

JBoss BPM Past, Present & Future

John Graham

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Introduction & Agenda

- John Graham (jgraham@redhat.com)
 - JBoss by Red Hat
 - Technical Development Manager
 - SOA, BPM, BRMS
- BPM at JBoss
 - Context
 - Past initiatives
 - Current situation
 - Future directions

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Context

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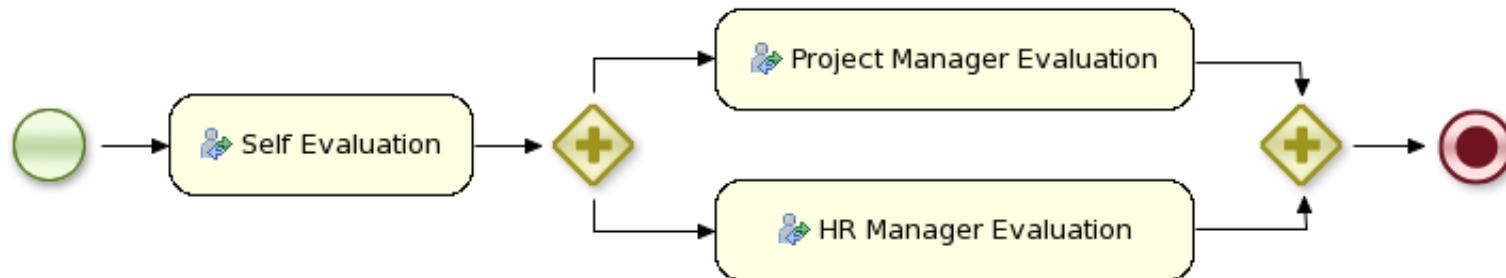
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Business Process

A **business process** is a process that describes the order in which a series of steps need to be executed, using a flow chart.



Business Process Management

- BPM is a discipline
 - Many actors
 - Entire life cycle
- We focus on ***executable*** processes
- Core engine = key component

