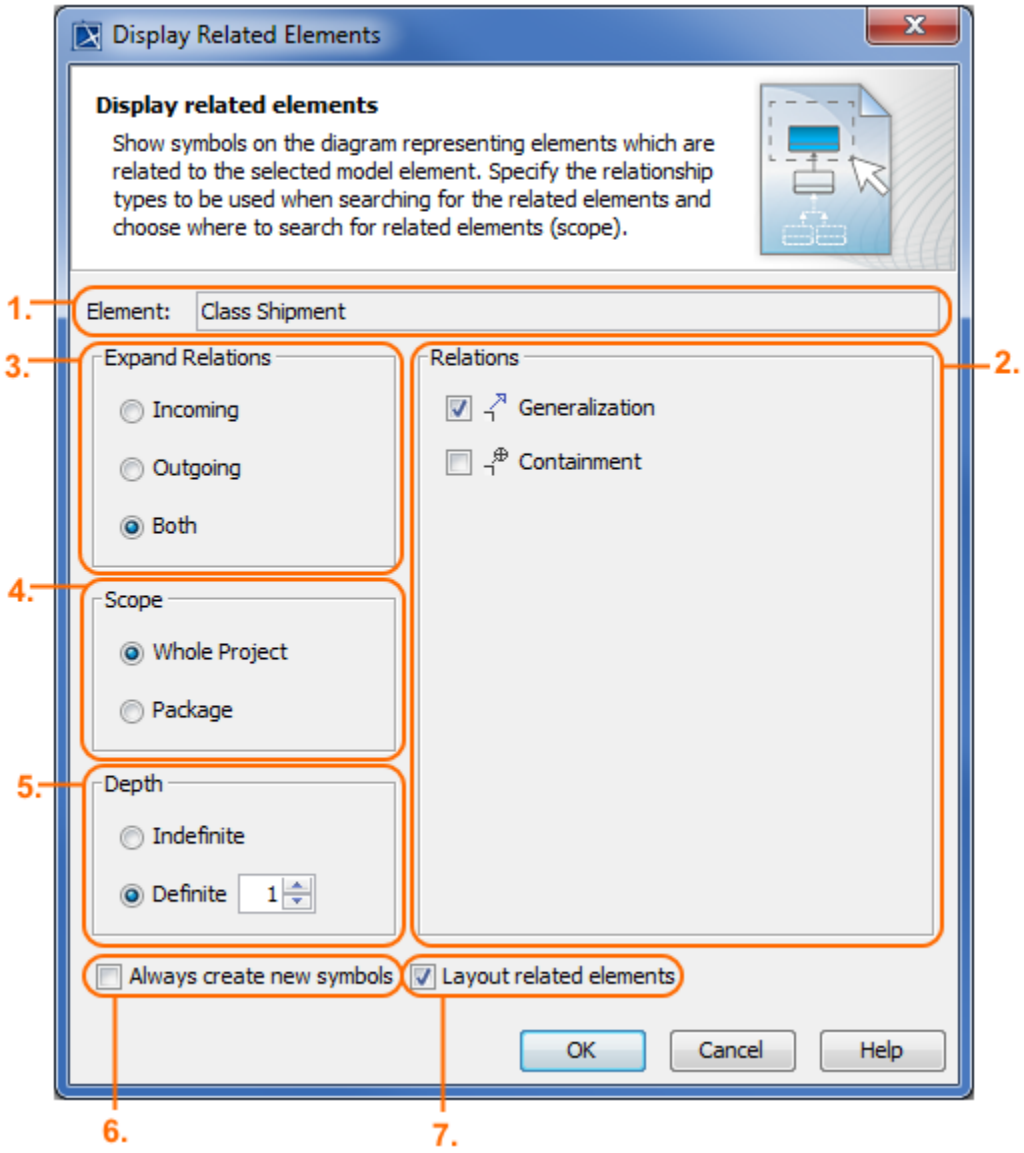
Displaying related elements

When trying to extend your model or visualize additional elements on the diagram pane, you can represent symbols that are related to a selected symbol via relationships.This functionality allows for displaying shapes and paths among those shapes which have already been created in the model.

