jBPM Explained
with Simple Use Cases

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Agenda

Business Process Management
jBPM Introduction
Developer Value
Business Value
Train ticket system
Roadmap
BPM Business Value

BPM as a management discipline
Not an IT concept
William Edwards Deming
Plan
Do
Check
Act
Assembly Lines

1723-1790, Adam Smith: The pin factory
1863-1947, Henry Ford: mass production
Government Tax Collection
Library Lending A Book
Selling A Ticket To A Concert
GOOD MORNING

IS A CONTRADICTION IN TERMS
Business Processes Need To Be Managed

 Doesn’t mean that
 People are aware
 They are controlled or guided
 Everyone is using the same process
 Managing processes
 Discipline
 Organizational change needed
 Know, understand and follow the business process
 Thinking in processes, intra- and interbusiness
 Control mechanisms
 IT can help there
Tag Cloud from Gartner's: “Hype Cycle for Business Process Management, 2008”
jBPM Introduction

Workflow & BPM engine
Graphical diagram
Execution flow
jBPM Business Value

Improve business – IT communication
Agile
Conformance
Governance
Audit
Business Insight
jBPM Technical Perspective

State machine
Control flow including wait states
Current execution state persisted in DB
Transactionally move from one state to next
Include automated steps in transactions
jBPM Technical Value

Embeds into your application
Integrates with your transaction
Integrates with your database
Integrates with your domain model
Deploy as simple library or standalone server
Simplest way to implement asynchronous architectures
Human tasks
Asynchronous communication between systems
jBPM 4

Split normal usage from bleeding edge API
Configuration
Process Virtual Machine
Rock solid
Leverages feedback of jBPM 3’s huge production usage
QA in our own lab
CI of \{environments\} * \{functionalities\}
Support !
jPDL

jBPM’s original process language
Clean Java integration
Task management
Developers like it
Transactional control flow
Compact, readable XML
Non technical business analysts like it
Diagram decoupled from execution semantics
Boxes and arrows
BPMN 2.0

New process language next to jPDL
Standard
Vendor neutral
Interoperability ?
Technical business analysts like it
Focus on modelling
Precise execution semantics
Directly coupled with diagram
Now in incubation
Productized in H2 2010
BPMN 2.0 Team

Joram Barrez
Lead
Signavio integration
Ronald van Kuijk
Implementation of control flow activities
Alejandro
Service aspects
Bernd Ruecker
Initial code contribution
Mentor
Koen Aers
Tooling, activity implementations
Train Ticket jPDL Use Case

- Calculate quote
  - credit OK: Send price quote to customer
  - credit NOK: Send reject message

- Accept quote
- charge customer

- timeout
Human Task

<process name="ticketProcess">
  ...
  <task name="Accept quote"
       assignee="#{ticketRequest.cellPhoneNr}">
    <transition to="charge customer"/>
    <transition name="timeout" to="cancel">
      <timer duedate="1 day"/>
    </transition>
  </task>
  ...
</process>
jBPM API

```java
Configuration configuration = new Configuration();

ProcessEngine processEngine = configuration.buildProcessEngine();

ExecutionService executionService = processEngine.getExecutionService();

ProcessInstance processInstance = executionService.startProcessInstanceByKey("StateChoice");
```
Questions?

http://jbpm.org
http://processdevelopments.blogspot.com