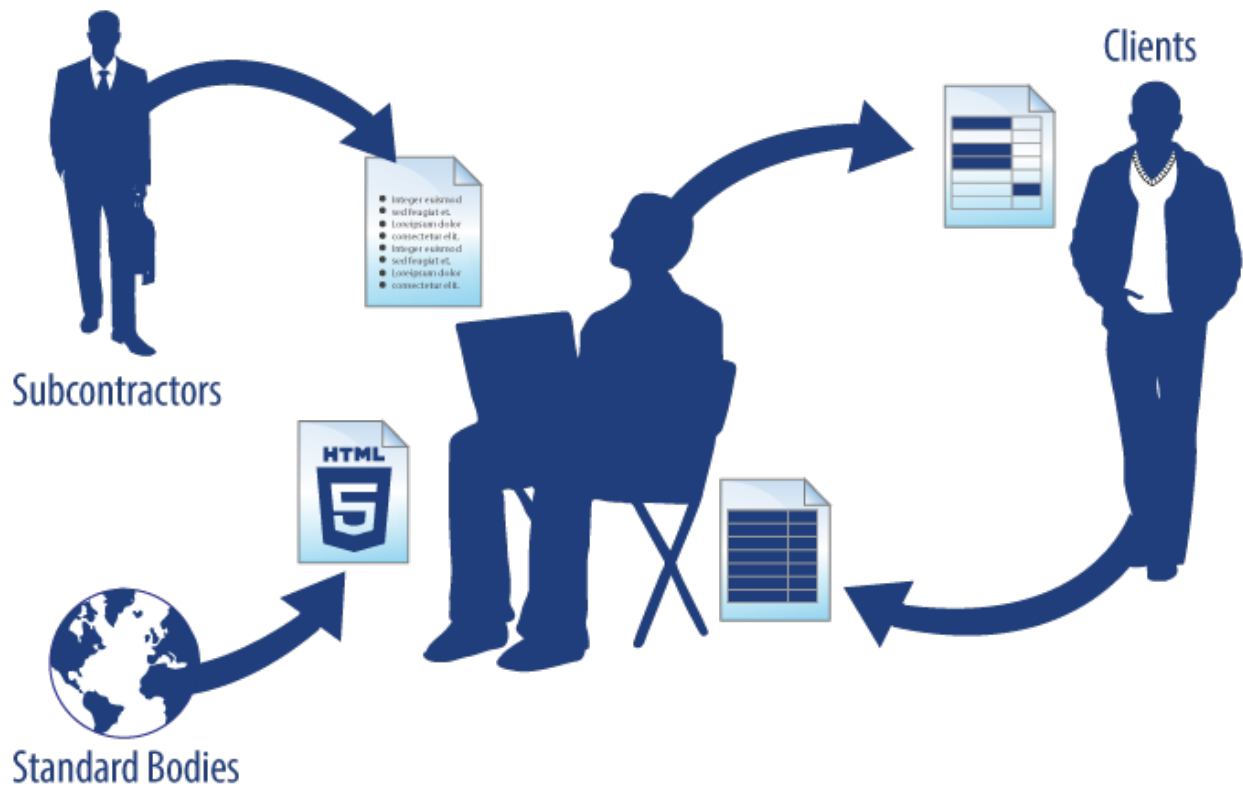


What's new in Cameo Enterprise Architecture 18.1 FR

Released on: January 15, 2015

Easy Transition from Documents to Models

Good news for modelers, who frequently exchange information with project stakeholders that are not modelers and work exclusively with documents! Information exchange becomes easier and faster, because **now you can copy listed texts and tables to your Cameo Enterprise Architecture model** directly from documents, web pages, email messages, presentations, or other text sources.



When you copy a listed text, each item of this list becomes a new named element in your model (to simplify the creation, basic numbering and bullets are not reproduced in the model).

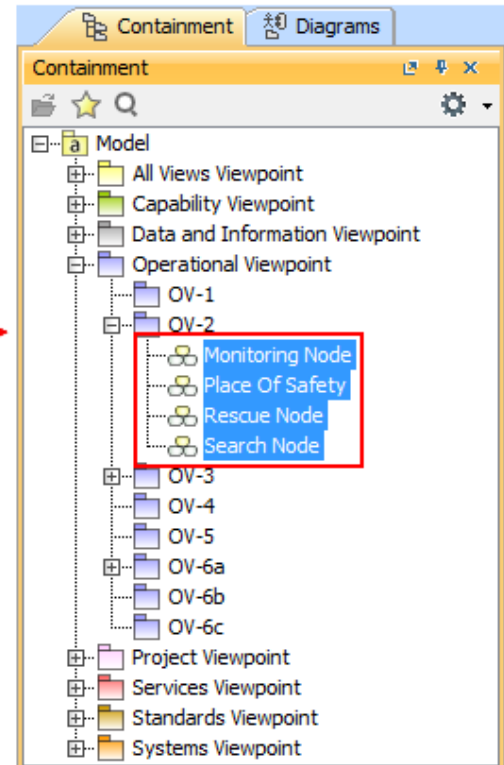
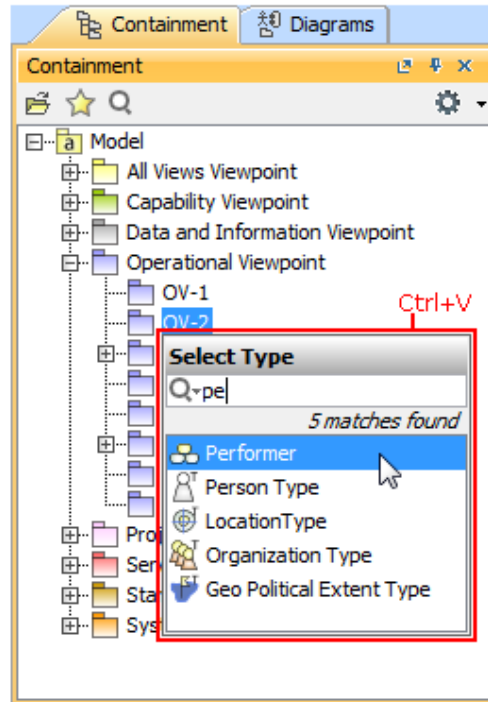
Elements can be created either in the Containment tree or on the diagram pane, as you can see in the following figures.

Paste the list in the Containment tree

The elements are created

Copy the list

- Search Node
- Rescue Node
- Monitoring Node
- Place Of Safety

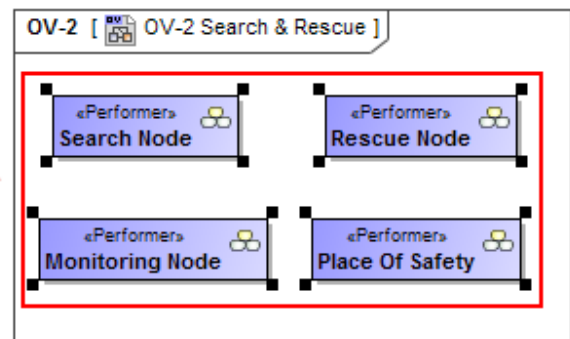
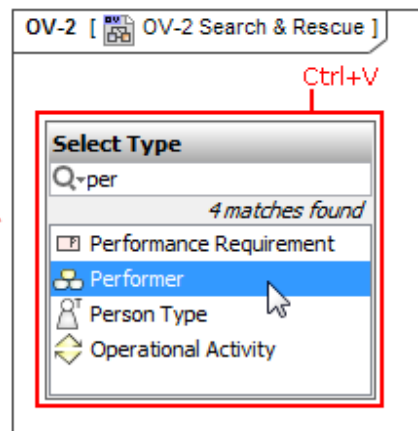


Paste the list in the diagram pane

The elements are created

Copy the list

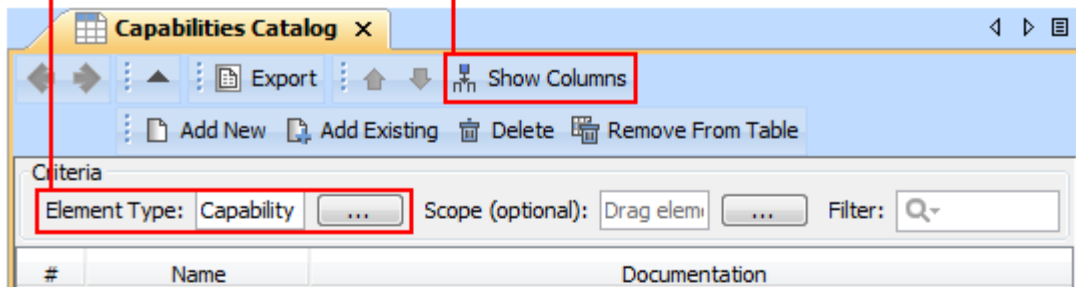
- Search Node
- Rescue Node
- Monitoring Node
- Place Of Safety



When you copy a table, each row becomes the corresponding element with its properties. If elements already exist in the model, the information updates.

1. Select element type

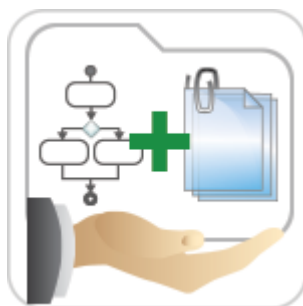
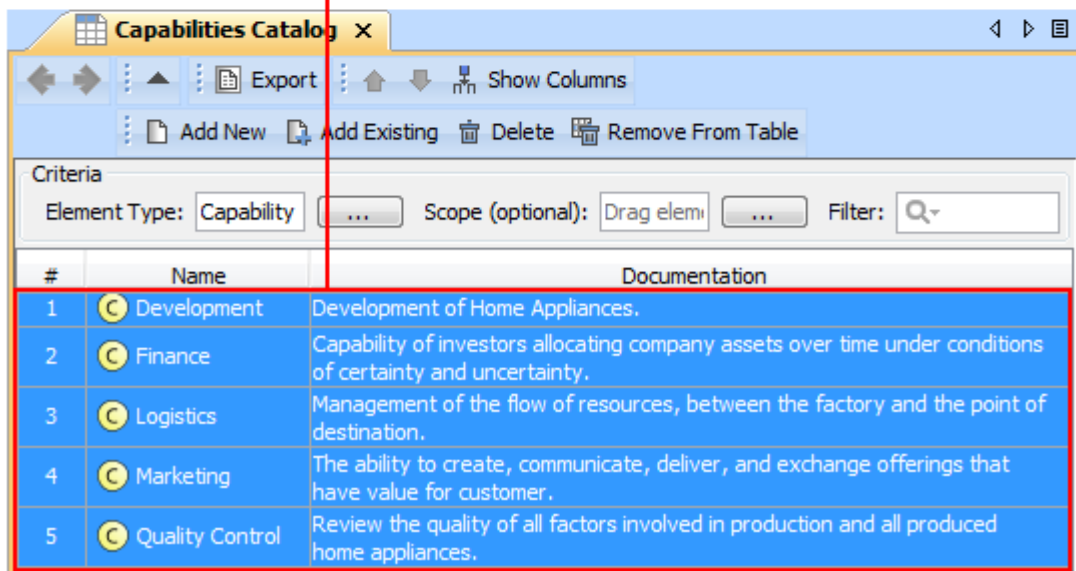
2. Choose the columns



3. Copy the table

Capability	Description
Development	Development of Home Appliances.
Finance	Capability of investors allocating company assets over time under conditions of certainty and uncertainty.
Logistics	Management of the flow of resources, between the factory and the point of destination.
Marketing	The ability to create, communicate, deliver, and exchange offerings that have value for customer.
Quality Control	Review the quality of all factors involved in production and all produced home appliances.

