



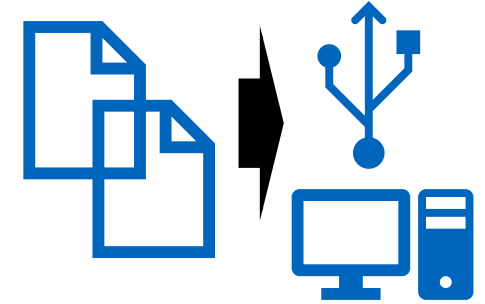
Knowledge extraction of machine wiring of a production system (BA/SA/MA)

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Task Description:

The advancement of modern automated production systems comes along with a high complexity. In case of problems or failure of the power supply of the system or the system's network connection there is often a propagation of faults along the wiring between the several machines of the production system. This leads to a huge number of alarms in the user interface and thus to an overload for the worker. To support the worker in finding the root-cause of the alarms, knowledge about the wiring shall automatically be extracted from documents.



In cooperation with an industrial partner, a software tool shall be developed that parses PDF documents containing the wiring diagrams and extracts relevant information about the wiring of an automated production system. This information shall be processed according to its semantic context to support the identification of fault propagation paths.

Preliminaries:

- Interest in data analysis and recent developments of automation
- Knowledge of at least one higher programming language (e.g. Python, C (#/++))
- Experience in parsing of PDF beneficial



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