After selecting the **Display Related Elements** command, the **Display Related Elements** dialog opens. This dialog consists of the following sections (see the figure below):

- *Element* box (1) shows the name of the selected element shape of which you are going to display its related elements.
- *Relations* area (2) lists all relationship types which connect the selected element shape with other elements.
- *Expand Relations* area (3) allows you to select the direction of the relationships which you want to display on the diagram pane.
- *Scope* area (4) allows you to select the search scope of the elements related to the selected element.
- *Depth* area (5) allows you to specify the search range for the selected relationships.
- Always create new symbols option (6) allows you to create a symbol even if a related element already has a symbol in the diagram.
- *Layout related elements* option (7) lays out new symbols by using the default diagram layout.



The following procedure will guide you through using the **Display Related Elements** command and dialog when you want to represent all related elements via selected relationship types of the selected shape on the diagram pane. The functionality works for the entire diagram, single shapes, or numerous selected shapes.

To display related elements

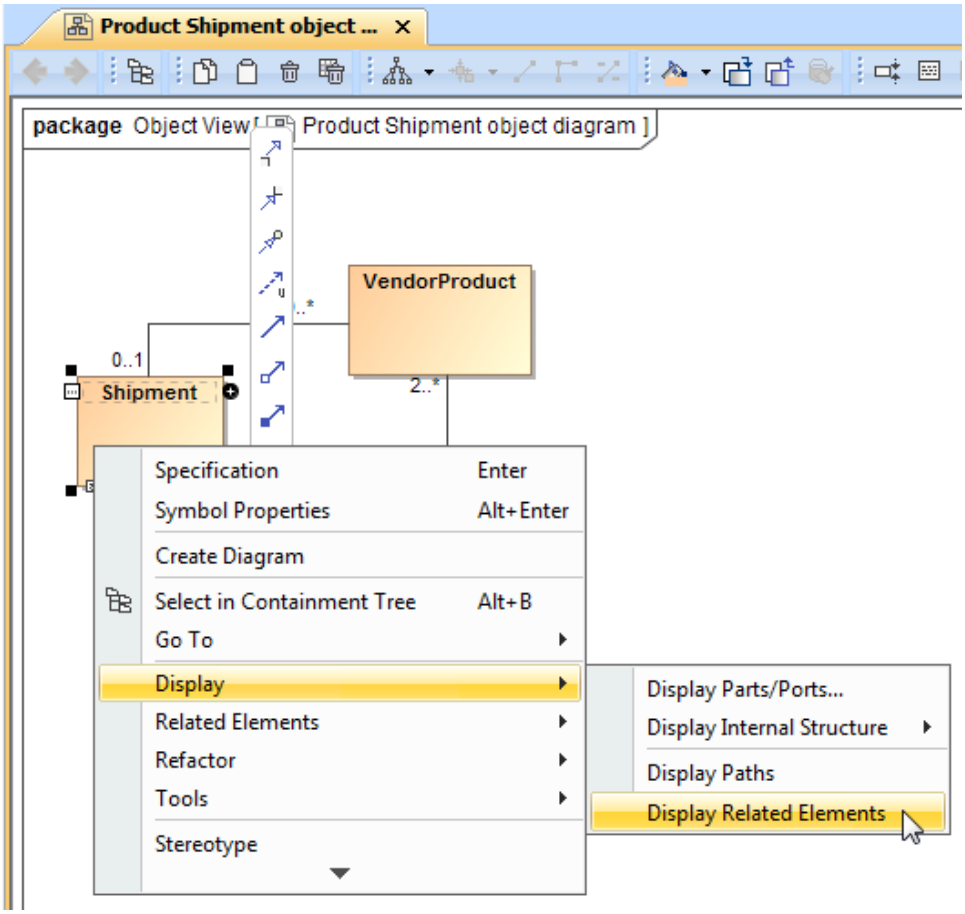
---

1. Select a diagram frame or any number of shapes on the diagram pane.
2. Open the **Display Related Elements** dialog in one of the following ways:

- Right-click to open the shortcut menu, and select **Display** > **Display Related Elements**.
- On the diagram toolbar click , and select **Display Related Elements**.
- On the main menu, click **Analyze** > **Display Related Elements**.