4. Paste the table



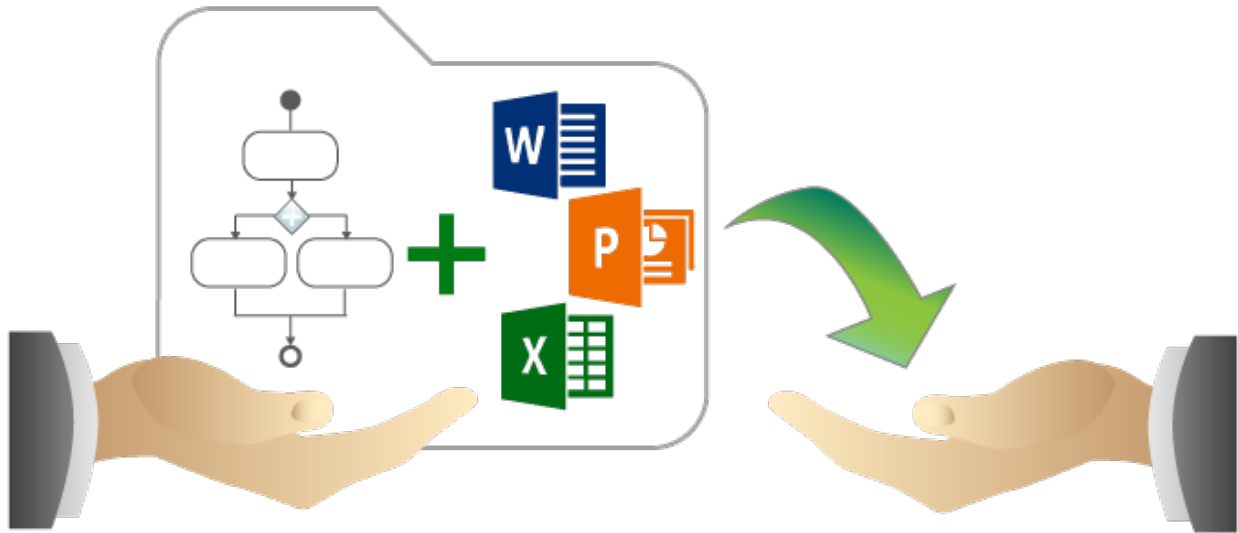
Projects with File Attachments

Do you use hyperlinks to external files in your project? If so, then you must be familiar with several common issues that are solved in the latest version of MagicDraw. **Now you can attach any type of file to your project!**

Do you use hyperlinks to external files in your project? If so, then you must be familiar with the common issues:

- The project references the file, but not its particular version. Hence, as soon as the newer version of this file is committed to your version control system, the project starts referencing inappropriate information.
- If you have a systems specification consisting of a set of models and documents, you need to manually collect the referenced files before giving the entire specification to your peers.
- It takes time to establish a commonly accessible location (e.g., a network drive) where you share hyperlinked files from models to your colleagues.

The latest version of the product includes the solution! Now you can attach any type of file to your project simply by dragging the file icon from the file system to the Model Browser. The particular file version becomes embedded in this project. The contents of the attached file can be modified and the changes are instantly saved to the project.



Attached files can be:

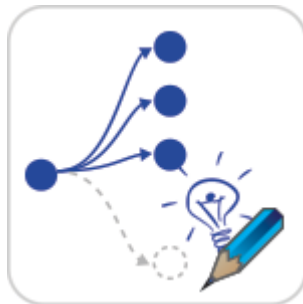
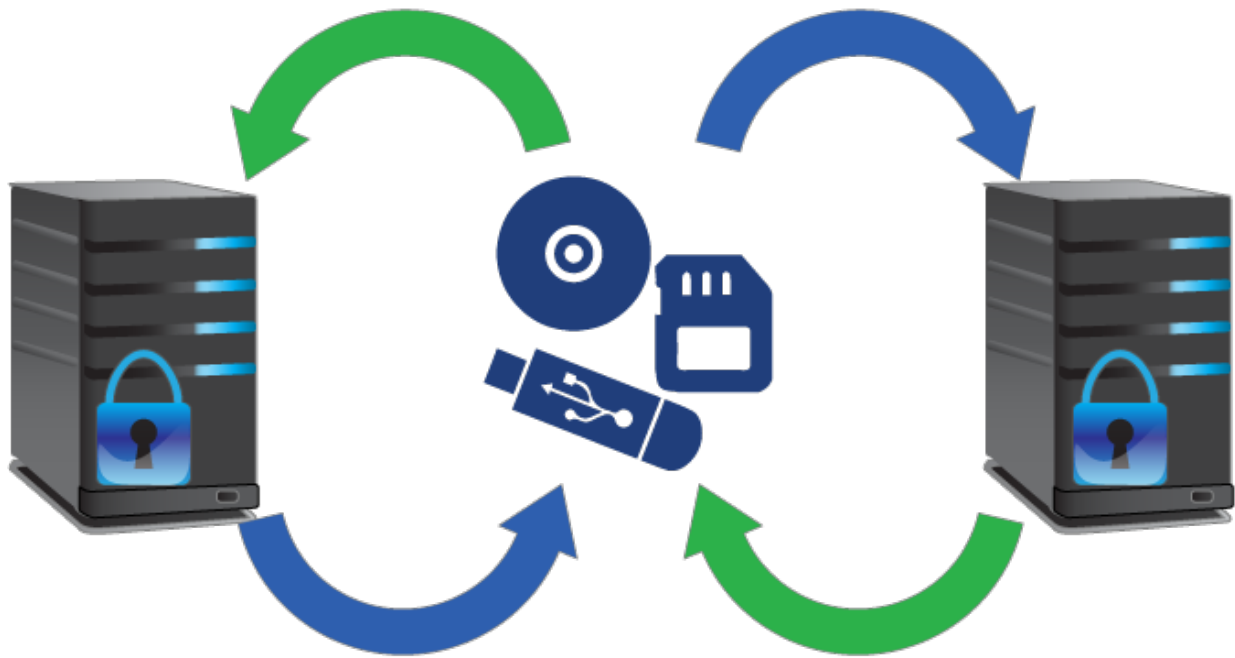
- Hyperlinked from model elements.
- Inserted into rich text format (HTML) and displayed on diagrams (image files only).
- Reused in other projects.

Transferring Projects between Consciously Disconnected Environments

Teamwork Servers, which run in consciously disconnected or secured environments, can still exchange projects!



MagicDraw Teamwork Server 18.1 supports transferring project data from one Teamwork Server to another by using any external storage device, such as CD, DVD, hard disc, or flash memory device. The updated version of the shared project can be transferred back to the sharing server and smoothly merged with the original project version. Furthermore, the same project version can be given to several contributors simultaneously, and the contributions to the model they make can be successfully merged as well.

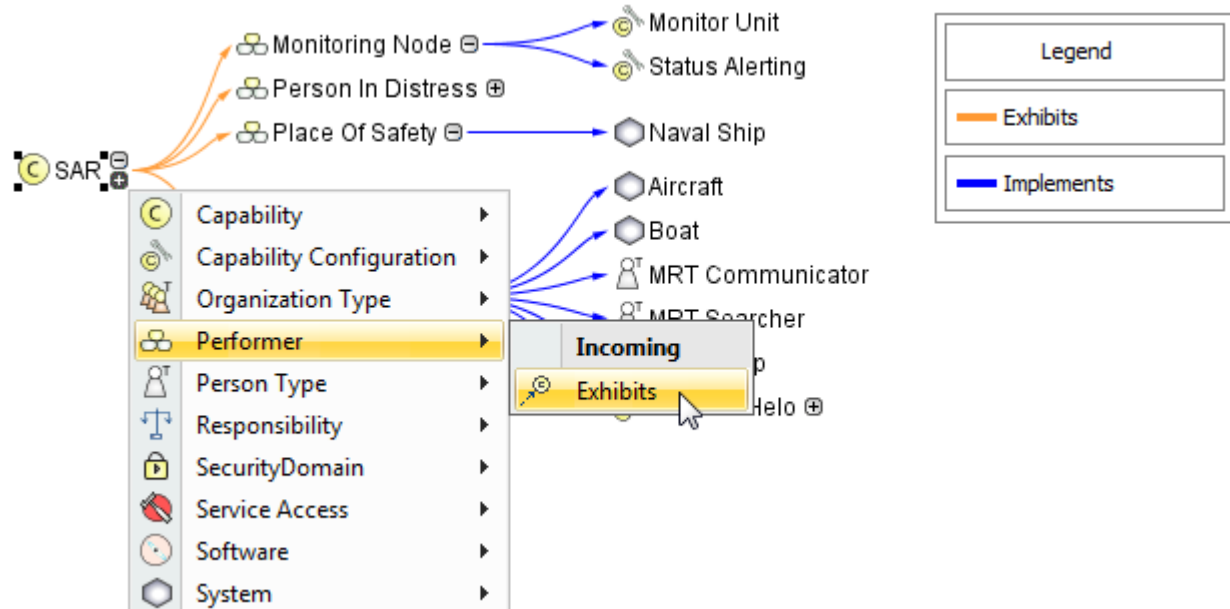


Editable Relation Maps

Now with the Relation Map you can do more than just analysis! **You can expand your model with new elements** or edit the names of the existing ones **directly in the relation map**.

You may also create new elements in UPDM predefined relation maps such as Capability Structural Map, Implementation Map.

Elements you can create depend on the selected Element Type and Relation Criterion.



TIP! To create elements faster and more easily:

- Select the element and press Insert (Cmd+I for Mac users) to decompose it.
- Type element name and press Ctrl+Enter to create the element of the same type.

New Enterprise Architecture Portal for Sharing Projects

Publish your project as interactive web portal and share it with stakeholders, including even those incapable of reading models in Cameo Enterprise Architecture! The published web portal eliminates less needed elements from the model tree and proposes the most relevant views of enterprise architecture project, such as capability / strategic, operational, systems, services, standards, projects. This allows you to discover your project in a user-friendly and easily browsable environment.



Use quick search to find elements and diagrams for viewing their custom contents and share this information with colleagues.

1. Easily access information by Quick Search!

2. Browse in clearly grouped content!

3. Discover the content which you or your colleagues have prepared!

The screenshot shows the 'ENTERPRISE ARCHITECTURE PORTAL' interface. The left sidebar contains a tree view of the model structure, including 'Capability Viewpoint', 'CV-2', and various capabilities like 'Production'. The main content area displays details for the 'Production' capability, including its identifier, name, documentation, and a list of composed capabilities (e.g., 'Produce Microwave', 'Produce Fridge'). A table at the bottom shows 'Exhibited by Enterprise Phases'.

No	Name	Documentation
1	Produce Microwave	Development of microwave.
2	Produce Fridge	Development of fridge.
3	Produce Washer	Development of washer.
4	Produce CoffeeMachine	Development of coffee mashine.

No	Name	Documentation
1	Home Appliances Enterprise	The Home Appliances Enterprise consists of two phases: one phase is the manufacturing of small home appliances—such as microwave and coffee machines—while the other phase is the manufacturing of medium home appliances—such as dishwashers and refrigerators. Each phase has its own time interval, unique goals, and may exhibit a different set of capabilities.

Publishing the project as a web portal is as easy as generating any report. On the main menu, click **Tools > Report Wizard**, select DoDAF, MODAF, or NAF Web Report template, and follow the steps of the report wizard. Then place the output in a shared directory or on web server to make it available for colleagues.

NOTE. This is a technology preview of the enterprise architecture portal. Please explore this new portal, experiment with it, and get back to us at support@nomagic.com with your feedback and suggestions about possible improvements or features you would like to see. We seek to create as serviceable tool as possible, so we are thankful and very appreciative of your contributions!

