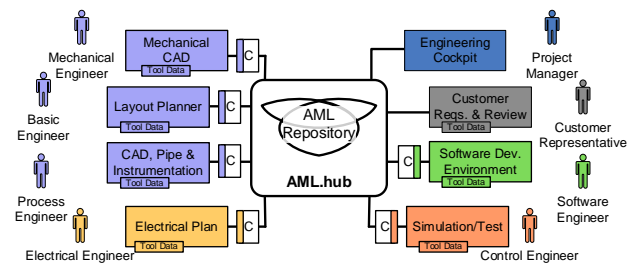


Easy Definition and Monitoring Of Critical Project Parameters



Managers and Engineers should be supported to define, configure and evaluate critical project and process parameters. The Multi-Model Dashboard enables the efficient selection and monitoring of critical project parameters in a defined project context.

Goal

Heterogeneous engineering teams, e.g., in project consortia, typically use local and isolated software tools for various tasks. Critical parameters, which are available only in local applications, hinder collaborative engineering and project management within a project consortium. The decision, which project and process parameters should be used and which constraints should be evaluated depend on decision processes from various stakeholders. In particular, for flexible production systems, the correct mapping of data from operation with engineering knowledge from development is essential.

Continuous monitoring of defined parameters enables the prompt response to changed artifacts and parameters in heterogeneous engineering environments.

Individual project participants and members of project consortia want to continue using their well-known software tools in local environments. Interfaces to the runtime system can be linked to parameters from the development phase.

Implementation

The Multi-Model Dashboard, developed by *logi.cals* and the Christian Doppler Laboratory "CDL-Flex" at TU Wien, enables project participants and project managers to efficiently define and negotiate engineering parameters and constraints and select and monitor parameters in heterogeneous engineering environments.

The mapping of common concepts to local representations enables the automated detection of changes and monitoring of constraints under defined conditions.

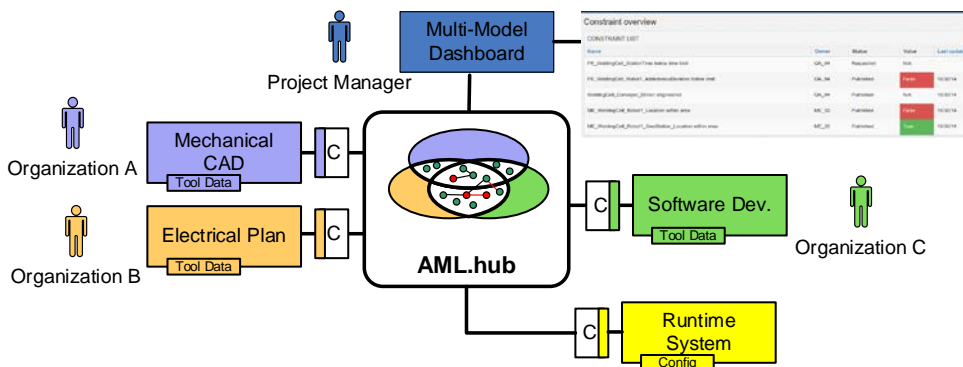
Based on the *AML.hub* the Multi-Model Dashboard enables the observation of defined critical parameters in a heterogeneous and distributed environment within defined application areas. Plan changes or violations of comprehensive constraints can be recognized (e.g., effort and engineering quantities). Project managers or involved engineers can be notified early if critical changes are detected.

Technical Specification

- AML.hub and Automation Service Bus®.
- Service-Oriented Architecture.
- Publish/Subscribe Mechanisms.
- Parameter and Constraint Negotiation processes.
- Engineering/Multi-Model Dashboard.

Benefits for Customers

- Experts are enabled to efficiently negotiate, define, subscribe to, and observe **critical project parameters**, even if the data are located in different local repositories.
- Interested **project participants can be informed fast**, if critical changes of parameters occur, even in other domains.
- The Multi-Model Dashboard provides a **central platform** for efficient and user-friendly collaboration during an engineering project and at run time.
- All project participants continue using their **well-known working environment**.



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