

Retail Store Solutions

Using the JMX Browser

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Topics

JMX Browser

- Overview
- Running the task
- Components
- Property Modification
- Method Execution
- Method Subtasks
- Plug-ins
 - Monitor Manager
 - Data Capture
 - RMA SW Package
 Distributor



JMX Browser - Overview

- Modeled after Director Browsers
- Same functionality as old V1 RMA Viewer
- Easy to navigate through active JMX instances
- Helps handle data not handled by a specific task
- Extendable for unique applications
 - Tree View Builders
 - Attribute Dialog Builders
 - Snap-in Architecture (Plug-ins)

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JMX Browser – Starting the Task



- Drag JMX Browser Task to Retail Managed Object
- Drag JMX Browser Task to Managed Group
- Right-Click on Retail Managed Object and select JMX Browser
- Drag selected Retail Managed Objects over to the JMX Browser Task

JMX Browser





JMX Browser – Navigation Tree



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JMX Browser – Instance Panel

- Instance Panel
 - Class Name
 - Instances
- Property Panel
 - Properties
 - Methods

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🗏 JN	I JMX Browser: NEGIRARD3 (17)						
File	Help						
	b-6	JMX Class Name, com ibm retail si mont cim CIMProxyMBean					
		"Win32_Op	eratingSystem.Name=Mi	rosoft Windows XI	P Professional(C:\\WINDOWS \\Devic	e\\H	
						•	
						4	
		-					
						•	
		Properties Methods					
		Modifiable	Name	Туре	Value		
		â	BootDevice	java.lang.String	\Device\HarddiskVolume1		
_		â	BuildNumber	java.lang.String	2600		
<		â	BuildType	java.lang.String	Multiprocessor Free		
	R	Ô	Caption	java.lang.String	Microsoft Windows XP Professional		
		â	CodeSet	java.lang.String	1252		
		Ô	CountryCode	java.lang.String	1		
		â	CreationClassName	java.lang.String	Win32_OperatingSystem	-	
		•			•		

JMX Browser – Property Panel

- Properties Tab
 - Name
 - Туре
 - Value
 - Modifiable
 - Yes 💣
 - No 🌡
- Methods Tab
 - Name
 - Inputs

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Return Value

Properties Methods							
Modifiable	e Name	Туре	Value				
â	AdapterType	java.lang.String	Ethernet 802.3				
Ô	AdapterTypeId	javax.wbem.cim.UnsignedInt16	0				
â	AutoSense	boolean					
â	Availability	javax.wbem.cim.UnsignedInt16	3				
â	Caption	java.lang.String	[00000001] Intel(R) PRO/1				
A	ConfigManagerErro	iavax.wbem.cim.UnsignedInt32	0	-			
•							

Properties Methods			
Name	Inputs	Return Value	
abortCapture	captureld (java.lang.String)	void	۸
capture	captureType (java.lang.String) captureTimeout (long) captureArgs ([Ljava.lang.String)	java.lang.String	
capture	captureType (java.lang.String) captureTimeout (long)	java.lang.String	
captureExists	captureld (java.lang.String)	boolean	
dalataCantura	conturold (iouo long Otring)	unid	

JMX Browser – Property Modification

- Initiate Property Modification
 - Double-click on property
 - Right-click on property and select 'Set Value'
- Modification Dialog
 - Property Name
 - Value Field

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- Option to set value to null

Propertie	s Methods				
Modifiable	Name		Туре	Value	
ď	level		java.lang.String	SEVERE	
ď	com.ibm.beeplite.ProfileRegistry.level	Refresh All	java.lang.String		
ď	com.ibm.retail.si.mgmt.AbstractMgmtA	Create Monitor	java.lang.String		
ď	com.ibm.retail.si.mgmt.AgentEnvironm	Set Value	java.lang.String		
ď	com.ibm.retail.si.mgmt.capture.DataC	Sort 🕨	java.lang.String		
ď	com.ibm.retail.si.mgmt.capture.DataCaptureHistoryParser.level java.lang.String				
	com ibm rotail ei mamt conturo DataConturoManagor Joval iava Jana String			•	

