Creating new diagram type

The **Customize Diagram Wizard** contains the following steps for creating a new diagram type or modifying a chosen one.

All Custom Diagrams are based on standard UML diagrams (like Class, Use Case, Sequence, and other).

Step 1: Specify diagram type and icon

To create your own diagram, first specify the following properties

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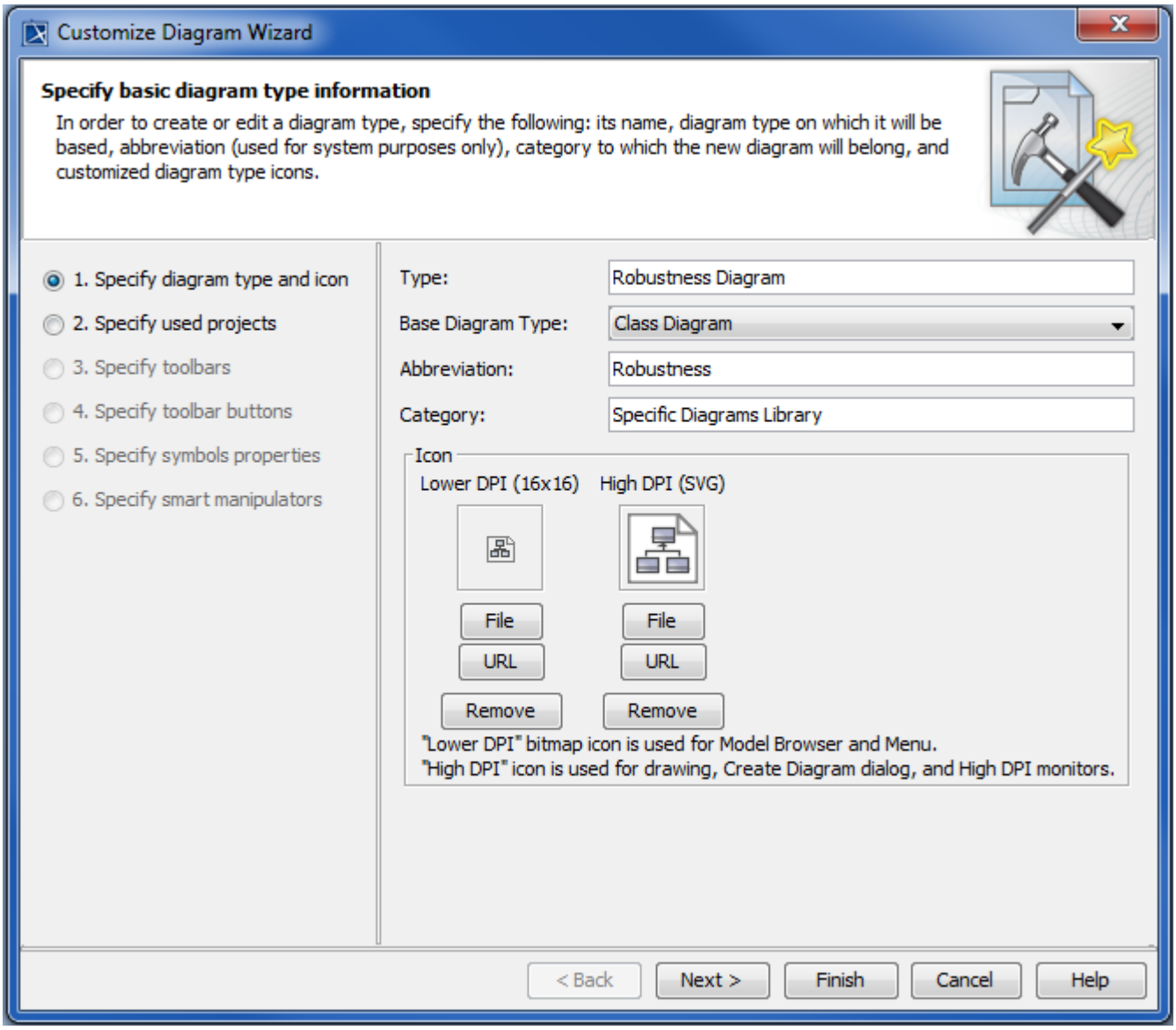
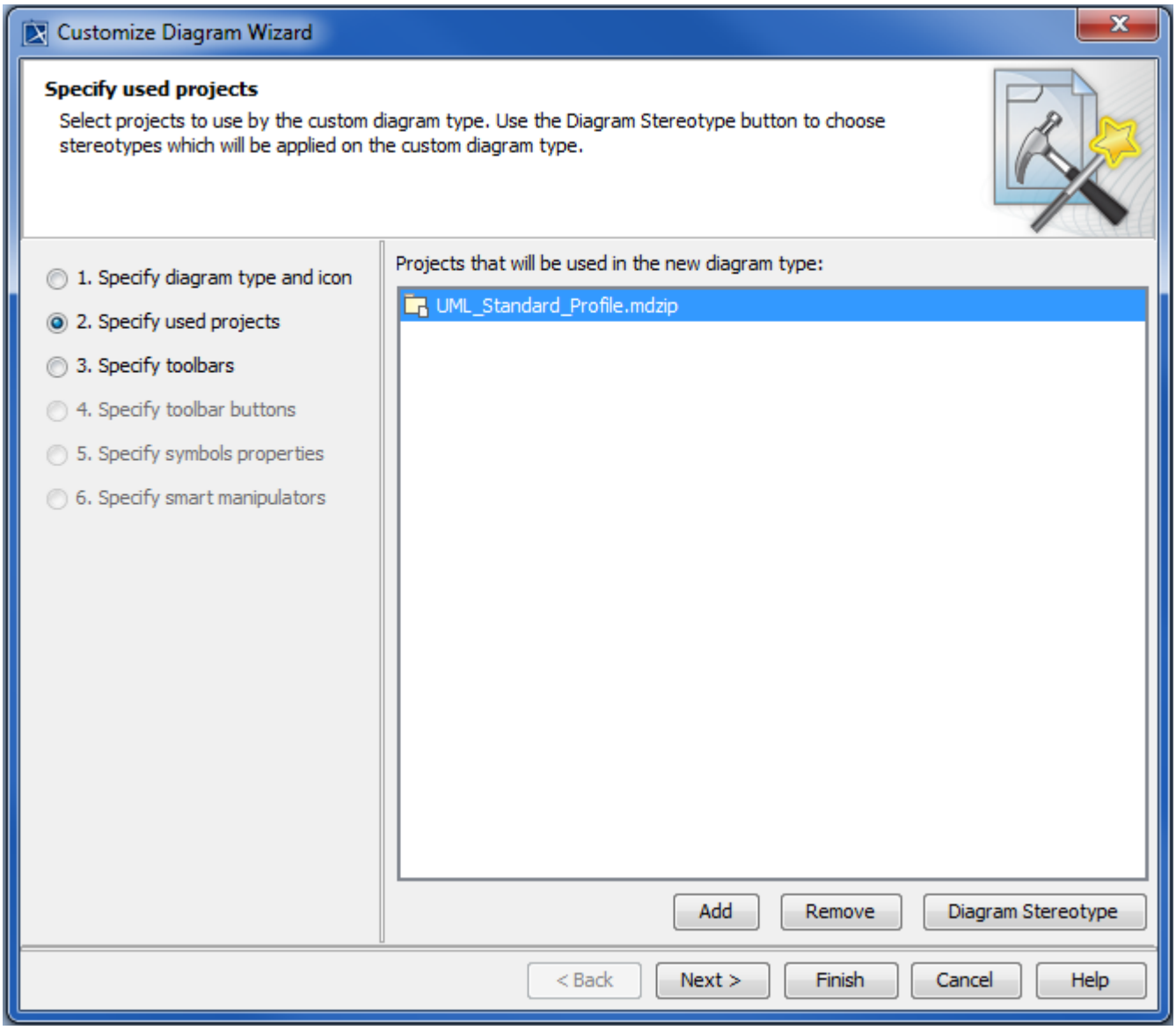
- Diagram type name (for example, Robustness Diagram).
- Base Diagram Type – standard UML diagram to be extended. All configurations, semantics, and other settings will be inherited from this diagram type.
- Abbreviation – a short form of the diagram name. It will be used in Diagram Frames header or Diagram shapes in Content diagrams.
- Category – creates your specific category in the **Diagrams** menu or in the **Create Diagram** command list. You can store all your customized diagrams in this category. If you leave this field empty, the customized diagrams will be added to the **Custom Diagrams** category.
- Help ID – help web page.
- Icons – several icons for your custom diagram representation in MagicDraw GUI.



