

# BPM Editor

Index

- [Introduction](#)
- [Installation](#)
- [Overview](#)
- [Operations](#)
  - [New business process \(button\)](#)
  - [Import process \(button\)](#)
  - [Edit process \(icon\)](#)
  - [Remove process \(icon\)](#)
  - [Export process \(icon\)](#)
- [Configuration](#)
  - [Main attributes](#)
  - [Operation buttons](#)
  - [Steps section](#)
    - [Workflow diagram steps](#)
    - [Step details](#)
      - [Task details](#)
      - [Fields](#)
      - [Triggers](#)
      - [Incoming transitions](#)
      - [Outgoing transitions](#)
  - [Attributes section](#)
- [About a generated workflow](#)
- [Resources](#)
- [Documentation](#)

## Introduction

Soffid includes in its Smart Engine a layer of BPM (Business Process Management) to provide useful workflows integrated with the processes and policies of the Soffid core.

Until now, the workflows were implemented with an external programming tool, and it required knowledge of the Soffid core and programming languages.

**The BPM Editor Addon allow you to create, configure and publish business processes very easily for the Soffid administrators.**

This addon is available [from Soffid version 2.7.0](#).

## Installation

This addon is located in the Addons section and its name is **BPM web editor**.



For download and install the [addon](#) you could review our generic documentation about this process: [Addons installation](#)

After the installation of the addon you could find its web page in the section: Start > Soffid Configuration > BPM editor

## Main Menu

- Processes and tasks
- Resource management
- ▼ Soffid Configuration
  - Tenants
  - Soffid parameters
  - Additional data
  - Agents
  - Addon management
  - User and passwords domains
  - Business process definition
    - BPM editor**
    - XACML Policy editor
    - XACML PEP configuration
    - Configure Workflow engine
    - Retrieve password configuration
  - Authorizations
  - Attribute translation tables
  - Custom scripts
- Identity Federation Addon
- Monitoring and reporting
- My Profile

## Overview

With this addon you can perform the next **operations**:

- In the BPM editor page, you can create, edit and publish workflows (and also remove).
- The workflows can be exported and imported to create backups and copy them in other environments of Soffid.
- Nowadays, there are some templates to create new workflows: user management and permissions management

Once you have **published** a workflow with the proper configuration:

- The users with the correct permissions will start, approve or observe the workflows.
- The final user could start a new workflow from the Selfservice Portal or if he has more permissions also from the Console.
- Once a workflow is published, this is already available from the menu.
  - In the Selfservice: Start > New process > THE WORKFLOW
  - In the Console: Start > Processes and tasks > New process > THE WORKFLOW

## Operations

The BPM editor page allow to the user the next operations.

Process

User test

Create new it user

Permission request

+ New business process

+ Import process

And also, when you select a workflow, more operations are displayed.

Process

User test

Create new it user

Permission request

+ New business process

+ Import process

These operations are described below.

## New business process (button)

+ New business process

The button allows you to create a new workflow (business process).

First, you have to fulfil the name and select a type.

### New business process

Process name:	My first workflow
Process type:	<div style="border: 1px solid #ccc; padding: 2px;"><div style="border-bottom: 1px solid #ccc; padding: 2px;">- Select one - ▾</div><div style="border-bottom: 1px solid #ccc; padding: 2px;">- Select one -</div><div style="border-bottom: 1px solid #ccc; padding: 2px; background-color: #e0e0e0;">User management</div><div style="padding: 2px;">Permissions management</div></div>
<input type="button" value="Accept"/> <input type="button" value="Cancel"/>	

About the attributes:

- The Process name is the identifier of the workflow and the label name of the workflow in the Console and Selfservice for the final user.
- The Process type has two options:
  - User management: used to create and update identities and their attributes.
  - Permissions management: used to create, update and remove permissions and account to identities.

To complete the creation, click the Accept button, and the next step will be the configuration of the workflow. For more information, go to the Configuration section.

### Process editor

Process name:  Process type:

Initiators:

Managers:

Observers:

**Steps** **Attributes**

Step	Step details
Start	Step name: <input type="text" value="Start"/> Step type: <input type="text" value="Start"/> Description: <input type="text" value="Request new user management process"/>
Approve	
Apply changes	
End	

**Task details** **Fields** **Triggers** **Incoming transitions** **Outgoing transitions**

## Import process (button)



The button  allows you to import a workflow previously exported.

