

Remote Management Agent

External Interfaces

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Package

com.ibm.retail.si.mgmt

This provides the core classes and interfaces used in the Remote Management Agent infrastructure. Also included are:

- `MgmtAgentFactory` class, which provides access to the singleton `MgmtAgent` instances
- MBean Interfaces for common functions like inventory, JVM statistics, and extended control.
- Classes and interfaces used for General Agent Discovery

com.ibm.retail.si.mgmt

Class AgentEnvironment

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.AgentEnvironment

```

All Implemented interfaces:

PropertySource

public class **AgentEnvironment**

extends java.lang.Object

implements PropertySource

Singleton that provides the values of certain system environment variables and paths. In addition to environment variables, there are some pre-defined variables whose names are provided as constants with this class. When retrieving environment variable values, prefix the name with "env."

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	VAR_NAME_RMA_DATA_DIR

Method Summary

static AgentEnvironment	getInstance()
java.lang.String[]	getPropertyNames() The names of all available property names, including environment variables and predefined properties
java.lang.String	getPropertyValue(java.lang.String name) Retrieves a property value.

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHTpublic static final java.lang.String **COPYRIGHT**

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VAR_NAME_RMA_DATA_DIR

```
public static final java.lang.String VAR_NAME_RMA_DATA_DIR
```

Methods

getInstance

```
public static AgentEnvironment getInstance()
```

Returns:

The singleton instance

getPropertyValue

```
public java.lang.String getPropertyValue(java.lang.String name)
```

Retrieves a property value. All environment variables are prefixed with "env."

See Also:

[com.ibm.retail.si.mgmt.util.PropertySource#getPropertyValue\(java.lang.String\)](#)

getPropertyNames

```
public java.lang.String[] getPropertyNames()
```

The names of all available property names, including environment variables and predefined properties

See Also:

[com.ibm.retail.si.mgmt.util.PropertySource#getPropertyNames\(\)](#)

com.ibm.retail.si.mgmt

Interface MgmtAgent

public interface **MgmtAgent**

Interface for all RMA Agents. Provides access to a JMX MBean server in addition to other configuration objects

Field Summary

static java.lang.String	COPYRIGHT
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Method Summary

AgentAuthList	getAgentAuthList()
MgmtAgentConfigura tion	getAgentConfiguration()
MgmtDeviceInfo	getDeviceInfo()
javax.management.M BeanServer	getMBeanServer()
ObjectNameFactory	getObjectNameFactory()
AgentRolesConfigur ation	getRolesConfiguration()
boolean	isAgentStarted()
void	shutdown() Shutdown the agent completely, including its MBeanServer.
void	start() Start the agent, if it hasn't yet been started

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

getMBeanServer

public javax.management.MBeanServer **getMBeanServer()**

(continued from last page)

Returns:

Instance of the JMX MBean Server

getDeviceInfo

```
public MgmtDeviceInfo getDeviceInfo()
```

Returns:

Device information object for this device

getAgentConfiguration

```
public MgmtAgentConfiguration getAgentConfiguration()
```

Returns:

A view of the agent's configuration information

getAgentAuthList

```
public AgentAuthList getAgentAuthList()
```

Returns:

The AgentAuthList for the agent

getObjectNameFactory

```
public ObjectNameFactory getObjectNameFactory()
```

Returns:

The ObjectNameFactoryinstance for creating RMA ObjectNames

getRolesConfiguration

```
public AgentRolesConfiguration getRolesConfiguration()
```

Returns:

The agent's configuration for roles and models

isAgentStarted

```
public boolean isAgentStarted()
```

Returns:

(continued from last page)

True if the agent has started, false otherwise

start

```
public void start()  
    throws MgmtException  
    Start the agent, if it hasn't yet been started
```

Exceptions:

MgmtException -
Error starting the agent

shutdown

```
public void shutdown()  
    Shutdown the agent completely, including its MBeanServer.
```

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Interface MgmtAgentConfiguration

public interface **MgmtAgentConfiguration**

extends java.io.Serializable

Interface representing an object containing the configuration for a MgmtAgent

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

boolean	containsKey(java.lang.String key) Returns whether or not a property is defined with the supplied key
void	deleteProperty(java.lang.String key) Deletes the supplied key and its value from the configuration, if it exists.
java.lang.String	getProperty(java.lang.String key) Returns the value of the property matching the supplied key, returning null if it is not defined
java.lang.String	getProperty(java.lang.String key, java.lang.String key) Returns the value of the property matching the supplied key, returning defaultVal if it is not defined
java.lang.String[]	getPropertyNames()
void	persist() If supported by the implementation, persists the configuration
void	setProperty(java.lang.String key, java.lang.String key) Sets the value of the property with the supplied key.

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

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getProperty

```
public java.lang.String getProperty(java.lang.String key)
```

Returns the value of the property matching the supplied key, returning null if it is not defined

Parameters:

key -
Key to search for

Returns:

The value matching the supplied key, or null otherwise

getProperty

```
public java.lang.String getProperty(java.lang.String key,  
                                     java.lang.String defaultVal)
```

Returns the value of the property matching the supplied key, returning defaultVal if it is not defined

Parameters:

key -
Key to search for
defaultVal -
Value to return if no property matching the supplied key is defined

Returns:

The value matching the supplied key, or defaultVal otherwise

getPropertyNames

```
public java.lang.String[] getPropertyNames()
```

Returns:

Array of all property names, or an empty array if there are none

containsKey

