EMBEDDEDPLUS ENGINEERING, LLC

Simulation Toolkit

for the IBM Rational Software Development Platform (RSDP)

While static models have proven themselves useful for managing complexity and improving stakeholder communication, the ability to dynamically simulate and execute those models provides another level of value and understanding of the system under construction. This in turn, decreases risk earlier in the program and ultimately saves time and money. In the same way that iterative and agile development with always executable applications helps software programmers, a similar approach with demonstrable dynamic models assists teams constructing large-scale systems.

Key Benefits

- Increase system understanding and decrease risk
- Early interface definition
- Experiment with alternative designs and perform trade-off analysis
- Validate requirements
- Seamless Eclipse integration
- Easy upgrade of Rational Rose models

Key Features

- Simulate and Execute UML and SysML Models
- Sequence Diagram Trace
- C++ and Java Support
- Customizable
- Open standard support: Eclipse, MDA, UML and SysML

The EmbeddedPlus' **Simulation Toolkit** provides the ability to simulate and execute UML2 and SysML models created using Rational Software Modeler/Architect, Rational Systems Developer (RSD) and the EmbeddedPlus SysML Toolkit.

BENEFITS OF THE EMBEDDEDPLUS SIMULATION TOOLKIT

⇒ The Simulation Toolkit plugs directly into IBM Rational's Eclipse-based modeling and development environment, providing the unique ability to model, simulate, and debug from within one tool environment.

⇒ The simulation capability allows the dynamic behavior of the system to be modeled and observed during execution, including the automatic generation of sequence diagrams capturing the interactions between system entities.

⇒ The simulation framework's timing service allows for large scale simulations to be run irrespective of actual time, allowing for analysis of large scale systems in acceptable periods of time.

⇒ The Simulation Toolkit and IBM Rational's supporting modeling platform are based on open standards including the open-source Eclipse plug-in architecture, Eclipse's UML2 reference implementation, and supporting XMI model storage format. Being based on Eclipse, you can easily extend the tooling by creating custom plug-ins or by purchasing commercial plug-ins to supplement your tooling environment. Simulation toolkit can be extended and customized to control the types of simulations performed.

⇒ Leverage your investments in Rational Rose with no-cost trade up to Rational's Modeling platform. Rose models are easily imported and can be upgraded to support simulation with a single click.

Ready for IBM Rational software

Embedded plus

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Exceed Expectations, Not Schedules

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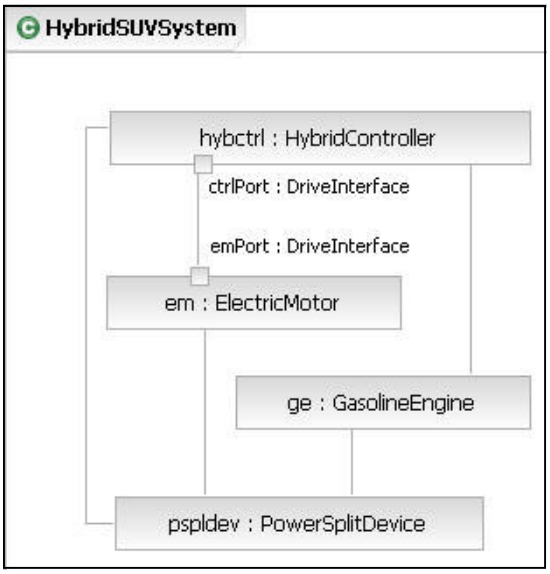
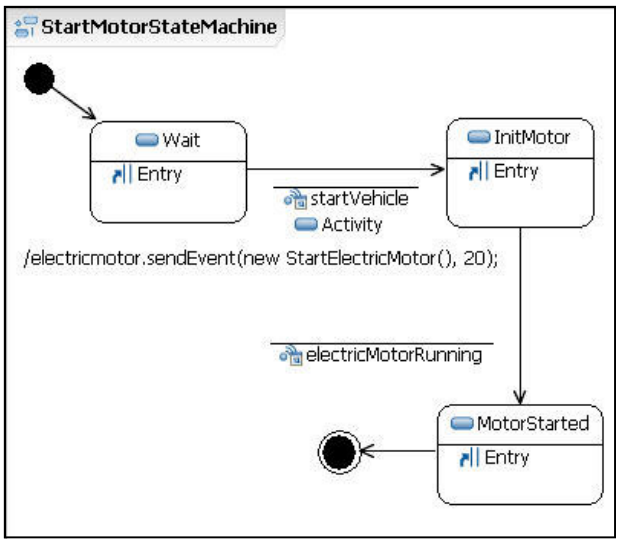
FEATURES

- Fully executable applications generated from UML and SysML models.
- Simulation support for UML and SysML applications with EmbeddedPlus Simulation Framework.
- Java or C++ as embedded language in model.
- Structure support for: classes, composite structure, ports, parts, and blocks
- Behavior support for: operations and state machines
- Capture Sequence Diagrams from running models (Java Simulation)
- Support for inclusion of external Java and C++ code into generated applications.
- Tight integration with the popular Eclipse Java and C++ Development Tools (JDT/CDT) leverages features like code completion, auto-build, and debuggers.
- Customizable code generation of applications.
- Multiple configurations per model.
- Usability – navigation between model and code, syntax highlighting, code completion





INTEGRATIONS

- Integrates seamlessly into RSM/RSA or RSD
- Leverages existing RSDP integrations (ClearCase, ClearQuest, CVS, RequisitePro)
- Integrates with Telelogic DOORS® (via EmbeddedPlus DoorKeeper)
- Upgrades Rational Rose UML 1.4 models to simulation-compatible models.

SYSTEM REQUIREMENTS

- Rational Software Modeler/Architect and Systems Developer version 6.0.1.1 or higher including DoDAF
- Microsoft Windows® 2000 or XP
- Red Hat Enterprise Linux WS 3.0

EmbeddedPlus Engineering provides products and services that transition companies to advanced technologies and techniques based on industry standards such as UML, SysML, DO-178B and MDA. Expertise includes tool integration, modeling/simulation and Eclipse-based development and integrations. EmbeddedPlus is an official Qualified Service Provider in the Object Management Group's MDA Fast Start program.