How to draw a Requirement Diagram

A SysML requirement diagram enables you to visualize any kind of requirements of your system, both functinal and non-functional. You can also visualize the inter-relationships between requirements. By using SysML requirement diagram with UeXceler, you have a complete set of system requirements that involve the business goal, the user stories that describe user problems/concerns and the requirements to address the problems.

Creating requirement diagram

1. Select **Diagram > New** from the application toolbar.
2. In the **New Diagram** window, select **Requirement Diagram**.
3. Click **Next**.
4. Enter the diagram name and description. The **Location** field enables you to select a model to store the diagram.
5. Click **OK**.

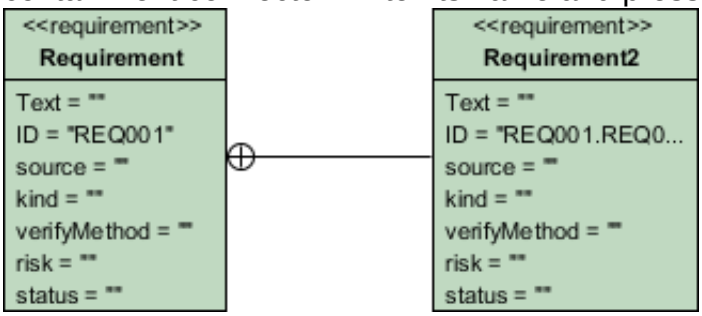
Creating requirement

To create a Requirement in a SysML requirement diagram, click the **Requirement** button on the diagram toolbar and then click on the diagram.

Decomposing requirement

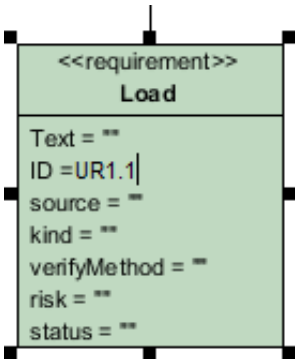
To decompose a Requirement in a SysML requirement diagram:

1. Move your mouse pointer over the requirement.
2. Press on the **Resource Catalog** button at top right and drag it out.
3. Release the mouse button at the place where you want the decomposed requirement to be created.
4. Select **Containment -> Requirement** from Resource Catalog.
5. A new requirement will be created and is connected to the source requirement with a containment connector. Enter its name and press **Enter**to confirm editing.



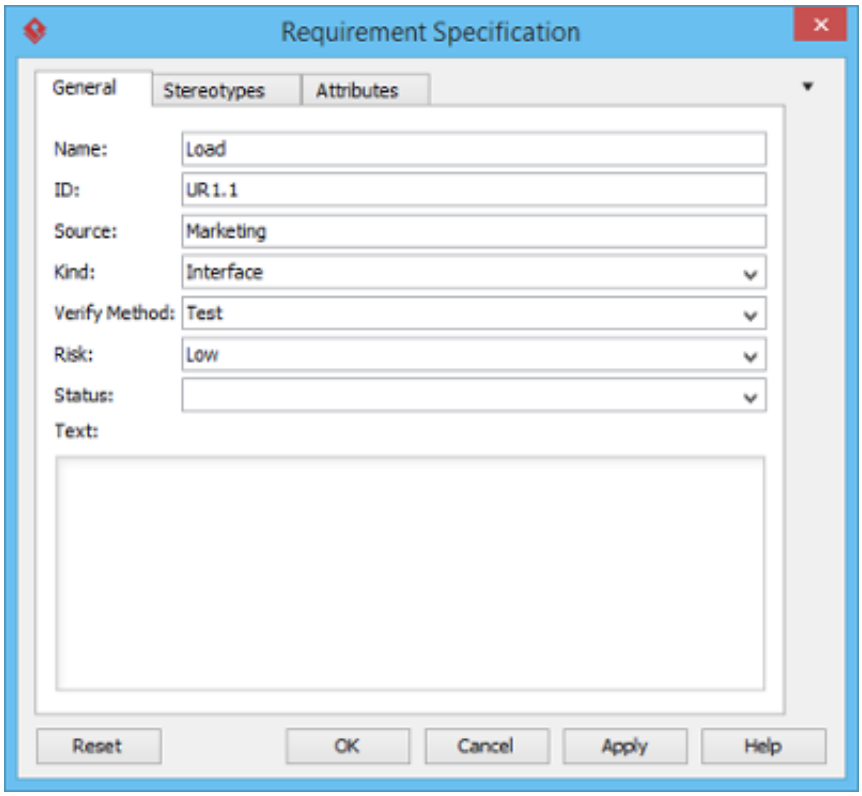
Inline editing requirement properties

To inline edit the property of a Requirement (e.g. ID), double-click on the property, enter new value and press Enter to confirm.



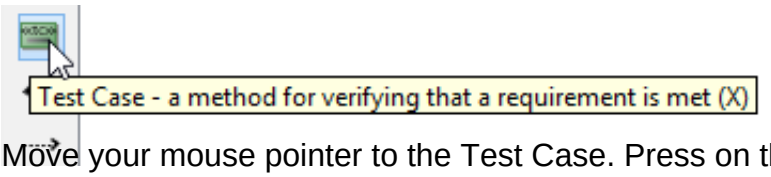
Editing requirement properties with specification window

You can edit the properties of a requirement through the specification window. To open the window, click on the tiny magnifier icon at the top right of a Requirement shape.



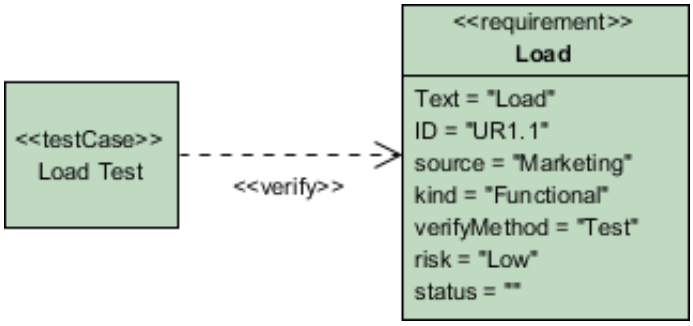
Creating test case and link to requirement

A test case describe the possible scenarios for testing a requirement. To create a Test Case, click the **Test Case** button on the diagram toolbar and then click on the diagram.



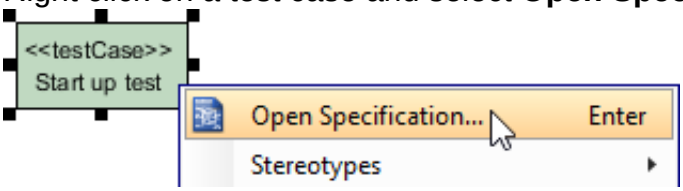
Move your mouse pointer to the Test Case. Press on the **Resource Catalog** button at top right

and drag it out. Move the mouse pointer over a Requirement and then release the mouse button, a Verify relationship will be created from the Test Case to the Requirement.



Documenting test case

1. Right click on a test case and select **Open Specification...** from the popup.



2. In the **Test Plans** tab, fill in the **Steps**, **Procedures** and **Expected Results**.