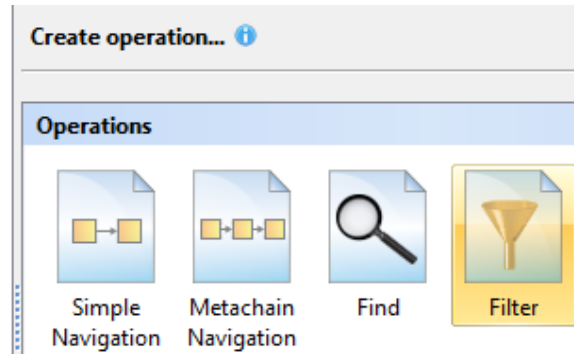
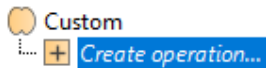


Case 10. Filtering Diagrams by Modification Date

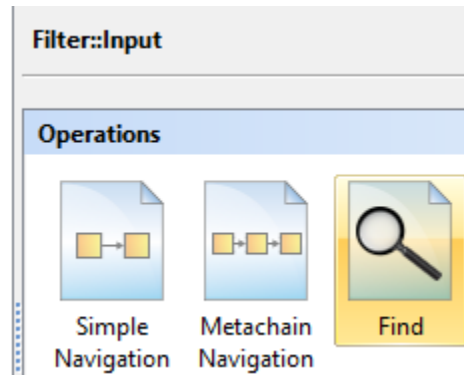
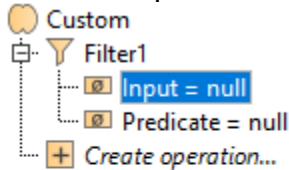
To filter diagrams by modification date

1. Create a **Generic Table**.
2. Set the **Element Type** to **Diagram**. Make sure to select the **Include Subtypes** check box. Click **OK**.
3. Set the **Scope** where the diagrams will be searched for.
4. Click the  icon in the **Scope** field and select **Custom**. The **Query** dialog opens.
5. Select **Create operation > Filter**.

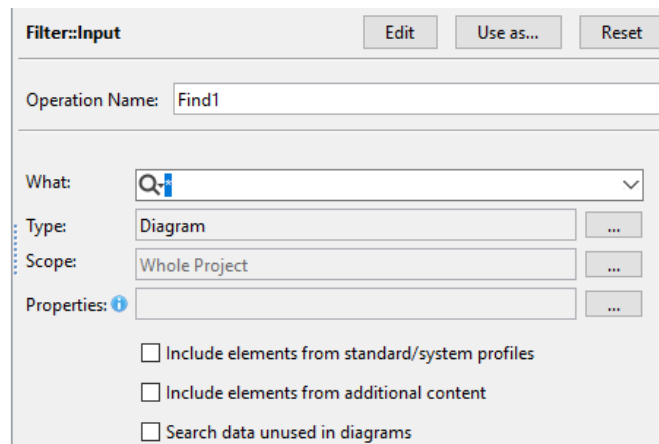
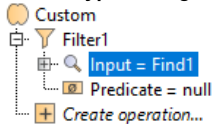
 If you cannot see the **Filter** operation, make sure the **Expert** mode is enabled.



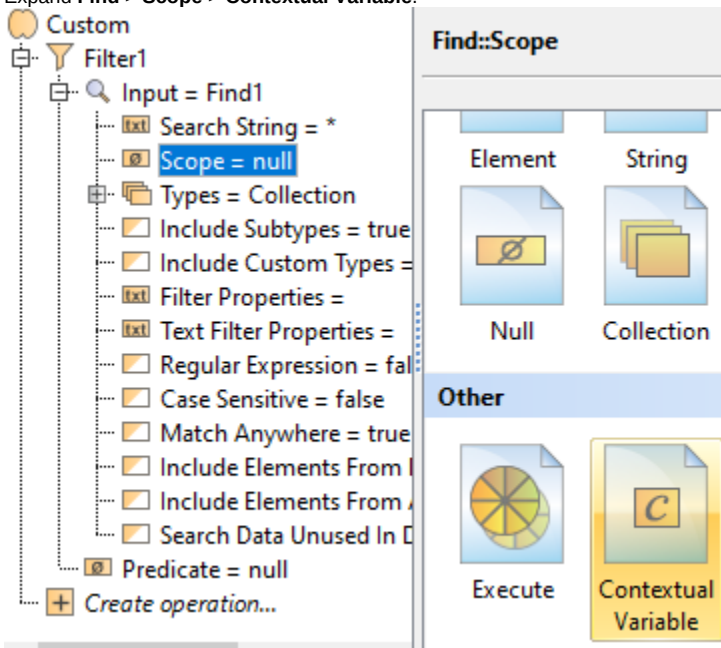
6. Select **Filter > Input > Find**.



