

# SysML Toolkit

## for the IBM Rational Software Development Platform (RSDP)

**OMG SysML™** is a graphical modeling language which is based on the OMG's Unified Modeling Language (UML). SysML supports modeling of a broad range of systems including hardware, software, data, personnel, procedures and facilities. SysML is a key enabler of Model-Driven Systems Engineering and is supported by the International Council on Systems Engineering (INCOSE).

EmbeddedPlus' **SysML Toolkit** is an add-in product that provides productivity tools and language support for SysML to IBM Rational's modeling platform.

### Key Benefits

- ◆ Improves communication between stakeholders
- ◆ Systems and software teams use same tools and share models
- ◆ Model complex systems including physical systems
- ◆ Requirements traceability and impact analysis
- ◆ Static and Dynamic validation of SysML models
- ◆ Open standard support for model interchange and tool extensibility

### Key Features

- ◆ SysML 1.1 Support including Model Validation
- ◆ Easy upgrade of Rose Models to SysML
- ◆ Highly Extensible/Customizable
- ◆ Third-party integrations
- ◆ Executable Models

### BENEFITS OF THE EMBEDDEDPLUS SYSML TOOLKIT

- ⇒ The SysML Toolkit plugs directly into IBM Rational's Eclipse-based modeling and development environment, allowing the sharing of model artifacts between system and software engineers, all from within a common tooling environment.
- ⇒ Provides SysML requirements modeling capabilities and integrates with traditional requirements management tools such as Telelogic DOORS® (via EmbeddedPlus DoorKeeper) and IBM Rational RequisitePro to ensure traceability.
- ⇒ SysML models can be statically analyzed using model validation including support for OCL. SysML Models can also be executed via the EmbeddedPlus Simulation Toolkit.
- ⇒ The SysML 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 XML model storage format. Based on Eclipse, you can easily create custom plug-ins or purchasing commercial plug-ins to supplement and customize your tooling environment.
- ⇒ 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 SysML with a single click.

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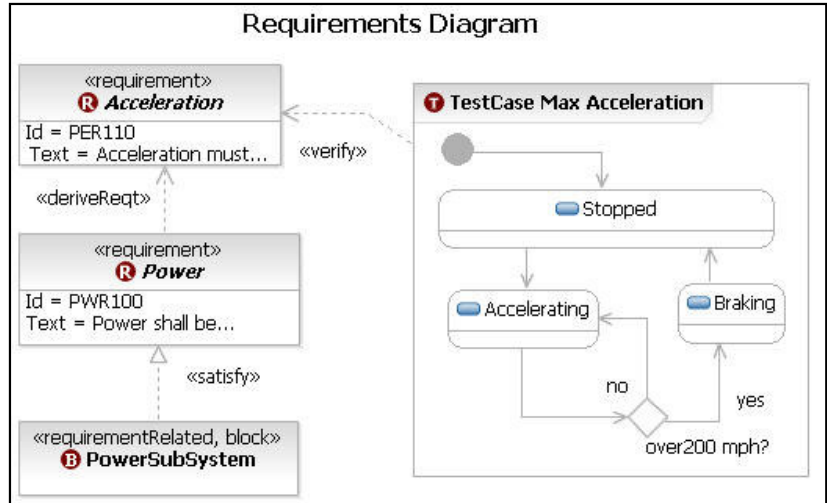
www.embeddedplus.com  
480.517.9200  
info@embeddedplus.com



**Exceed Expectations, Not Schedules**

**FEATURES**

- SysML 1.1 Support
- Requirement Diagrams and Requirement Modeling/Editing
- Block Modeling, including Block Definition and Internal Block Diagrams, Item Flows, and Deep Nested Connectors
- Parametric Diagrams and Parametric Constraints
- Discrete and continuous system modeling including flows and enhanced activity diagrams
- Automatic Allocations and sophisticated Allocation Querying and Reporting features
- Views and Viewpoints
- SysML Profile Enforcement and Model Validation
- Eclipse and RSDP Integration
- "System Modeling" Perspective customized for system engineering practitioners
- Visual Modeling Assist support for SysML constructs
- Integrated with RSDP compare/merge, web publishing, reporting, and others
- Highly Extensibility via Eclipse plug-in mechanism
- XMI storage format



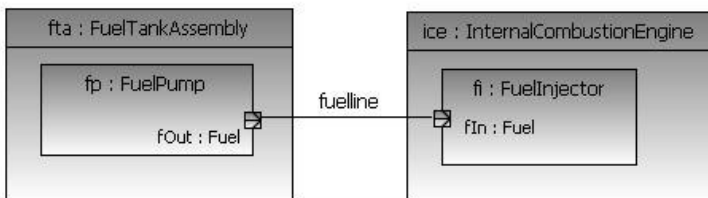
**INTEGRATIONS**

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

**SYSTEM REQUIREMENTS**

- Rational Software Modeler/Architect and Systems Developer version 6.0.1.1, 7.0.0, 7.5.0 and higher
- Microsoft Windows® 2000 or XP
- Red Hat Enterprise Linux WS 3.0

Internal Block Diagram



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.

