How to Create and Deploy a Scenario

***Task**:*

In the following we want to describe how to create and deploy a scenario over the JEngine.

Realization:

Step 1: Modeling

1.1 Get the Modeling Tool

First you have to get a modeling tool. In our Project we decided to use the ProcessEditor, which you can check out on the following link: http://github.com/BP2014W1/processeditor.git

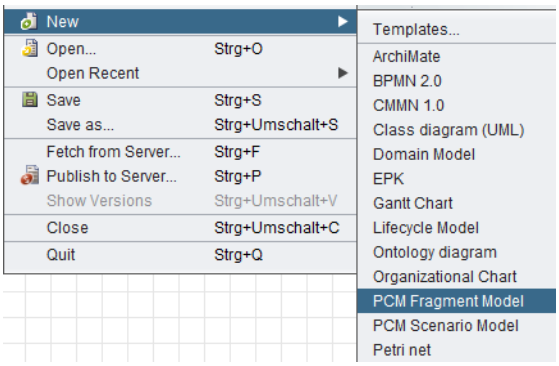
After you got it, we recommend you use IntelliJ to compile and start it.

1.2 Start the Modeling Tool

For this to work you should have Ant installed on your system. After making sure you have Ant, you can run “ant clean init-ivy deps compile-wo-deps jar-workbench run-workbench.jar” or choose the corresponding methods in IntelliJ to run. Then the workbench should open and you can start modeling your PCM-Scenario.

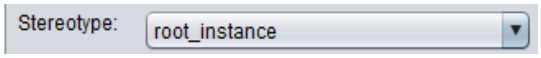
For troubleshooting, if something went wrong with the ProcessEditor, please check the documentation for it and how to set it up.

1.3 The Correct Way of Modeling PCM

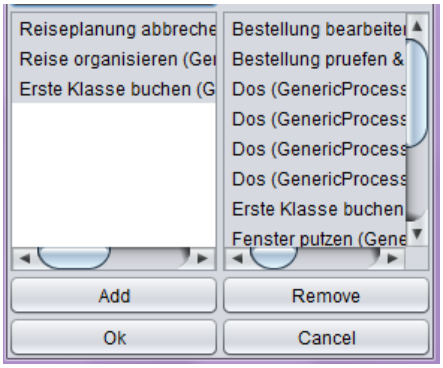


First you should open a new PCM Fragment or as many as you want to model. Every Fragment should start with a Start-Event and end with an End-Event. For data object states right-click the data object and go into the properties. In the field “state” fill in the name of the state. The name should only consist of alphanumerical characters and “_” & “.”. If you are finished with your Fragments you should publish them to the model versioning server.

If you have finished publishing them it is time to create the domain model. For that open a new domain model. For every data object there should be a data class with data attributes corresponding to it. If you have a main data object, you can mark it as a root_instance and use aggregations to connect them to each other. If you have finished the domain model, publish it too.



Lastly we have to add all the pieces together into a Scenario. So create a new PCM Scenario. Now you get two columns. Right-click the right column and choose the "Add Fragments" option and choose the Fragments you created before and add them each. Now you can right-click on the data objects and open their properties to add the data class for them. To finish it off you just need to add the termination condition to the property field of the Scenario and publish it.



Step 2: Loading and Deploying the Scenario

There are two ways of using our Engine. Either you use our Frontend which is not open source or you write your own. In both ways the communication is held via REST.

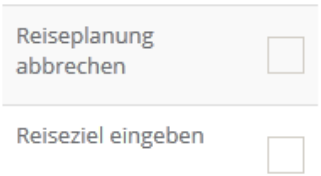
As this "How to" is just a brief walkthrough I won't mention all possible calls. Please check out our documentation for further information on the REST Interface.

2.1 Starting the JComparser

First you need to talk to our JComparser REST Interface. If you use our Frontend you just need to click on the JComparser tab. The JComparser will look for all Scenarios on the model versioning server and show them to you, so you can decide which to deploy. For that you have to just press "Launch" in the Frontend. Now your model should be edited and saved into the database.

2.2 Create Instances of a Scenario and Executing Tasks

To start working with your Scenario you have to create Instances first. In the Frontend you just have to choose your Scenario and press the "Start Instance" button.

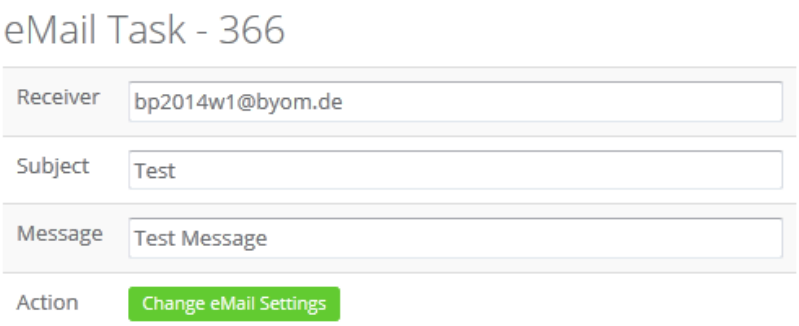


After that you can choose which name the new instance should have and ultimately create it. Now you get a list of enabled tasks from which you can freely choose which one to run.

In case of referenced tasks with different output sets you have to decide which one you want before you can start it. When terminating the tasks you may have to choose which output set you want if there are multiple possibilities. It is represented in a similar way just that you have to press "Terminate" instead of "Begin".

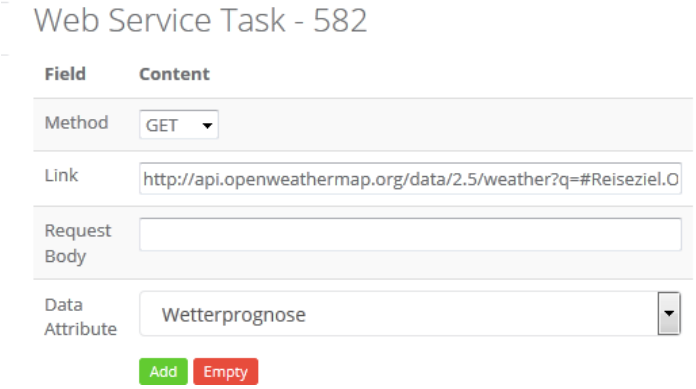
2.3 Configuration of E-Mail and Web-Service Tasks

You have to configure E-Mail and Web-Service tasks before you can execute them. To do that you have to check the menu point "Admin" where you can choose either "Mail/Webservice Config". For E-Mail tasks you first have to choose your corresponding scenario. Then you can freely specify the sender, subject and message. By clicking on the "Change eMail Settings" button you will save your configuration. In this form you can also choose to make use of process variables.



For Web-Service tasks you have to choose the scenario as well. Here you can choose which type of request you want to send (GET/PUT/POST). In case you choose either PUT or POST you have to specify the request body as the REST standard demands.

After that you can parse the response you will get into a process variable by choosing the corresponding Data Attribute and pressing "Add".



After that you have to specify the JSON parameters. These are used to parse the answer your Web Service task will get and identify the correct value you want to write into the variable. For that you will have to add at least one parameter. You can specify more parameters by pressing the “Add” button again. Ultimately, to save your changes, you have to click the “Update Settings” button.