Step 2: Specify used projects

Custom Diagrams are oriented to a new specific domain, technology or platform, and are often based on a custom profile.

Select the required used projects or profiles.



Do not remove the UML Standard Profile, which is selected by default, from the list. It must be used by any custom diagram type.

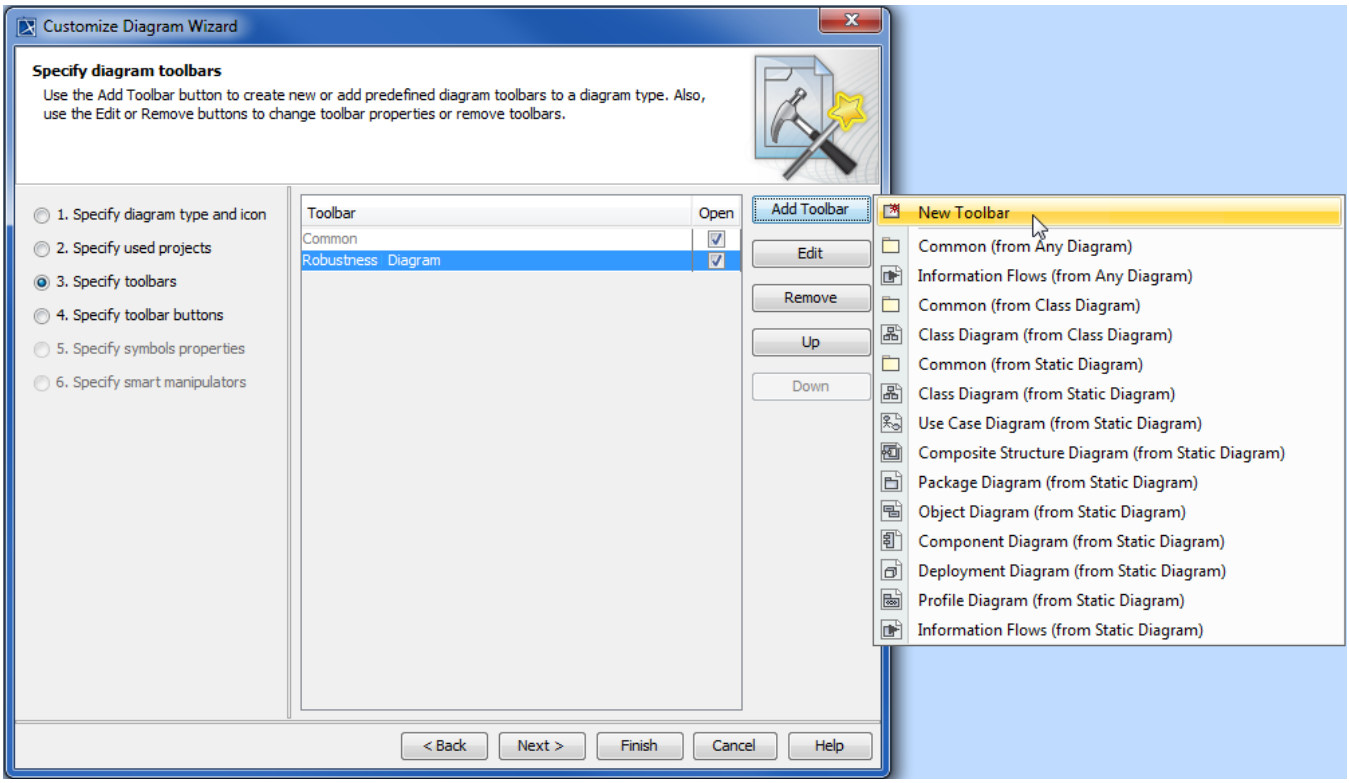
The custom diagram could use stereotyped elements. Profiles defining these stereotypes must be used by the custom diagram. The selected used projects or profiles load when a user creates a custom diagram in a project. You can choose a stereotype for the diagram by clicking the **Diagram Stereotype** button.

Step 3: Specify Toolbars

Every diagram differs by the elements used in them. In the **Specify toolbars** step, you can group standard or custom elements.