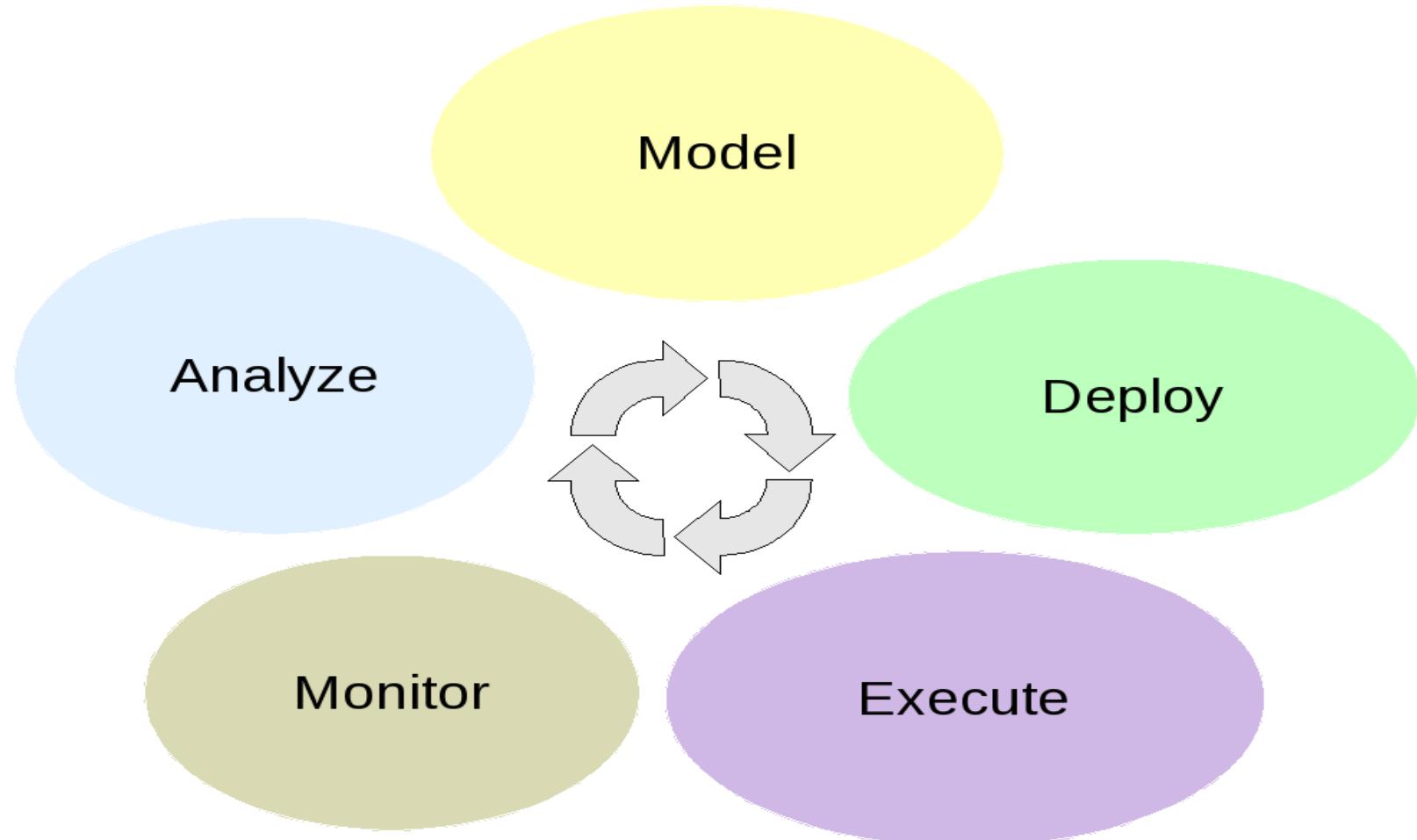
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Business Process Life Cycle



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BPM Advantages

- Visibility and transparency
- Monitoring
- Higher-level (involve business analysts)
- Automation, continuous improvement
