

What's New in Cameo Simulation Toolkit 18.5 FR

The logo for Cameo Simulation Toolkit features the word "CAMEO" in a large, blue, serif font. The letter "C" is stylized with a circular cutout containing a silhouette of a person's head. Below "CAMEO" is a horizontal line, and underneath that is the word "SIMULATION TOOLKIT" in a smaller, blue, serif font. A trademark symbol (TM) is located to the right of "TOOLKIT".

CAMEO SIMULATION TOOLKIT™

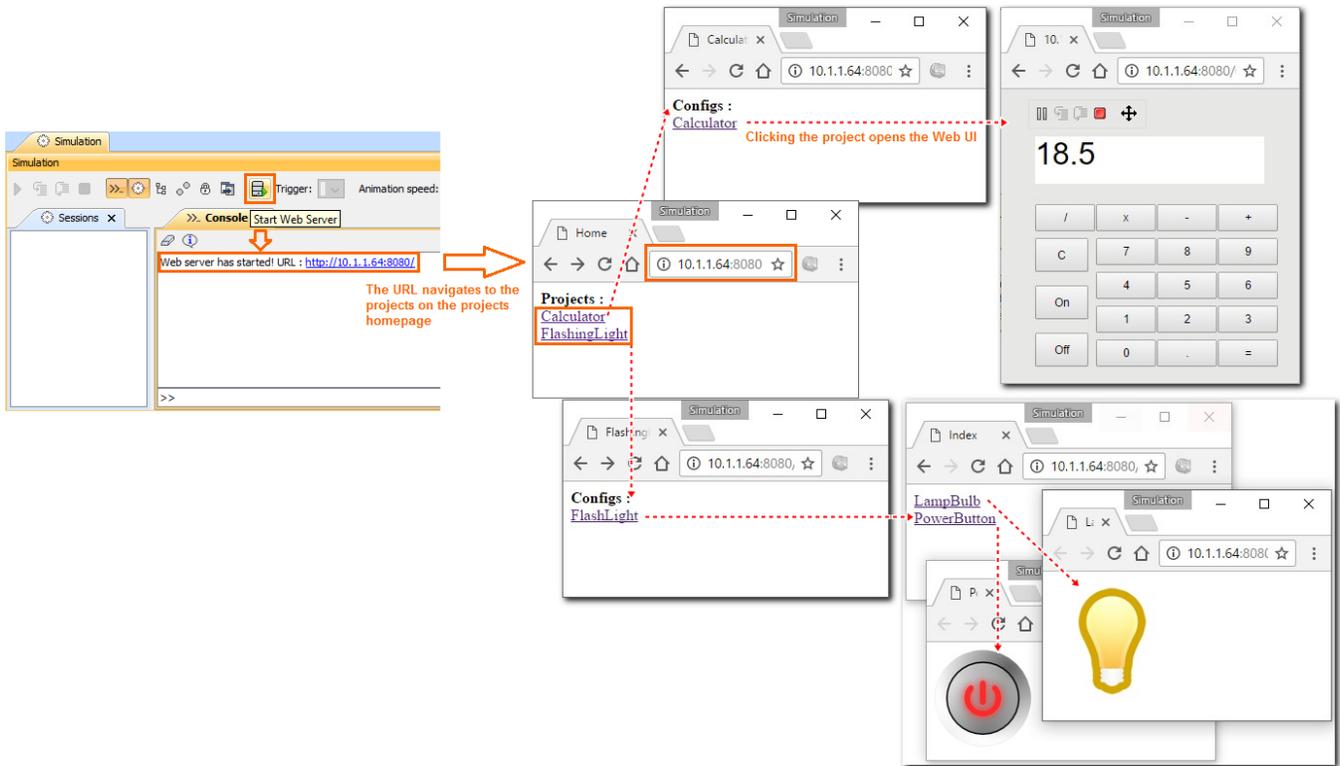
Released on: February 20, 2017

Cameo Simulation Toolkit (CST) 18.5 adds significant new features including OpenModelica integration, remote control over simulation using the web-based user interface (UI), plots, tables and control panel, better annotation of constraint failures, recording plots to the model, and AssociationBlock support. Download it today at nomagic.com or contact your sales representative, and don't forget to give us your feedback on [Twitter](#) or [Facebook](#).

