JBoss jBPM Overview
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Agenda

• What is JBoss jBPM?
• Multi Language Support
• Graphical Process Designer
• BPMN Reflections
What is it?

- JBoss jBPM is a sophisticated state machine
- JBoss jBPM delivers workflow, business process management (BPM) and service orchestration in a multi-process language platform
What does it do?

• JBoss jBPM executes long running processes that can be visualized graphically.

• JBoss jBPM enables automation of business processes that coordinate between people, applications and services.

• Designed for the mass market and support enterprise scale applications.

• JBoss jBPM bring process automation to a much wider set of business problems ranging from embedded workflow to enterprise business process orchestration and BPM.
Typical Components

Graphical Designer (eclipse based)

@Web Console

Embeddable

Processes

Runtime Engine

Process repository
Runtime Executions
History
Typical Components: Designer
Agenda

• What is JBoss jBPM?
• **Multi Language Support**
• Graphical Process Designer
• BPMN Reflections
Flavour 1: BPEL

- Service Orchestration
- Broadly accepted standard
- Well conceived specification
  - Quite complete
  - Does 1 thing well
- Web services environment
Flavour 2: jPDL

- jBPM Process Definition Language
- Graphical editor for the business user
- Java programming environment for the developer
- Ideal for Business Process Management (BPM)
  - Easy automation of business processes
  - Task management
  - Integration
  - Business Intelligence
jPDL Advantages

- **Link between**
  - Business User
  - Developer
- **Graphical diagram for business users**
- **Process is basis for implementation**
- **Diagram is shared**

```
submit web sale

sales review

fork

send bill

wait for payment

ship items

all shipped ?

join

end
```

- no
  - yes
More Flavours

• JBoss SEAM Pageflow
• But also on our wishlist
  – Visual programming
    Easy concurrency
    Limited but lowering the barrier
  – XPDL
JBoss jBPM

- Collection of process languages
- Based on the same technology
Process Virtual Machine

Software Development Languages

- General Purpose
  - OO Programming Languages
    - E.g. Java, C#
- SQL based query languages
- Graph Based Execution Languages
  - jPDL
  - BPEL
  - Pageflow
  - ...
- Process Virtual Machine
  - Object Oriented Programming Language
    - (e.g. Java, C#)
- IoC configuration
- Rules languages
- Scripting languages
JBoss jBPM Product View

JBoss jBPM: Platform for Process Languages

- jBPM jPDL
- jBPM BPEL
- ...

PVM

PVM

PVM
Agenda

- What is JBoss jBPM?
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jBPM Graphical Process Designer

- Initially graphical support for JPDL
  - Node pluggability
- Based on Eclipse technology
  - Eclipse plug-in
  - GEF
  - WTP – XML
  - No use of EMF/GMF (yet)
- Support for Seam Pageflow
- Ultimately : Multiple language support
  - BPEL
  - XPDL
  - BPMN
  ⇒ JWT
GPD Architecture

Notational Model to GEF Mapping

jBPM GPD Notational Model

jBPM GPD Semantic Model

Editors

WTP – XML

EMF – DOM Impl

<Base XML Adapter

Semantic Model to XML Mapping

Eclipse GEF
Agenda

• What is JBoss jBPM?
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BPMN Reflections

- Converging standard notation
- Executable?
  - Token concept
- Complexity
- Compliance?

=> Multiple profiles
BPMN Profiles (example)

**Basic Profile**
- Basic Activities
- Basic Events
- Sequence Flow

**Intermediate Profile**
- Complex Activities
- Complex Events
- Gateways

**Expert Profile**
- Swimlanes
- Message Flow
- Artifacts
Conclusion

- JBoss jBPM is a platform for executing processes in multiple process languages.

- JWT is a platform for graphically supporting development of processes in multiple process languages.

- Natural match!

![Image of two characters with a red curtain background]