- Increased speed of development
- Increased agility (change process more easily)
- and many more ...

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Past

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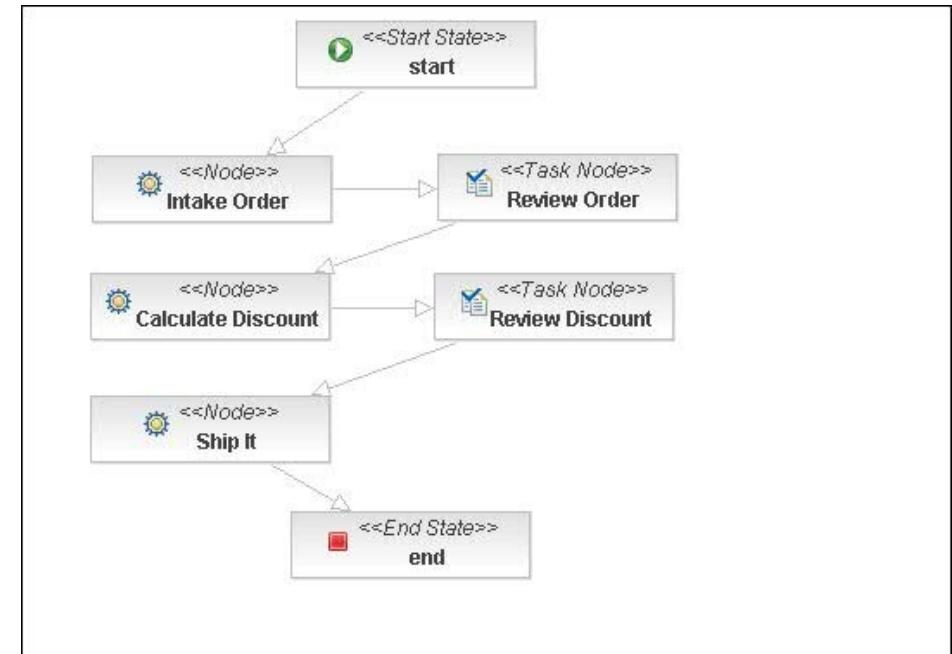
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jBPM

