

19.0 LTR Version News

SysML Plugin

Released on: July 2, 2018

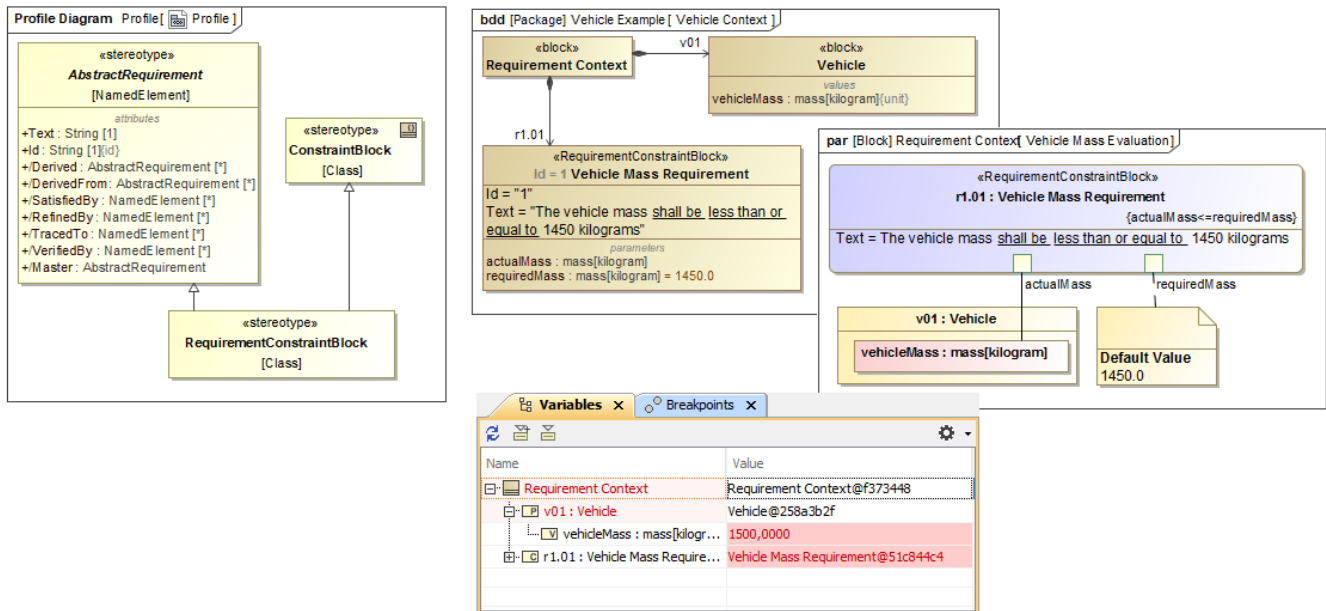
The SysML Plugin contains powerful new features for system and software engineers. These benefits include support of the new SysML 1.5 specification, ability to apply the MagicGrid approach in your models, simplified usage of units, and other meaningful improvements.

What you get:

- [SysML 1.5 Support](#)
- [MagicGrid](#)
- [Basic Units](#)
- [Connector Property Support](#)
- [Improved Implied Connectors](#)
- [SysML Allocation Matrix Modes](#)
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SysML 1.5 Support

