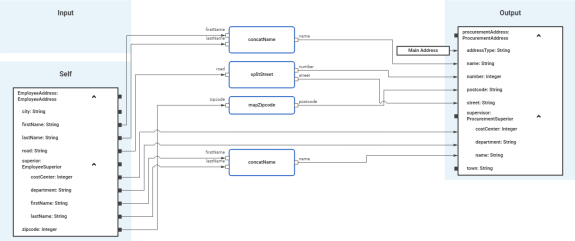
Modeling Data Mapping

Data Mapping is a very common task in the integration business. The Designer offers you a powerful tool to define data mappings directly by drawing object flows between the properties of the related classes.



You can create a mapping diagram by creating a mapping operation on a class. The mapping diagram is based on the data model contained in the **Implementation** folder. It defines mappings between the data structures defined in this data model. You cannot change the data model in the mapping diagram, all attributes are read-only.

Refer to Modeling Data Structures for more details on how to create a class operation.

On this Page:

Simple_Data_Mapping_Example

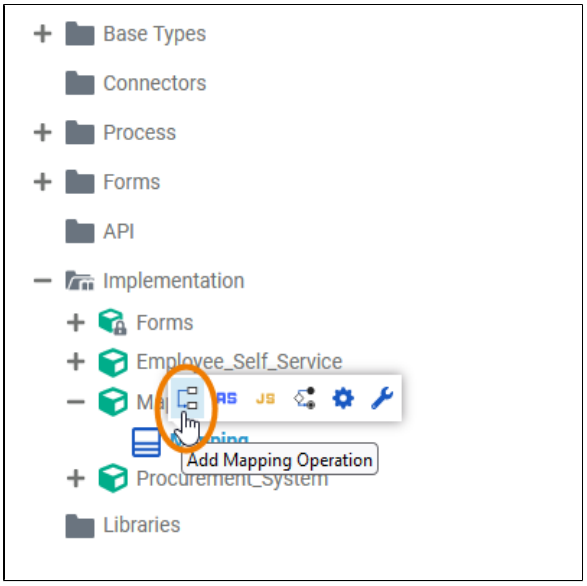
Click the icon to download a simple example model that shows how to implement simple mappings in **Scheer PAS** *Designer*.

Go to chapter Mapping Data Structures in the PAS Designer Developer Guide for more mapping examples.

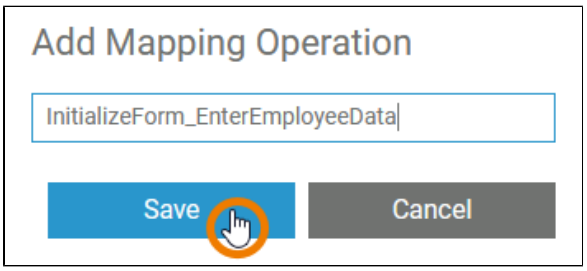
Related Pages:

- Modeling BPMN
- Modeling Execution
  - Using Action Script
- PAS Designer Developer Guide
  - Mapping Data Structures

Adding a Mapping Operation



From the quick actions of a class, select to add a mapping operation.



Enter a name for the operation and click **Save**.

Restrictions on Element Names

A BPMN model name must be unique within one service.

In addition, the following name restrictions apply to all service panel elements:

Element names ...

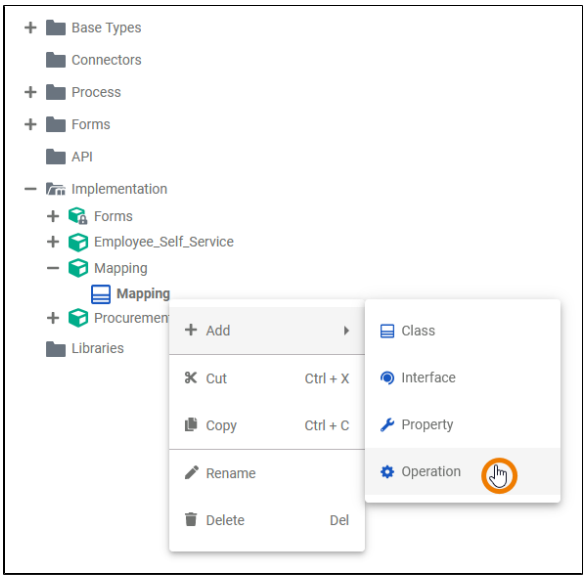
- ... must not be empty.

- ... must not contain spaces. Exception: Spaces are allowed in operation names.
- ... must not start with numbers.