- Based on jPDL
- Deployments
 - Stand-alone
 - SOA-P
 - (Seam)
- jBPM 3
- jBPM 4



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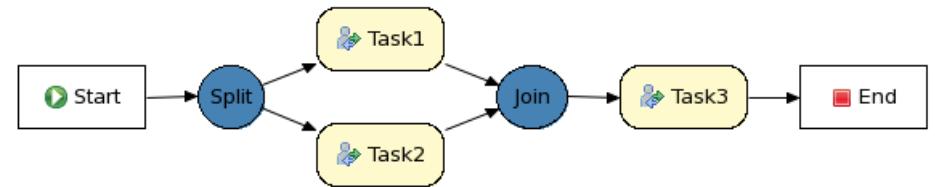
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Drools

- Business Rules
- Components
 - Expert
 - Fusion
 - Flow
 - Guvnor
 - Planner
- BPM in Drools Flow



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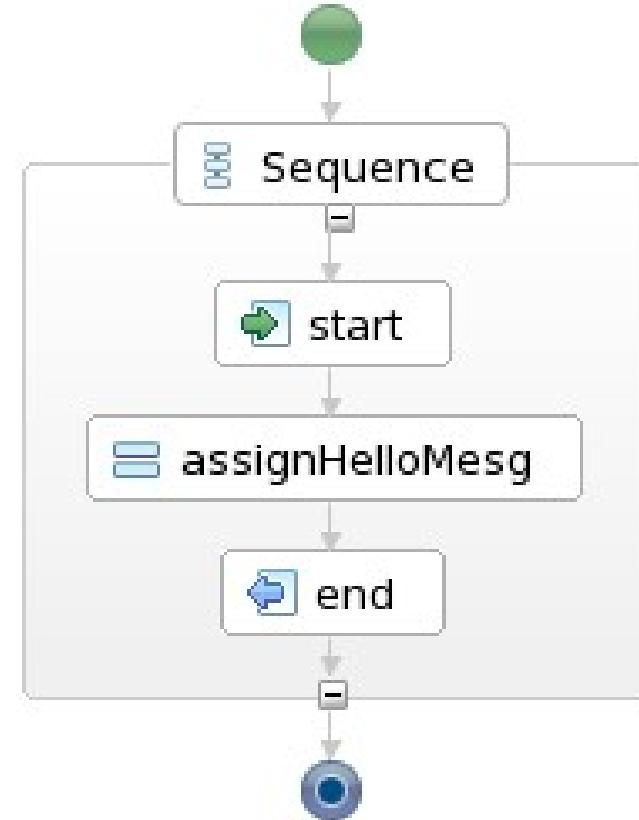
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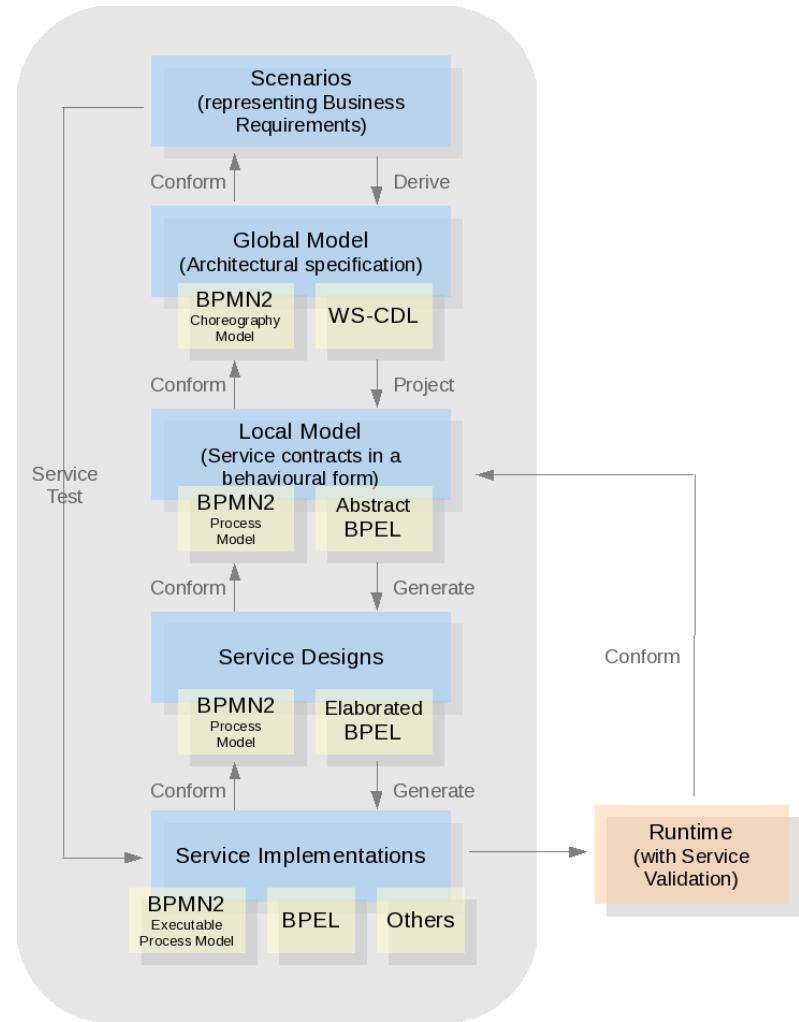
Riftsaw

