

# Business Process addon (par)

Soffid Business Processes use JBoss JBPM engine. You can find the original JBPM documentation [here](#).

In order to develop a new business process addon you need Eclipse Java EE IDE for Web Developers and three plugins installed on it:

- JBPM plugin. You can find it on [http://fr.sourceforge.jp/projects/sfnet\\_jbpm/downloads/jBPM%20Process%20Designer/jbpm-jpdl-designer-3.1.7/jbpm-jpdl-designer-site-3.1.7.zip/](http://fr.sourceforge.jp/projects/sfnet_jbpm/downloads/jBPM%20Process%20Designer/jbpm-jpdl-designer-3.1.7/jbpm-jpdl-designer-site-3.1.7.zip/) and you can installing it from **Help/Install New Software/Add** and selecting the file you have downloaded with the **Archive** button.
- ZK studio. Follow this instructions in order to install [http://books.zkoss.org/wiki/ZK\\_Studio\\_Essentials/Installation#Install\\_ZK\\_Studio](http://books.zkoss.org/wiki/ZK_Studio_Essentials/Installation#Install_ZK_Studio).
- maven plugin (m2e-Maven Integration for Eclipse). Go to **Help/Install New Software/Work with: "All Available Sites"** and select the plugin.

The business process addon can be build using the `com.soffid.tools:maven-par-plugin` addon.

They follow the JBPM conventions for `.par` files:

- `/processdefinition.xml` contains the business process definition that you define. Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<process-definition xmlns="urn:jbpm.org:jpdl-3.3"
  name="Recertification process">
  <description>
    Process to execute recertification tasks.
  </description>

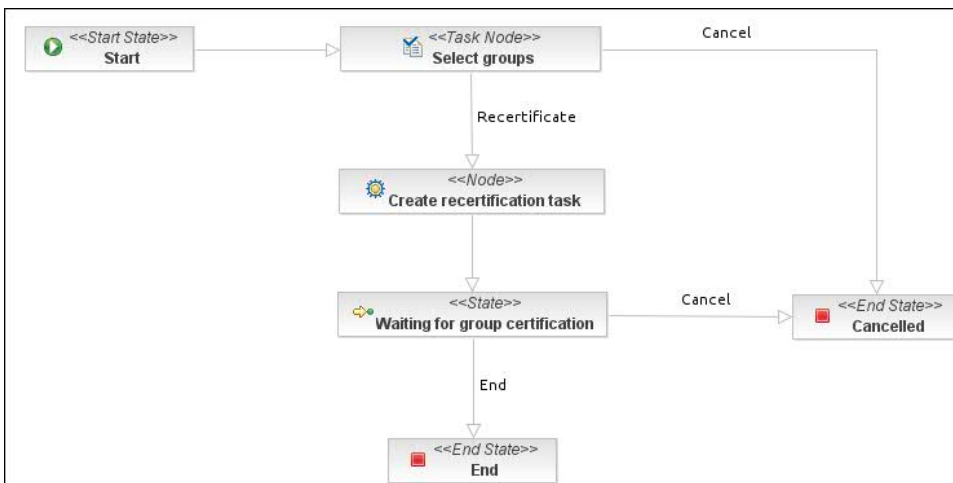
  <start-state name="Start">
    <description>
      Starts a recertification process
    </description>
    <transition to="Select groups"></transition>
    <event type="before-signal">
      <action name="Create recertification process" class="com.soffid.iam.
recertification.bpm.CreateRecertificationProcessHandler"></action>
    </event>
  </start-state>

  <task-node name="Select groups">
    <description>
      Selects one or more business units.
      ...
    </description>
    <task name="Select business units">
      <assignment pooled-actors="SEU_ADMIN, SEU_ADMINISTRADOR, SOFFID_ADMIN"><
/assignment>
    </task>
    <transition to="Cancelled" name="Cancel"></transition>
    <transition to="Create recertification task" name="Recertificate"></transition>
  </task-node>
  <node name="Create recertification task">
    <action name="Create recertification info" class="com.soffid.iam.recertification.bpm.
CreateRecertificationTaskHandler"></action>
    <transition to="Waiting for group certification"></transition>
  </node>
  <state name="Waiting for group certification" async="true">
    <transition to="Cancelled" name="Cancel"></transition>
    <transition to="End" name="End"></transition>
  </state>

  <end-state name="Cancelled"></end-state>
  <end-state name="End"></end-state>

  <event type="process-end">
    <action class="com.soffid.iam.recertification.bpm.ProcessFinishedHandler"></action>
  </event>
</process-definition>
```

- `/processimage.jpg` contains a bitmap representation of the definition you have created. Example:



- /gpd.xml contains the position of business process elements on processimage.jpbbitmap. Example:

```

<?xml version="1.0" encoding="UTF-8"?>
<root-container name="Recertification process" width="743" height="369">
  <node name="Start" x="16" y="14" width="132" height="36">
    <edge>
      <label x="5" y="-10"/>
    </edge>
  </node>
  <node name="Select groups" x="260" y="14" width="203" height="36">
    <edge>
      <label x="-135" y="-21"/>
      <bendpoint w1="314" h1="0" w2="-1" h2="-207"/>
    </edge>
    <edge>
      <label x="5" y="-10"/>
    </edge>
  </node>
  <node name="Create recertification task" x="259" y="124" width="207" height="36">
    <edge>
      <label x="5" y="-10"/>
    </edge>
  </node>
  <node name="Waiting for group certification" x="258" y="219" width="210" height="36">
    <edge>
      <label x="-14" y="-20"/>
    </edge>
    <edge>
      <label x="5" y="-10"/>
    </edge>
  </node>
  <node name="Cancelled" x="610" y="221" width="132" height="36"/>
  <node name="End" x="297" y="332" width="132" height="36"/>
</root-container>

```

- /classes directory contains the java compiled classes that support the business process that you implement.

Some additional files must be included

- /ui.xml file describes some aspects not covered by processdefinition.xml, just like permissions, user interface and process versioning and upgrade. Example:

```
<?xml version="1.0" encoding="UTF-8"?>
<process>
  <tag>${pom.version}</tag>
  <roles>
    <initiator>
      <role name="SEU_ADMIN" />
      <role name="SOFFID_ADMIN" />
    </initiator>
    <supervisor>
      <role name="SEU_ADMIN" />
      <role name="SOFFID_ADMIN" />
    </supervisor>
    <observer>
      <role name="SEU_ADMIN" />
      <role name="SOFFID_ADMIN" />
    </observer>
  </roles>
  <task name="Select business units">
    <file path="ui/recertificateBUform.zul" />
  </task>
  <upgrade>
    <process>
      <tag>${project.version}</tag>
    </process>
  </upgrade>
</process>
```

- **/ui directory** contains the user interface (ZK) components that are needed to render the workflow tasks.