JEngine REST API Specification v2.0

BP2014W1 - Team

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Todo list

One goal of the JEngine was to provide a flexible API. Developers can use this API to build an UI or to control/use the engine from within another application. There are methods to configure, control and monitor processes and their instances. This document will provide a specification/documentation of the Rest-Interface, by providing the information about the allowed methods and examples .

1 Structure

http://domain:port/jengine/api/	interface/{version}
	config/{version}
	jcomparser/{version}
	history/{version}

Table 1: API Core Path

The API is divided into four parts (Table 1):

1. **Interface.** The interface provides methods for creating and controlling instances of scenarios. More information can be found in Chapter 2.1.

2. **Config.** This API can be used to configure a process model. Currently the configuration is restricted to email tasks. More information and examples can be found in Chapter 2.2.

3. **Comparser.** The JEngine can be used to execute Production Case Management (PCM) models created with the JEDItor[1]. The JComparser is an interface between the core of the engine and the model repository provided by the JEDItor. The JComparser provides and interface to view and load models from the repository. More information and examples can be found in chapter 2.3.

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[1]`BP2014W1processeditor.html`

4. **History.** Detailed information about state changes of data object and activities of running and terminated scenario instances can be accessed via the history interface. Chapter 2.4 provides examples and detailed information.

2 Functions

This chapter provides information about all possible REST calls. For more detailed information you may take a look at the *Java doc* provides for each class.

2.1 Interface

The interface provides methods mainly used by the UI. It offers functions for viewing and controlling scenarios and their instances.

2.1.1 Scenarios

Get all Scenarios

```
http  GET  interface/{version}/scenario
```

```
{
  "ids":[140,141,142,143],
  "links":{
    "140":"http://domain:port/jengine/api/interface/v2/scenario/140",
    "141":"http://domain:port/jengine/api/interface/v2/scenario/141",
    "142":"http://domain:port/jengine/api/interface/v2/scenario/142",
    "143":"http://domain:port/jengine/api/interface/v2/scenario/143"
  },
  "labels":{
    "140":"TestScenario",
    "141":"CoffeeScenario",
    "142":"BookingScenario",
    "143":"BoschScenario"
  }
}
```

Figure 1: Example output of get all Scenarios request

Get all Scenarios with filter condition

```
http  GET  interface/{version}/scenario?filter=Coffee
```

Get detailed information about a Scenario

```
{
  "ids":[141],
  "links":{
    "141":"http://domain:port/jengine/api/interface/v2/scenario/141"
  },
  "labels":{
    "141":"CoffeeScenario"
  }
}
```

Figure 2: Example output of get all Scenarios request with filter condition

`http GET interface/{version}/scenario/1`

```
{
  "modelid":0,
  "instances":"http://domain:port/jengine/api/interface/v2/scenario/1/instance",
  "name":"HELLOWORLD",
  "id":1,
  "modelversion":0
}
```

Figure 3: Example output of get a specific scenario

2.1.2 Scenario Instances

Get all scenario instances

`http GET interface/{version}/scenario/1/instance`

```
{
  "ids":[47,48,49],
  "links":{
    "47":"http://domain:port/jengine/api/interface/v2/scenario/1/instance/47",
    "48":"http://domain:port/jengine/api/interface/v2/scenario/1/instance/48",
    "49":"http://domain:port/jengine/api/interface/v2/scenario/1/instance/49"
  },
  "labels":{
    "47":"Berlin-Istanbul",
    "48":"Herr Meyer Reise",
    "49":"Sommerurlaub"
  }
}
```

Figure 4: Example output of get all scenario instances

Get all scenario instances with filter condition

```
http   GET   interface/{version}/scenario/1/instance?filter=Herr
```

```
{
  "ids":[47,48,49],
  "links":{
    "48":"http://domain:port/jengine/api/interface/v2/scenario/1/instance/48"
  },
  "labels":{
    "48":"Herr Meyer Reise"
  }
}
```

Figure 5: Example output of get all scenario instances with condition

Start a new instance
A new instance can be started by performing a PUT or POST. The PUT provides the
possibility to name the new instance.

```
http   PUT    interface/{version}/scenario/1/instance
http   POST   interface/{version}/scenario/1/instance
```

**If you want to name the scenario instance you have to provide a body (Figure
2.1.2):**

```
{
  "name":"This is the new instance"
}
```

Figure 6: Body of the PUT request to create a new named instance

Get detailed information about a scenario instance

```
http   GET   interface/{version}/scenario/1/instance/48
```

2.2 Config

Get all available scenarios for import

```
http   GET   jcomparser/scenarios
```

Get all available scenarios for import

```
{
    "name":"Herr Meyer Reise",
    "id":48,
    "terminated":false,
    "scenario_id":1,
    %"activities":"http://domain:port/jengine/api/interface/v2/scenario/1/instance/48/activi
}
```

Figure 7: Example output of get a single scenario instance

```
{
    "ids":
        {
            "800682779972007735":"Coffee process",
            "635432698":"Coffee process",
            "932221086":"Kaffeeprozess"
        }
}
```

Figure 8: Example output of get all available scenarios from jcomparser

```
http   GET   jcomparser/scenarios
```

```
{
    "ids":
        {
            "800682779972007735":"Coffee process",
            "635432698":"Coffee process",
            "932221086":"Kaffeeprozess"
        }
}
```

Figure 9: Example output of get all available scenarios from jcomparser

```
http   GET   jcomparser/scenarios
```

```
{
    "ids":
        {
            "800682779972007735":"Coffee process",
            "635432698":"Coffee process",
            "932221086":"Kaffeeprozess"
        }
}
```

Figure 10: Example output of get all available scenarios from jcomparser

Get all available scenarios for import

2.3 JComparser

Get all available scenarios for import

```http
http   GET   jcomparser/scenarios
```

```
{
    "ids":
        {
            "800682779972007735":"Coffee process",
            "635432698":"Coffee process",
            "932221086":"Kaffeeprozess"
        }
}
```

Figure 11: Example output of get all available scenarios from jcomparser

Get image of scenario

```http
http   GET   jcomparser/scenarios/932221086/image/
```

\missingfigure{example scenario image}

Figure 12: Example output of get activies log

POST launch import of scenario

```http
http   POST   jcomparser/scenarios/932221086/
```

2.4 History

Get activities log

```http
http   GET   history/{version}/scenario/149/instance/1085/activities/
```

Get dataobjects log

```http
http   GET   history/{version}/scenario/149/instance/1085/dataobjects/
```

```
{
    "881":
        {
            "activityinstance_id":7871,
            "timestamp":"2015-03-17  16:26:29.0",
            "scenarioinstance_id":1085,
            "label":"Kaffeestand  pruefen",
            "newstate":"init"
        },
    [..]
}
```

Figure 13: Example output of get activies log

```
{
    "68":
        {
            "timestamp":"2015-03-17  16:26:56.0",
            "scenarioinstance_id":1085,
            "dataobjectinstance_id":879,
            "new_state_name":"fertig",
            "name":"Kaffee",
            "old_state_id":120,
            "old_state_name":"gekocht",
            "new_state_id":119
        },
    [..]
}
```

Figure 14: Example output of get dataobjects log