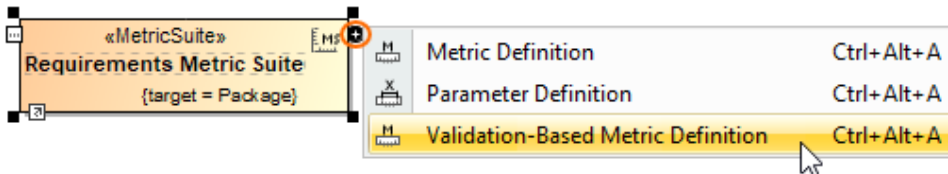# Building validation-based metric definitions

A validation-based metric definition is an attribute of a Metric Suite with the «ValidationBasedMetricDefinition» stereotype applied. In this attribute, you can specify a predefined validation rule for calculating metrics according to parameter values.

This chapter explains how to build a validation-based metric definition.

To build a validation-based metric definition

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1. Select the shape of a Metric Suite, click the smart manipulator on the shape, and select **Validation-Based Metric Definition**. An attribute with the «ValidationBasedMetricDefinition» stereotype is created.



2. Type the name of the attribute directly on the shape and then click a free space on the diagram.



3. Select the newly created validation-based metric definition on the Metric Suite shape and click ⬚.
4. Select the type of the result values that should be calculated according to the validation rule specified in the validation-based metric definition.

> 🚫 **Specifying a result type**
> This step is mandatory. A validation-based metric definition must have a result type, e.g., Real or Integer.

5. Open the Specification window of the validation-based metric definition.
6. Select the specification cell of the **Validation Rule** property and click ⬚.
7. In the **Select Constraint** dialog, select the validation rule that will be used to calculate metrics. Click **OK**.
8. Select the specification cell of the **Metric Type** property. In the drop down list select the type of the metric you want to calculate.
9. Optionally, select the specification cell of the **Failing Elements Definition** property and enter the name of the menu item that displays failing elements according to the validation rule selected in step 7.

> ✅ **Displaying failing elements**
> To find the menu item that displays failing elements, right-click the Metric Table cell displaying the metric according to the selected validation rule. By default the menu item is **Display Failing Elements**, unless you give it a different name as described in step 9.

The validation-based metric definition for a Metric Suite is now specified and you can start calculating Metrics by using a Metric Table.

Related pages

- Metric Suites
    - Adding a new Metric Suite
    - Specifying the target for a Metric Suite
    - Specifying parameter definitions
    - Building metric definitions
    - Specific use cases