> **Important**
> The **Display Related Elements** dialog cannot be opened if the selected element shape or diagram doesn't contain any related elements.

A quicker way to display related elements of the selected shape is to use its shortcut menu, and select **Display** > **Display Related Elements**. The example below demonstrates the shortcut menu of the Class named *Shipment*. It is showing the need to display related elements of the *Shipment* Class in the *Product Shipment object diagram*.



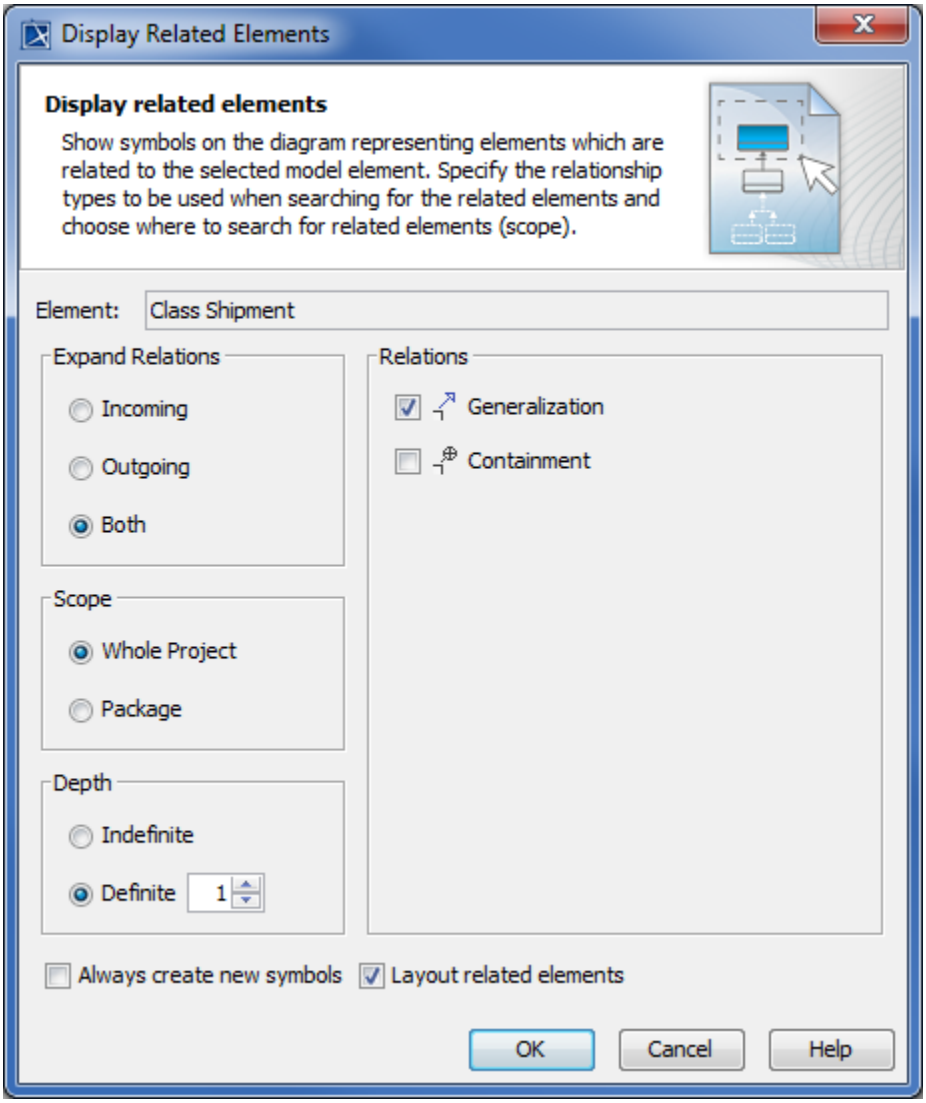
3. In the opened dialog, specify:
   - In the Relations area (2), select check boxes of the listed relationship types.
   - In the Expand Relations area (3), select the direction of the relationships:
     - **Incoming** - in which the element participates as client.
     - **Outgoing** - in which the element participates as supplier.
     - **Both-**in which the element participates as both client and supplier.
   - In the Scope area (4), choose the location in which the related elements should be found:
     - **Whole Project** - search in the whole model.
     - **Package** - search in the package under which the selected element is created.
   - In the Depth area (5), select the search range for the relationships:
     - **Indefinite** - search for all possible relationships.
     - **Definite** - search for a specified level of relationships.
4. Select the check box of the **Always create new symbols** option to create a symbol even when the related element already has a symbol displayed on the diagram pane.
5. Select the check box of the **Layout related elements** option to layout new symbols by using the default diagram layout.

