What's New in Cameo Systems Modeler 18.3 FR

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Interface Control Document (ICD) Tables
See and export all system/component interface definitions in a tabular format.

Rollup Pattern Wizard
Automatically apply parametric pattern to perform total system mass/power/cost rollups.

Automatic Creation of Ports
Drop Interface Block to create ports at Connector ends.

Nested Properties in Instance Table
Select and show deep nested properties as Instance Table columns.
Interface Control Document (ICD) Tables

It couldn't be simpler to create Interface Control Document (ICD) tables! Comprehensive views of system interfaces are placed in **Blackbox** and **Whitebox ICD Tables**. Collect all external Ports and interfaces of the Block by creating a Blackbox ICD Table. Whitebox ICD Table focuses on Connectors between Parts.

You are free to customize both tables according to your needs and simply export them to .html, .csv, or .xlsx files.
Rollup Pattern Wizard

Using the automatic Rollup Pattern wizard you are able to model much easier, faster and less prone to error! The Rollup Pattern wizard automatically applies pattern Blocks (using the Generalization) to a single Block or multiple Blocks recursively, and creates property values.
Automatic Creation of Ports

Simple and quick creation of Ports ensures an efficient interface modeling in Internal Block Definition diagram. Just drag Interface Block directly on the Connector on the diagram pane. With only one drag you:

- Create Ports at both ends of the Connector.
- Set types (interfaces) of Ports.
- Set directions of Ports.
- Keep layout of the Connector.
Nested Properties in Instance Table

Now you can display the properties of a classifier from a deeper level of the composition (nested properties) in the Instance Table! Just click **Columns > Select Nested Columns** and choose which nested properties you want to show as columns in the table.

Automatically fill these columns with nested parts of a new instance by simply clicking the **Create with Parts** button, then edit the values directly in the Instance Table.
Requirements Change Management and Impact Analysis

Working on a server project requires an up-to-date knowledge of all relevant project changes. While some of them may be visible simply by taking a look at the diagram, modified requirements are harder to track.

For this, we introduce a new set of validation rules for suspect link analysis.

These rules help you track changes in requirements, that are linked to design elements (such as SysML Blocks, Test Cases, Use Cases, etc.) by satisfy, derive, refine or verify relationships, as well as allow tracking deprecated requirements and requirements that are not linked.
Functional Mockup Interface (FMI) Standard Support

Models that are exported from any other tools to FMI standard (.fmu files) can now be represented as SysML Blocks by dragging .fmu files to the Block Definition Diagrams.

You are free to execute one FMU Block or co-simulate cooperated FMU Blocks using Cameo Simulation Toolkit.
More Reasons to Choose CEDW for Collaborative Modeling

Now you can inspect the detailed history of the model at element level. Check who and when modified the particular element easily. Also, compare any two versions of the element and see what properties were added, modified, and deleted.

Another great feature is the possibility to restrict access to selected packages for different users without splitting the project. You can select who can modify the contents of the package and who can only review it.
In addition to these features, the performance of updating changes has increased significantly, compared to Teamwork Server and CEDW 18.2.

Improved Scope Management

Can't find the elements you're looking for in the type selection list, because there's just too many of them? Don't waste time searching! Now you can select to show only elements filtered by package imports.

Simply create a package import relationship from the package that contains the elements you want to define type for, to the package(s) that contain your required types.

Then, using the smart manipulator, customize the filter to Filter By Package Imports. The selection list is significantly easier to work with!
Custom Buttons on Diagram Palette

Have a new DSL element type and want to add an appropriate button to the palette of a relevant diagram type, but hesitate to start that long procedure? Now you can do this with less effort!

Create customization for that DSL element type and add a new **Place on Diagram Palette** property to it. This property allows you to specify the position of the button on the palette of the selected diagram type. The new button appears on the diagram palette instantly after you finish the customization and reopen the diagram. Your team members who use the same customization profile can use the new button too.

Image Library

No need to add images to your model one by one! Now you’re free to use a bundled image collection or add your own set of images to the **Image Library**.
More Options in Dependency Matrices

Working with Dependency Matrices that contain large numbers of rows and/or columns is now less complicated – you no longer need to scroll in order to see certain parts of it, instead you can simply select to exclude cells that contain relationships and make your Dependency Matrix view more compact.

Implied relationships represent relationships between model elements caused by generalization and composition.

You can specify the colors and line styles to be used for representing relationships in your Dependency Matrices. The customized legend helps you identify relation criteria.
In addition, all matrices have a zoom function now, which is extremely useful when displaying them on projectors or high-resolution monitors.

**Enhanced Relation Maps**

You can specify the colors and line styles to be used for representing relationships in your Relation Maps. The customized legend helps you identify relation criteria.

There's a new default option that keeps parameter signatures of operation and behavior (*Activity,StateMachine,Interaction,OpaqueBehavior*) hidden from symbols. Now, if you want to **Show Parameters**, you need to select this in the Specification window of your Relation Map.

**More Precise HTML Text Comparison**

With an improved HTML text comparison feature in Project Merge and Compare functionalities, the differences between compared text written in HTML (e.g., requirements) are now represented as rich text, enabling you to see all changes in formatting.
New Possibilities in Tables

All tables have a zoom function now, which is extremely useful when displaying them on projectors or high-resolution monitors.

In 18.3, you can choose whether to create a Custom Column from a locally stored expression or from a global derived property, as well as specify the type and multiplicity of the custom column or derived property.