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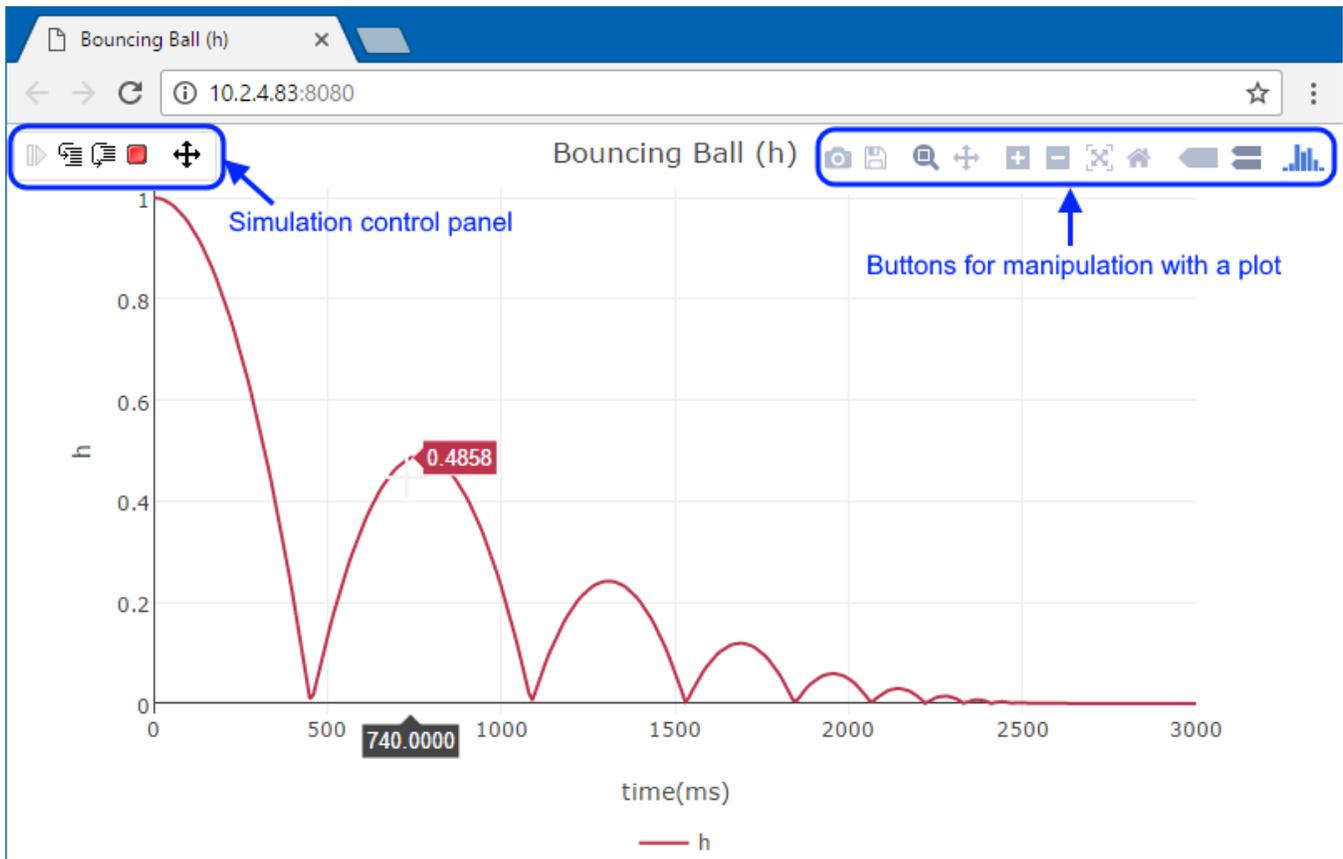
Web-Based User Interface

- CST 18.5 allows to expose HTML UI for remote simulation presentations and control. Open projects list can be shown for the remote user. Individual projects can be selected as active. Clicking on an available simulation configuration name starts model execution and automatically shows UI mockups in a web browser. All this functionality is packed as a separate free "Web Server for Cameo Simulation Toolkit" plugin. [Learn more about project list >>](#)



The project URL navigates to active projects with hyperlinks on the Web.

