Using JavaScript

When creating class operations to your own data model in the **Implementation** folder, you can select from the following different types of implementation:

- **JavaScript**: The usage of JavaScript is explained on this page.
- **Action Script**: For more Information about the usage of action script refer to Using Action Script.
- **Mapping Diagram**: Refer to Modeling Data Mapping for more information about mapping diagrams.
- **Activity Diagram**: You can implement class operations by a UML activity diagram. Refer to Modeling Activities for more information on activity diagrams.

In the Designer, you can use JavaScript operations to effectively write the function body of a (synchronous) JavaScript function.

> Please note that **await** syntax is not supported in synchronous JavaScript functions.

On this Page:

JavaScript_PasswordGeneration_Example

Click the icon to download a simple example model that shows how you can use **JavaScript** in **Scheer PAS** *Designer*.

Related Pages:

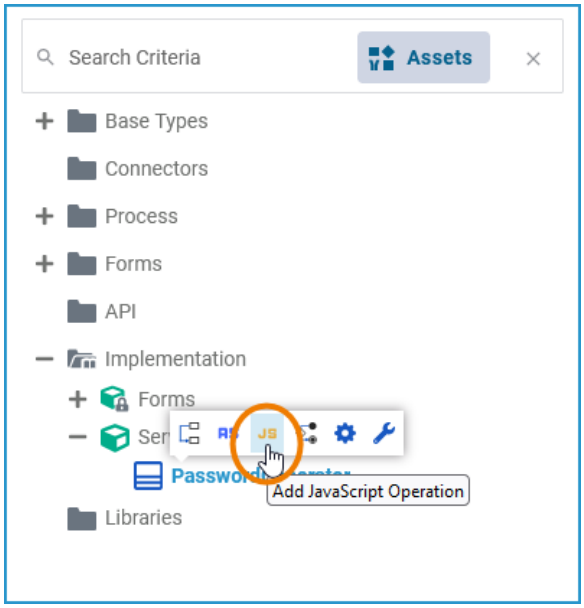
- Working with the JavaScript Editor
- JavaScript Specifics
- this Context

- Using Action Script
- Modeling Data Mapping
- Modeling Activities

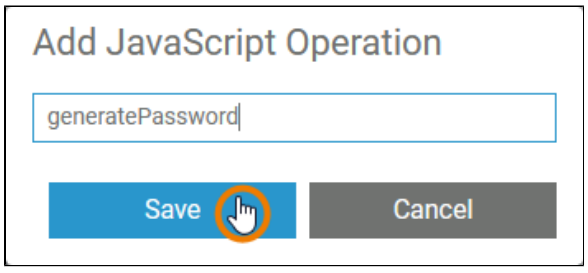
Creating an Operation Using JavaScript

Via a Quick Action

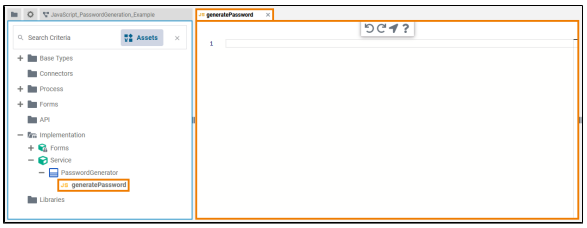
The fastest way to create an JavaScript operation is via the quick actions of the related class.



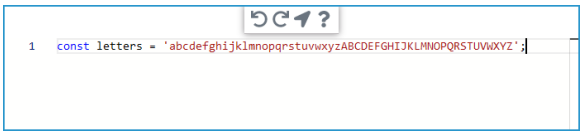
Hover over the class you want to add the operation to, and click the **Add JavaScript Operation** quick action (JS).



Assign a name to your new JavaScript and click **Save**.



The JavaScript Editor opens in a new tab.



You can now add JavaScript.

