Web-based BPM with jBPM 5
Tihomir Surdilovic
JBPM Core Developer
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Agenda

• Introduction
  – BPM / Web-based BPM
  – jBPM 5
  – jBPM 5 Web-based Tooling
• Demo
• Roadmap
Introduction
Business Process: describes a series of logically related work activities which need to be executed to accomplish a business goal. Depicted using a flow chart.
BPM Goals:

- Unified methodology for creating, improving, understanding, and controlling the execution of business processes.
- Abstract business processes from their existing technology infrastructure (code, various metadata, etc).
- Increase visibility into and access to business processes.
- Establish a common language for business-IT alignment
BPM Life Cycle

- BPM is not a one-time exercise
- BPM enforces collaboration of multiple participants
- Life Cycle promotes continuous improvements

**BPM Life Cycle Model**

- Business Analysts: Model
- Developers
- Sys-Admins
- End Users
- Monitor
- Deploy
- Execute

**JUDCon 2012: Boston**
Web-based BPM

- Traditional BPM systems are IT centric, monolithic, difficult for business users.
- Converge BPM and Web to reach **highly modular, reusable, and reconfigurable** systems ("plug-and-play" instead of "programming")

Building blocks of different complexity levels:
- components (Human Task, Persistence, etc)
- services (REST, JS, Twitter, etc)
- reusable subprocesses
- constructs (Approval, Error Handling, etc)
- task forms
- ...
Web characteristics relevant for BPM

- Collaboration and info/ideas sharing
  - Increased participation level and content sharing
Web characteristics relevant for BPM (2)

- Ability to put together information from various services (Meshups)

Service Repositories
Web characteristics relevant for BPM (3)

- Above the level of a single device
  - Mobile, Cloud
  - "Unlimited" scalability
Web characteristics relevant for BPM (4)

• Zero-footprint Rich User Interfaces

JavaScript/Ajax/3rd party libs
Web characteristics relevant for BPM (5)

- Fast deployment / startup

```
Last login: Tue Jun 19 14:16:11 on console
thomir@thomir-Surdilovic-MacBook-Pro:~$ cd jbpm-demo-installer/
thomir@thomir-Surdilovic-MacBook-Pro:jbpm-demo-installer:~$ ant start.demo.noeclipse
Buildfile: /Users/thomir/jbpm-demo-installer/build.xml

download.h2.check:
   [echo] Checking h2 download ...
download.h2:
start.h2:
start.jboss:
check.jboss.version:
start.jboss5:
check.jboss.version:
start.jboss7:
start.demo.noeclipse:
BUILD SUCCESSFUL
Total time: 22 seconds

AS7 – lightning fast
```
Keys to Web-based BPM

- Realm between the business users and developers
Keys to Web-based BPM (2)

- “Zero code” from business model to executable business process

Dynamic BPMN2.0 Generation
Overview of jBPM 5

- Open-source BPM project
- Supports entire BPM Life Cycle
- Embeddable Process Engine (native BPMN2.0 support)
- Web-based and Eclipse-based tooling support
- Powerful Rules and Events Integration
Drools Guvnor

- Web-based knowledge-asset management
- Knowledge repository
- Asset storage and versioning support (JCR 2)
- Asset validation, testing, and deployment
- Guided widget editor support for all knowledge asset types
- Multiple access points to stored knowledge data: REST/WebDAV
- Authorization and authentication support
jBPM 5 Web-based tooling (2)

- **jBPM Designer**
  - Web-based **BPMN2.0** Editor
  - **Create/Modify** executable business processes and Task Forms
  - Public **JavaScript API**
  - Support for **Service Nodes**, **Service Repository**, **Process Image/PDF**, **Visual Validation**, **jBPM 3 process migration**, **Locking/Unlocking**, **In-line Process/Task Forms** editing, **custom Data Input Editors**, **Auto-completion** for script, ...
jBPM 5 Web-based tooling (3)

- Web-based Process Instance Management Environment
- Start/stop/signal your process instances
- Inspect process instance state
- Inspect your human task lists and execute those tasks
- Generate process execution Reports
- Exposes REST interface to clients
JBPM 5 Web-based tooling within the BPM Life Cycle

- Designer
- Guvnor
- Model
- Console
- Guvnor
- Execute
- Console
- Designer (Future)
Example: Video Submission Process
Video Submission Process

• Requirements
  – **Model, Deploy, Execute, Monitor** using jBPM Web-based tooling
  – **Live video feeds** from YouTube
  – IRC-based **notification** of pending tasks during process execution
  – Use **Form Widgets** for Process and Task Forms
  – **Live preview** of approved videos via Mobile Simulator
Video Submission Process

Start → Video Approval

Submitter starts off the process by selecting the video to be submitted
Human Actor approves or denies video submission

Reminder Timer
Trigger with 1min delay and repeat on 1min period

PircBot
IRC Bot reminds users of pending video approval tasks

Approved → VideoUploader
Uploads the video to the JBP channel

Denied

End

VideoUploader → IPhone Simulator
Opens the JBP channel in iPhone Simulator

End

Developer
Video Submission

Submit Video for Approval

Data Inputs
- Submitter
- Video URL
- Video Category

Video Info
- Title: jBPM Designer 2.1 released
- Category: jBPM
- Published: 2012-04-10T05:14:35.000Z
- Last Updated: 2012-05-20T05:10:48.000Z
- Author: tsurdilovic
- Rating: 5
- Views: 2596
- Likes: 1
- Dislikes: 0

Actions
- Comment
- Approve
- Deny

End User

Approver
Video Submission

DemoBot

tsurdilovic: You have pending video approval tasks.

DemoBot: show details

DemoBot

tsurdilovic: Task [name=approve id=1 assignee=tsurdilovic taskId=1 processInstanceId=1 state=ASSIGNED priority=0]

DemoBot: release all

DemoBot

tsurdilovic: Released Task [id=1]

Approver
Demo
Web tooling Roadmap

- Overall enhancements of tooling functionality
- Enhance Process/Task Form creation (Form Widgets)
- User defined Data Input Editors
- Integration
- Test generation
- Simulation and Replay
- Cloud (OpenShift)
- Mobile
- Enhance Social modelling
- Extend BPMN 2.0 support
  - “Common Executable” subclasses
Thank you!

- jBPM home page: http://www.jboss.org/jbpm
- Source: https://github.com/droolsjbpm/jbpm
- Hudson: http://hudson.jboss.org/hudson/job/jBPM
- IRC: #jbpm on freenode
- Mailing list: jbpm-dev@jboss.org
- User forum: https://community.jboss.org/en/jbpm?view=discussions