# Watch pane

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In the Watch pane, you can easily monitor selected properties and their expressions with runtime values while debugging. The Watch pane displays a flat list of selected runtime values during model simulation.

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The Watch pane with expressions and their selected runtime values during model simulation.

For any projects with the default Simulation window settings, the Watch pane will be opened by default in the same group as the Variables and Breakpoin ts as the last pane. If you save the project, the Watch pane properties will be kept according to the most recent settings, the same as the Variables and Br

eakpoints panes. Also, you can manually open it by clicking in the Simulation toolbar. This pane contains two columns:

- Name/Expression: When you add a Watch item, it will be shown in this column. Names and expressions can be edited in this column.
- Value: When you add a Watch item, its value will be displayed in this column. The Value can be edited if it represents a value property. It cannot be edited if it represents the result of an expression. The Value column will be highlighted in red or green the same as in the Variables.

at the top-right corner. You can also display the Show Requirement and Show Margin columns and configure filtering by clicking

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The Watch pane with Requirement and Margin columns.

#### Note ∕∿

• If the Simulation toolbar is locked (i.e., in the Monte-Carlo and Trade Study simulation), the Watch pane will be disabled to maximize

You can add Watch items to the **Watch** pane using the following:

- When adding items at runtime, the value is evaluated and updated for all property changes and state changes on each clock tick. However, if
  Variables pane
  Coyourade properties before runtime, the value is not be evaluated until the simulation runs.

- Adding Watch items using the Watch pane
   Select added item to found the value is displayed as "Not found!" in red unless you correct or remove the selected property.
- Internal Block or Parametric Diagrame value is displayed as <blank>.
  - If the added item has multiplicity with <blank>/0 value, the value is displayed as []/[0].

#### Adding Watch items using the Variables pane

To add Watch items using the Variables pane

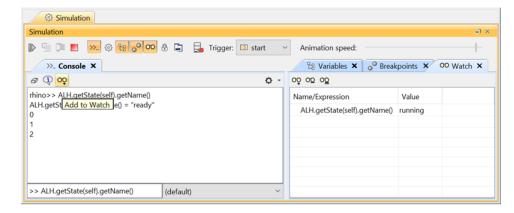
• In the Variables pane, right-click the property you want to add and select Add Watch.

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### Adding Watch items using the Console pane

To add Watch items using the Console pane

- 1. In the input box (>>) of the Console pane, type the properties and expressions you want to add to the Watch pane.
- 2. In the **Console** pane toolbar click . The properties and expressions in the input box (>>) are added to the **Watch** pane. Also, the simulation automatically saves the selected language in the list box.



# Adding Watch items using the Watch pane

To add Watch items using the Watch pane

- 1. Do one of the following:
  - oo • In the Watch pane toolbar, click
  - In the Watch pane, click the first blank row.
- 2. Type the property or expression you want to add.

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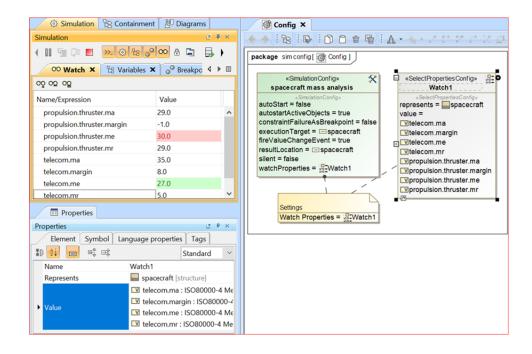
- Note ∕!\
  - You can add the name of a property without using the root object because the context of the Watch pane is the main root context.
  - You can also use Type if the name of a property does not exist (e.g., spacecraft.telecom.ma = 35).

Multiplicity will be shown as a flat list of an array of strings (e.g., *Trade-Study.MaxEfficiency.x* = [0.4761, 0.4761,..., 0.4237]).
 Adding Watch items using the Select Properties Config You can specify an index of *Multiplicity* starting at 1 (e.g., *Trade-Study.MaxEfficiency.x*[1] = 0.4761).

