AMALTHEA4public

Open source tool platform for engineering embedded multi- and many-core software systems

PROJECT SUMMARY
AMALTHEA4public provides an open source tool platform for engineering embedded multi- and many-core software systems. The platform enables the creation and management of complex tool chains including simulation and validation. As an open platform, it supports interoperability and extensibility and unifies data exchange in cross-organizational projects.

OBJECTIVES
- Multi-core and many-core systems
- AUTOSAR conformance
- Configuration of systems
- Open source results
- Extensions for
  - Automation
  - Business information systems

UNIQUE SELLING POINTS / BUSINESS VALUE
- Consistent continuous tooling
- Development efficiency increase
- De-facto standard for data exchange
- New services and functions
- Traceability for systems engineering artifacts

RESULTS
- Open Source Tool platform
  - APP4MC Multicore
  - Capra Traceability
- Established user community
- Interfaces for tool integration

Source: BOSCH

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AMALTHEA4public
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PROJECT CONSORTIUM

START DATE SEPTEMBER 2014

END DATE AUGUST 2017

PROJECT PARTNERS

- Large companies (5)
- SMEs (7)
- Universities (4)
- Research institutes (4)

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CAPRA TRACEABILITY

- Flexible management of traceability links
- Change Impact Analysis through different visualizations and customizable traceability matrices (ASPICE and ISO 26262 compatible)
- Automated consistency checks for traceability links and linked artifacts
- Highly customizable: typed traceability links, extend/replace traceability metamodel, implement additional visualization tools

EBEAS – EMERGENCY BRAKING & EVASION ASSISTANCE SYSTEM

- Example available as open source
- Inherent complexity by different engineering disciplines, safety requirements, and real-time properties
- Covering several development phases
- Involving several, heterogeneous open source tools