

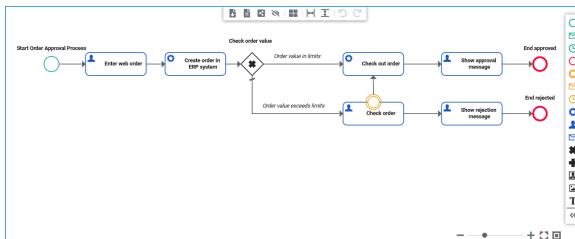
Development Approach

Designing xUML services with **Scheer PAS Designer** is a four-step process:

1. Model your process in BPMN.
2. Design forms that provide and show necessary data.
3. Process the data by adding execution to your BPMN model, and create a service that is ready to deploy.
4. Test your service.

Modeling Your Process

A process is an ordered set of activities performed within a company or organization in a certain flow.



Model your high-level business process with the [BPMN Editor](#) in cooperation with the related business department. The collaboration features of the BPMN Editor help you with doing this - even if you and your cooperation partner are not on the same site.

Designing Forms

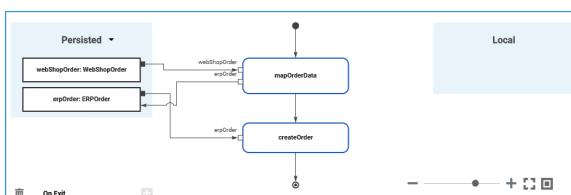
Processes need data. In BPMN, the process gets data input from the outside by user tasks, receive tasks or message events.

Scheer PAS DESIGNER features a [Form Editor](#) to create forms that can be bound to user tasks. Use the Form Editor to create forms matching the needs of your process - again in collaboration with the business department.

The data provided by a form is injected to the process via the user task as a read-only class.

Processing Data

Once you have defined your process and its user interface, you can start with processing the data. Add UML execution to BPMN elements where necessary, and model additional classes in the Data Model or in xUML libraries if you need more.



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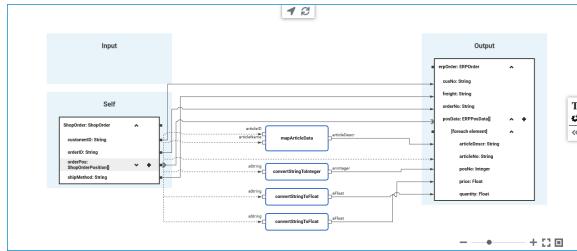
Related Pages:

- [Working with the BPMN Editor](#)
- [Working with the Form Editor](#)
- [Working With Libraries](#)

Related Documentation:

- [BRIDGE Integration Platform User's Guide](#)
 - [Testing REST Services](#)
- [xUML Services Reference Guide](#)
 - [xUML Action Language](#)
- [OpenAPI 2.0 Specification](#)

Data can be processed by mapping diagrams or UML activities. Map data between different classes using the Mapping Editor, process data in UML activities using [action script](#) and [library operations](#).



Testing the Service

Testing supplies information about the quality of the service and whether it fulfills the requirements defined during the conceptional phase of the development. For testing purposes, the compiled service provides a REST interface. In this REST interface

- BPMN messages are mapped to REST parameters
- BPMN tasks are mapped to REST resources

The Bridge features a [REST Test Tool](#) for documentation and testing purposes. Via a link on the xUML service page, you can access a REST service documentation page where you can inspect the service interface and make HTTP calls to the service.

The screenshot shows the REST Test Tool interface for the 'Order_approval_1Rest' service. At the top, it displays the service name and version (0.1.0). Below that, it shows the base URL: 'Base URL: /Designer_Tutorial_1/rest/process/Order_approval_1'. The main area is divided into sections: 'default' and 'Models'. The 'default' section lists several API endpoints with their methods and URLs. Most of these endpoints are highlighted in green, except for the first one which is blue. The 'Models' section shows two entities: 'Form_EnterWebOrder' and 'End_Approved', each with its own sub-sections.

Method	Endpoint
GET	/
POST	/Start_Order_Approval_Process
GET	/({id})
POST	/({id})/Enter_Web_Order
POST	/({id})/Show_Approval_Message
POST	/({id})/Show_Reject_Message

Also, you can use any other tool that provides the means to access an [OpenAPI 2.0 Specification](#).

Automated Tests

You can use an external test tool like [Postman](#) to create automated tests of your services.

Also, the **Scheer PAS Analyzer** provides means to setup automated testing scenarios. How to do that is described in detail on [Performing Regression Tests](#).