

Red Hat JBoss BPM Suite

Mortgage Demo

(Use case: rules integration with BPM)

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Introduction

Interested in fully automating your mortgage application process but you don't know where to start? Have no fear, with the Red Hat JBoss Business Process Management Suite (BPM Suite) you can leverage the power of rules, events, and processes in a single integrated suite.

This document will guide you through a generic loan application project using the JBoss BPM Suite, demonstrating a BPM process with rules, decision tables, guided rules, a data model, human task, and task forms. It will help you demonstrate the various product components and help you to evaluate an application like a mortgage process.

Setup and Configuration

Installation

You first need to get the project by cloning it from the central location:

```
git clone git://github.com/jbossdemocentral/bpms-mortgage-demo.git
```

Once downloaded, you will have the following folder structure:

- \bpms-mortgage-demo
 - \installs – Initially empty, but will contain the BRMS platform downloads.
 - \projects – The project that comprise the demo.
 - \support – Additional supporting files used by the demo.
 - \target – Will be created by running init.sh. Contains the fully configured BRMS runtime server.
 - \docs – Contains quickstart guide you are reading and architectural overview slides.

- `init.{sh|bat}` – Script to install and configure the run time server environment.

Next, download JBoss BPM Suite and JBoss EAP installers from the Red Hat Customer Portal (<https://access.redhat.com>).

Download JBoss BPM Suite installer:

1. Under *JBoss Enterprise Platforms*, select the *BPM Suite* product.
2. Select version *6.1.0.GA* in the *Version* field.
3. Download *Red Hat JBoss BPM Suite 6.1.0.GA Installer*

Now copy `jboss-bpmsuite-6.1.0.GA-installer.jar`, to the projects *installs* folder. Ensure that this file is executable by running:

```
$ chmod +x <path-to-project>/installs/jboss-bpmsuite-6.1.0.GA-installer.jar
```

Download JBoss EAP installer:

4. Under *JBoss Enterprise Platforms*, select the *JBoss EAP* product.
5. Select version *6.4.0.GA* in the *Version* field.
6. Download *Red Hat JBoss EAP 6.4.0.GA Installer*

Now copy `jboss-eap-6.4.0.GA-installer.jar`, to the projects *installs* folder. Ensure that this file is executable by running:

```
$ chmod +x <path-to-project>/installs/jboss-eap-6.1.0.GA-installer.jar
```

Lastly, from the project folder, run the *init.sh* (or *init.bat*) script:

```
$ ./init.sh
```

When the script completes you will have a new folder named *jboss-eap-6.4*, in the projects *target* folder. The folder is a ready to run EAP 6 server with BPM Suite with the following modifications made:

- The *erics* account enabled (password *bpmsuite1!*) in the *application-roles.properties* file in *bpms-mortgage-demo/target/jboss-eap-6.4/standalone/configuration*
- Adjusted system properties, copied new *standalone.xml* to *bpms-mortgage-demo/target/jboss-eap-6.4/standalone/configuration*
- The mortgage demo repository setup in the product, copied *bpm-suite-demo-niogit* to the *bpms-mortgage-demo/target/jboss-eap-6.4/bin*

Running the Demo

The demo is focusing on the JBoss BPM Suite business central console which is web based.

Pre-load mortgage demo

The project comes with a client jar that will inject a set of pre-configured process instances, you can run this jar from the *support/* directory as follows once the project has been installed and the JBoss BPM Suite server started:

```
java -jar jboss-mortgage-demo-client.jar erics bpmsuite1!
```

After execution you should see it has populated the *Process and Task* dashboards with the process

instances and this carries over into the *Business Activity Monitoring (BAM)* dashboards.