```
public boolean containsKey(java.lang.String key)
```

Returns whether or not a property is defined with the supplied key

Parameters:

key -
Key to search for

Returns:

true
if a property is defined matching the supplied key, false otherwise

setProperty

```
public void setProperty(java.lang.String key,  
                        java.lang.String value)
```

Sets the value of the property with the supplied key. New values will be created for non-existent keys

Parameters:

(continued from last page)

key -
Key to search for or create
value -
Value for the property

deleteProperty

```
public void deleteProperty(java.lang.String key)
```

Deletes the supplied key and its value from the configuration, if it exists. The configuration is not persisted

Parameters:

key -
Key to delete

persist

```
public void persist()  
    throws MgmtException
```

If supported by the implementation, persists the configuration

Exceptions:

MgmtException -
Error persisting the configuration

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Class MgmtAgentConfigurationMBean

java.lang.Object

└─com.ibm.retail.si.mgmt.MgmtAgentConfigurationMBean

All Implemented interfaces:

javax.management.DynamicMBean

```
public class MgmtAgentConfigurationMBean
```

```
extends java.lang.Object
```

```
implements javax.management.DynamicMBean
```

MBean that provides access to the properties contained in the agent's MgmtAgentConfiguration.

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	OBJECT_NAME_BASE
static java.lang.String	OBJECT_NAME_ID

Constructor Summary

MgmtAgentConfigurationMBean(MgmtAgentConfiguration config)

Method Summary

java.lang.Object	getAttribute(java.lang.String attributeName)
javax.management.AttributeList	getAttributes(java.lang.String[] attributeNames)
javax.management.MBeanInfo	getMBeanInfo()
java.lang.Object	invoke(java.lang.String operation, java.lang.Object[] operation, java.lang.String[] operation)
void	setAttribute(javax.management.Attribute newAttribute)
javax.management.AttributeList	setAttributes(javax.management.AttributeList attrs)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME_BASE

```
public static final java.lang.String OBJECT_NAME_BASE
```

Constructors

MgmtAgentConfigurationMBean

```
public MgmtAgentConfigurationMBean(MgmtAgentConfiguration config)
```

Methods

getAttribute

```
public java.lang.Object getAttribute(java.lang.String attributeName)  
    throws javax.management.AttributeNotFoundException,  
           javax.management.MBeanException,  
           javax.management.ReflectionException
```

See Also:

DynamicMBean#getAttribute(java.lang.String)

getAttributes

```
public javax.management.AttributeList getAttributes(java.lang.String[] attributeNames)
```

See Also:

DynamicMBean#getAttributes(java.lang.String[])

invoke

```
public java.lang.Object invoke(java.lang.String operation,  
                                java.lang.Object[] params,  
                                java.lang.String[] signature)
```

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See Also:`DynamicMBean#invoke(java.lang.String, java.lang.Object[], java.lang.String[])`

setAttribute

```
public void setAttribute(javax.management.Attribute newAttribute)
    throws javax.management.AttributeNotFoundException,
           javax.management.InvalidAttributeValueException,
           javax.management.MBeanException,
           javax.management.ReflectionException
```

See Also:`DynamicMBean#setAttribute(javax.management.Attribute)`

setAttributes

```
public javax.management.AttributeList setAttributes(javax.management.AttributeList
attrs)
```

See Also:`DynamicMBean#setAttributes(javax.management.AttributeList)`

getMBeanInfo

```
public javax.management.MBeanInfo getMBeanInfo()
```

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Class MgmtAgentFactory

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.MgmtAgentFactory

```

public class **MgmtAgentFactory**

extends java.lang.Object

Factory class for obtaining the singleton instances of the Master or General Management agents. The agents are initialized and started upon the first call to either of the factory methods.

This class also supports the creation of virtual general agents, which are general agents that run alongside a real agent with a separate MBeanServer and configuration.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

MgmtAgentFactory()

Method Summary

static void	checkVirtualAgentManager() Performs a check to see if a VirtualAgentManagerMBean needs to be registered, and registers it if it needs to be
static MgmtAgent	createGeneralAgent() Creates the General Agent instance, if one does not already exist, and if a Master Agent is not running.
static MgmtAgent	createGeneralAgent(int deviceType) Creates the General Agent instance with the supplied device type, if one does not already exist, and if a Master Agent is not running.
static MgmtAgent	createVirtualAgent(int deviceType, java.lang.String deviceType) Creates a new virtual general agent based on the current agent's agent information.
static java.lang.String	getConfigurationDirectory()
static MgmtAgent	getCurrentMgmtAgent() Return the currently running MgmtAgent instance in this JVM
static MgmtAgent	getGeneralAgent() Returns the singleton instance of the general agent for the current JVM.