Expert Advice

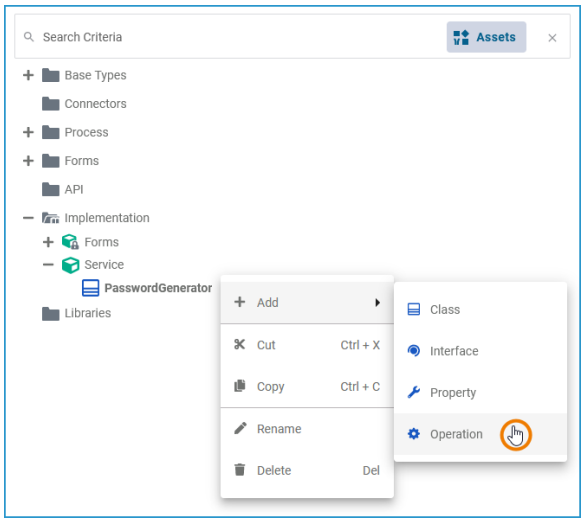
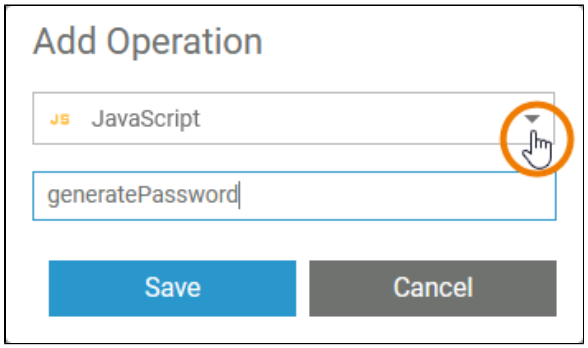
Click **Go to documentation** (?) to jump to the documentation for detailed information about the usage of JavaScript in the Designer. This documentation contains helpful basic information such as

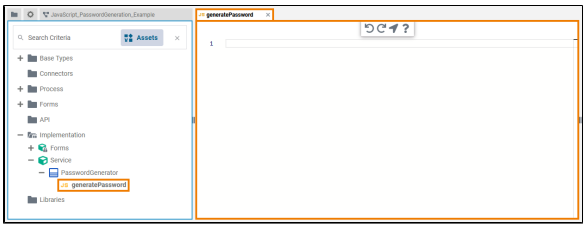
- working with the editor
- JavaScript Specifics
- the thisContext in JavaScript

The script you have entered is saved and validated in the background.

Via the Context Menu

Alternatively, you can add a class operation via the context menu of a class, and create an implementation afterwards.

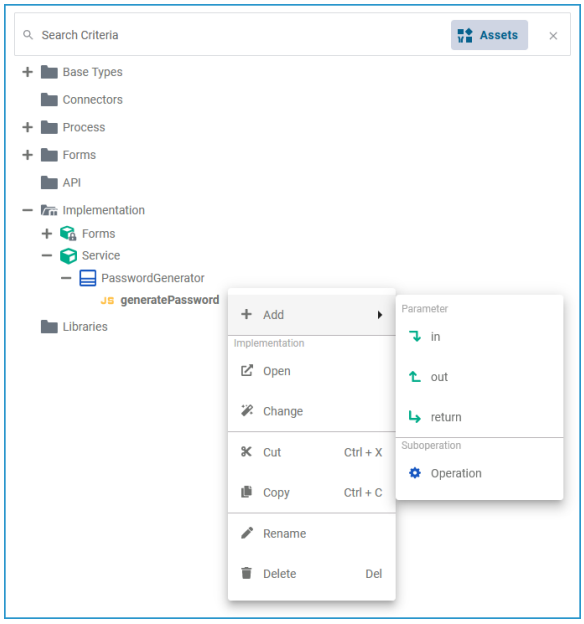
	Right-click the class you want to add an operation to and select **Add Operation** from the context menu.
	The dialog **Add Operation** opens. Select **JavaScript** from the drop-down list, enter a name for the operation and click **Save**.



The new operation has been added to the class. The JavaScript Editor opens automatically in a new Designer tab, and you can start entering JavaScript (see further above).

Go to Working with the JavaScript Editor for detailed information.

