development process is determined by the developing company which is subject to a large array of boundary conditions. These boundary conditions variate over time and thereby indirectly affect the software quality through alterations in the underlying development process. The goal is to mitigate the negative impact of the changing development process on the software.



Your task is to identify the most deciding factors for software quality via a data-driven analysis and case studies from industry partners. From there you will be able to define specific design rules aiming to reduce the negative effects on the software development process. One of our partner companies would be happy to welcome you as part of your work to analyze the software development process on-site.

Preliminaries:

- Experience in an application programming language, e.g., Python or C#
- Knowledge about industrial automation and IEC 61131-3 programming
- Independent and self-reliant work ethic

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