Secure Engineering Workflows (SEW)

Mission-critical engineering workflows and assets need to be protected from risks due to insufficient information security. The “Automation Service Bus®” security concept provides automated monitoring of engineering workflows and verifies their compliance with security and safety policies in development environments.

Goal

Heterogeneous environments make it increasingly difficult to protect information assets from accidental or malicious breaches of information confidentiality, integrity, or availability. Traditional security mechanisms are too complex to set up and rigid in their application for the use in distributed teams. These security mechanisms do not scale well for workflows with heterogeneous software tools. Enforcing heavy weight security policies risks slowing down engineering productivity.

- Security policies need to be sufficiently strict, but light weight and easy to set up.
- The solution must monitor and enforce security across heterogeneous tools, throughout engineering workflows.
- Security must be transparent and not slow down the user.

Secure software engineering

- Project management: Safeguard information assets in distributed projects without slowing down engineering work.
- Quality management: Assure consistent compliance with quality and safety policies, throughout development phases and across tools.
- Access to trustworthy measurements on workflow progress.

Solution

logi.cals and the Christian Doppler research laboratory at TU Wien provide the “Automation Service Bus®” Security Broker, a flexible and light weight security monitoring and enforcement solution for engineering workflows across software tools. The “Security Broker” combines an easy-to-use workflow engine with a smart, context-sensitive, user rights management system. Project stakeholders can easily configure and enforce security policies on a workflow level. The Security Broker has been successfully demonstrated as a prototype and gets improved based on needs and concepts from real-world projects.

Technical Data:

- Automation Service Bus®
- Schemaless Engineering Database/Knowledge Base
- Re-use existing user management
- Kerberos support prepared

Customer Benefit

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