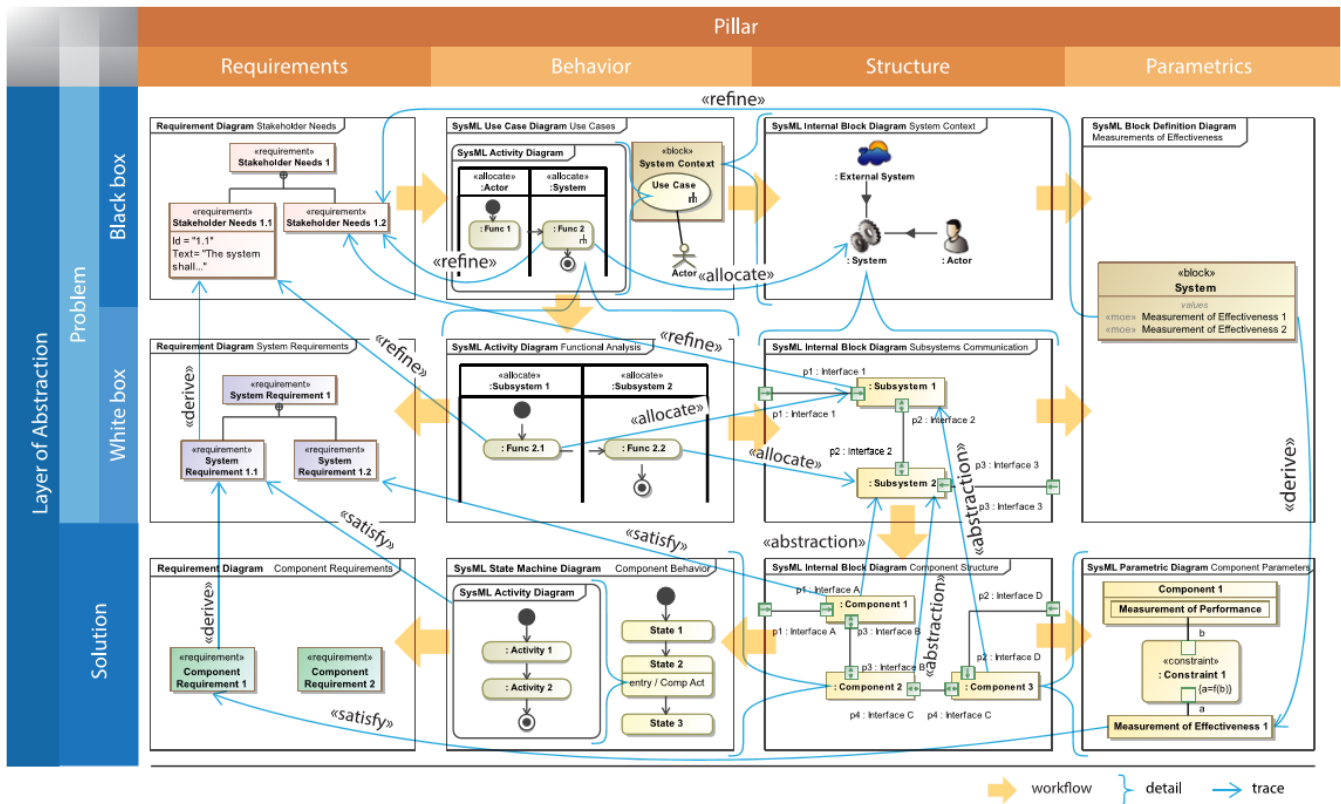
We are proud to announce that our tools support the new [SysML 1.5 specification](#) as of 19.0 LTR! The main change is the new concept of Abstract Requirement, which allows you to extend the Requirement concept and base it on any kind of model element. For an example, download the new [Property Based Requirements.mdzip](#) sample model.



The Property-Based Requirement as a Constraint Block extension.

MagicGrid

Two new project templates are available in this version. They both accompany MagicGrid, a new approach for MBSE developed here at No Magic, Inc. MagicGrid supports performing problem domain analysis as well as building the solution for the logical system design, from stakeholder needs elicitation and capturing to the logical system design verification and technical requirements specification for manufacturing. The approach is thoroughly described in the *MagicGrid Book of Knowledge*, which will be available with the final version of 19.0.



The MagicGrid framework.

The **MagicGrid QuickStart** template will guide you through the entire modeling process, starting with the problem domain definition and finishing with one or more solutions of the logical system design.

The **MagicGrid Blank** template will give you the predefined structure of packages for modeling with MagicGrid to use your time more efficiently.

Please note, the **SysML plugin** is required in MagicDraw to use MagicGrid templates.

[Learn how to create MagicGrid projects >>](#)

Basic Units

All new SysML projects use:

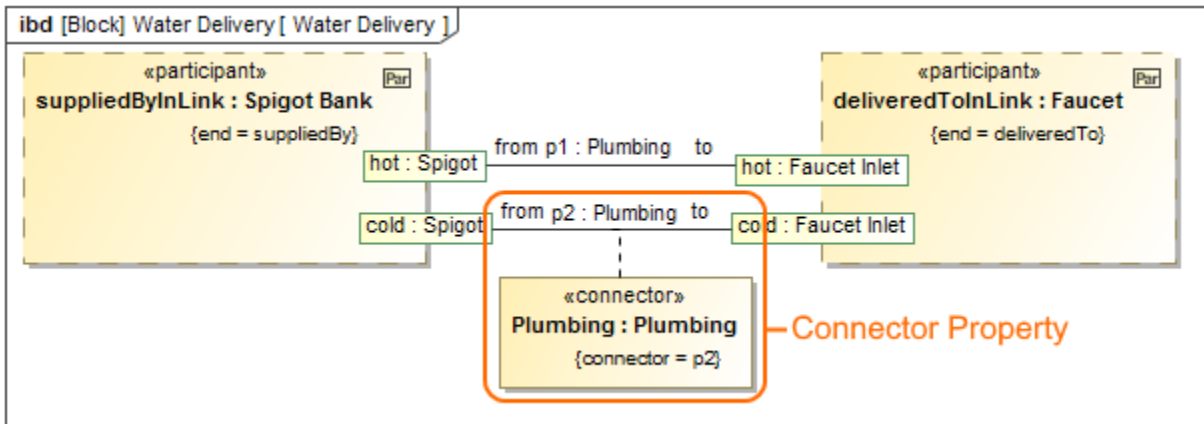
- 100x simplified and filtered ISO 80000 library with only 50 hand-picked basic units.
- The new basic US customary, naval and imperial units library (with inch, pound, mile and more).