<code>static MgmtAgent</code>	<code>getGeneralAgent(int deviceType)</code> Creates a general agent instance with the supplied device type, which will override the automatically detected device type.
<code>static MgmtAgent</code>	<code>getMasterAgent()</code> Returns the singleton instance of the master agent for the current JVM.
<code>static int</code>	<code>getNumVirtualAgents()</code>
<code>static java.lang.String[]</code>	<code>getVirtualAgentIds()</code>
<code>static MgmtDeviceInfo</code>	<code>getVirtualAgentInfo(java.lang.String systemId)</code> Returns the agent information for the supplied virtual agent
<code>static boolean</code>	<code>isGeneralAgentRunning()</code>
<code>static boolean</code>	<code>isMasterAgentRunning()</code>
<code>static boolean</code>	<code>isServiceAgent()</code> Returns whether or not the current agent is a service agent
<code>static boolean</code>	<code>isShutDownInProgress()</code> Static method to allow agent code to check if an agent shutdown is in progress
<code>static boolean</code>	<code>registerVirtualAgent(VirtualAgent virtualAgent)</code> Called internally by a virtual agent when it is started, this method registers the supplied agent in the global virtual agent list
<code>static boolean</code>	<code>releaseGeneralAgent()</code> Shuts down and resets the singleton GeneralAgent instance, if one exists.
<code>static boolean</code>	<code>releaseMasterAgent()</code> Shuts down and resets the singleton MasterAgent instance, if one exists.
<code>static void</code>	<code>setConfigurationDirectory(java.lang.String configDir)</code> Sets the RMA configuration directory path.
<code>static void</code>	<code>setServiceAgent()</code> Sets the flag that this current agent is a service agent
<code>static void</code>	<code>setShutDownFlag()</code> Sets a flag that the agent is shutting down.
<code>static boolean</code>	<code>shutdownVirtualAgent(java.lang.String systemId)</code> Shuts down the virtual agent matching the supplied agent Id, removing it from the virtual agent list
<code>static boolean</code>	<code>unregisterVirtualAgent(java.lang.String systemId)</code> Called internally by a virtual agent when it is shut down, this method unregisters the agent given by the supplied Id from the virtual agent list

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,  
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

MgmtAgentFactory

```
public MgmtAgentFactory()
```

Methods

isShutDownInProgress

```
public static boolean isShutDownInProgress()
```

Static method to allow agent code to check if an agent shutdown is in progress

Returns:

true if shutdown in progress, false otherwise

setShutDownFlag

```
public static void setShutDownFlag()
```

Sets a flag that the agent is shutting down.

isServiceAgent

```
public static boolean isServiceAgent()
```

Returns whether or not the current agent is a service agent

Returns:

true if the current agent is a service agent, false otherwise

setServiceAgent

```
public static void setServiceAgent()
```

Sets the flag that this current agent is a service agent

getGeneralAgent

```
public static MgmtAgent getGeneralAgent()  
throws MgmtException
```


(continued from last page)

Returns the singleton instance of the general agent for the current JVM. If not yet created, the agent instance will be created with an automatically detected device type, defaulting to `MgmtConst.dTypeUnknown`. The device type can be overridden with the `getGeneralAgent(int)` method. After being created, the instance will be started, by calling the `start()` method on the instance.

Returns:

MgmtAgent Singleton general agent instance

Exceptions:

`MgmtException` -
Error initializing General Agent instance, possibly due to missing configuration file(s), or errors reading the configuration

getGeneralAgent

```
public static MgmtAgent getGeneralAgent(int deviceType)  
                                     throws MgmtException
```

Creates a general agent instance with the supplied device type, which will override the automatically detected device type. If an instance is already running, then that instance will be returned. If the device type is invalid, then the device type will be detected. Before calling this method, a check should be made to `isGeneralAgentRunning()` to see if there is an existing instance. Device type constants are specified in `MgmtConst`.

Parameters:

`deviceType` -
Valid device type to use for this agent

Returns:

Singleton general agent instance, or null if the agent instance cannot be initialized

Exceptions:

`MgmtException` -
Error initializing General Agent instance, possibly due to missing configuration file(s) or errors reading the configuration

createGeneralAgent

```
public static MgmtAgent createGeneralAgent()  
                                     throws MgmtException
```

Creates the General Agent instance, if one does not already exist, and if a Master Agent is not running.

Returns:

The current general agent instance, or the newly created one.

Exceptions:

`MgmtException` -
A Master Agent is running, or an error occurred creating the agent

createGeneralAgent

```
public static MgmtAgent createGeneralAgent(int deviceType)  
                                     throws MgmtException
```

Creates the General Agent instance with the supplied device type, if one does not already exist, and if a Master Agent is not running.

Returns:

The current general agent instance, or the newly created one

Exceptions:

(continued from last page)

MgmtException -
A Master Agent is running, or an error occurred creating the agent

isGeneralAgentRunning

```
public static boolean isGeneralAgentRunning()
```

Returns:

boolean true if there is a general agent running in this JVM. false otherwise

isMasterAgentRunning

```
public static boolean isMasterAgentRunning()
```

Returns:

boolean true if there is a master agent running in this JVM. false otherwise

releaseGeneralAgent

```
public static boolean releaseGeneralAgent()
```

Shuts down and resets the singleton GeneralAgent instance, if one exists.

Returns:

true
If the GeneralAgent instance was successfully released, false if no instance existed

releaseMasterAgent

```
public static boolean releaseMasterAgent()
```

Shuts down and resets the singleton MasterAgent instance, if one exists.

Returns:

true
If the MasterAgent instance was successfully released, false if no instance existed

getMasterAgent

```
public static MgmtAgent getMasterAgent()  
                        throws MgmtException
```

Returns the singleton instance of the master agent for the current JVM. The agent instance will be created upon the first call to this method.

Returns:

Singleton master agent instance, or null if the agent instance cannot be initialized

Exceptions:

MgmtException -
Error initializing MasterAgent instance, possibly due to missing configuration file(s), errors reading the configuration, or if a General Agent instance is currently running

getCurrentMgmtAgent

```
public static MgmtAgent getCurrentMgmtAgent()
```

(continued from last page)

Return the currently running MgmtAgent instance in this JVM

Returns:

The currently running MgmtAgent instance in this JVM

getConfigurationDirectory

```
public static java.lang.String getConfigurationDirectory()
```

Returns:

The path to the RMA configuration directory, set by the ManagementAgentService class if the agent was started as a service. If null, then a value was not supplied, or the agent is not running as a service

setConfigurationDirectory

```
public static void setConfigurationDirectory(java.lang.String configDir)
```

Sets the RMA configuration directory path. Should only be called by RMA internally.