- Besides exporting your UI mockups to HTML pages, there is an option to add floating simulation control panel on the Web UI, which contains the **Start**, **Pause/Resume**, **Step Into**, **Step Over**, and **Terminate** buttons. [Learn more about Web UI simulation control panel >>](#)
- A new plotting library is used to render live time series charts on the web page. There are helpful functions for zooming, exploring or exporting plots into different file formats. [Learn more about plot on the Web >>](#)



Plots on the Web.

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OpenModelica Integration

You can now integrate Cameo Simulation Toolkit with OpenModelica using the menu **Tools > Integrations**. Once integrated, you can use Modelica as the language of your expressions or wrap and co-simulate existing Modelica models (similar to what you can do with MATLAB). [Learn more about integration with OpenModelica >>](#)

```

Simulation
Simulation
Trigger:
>> Console
omc>> getVersion()
getVersion()
"OpenModelica v1.9.6"

omc>> loadFile(getInstallationDirectoryPath() + "/share/doc/omc/testmodels/bubblesort.mo")
loadFile(getInstallationDirectoryPath() + "/share/doc/omc/testmodels/bubblesort.mo")
true

omc>> bubblesort({4,6,2,5,8})
bubblesort({4,6,2,5,8})
{8,0,6,0,5,0,4,0,2,0}

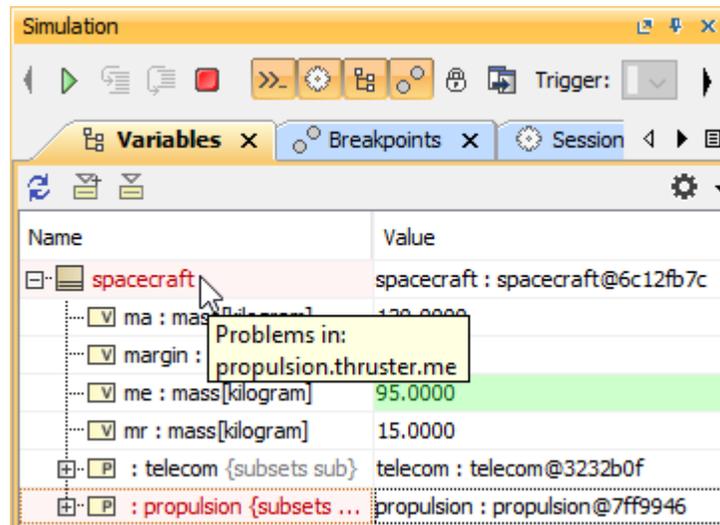
omc>> |
Modelica

```

Better Failure Annotation

CST 18.5 adds more annotations of the constraints or requirement failures.