[Learn how to use units >>](#)

[Learn more about model libraries >>](#)

Connector Property Support

You can now represent Association Block usages in the Internal Block Diagrams. Simply drag the Association Block from the model onto a Connector to set it as its type and automatically create a Connector Property symbol with a dashed line attached to the Connector.

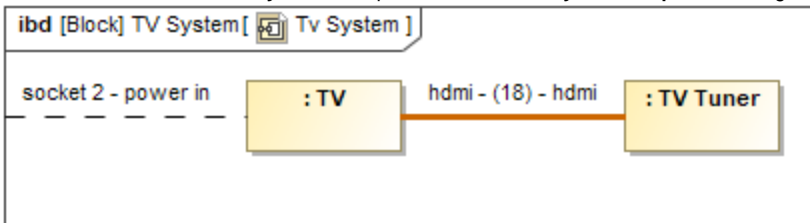


The Plumbing Connector Property is created after dragging the Plumbing Association Block on the p2 Connector.

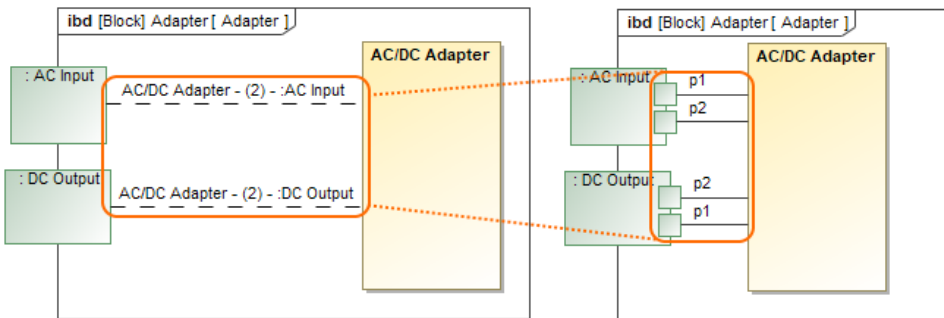
Improved Implied Connectors

The implied Connectors functionality is improved as follows:

- You can select a solid **Line Style** of the implied relation in the **Symbol Properties** dialog.



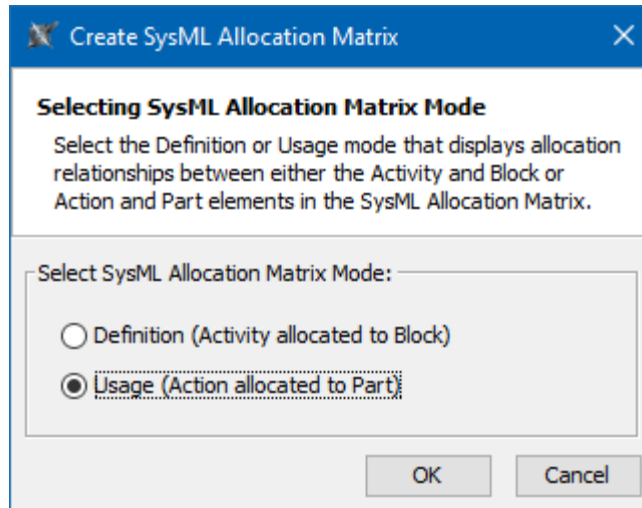
- You can display an implied relation when a Connector is created between a port on one side of the part directly to another part (e.g. the part serves as a communication bus).



[Learn more about Implied Connectors >>](#)

SysML Allocation Matrix Modes

When creating a new SysML Allocation Matrix, you can choose **Definition** or **Usage** mode. Accordingly, these modes display Allocate relationships either between Activities and Blocks or Actions and Part Properties. By default, the **Create SysML Allocation Matrix** dialog (see the figure below) appears each time you create a new SysML Allocation Matrix in SysML projects. Differently, when creating a new SysML Allocation Matrix in the MagicGrid project, the usage allocation matrix is created by default. You can change that by specifying the **SysML Allocation Matrix Mode** option value in the **Project Options** dialog.



The Create SysML Allocation Matrix dialog.

[Learn more about SysML Allocation Matrix modes >>](#)

Document Modeling Plugin Functionality

As of the 19.0 version, the Document Modeling Plugin is no longer required when installing the SysML plugin. Instead, we highly recommend using the [Cameo Collaborator Publisher Plugin](#) for Views and Viewpoints modeling. [Learn how to install plugins >>](#)

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News of earlier versions

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