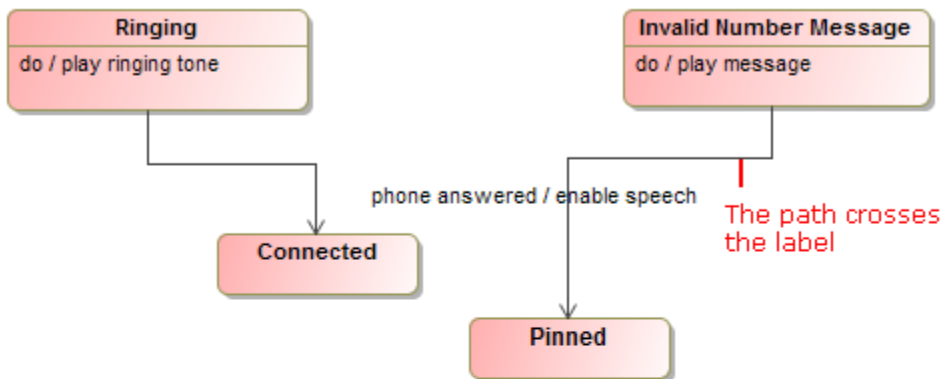


Smarter diagram layout, simplified search options, more efficient synchronization of elements and their properties, **traceability enhancements**, **direction prefixes**, **rake icon**, and **many more** features save modeler's time and allow focusing on *what* to model, but not *how* to model and keep the result well-formed.

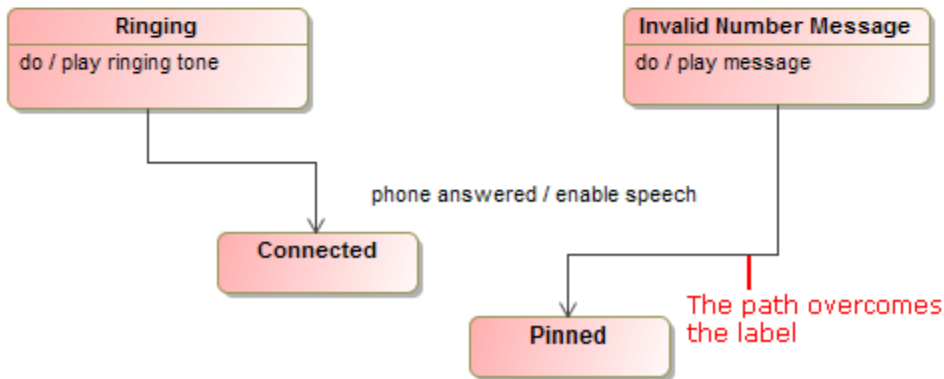
Smarter diagram layout

- When drawing a new path, the layout now overcomes the path labels.

In earlier versions

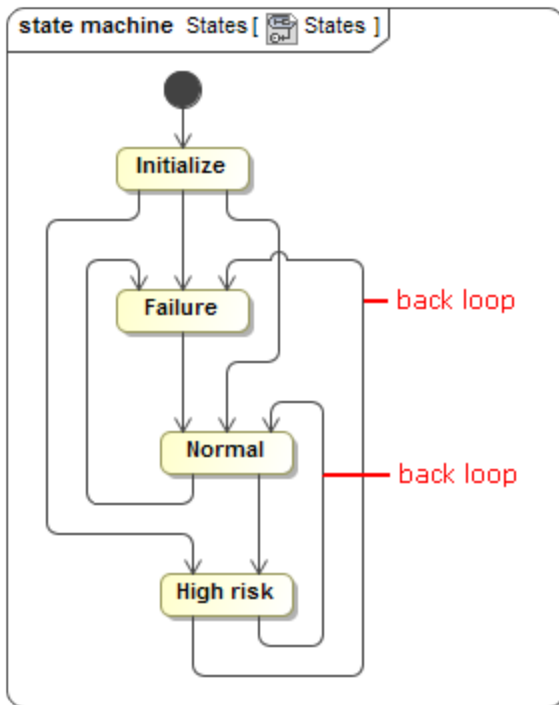


In 18.1

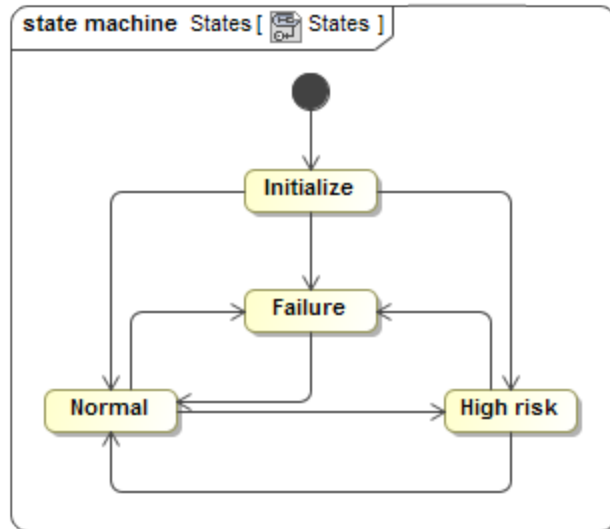


- State Machine diagrams now look better and are easier to read. Plus, the unwanted back loops are eliminated.

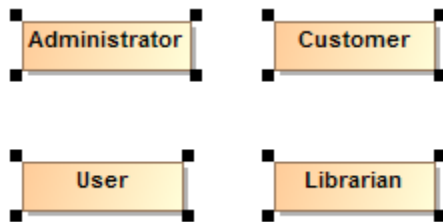
In earlier versions



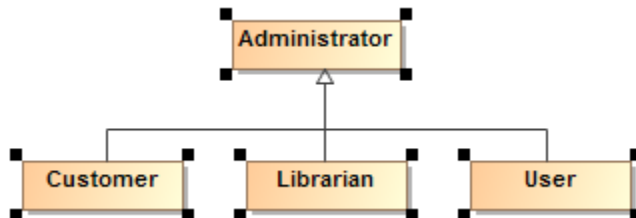
In 18.1



- Symbols, created by dragging a group of elements from the Model Browser, are now arranged on the diagram pane as follows:
 - In a grid, if there are no paths.



- In the Quick Diagram Layout, if there paths among shapes.



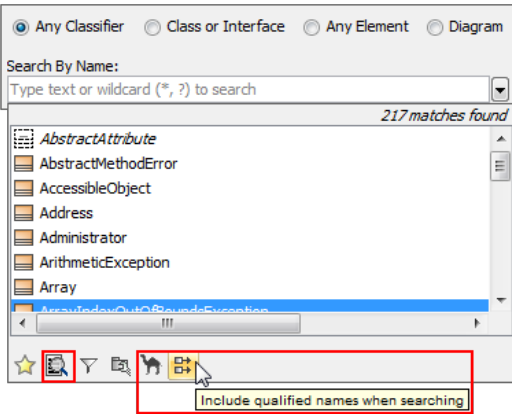
Appropriate layouts are applied for displaying parts on a structured classifier shape, if the **Layout Parts** check box is previously selected in the **Display Parts** dialog.

Simplified search options

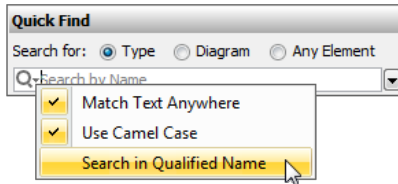
Changing search options in the Quick Find and Element Selection dialogs as well as in autocompletion lists is now easier and more efficient due to the following changes:

- Search phrase specific options, such as one for turning on/off matching anywhere, are now available on a separate menu. In earlier versions, those options resided together with scope filter options.

In earlier versions

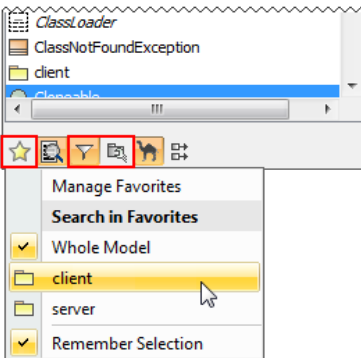


In 18.1

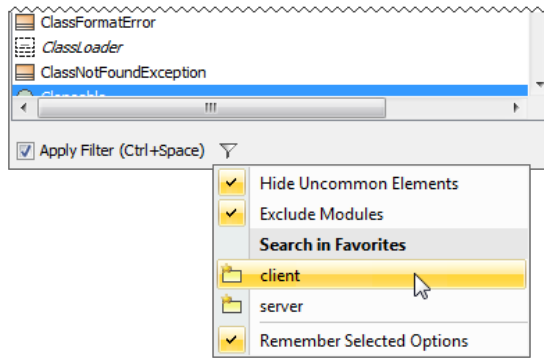


- Filter options are now available on the button menu and can be applied on the search scope or removed from it with a single click.

In earlier versions



In 18.1




- Options are now commands with meaningful names, but not buttons as in earlier versions. It's now easier to find a desired option.

More efficient synchronization

Keep your model valid and synchronized with your changes! The new synchronizations are introduced and the main element properties are now synchronized. In addition, the solving of the broken synchronization has been enhanced.

- The following elements are now synchronized:
 - Attribute of Signal is synchronized with Pin of Send Signal or Pin of Accept Event Action.
 - Attribute of Signal is synchronized with Argument of Message.
- The following element properties are now synchronized:
 - If Pin has no flows connected, Pin direction is converted according to direction specified in Parameter. The same works in the opposite scenario when direction of Parameter changes.
 - Pin multiplicity is synchronized according to Parameter multiplicity.
- When a new Activity Parameter Node is created in an Activity, the Activity Parameter Node symbol is automatically represented on the Activity diagram frame.
- When solving the broken synchronization, you can choose the direction of the synchronization. For example, when fixing the synchronization between Parameters (Activity) and Pins (Call Behavior Action) you can select to synchronize in one of the following directions:
 - Pins (Call Behavior Action) by Parameters (Activity)
 - Parameters (Activity) by Pins (Call Behavior Action)

Composite Instances creation in Instance Tables

The instance table UI was improved to allow easy and fast creation of composite instances. Just click the Create Instance Specification button  in the slot value cell and create an instance of the slot type instantly or choose from available subtypes.

Truck variants X

Criteria
 Classifier: Forklift Truck ... Scope (optional): Instances ... Filter: Q-

#	Name	Support	Steering	Stopping	Moving	Power	Transmission
1	var1	: Air Cushion	: Air thrust	: Blocks under wheels	: Air thrust	: Diesel	: Belts or chains
2	var2	: Slides	: Turning wh	: Brakes	: Power to w	: Petrol	: Flexible cable
3	var3	: Spheres	: Turning wh	: Brakes	: Air thrust	: Electric	: Hydraulic
4	var4	: Tracks	: Rails	: Reverse power	: Power to w	: Diesel	: Flexible cable
5	var5	: Wheels	: Turning wh	1. Click +			

2. Select subtype

Select Classifier:
 Q-Search by Name
 4 matches found

- Blocks under wheels
- Brakes
- Drag a weight on the floor
- Reverse power

Highlighting of validation rule failures in tables

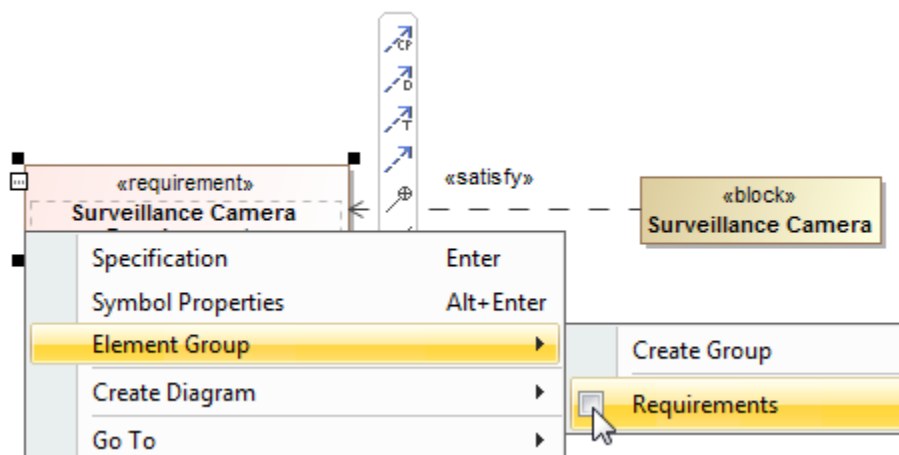
Now the results of validation rule failures are marked in tables.