This functionality is very useful to next scenarios:

- To restore a workflow from a backup (a workflow previously exported)
- To deploy a workflow from one environment to other (for example from Test to Live)
- To start a new workflow from a template

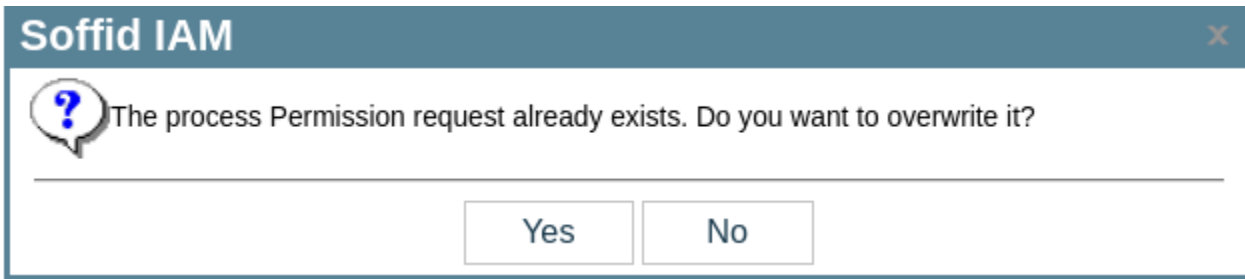
To import a new workflow you only have to select and upload a \*.pardef file:

### File Upload


Specify a file located in your local system

Permission+request.pardef

If a workflow already exists with the same name, this will be overwritten.




## Edit process (icon)

The icon  open the workflow configuration page.

A screenshot of the "Process editor" interface. At the top, it shows "Process name: Create new it user" and "Process type: User management" with a dropdown arrow. There are three buttons: "Save", "Save and Publish", and "Cancel". Below this is a text area containing "Create new it user". Further down, there are fields for "Initiators:", "Managers:", and "Observers:", each with "tothom" entered. Below these fields are two tabs: "Steps" and "Attributes". The "Steps" tab is active, showing a list of steps: "Start", "Approve", "Apply changes", and "End". A "+ New step" button is at the bottom left of the steps list. To the right of the steps list is the "Step details" section, which includes "Step name: Start", "Step type: Start" (with a dropdown arrow), and "Description: Request new user management process" (with a text area). At the bottom of the "Step details" section are four tabs: "Task details", "Fields", "Triggers", "Incoming transitions", and "Outgoing transitions".


For more information, go to the Configuration section.

## Remove process (icon)

The icon  allows you to remove a workflow.

Notice that the workflow is permanently removed in the BPM editor page, but if it was previously published, it is still available for the final user in the Console and Selfservice. To unpublish the workflow you have to disable it, for more information visit: [Disable/enable a workflow](#)

## Export process (icon)

The icon  allows you to export a workflow to a \*.pardef file.

This file could be imported later in the same Soffid or into another Soffid instance.

## Configuration

In this section you could find information about how to configure all the aspects of a business process (workflow).

All the configurations explained are in the edit process page.

**Process editor**

Process name: Create new it user    Process type: User management    Save Save and Publish Cancel

Create new it user

Initiators: tothom

Managers:

Observers: tothom

**Steps**    **Attributes**

Step	Step details
Start	Step name: Start Step type: Start Description: Request new user management process
Approve	
Apply changes	
End	

+ New step

**Task details**    **Fields**    **Triggers**    **Incoming transitions**    **Outgoing transitions**

## Main attributes

In this section you could update the main attributes of the workflow and the authorizations required for the users.

**Process editor**

Process name: Permission request    Process type: Permissions management

Test

Initiators: \*

Managers: SOFFID\_ADMIN

Observers: admin

About the attributes:

- **Process name.** This is the identifier name of the process and also the label name for the final users. If you change the name, a new instance will be published, the previous one could be disabled in the Business process definition page.
- **Process type.** The type of the workflow: "User management" or "Permissions management".
- **Description.** This is the description of the workflow. When a final user starts a workflow, this text is displayed into the Actions log tab.
- **Initiators.** Here you could configure the roles or the identities that could start a new workflow from the Console and Selfservice. E.g. "admin" identity, "SOFFID\_ADMIN" role, both separated by comma ', ' as "admin,SOFFID\_ADMIN" or if you want to publish the workflow to everyone, you can use the text "tothom" or the character '\*'.
- **Managers.** Here you could configure the roles or the identities that could perform tasks in the workflow as approve permissions or cancel the workflow.
- **Observers.** Here you could configure the roles or the identities that could open the workflows in read-only mode.

