Abstract:
Software engineers of production automation systems have to deal with a great number of various tasks for example programming the automation code, simulation or visualization of the production system. For the virtual or real commissioning of the system, further tasks like defining software or hardware communication interfaces are needed. Most engineering tools used by the software engineers only support one or few of the tasks. As a consequence, there is a great heterogeneous industrial tool landscape, which has to be applied in automation software engineering. Although every tool is specialized in its domain, there is plenty information about the system, for example parameters describing geometries or sensor/actuator signals, that are used by almost every domain. Currently, tool independent parameters are declared and defined in every tool redundantly. The possibility to declare and define parameters globally only once is missing. This fact increases the risk of inconsistency and the effort in software engineering. In this paper the approach of a consistent engineering information model to improve the consistency of information focused on parameters is introduced. The approach is implemented by Automation Markup Language (AutomationML). The evaluation is realized by the software engineering of a pneumatic double acting cylinder.
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Nachgewiesen in:
Scopus; Web of Science

Occurences:
· Einrichtungen > Fakultäten > Fakultät für Maschinenwesen > Institut für Mechatronik > Lehrstuhl für Automatisierung und Informationssysteme (Prof. Vogel-Heuser) > 2014

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