Parameters:

configDir -
Configuration directory path

See Also:

com.ibm.retail.si.mgmt.MgmtAgentFactory#getConfigurationDirectory()

createVirtualAgent

```
public static MgmtAgent createVirtualAgent(int deviceType,  
                                           java.lang.String deviceId)  
                                           throws MgmtException
```

Creates a new virtual general agent based on the current agent's agent information. The agent is not started. The supplied device Id cannot be the same as that of the real agent.

Parameters:

deviceType -
Device type of the virtual agent
deviceId -
Device Id of the virtual agent

Returns:

The virtual agent instance

Exceptions:

MgmtException -
No real agent running, invalid device Id or device type

registerVirtualAgent

```
public static boolean registerVirtualAgent(VirtualAgent virtualAgent)
```

Called internally by a virtual agent when it is started, this method registers the supplied agent in the global virtual agent list

Parameters:

virtualAgent -
Virtual agent to register

(continued from last page)

Returns:

true if the agent is not null, was not previously registered, and was successfully registered. False otherwise

unregisterVirtualAgent

```
public static boolean unregisterVirtualAgent(java.lang.String systemId)
```

Called internally by a virtual agent when it is shut down, this method unregisters the agent given by the supplied Id from the virtual agent list

Parameters:

systemId -
Agent Id of the virtual agent

Returns:

true if the agent Id is not null, the agent was previously registered, and was successfully unregistered. False otherwise

shutdownVirtualAgent

```
public static boolean shutdownVirtualAgent(java.lang.String systemId)
```

Shuts down the virtual agent matching the supplied agent Id, removing it from the virtual agent list

Parameters:

systemId -
Agent Id of the virtual agent to shut down

Returns:

true if the agent was found and shut down, false otherwise

getNumVirtualAgents

```
public static int getNumVirtualAgents()
```

Returns:

The number of currently registered virtual agents

getVirtualAgentIds

```
public static java.lang.String[] getVirtualAgentIds()
```

Returns:

The agent Ids of all currently registered virtual agents

getVirtualAgentInfo

```
public static MgmtDeviceInfo getVirtualAgentInfo(java.lang.String systemId)
```

Returns the agent information for the supplied virtual agent

Parameters:

systemId -
Agent Id of the agent to search for

(continued from last page)

Returns:

The agent information for the supplied virtual agent, or null if no agent was registered

checkVirtualAgentManager

```
public static void checkVirtualAgentManager()
```

Performs a check to see if a `VirtualAgentManagerMBean` needs to be registered, and registers it if it needs to be

com.ibm.retail.si.mgmt

Interface MgmtClientHealthMBean

All Superinterfaces:

MgmtHealthMBean, MgmtExtendedControlMBean

All Subinterfaces:

VirtualAgentDiscoveryMBean

public interface **MgmtClientHealthMBean**

extends MgmtHealthMBean

Management interface for the MgmtClientHealth MBean. It represents the client side discovery and health checking done on behalf of the General Agent ONLY. The MBean emits UDP discovery packets at a configured interval for discovery by a Master Agent.

The `ObjectName` of this MBean includes the following attributes, in addition to the SIF attribute of `DeviceID`:

- SIFComponent=MGMT
- Id=discovery

This management interface includes the following attributes. These attributes are described in more detail in the accessor methods, and in the `MgmtHealthMBean` and `MgmtExtendedControlMBean` interfaces.

- Interval

The following operations are included in this management interface. These are described in more detail in the corresponding method documentation.

- No Operations Defined

An `AgentShutdownNotification` is emitted by classes implementing this interface when the General Agent is cleanly shut down. The notification `userData` will contain the `MgmtDeviceInfo` for the agent.

See Also:

com.ibm.retail.si.mgmt.MgmtHealthMBean

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	mbQueryDefault
static java.lang.String	mbQueryWAS
static java.lang.String	OBJECT_NAME
static java.lang.String	OBJECT_NAME_ID

Method Summary

int	getDiscoveryFrameInterval() Returns the number of seconds between the transmission of discovery UDP packets
-----	----------------------------------------------------------------------------------------------------------------

java.lang.String	getJMXAuthKeyAlias() The current alias used for JMX authentication
java.lang.String	getNetworkInterface()
java.lang.String	getNetworkInterfaceDisplayName()
int	getNetworkInterfaceMonitoringInterval()
int	getNetworkRetryInterval()
java.lang.String	registerJMXAuthPublicKey(java.security.PublicKey key) Registers the supplied public key with the agent, returning a unique alias to identify it.
void	setDiscoveryFrameInterval(int seconds)
void	setNetworkInterfaceMonitoringInterval(int minutes)
void	setNetworkRetryInterval(int seconds)

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

OBJECT_NAME_ID

public static final java.lang.String **OBJECT_NAME_ID**

OBJECT_NAME

public static final java.lang.String **OBJECT_NAME**

mbQueryWAS

public static final java.lang.String **mbQueryWAS**

mbQueryDefault

public static final java.lang.String **mbQueryDefault**

Methods

(continued from last page)

setDiscoveryFrameInterval

```
public void setDiscoveryFrameInterval(int seconds)
    throws javax.management.InvalidAttributeValueException
```