🔚 Set Value 🔀					
Set Value: .level					
SEVERE					
Set to null					
	Ok Cancel				

JMX Browser – Method Invocation

- Initiate Method Execution
 - Double-click on method
 - Right-click on method and select 'Execute'
- Method Execution Dialog
 - Class Name
 - Instance Description
 - Method Name
- Inputs
 - Parameter Name
 - Parameter Type
 - Current Value
 - Button to open edit dialog
- Outputs
 - Return Value Type
 - Return Value
 - Exception / Errors

Properties Me	thods	
Name	Inputs	Return Value
changeState	param1 (int)	int
		Execute
		Sort 🕨

Method Executio	n - NEGIRARD3 (17)		
File Help			
Class Name: Instance Description: Method Name:	com.ibm.retail.si.mgmt.sw masteragent:DeviceId=NE changeState	dist.SystemStateManager GIRARD3,Id=SystemStateMana	ger,SIFComponent=M
4			>
	Ir	puts	
param1 int (0	irtnirt	
		աւթաւ	
	java.lar Execute	ig.Integer O Save Exit	
Ready			

JMX Browser – Method Invocation Subtask

Purpose of Subtask

- To save reusable executions
- Ability to perform same action on multiple agents at same time

Saving Method

- Press Save
- Enter unique name
- Press Ok

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Save Method		X
?>	Please enter a descriptive name. Change State to Zero OK Cancel	



JMX Browser – Method Invocation Subtask (2)

Using Saved Method

- Drag saved Method subtask to Managed Objects
- Execute now or schedule for later
- See results of execution

Scheduling

- Setup by the user
- Scheduled through Director's scheduler task

🚯 Change State to Zero: NEGIRARD3 (17)				
?>	Do you wish to create a scheduled job for this task or execute immediately?			
Schedule	Execute Now Cancel			

Mew Scheduled J	b			_ 0	×
Please enter a n	ame for the job and	d select a	date and tii	me for execution.	
Scheduled Job : In	stall Windows Upo	late			1
Date : 9/22/2006	曲	Time :	1:02 PM	*	
Server I Server I	Date : Friday, Sep Date is already con	tember 22 werted to c	, 2006 12:6 console tim	57 PM ie zone.	
ок	Advanced	Ca	ncel	Help	

JMX Browser – Method Invocation Subtask (3)

Method Execution Results

- All results logged in scheduler task
- If executed immediately, results displays in real time
- Execution history
- Logs
 - -Cumulative
 - -Individual Managed Object

📸 Execution History: 9/18/2006 at 9:01 AM: Change State to Zero 🕒 🗖 🔀				
File Selected Export Help				
Status : Complete				
Pending : 0 In progress : 0 Suspended : 0 Complete : 1 Failed : 0 Unavailable : 0 Skipped : 0				
Complete				
Ready				



JMX Browser – Plug-ins

- Types of Plug-ins
 - Property Browser (Red)
 - Instance Browser (Blue)
 - Popup Menu
- Plug-in Purpose
 - Enhance JMX instance usability
 - Hide properties or methods
 - Add new functionality to JMX
 Browser

Current Plug-ins

- Monitor Manager
- Data Capture
- RMA Package Distributor



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Monitor Manager

- Implemented Plug-in Types
 - Property Browser (MonitorManager)
 - Popup Menu
- MBean Locations
 - MGMT\MonitorManager
- Policies Tab
 - Displays existing policies
 - Manages existing policies
 - Apply policies to various targets
- Applied Policies Tab
 - Displays applied policies
 - Manages applied policies

Policies Applied Policies		
Policies	Select All Deselect All	
description	MBean ID	
🗹 System State Monitor	GaugeMonitor710096389	
Edit Apply Delete	Help	

Policies Applied Polic	ies		
Applied Policies	Select All	Deselect All	
description	Target Type	Target Identifier	
System State Monitor	Device Type	Linux	
System State Monitor	Individual Agent	GA-NLPOS3.10151	
System State Monitor	Individual Device	NEGIRARD3	
Edit Delete	Help		



Monitor Manager (2)

Monitor Policy Creation

- Uses Popup Plug-in
- Multiple Levels of Filtering
 - Broad Search (Device)
 - Narrow Search (Specific instance/property)