> **Note**
> The position of the selected element shape can be changed after selecting the **Layout related elements** check box.

For example, if you would like to display all related elements of the *Shipment* Class that are connected through the Generalization relationship, you can find them according to the following criteria:

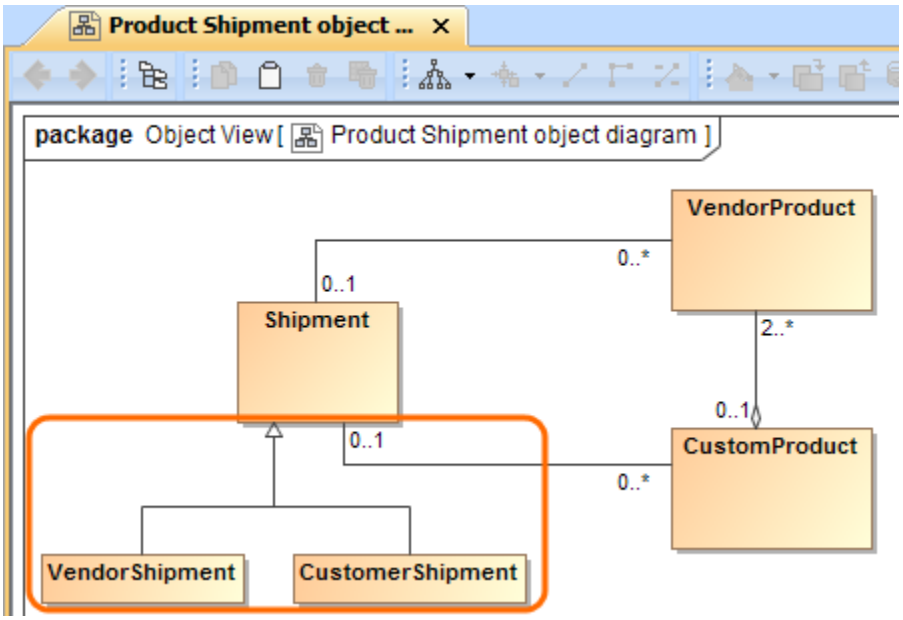
- The direction of the generalization relation is both incoming and outgoing.
- The related elements to be searched for are in the whole project.
- The search depth of the relationship is one level.

If you want to layout related elements after the display, but don't want to create new symbols which are already displayed in the *Product Shipment object diagram*.



6. Click **OK**.
According to the specified relationship type, scope, depth, direction, layout, and creation options, all related elements of the selected shape are represented as shapes and paths on the diagram pane.

After opening the **Display Related Elements** dialog (Example 1), and defining the search criteria in it (Example 2), two Classes (*VendorShipment* and *CustomerShipment*) related with the Shipment Class via the Generalization relationship are displayed on the *Product Shipment object diagram* pane. The figure below is the result of following the steps described in Example 1 and Example 2.



Related pages

- Displaying elements
- Layout
- Displaying related elements in the diagram (Open API)

Sample model

The model used in the figures of this page is the **Inventory Control System** sample model that comes with MagicDraw. To open this sample do one of the following:

- Download Inventory Control System.mdzip.
- Find in modeling tool *<modeling tool installation directory>\samples\case studies\Inventory Control System.mdzip*.