## Operation buttons

To complete the edition of the workflow, in this section you could find three options.

Save Save and Publish Cancel

These are the buttons:

- **Save.** This button save all your changes included after open the process editor.
- **Save and Publish.** This button save all your changes included after open the process editor and also publish the workflow in Soffid. After that, this last version of the workflow is available for the final user (with the correct permissions) in the Console and the Selfservice.
- **Cancel.** This button cancel all the changes included after open the process editor.

## Steps section

The Steps tab has several parts.

Steps **Attributes**

---

Step	Step details
Start	Step name: Start
Approve	Step type: Start
Apply changes	Description: Request new user management process
End	

[+ New step](#)

Task details **Fields** Triggers Incoming transitions Outgoing transitions

## Workflow diagram steps

This part has the set of the steps of your workflow.

Step
Start
Approve
Apply changes
End

[+ New step](#)

You could select a step to see its configuration on its right side.

Step details


Step name: Start


Step type: Start

Description: Request new user management process

Task details **Fields** Triggers Incoming transitions Outgoing transitions

Also, you could create a new step with the button [+ New step](#).

Finally, you could remove a step, you have to select the step and the button  will appear.

Step
Start
Approve
Apply changes 
End

Notice that the list seems sequential, but a workflow diagram is not like a list or a tree, is like a graph, every step could have some incoming transitions and some outgoing transitions.

## Step details

This part has the configuration details of the step.

### Step details

Step name:

Step type:

Description:

### Task details Fields Triggers Incoming transitions Outgoing transitions

These are the main attributes:

- **Step name.** Identifier, name, and label of the step.
- **Step type.** The type of this step:
  - **Start.** Step to start the workflow.
  - **Screen.** Step to show the user a form that must be completed.
  - **Grant approval.** Step to show the manager a form with the changes that must be approved.
  - **Mail.** Step to send a mail.
  - **Custom.** Step to add custom logic.
  - **Apply changes.** Step to apply the changes of the user to Soffid repository.
  - **End.** Step to end the workflow.
- **Description.** Description of the step.

The configuration tabs are described below and some of them depending on the step type selected.

#### Task details

This tab is for specific information about a step, it could be empty, and his information depends of the step type.

- **Start.** Empty.
- **Screen.** To define the users that have to approve the user changes.

### Task details Fields Triggers Incoming transitions Outgoing transitions

Write an expression to identify the actor depending on the requested role.  
One can use EL expressions based on role and application attributes.  
For instance: `SOFFID_MANAGER/${primaryGroup}`

Actor(s) expression:

Alternatively, write a Beanshell script to return the actor depending on the process variables.  
For instance: `return primaryGroup.attributes{"owner"};`

Assignment script:

- **Grant approval.** To define the users that have to approve the user changes.



Task details **Fields** Incoming transitions Outgoing transitions

Permission request screen type:

Write an expression to identify the actor depending on the requested role.  
One can use EL expressions based on role and application attributes.  
Additionally any process variable is available  
For instance: `${role.attributes['owner']}` or `APPLICATION_OWNER/${application.name}`

Actor(s) expression: \_\_\_\_\_

Alternatively, write a Beanshell script to return the actor depending on the requested role.  
Additionally to task variables, role and application objects are available  
For instance: `return role.attributes{"owner"};` or `return "APPLICATION_OWNER/"+application.name;`

Assignment script:

- **Mail.** Step to send a mail.

Task details **Incoming transitions** Outgoing transitions

Identities(s): \_\_\_\_\_

Email address(es): \_\_\_\_\_

Subject: \_\_\_\_\_

Email message:

- **Custom.** Step to add a custom script to include more business logic between steps.

Task details **Incoming transitions** Outgoing transitions

Script:

- **Apply changes.** Step to apply the changes of the user to Soffid repository.

Task details **Incoming transitions** Outgoing transitions

Apply user changes:

Apply entitlements:

- **End.** Empty.

### Fields





In this tab you could choose from the all the possible user attributes, which are visible in write-mode or only-mode.