- WS-BPEL 2.0
- Related
 - Apache Ode
 - Eclipse BPEL editor
 - Console (from Errai)
- Release 2.1
- Integration with SOA



Savara

- WS-CDL
- Pi Calculus
- Choreography
- Testable Architecture
 - Development validation
 - Execution governance
- BPMN 2?



Present

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Unifying Use Cases

- Perspectives
 - Rules-based
 - Process-based
 - SOA-driven
- Need to integrate
- Need to avoid overlap
- Enable emergent usage
- Where to go?

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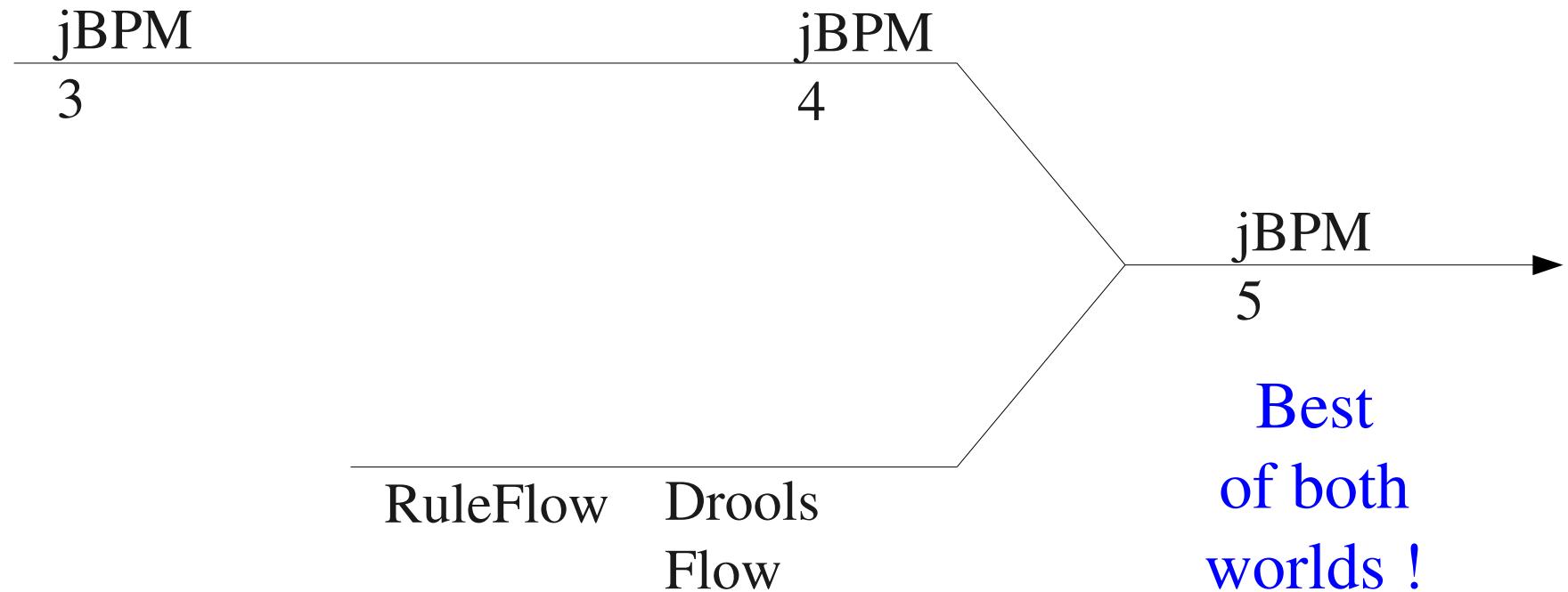
Makes **your** work flow.

2005

2008

2009

2011



Drools
Flow

Key Characteristics

- Business process engine
 - using BPMN2 standard (native execution)
 - lightweight, embeddable
 - generic process engine
- Full life cycle support
- Higher-level, domain-specific processes
- Powerful *business rules* and *event processing* integration

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BPMN 2.0

- OMG standard that defines
 - Graphical notation
 - Process definition format (XSD / XMI)
 - Execution semantics
- Extensible
- Interoperability!

See <http://www.omg.org/spec/BPMN/2.0/>



```
<definitions ... >
  <process id="com.sample.bpmn.hello" name="Hello World" >
    <startEvent id="_1" name="StartProcess" />
    <sequenceFlow sourceRef="_1" targetRef="_2" />
    <scriptTask id="_2" name="Hello" >
      <script>System.out.println("Hello World");</script>
    </scriptTask>
    <sequenceFlow sourceRef="_2" targetRef="_3" />
    <endEvent id="_3" name="EndProcess" />
  </process>
</definitions>
```



Generic Process Engine

- Generic features
 - Persistence
 - Transactions
 - Timers
 - Expression dialects
 - Multi-threading
 - Events
 - Commands + interceptors
 - Session management