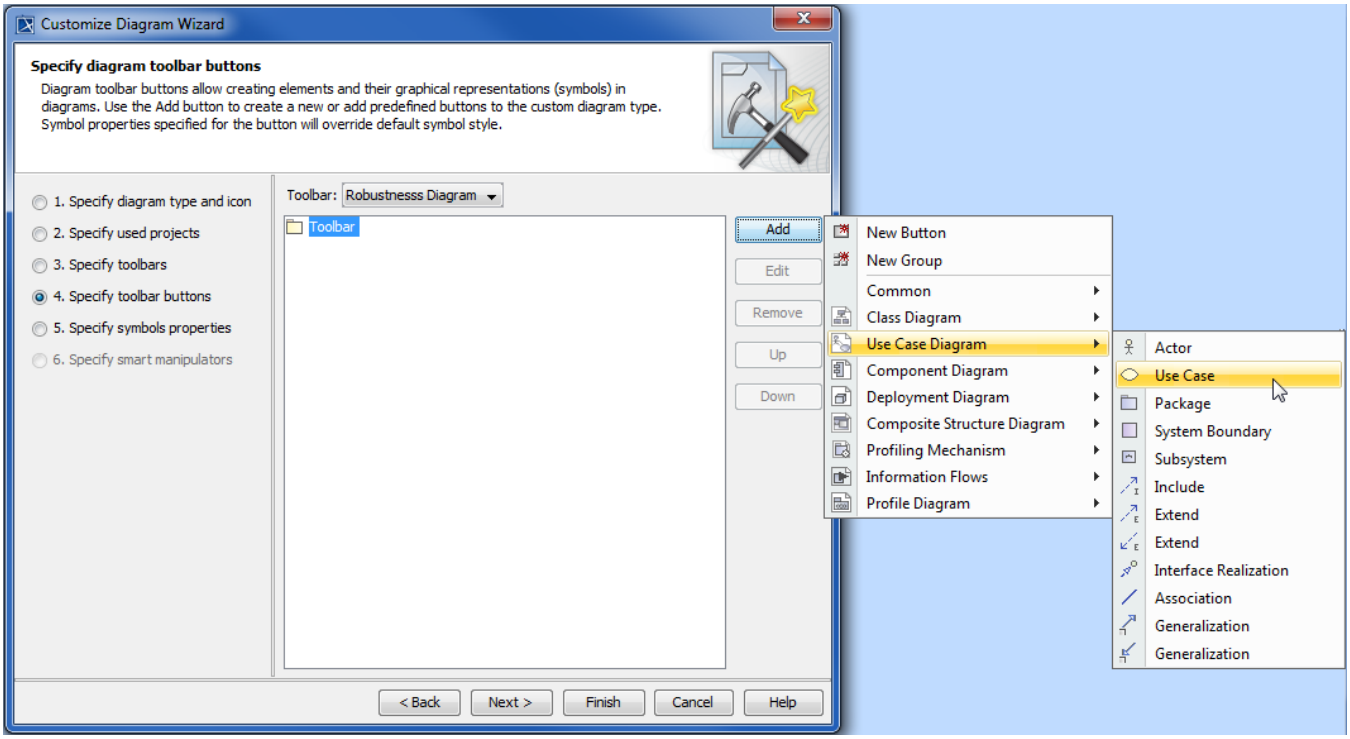
You can:

- Create your own custom diagram toolbar.
- Create your own toolbar, name it, and select an icon.
- Choose standard toolbars that will be visible in your diagram.
- Select existing toolbars inherited from the base diagram type.
- Arrange the order of toolbars by using "Up" and "Down" buttons.
- Select which toolbars will expand or collapse by default (use the **Open** check box).



Step 4: Specify Toolbar Buttons

Select standard or stereotyped elements for your custom diagram toolbars.

