SysML Plugin

Introduction

Systems Modelling Language (SysML™) adoption by the Object Management Group™ (OMG™) was a critical step standardizing a common language platform for systems engineering. MagicDraw committed to be the most complete standards compliant solution on market, provides support of OMG SysML™ 1.4 for standards based system engineering.

SysML solution is packaged as a plugin to the MagicDraw® tool and is available for purchase separately.

No Magic is a sponsor of the OMG Certified Systems Modeling Professional (OCSMP) certification program.

The SysML plugin retains all capabilities of award-winning MagicDraw architecture modeling environment with System Engineer perspective. It includes SysML specific menus, toolbars, diagrams, specifications, user interface, reports, dependency matrices, validation suites, refactoring methods and more. SysML plugin supports all SysML diagrams, including Requirements, Block Definition, Internal Blocks, Parametric and others. With this plugin, MagicDraw adds support for additional specification, analysis, design, and validation of a broad range of systems and system integrations.

Features

Requirements Engineering

The increasing complexity of systems makes Requirements Engineering (RE) a critical phase in a system's life cycle.

SysML requirements modeling constructs are intended to provide a bridge between traditional requirements management tools and systems models. Requirements can be imported or defined in MagicDraw and depicted in graphical, tabular, matrix or tree structure format. A requirement can also appear on other diagrams to show its relationship to other modeling elements deriving, satisfying, verifying or refining requirements.

Key Features:

- Requirements diagram
- Requirements Table allows organizing text-based requirements in spreadsheet-like tabular format.
- Satisfy and Verify matrices provide traceability of requirements with the ability to quickly add a new relation.
- CameoTM DataHub add-on allows users to import, export, synchronize, and reference text-based requirements in CameoTM Requirements+, IBM Rational DOORS, and Microsoft Excel.

Resources

- MBSE Solution Overview Brochure (blocked URL 1.9 Mb)
- Cameo Simulation Toolkit Overview Brochure (blocked URL 3.35mb)
- Process for selecting a SysML tool (blocked URL 124 KB)
- SysML Plugin User Guide
- VIEW SYSML WHITEPAPERS

Related

Furthermore, our SysML plugin is even more powerful in System Engineering domain when used with other No Magic or third-party products:

- Cameo Simulation Toolkit provides the first in the industry extendable model execution framework based on OMG fUML and W3C SCXML standards. It extends MagicDraw to validate system behavior by executing, animating, and debugging UML 2.0 Statemachine and Activity models in the context of realistic mock-ups of the intended user interface.
- ParaMagic™ plugin offers a dramatic expansion of the power of SysML parametric simulation, allowing users to integrate Microsoft Excel®, MATLAB®/Simulink® (The MathWorks, Inc.) and Mathematica® (Wolfram Research, Inc.) into their MagicDraw SysML models and run simulations from the earliest stages of system design.
- Cameo DataHub allows the user to import, export, synchronize, and make references between SysML Requirements and text based requirements in tools like Cameo Requirements+, Rational DOORS, Rational RequisitePro and Microsoft Excel® (other tools are to be supported soon).
- UPDM and DoDAF plugins for systems modeling within Systems views in military architecture frameworks.
- MARTE profile adds capabilities to SysML for model-driven development of Real Time and Embedded Systems (RTES).
- SYSMOD profile provides a toolbox for Systems Modeling Process support.
- Xholon runtime framework transforms MagicDraw models into executable Java code for simulation of composite structures, interactions through ports and hierarchical state machines.
- Sinelabore*RT* generates C / C++ code from MagicDraw state machine models for embedded real-time and low power application developers.