C2040 Business Rules

Business Rules - Externalize Business Logic for Business Flexibility

- **Most-Requested Business Rule Functionality**
  - **"Ruleset" - If-then statements**
  - **"Decision Table" - Compact form for complex nested rules**
  - **Generally provides 80% of customer needs**

- **Ease of Use**
  - **Adjust business rules on the fly through web interface**
  - **NLS enabled free text representation for rules**
  - **Rule change audit**
  - **Staged development: Import/Export of Business Rules from staging to production server**

- **3rd party rules engine plug-in**
  - **ILOG**

Business Rules

■ Rule Group

■ Decision Table

■ Rule Set

Business Rule Group

- **Group Rule Sets or Decision Tables with common business focus**

- **Rule Group aggregates rules with the same interface**

- **Rules may be defined as Rule Sets or Decision**

- **Date/time ranges determine when a business rule is going to be invoked**

- **Date\time may be specified**
  - ▶ **As the Current Date,**
  - ▶ **Supplied by Java snippet**
  - ▶ **From the input parameters**

Rule Group Editor

General	▾Active Destinations	➕ ✖	
	Default Destination	Regular	

▾Interfaces	➕ ✖	Start Date	End Date	Destination
▾ Ⓘ CalculateDiscount		Dec 25, 2005 7:00 PM	Jan 15, 2006 7:00 PM	Boxing
☀ disc		Nov 30, 2005 7:00 PM	Dec 24, 2005 7:00 PM	Christmas
▾References ➕ ✖		Aug 31, 2005 7:00 PM	Sep 14, 2005 7:00 PM	School
		Selection Criteria	Current date	

Rule Set and Decision Table

- **Rule Set**
  - **A set of if/then rule statements**
- **Decision Table**
  - **Balanced binary tree format**
- **Templates**
  - **Determine which aspects of the rule can be modified at runtime**
  - **User interface to modify rules**
  - **Rule Set and Decision Table can both be templetized**

▾ Rules

Name	Rule2
Template	Template 1
Presentation	If the assets are greater than 2000000 and the liabilities are less than 500000, then the rating is A.

Name	Rule1
Template	Template 1
Presentation	If the assets are greater than 2000000 and the liabilities are less than 1000000, then the rating is B.

Template

▾ Templates

Name	Template 1
Presentation	If the assets are greater than {0} and the liabilities are less than {1}, then the rating is {2}.

	Index	Name	Type	Constraint
Parameters	{0}	var1	double	None
	{1}	var2	double	None
	{2}	var3	string	None

If	all of the following are true ● info.assets > var1 ● info.liabilities < var2
Then	rating = var3

▾ Decision Table

info.assets	> 500000		<= 500000	
info.liabilities	< 10000	>= 10000	< 10000	>= 10000
rating	"A"	"B"	"C"	"D"

Describing a Rule in WID

A Detailed Rule

Create
Rule

Condition

Action

Multiple Rules …

Templates …

Dynamicity with Business Rules

Name	Rule2
Template	Template 1
Presentation	if 330 abd 589 then HIGH

Name	Rule3
Template	Template 1
Presentation	if 590 abd 749 then MED

Name	Rule4
Template	Template 1
Presentation	if 750 abd 830 then LOW

- Programmer defines rules from templates
- Templates expose rule parameters to *Business Rules Manager*

Tools
WebSphere Integration Developer

Runtime
WebSphere Process Server

- Using *Business Rules Manager*, the Business Analyst changes rules at runtime
- No need to restart the application
- Users are authenticated using standard WAS authentication / security
- Changes may be exported back to WID

Welcome | Logout | Help

> CreditRiskAssessmentBusinessRule_206424068 > InputCriterion

Edit Mode:InputCriterion - Ruleset

Save Cancel   Messages:

General Information

Last Published	Nov 22, 2005 13:51 (Local Time)	Status
Description		

Rules

New Rule from Template

Name	Rule				Action	
Rule2	if 300 abd 340 then HIGH				⬇	Delete
Rule3	if 341 abd 400 then MED				⬇ ⬆	Delete
Rule4	if 401 abd 830 then LOW				⬆	Delete

Lab Objectives

- **Achieve business agility**

- **Allow changes to business rules at runtime**

  – **No recoding, retesting, and redeploying**

- **Role: Integration Developer**

What are we going to do in the Lab?

- **Change the CreditRiskAssessment Task to a Business Rule**

- **Define a Rule Set**

- **Save and Verify the Business Rule**

- **Re-test the SimpleAccountVerification process**

- **Modify the Business Rule at Runtime**

- **Re-test the Business Rule again**

Lab 8
30 Minutes

Thank You