**jbpm3-jbpm5 Training – jBPM3 Module**

This project demonstrates several features of the jBPM3 workflow engine. It can either be run on the JBoss SOA-P server or with the included JUnit test. This document describes the configurations steps necessary to successful build, configure and run the application in each mode.

**Prerequisites**

The following dependencies are required:

* Apache Maven
* JBoss Developer Studio
* JBoss SOA-P 5.3
* A functional Email Server

The dependencies associated with this project are configured for version BRMS/SOA 5.3. The latest JBoss artifacts are not available in the public JBoss Maven repository so they must be installed manually using the jbpm-jpdl.jar found in the default, production and all profiles of your JBoss server. Using the terminal, navigate to the following path:

***cd <JBoss\_Server\_Profile>/deploy/jbpm.esb***

Install the dependency into your local Maven repository by running the following command:

***mvn install:install-file -Dfile=jbpm-jpdl.jar -DgroupId=org.jbpm -DartifactId=jbpm-jpdl -Dversion=3.2.13 -Dpackaging=jar***

With the prerequisites now met, download or clone the Git repository and import the Maven project into JBoss Developer Studio

**Running the JUnit Tests**

A JUnit test class called ***Jbpm3WorkflowTestIT*** is available in the **com.redhat.training.jbpm** package within the jbpm-jbpm3 project. Sending emails is a component of the included workflow and certain configurations must be completed prior to running the tests such as the configuration of an outgoing mail server. This configuration is completed in the jBPM3 configuration file **jbpm.cfg.xml**. It is including in the **src/main/resources** folder. The following values must be set based on your email server:

* Email Server Host (jbpm.mail.smtp.host)
* Email Server Username (jbpm.mail.user)
* Email Server Password (jbpm.mail.password)
* Email Server Port (jbpm.mail.smtp.port)
* Enabling TLS (uncomment the jbpm.mail.smtp.starttls section for email servers which require TLS based security such as gmail)

*NOTE*: An example of this section is found in the “Deploying to the JBoss Server” below

The final step is to configure the destination address for outgoing emails. This value is configured within the jBPM workflow. The workflow itself is in a file called processdefinition.xml located in the workflow-jbpm3 folder.

Within JBoss Developer Studio, properties for jBPM workflows are configured using the Properties View. If this view is not currently visible, it can be enabled by navigating to **Window**->**Show View**->**Other**. Within the Show View window, expand **General** and select **Properties**.

With the processdefinition.xml file open, click on the **approval-mail-node**.

In the properties view, select the **Mail Info** tab and modify the email address next to the “**To**” dropdown in the in the Destination section. Repeat the same step for the denial-mail-node.

At this point, the JUnit test can be run. Right click the **Jbpm3WorkflowTestIT** file and select **Run As** ->**Junit Test**. Both tests should pass and two emails should be in the inbox of the destination email address configured above.

**Deploying to the JBoss Server**

As previously stated, jBPM3 is available in the default, production and all profiles of the JBoss SOA-P server. From the selected profile, edit the jBPM configuration file located in **<Server\_Profile>/deploy/jbpm.esb/jbpm.cfg.xml** to configure the email server.

Comment out the default value for **jbpm.mail.smtp.host**. Add the following substituting your email server configuration

<!-- Email Configuration -->

<string name=*"jbpm.mail.smtp.host"* value=*"smtp.redhat.com"* />

<string name=*"jbpm.mail.user"* value=*"user"* />

<string name=*"jbpm.mail.password"* value=*"password"* />

<int name=*"jbpm.mail.smtp.port"* value=*"25"* />

<!-- # For use with servers requiring start TLS such as gmail

<boolean name="jbpm.mail.smtp.starttls" value="true" />

-->

Start up the JBoss Server instance

Build the project using Maven by running the following command in the terminal at the root of the jbpm-jbpm3 project

***mvn clean package***

A Process Archive (.par) file will be generated in the target folder.

Navigate to the jBPM console located at <http://localhost:8080/jbpm-console>. Login to the console using the default username/password combination of admin:admin.

On the left hand side, click “**Deploy a new process**”

Click Browse and navigate to the target folder and locate the .par file generated previously

Click **Deploy**

On the left hand side, click **Start** new process which will start a new process instance

To move the root token out of the start node, click **Tokens** on the left hand side which will bring up a menu of currently active tokens

Click **Signal** next to the token with the status of “*Running*” to move the token out of the start node. This will move the token through the rest of the workflow

With the workflow completing, an email should be generated and sent to the destination previously configured