- In the Generic Tables, the entire row is marked.
- In the Instance Tables, either a cell, or an entire row is marked. A cell is marked in the case of a faulty slot value. The entire row is marked in the case of a faulty instance.

#	Id	Name	Text
1	TWCAT150	Project Categorization	Project Categorization
2	TWCAT150.1	Category Types	Category Types
3	TWCAT150.1	Category Definition	Category shall be understood as a concept which enables visual grouping of projects.
Not unique element number has been identified. The identifier Id TWCAT150.1 of the Category Definition element duplicates with: Id TWCAT150.1 of the Category Types Categorization::Requirements::Project Categorization::Category Types user-defined categories are assigned to this category.			
4	TWCAT150.2.1	System Category	

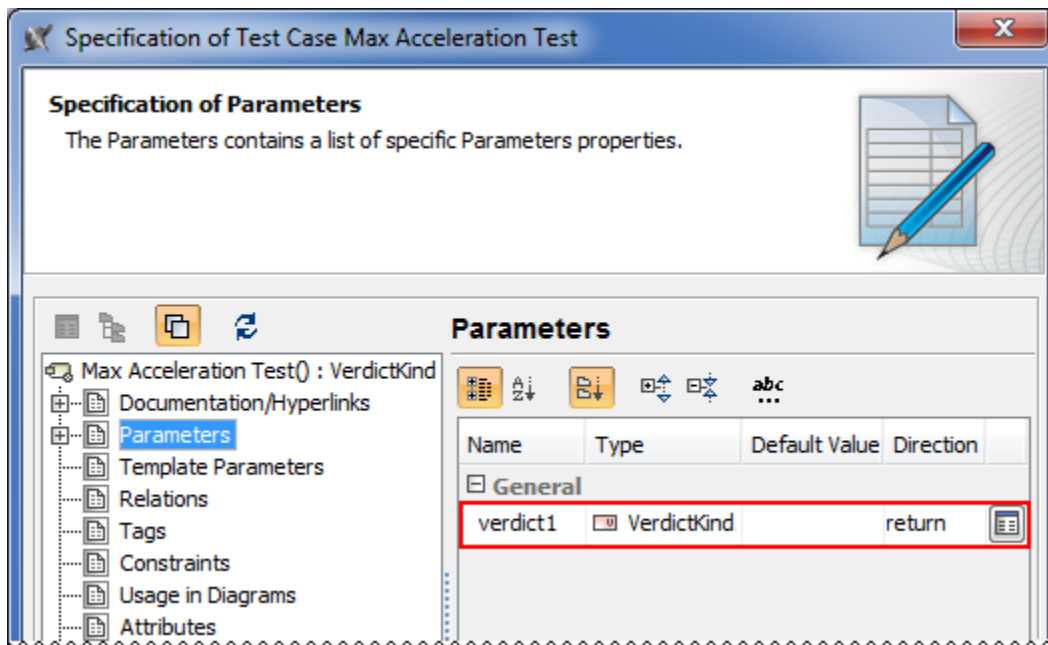
Easy management of element groups

You can create element groups and add or remove group elements quickly and easily.



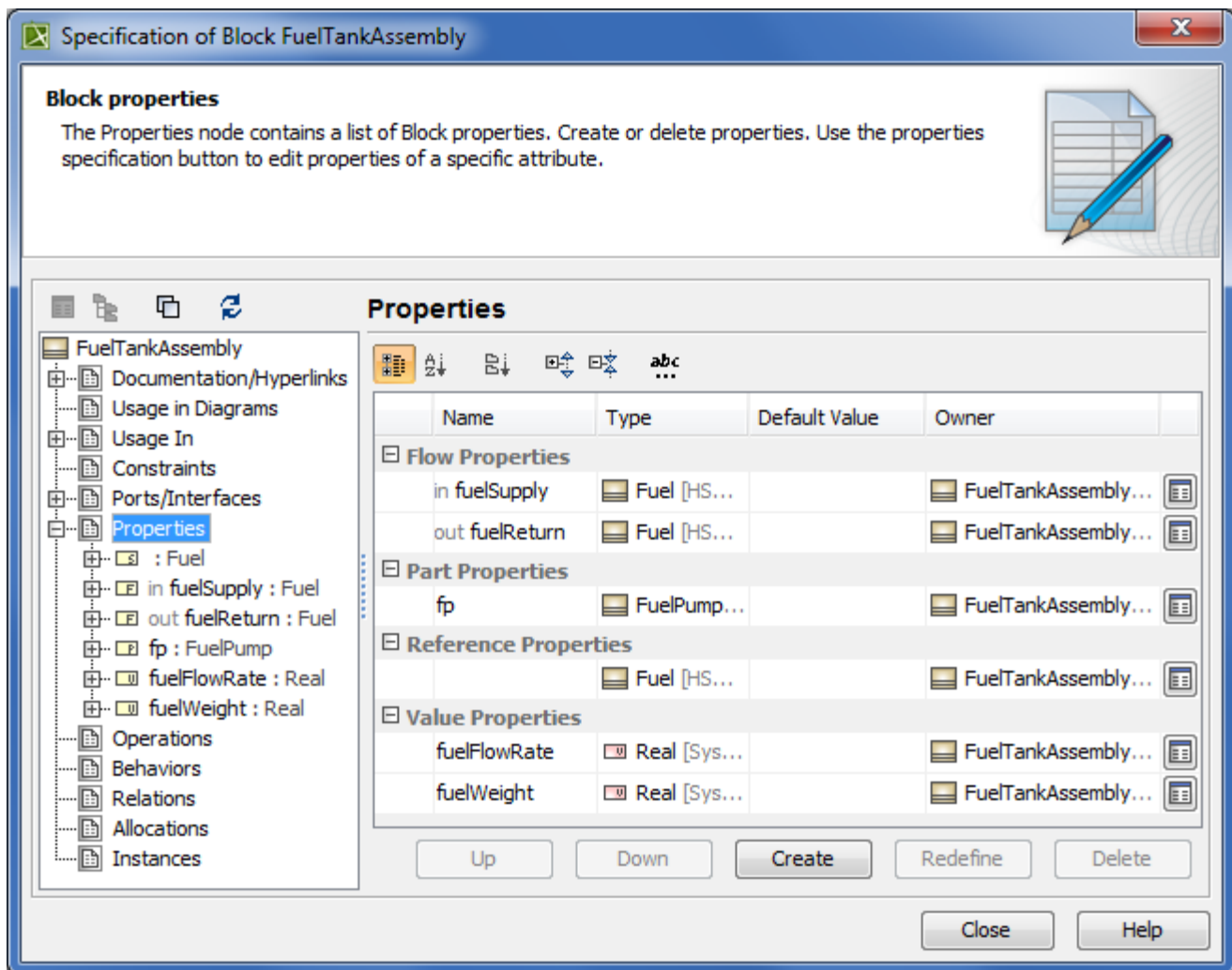
Verdict for Test Cases

When the Test Case is created, its return parameter for the verdict is created automatically.



New property groups in Block Specification window

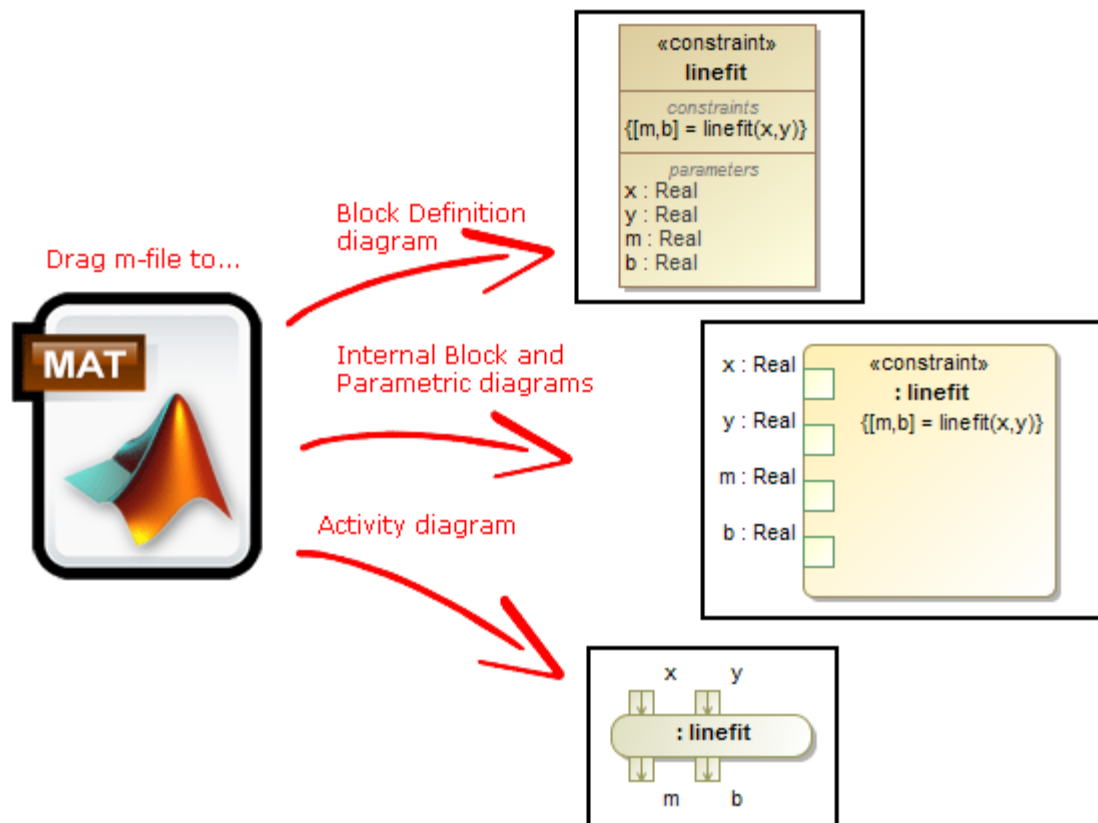
In addition to newly created Usage In, Instances, and Ports/Interfaces property groups, the UML-oriented Attributes property group in the Block Specification window is now replaced with the SysML-oriented Properties property group. All owned and inherited Block properties are grouped as in the Block compartments.



Wrapping MATLAB functions

Integrating custom MATLAB functions into the model is much easier now! Just drag the m-file icon to the diagram to create a Constraint Block, Constraint Property, or Call Behavior Action with corresponding function name and parameters. In earlier versions you could only drag the m-file on existing Constraint Block in Block Definition diagram.

NOTE. M-file must contain function declaration.



