WebSphere ILOG BRMS

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What I will cover

- The Needs and Pains for Changes
- Understanding Business Rule Management
- How BRMS and BPM work together
- Examples
- Conclusion
CEOs Worry About Change

83%
Expect substantial or very substantial change

The change tripled

98%
Plan business model changes

Source: IBM Global CEO Study 2008
The Effects of Ongoing Change

- Reduces organizational agility
  - Difficulties in responding to evolving business conditions

- Reduces employee productivity
  - Manual intervention required to deal with complexities of operations

- Increases load on IT
  - Keeping applications/systems updated & current across the enterprise consumes time and resources
Business Decisions are Everywhere…

We need to add an eligibility check to meet the requirements of the new regulation.

Let’s create a special promotion for our best customers.

Can we automate approvals for this type of order?

And Changing Frequently
Business Changes drive IT Agility

Business Rules are everywhere

Issues

- Rules are hidden in code or isolated within the organization
- Changes are hard to track and maintain over time
- Rules used by systems have to be programmed and require IT resources
- Duplication and multiple versions of the same rules
- Lack of auditability, traceability
- Decision changes cannot be easily tested or simulated
The decision intensive process

Streamlined process works fine today…

• Until

• New Product
• New Policy
• New Regulation
• New Pricing Rules / Model
• New Scoring Rules / Tables
The decision intensive process

Your ‘streamlined’ process in x months
The nightmare intensive process

Your ‘streamlined’ process in x years
Introducing Business Rules Management
Facilitating Change with BRMS

Operational decisions correspond to *business policies* and *business rules*.
Varying Needs Across the Organization

I need a comprehensive rules development and maintenance environment.

I need easy, efficient and reliable policy change delivery.

I need performance, scalability, monitoring and reliability of operations.

Development
Rule Developer
Rule Modeler
Business Analyst

Production
IT Administrator
System/Ops Manager

Line of Business
Business Partner
Policy Manager
Line of Business Manager
Comprehensive Environments for Every User

IBM ILOG JRules

Rule Studio

Rule Scenario Manager

Rule Team Server

Developers

Business Users

Rule Execution Server

Administrator

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Content

definitions
    set name to the first name of the driver [±] [where] [±]
    if
        the number of accidents the driver has been involved [±] is more than ▼ 2 [±]
    then
        set high risk driver to true [and/or] [±]
        add eligibility error: ▼ The driver (+ name + ▼) has been involved in too many accidents [±]
    [else]

[Cancel] [Previous] [Next] [Finish]
## Table

<table>
<thead>
<tr>
<th>Coverage Limit</th>
<th>Annual Mileage</th>
<th>Base Premium ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min Limit</td>
<td>Max Limit</td>
<td>Min</td>
</tr>
<tr>
<td>0</td>
<td>$15,000</td>
<td>$30,000</td>
</tr>
<tr>
<td>1</td>
<td>[5,000, 15,000]</td>
<td>[15,000, 25,000]</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>$25,000</td>
<td>$30,000</td>
</tr>
<tr>
<td>5</td>
<td>[5,000, 15,000]</td>
<td>[15,000, 25,000]</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>$30,000</td>
<td>$60,000</td>
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<td>[5,000, 15,000]</td>
<td>[15,000, 25,000]</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

0 - 15 | All
Intuitive Rule Authoring

Decision Tree

Click the diagram to select an element and edit it.
Rule editing in MS Word

The final property in this set specifies a password that is required to enable editing of the file using the implementation. Because this is a convenience feature intended to prevent accidental changes to information, it is stored in clear text as an xsd string.

### Business Rule

<table>
<thead>
<tr>
<th>Name</th>
<th>Platinum Upgrade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author</td>
<td>Cyril</td>
</tr>
<tr>
<td>Date</td>
<td>10/11/2006 7:33 PM</td>
</tr>
</tbody>
</table>

If

- the purchase value of the shopping cart is at least 200
- the category of the shopping cart's customer is Gold

Then

Set the category of the shopping cart's customer to Platinum;
# Rule Solutions for Office

