Delays from capturing runtime states of engineering objects in software plans for commissioning purposes should be minimized. Linking engineering object representations in runtime environments and software tools with the “Automation Service Bus” enables the visualization of runtime data directly in engineering plans.

Goal

During the commissioning of an industrial plant experts have to capture runtime data and link them to engineering objects in heterogeneous engineering plans. For instance: “Show for component »LT1096« within the P&ID schema the current runtime state!”. The software tools suffer from incomplete and inefficient links between engineering objects and runtime data. Therefore, experts have to elicit these relationships manually.

- Linking engineering objects to their representations in relevant software tools and runtime data should be complete, correct and efficient to use.

Solution

logi.cals and the Christian Doppler Laboratory at the TU Wien provide the „Automation Service Bus®“, which extends the new standard for runtime data representation, OPC Unified Architecture, for providing runtime data in structured and standardized ways and for linking runtime data to design time engineering objects.

This solution enables software tools to capture and present runtime data in the context of engineering objects in a user friendly way. For instance, runtime data can be presented directly with the corresponding engineering objects in P&ID schemata without using additional software tools.

Technical Data:

- **Automation Service Bus®**
- Service-oriented architecture
- APIs of involved software tools
- Portable document format (pdf)
- Semantic integration of common concepts on project level
- OPC Unified Architecture (UA)

Customer Benefit

- **Commissioners**: Increased efficiency from showing runtime data directly within the software plan without the need for additional activities.
- **Operators**: Defect prevention at commissioning with focus on runtime.
- **Immediate availability of signal online states during commissioning.**