- 1. Create a Simulation Configuration diagram.
- 2. Add a Select Properties Config and Simulation Config to the diagram.
- 3. Set Name, Represents, and Value of the Select Properties Config.
- 4. Set Watch Properties of the Select Properties Config.

Watch Properties will be shown in the Expert & All view mode.

5. When running the Simulation Config, the Watch pane will append the properties populated from Select Properties Config. If there are existing properties, they will not be added to the Watch pane.



#### Adding Watch items using an Internal Block or Parametric Diagram

You can add many properties (value, part, constraint), constraint parameters, and ports to the **Watch** pane directly from an Internal Block or Parametric Diagram.

You can only use this method if the Internal Block or Parametric Diagram context is the same as the simulation context, or if the diagram context is the first level of the simulation context structure.

To add Watch items using an Internal Block or Parametric Diagram

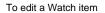
1. Run the simulation.

2. In an Internal Block or Parametric Diagram, right-click a property, constraint parameter, or port, and select Simulation > Add to Watch.

Selection       ibd [Block] Water Heating Element [ Water Heating Element ]         Iools       boiler : Steam Boiler         Iools       boilingTemperature : Real [1]         Common       Enter         Internal Block Dia.       Specification         Part Property       part Property         Part Property       Internal Block Dia.         Constraint Prop       Specification         Constraint Prop       Create Relation         Part Property       Select in Containment Tree         Alt+ B       Select in Structure Tree         Go To       >         Refactor       >         Proxy Port          *       *         Proxy Port          *       *         Delegate Port(s)       Stereotype         Type       Ctrl+T         Multiplicity       >         *       Stereotype         Type       Ctrl+Alt+X)
Add Breakpoint(s)     Remove Breakpoint(s)

# **Editing and removing Watch items**

You can edit and remove any items by selecting the Name/Expression column on the Watch pane.



• Click an item to edit and press ENTER.

To remove Watch items from the Watch pane

• Do one of the following:

• To remove a single Watch item, select the item you want to remove and click

• To remove all Watch items, click

Adding watch items to a new Select Properties Config using the Watch Pane

To add the watch items to a new Select Properties Config using the Watch Pane

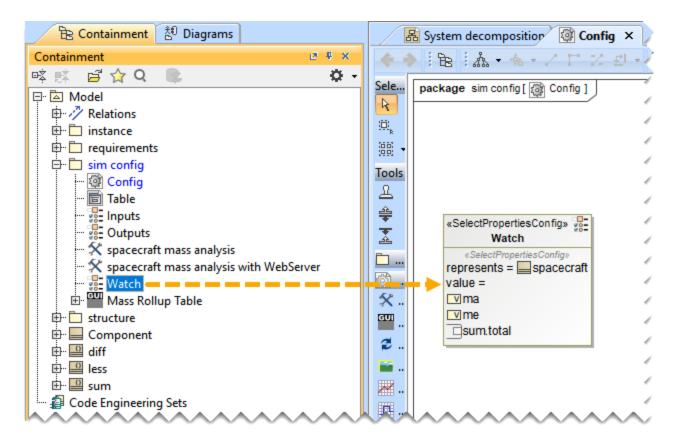
1. In the watch pane toolbar, click

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2. From the Select Owner dialog, choose the package where you want to save the new Select Properties Config with exported properties from a watch pane and click **OK**.

☑ Select Owner
Select, search for, or create an element Type the name representing the model element you are searching for and select matches found in the Tree or List view. For an advanced search, use the exact match,
Search for:
Create by Name     Image: Tree     Image:
Apply Filter ( Ctrl+Space ) V Creation Mode
OK Cancel Help

You can find the exported watch list in the Containment Tree under the selected package.



# Adding new watch items to the existing Select Properties Config using the Watch Pane

To add the new watch items to the existing Select Properties Config using the Watch Pane

• Run the simulation using the Simulation Config with specified Watch Properties and then click specified to update the Select Properties Config specified in the Simulation Config.

It here is no specified Select Properties Config as Watch Properties, a dialog is displayed prompting you to select an existing Select Properties Config.

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The Select Properties Config displays the added properties from the watch list.