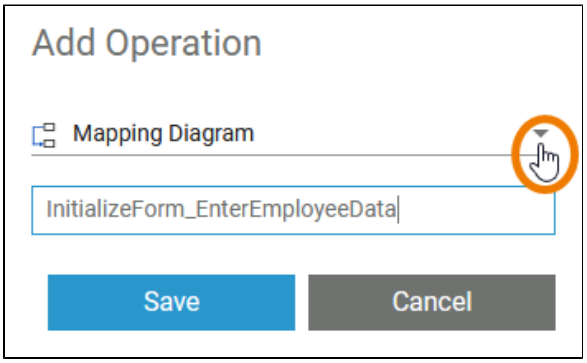
- ... must not end with a period (.).
- ... must not contain one of the following characters: < > : " / \ | ? *
- Furthermore, t

h e f ol lo w in g st ri n g s m u st n o t b e u s e d a s el e m e n t n a m e s: C O N , P R N , A U X , N U L , C O M 1 , C O M 2 , C O M 3 , C O M 4 , C O M 5 ,

COM6, COM7, COM8, COM9, LPT1, LPT2, LPT3, LPT4, LPT5, LPT6, LPT7, LPT8, LPT9.

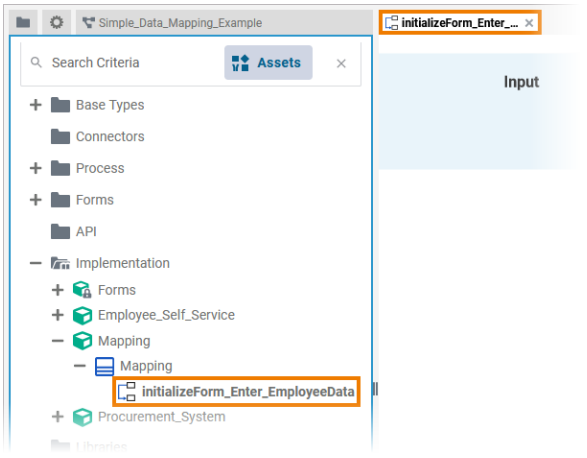


Alternatively, you can open the context menu of the class and select the option **Add Operation**.



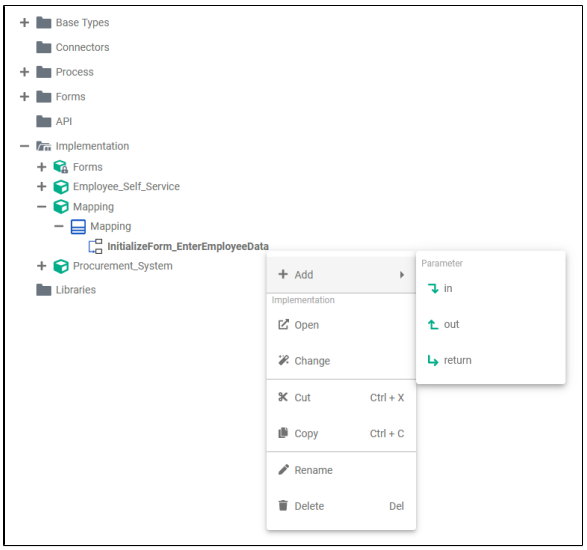
The dialog **Add Operation** opens.

Select **Mapping Diagram** from the drop-down list, enter a name for the operation and click **Save**.



The new operation has been added to the class. The corresponding mapping diagram opens automatically in a new Designer tab, where you can directly start modeling your mapping.

Go to Working with the Mapping Editor for detailed information.



Once the mapping operation has been created, you can use the quick actions and the context menu to manage it.

You can:

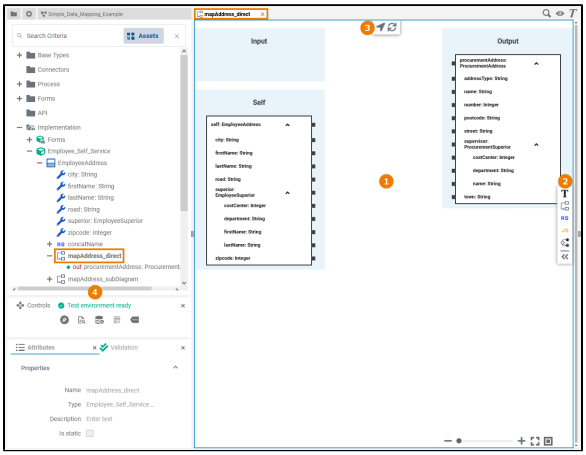
- add a parameter
  - in
  - out
  - return
- open the implementation of the mapping diagram
- change the implementation from mapping diagram to action script or activity diagram
- cut the mapping operation
- copy the mapping operation
- paste the mapping operation (available if **Copy** or **Cut** option have been used before)
- rename the mapping operation
- delete the mapping operation

Refer to Implementation and Modeling Data Structures for more information on your options here.

Refer to Modeling Data Structures for more information on how to create classes and operations.

Mapping Editor Overview

When you create a mapping operation, its corresponding mapping diagram is automatically opened in the Mapping Editor.