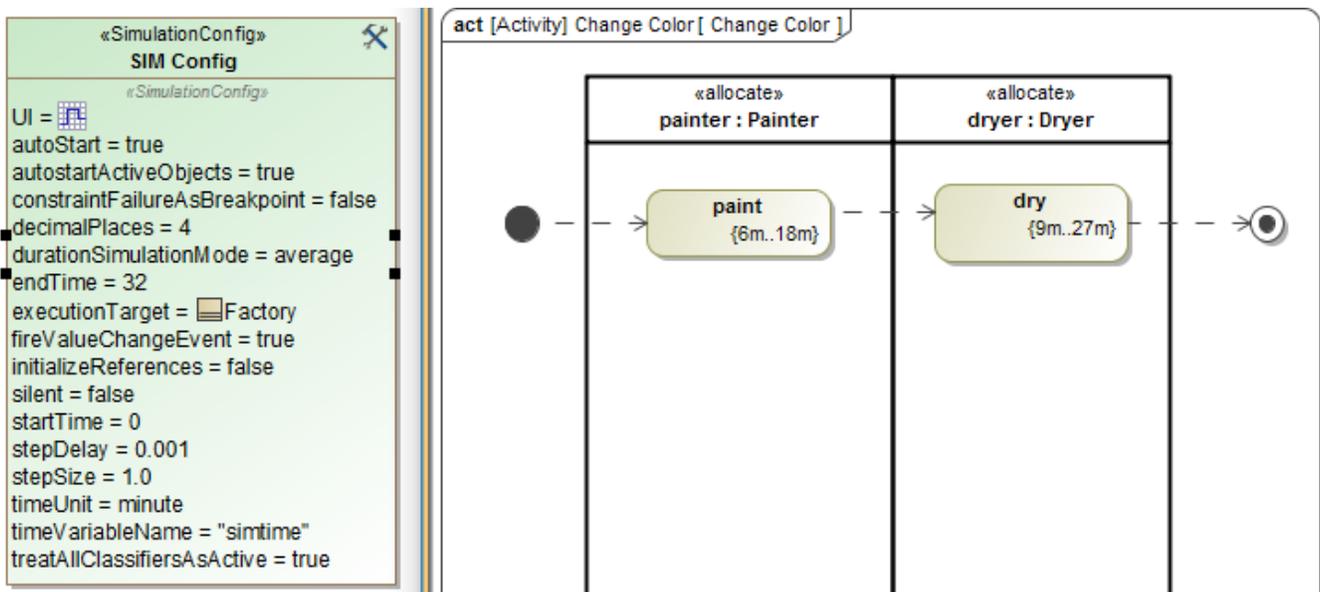
- Incorrect values are highlighted with a red background in the text fields and labels on both regular and web-based UI mockups now. The reason for the failure is shown on mouseover.
- All parent nodes in the **Variables** pane are now annotated with a red background