Rule editing in MS Excel

<table>
<thead>
<tr>
<th>State</th>
<th>Age Min</th>
<th>Age Max</th>
<th>Accepted</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>20.00</td>
<td>65.00</td>
<td>False</td>
<td>The customer's age is below the minimum for rental.</td>
</tr>
<tr>
<td></td>
<td>21.00</td>
<td>66.00</td>
<td>True</td>
<td>The customer is eligible to rent in New York.</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>22.00</td>
<td>70.00</td>
<td>False</td>
<td>The customer's age is below the minimum for rental.</td>
</tr>
<tr>
<td></td>
<td>23.00</td>
<td>70.00</td>
<td>True</td>
<td>The customer is eligible to rent in New Hampshire.</td>
</tr>
<tr>
<td>Vermont</td>
<td>25.00</td>
<td>69.00</td>
<td>False</td>
<td>The customer's age is below the minimum for rental.</td>
</tr>
<tr>
<td></td>
<td>26.00</td>
<td>70.00</td>
<td>True</td>
<td>The customer is eligible to rent in Vermont.</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>20.00</td>
<td>70.00</td>
<td>False</td>
<td>The customer's age is below the minimum for rental.</td>
</tr>
<tr>
<td></td>
<td>21.00</td>
<td>71.00</td>
<td>True</td>
<td>The customer is eligible to rent in Rhode Island.</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>20.00</td>
<td>21.00</td>
<td>False</td>
<td>The customer's age is below the minimum for rental.</td>
</tr>
<tr>
<td></td>
<td>21.00</td>
<td>70.00</td>
<td>True</td>
<td>The customer is eligible to rent in Massachusetts.</td>
</tr>
</tbody>
</table>
Benefits of WebSphere ILOG BRMS

- **Reduced lead times for changes**
  - Reduced time to create or update product promotions from weeks to hours (retail)

- **More personalized client interactions**
  - 10x improvements in acceptance of cross-sell offers (retail banking)

- **Internal/external compliance**
  - Support of regulations that vary by customer location and product line (insurance)

- **Business – IT alignment**
  - Reduced new policy implementation by 50% (financial services)
BRM and BPM working together
DNA of the Agile Enterprise

**Process Mgmt**
- Describes the “how” of the core activities of the enterprise
- Combines automatable and human elements
- Is fundamentally concerned with operational efficiency of the organization

**Rules Mgmt**
- Determines the “what” of enterprise activity
- Is focused on automating decisions
- Is fundamentally concerned with the operational intelligence of the organization
Why Separate Process & Rules Management?

- Increase business agility by allowing business users to manage decision logic
- Streamline and stabilize processes by externalizing decision logic
- Enable re-use of decisions across different processes, applications and systems
- Enable automation of complex, variable decisions
- Effectively manage large and evolving sets of rules
Change Once, Impact Anywhere
Simplifying Business Processes

Business Policy Externalization → Agile BPM

Validation Rules

Eligibility Rules

Pricing Rules

If
  the applicant has been convicted of a DUI
Then
  flag the applicant as a High Risk Driver with the reason you have been convicted of driving under the influence of drugs and/or alcohol
Examples
BRMS Usage Across Industries

**Banking**
- Loan Origination
- Credit Decisioning
- Sales Advisory
- Payments
- Accounting

**Insurance**
- Claims Processing
- Underwriting
- Quoting
- Rating
- Commissioning

**Capital Markets**
- Automated Trading
- Trade Order Management
- Accounting
- Compliance KYC / AML
- On Boarding

**Public Sector**
- Claims Processing
- Entitlement and Benefit calculation
- Fraud Detection and Management
- Screening and Targeting

**Telecom**
- Offer Configuration
- Order Management
- Fraud Detection and Management
- Loyalty Programs
- Network Monitoring

**Transportation and Travel**
- Promotions Management
- Loyalty Programs
- Customer Service
- Billing
- Contract Management

**Retail**
- Online recommendation
- Campaign Management
- Order Management
- Pricing

**Manufacturing**
- Production quality control
- Order Management
- Billing
- Contract Management

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<table>
<thead>
<tr>
<th>Customer</th>
<th>Process</th>
<th>Results</th>
</tr>
</thead>
</table>
| Vision Service Plan (VSP)      | Healthcare Claims Processing   | • Speed to market gain over 50%  
• Changes to business rules now implemented in days  
• Achieved significant productivity gain on 1M+ claims processed on a monthly basis |
| Bank of the West               | Commercial Loan Origination    | • 93% improvement for application approval (15 days to 1)  
• Greater control & easier audits driving significant cost savings |
| Junta de Castilla y León       | Government Social Benefits     | • Better service delivered to the citizens: clear & consistent application processing |
|                                | Eligibility                    | • Transparency & auditability of all scoring, eligibility & computation rules  
• Rapid response to changes in central or regional government policies |
Entreprises are hungry for Change

IBM ILOG BRMS:

1. Brings Agility to your processes
2. Reduce lead time to change
3. Align Business and IT
4. Reduce Cost of Compliance

Questions