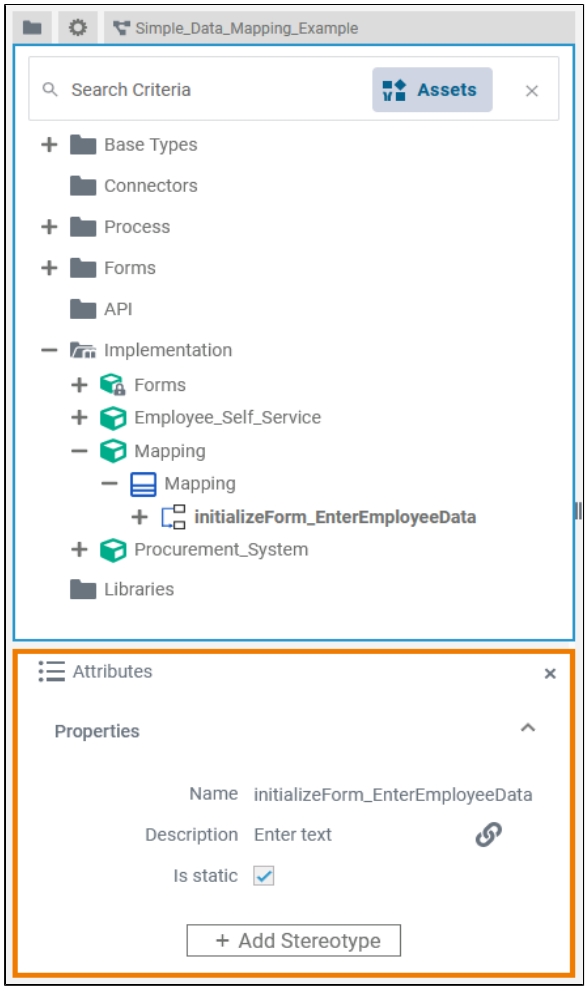


Use the various functionalities of the Mapping Editor to create your mapping diagram:

Name		Description
1	**Mapping Editor**	The mapping editor is where you draw your data mappings. Go to page Working with the Mapping Editor for detailed information about the features of the editor.
2	**Elements Toolbar**	The elements toolbar contains all elements that you can create in the mapping editor. Go to page Working with the Mapping Editor for further details about the usage of the toolbar.
3	**Model Toolbar**	The model toolbar of the mapping editor offers the following: **Icon** — **Description** Click on this icon to highlight the operation in the **Service** panel. Go to page Service Panel for further information about this panel. Click on this icon to reload the mapping diagram.
4	**Designer Panels**	In the mapping editor, the following panels assist you during modeling: • **Service Panel:** In the **Service** panel you can access your libraries and your data model. Go to Working With Libraries for detailed information. • **Attributes Panel:** Use the **Attributes** panel to change the settings of the data model elements. • **Validation Panel:** The **Validation** panel supports you during modelling by displaying notes for invalid actions in your models or forms. It also gives advice on how to fix the errors. Go to Validating a Service for detailed information. • **Search Panel:** Use the **Search** panel to find elements in the mapping editor. Go to Searching in the Designer for detailed information.

Attributes of a Mapping Operation

	Select a mapping operation in the **Implementation** folder of the Service panel to display its attributes in the **Attributes** panel. You can also edit them there. Mapping operations have the following attributes:



Attribute	Description	Possible Values / Example	
Name	Click here to change the **Name** of the related operation. Mapping operation names must follow certain naming rules. They • must not contain blanks • must not start with a number • must not contain special characters	initializeForm_EnterEmployeeData	
Description	If you want to insert or change a description for the respective mapping operation, click here to open a text editor where you can enter and format your text.		
Is static	Specify if the operation is static (default) or not. • **Static** mapping operations can be called without creating an instance of the related class. They get all necessary data via their input parameters. • Wanting to call a **non-static** mapping operation, you need to create a local instance of the related class, and call the operation on that object. This is called self context. For more information, also refer to Adding Operation Calls.	**true**	The mapping operation is static (default) and can be used outside the context of the related class.
		false	The mapping operation is non-static and needs a self object as an input.

Stereotype	Via button **Add Stereotype**, you can add a stereotype to a mapping operation. By adding a stereotype, you can extend the attributes of a mapping operation with additional properties.	REST

Attributes of a Mapping Diagram

When you click on the diagram pane in the Mapping Editor, the attributes of the current mapping diagram are displayed in the **Attributes** panel. All attributes are read-only and cannot be edited there.

Mapping diagrams have the following attributes:

Attribute	Description	Possible Values / Example	
Name	Displays the name of the current mapping diagram.	mapAddress_direct	
Type	Path within the implementation folder where the corresponding mapping operation resides.	Employee_Self_Service.EmployeeAddress	
Description	Description of the corresponding mapping operation for documentation purposes.		
Is static	Displays if the operation is static (default) or not (see Attributes of a Mapping Operation). For more information, also refer to Adding Operation Calls.	**true**	The mapping operation is static (default) and can be used outside the context of the related class.
		false	The mapping operation is non-static and needs a self object as an input.