Traceability enhancements

Element usage traceability

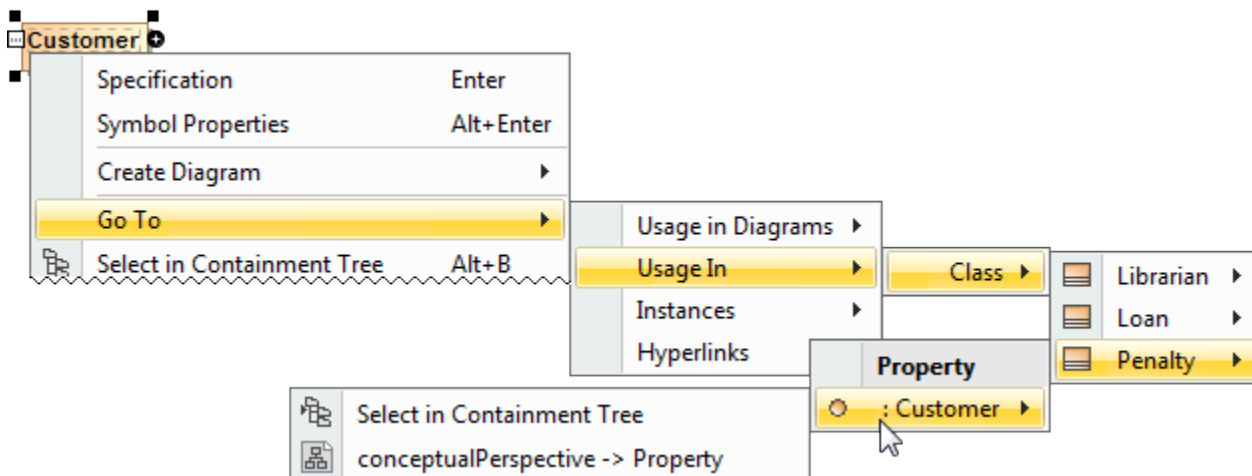
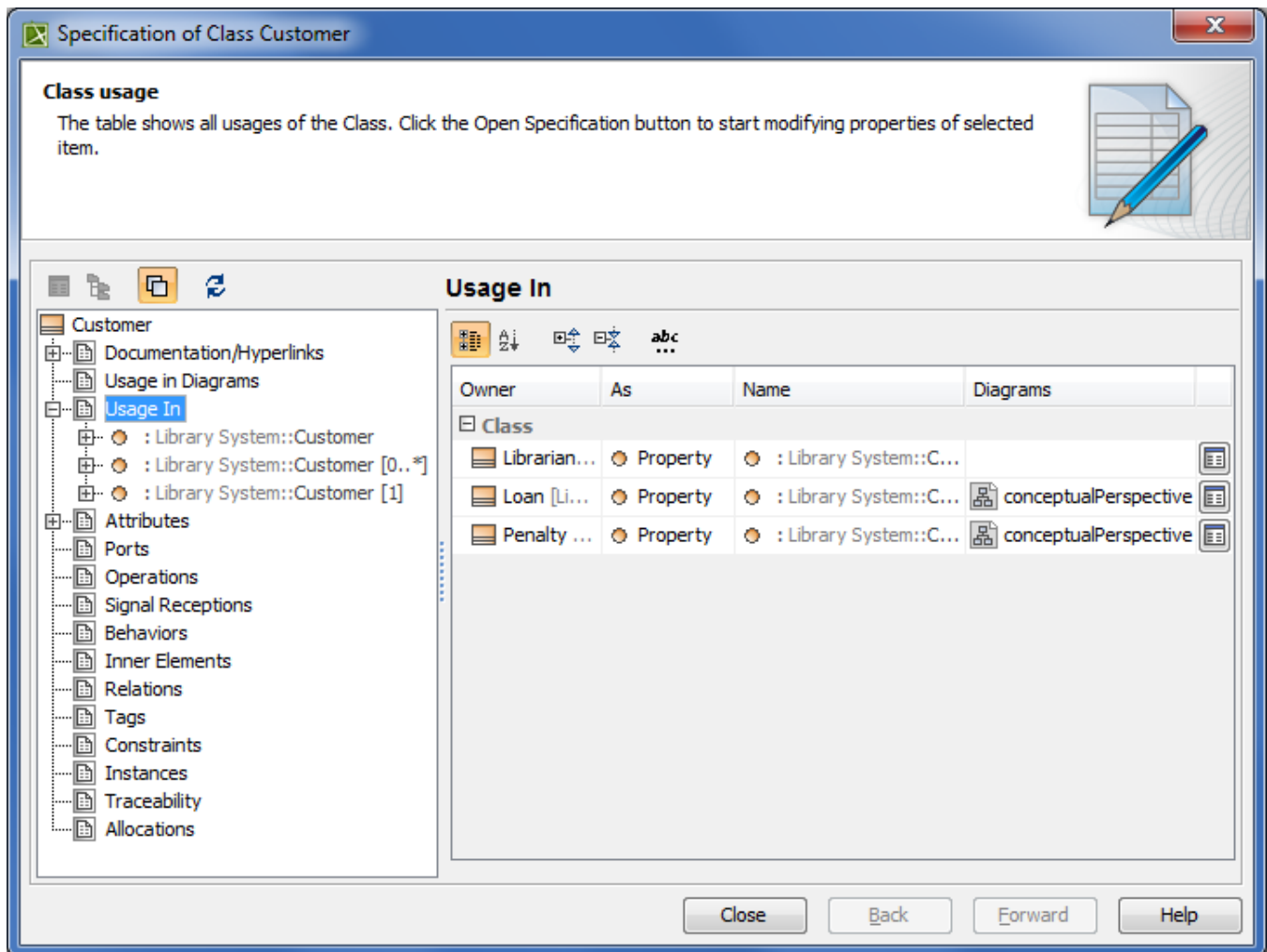
The traceability of the Class, Signal, and Instance elements is much easier now! There are two ways to inspect those element usages in your model:

- For the Class and Signal elements:
 - On the left of the Class or Signal Specification window, click **Usage In**.
 - From shortcut menu of the Class or Signal, choose **Go To > Usage In**.
- For the Instance element:
 - On the left of the Classifier Specification window, click **Instances**.
 - From shortcut menu of the Classifier, choose **Go To > Instances**.

Class usage traceability

You can now trace the Class, when it is used as:

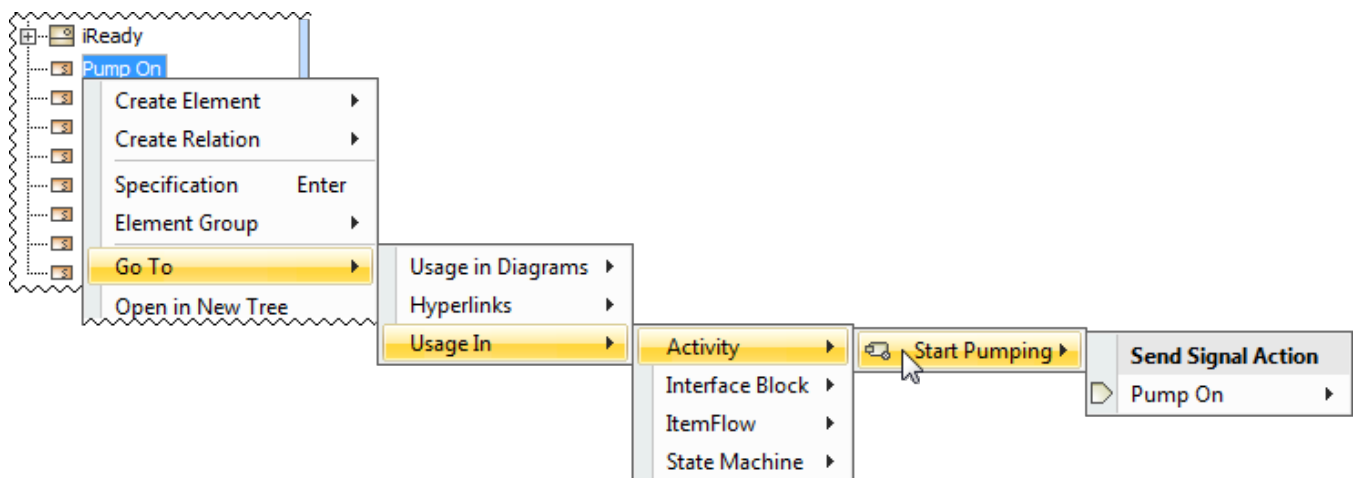
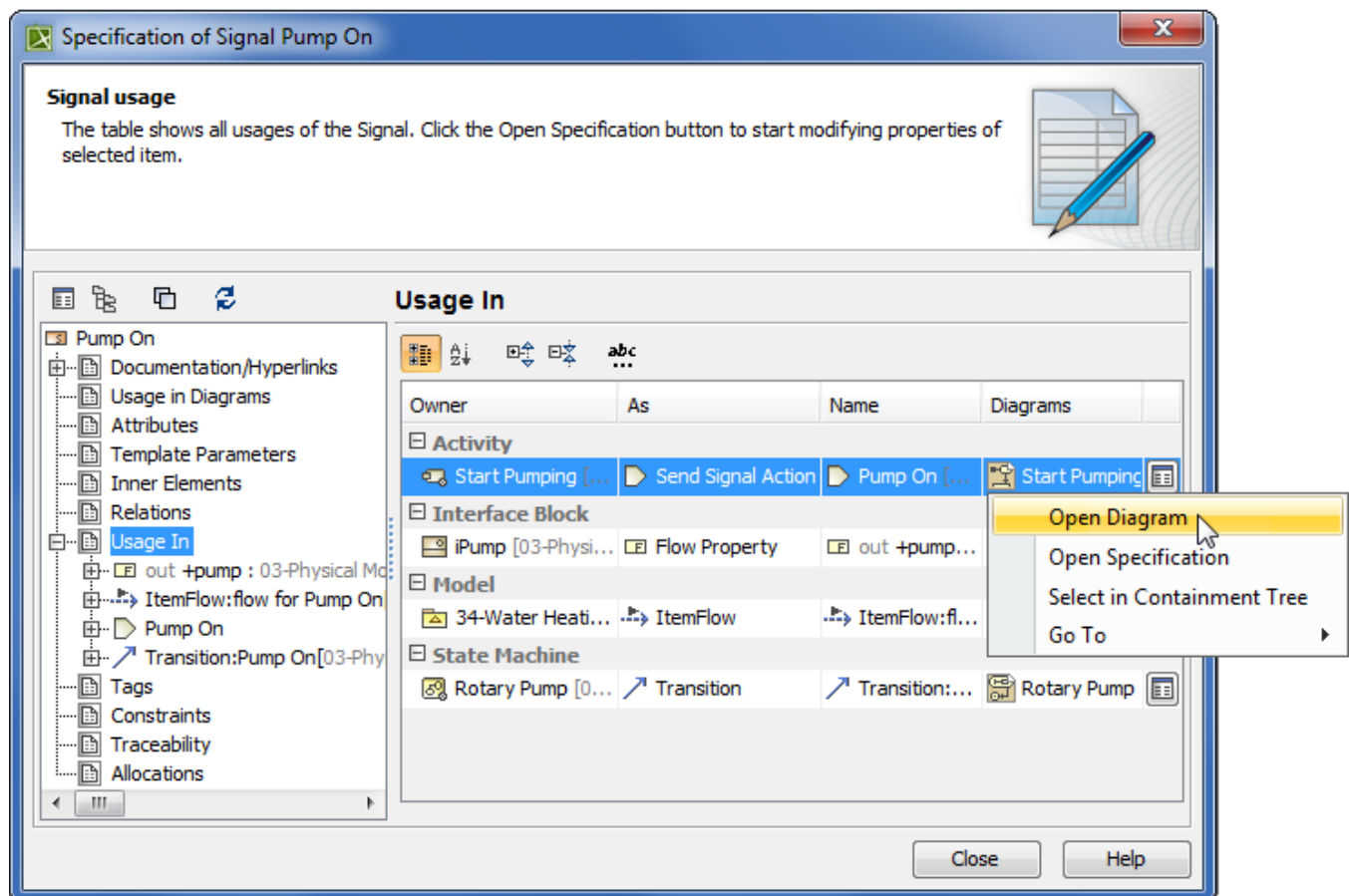
- Representer of the partition
- Part
- Representer of the lifeline
- Type for instances
- State activity
- Action



