# **Using Metachain Navigation**

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- Advanced Manipulations
  - Changing the Contextual element of a Metachain Navigation criterion
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  - Filtering results by type

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.

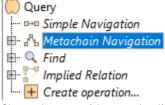
⚠	
	• Metachains allow you to search for indirectly related elements, although they do not support loops and recursive relations.

• 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

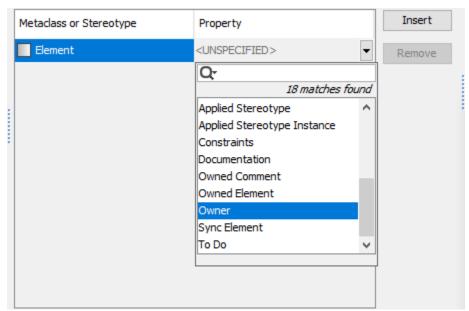
1. Click Metachain Navigation on the left side of the dialog box.



- 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.

toremove a step from the metachain, click the Remove button.

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

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In the table below you can see the options that can be specified for Metachain Navigation.

Option	Description
Metaclas s or Stereoty pe	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. <b>Note</b> : the option is unavailable if Simple Navigation is nested directly under the root union. In such a case, the root union controls the uniqueness.
	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

<ol> <li>On the left side of the dia</li> <li>Click the Reset button or</li> </ol>				Navigation criterion and select the Context parame	eter.
Query □ □ □ ■ Simple Navigation	Metachain Navi			Edit Use as Reset	
☐ ♣ Metachain Navigatio Context = THIS ⊞ ♀ Find	n Operation Name	2			
<ul> <li>Implied Relation</li> <li>Implied Relation</li> <li>Implied Relation</li> </ul>	Value: THIS >>	1			
The value of the <b>Context</b> <b>3.</b> Select a new context from			eme	nt types.	
Drestore the original	context, expand th	ne <b>Other</b> gr	oup	, and click Contextual Variable.	
Other Jsing the	lav	vigation o	aac	ration as a parameter of another operat	ion
				rameter of another operation	
1. Or 2. Or		t <b>achain Na</b> v <b>Use as</b> but		t <b>ion</b> . , and select the appropriate command.	
	ntextual	Edit	Q	Search String of a new Find	
V	ariable		۹,	Scope of a new Find	
Operation Name: Metachain Na	Operation Name: Metachain Navigation St Metaclass or Stereotype Property  Property  Applied Stereotype			Types of a new Find	
				Include Subtypes of a new Find	
Metaclass or Stereotype				Filter Properties of a new Find	
Package				Text Filter Properties of a new Find	
			٩	Regular Expression of a new Find	
			9	Case Sensitive of a new Find	
				Match Anywhere of a new Find	
				Include Elements From Modules of a new Find	
				Include Elements From AdditionI Content of a new Find	
	OK	Cancel	Q —	Search Data Unused In Diagrams of a new Find	
			<b>\</b> ₩	Input of a new Filter	
				Element of a new Implied Relation	
				Include Direct of a new Implied Relation	
			0	Context of a new Type Test	

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.
- Select the element types.
   Specify the options

pression Simple Navigation	Metachain Navigation 😗	Edit	Use as	Remove	Name	Type		Use Selection 🚯		
Metachain Navigation Find Implied Relation	Operation Name: Metachain Nav	THIS	THIS 🔢 E 🗍 false							
Create operation	Metadass or Stereotype	e Property					A	dd Remove		
	Element	<unspecified></unspecified>	-	Remove	Te H					
		Q	18 matches found	]		No result	3			
		Applied Stereotyp		1	I S S	elect Eler	ment Type			
		Applied Stereotyp Constraints	e Instance							
		Documentation			Show or hide elements The element type filter allows for choosing element types that should be					
		Owned Comment Owned Element			dis	displayed. Click the List, Inheritance, or Structural button to change the arrangement of model element types. Press Shift and click to select				
		Owner				ursively.		,,		
		Sync Element To Do	~							
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	Results Filter by Type: <pre></pre>						Abstrac	tion		
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						I tock do 6	Subtypes 🚯	Include Custom	Types () Select All	Clear

#### **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