The list of attributes is:





























































- Metadata attributes created in the workflow (attributes tab of the workflow)
- Default attributes of the user (identity)
- Custom attributes of the user (additional data)

This step is only available on the steps: **Start**, **Approve** and **Grant approval**.

Actions that you could perform:

- Add a new field with the button .
- Change the order of the fields in the workflow form, just drag and drop with holding this icon .
- Remove a field with the icon , the icon is displayed at the right when you select the row of the field.
- You could update the Label of the field displayed in the workflow.
- Also you could update the Name of the field.
- By default, the fields are in write mode, if you want display the field in read only mode, please mark the checkbox .
- You could add a custom script to validate the value of the field.
- You could add a custom script to decide the conditions to display the value.

**Task details**   **Fields**   **Triggers**   **Incoming transitions**   **Outgoing transitions**

Order	Label	Name	Read only	Validation	Visibility
	Action	action	<input type="checkbox"/>		
	Código	userName	<input type="checkbox"/>		
	Tipo	userType	<input type="checkbox"/>		
	Nombre de pila	firstName	<input type="checkbox"/>		
	Apellido	lastName	<input type="checkbox"/>		
	Grupo primario	primaryGroup	<input type="checkbox"/>		
	Nombre del correo	shortName	<input type="checkbox"/>		
	Dominio de correo	mailDomain	<input type="checkbox"/>		
	Comentarios	comments	<input type="checkbox"/>		
	DEFAULT	DEFAULT	<input type="checkbox"/>		
	NIF	NIF	<input type="checkbox"/>		
	PHONE	PHONE	<input type="checkbox"/>		
	TEST	TEST	<input type="checkbox"/>		
	LegalEntityId	legalEntityOBSOLETE	<input type="checkbox"/>		
	Manager	manager	<input type="checkbox"/>		
	NDI	ndi	<input type="checkbox"/>		
	Manager mail	managerMail	<input type="checkbox"/>		
	User contact	USER_ATT	<input type="checkbox"/>		
	Hobby	LIST	<input type="checkbox"/>		
	AUDITORIA	AUDITORIA	<input type="checkbox"/>		



In a validation or a visibility script you could access to the fields as the next script.

```

if (object{"userName"}==null){
    throw new Exception("The userName is mandatory");
}
return true;

```

**Triggers**

In this tab you could create custom scripts to be triggered from some actions.

This step is only available on the steps: **Start** and **Approve**.

Actions that you could perform:

- **OnLoad**. To perform some actions before the execution of the step.
- **OnPrepareTransition**. To perform some actions after the execution of the step and before to start a transition to another step.
- **OnChange**. When the value of the attribute if changed. You could choose the filed from a list.

Name	Field	Action
onLoad		
onPrepareTransition		
onChange	userSelector	

[+ New trigger](#)

In a trigger script you could access to the fields as the next script:

```
// Example 1
executionContext.setVariable("profileServer", "null");
executionContext.setVariable("homeServer", "null");
executionContext.setVariable("mailServer", "null");
executionContext.setVariable("userType", "A");
un = executionContext.getVariable("userName");
executionContext.setVariable("userName", un+"_INT");

// Example 2
a = executionContext.getVariable("shortName");
u = serviceLocator.getUserService().findUserByUserName(user);
s = serviceLocator.getDispatcherService().findDispatcherByName("OC_DTVEXT");
u.userName = an+"_ATT";
account = serviceLocator.getAccountService().createAccount (u, s, a);
serviceLocator.getUserService().update(u);
serviceLocator.getAccountService().updateAccount2(account);
```

### Incoming transitions

In this tab you could see the previous steps those it has connected.

Actions that you could perform:

- Create a new transition with the button [+ New transition](#).
- Change the From step (step from the flow come).
- Change the Name of the transition (Incoming Transition).
- Change the To step (step where the flow go, but it is itself).
- Create a custom script (Action)
- Remove the transition with the icon

From	Incoming Transition	To	Action
Start	Request	Approve	


[+ New transition](#)

### Outgoing transitions

In this tab you could see the next steps those it has connected.


Actions that you could perform:

- Create a new transition with the button [+ New transition](#).

- Change the From step (step from the flow come, but it is itself).
- Change the Name of the transition (Outgoing Transition).
- Change the To step (step where the flow go).
- Create a custom script (Action)
- Remove the transition with the icon .