to indicate any failures deeper in the structure. Therefore, even if the nodes are collapsed, the failures are still visible. [Learn more about failure annotation >>](#)



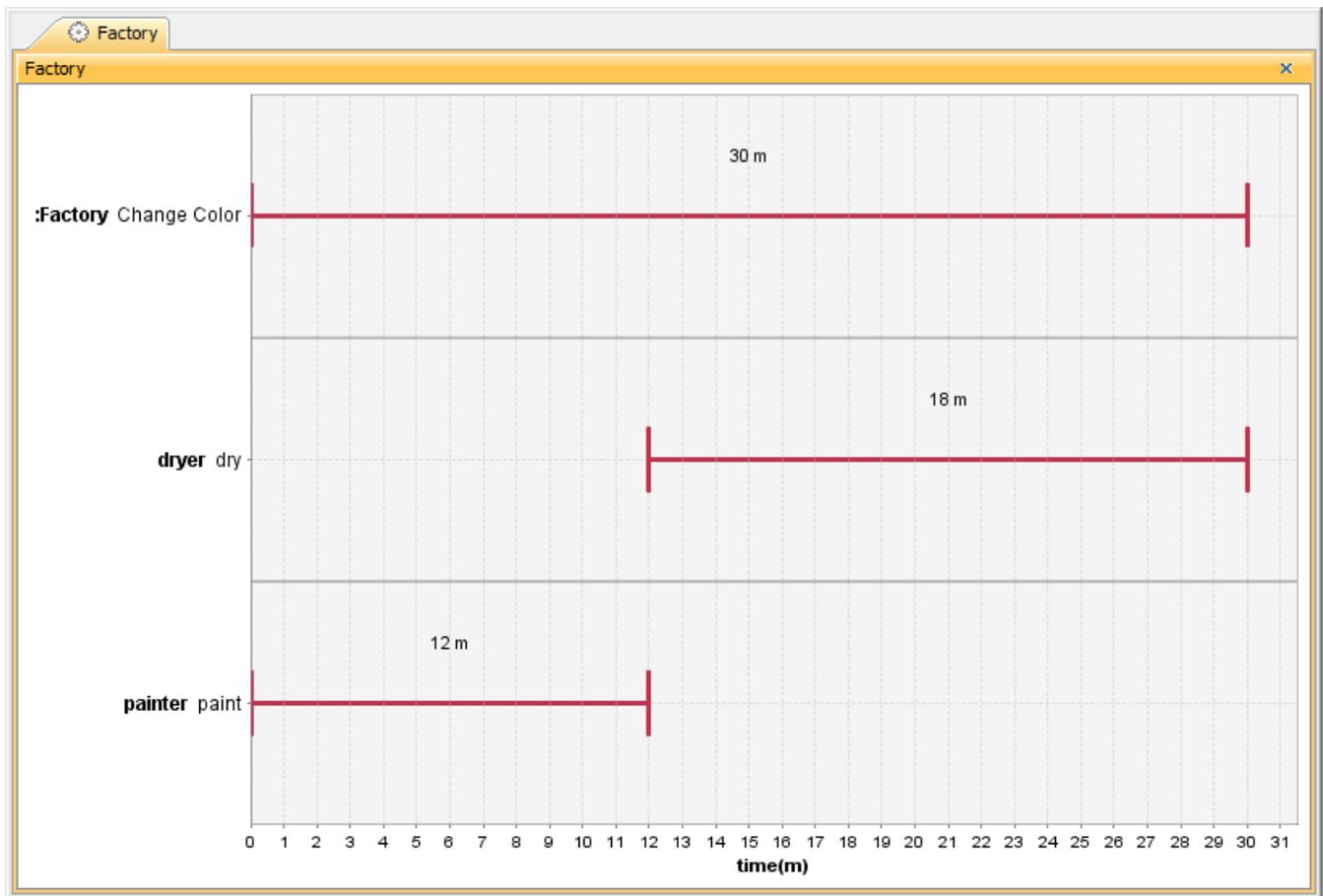
Parent nodes with red backgrounds indicating failures deeper in the structure tree.

