Using Metachain Navigation

On this page:

Metachain operation is one of the operation types used to specify criteria for querying models. Use the **Metachain Navigation** operation type when specifying indirect (multi-level) relations between elements through chains of properties.
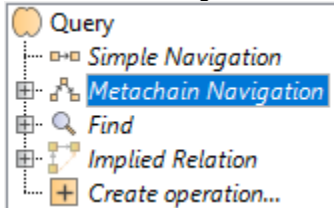
⚠️
- Metachains allow you to search for indirectly related elements, although they do not support loops and recursive relations.

- Please note that the Metachain Navigation operation returns a set.

Specifying a Metachain Navigation operation as criteria

To specify a Metachain Navigation operation as criteria

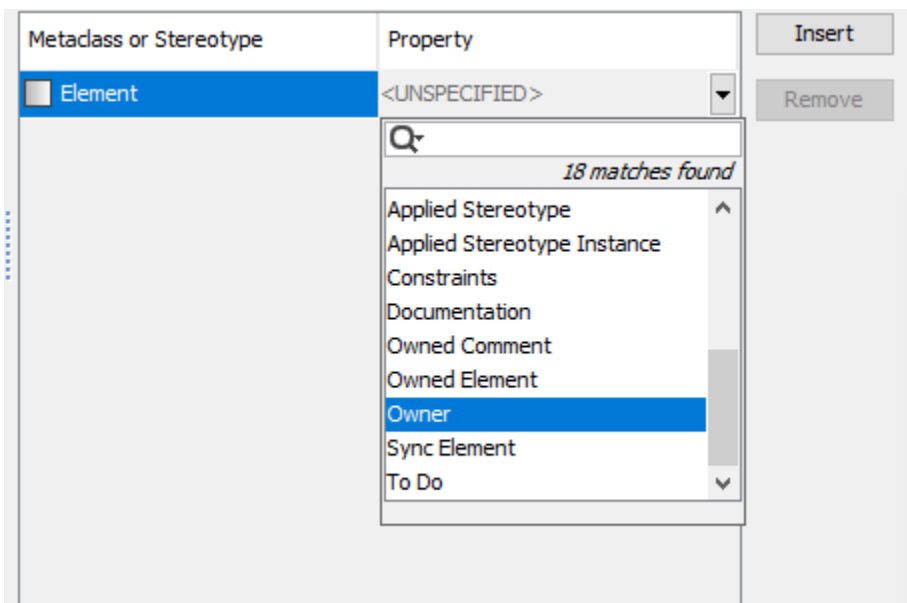1. Click **Metachain Navigation** on the left side of the dialog box.

2. Change the name of the operation, if needed.

3. Click [....] to set a style that represents the specified metachain navigation symbol.

   ⚠️ The Style option is only available in Dependency Matrices and Relation Maps.

4. Click the **Insert** button to create a new step of the metachain. A new row is added to the list in which you need to specify a metaclass or a stereotype as well as a property or an operation.

5. Repeat the previous step to create as many steps of the metachain as you need for specifying the criteria.

   ⚠️ To remove a step from the metachain, click the **Remove** button.

   To create another Metachain operation, click **Create operation** > **Metachain Navigation**.

⚠️

In the table below you can see the options that can be specified for Metachain Navigation.
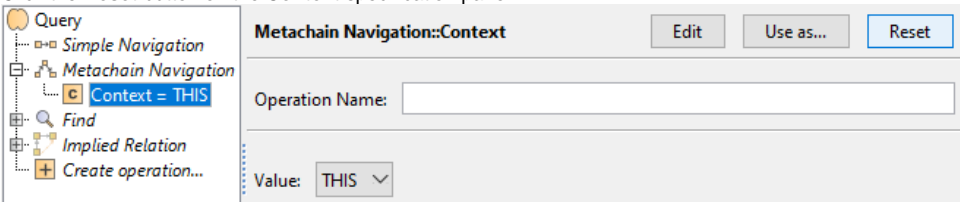
Option	Description
Metaclass or Stereotype	Either a metaclass or a stereotype of a metachain step (see the image below). The first step, when created, already has a metaclass or a stereotype selected by default. This value is the context element type. The default metaclass or stereotype of the first step can be changed. The second step and all further steps are more specific: the values suggested for selection are limited according to the values selected in the first step since you will not be able to add a new step until the current step is not specified.
Property	A property or operation of the selected metaclass or stereotype.
Unique	Only one identical element will count as the result if the check box is selected. **Note**: the option is unavailable if Simple Navigation is nested directly under the root union. In such a case, the root union controls the uniqueness. ✅ The option is especially important to return non-unique numeric values to correctly execute mathematical operations (such as Sum).