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Future

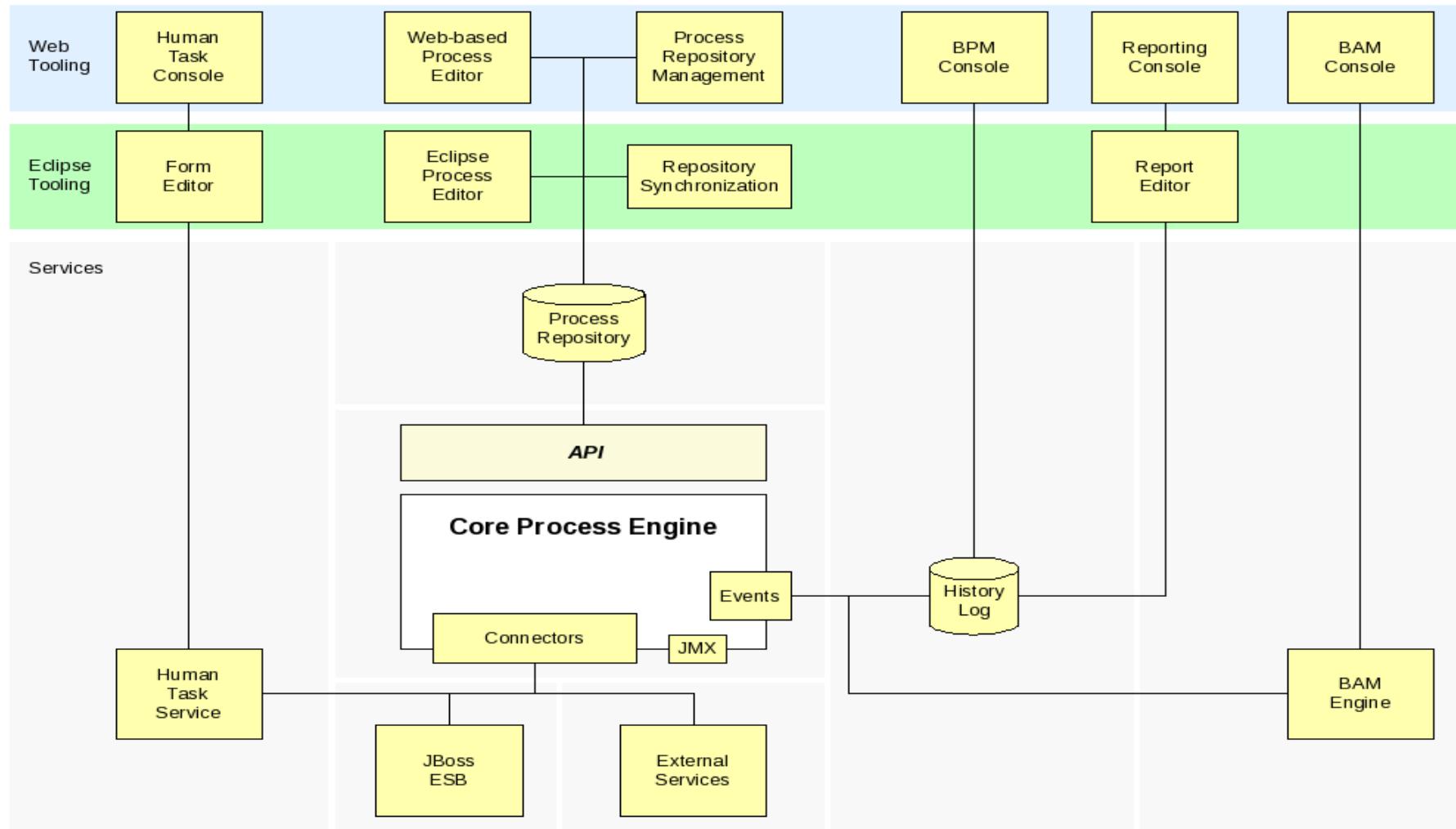
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Architecture



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Components

- API
- Core process engine
- Repository
- Human task service
- History log
- BAM engine