Timeline for Actions Execution

In addition to Activities, Timeline can show individual actions too from now on. [Learn more about timeline >>](#)



Two actions "paint" and "dry" with duration constraints.

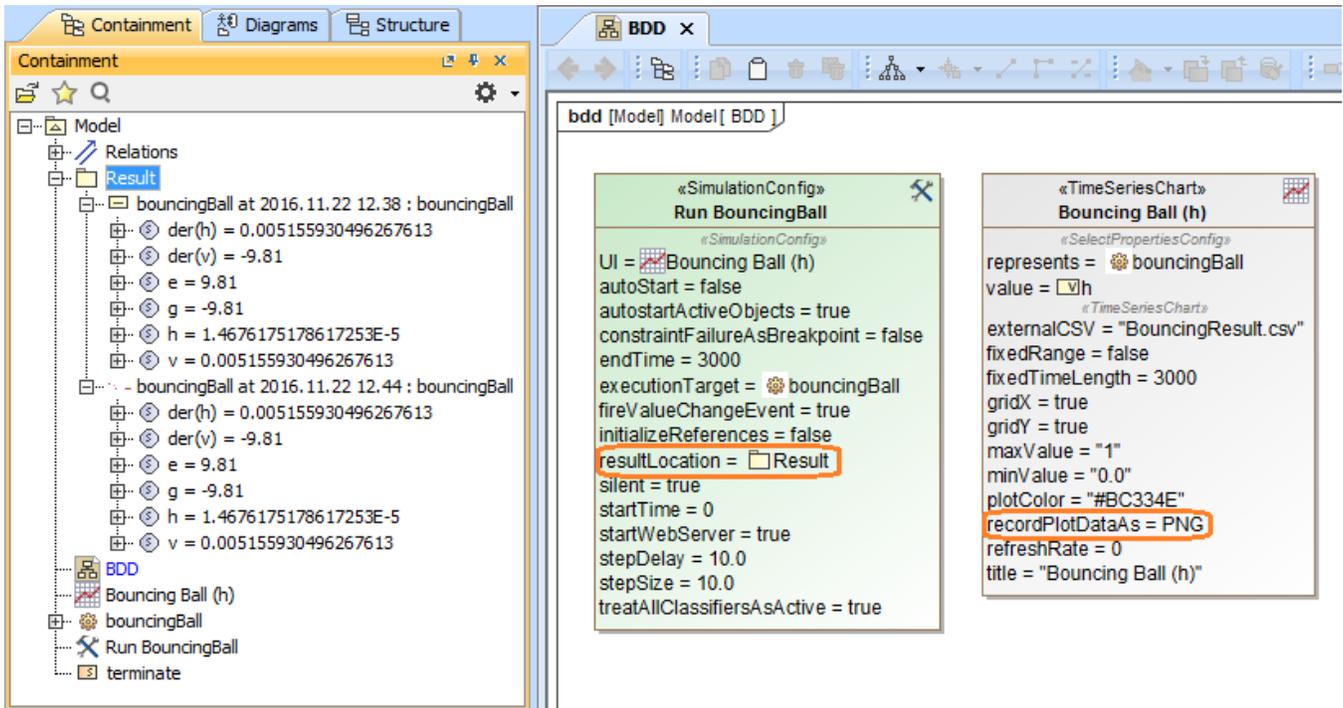


The Timeline Chart showing the action names and duration.

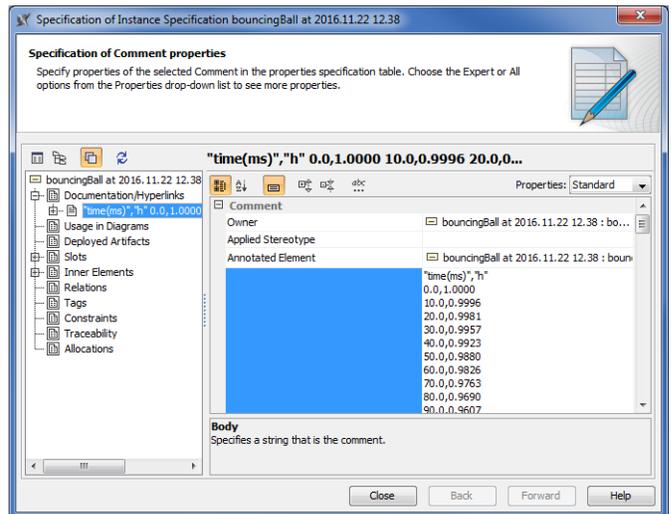
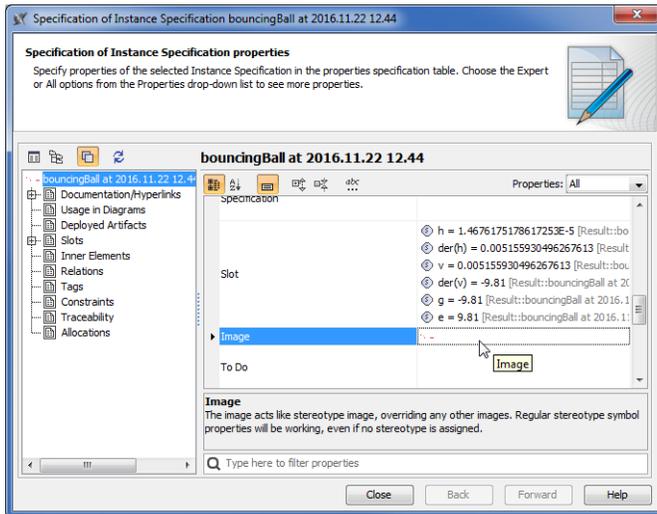
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Saving Plot Results

In CST 18.5, it is now possible to record plot results into a result instance specification as PNG image or comment with CSV values. [Learn more about saving plot results >>](#)



The resultLocation parameter in the SimulationConfig and the recordPlotDataAs option to record plot result on the Time Series Chart.

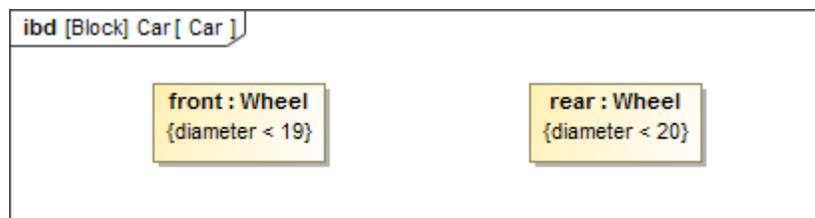


The examples of the plot result recorded as image and CSV respectively.

