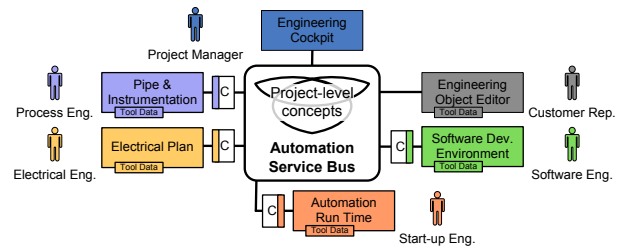


Focused Reviews of Software Plans in Automation Systems Engineering



Changes of planning documents require frequent data synchronization between involved disciplines. Missing synchronization between disciplines might lead to inconsistencies and defects in related data models. Common concepts enable a comprehensive data exchange and support focused reviews by experts.

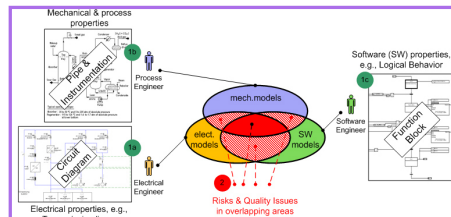
Goal

Common plants include up to 40.000 signals from heterogeneous tools. Based on common concepts the synchronization of planning documents during engineering phases require a high effort provided by experts. Because of high effort, synchronization is executed less frequently. Focused information after changes and defects can enable a focused inspection of planning data frequently and without high effort.

- Significant decrease of synchronization effort based on focused reviews.
- Frequent synchronization increases product quality and guarantees a consistent data basis available for all related disciplines.
- Deviations and defects are identified early and can be solved within a short time.



Finden von Fehlern aus unterschiedlichen Datenquellen im Anlagen-Engineering



Gezielte Information von Änderungen aus unterschiedlichen Datenquellen

line	update when new	old value	new value	function/block	region	component number	quantity	pin
1	10102.all	U1 - HECS - VT MCB for excitation - F31F42 - trip	U1 - Main Transformer - Tapcon T230A - Status		000	000	00	00
2	10102.all	U1 - HECS - VT MCB for excitation - F31F42 - trip	U1 - Main Transformer - Tapcon T230A - Status		000	000	00	00
3	10102.all	U1 - HECS - VT MCB for excitation - F31F42 - trip	U1 - Main Transformer - Tapcon T230A - Status		000	000	00	00
4	10102.all	U1 - HECS - VT MCB for synchronizing - generator side F41 - trip	U1 - Main Transformer - Tapcon T230A - U41		000	000	00	00
5	10102.all	U1 - HECS - VT MCB for synchronizing - generator side F41 - trip	U1 - Main Transformer - Tapcon T230A - U41		000	000	00	00
6	10102.all	U1 - HECS - VT MCB for synchronizing - transformer side F57 - trip	U1 - Main Transformer - Tapcon T230A - Status		000	000	00	00
7	10102.all	U1 - HECS - VT MCB for synchronizing - transformer side F57 - trip	U1 - Main Transformer - Tapcon T230A - Status		000	000	00	00

Customer Benefit

- Increased quality level of the common data basis based on common concepts.
- Automation-supported synchronization enables frequent data consolidation of experts located in various disciplines.
- Goal-oriented investigation of deviations regarding changes and defects.

Solution

logi.cals and the Christian Doppler Laboratory at TU Wien provide the „Automation Service Bus®“, an open source platform to bridge the technical and semantic gap between heterogeneous tools and data models. Common concepts based on expert knowledge are the foundation for focused reviews conducted by these experts. Frequent synchronization of data models enable a consistent common data basis as a foundation for further development. Goal-oriented presentation of changes enables focused reviews to support conflict and defect detection.

Technical Data:

- Automation Service Bus®
- Semantic integration of common concepts on project level
- Best-practice software inspection and reviews.

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