Signal usage traceability

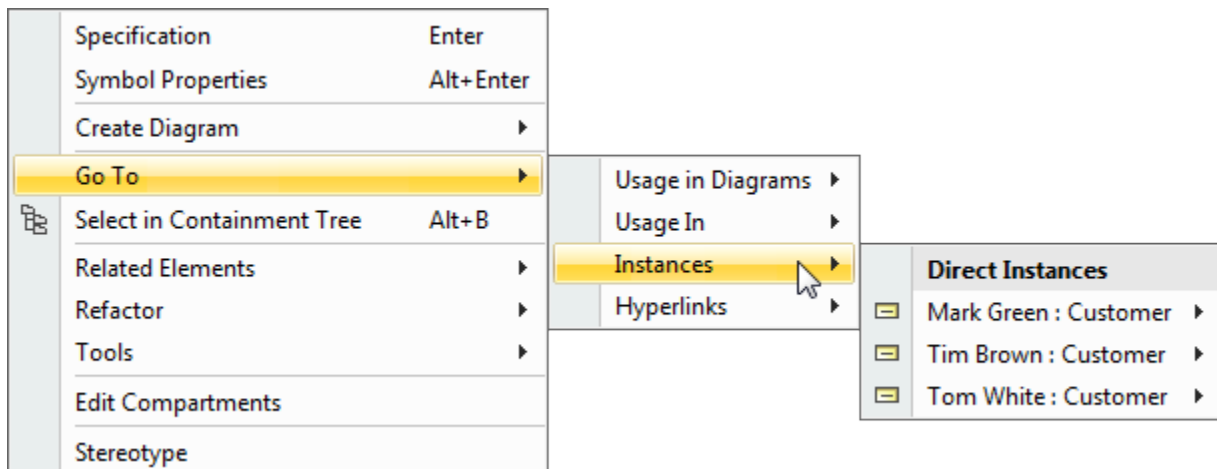
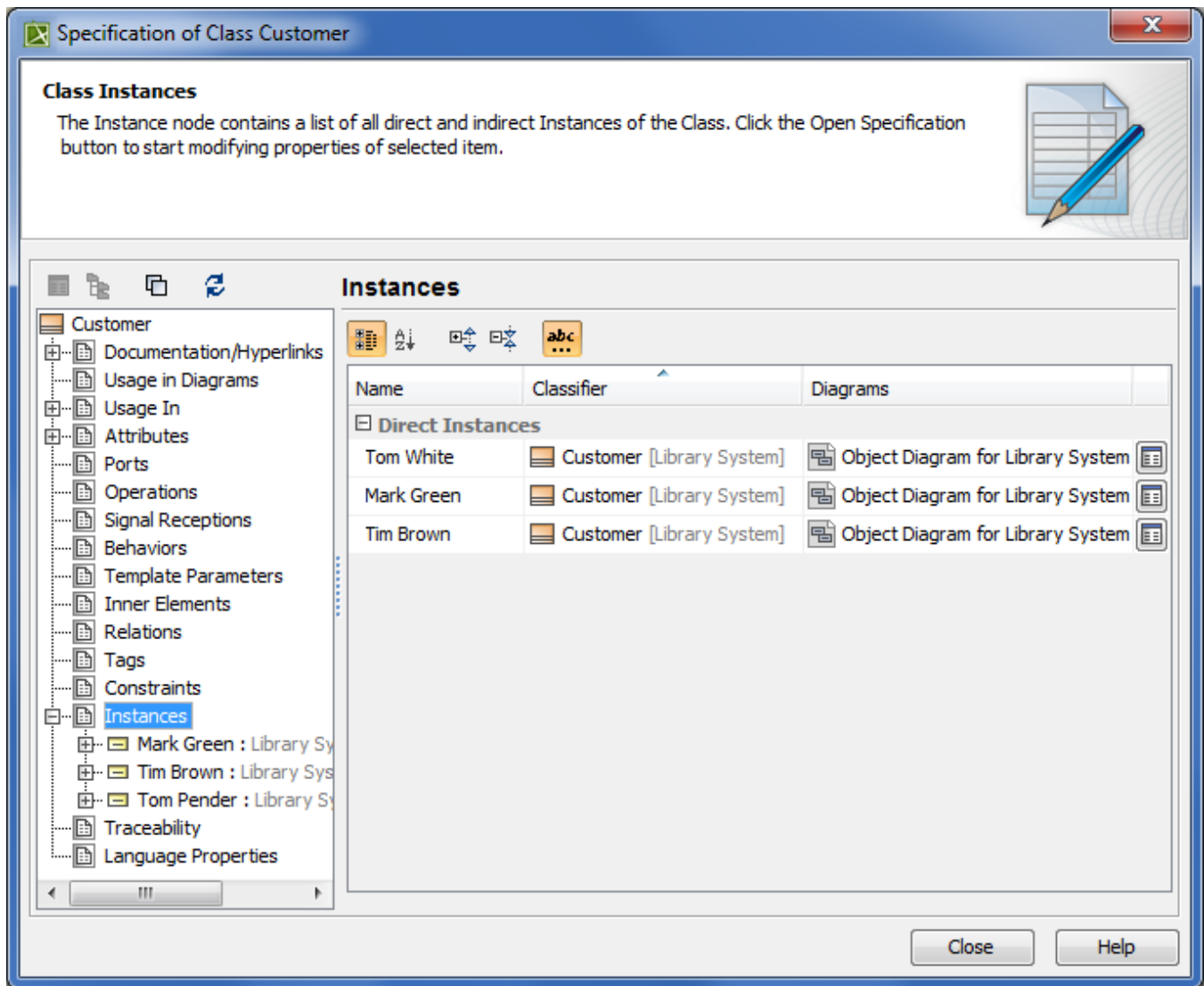
You can trace the Signal, when it is used:

- In Trigger on Transitions or Accept Event Actions
- As Item Property type
- As Flow Property type
- In Send Signal Action or Broadcast Action
- In Sequence message



Instance usage traceability

Trace all direct and indirect Instances of your Classifier.



Informative Rake Icon

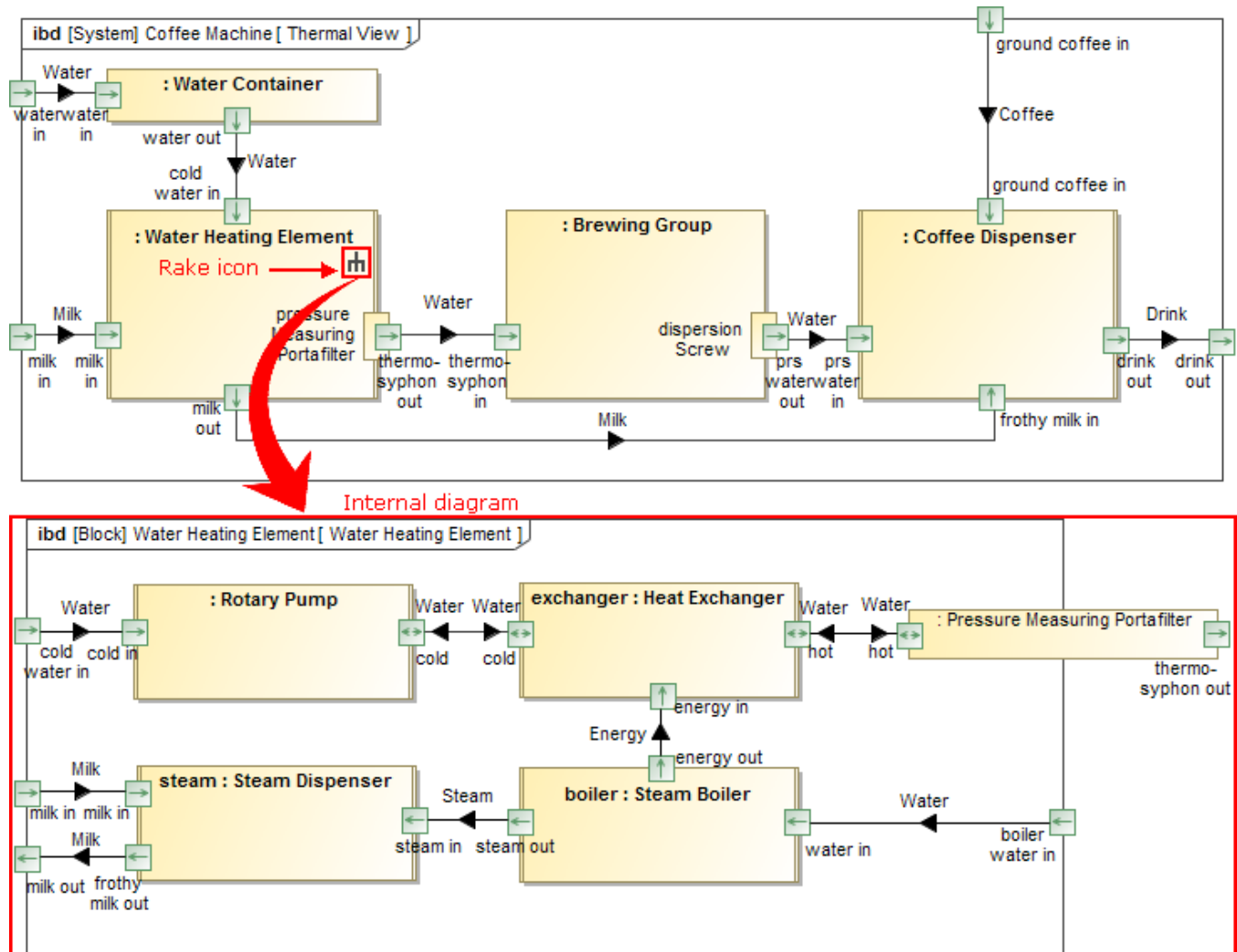
Follow and double-click on the symbol with rake icon for faster navigation in the model! According to the SysML specification, the decomposition of model elements can be represented by the rake icon. It means a reference to a more elaborated diagram.

The rake icon automatically appears on:

- Call Behavior Actions that can refer to another Activity diagram.
- Parts that can refer to another Internal Block diagram.