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Contextualized Constraints

The simulation engine is now capable of interpreting contextualized constraints on parts.



The diagram showing different constraints on 2 usages of the same block.

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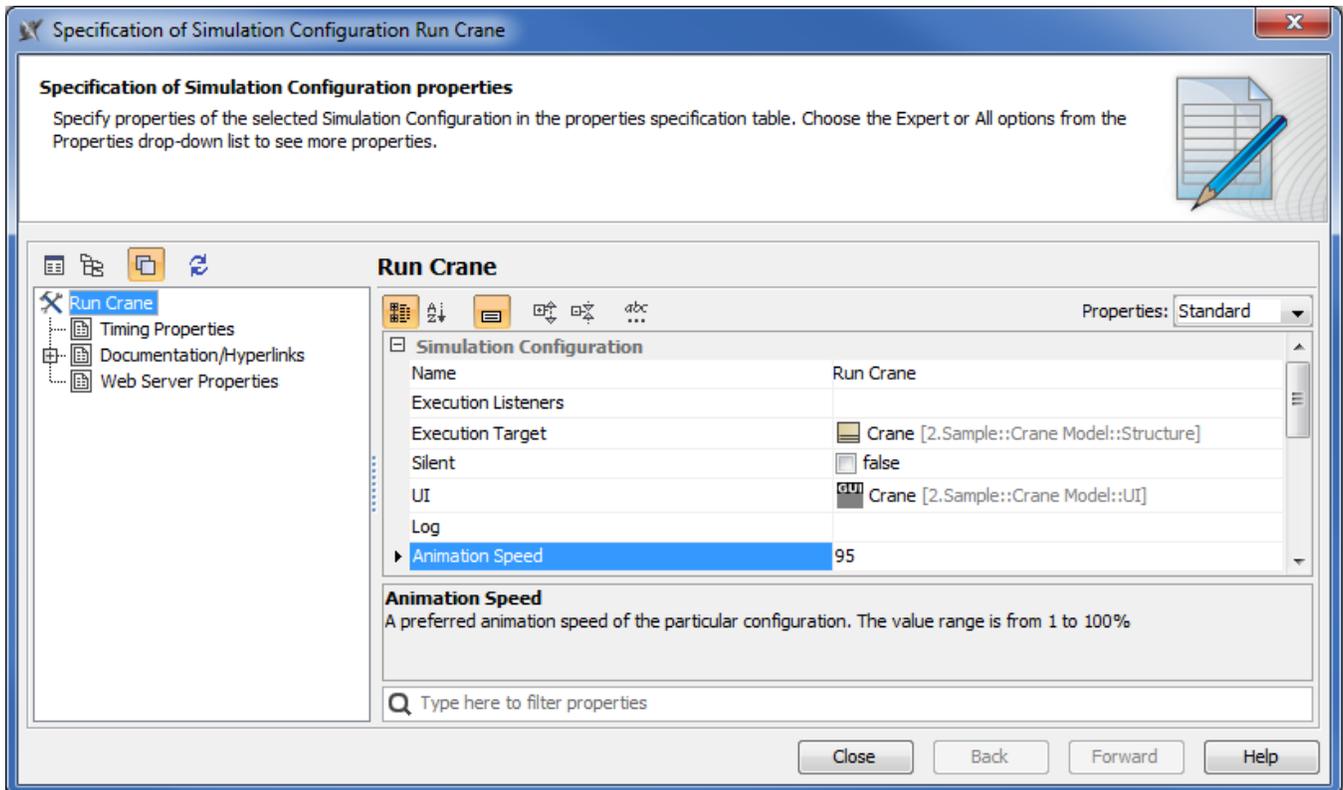
AssociationBlock Support

The 18.5 release of Cameo Simulation Toolkit includes support for AssociationBlocks and their usage as a connector type.

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Default Animation Speed Option

You can now specify your preferred animation speed (0 to 100%) in every config. [Learn more about animation speed option >>](#)



The Animation Speed in the Simulation Config is specified at a default value of 95%.

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