Documentation zur JEngine

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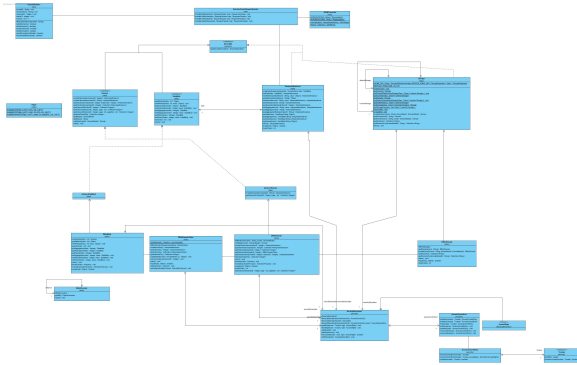{Jaspar,Jan,Sven,Stephan,Juliane,Nikolai}@student.hpi.de

Figure 1: Meta Modell PCM.

ABSTRACT
Diese Dokumentation ist entstanden im Rahmen des Bachelorprojekts BP2014W1 am Lehrstuhl für "Business Process Technology" betreut durch Prof. Dr. Matthias Weske. Es dient zu Dokumentierung der konzipierten und implementierten JEngine um ein Proof-of-Concept zu ermöglichen und gleichzeitig als Prototype für Anwendungsfälle von Bosch Software Innovations zu fungieren.

1. INTRODUCTION
Productive Case Management (PCM) beschreibt eine.... [1] (siehe Abbildung 1).

2. METAMODELL

3. JENGINE
Overall JEngine

3.1 JCore
Der JCore umfasst mehrere Hauptkomponenten unserer Engine. Dazu zählt die Auswertung der Datenbank und das Entscheiden von enableden Aktivitäten etc. Dazu zählt zum Beispiel auch die REST-API.

3.1.1 REST-API
Man kann offene Aktivitäten über einen GET-Request der Form: **localhost:8080/Scenario/{*ScenarioID*}/ {*ScenarioInstanceID*}** abrufen.

3.1.2 ExecutionService

3.2 JComparser

3.3 JFrontEnd

3.4 JDatabase

4. PROCESSEDITOR

5. PCM MODELLING USING THE PROCESSEDITOR
This document explains how to use the Processeditor to create PCM models. A PCM-Process can be described by many PCM fragments and one PCM scenario.

5.1 Preparations
Currently you need both, the Processeditor Workbench and the Processeditor Server to model and Save PCM. You will use the Workbench for modelling and the Server as a global repository.

5.2 PCM Fragments
PCM Fragments are small Business Process models. They can be modelled using a subset of the BPMN-Notation:

- Tasks
- Events ** Blanko Start-Event ** Blanko End-Event
- Gateways ** Parallel Gateway ** Exclusive Gateway
- Data Objects
- Sequence Flow
- Data Flow

All this elements are offered by the model type PCM Fragment.

5.2.1 Marking a Task as Global
PCM allows to use the same task in more than one fragment. To do so

1. model the Task (in one scenario)
2. Save the model to the repository
3. Right click on the Task and choose *Properties*
4. Set the *global flag*

5.2.2   Copy and Refer an existing Task
1. In another Fragment right click on any node
2. Choose "Copy and Refer Task"
3. Connect to the server if necessary
4. Choose the Model and the Task you want to refer
5. Click on Ok

5.3   PCM Scenario
A Scenario defines which PCM Fragments are part of one Process. All PCM Fragments have to be saved on the Server. You can alter the Scenario only by moving the nodes and adding/removing PCM Fragments.

5.3.1   Defining a PCM Scenario
1. Create a new PCM Scenario Model.
2. Right Click on one of the two nodes
3. Choose Add Fragments
4. Mark all Models you want to add in the left List (CTRL for multi select)
5. click on add than on ok

Now there should be entries for all the fragments (inside green node) and for all their data objects (inside white node).

5.3.2   Removing a Fragment From an Scenario
1. Right Click on one of the two nodes
2. Choose *Add Fragments*
3. Select all the models you want to remove from the right list
4. Click on *Remove* than click *Ok*

5.3.3   Set a Termination Condition
If a termination condition is full filled the process is terminated. Currently only one termination condition consisting of one Data Object in one specific state is possible.

1. Open your Scenario
2. Right Click on the canvas (not the Nodes)
3. Choose *Properties*
4. Fill out the *Termination Data Object* and *Termination State* fields

5.3.4   Copy and Alter a Complete Fragment
You can create a variation of an existing PCM Fragment using the Plug-in *Create Variant*.

1. First click on *Plug-Ins*
2. Choose *Create Variant*
3. Choose your Fragment and click on *Ok*

5.4   Processeditor Server
5.5   Processeditor Client
6.   REFERENCES
[1] A. Meyer, N. Herzberg, M. Weske, and F. Puhlmann. Implementation framework for product case management: Modeling and execution. 2013.