Parameters:

seconds -
The new number of seconds between discovery transmissions

getDiscoveryFrameInterval

```
public int getDiscoveryFrameInterval()
    Returns the number of seconds between the transmission of discovery UDP packets
```

Returns:

The number of seconds between the transmission of discovery UDP packets

setNetworkRetryInterval

```
public void setNetworkRetryInterval(int seconds)
    throws javax.management.InvalidAttributeValueException
```

Parameters:

seconds -
The number of seconds between retries when a network interface cannot be obtained

Exceptions:

InvalidAttributeValueException

getNetworkRetryInterval

```
public int getNetworkRetryInterval()
```

Returns:

The number of seconds between retries when a network interface cannot be obtained

setNetworkInterfaceMonitoringInterval

```
public void setNetworkInterfaceMonitoringInterval(int minutes)
    throws
    javax.management.InvalidAttributeValueException
```

Parameters:

minutes -
The number of minutes between each check of the current network interface

Exceptions:

InvalidAttributeValueException

(continued from last page)

getNetworkInterfaceMonitoringInterval

```
public int getNetworkInterfaceMonitoringInterval()
```

Returns:

The number of minutes between each check of the current network interface

getNetworkInterface

```
public java.lang.String getNetworkInterface()
```

Returns:

The IP address of the interface currently being used for management

getNetworkInterfaceDisplayName

```
public java.lang.String getNetworkInterfaceDisplayName()
```

Returns:

The display name of the network interface being used for management

registerJMXAuthPublicKey

```
public java.lang.String registerJMXAuthPublicKey(java.security.PublicKey key)
```

Registers the supplied public key with the agent, returning a unique alias to identify it.

Parameters:

key -
The public key

Returns:

Alias of the key if the key was successfully saved, null otherwise

getJMXAuthKeyAlias

```
public java.lang.String getJMXAuthKeyAlias()
```

The current alias used for JMX authentication

Returns:

The current alias

com.ibm.retail.si.mgmt
Class MgmtConst

java.lang.Object

└-com.ibm.retail.si.mgmt.MgmtConst

public final class **MgmtConst**
 extends java.lang.Object

Management Constants

Field Summary	
static java.lang.String	AGENT_ROLE_DEFAULT_MODEL_NUMBER default model for general and master agents.
static int	AGENT_VERSION_1
static int	AGENT_VERSION_2
static int	AGENT_VERSION_CURRENT The latest current version
static int	AGENT_VERSION_V2R2
static int	AGENT_VERSION_V2R3
static int	AGENT_VERSION_V2R4
static int	AGENT_VERSION_V2R5
static int	AGENT_VERSION_V2R5_CSD1
static int[]	AGENT_VERSIONS
static int	BASE_GA_MGMT_PORT When a general agent is started, the first port that a non service general agent tries to use
static int	ConnectionAttemptInterval The default time interval between connection attempts of a newly discovered agent
static java.lang.String	COPYRIGHT
static java.lang.String	DEF_AGENT_PROP_FILE Name of the Management Agent properties file
static java.lang.String	DEFAULT_EVENT_RESOURCE_BUNDLE Resource bundle class for generic RMA events

static java.lang.String	DEFAULT_GA_JMX_KEY_ALIAS Name of the default General Agent JMX Authentication Key Alias
static int	DefaultNetworkInterfaceMonitorInterval The default number of minutes between checks of the network interface
static int	DefaultNetworkRetryInterval The default number of seconds between tries to get a network interface
static int	DefaultPingInterval Number of seconds between the sending of discovery packets by a general agent
static java.lang.String	DEVICE_DEFAULT_MODEL_NUMBER
static int	dType4690
static int	dTypeAll
static int	dTypeConsumer
static int	dTypeIRESTerm
static int	dTypeLinux
static int	dTypePOSTerm
static int	dTypeROLO
static int	dTypeUnknown
static int	dTypeWindows2000
static int	dTypeWindows2003
static int	dTypeWindowsVista
static int	dTypeWindowsXP
static int	GA_SVC_MGMT_PORT The port that the general agent service uses
static java.lang.String	GENERAL_AGENT_DEFAULT_ROLE default role for general agent.
static java.lang.String	GENERAL_AGENT_DOMAIN Domain for the General Agent MBeanServer
static byte	KEY_TYPE_PRIVATE
static byte	KEY_TYPE_PUBLIC

static int	MA_MGMT_PORT Port used for remote connectivity to the Master Agent using RMI
static int	MA_MGMT_PORT_SOXS Port used for remote connectivity to the Master Agent using SOXS
static java.lang.String	MASTER_AGENT_DEFAULT_ROLE default role for master agent.
static java.lang.String	MASTER_AGENT_DOMAIN Domain for the Master Agent MBeanServer
static java.lang.String	MASTER_AGENT_PROXY_DOMAIN Domain for Master Agent Proxy MBeans
static java.lang.String	MGMT_PROTOCOL_RMI Constant used by General Agents to indicate usage of RMI for communication
static java.lang.String	MGMT_PROTOCOL_SOXS Constant used by General Agents to indicate usage of SOXS for communication
static java.lang.String	MGMT_PROTOCOL_VGA Constant used by Virtual Agents to indicate usage of the same JVM virtual general agent conenctor
static int	MissedIntervalThreshold The number of missed UDP advertisements allowed before a general agent is considered offline
static java.lang.String	OBJ_NAME_DEV_MAJ_KEY
static java.lang.String	OBJ_NAME_DEV_MIN_KEY
static java.lang.String	OBJ_NAME_DEVICEID_KEY ObjectName property key for the device Id
static java.lang.String	OBJ_NAME_ID_KEY ObjectName property key for the MBean's ID, which is a unique identifier for the MBean
static java.lang.String	OBJ_NAME_MBEAN_TYPE_KEY ObjectName property key for the SIF Type, used by MBeans that have multiple instances of the same type
static java.lang.String	OBJ_NAME_MGMT_CIM_COMPONENT Value CIM Proxy MBeans are to use for the OBJ_NAME_SIFMBEAN_KEYObjectName key
static java.lang.String	OBJ_NAME_MGMT_SIF_COMPONENT Value Remote Management Infrastructure MBeans are to use for the OBJ_NAME_SIFMBEAN_KEYObjectName key
static java.lang.String	OBJ_NAME_SIF_COMP_KEY ObjectName property key for the SIF Component