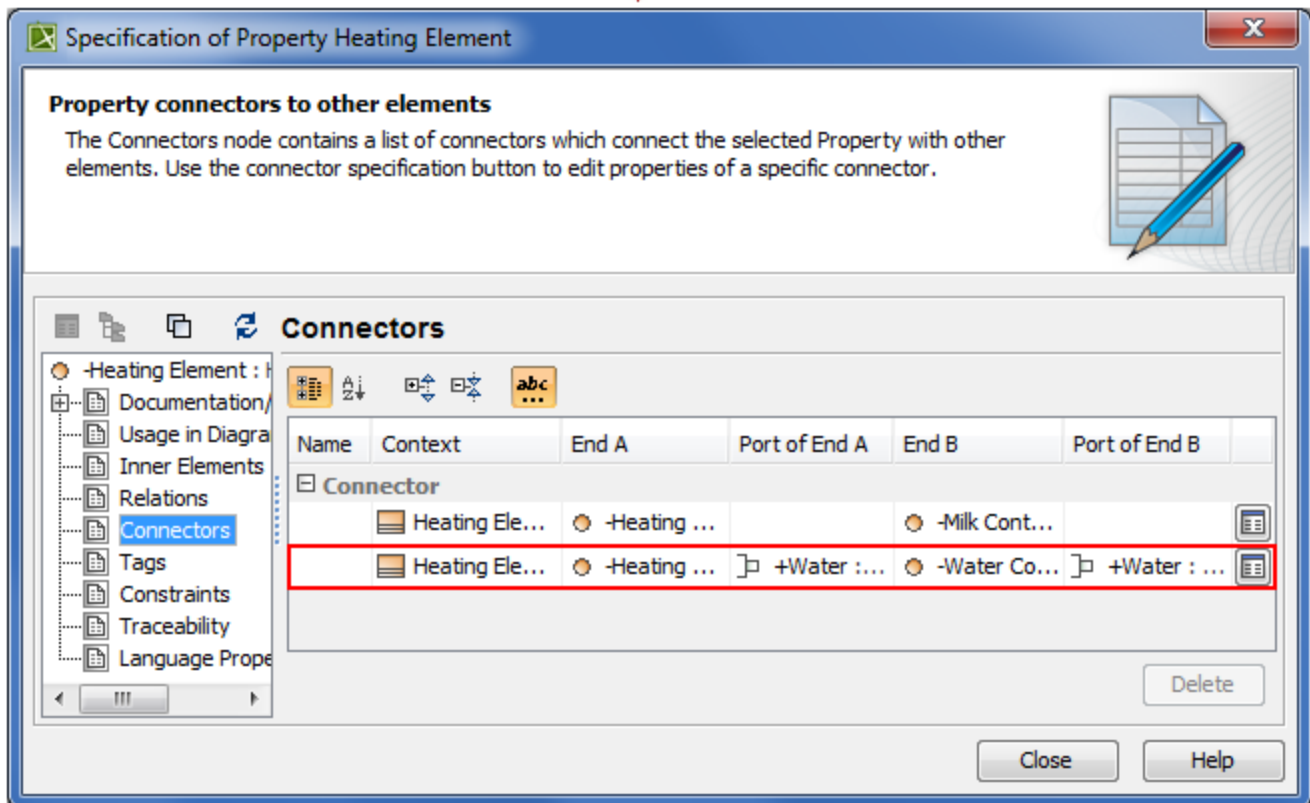
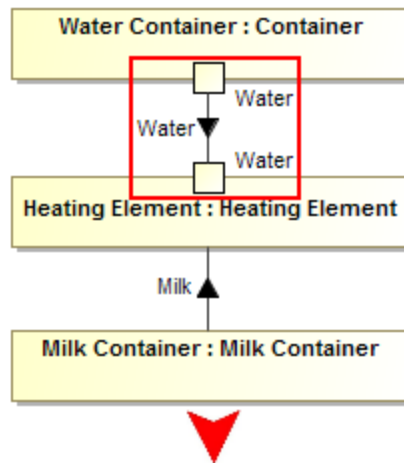
- Packages that can refer to another Package diagram.
- Constraint Properties that can refer to another Parametric diagram.
- Requirements that can refer to another Requirement diagram.
- Interaction Uses that can refer to another Sequence diagram.
- States that can refer to another State Machine diagram.
- Use cases can that can be realized by other behavior diagrams such as Activity, State Machine or Sequence.

The rake icon is not shown by default on the element. To show it, set the **Show Rake Icon** property value to *true* in the **Symbol Properties** dialog.



Part connections via Ports traceability

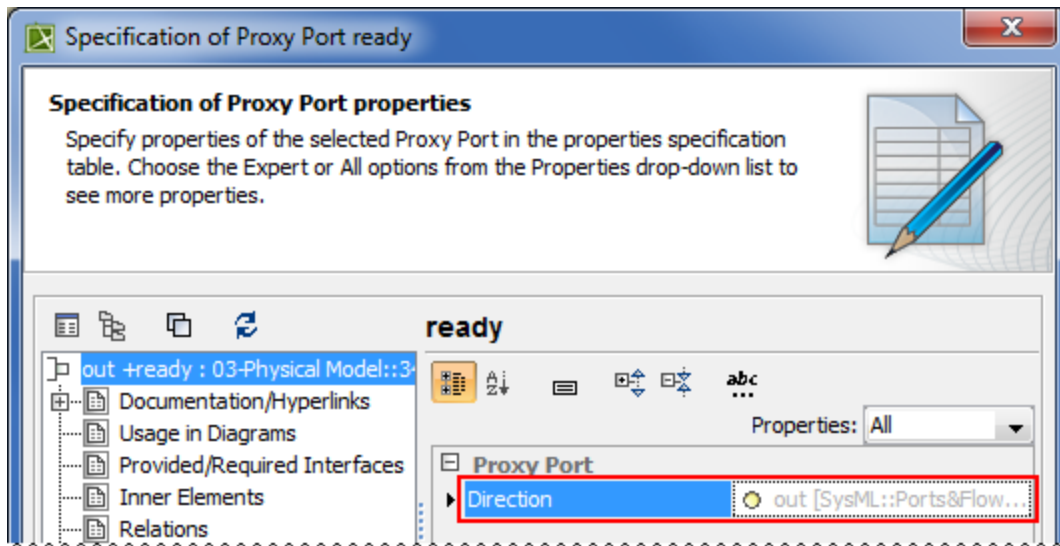
Indirect Part connections via Ports are now collected in the **Connectors** property group of the Part's Specification window. Inspect the list of connectors and modify their properties.



More efficient Ports and Flows modeling

Direction of Proxy Ports

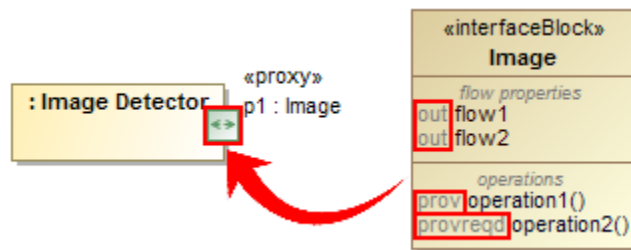
Review all owned and inherited flow properties and directed features of the Proxy Port using new **Direction** property! You can find it in the Specification window of the Proxy Port.



The directed features are not included into combined direction of the Proxy Port by default. To include it set the **Check Directed Features for Proxy Port Combined Direction** property value to true in the **Project Options** dialog.

If all features have direction "out" or "provided", the combined direction is "out". If all features have direction "in" or "required", the combined direction is "in". Otherwise the direction is "inout".

The **Direction** property is available in tables, matrices, criteria selection dialogs, reports, and open API.



Direction prefixes

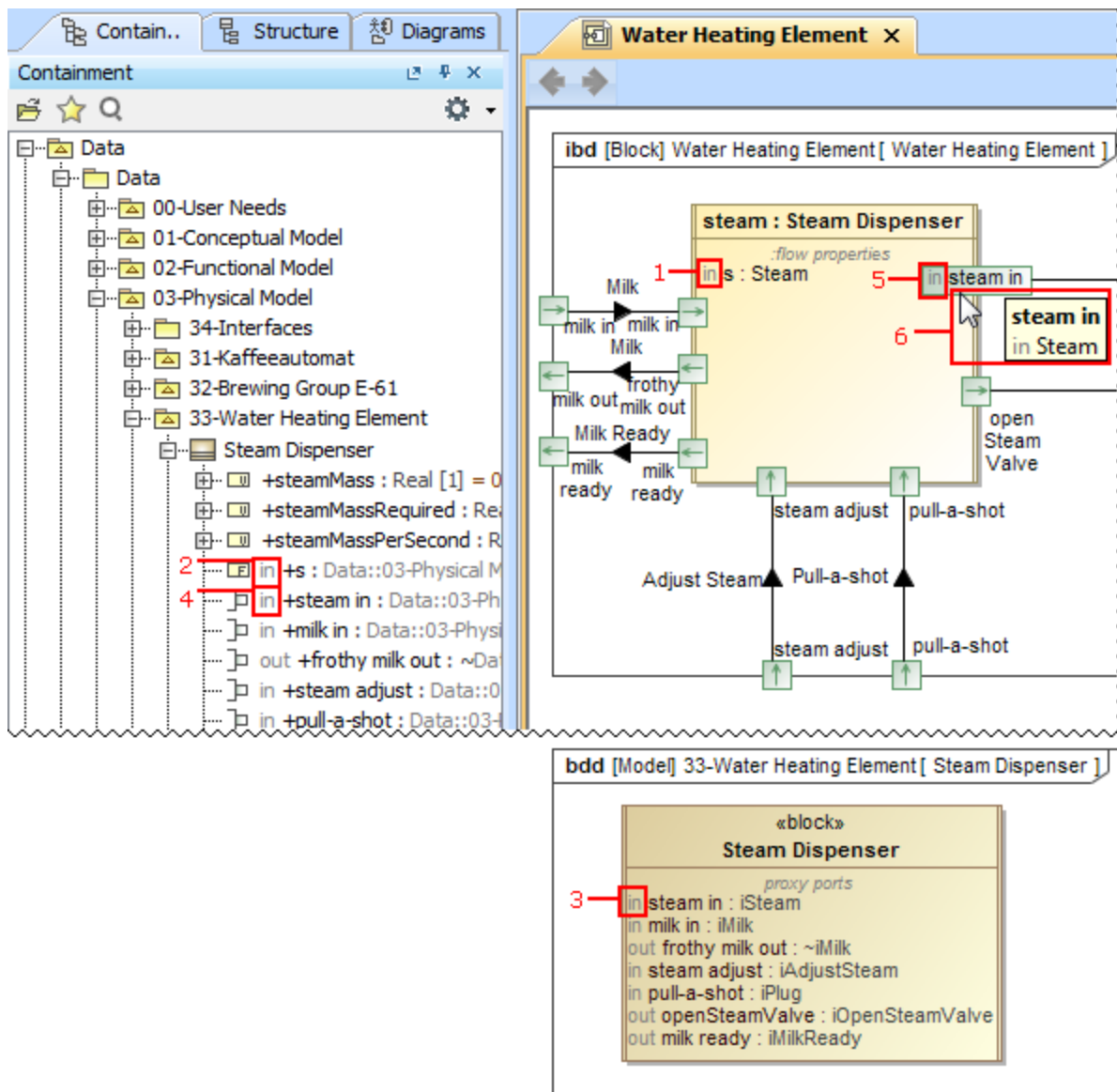
Now directions of flow properties and Proxy Ports can be easily identified in many places with help of direction prefixes.

The flow property direction prefixes are now displayed:

- On Parts (1). To hide flow property direction prefix on the Part, set the **Show Direction for Flow Property** property value to true in the **Symbol Properties** dialog of that Part.
- In the Model Browser (2).