In case you need to collect elements that are not necessarily owned by the same package, you no longer need to create a Smart Package for that purpose. You can now specify the query in the Specification window of the table and see the results added to it right away.

We updated the Metric Suite .xism templates to not only represent your project progress in a Microsoft Excel spreadsheet, but also display the main data in automatically generated charts, added to the table. This feature is only available with MS Office 2007 or later.

Easier Swimlane Manipulation

Partitions can now be rearranged not only by dragging them, but also by clicking the Partition header and using new control buttons that appear. Moreover, no need to allocate activity partitions one by one because the Allocated Activity Partition command is now available for multiple selected partitions.

In case Swimlanes in your diagram are large and Partition headers do not fit into the visible area, the names of Partitions are displayed on the upper edge or side of the diagram.
You no longer need to turn focus away from your Activity diagram when you want to create represented elements. A new smart manipulator button and a shortcut menu command allow you to create Parts or Blocks by simply clicking the Partition header to access the Create Block button (or another represented element, depending on a model).

In addition, you can remove a Swimlane without deleting its contents neither from diagram, nor from the model. All contained Actions and Flows will remain after the Swimlane is removed.

Learn more >>

Quick Filter Improvements in Options Dialogs

Now you can find the required option in the Project Options or Environment Options dialog more easily. You don’t even need to remember the options group it belongs to. Just start typing the name in the quick filter box, and you get what you’re looking for! The filter now considers all option groups, not just the selected one as in earlier Cameo Systems Modeler versions.
Smother Work With Images

We're delighted to introduce new ways to insert images into HTML text – ensuring less clicks and more possibilities. Now, when inserting an image, you'll be asked whether you want to attach files to project model or only display images on diagrams. No need to manually open appropriate dialogs – they open automatically. Selecting to not attach the image file as a model element is useful when the image is large and you don't want to increase the project size.

This works when

- pasting or dragging an image (for example, from a web browser).
- pasting or dragging an image file.
- pasting or dragging rich text with images (copied from a MS Word document).

And, to many modeling specialists’ joy, multiple file insertion has also become available, saving you lots of repetitive clicks.

New Validation Rule to Ease the Model Clean-Up

Do you have many elements that are not used in any of Activity, Sequence, State Machine, or Communication diagrams? Do you want to get rid of them easily, but
don't know how? Validate your model or diagram against the UML Completeness validation suite which has been supplemented with a new rule.

The rule checks

- whether the element is displayed in any of the diagrams that belong to the same owner as the element does.
- whether the diagram displays one or more elements that belong to the same owner as the diagram does.

As all the unused elements are found in a single validation results list, you can simply clean up your model by deleting them all at once.

**Automatic Detection of Prefixes**

After you copy numbered elements from another resource, for example, Microsoft Excel spreadsheet, and paste them into a Cameo Systems Modeler table, the prefix is automatically detected and set for each element ID. This is especially handy when you work with Requirements, since their IDs usually have prefixes.

![Element Numbering](image)

**No More Gaps in Numbered Sequences**

Deleted several elements from the end of a numbered elements sequence, created new ones instead, and noticed an annoying numbering gap in the sequence? This is not a problem any longer. Just remember to update the last ID before creating new elements! This enables to continue the numbering of subsequently created elements from the proper ID, that is, the highest ID in the sequence.

For example, if you have a sequence from 1 to 5, and delete elements with ID = 4 and ID = 5, the ID of a subsequently created element is 6. But if you update the last ID in advance, the element ID is 4 as it should be.
Related Actors in the Use Case Specification

All Actors that are related to the Use Case are now listed in a single place! To see them, open the Actors property group in the Use Case Specification window.

New Drag Operations
Create Image shapes faster by dragging:

- An Attached File element (.gif, .jpg, .jpeg, .svg, or .png) from the Containment tree.
- An image from the Image Library tree.

Faster Subsetting and Redefinition

You can set subsetted and redefined properties faster now by dragging properties on each other in the diagram pane.
Changes in Model Browser

- Relationship directions are now displayed directly in the Model Browser. You no longer need to open the Specification window of the relationship to identify its direction.
Text in brackets now indicates classifier behaviors and behaviors with context. The classifier behavior is the main behavior of the model. The context element is shown when behavior has a context classifier and is owned somewhere else in the model.

**Miscellaneous**

- A newly created diagram is now named after its owner by default.
• Now when you add Ports to Classes, Ports don't overlap the compartment elements as the margins are automatically adjusted to create distance from a Port.

**In earlier versions**

![Diagram showing overlap between elements](image1)

**In 18.3 version**

![Diagram showing no overlap](image2)

• The default multiplicity [0…1] is no longer limits the default value creation of instance slots when creating Instance Specification from the diagram toolbar or in the Instance Table.
• Element shapes that can't be nested become transparent on the diagram pane when trying to create their internal structure from the diagram toolbar.
• From now on, only value and constraint properties are selected by default in the Display Parts dialog of the Parametric Diagram.
• Now only parts are selected by default in the Display Lifelines dialog of the Sequence Diagram.
• Empty role names are auto-named after Block name is specified.
• Now when you edit Call Behavior name in its text editor, a new behavior is automatically created with the new name.
• Assigning Signals to Messages is now more convenient: typing a Message name is the only thing you need to do, and a Signal is automatically created with the same name as the Message name.
• Line width of a Separator or Rectangular Shape can now be easily modified by editing the Line Width property of the appropriate symbol. Learn more >>
• Enumeration attributes are now read-only by default. Learn more >>
• Creation of Generalization Sets, as well as setting Disjoint and Complete properties is simplified.