Initiating Policy Wizard

- Right-click on object in tree panel
- Right-click on property in property tab



Monitor Manager (3) – Policy Wizard

Monitor Policy Wizard

- Create/Edit Policies
- Search Capabilities
- Ability to apply policy at end

General Options

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- Policy description
- Shows available MBeans & Properties
- Basic Monitor information

🔀 Policy Wizard - Ad	bb	
	_∫ General Options—	
	Please select the options advanced policy propertie	for the monitor policy. If you wish to set the s press Next, else press Finish to save the Policy.
	Description	Monitor System State
	MBean Class	SystemStateManager 👻
	MBean	SystemStateManager 🔹
	Attribute	CurrentState 👻
	Туре	javax.management.monitor.GaugeMonitor 🔹
	High Threshold Number	
	Low Threshold Number	
	Apply policy when finis	shed
 Back 	Next ►	Finish Cancel Help
Ready		

Monitor Manager (4) – Policy Wizard

- Advanced Options
 - Allows user to tweak settings
 - Unique to each Monitor type
 - Optional due to defaults

🛱 Policy Wizard - Ed	it 💶 🛛
	Advanced Options This page is for modifying some advanced options for the previously selected attribute monitor. Notify High Notify Low Granularity Period (seconds) 15
⊲ Back	Next 🕨 Finish Cancel Help
Ready	

GaugeMonitor

Advanced Options This page is for modifying some advanced options for the previously selected attribute monitor. Notify Match Notify Differ Granularity Period (seconds) 15	🔀 Policy Wizard - Ad	ld	
Notify Match Image: Constraint of the second se		-Advanced Options This page is for modifying sor previously selected attribute n	ne advanced options for the nonitor.
		Notify Match Notify Differ Granularity Period (seconds)	☑ ☑ 15
	Back	Next Finish	Cancel Help

StringMonitor

🛱 Policy Wizard - Eo	lit	
	Advanced Options This page is for modifying sor previously selected attribute m Granularity Period (seconds) Offset Number Modulus Number	ne advanced options for the nonitor.
■ Back	Next ► Finish	Cancel Help
Ready		

CounterMonitor

Monitor Manager (5) – Applying Policy

- Locations
 - Policy Wizard
 - Monitor Manager Policy Tab
- Target Types
 - Device
 - Device type
 - Agent
- Target Identifier
 - Based on Target Type
 - One selection per apply

I	🗏 Apply Monito	r Policy	×
	Please selected this policy is to b	the target type and the target identifier to which e applied.	
	Selected Policy:	System State Monitor	
		Device Type	
	Target Type:	O Individual Device	
		🔿 Individual Agent	
	Target Identifier	All Device Types 🔻	
		Cancel Apply	



Data Capture

- Implemented Plug-in Type
 - Property Browser
- MBean Locations
 - MGMT\DataCaptureHistory
 - MGMT\DataCaptureManager
 - MGMT\DataCapturePolicyRegistry
- Draft Policies Tab
 - Add/Edit/Delete/Copy draft policies
 - Activate draft policies
- Active Policies Tab
 - Terminate active policies
 - Execute active policies
 - Copy/Delete active policies
- Completed Policies Tab
 - Reactivate completed policies
 - Copy/Delete completed policies

Draft Policies <mark>Active Poli</mark>	cies [Complet	ed Policies			
	Sel	ect All	Deselect All		
	Policy				
Example Data Canture	,				
Add Edit Co	opy Activat	e Del	ete		
Draft Policies Active Poli	cies Comple	ted Policies			
	Sel	ect All	Deselect All		
Policy	Status	Captu	ure History		
Example Data Capture In Progress com.ibm.retail.si.mgmt.itd.j //CaptureHistory>,verticalAl					
Terminate Execute	е Сору	Delete	Help		
Draft Policies Active Poli	cies Comple	ted Policies			
Select All Deselect All					
Policy	Status	Capt	ure History		
Example Data Capture Completed com.ibm.retail.si.mgmt.itd. ,verticalA					
Activate Copy	Delete	Help			

Data Capture (2) – Capture Wizard

Purpose

The purpose of the Data Capture Policy Wizard is to aid in the creation and modification of policies for the Data Capture Manager.