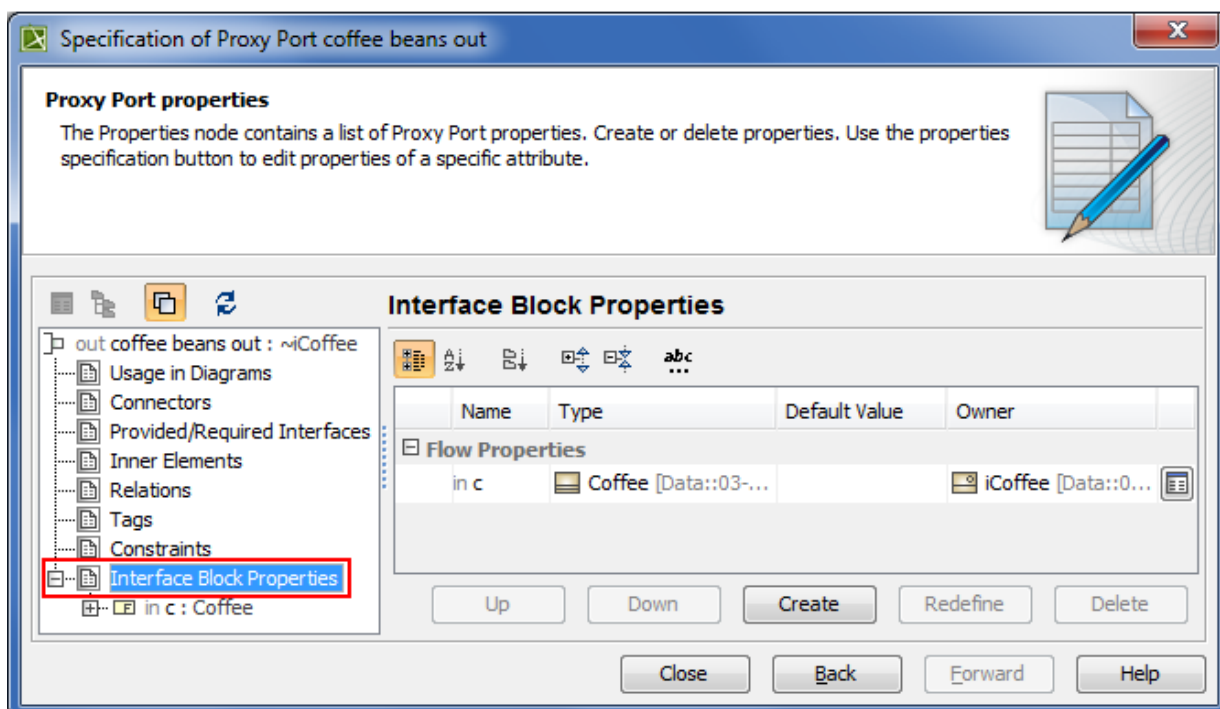
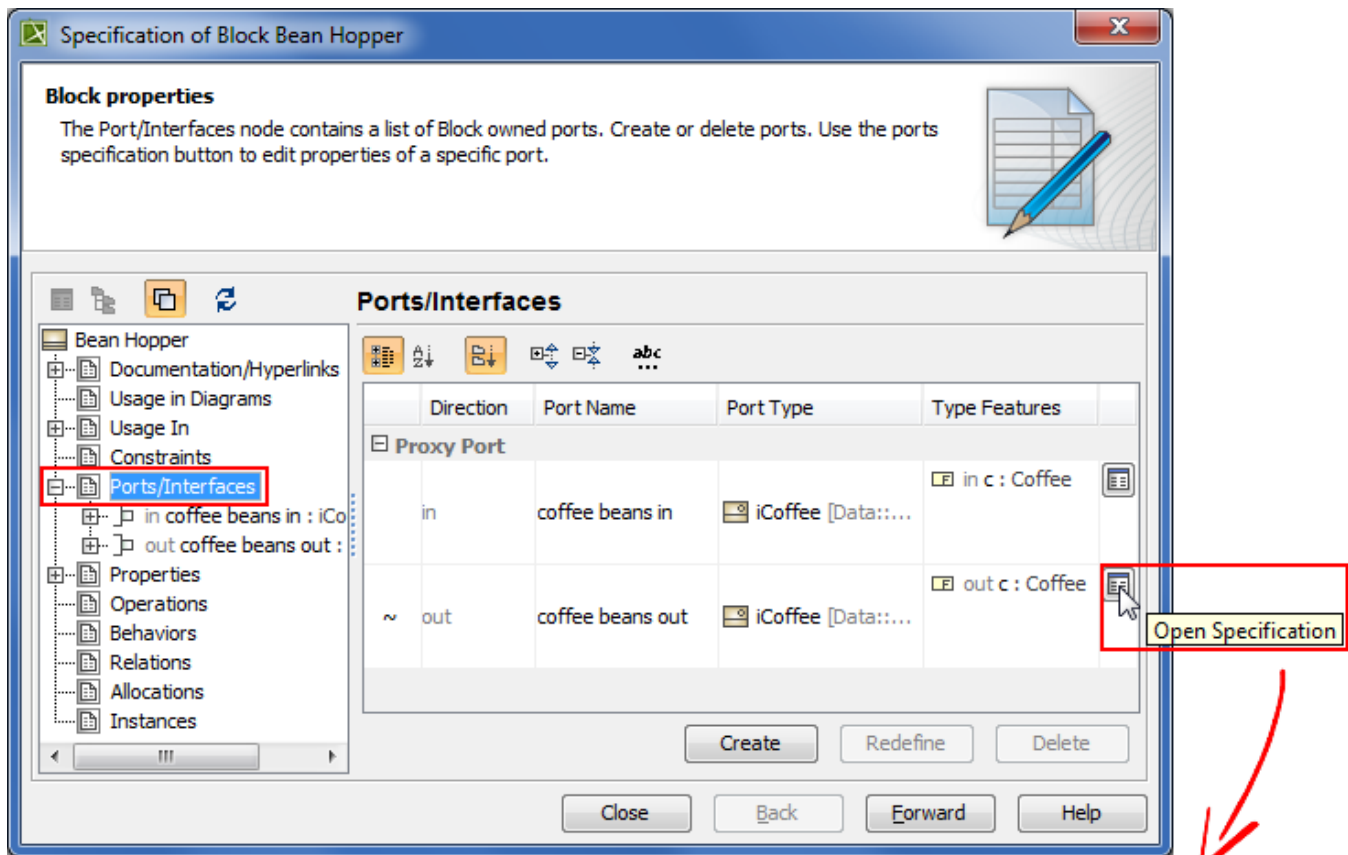
The Proxy Port direction prefixes are now displayed:

- On Blocks (3). To hide the Proxy Port direction prefixes on the Block, set the **Show Direction for Proxy Port in Compartment** property value to false in the **Symbol Properties** dialog of that Block.
- In the Model Browser (4).
- On the Proxy Port shape when its name is displayed inside the shape (5). For this, open the **Symbol Properties** dialog of the Proxy Port and select **Name and Type Labels Inside** or **All Labels Inside** as the **Position of Labels** property value.
- On the ToolTip which opens when you move the pointer over the Proxy Port or its name (6).



New Ports/ Interfaces property group


All owned and inherited Ports and their Interfaces are now listed in one place! Manage them on the left of the Block Specification window > **Ports /Interfaces**. For detailed information about selected Port interfaces open its Specification window> **Interface Block Properties**.

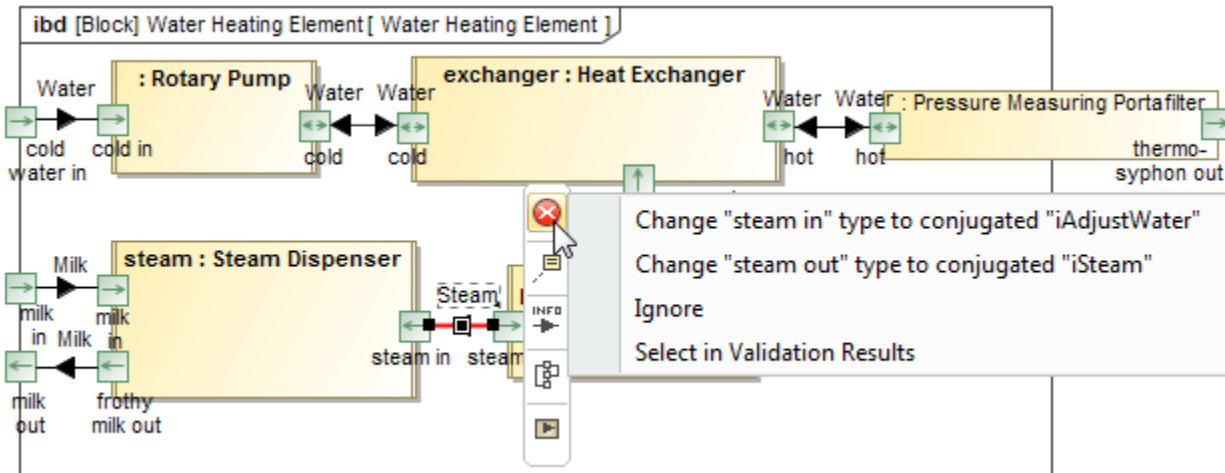


Validation of Ports compatibility

Validation of Ports is more efficient now! It is easier to create the system with compatible connections between Ports because of additional validation of Ports compatibility rules. They check if:

- Flow is possible
- Flow Properties and directed features match
- Item Flow or Item Property type is compatible with the Interface Flow Property type

Invalid connectors are highlighted in red. Click  on the smart manipulator toolbar and choose one of the suggested solutions.



Other News

Conceptual changes in modules

Starting from this version, module is referred as a used project. Keywords "used project" and "project usage" replace the keyword "module" everywhere in MagicDraw UI.

Miscellaneous

- Easily create a Behavior for the Operation. With the new **Create Method** command on the shortcut menu of the Operation and the Signal Reception, you can create a Behavior (and diagram) faster.
- With the new **Display Inner Elements** command on the shortcut menu of the State Machine diagram, you can display the shapes of State Machine inner elements faster. The same command is available on the shortcut menu of the Composite State symbol, Activity diagram, and Structured Activity Node symbol.
- Activity diagram created under the Activity now instantly displays all inner elements on this diagram. The same is valid when creating a State Machine diagram under the State Machine.
- Any inherited part can now be quickly redefined directly in the Composite Structure diagrams. Select **Refactor > Redefine To**, choose a compatible subtype, and let this job be done for you. A new part redefining the original one will be created and graphically replaced in the diagram with all ports and connectors remaining in their places.
- MagicDraw no longer forces the selection of a Metaclass on a Stereotype creation. You can change the Metaclass later from the stereotype's smart manipulator toolbar.
- Selecting a Stereotype or Metaclass no longer requires using the mouse. Use the Up and Down Arrow keys to walk through the lists, press Ctrl+Spacebar to select a desired item, and then press Enter to apply the selected Stereotype or Metaclass.
- Derived properties created using simple navigation operations are now editable.
- The position of text within a shape can be set to the top, center, or bottom by using a new **Text Vertical Position** property in the **Symbol Properties** dialog.
- Multiplicity value of an association end can now be edited directly on the diagram pane. Just select the multiplicity area and press F2 to switch it to the edit mode. Then press Ctrl+Spacebar or Ctrl+Backspace to see available suggestions and choose one of them or type a new value.
- Standard and custom subtypes of the selected element type can now be optionally included into search results. For example, if you need to search for packages as well as for profiles, models, smart packages, and other custom subtypes of the Package, select the new **Include Subtypes** check box on the **Select Element Type** dialog after you choose the Package as element type.
- Table export to a Microsoft Excel worksheet was improved, and multiline textual values are no longer stripped in the worksheet, if they are stripped in the table - actual, but not displayed data is exported.
- When working with a server project, you can now choose whether to ignore validation rule failures just for you or for all users contributing to that server project.
- Foreign, non-editable projects transferred from other servers can now have domestic, editable branches on the current server.

File format changes

File format reflects changes made in UML metamodel.

Open API changes

UML metamodel related changes

- Removed associations:
 - *parameter* between ValueSpecification and Parameter
 - *parameter* between Pin and Parameter
- Added associations:
 - *syncElement* between two Elements

IntelliJ IDEA project for MagicDraw development

An IntelliJ IDEA project with modules for developing two sample plugins was pre-configured and can be found in *<MagicDraw 18.1 installation directory>/openapi/ide*.

More Classes in Open API

The *com.nomagic.magicdraw.sysml.util.SysMLUtilities* class was added to the open APIs. It provides utility methods for easier work with SysML projects. For more information, see *<MagicDraw installation directory>\openapi/docs*.

Support

UML support

- Optional Port is now identified by the phrase *via <port name>* in the name string on shapes of the following elements: Call Operation Action, Call Behavior Action, Send Signal Action, Send Object Action, Broadcast Signal Action, and Start Object Behavior Action.
- Body of an Opaque Behavior can now be optionally displayed instead of its name on the State or Transition shape, when this Opaque Behavior is used as Entry/Exit/Do Behavior of State or Effect of Transition.

SysML 1.4 support

Now adjunct properties can represent State entry/do/exit behaviors and Transition effect behavior. From the State or Transition shortcut menu, select **Tools > Adjunct Property > Create Adjunct Property for <...>** to create adjunctProperty representing entry/do/exit behaviors or Transition effect behavior.

Fixed Issues

You can check the following lists of publicly available or your own reported issues fixed in version 18.1 FR:

- [Enterprise architecture modeling specific issues](#)
- [Systems modeling specific issues](#)
- [Simulation specific issues](#)
- [Other issues](#)