7. Set the **Type** to **Diagram**.

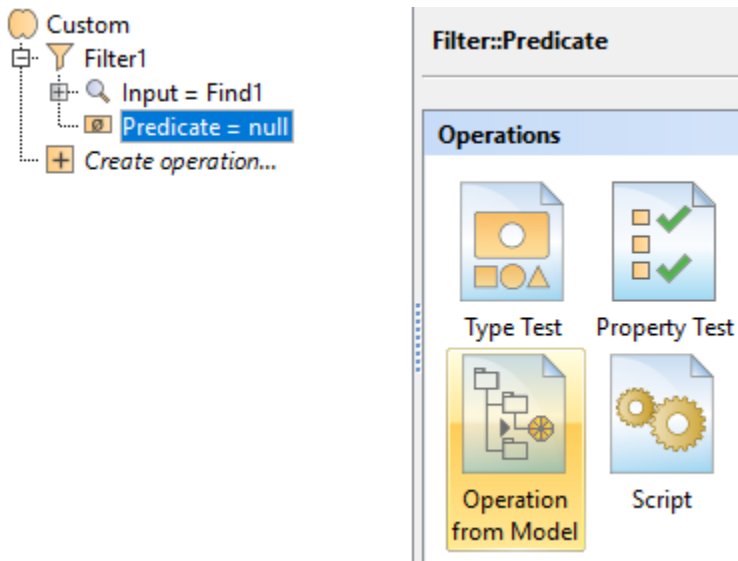


8. Expand Find > Scope > Contextual Variable.

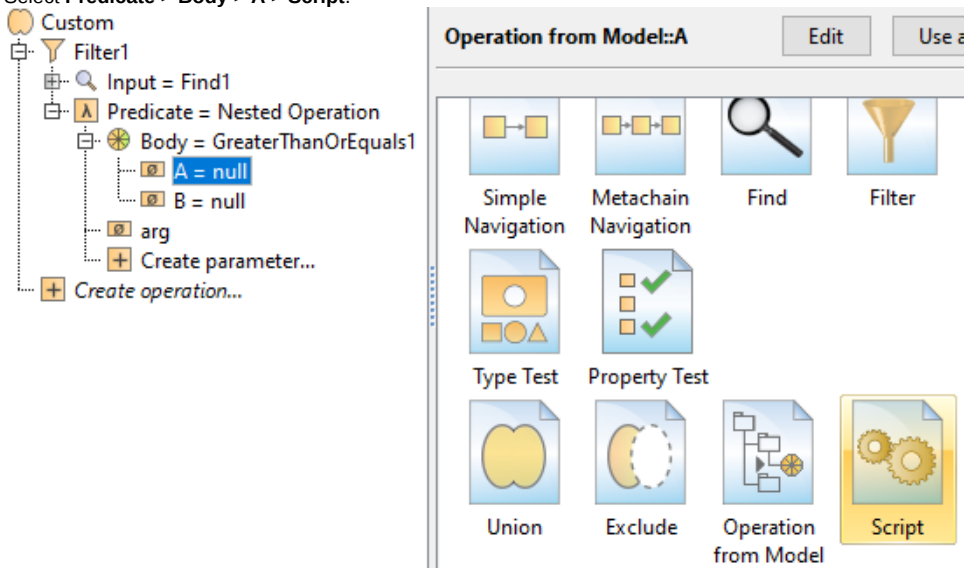


9. Select Filter > Predicate > Operation from Model > GreaterThanOrEquals.

 If you cannot see the **GreaterThanOrEquals** operation, make sure the **Apply Filter** box is not checked.



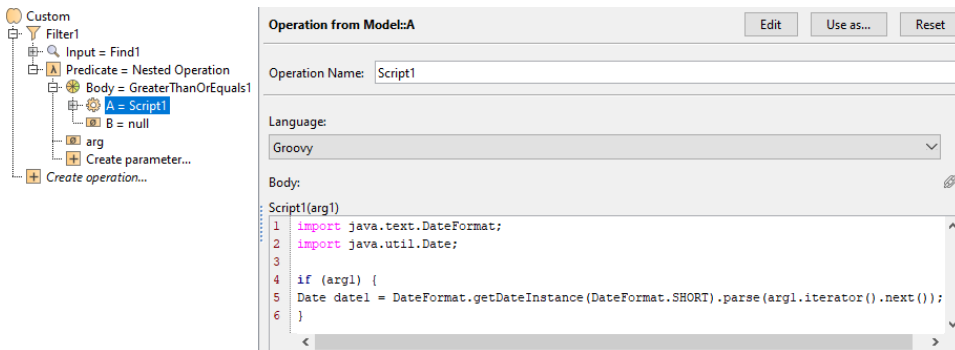
10. Select **Predicate > Body > A > Script**.