**Task details**   **Fields**   **Triggers**   **Incoming transitions**   **Outgoing transitions**

From	Outgoing Transition	To	Action
Approve 	Approve	Apply changes 	
Approve 	Reject	End 	


 New transition

## Attributes section

In this tab you could create custom attributes to be used in the workflow.

**Steps**   **Attributes**

Código	Etiqueta	Action
action *	Tipo de dato :: Valores multiples Tamaño	Cadena de caracteres <input type="checkbox"/>  Valores A: Add user E: Enable user M: Modify user D: Disable user
grants *	Tipo de dato :: Valores multiples Tamaño	Permissions Cadena de caracteres <input type="checkbox"/>  Valores
userSelector *	Tipo de dato :: Valores multiples Tamaño	Select user Usuario <input type="checkbox"/>  Valores

 Add attribute

viously

This configuration is almost the same that you can find in the [Agents#Accountmetadata](#) or in the [Additional data#Modifyobjects](#).

The attributes created by default are needed for the workflow, do not remove them.

 Add attribute


You can create a new attribute with the button


identifier *	Label	label displayed in the web page
	Data type :: Multiple values Size	String <input type="checkbox"/>  Values

For every attribute, you could configure the next points:

- **Code.** Text used internally as an identifier by the system. Try to create a short one without spaces and with uppercase to separate words.

pre

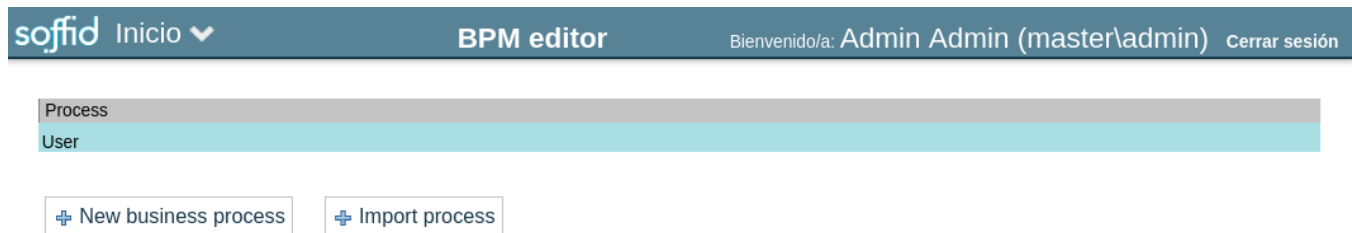
- **Label.** Label displayed in the web page. This may be a name or a short description.
- **Data type.** Data type of the value of the metadata attribute. The data type includes:
  - Basic data types as String or Boolean.
  - Extended data types as Photo or E-mail.
  - Default Soffid objects as User or Group.
  - Your own custom objects created in Soffid.
- **Multiple values.** (Optional) If this flag is enabled, the metadata may contain more than one value.
- **Size.** (Optional) Set the maximum length of the value.
- **Values.** (Optional) You may create a set of values to provide to the user as a list. Use the button  to create a new value.

If the created metadata attribute should be deleted, click on , located on the right of the attribute.

These attributes will be used in the Steps tab to be mapped with the Soffid data.

## About a generated workflow

Once you have a workflow named User.



The screenshot shows the Soffid BPM editor interface. The top navigation bar contains the Soffid logo, 'Inicio' with a dropdown arrow, 'BPM editor', and user information 'Bienvenido/a: Admin Admin (master\admin)' with a 'Cerrar sesión' link. Below the navigation bar, there is a list of processes: 'Process' and 'User'. The 'User' process is highlighted in light blue. At the bottom, there are two buttons: '+ New business process' and '+ Import process'.

With this configuration.

## Process editor

Process name:  Save Save and Publish Cancel

Process type:  ▼

Description:

Initiators:

Managers:

Observers:

### Steps **Attributes**

Step	Step details
Start	Step name: <input type="text" value="Start"/> Step type: <input type="text" value="Start"/> ▼ Description: <input type="text" value="Request new user management process"/>
Approve	
Apply changes	
End	

[+ New step](#)

### Task details **Fields** Triggers Incoming transitions Outgoing transitions

Order	Label	Name
↕	Action	action
↕	Código	userName
↕	Tipo	userType
↕	Nombre de pila	firstName
↕	Apellido	lastName
↕	Grupo primario	primaryGroup
↕	Nombre del correo	shortName
↕	Dominio de correo	mailDomain
↕	Comentarios	comments
↕	NIF	NIF
↕	PHONE	PHONE
↕	Manager	manager
↕	NDI	ndi

[+ New field](#)

After publish it, the final user with the correct permissions will find the workflow here.