Web-based consoles

- Management
- Human tasks
- Reporting / BAM

Eclipse plugins

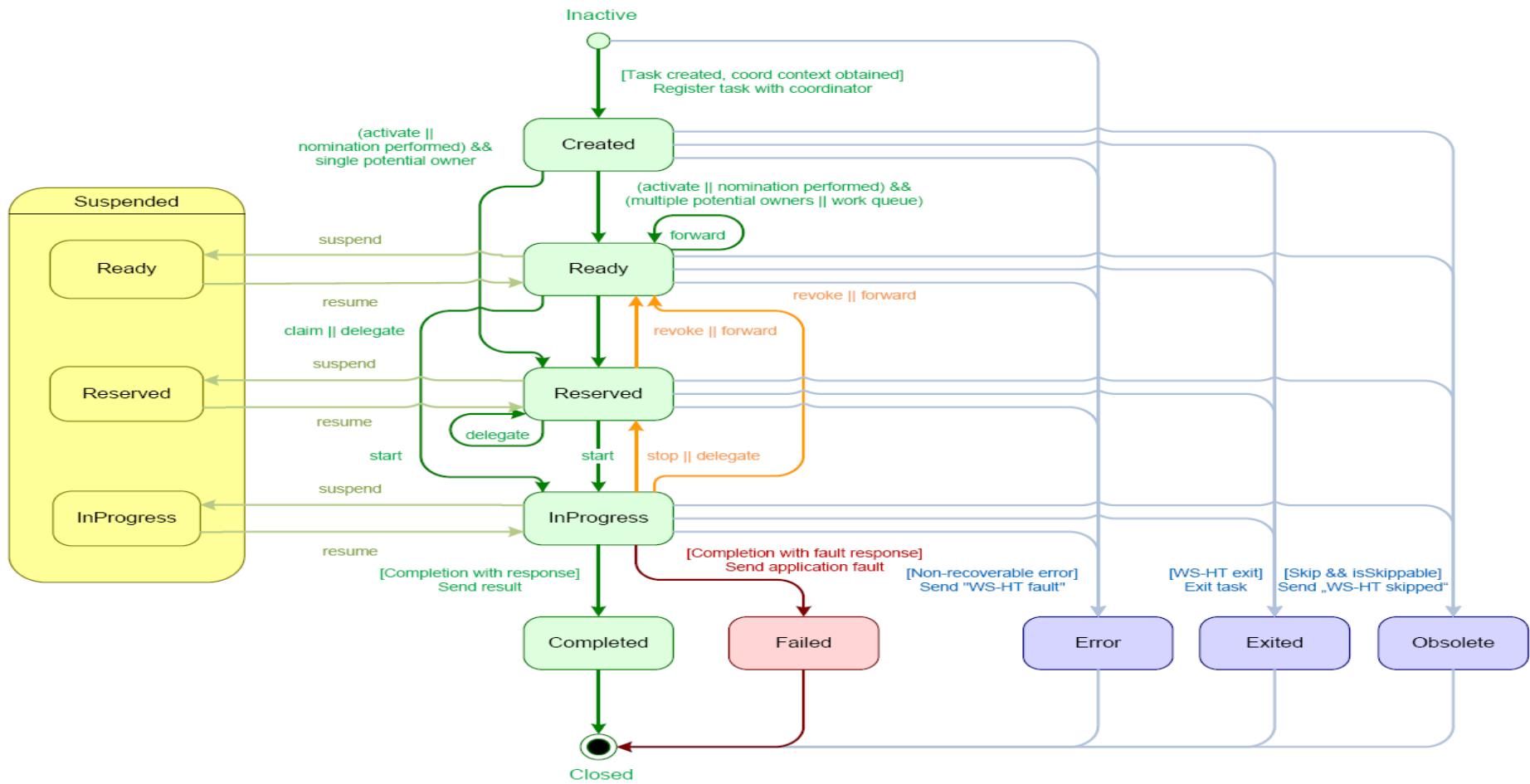
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Human Task



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jBPM 5 Roadmap

- Currently under community review
- More details soon!
- jBPM 5.0
 - Focus on core components
 - Near the end of the year
- Regular (2-3 month) releases after that

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Adaptive Processes

- Traditional workflow management systems have problems with
 - Change
 - Complexity
 - Flexibility
 - Data-based