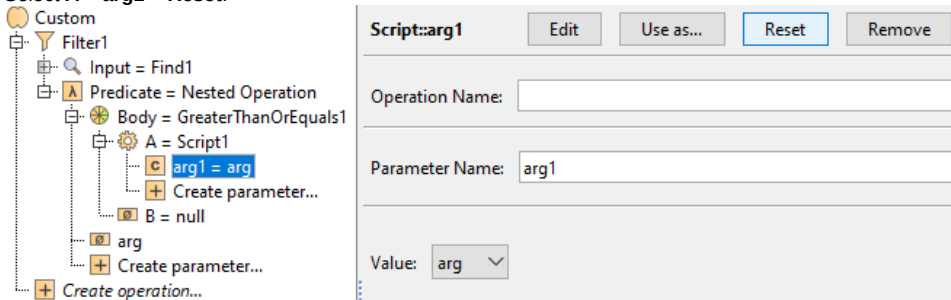
11. From the Language drop-down list, select **Groovy**.
12. Insert the following script as the **Body**:

Groovy

```
import java.text.DateFormat;  
import java.util.Date;  
  
if (arg1) {  
    Date date1 = DateFormat.getDateInstance(DateFormat.SHORT).parse(arg1.iterator().next());  
}
```



13. Select **A > arg1 > Reset**.



14. Select A > arg1 > Simple Navigation.

Custom

Filter1

Input = Find1

Predicate = Nested Operation

Body = GreaterThanOrEquals1

A = Script1

arg1 = null

Create parameter...

B = null

arg

Create parameter...

Create operation...

Script::arg1

Parameter Name: arg1

Operations

Simple Navigation

Metachain Navigation

Type Test

Property Test

15. Select Modification date and set Is Applied to true.

Custom

Filter1

Input = Find1

Predicate = Nested Operation

Body = GreaterThanOrEquals1

A = Script1

arg1 = Simple Navigation

Create parameter...

B = null

arg

Create parameter...

Create operation...

Script::arg1

Edit

Use as...

Reset

Remove

Parameter Name: arg1

Relation Criterion

Is Applied

Direc...

Pro...

Res...

metricType («ValidationBasedMet...	☐	false		
modelIdentifier («fmu»)	☐	false		
modelName («fmu»)	☐	false		
Modification date («DiagramInfo»)	☒	true	Sourc...	
modifiedAt («AttachedFile»)	☐	false		
n («virtual»)	☐	false		
name («SimulinkPort»)	☐	false		
name («ModelicaPort»)	☐	false		
name («ModelicaBlock»)	☐	false		
name («SimulinkBlock»)	☐	false		

16. Select **Predicate > Body > B > Script**.

The screenshot shows a model editor on the left with a tree structure. The tree is expanded to show a nested predicate structure. The 'Body' of the predicate is set to 'GreaterThanOrEquals1'. Inside this body, there is a 'Script1' operation. The 'Script1' operation has two arguments: 'arg1' (set to 'Simple Navigation') and 'arg2' (set to 'B = null'). The 'B = null' operation has an argument 'arg' (set to 'Create parameter...'). The 'Create parameter...' operation has an argument 'Create operation...'. On the right, the 'Operation from Model::B' dialog is open. It shows a list of operations: Simple Navigation, Metachain Navigation, Find, Filter, Type Test, Property Test, Union, Exclude, Operation from Model, and Script. The 'Script' operation is highlighted.

17. From the Language drop-down list, select **Groovy**.
18. Insert the following script as the **Body**:

```
Groovy

Date M1 = new Date();
M1.setMonth(M1.getMonth() - 1);
M1
```

The screenshot shows the model editor on the left with the 'Script1' operation selected. On the right, the 'Operation from Model::B' dialog is open. The 'Operation Name' is 'Script1'. The 'Language' is set to 'Groovy'. The 'Body' is set to 'Script1(arg1)'. The script content is:
1 Date M1 = new Date();
2 M1.setMonth(M1.getMonth() - 1);
3 M1

19. Click **OK**. To view the column, make sure to display it via the **Columns** button in the diagram toolbar > **Select Columns** > set the **Modification date** column to **true**.

Sample model

The model used in these examples is the *Case Studies for Querying the Model* sample model. To open this model, you need to download [case studies for querying the model.mdzip](#).