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ITEA 3 is a EUREKA strategic ICT cluster programme

Exploitable Results by Third Parties

17003 PANORAMA

Project details

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Name: APP4MC

Input(s):	Main feature(s)	Output(s):
▪ SW-description ▪ HW-description ▪ Constraints ▪ Decisions ▪ Costs	▪ Multi- and Many-Core development process support ▪ Common Data exchange and simulation format ▪ Event tracing ▪ Customizable workflow	▪ SW distribution for embedded multicore systems ▪ Common data exchange and simulation format

Unique Selling Proposition(s):	▪ Consistent continuous tooling ▪ Development efficiency increase ▪ De-facto standard for data exchange ▪ New services and functions ▪ Traceability for systems engineering artifacts
Integration constraint(s):	▪ designed for Laptop or desktop machines ▪ JAVA 8 or newer ▪ Supported platforms: Win 64, Linux (64 bit), OSX (64 bit)
Intended user(s):	▪ SW-architects, SW-developer, HW designer,
Provider:	▪ APP4MC developers ▪ https://www.eclipse.org/app4mc/community/
Contact point:	▪ https://projects.eclipse.org/projects/automotive.app4mc/who
Condition(s) for reuse:	▪ EPL2 licensed (Eclipse public license)

Latest: 30.11.2021

Name: APP4MC.sim

Input(s):	Main feature(s)	Output(s):
▪ SW-description ▪ HW-description ▪ Mapping-decisions Or AMALTHEA model	▪ Timing Simulation of an AMALTHEA Model	▪ Trace Data ▪ Extendable SystemC-based generated Source-Code of AMALTHEA Models

Unique Selling Proposition(s):	▪ Validate the semantics and consistency of an AMALTHEA model on dynamic aspects ▪ Allow early timing analysis on AMALTHEA models to substantiate design decisions ▪ Development efficiency increase
Integration constraint(s):	▪ designed for laptop or desktop machines ▪ JAVA 8 (for model transformation) ▪ CMake ▪ C++-Compiler (Visual Studio Compiler, G++, Clang) ▪ Supported platforms: Win 64, Linux (64 bit), OSX (64 bit)
Intended user(s):	▪ SW-architects, SW-developer, HW designer
Provider:	▪ APP4MC developers ▪ https://www.eclipse.org/app4mc/community/
Contact point:	▪ https://projects.eclipse.org/projects/automotive.app4mc/who
Condition(s) for reuse:	▪ EPL2 licensed (Eclipse public license)

Latest: 28.02.2022

Name: APP4MC Cloud

Input(s):	Main feature(s)	Output(s):
AMALTHEA model	▪ Static Analysis ▪ Timing Simulation of an AMALTHEA Model ▪ Common hosted infrastructure (ready to use)	▪ Result visualization ▪ Trace Data ▪ Model migration ▪ Model validation

Unique Selling Proposition(s):	▪ Ready to use infrastructure and tool setup ▪ Cloud processing ▪ Joint distributed environment ▪ Use case based configuration possibility
Integration constraint(s):	▪ Internet access ▪ https://app4mc.eclipseprojects.io/
Intended user(s):	▪ SW-architects, SW-developer, HW designer
Provider:	▪ APP4MC developers ▪ https://www.eclipse.org/app4mc/community/
Contact point:	▪ https://projects.eclipse.org/projects/automotive.app4mc/who
Condition(s) for reuse:	▪ EPL2 licensed (Eclipse public license)

Latest: 28.02.2022

Name: Model-Based Safety Assurance and Traceability (MobSTr) Dataset

Input(s):	Main feature(s)	Output(s):
None.	▪ Fully traced set of safety-relevant artifacts to demonstrate model-based safety assurance and traceability ▪ Full stack of artifacts that covers the entire pre-implementation life-cycle (including hazard analysis and risk assessment, failure mode and effects analysis, as well as fault tree analysis) ▪ Defined traceability information model that describes the link types based on the needs of safety assessment	None.

Unique Selling Proposition(s):	▪ To the best of our knowledge, it is the most comprehensive freely available dataset of its kind and therefore represents a prime example of model-based safety assurance and traceability ▪ Custom Eclipse installation is provided, which enables easy installation and barrier-free reuse for research projects
Integration constraint(s):	▪ Can be used on laptops and desktop machines ▪ Some of the artifacts can be accessed with the following tools: o Eclipse APP4MC (optional) o Eclipse Papyrus (optional) o Eclipse Capra (optional) o ODE Editor (optional) o Microsoft Excel (optional)
Intended user(s):	▪ Researchers ▪ Interested Industrial Practitioners
Provider:	▪ MobSTr Dataset contributors ▪ https://github.com/panorama-research/mobstr-dataset
Contact point:	▪ https://www.researchgate.net/project/MobSTr-Dataset
Condition(s) for reuse:	▪ EPL2 licensed (Eclipse public license)

Latest: 02.03.2022

Name: Eclipse Capra

Input(s):	Main feature(s)	Output(s):
Any supported artifact, e.g., Java/C/C++ source code, UML diagrams in Papyrus, ReqIF models, Excel files, Amalthea model	▪ Creation of traceability links between artifacts in different languages/DSMLs ▪ Visualisation of the trace model ▪ Automatic consistency checking ▪ High customizability and extensibility	▪ Model of traceability links ▪ Traceability link visualistion

Unique Selling Proposition(s):	▪ Only fully-integrated OSS traceability management tool currently under development ▪ Support for many common artifact types out of the box ▪ High extensibility allows integration of additional artifact types quickly and easily ▪ Automated consistency checks simplify maintenance of existing trace links
Integration constraint(s):	▪ Works within the Eclipse Rich Client Platform ▪ Supports a number of artifact types out of the box, additional support can be added easily if required
Intended user(s):	▪ SW-architects ▪ SW-developers ▪ System engineers ▪ Test managers
Provider:	▪ Eclipse Capra developers ▪ https://eclipse.org/capra
Contact point:	▪ https://projects.eclipse.org/projects/modeling.capra/who
Condition(s) for reuse:	▪ EPL2 licensed (Eclipse public license)

Latest: 04.03.2022

Name: ForSyDe IO

Input(s):	Main feature(s)	Output(s):
▪ SW-description ▪ HW-description ▪ Constraints ▪ Decisions	▪ Embedded system-level design support ▪ Common Data exchange and simulation format ▪ Customizable workflow ▪ Extensible multi-aspect model ▪ Visualization	▪ Common data exchange for embedded system-level design flows. ▪ Supporting design space exploration via IDeSyDe.

Unique Selling Proposition(s):	▪ Integration with the App4mc framework. ▪ Integration with the IDeSyDe design space exploration tool. ▪ Visualization of the system model, before and after design space exploration. ▪ Development efficiency increase
Integration constraint(s):	▪ designed for Laptop or desktop machines ▪ JAVA 8 or newer OR Python 3.7 or newer ▪ Supported platforms: Win 64, Linux (64 bit)
Intended user(s):	▪ System designer, System architects, SW-architects
Provider:	▪ KTH Royal Institute of Technology ▪ https://www.kth.se/
Contact point:	▪ https://forsyde.github.io/forsyde-io/
Condition(s) for reuse:	▪ MIT Licensed (actual project) ▪ EPL2 licensed (One of its dependencies)

Latest: 08.03.2022