General Information Page

- Policy Description
- Timeout

FTP Information Page

- FTP server type
- FTP server settings

🗮 Data Capture Wiza	rd - Add New Policy
	General Information Welcome to the Data Capture Policy wizard. This wizard is used to help create a policy that will be used to collect data. Please start off by entering the basic policy information and press the 'Next' button to continue to the next section. Description Example Data Capture Timeout (Minutes) 1
	■ Back Next ► Cancel Help

ata Capture Wiza	rd - Add New Policy	
	FTP Information	w for the policy. When finished, please press
	File Transfer Implementation Name	FTP •
	FTP Server Username	user
	FTP Server Password (Verify)	********
	Capture Root Directory	/capture
	■ Back N	ext ► Cancel Help
Book		

Data Capture (3) – Capture Wizard

- MBean Selection
 - Select beans to perform data capture
 - Displays current available beans
- Policy Application Settings
 - Defines capture type
 - Device List
 - Device Type
 - Displays options for each type
- Device List Capture Type
 - Display list of connected devices
 - Add/Remove devices from policy

💢 Data Capture Wiza	rd - Add New Policy	
	_ ∩MBean Selection—	
	Please select the MBeans to continue.	to be used for the data capture, then press 'Next'
	Available MBeans	Selected MBeans
	RMALogCapture	Add MBean Remove MBean
	 Back 	Next ► Cancel Help
Ready		
📕 Data Capture Wiza	rd - Add New Policy	
	Policy Application 6	
	-Folicy Application a	ettings
	Ca	Device List Device Type
	GA-NLPOS3 NEGIRARD3 netvista2a9710	Add Device Remove Device
	GA-NLPOS3 NEGIRARD3 netvista2a9710	Cettings Device List Device Type Add Device Remove Device
	GA-NLPOS3 NEGIRARD3 netvista2a9710	Eettings

Data Capture (4) – Capture Wizard

Device Type Capture Type

- All device types
- Current agent roles
- Agent role models
- Current device type mappings

📕 Data Capture Wiz	ard - Add New I	Policy	
	Policy App Device Type Agent Role Model	Iication Settings	st rpe Current Device Type Mappings All Device Types,*,*
		d Back Finish	Cancel Help
Ready			



Retail Store Solutions

RMA Software Distribution

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Topic

Software Distribution

- Overview
- Setup
- Components
- Package Wizard
- Package Subtasks

RMA Software Distribution Task

Functionality

- Wizard for package creation
- Package management
- Provides the ability to deploy package

IBM Director Friendly

- Mimics Director's Software Distribution
 - Has software distribution task
 - Contains package objects
- Currently not part of Director's Software Distribution task
 - Director does not allow extensions
 - RMA has unique package information
- Uses Director's deployment framework
 - Uses Software Distribution Server task
 - Added RMA Distributor





RMA Software Package Distributor

Implemented Plug-in Type

- Property Browser
- MBean Location
 - MGMT\RMASWPackageDistributor

Purpose

- Edit RMA package distributor settings
- Protect password value when setting
- Hide complex methods





RMA Software Distribution Task (2)

RMA Software Distribution task

- Create Install Packages
- Create Uninstall Packages
- RMA Software Packages
 - Edit Package
 - Delete Package
 - Rename Package
 - Deploy Package





RMA Package Wizard

Wizard

- Creates install/uninstall packages
- Edits existing packages
- Handles all the setting up of package information for RMA
- Two different entry pages
 - General information
 - OS specific information

General Information

- Package Name
- Package Description
- Target OS
- Target State

A					
This Wizard Package Nar	Iformatio Ielps you cre ne: Cription: Windows General NOOP	n: eate RMA packag	95. 590		
		■ Back	Next ►	Cancel	Help
	This Wizard h Package Nan Package Des Target OS: E Target State:	This Wizard helps you cre Package Name: Package Description: Target OS: UVindows General Target State: NOOP	This Wizard helps you create RMA package Package Name: Package Description: Target OS: Windows Linux 44 General PSA Target State: NOOP	This Wizard helps you create RMA packages. Package Name: Package Description: Target OS: Windows Linux 4690 General PSA Target State: NOOP Back Next	This Wizard helps you create RMA packages. Package Name: Package Description: Target OS: Windows General PSA Target State: NOOP



