

Value access and references by tags

Cameo Simulation Toolkit supports accessing [tag](#) elements by names in script evaluated from that model element. All tags will be added as variables to that model element where the script is evaluated through an Opaque expression (default language). Other variables with the same name referred to by tags will be overwritten with the values of the Tags, e.g., the default value of a Distributed property can be initialized from calculating the *min* and *max* variables as shown in the figure below.

The screenshot displays the Cameo Simulation Toolkit interface. On the left, a tree view shows the model structure: Model1, Block «Block», dp «Block», Relations, normal : Real = mean - standardDeviation, uniform : Real = (min + max) / 2 «Uniform», basic : Real «BasicInterval», interval : Real «Interval», and min : Real = 5.0. The 'Tags' window is open on the right, showing a list of tags: uniform : Real = (min + max) / 2, Usage in Diagrams, Documentation/Hyperlinks, Inner Elements, Relations, Connectors, Tags, Constraints, Traceability, and Language Properties. The 'Tags' window also shows a profile view for the selected tag, displaying its structure and values: max = 10.0 and min = 0.0. Below the 'Tags' window, a console window shows the following commands and results:

```
rhino>> ALH.getTagValue(d,"uniform.max")
ALH.getTagValue(d,"uniform.max") = 10.0
rhino>> ALH.getTagValue(d,"uniform.min")
ALH.getTagValue(d,"uniform.min") = 0.0
```

At the bottom left, a table lists the values of various variables:

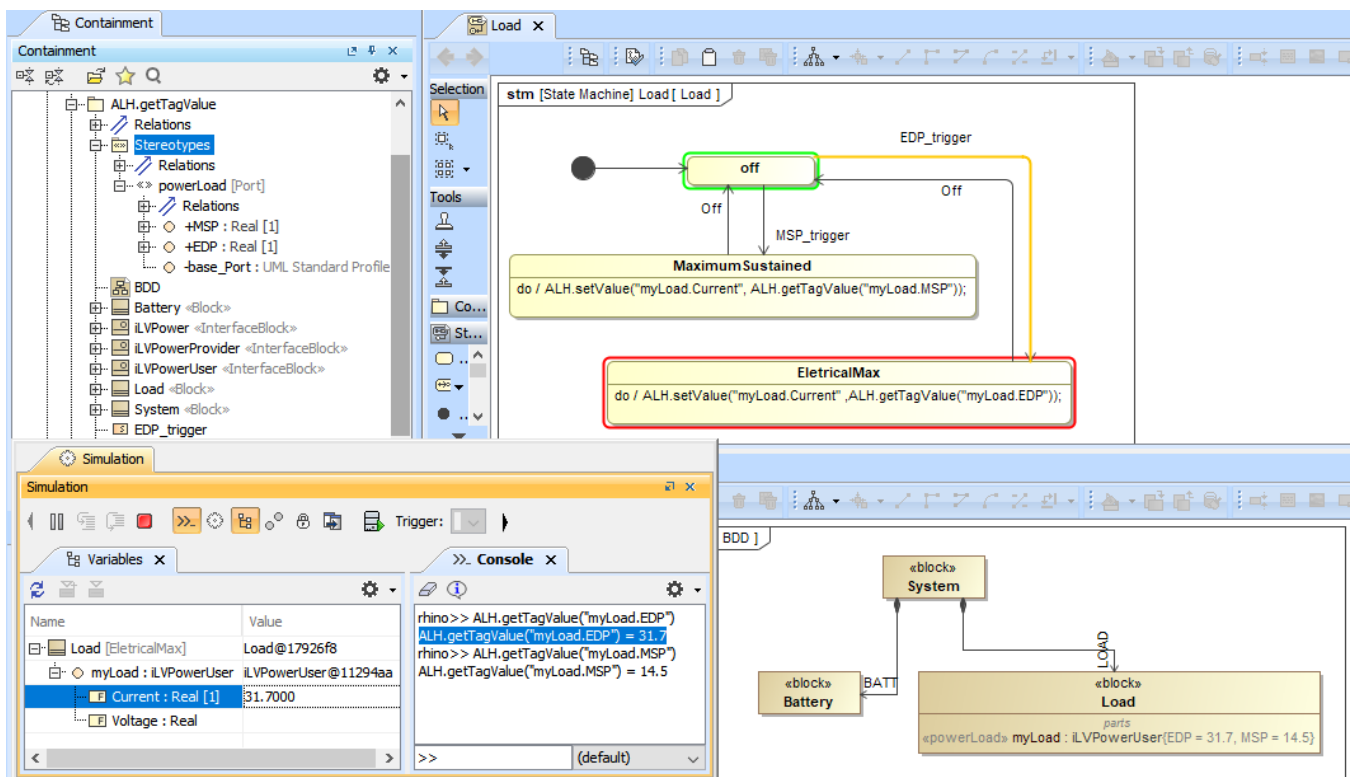
Name	Value
System	System@15e23e5
d : dp	dp@1a64895
basic : Real	7.8408
interval : Real	2.0590
min : Real	20.0000
normal : Real	8.0000
uniform : Real	5.0000
value1 : Real	

Default values are calculated from the min and max tags as variables.

You can get any tag values by using names through console with the following command:

```
ALH.getTagValue(StructuredValue runtimeObject, String tagName)
```

You can also run the command without the runtime object even if no runtime object is provided, e.g., `ALH.getTagValue(String tagName)`, as shown in the following figure.



Running ALH.setValue() and ALH.getTagValue() without runtime objects.