## Menú principal



- ✔ Procesos y tareas
  - Mis tareas
  - Otras tareas
  - Administrar tareas automáticas
- ✔ Crear nuevo proceso
  - Alta masiva de usuarios
  - Modificacion usuario
  - Modificación masiva de usuarios
  - Recertification process
  - User**
  - Búsqueda de procesos
- Administración de activos
- Configuración Soffid
- Módulo de federación de identidades
- Monitorización e informes
- Mi perfil

When you enter into the workflow the first page is the form generated from the fields and configuration of the step Start.

Proceso  
Tarea

User (Version 9)  
User

Tarea **Registro de acciones** Anexos Comentarios

Action :	<input type="text"/>
Código :	<input type="text"/>
Tipo :	<input type="text"/>
Nombre de pila :	<input type="text"/>
Apellido :	<input type="text"/>
Grupo primario :	<input type="text"/> 
Nombre del correo :	<input type="text"/>
Dominio de correo :	<input type="text"/> 
Comentarios :	<input type="text"/>
NIF :	<input type="text"/>
PHONE :	<input type="text"/>
Manager :	<input type="text"/>
NDI :	<input type="text"/>
Agregar comentario	<input type="text"/>

Cerrar

Request

The header of the page is common for all the workflows.

In the body of the tab Task, all the fields of the step Start are displayed.

Action :

Código :

Tipo :

Nombre de pila :

Apellido :

Grupo primario :

Nombre del correo :

Dominio de correo :

Comentarios :

NIF :

PHONE :

Manager :

NDI :



And the button **Request** is the Outgoing Transition of the step Start to go to the Approve step.

Now the identities configured in the step Approve as managers should accept or remove this user creation request.

The manager will receive a mail and they could access to the workflow in My tasks page.

soffid Inicio **Mis tareas** Bienvenido/a: Admin Admin (master\admin) Cerrar sesión


Recargar				
Tarea	Fecha Inicio	Vencimiento	Asignado	Identificador
User Approve	03/01/2020 18:43	Tarea sin vencimiento	SOFFID_ADMIN	500706

Notice that the workflow complete the Start step a workflow identifier is created to be found and observed for the creation user, manager and observers.

Once the manager is into the workflow he could read or update the fields configured in the step Approve.




## Tarea Registro de acciones Comentarios

Action : Add user  
Código : User01  
Tipo : Internal user  
Nombre de pila : User  
Apellido : 01  
Grupo primario : world World  
Nombre del correo :  
Dominio de correo :   
Comentarios :  
NIF :  
PHONE :  
Manager :  
NDI :

Asumir tarea

At this moment the manager has to get the task with the button and update the editable fields.

## Tarea Registro de acciones Anexos Comentarios

Action : Add user  
Código : User01  
Tipo : Internal user  
Nombre de pila : User  
Apellido : 01  
Grupo primario : world World  
Nombre del correo : \_\_\_\_\_  
Dominio de correo : \_\_\_\_\_   
Comentarios : \_\_\_\_\_  
NIF : \_\_\_\_\_  
PHONE : \_\_\_\_\_  
Manager : \_\_\_\_\_  
NDI : \_\_\_\_\_

Approve

Reject

And finally decide if or the user creation.

## Resources

Below you could find a set of workflows that you could import, edit and publish in your Soffid instance:

- [User.pardef](#). This workflow is used to create a new basic identity.
- [Permission+request.pardef](#). This workflow is used to assign new permissions to a identity.

## Documentation

Links to additional information in the documentation:

- Addons installation: [4. Addons](#)
- Selfservice portal: [Self Service Portal](#)
- Example of a workflow: [Reconcile process](#)
- About your tasks: [My tasks](#)
- Manage workflows: [Custom scripts](#)
- Agent account metadata: [Agents#Accountmetadata](#)
- Custom objects and additional attributes: [Additional data#Modifyobjects.](#)
- Scripting: [Agents#Scripting](#)
- Custom scripts: [Sample scripts](#)