static java.lang.String	OBJ_NAME_SIFMBEAN_KEY ObjectName property key that indicates an MBean belongs
static java.lang.String	OBJ_NAME_STOREID_KEY ObjectName property key for the store Id
static java.lang.String	OBJ_NAME_SYSTEMID_KEY ObjectName property key for the system (Agent) Id
static java.lang.String	PACKAGE
static short	PKCS8_CODE
static java.lang.String	SECURITY_PROP_AGENT_SECURE_MODE Configuration property for changing the agent security mode
static java.lang.String	SSL_CONFIG_ALIAS_RMA Name of the SSL configuration alias to use for RMA General Agent JMX Connector Servers
static java.lang.String	SSL_CONFIG_ALIAS_RMA_MA Name of the SSL configuration alias to use for RMA Master Agent JMX Connector Servers
static java.lang.String	SYS_PROP_AGENT_RMI_SOCKET_CONNECT_TIMEOUT Property specifying the socket timeout in ms used for the Agent's RMI JMXConnectorServer
static java.lang.String	SYS_PROP_AGENT_RMI_SOCKET_TIMEOUT Property specifying the socket timeout in ms used for the Agent's RMI JMXConnectorServer
static java.lang.String	SYS_PROP_CONFIG_DIR JVM System property name pointing to the RMA configuration directory, where configuration and non-static data is kept
static java.lang.String	SYS_PROP_CONFIG_FILE JVM System property name pointing to the name of the RMA configuration file
static java.lang.String	SYS_PROP_DEVICE_TYPE Property specifying the numerical agent device type, which can be overridden in the agent configuration
static java.lang.String	SYS_PROP_GA_DISCOVERY_TTL Property used to override the default TTL (1) for GA Discovery Multicasts
static java.lang.String	SYS_PROP_GA_PORT JVM System property name pointing to the port number to be used for a General Agent
static java.lang.String	SYS_PROP_GEN_AGENT_PROTOCOL Property specifying the protocol to be used for General Agent communication
static java.lang.String	SYS_PROP_GEN_AGENT_SSL_CONFIG_ALIAS Property specifying the SSL configuration alias to be used for the RMI Socket Factory

<code>static java.lang.String</code>	<code>SYS_PROP_MA_DISCOVERY_IF_LIST</code> Property for a comma separated list of interfaces that a Master Agent will listen to General Agents on.
<code>static java.lang.String</code>	<code>SYS_PROP_MODEL_NUMBER</code> Property specifying the model number of a device.
<code>static java.lang.String</code>	<code>SYS_PROP_REMOTE_AGENT_INTERFACE</code> Property specifying the system name (via the <code>NetworkInterface</code> class) of the network interface to use for Remote Agent communication
<code>static java.lang.String</code>	<code>SYS_PROP_RMA_DATA_CAPTURE_HEAP_DUMP</code>
<code>static java.lang.String</code>	<code>SYS_PROP_RMA_HOME_KEY</code> Key for the System Property specifying the location of the RMA installation directory.
<code>static java.lang.String</code>	<code>SYS_PROP_ROLES</code> Property specifying the roles assigned to an agent.
<code>static java.lang.String</code>	<code>SYS_PROP_SIF_MGMT_HOME_KEY</code> Property specifying the SIFHOME path, where all management jars and libraries are kept
<code>static java.lang.String</code>	<code>SYS_PROP_SOXS_DISABLE_ADVERTISE</code> System property that disables the advertising capability of the <code>SoxsConnectorServer</code>
<code>static java.lang.String</code>	<code>SYS_PROP_STOREID_KEY</code> Used only by master agents, this property specifies an identifier for the store
<code>static java.lang.String</code>	<code>VIRTUAL_AGENT_DOMAIN</code> Domain for Virtual Agent MBeanServer
<code>static short</code>	<code>X509_CODE</code> code for MA-GA key formats (PKCS8 and X509) which is stored in key file.

