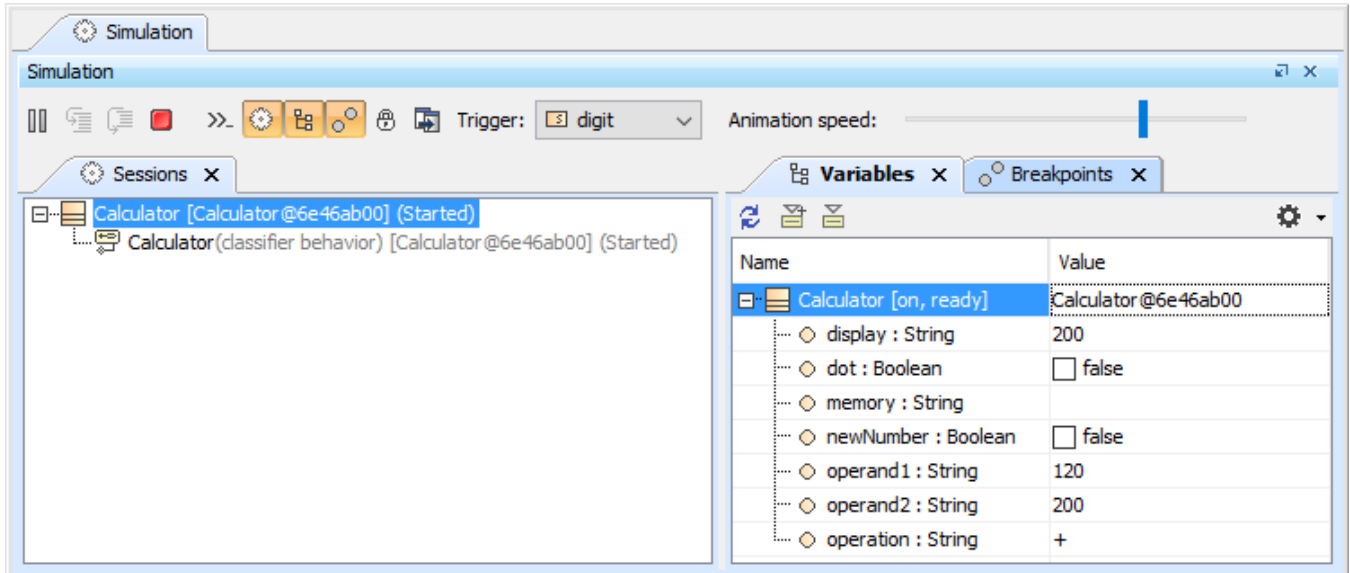# Variables pane

You can select a session in the **Sessions** pane to display the runtime objects and values that correspond to the context element of a selected session in the **Variables** pane.

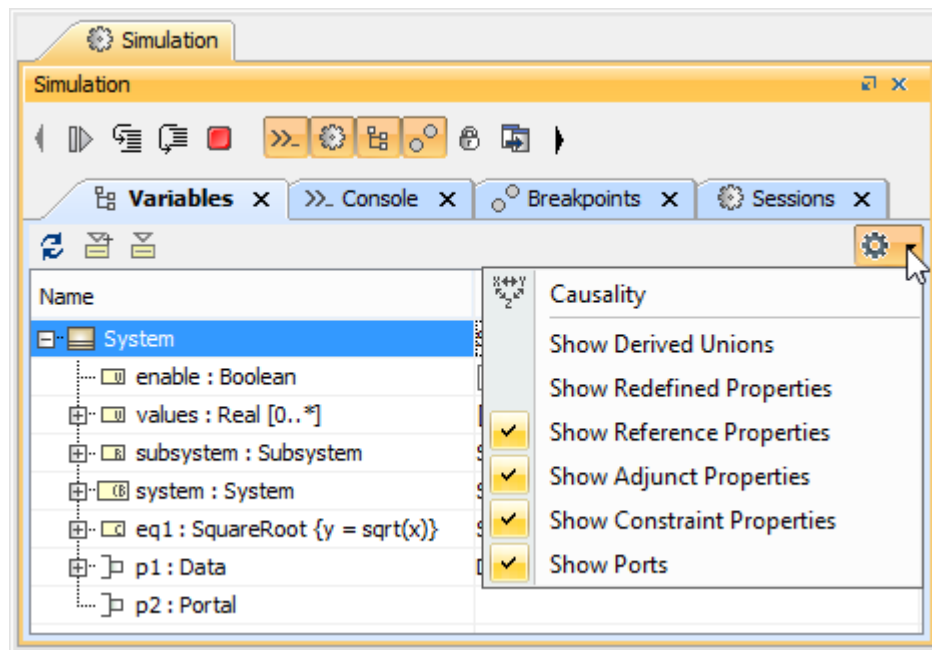The Variables and Sessions panes of a Simulation session.

The **Variables** pane displays the structure of an executing model and the runtime values during the model simulation. This pane contains two columns: **Name** and **Value**. You can also open the Causality column by clicking the **Causality** button.

Column	Description
Name	The **Name** column represents context and structural features of a model being simulated. If the context is a State Machine session's, the current state of the context will be displayed in square brackets. If a structural feature is typed by a Class, which is the context of another State Machine session, the current State of such context will also be displayed in square brackets after the structural feature.
Value	The **Value** column represents the runtime values of those structural features in the **Name** column. A runtime value can be the input or the output of simulation. You can directly edit the runtime values in the Value column if they are of the following types: Boolean, Integer, Real, and String.
Causality	If you click the **Causality** button on the toolbar of the **Variables** pane, the **Causality** column will open on the **Variables** pane. It shows that the value of a property represented in the row is the result of an evaluation (target) or is a given value. You can change the causality of the property if the parametric evaluator supports solving symbolic expressions, e.g., MATLAB with the symbolic math toolbox.

The following table lists the toolbar buttons and functions on the **Variables** pane

Button	Name	Function
⟳	Refresh	To refresh the tree and values in the **Variables** pane.
⊡	Export to New Instance	To create a new InstanceSpecification and export a selected runtime object to a newly created Instance Specification.
⊟	Export to Instance...	To export a selected runtime object to an InstanceSpecification, which is used to create the runtime object, or to an existing InstanceSpecification (see Exporting Runtime Objects to InstanceSpecifications). All of the slot values of the InstanceSpecification will be replaced by the runtime values of the runtime object.

	Options	To show all options that allow you to filter elements and display them in the **Variables** pane. You can select any of the following options • **Show Causality**: to show the **Causality** column. • **Show Derived Unions**: to show Derived unions. Otherwise, they will be hidden. • **Show Redefined Properties**: to show Redefined properties. Otherwise, they will be hidden. • **ShowReference Properties**: to show Reference properties. Otherwise, they will be hidden. • **ShowAdjunctProperties**: to show SysML adjunct properties. Otherwise, they will be hidden. • **Show Constraint Properties**: to show SysML constraint properties. Otherwise, they will be hidden. • **Show Ports**: to show ports. Otherwise, they will be hidden. Each option will be available only when the simulating model contains such kind of the element to be filtered.

The Options for displaying filtered elements.

⚠️ **Note**

Related page

- Exporting runtime objects to InstanceSpecifications