Advanced Manipulations

Changing the Contextual element of a Metachain Navigation criterion

To change the Contextual element of a Metachain Navigation criterion

1. On the left side of the dialog box, expand the **Metachain Navigation** criterion and select the **Context** parameter.
2. Click the **Reset** button on the **Context** specification panel.

The value of the **Context** parameter becomes null.
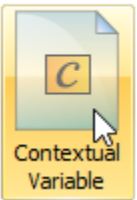3. Select a new context from the list of operations and element types.

> ℹ️ **Information**
> To restore the original context, expand the **Other** group, and click **Contextual Variable**.

Using the ... Navigation operation as a parameter of another operation

To use the ... operation as a parameter of another operation
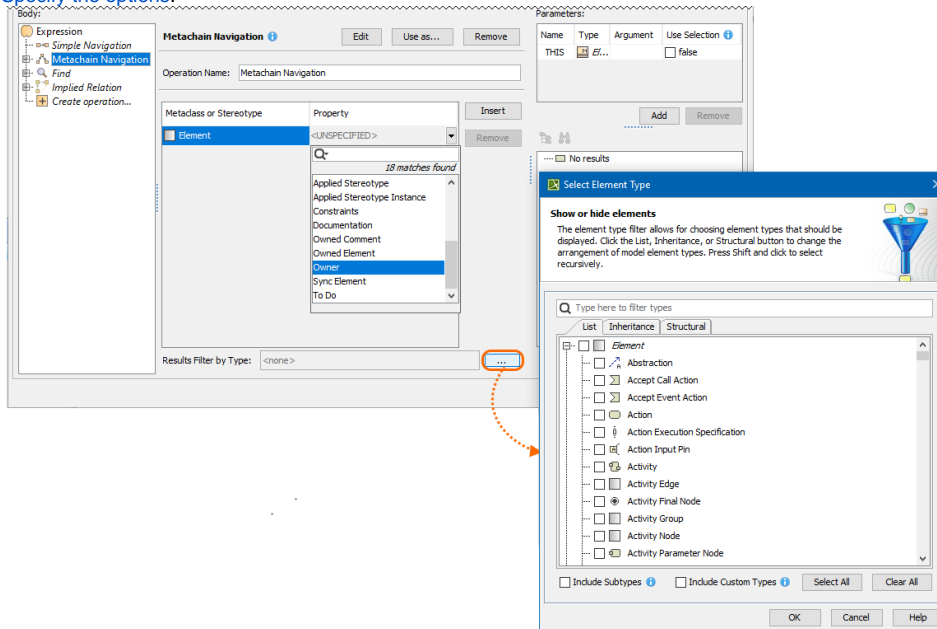
1. On ... **Metachain Navigation**.
2. On ... the **Use as** button, and select the appropriate command.

3. Specify other parameters of the new operation.

Filtering results by type

To filter results by type

1. Next to the **Result Filter by Type line**, click the button. Select Element Type dialog opens.
2. Select the element types.
3. Specify the options.

Related pages

- Selecting element types
- Specifying criteria for querying model
  - Getting started with specifying criteria
  - Using Simple Navigation
  - Using Find operation
  - Using Implied Relations
  - Creating new operations
    - Calling operations from the model
    - Creating script operations