RMA Package Wizard (2)

Target OS Settings

- One page per OS
- Destination Directory
- Files (optional)
- Exec. Commands (optional)
- Post Distribution

🔀 Build - Retail Stor	e Install Package		
	Windows Settings Please setup destination select post distribution ad	directory, select files to distribute, enter executable co tions for Windows.	mmands, and
	Destination Directory:		
	Select files to distribute		Files
	Executable Commands:		Commands
	Post Distribution Action:	Do Nothing	
		○ Restart Computer	
		○ Restart Computer with Return File	
		■ Back Next ► Cancel	Help
Ready			

RMA Package Wizard (3) – Adding Files

File Source

- Local or Server
- Each Target OS must use same file location
- Selected Files
 - Placed in destination directory
 - Organized exactly as shown in tree
 - Can include subfolders
 - Can save full path information





RMA Package Wizard (4) – Executable Commands

- Commands
 - Path
 - Arguments
 - Return Code
 - Return Code File
- Add/Edit Command
 - Press Add button to add
 - Double-click on command in table to edit
 - Fill in fields in the dialog
 - Press OK to save
- Remove Command
 - Highlight command
 - Press Remove button to delete

	Arguments	Return Code	Return Code File	
сору	*.bat/bats	0		
del	*.tmp	0		
		Add	Remove	





RMA Package Wizard (5) – Saving the Package

Save Package page

- Length of process varies
- Displays progress of saving the package
- Local vs. Server files
 - Package creation time
 - Network usage

🛱 Edit - Retail Store Ins	tall Package	
Na pa	ave Package ow that all the options for the package have been set, press the 'Finish' button to sta ackage creation process.	rt the
	Current Task	
	89%	
	Overall	
	57%	
	Initializing Writer	
	 Prepping Data Creating Policy VMI 	
	Creating Policy Aw	
_	 Creating Jar File 	
	Transferring FP file	
	Transferring Jar file	
	Complete	
	Back Finish Cancel	Help

RMA Software Package Management

Package Subtasks

- Double-click
 - Launch Edit Wizard
- Right-click
 - Edit
 - Rename
 - Delete
 - Create Uninstall
- Drag & Drop
 - Start Deployment process





RMA Software Package Management (2)

Renaming a Package

- Any package can be renamed
- Changes take effect immediately
- Simple prompt to change name

Deleting a Package

- Deletion is permanent
- Removes package from Director
 Server
- Uses Dialog to confirm delete





RMA Software Package Management (3)

- Deploying a Package
 - Verify Package Distributor settings
 - Drag package to targets
 - Targets can be either
 Managed Object or Groups
 - Each selected device must be of the select Target OS types defined in the package
 - Choose execution time
 - View Progress / Review Results

🖉 • 💁 🧌 🔹 • 💭 • 🚉 • 📰 • 🙀 • 💼 • 🙀 •						
Groups	🏻 🍋 🛛 🍕 All Managed Objects	s : Store Association 🔻	Tasks			
All Groups 4680 Controllers 4690 Terminals 4690 Terminals 4690 Terminals All Managed Objects Clusters and Chassis Members Clusters and Cluster Members Hardware Status Critical Hardware Status Unformation Hardware Status Warning JMX Devices Platforms and Platform Member Retail Master Systems Scalable Systems and Members Self-checkout Lanes Systems with ASF Systems with ASF Systems with ASF	Name A Store 12456 Store 17 GA-NLPOS3 (17) NEGIRARD3 (17) Store 222	TCP/IP Addresses 1	Hardware Status Hardware Status Microsoft Cluster Browser Microsoft Cluster Browser Microsoft Cluster Browser Network Configuration Process Management Remote Session Resource Monitors Resource Monitors RMA Software Distribution Ma Software Distribution Test Progress Scheduler Server Configuration Manager SNMP Browser Software Distribution Software Distribution			
		•				