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

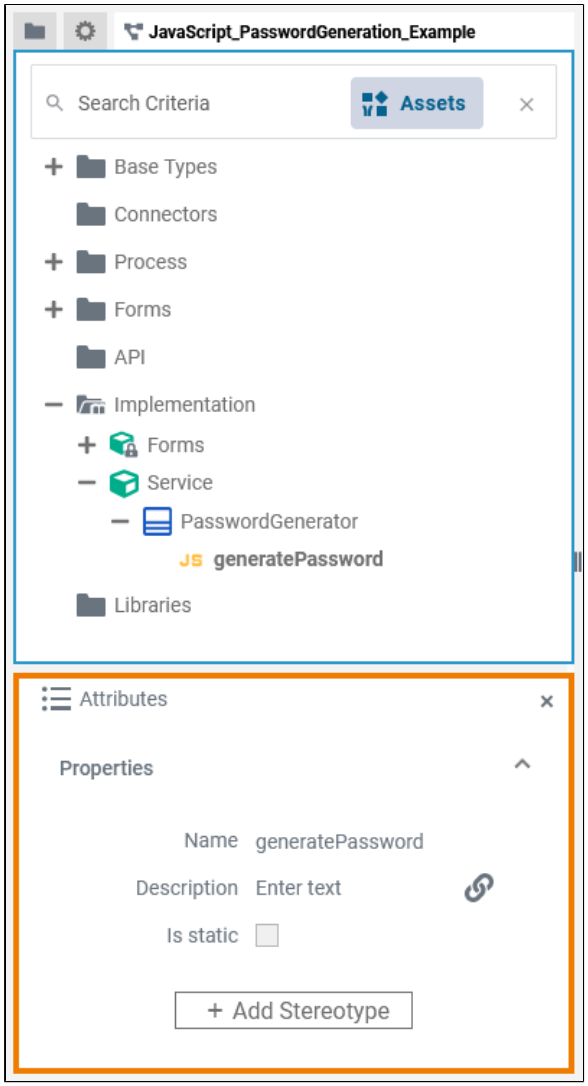


- add a parameter
  - in
  - out
  - return
- add a suboperation
- open the implementation of the JavaScript
- change the implementation from JavaScript to action script, activity diagram or mapping diagram
- cut the JavaScript operation
- copy the JavaScript operation
- paste the JavaScript operation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

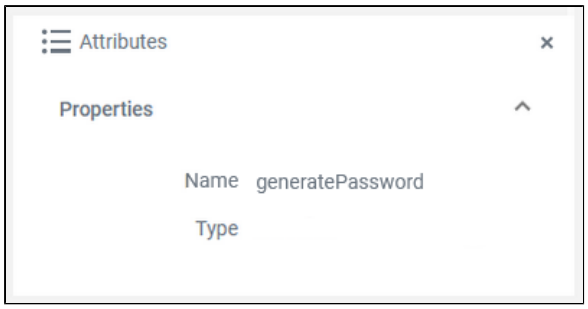
	Refer to Implementation and Modeling Data Structures for more information on your options here.

Attributes of a JavaScript Operation

	Select a JavaScript operation in the **Implementation** folder of the Service panel to display its attributes in the **Attributes** panel. You can also edit them there.



Attribute	Description	Possible Values / Example	
Name	Click here to change the **Name** of the related element. JavaScript operation names must follow certain naming rules. They • must not contain blanks • must not start with a number • must not contain special characters	javaScriptOperation	
Description	If you want to insert or change a description for the respective JavaScript 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** JavaScript 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** Java Script operation, you need to create a local instance of the related class, and call the operation on that object. This is called this context. For more information, also refer to Adding Operation Calls.	**true**	The JavaScript operation is static (default) and can be used outside the context of the related class.
		false	The JavaScript operation is non-static and needs a self object as an input.
Stereotype	Via **Add Stereotype**, you can add a stereotype to a JavaScript operation. By adding a stereotype, you can extend the attributes of a JavaScript operation with additional properties.	REST	



When you click in the JavaScript Editor, the following attributes of the current JavaScript are displayed in the **Attributes** panel. All attributes are read-only and cannot be edited there.

Attribute	Description	Example
Name	Displays the name of the current JavaScript.	javaScript Operation
Type	Path within the implementation folder where the corresponding JavaScript operation resides.	