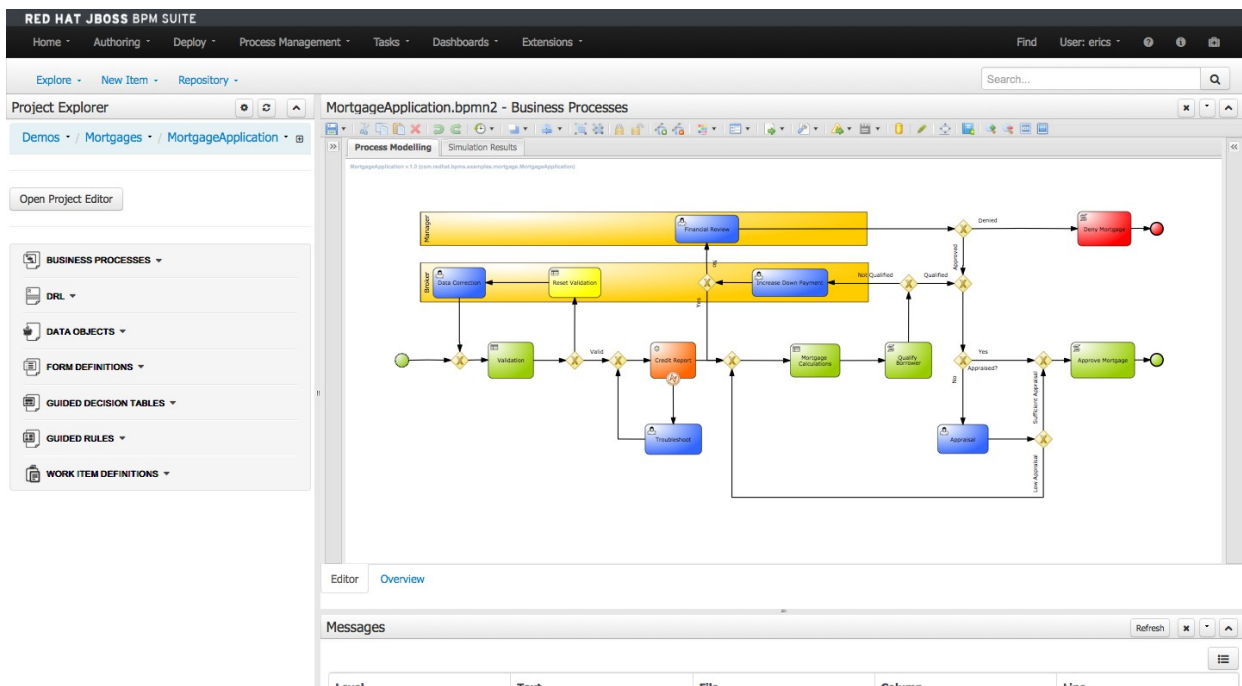
JBoss BPM Suite mortgage demo

The package was already imported so now we can look closer at web designers viewing, rules asset viewing, package building and deploying, web business central admin console viewing.

Web Designer

The business central integrated suite is available on <http://localhost:8080/business-central> once the BPM Suite server has been fully started.

1. Login with a user (erics). To start fresh you can at any time remove the *target* directory and re-run the install.
2. View mortgage process: *Project Authoring* → *Package (select com.redhat.bpms.examples.mortgage)* → *Business Processes* → *MortgageApplication* and wait for web designer to appear.



Rule asset viewing

To view some of the assets in your project:

1. *Project Authoring* → *Package (select com.redhat.bpms.examples.mortgage)* → view *Guided Rule*, *Guided Decision Table*, *Java Source Files*, *Form Definitions*, or *Work Item Definitions*.

Build package for deployment

To build your project for deployment:

1. Build & Deploy: *Project Authoring* → *Package (select com.redhat.bpms.examples.mortgage)* → *Tools* → *Project Editor* → *Build & Deploy button*. Now the process has been deployed if you see a pop-up Build successful.

The screenshot shows the 'Project General Settings' page in the Red Hat JBoss BPM Suite. The left sidebar contains a 'Project Explorer' with a tree view showing 'Demos' > 'Mortgages' > 'MortgageApplication'. The main area is titled 'Project: [mortgage:com.redhat.bpms.examples:1]' and contains the following sections:

- Project General Settings:**
 - Project Name:** Mortgage Demo
 - Project Description:** Mortgage application to demo basic features of BPMS 6
- Group artifact version:**
 - Group ID:** com.redhat.bpms.examples (Example: com.myorganization.myprojects)
 - Artifact ID:** mortgage (Example: MyProject)
 - Version:** 1 (1.0.0)
- Messages:** A table with columns: Level, Text, File, Column, Line. The table is currently empty.

View deployment

To view your deployed project and start an instance:

1. *Process Management* → *Process Definitions* → select *MortgageApplication* → *New Instance* button
2. Fill in form details and submit.

Submit form

- Name: erics
- Address: somewhere
- SSN: 123456789
- Income: 80000
- Property Sale Price: 100000
- Down Payment: 30000
- Amortization: 10

The process can be completed by viewing the task list, selecting the task for your process, claim it, complete it.