Constructor Summary

`MgmtConst()`

Method Summary

<code>static int[]</code>	<code>getDeviceTypes()</code>
<code>static boolean</code>	<code>is4690Type(int type)</code>
<code>static boolean</code>	<code>isLinuxType(int type)</code>
<code>static boolean</code>	<code>isValidAgentVersion(int version)</code>
<code>static boolean</code>	<code>isWin32Type(int type)</code>

<pre>static java.lang.String</pre>	<pre>mapAgentVersionToString(int version)</pre>
------------------------------------	-------------------------------------------------

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait
```

Fields**COPYRIGHT**

```
public static final java.lang.String COPYRIGHT
```

PACKAGE

```
public static final java.lang.String PACKAGE
```

AGENT_VERSION_1

```
public static final int AGENT_VERSION_1
```

AGENT_VERSION_2

```
public static final int AGENT_VERSION_2
```

AGENT_VERSION_V2R2

```
public static final int AGENT_VERSION_V2R2
```

AGENT_VERSION_V2R3

```
public static final int AGENT_VERSION_V2R3
```

AGENT_VERSION_V2R4

```
public static final int AGENT_VERSION_V2R4
```

AGENT_VERSION_V2R5

```
public static final int AGENT_VERSION_V2R5
```

(continued from last page)

AGENT_VERSION_V2R5_CSD1

```
public static final int AGENT_VERSION_V2R5_CSD1
```

AGENT_VERSION_CURRENT

```
public static int AGENT_VERSION_CURRENT
```

The latest current version

AGENT_VERSIONS

```
public static final int AGENT_VERSIONS
```

MASTER_AGENT_DOMAIN

```
public static final java.lang.String MASTER_AGENT_DOMAIN
```

Domain for the Master Agent MBeanServer

MASTER_AGENT_PROXY_DOMAIN

```
public static final java.lang.String MASTER_AGENT_PROXY_DOMAIN
```

Domain for Master Agent Proxy MBeans

GENERAL_AGENT_DOMAIN

```
public static final java.lang.String GENERAL_AGENT_DOMAIN
```

Domain for the General Agent MBeanServer

VIRTUAL_AGENT_DOMAIN

```
public static final java.lang.String VIRTUAL_AGENT_DOMAIN
```

Domain for Virtual Agent MBeanServer

DEF_AGENT_PROP_FILE

```
public static final java.lang.String DEF_AGENT_PROP_FILE
```

Name of the Management Agent properties file

SSL_CONFIG_ALIAS_RMA

```
public static final java.lang.String SSL_CONFIG_ALIAS_RMA
```

Name of the SSL configuration alias to use for RMA General Agent JMX Connector Servers

SSL_CONFIG_ALIAS_RMA_MA

```
public static final java.lang.String SSL_CONFIG_ALIAS_RMA_MA
```

Name of the SSL configuration alias to use for RMA Master Agent JMX Connector Servers

SYS_PROP_STOREID_KEY

```
public static final java.lang.String SYS_PROP_STOREID_KEY
```

Used only by master agents, this property specifies an identifier for the store

SYS_PROP_RMA_HOME_KEY

```
public static final java.lang.String SYS_PROP_RMA_HOME_KEY
```

Key for the System Property specifying the location of the RMA installation directory. There is only a value when the General Agent or Master Agent is running as a service.

SYS_PROP_SIF_MGMT_HOME_KEY

```
public static final java.lang.String SYS_PROP_SIF_MGMT_HOME_KEY
```

Property specifying the SIFHOME path, where all management jars and libraries are kept

SYS_PROP_GEN_AGENT_PROTOCOL

```
public static final java.lang.String SYS_PROP_GEN_AGENT_PROTOCOL
```

Property specifying the protocol to be used for General Agent communication

SYS_PROP_GEN_AGENT_SSL_CONFIG_ALIAS

```
public static final java.lang.String SYS_PROP_GEN_AGENT_SSL_CONFIG_ALIAS
```

Property specifying the SSL configuration alias to be used for the RMI Socket Factory

SYS_PROP_AGENT_RMI_SOCKET_TIMEOUT

```
public static final java.lang.String SYS_PROP_AGENT_RMI_SOCKET_TIMEOUT
```

Property specifying the socket timeout in ms used for the Agent's RMI JMXConnectorServer

SYS_PROP_AGENT_RMI_SOCKET_CONNECT_TIMEOUT

```
public static final java.lang.String SYS_PROP_AGENT_RMI_SOCKET_CONNECT_TIMEOUT
```

Property specifying the socket timeout in ms used for the Agent's RMI JMXConnectorServer

SYS_PROP_REMOTE_AGENT_INTERFACE

```
public static final java.lang.String SYS_PROP_REMOTE_AGENT_INTERFACE
```

Property specifying the system name (via the NetworkInterface class) of the network interface to use for Remote Agent communication

SYS_PROP_DEVICE_TYPE

```
public static final java.lang.String SYS_PROP_DEVICE_TYPE
```

Property specifying the numerical agent device type, which can be overridden in the agent configuration

SYS_PROP_ROLES

```
public static final java.lang.String SYS_PROP_ROLES
```

Property specifying the roles assigned to an agent.

SYS_PROP_MODEL_NUMBER

```
public static final java.lang.String SYS_PROP_MODEL_NUMBER
```

Property specifying the model number of a device.

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SYS_PROP_CONFIG_FILE

```
public static final java.lang.String SYS_PROP_CONFIG_FILE
    JVM System property name pointing to the name of the RMA configuration file
```

SYS_PROP_CONFIG_DIR

```
public static final java.lang.String SYS_PROP_CONFIG_DIR
    JVM System property name pointing to the RMA configuration directory, where configuration and non-static data is kept
```

SYS_PROP_GA_PORT

```
public static final java.lang.String SYS_PROP_GA_PORT
    JVM System property name pointing to the port number to be used for a General Agent
```

SYS_PROP_GA_DISCOVERY_TTL

```
public static final java.lang.String SYS_PROP_GA_DISCOVERY_TTL
    Property used to override the default TTL (1) for GA Discovery Multicasts
```

SYS_PROP_MA_DISCOVERY_IF_LIST