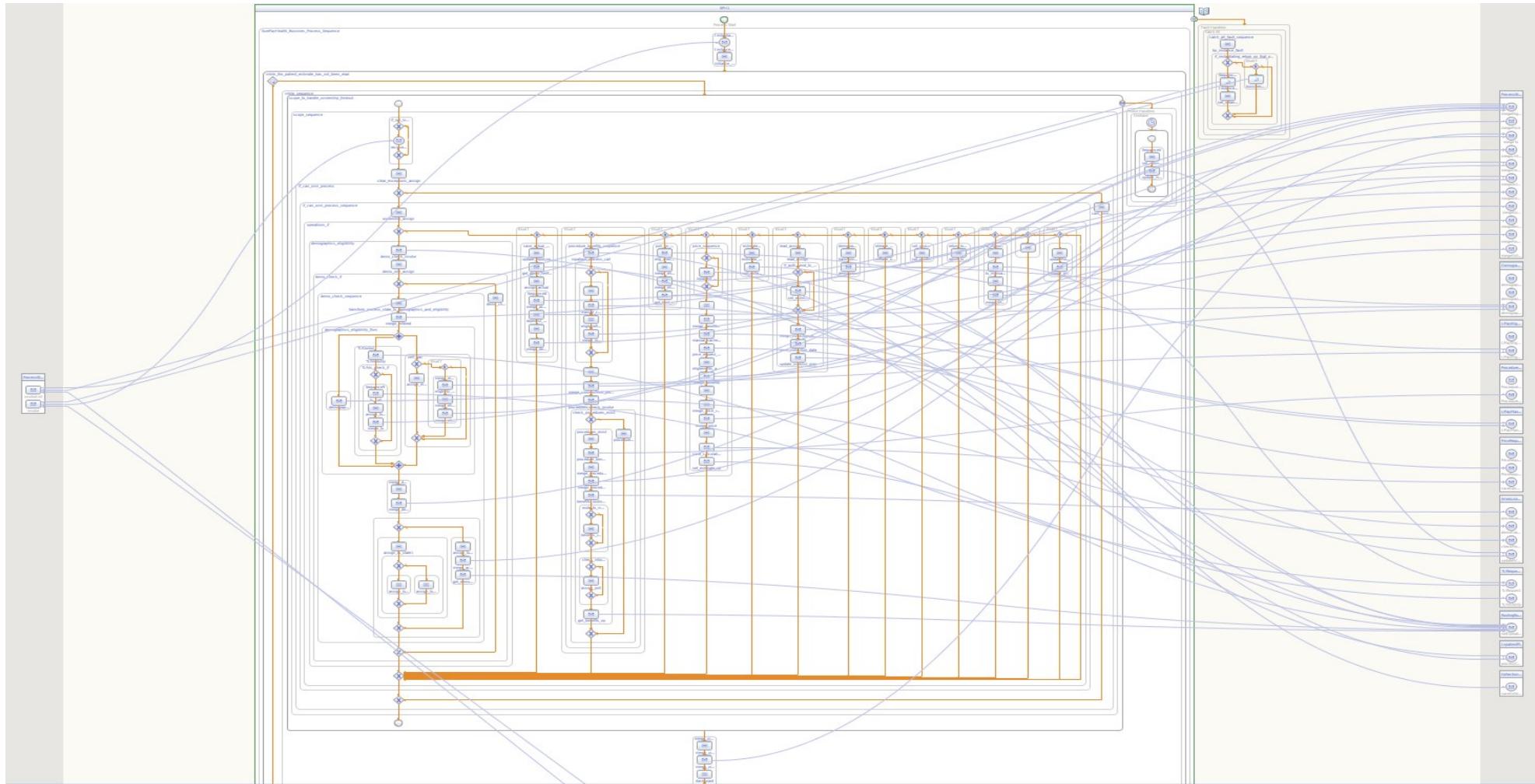
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Conflated Concerns



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Gaining Adaptability

- Decision service to externalize decision logic as business rules
- Process improvement
 - Migration of running instances
- Unanticipated work
- Unstructured processes
- Processes, rules and events working together

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Processes + Rules + Events

- A business solution usually involves the interaction between these technologies.
 - Technology overlap
 - Business overlap
- Several (good) products on the market, better either at rule or business process or event processing

Attribute the same importance to the three complementary business modeling techniques

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Thank You! Questions?

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