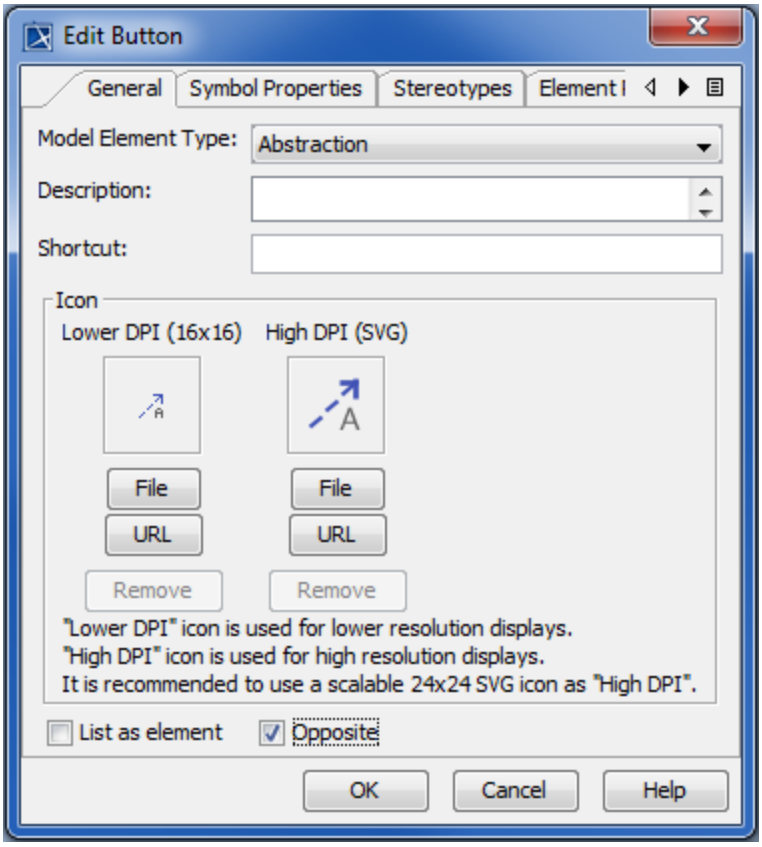


Click **Add** and select standard UML elements or click **Add** and then **New Button** to create your own buttons to create customized or stereotyped elements.

Customize the following properties when creating a new button:

- Model element type
- Custom icon for a button
- Shortcut that activates the button

- Tooltip description
- Stereotype(s) to apply to the created element
- Symbol style – selected symbol properties will be used only when the element is created using this button
- Default values for some primitive model element properties (like isAbstract = true or similar)



- List as element – select this check box to add the button as a command in the **Create Element** command list.
- Opposite – this check box is only available for relationship buttons. Select it to add the opposite relationship button.

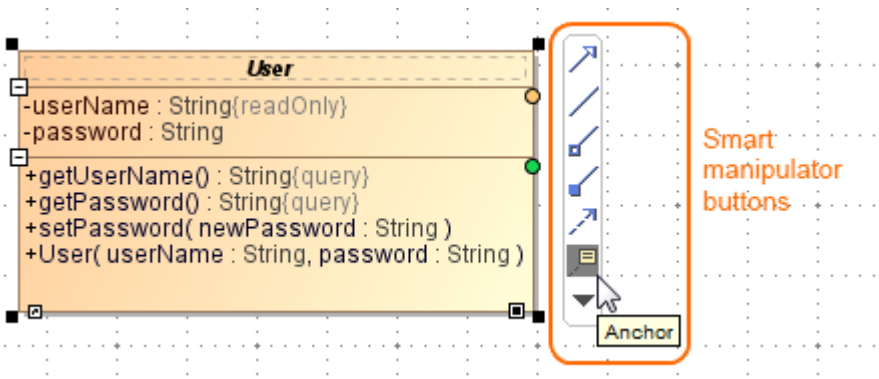
Step 5: Specify Symbol Properties

This step allows you to customize the style for any element appearing in your custom diagram (e.g. a class dropped in your diagram should be suppressed and red).

You can change the appearance of standard symbols, symbols of stereotyped elements, and the custom diagram itself. The customized element style will be used only in the appropriate custom diagram type.

Step 6: Specify Smart Manipulators

Smart manipulators are special buttons that appear in the pop-up window when a shape or path is selected on a diagram.



Example of smart manipulator

You can configure the kind of relationship suggested when a custom shape or path is selected on a diagram.

There are three main sub-steps:

1. Create a new configuration (or modify an existing one). Select the element to customize. The smart manipulators configuration can be related to:
    - Element, displayed as [Element name]
    - Element + stereotype(s)
    - Symbol, displayed as {Symbol name}
    - Symbol + stereotype(s)
    - Stereotype(s), displayed as «Stereotype name»
2. Select suggested relationships for the selected configuration.
3. Select target elements for the selected relationship.

If several configuration settings could be applied to the same selected element on the diagram, only one configuration will be used according to this priority**:**

#	**Configuration**	**Comment**
1	Symbol + stereotype(s)	When stereotype(s) for symbol applied
2	Stereotype	
3	Symbol	
4	Element + stereotype(s)	When stereotype(s) for element applied
5	Element	

If several configurations are created for a few stereotypes (for example, Stereotype1 and Stereotype2) in the same diagram, when both stereotypes are applied to one symbol on that diagram pane, the first configuration (in this case, Stereotype1) is used, unless you specify a symbol+ stereotype(s) configuration.

Inheritance of configurations

All diagrams inherit their configurations from a base diagram (example: in this hierarchy: Any diagram > Static diagram > Class diagram > Generic DDL diagram).

If you add a new configuration to a class diagram (for example, Symbol A + stereotype B), the configuration will be used in the generic DDL diagram, as the class diagram is its base diagram. Any static diagrams will not have such configurations.

To change the configuration from the base diagram type

- From the **Configurations** list, select the configuration by the element type and choose the **Specify own configuration** button. This overwrites the inherited configuration.