The more intensive the cooperation between organizations, like a project consortium, working together on plant engineering, the more pressing are the issues security, process and data control which are hard to address at project level in heterogeneous software landscapes. The „Automation Service Bus®“ for project consortia facilitates the efficient and secure cooperation of companies in a way which allows them to use established software tools but keep process and data control.

Goal

Projects related to plant engineering typically demand both the cooperation of different engineering disciplines and the collaboration of organizations. On grounds of sufficient IT-Security and elusive organization, companies participating in the project would like to keep control over their already established processes and their internal but project-relevant engineering data.

- Easy integration of already established organization-specific processes and the retention of its control and management.
- Overview and monitoring of processes across organizational borders to detect chancy project-specific process steps.
- Secure communication, data exchange and synchronization including mobile project partners.
- To minimize defects and risks in the overall plant planning the recognition and propagation of changes to engineering plans should be effective, efficient, and robust.

Customer Benefit

- Minimizing of defects and risks coming from inconsistent engineering plans in distributed engineering.
- Easy integration of established organization specific processes in project consortia.
- Secure and efficient communication and analyses of changes.

Solutions

logi.cals and the Christian Doppler laboratory CDL-Flex at the Technische Universität Wien have developed the „Automation Service Bus®,“ an open and flexible technology for distributed engineering in project consortia. Mapping the project-level common concepts coming from the domain experts to local representations in software tools enables the automated recognition of changes and conflicts in order to efficiently inform the relevant experts in the project team. Modeling common concepts enable the automated linking of (process) information in order to derive additional project-relevant information.

The so called Engineering Knowledge Base (EKB) enables the linking of information about data and processes from different engineering disciplines and companies. The EKB enables a clean description of process interfaces in order to facilitate the integration and traceability of processes across project-related organizations. The ASB component “Security Broker” controls and monitors access to processes, process steps, and operations on data.

Technical Data:

- Automation Service Bus® for project consortia
- Service-oriented Architecture
- Semantic integration of common concepts at project level

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