```
public static final java.lang.String SYS_PROP_MA_DISCOVERY_IF_LIST
    Property for a comma separated list of interfaces that a Master Agent will listen to General Agents on. The use of this
    property overrides the default behavior of listening on all interfaces
```

SYS_PROP_RMA_DATA_CAPTURE_HEAP_DUMP

```
public static final java.lang.String SYS_PROP_RMA_DATA_CAPTURE_HEAP_DUMP
```

OBJ_NAME_STOREID_KEY

```
public static final java.lang.String OBJ_NAME_STOREID_KEY
    ObjectName property key for the store Id
```

OBJ_NAME_DEVICEID_KEY

```
public static final java.lang.String OBJ_NAME_DEVICEID_KEY
    ObjectName property key for the device Id
```

OBJ_NAME_SYSTEMID_KEY

```
public static final java.lang.String OBJ_NAME_SYSTEMID_KEY
    ObjectName property key for the system (Agent) Id
```

OBJ_NAME_SIFMBEAN_KEY

```
public static final java.lang.String OBJ_NAME_SIFMBEAN_KEY
    ObjectName property key that indicates an MBean belongs
```

OBJ_NAME_SIF_COMP_KEY

```
public static final java.lang.String OBJ_NAME_SIF_COMP_KEY
```

(continued from last page)

ObjectName property key for the SIF Component

OBJ_NAME_MBEAN_TYPE_KEY

```
public static final java.lang.String OBJ_NAME_MBEAN_TYPE_KEY
```

ObjectName property key for the SIF Type, used by MBeans that have multiple instances of the same type

OBJ_NAME_DEV_MAJ_KEY

```
public static final java.lang.String OBJ_NAME_DEV_MAJ_KEY
```

OBJ_NAME_DEV_MIN_KEY

```
public static final java.lang.String OBJ_NAME_DEV_MIN_KEY
```

OBJ_NAME_ID_KEY

```
public static final java.lang.String OBJ_NAME_ID_KEY
```

ObjectName property key for the MBean's ID, which is a unique identifier for the MBean

OBJ_NAME_MGMT_SIF_COMPONENT

```
public static final java.lang.String OBJ_NAME_MGMT_SIF_COMPONENT
```

Value Remote Management Infrastructure MBeans are to use for the OBJ_NAME_SIFMBean_KEYObjectName key

OBJ_NAME_MGMT_CIM_COMPONENT

```
public static final java.lang.String OBJ_NAME_MGMT_CIM_COMPONENT
```

Value CIM Proxy MBeans are to use for the OBJ_NAME_SIFMBean_KEYObjectName key

GA_SVC_MGMT_PORT

```
public static final int GA_SVC_MGMT_PORT
```

The port that the general agent service uses

BASE_GA_MGMT_PORT

```
public static final int BASE_GA_MGMT_PORT
```

When a general agent is started, the first port that a non service general agent tries to use

MA_MGMT_PORT

```
public static final int MA_MGMT_PORT
```

Port used for remote connectivity to the Master Agent using RMI

MA_MGMT_PORT_SOXS

```
public static final int MA_MGMT_PORT_SOXS
```

Port used for remote connectivity to the Master Agent using SOXS

(continued from last page)

MGMT_PROTOCOL_RMI

```
public static final java.lang.String MGMT_PROTOCOL_RMI
    Constant used by General Agents to indicate usage of RMI for communication
```

MGMT_PROTOCOL_SOXS

```
public static final java.lang.String MGMT_PROTOCOL_SOXS
    Constant used by General Agents to indicate usage of SOXS for communication
```

MGMT_PROTOCOL_VGA

```
public static final java.lang.String MGMT_PROTOCOL_VGA
    Constant used by Virtual Agents to indicate usage of the same JVM virtual general agent conector
```

SYS_PROP_SOXS_DISABLE_ADVERTISE

```
public static final java.lang.String SYS_PROP_SOXS_DISABLE_ADVERTISE
    System property that disables the advertising capability of the SoxsConnectorServer
```

dTypeAll

```
public static final int dTypeAll
```

dTypeUnknown

```
public static final int dTypeUnknown
```

dType4690

```
public static final int dType4690
```

dTypeLinux

```
public static final int dTypeLinux
```

dTypeROLO

```
public static final int dTypeROLO
```

dTypePOSTerm

```
public static final int dTypePOSTerm
```

dTypeConsumer

```
public static final int dTypeConsumer
```

dTypeWindows2000

```
public static final int dTypeWindows2000
```

dTypeWindowsXP

```
public static final int dTypeWindowsXP
```

dTypeWindows2003

```
public static final int dTypeWindows2003
```

dTypeIRESTerm

```
public static final int dTypeIRESTerm
```

dTypeWindowsVista

```
public static final int dTypeWindowsVista
```

DefaultPingInterval

```
public static final int DefaultPingInterval
```

Number of seconds between the sending of discovery packets by a general agent

DefaultNetworkInterfaceMonitorInterval

```
public static final int DefaultNetworkInterfaceMonitorInterval
```

The default number of minutes between checks of the network interface

DefaultNetworkRetryInterval

```
public static final int DefaultNetworkRetryInterval
```

The default number of seconds between tries to get a network interface

MissedIntervalThreshold

```
public static final int MissedIntervalThreshold
```

The number of missed UDP advertisements allowed before a general agent is considered offline

ConnectionAttemptInterval

```
public static final int ConnectionAttemptInterval
```

The default time interval between connection attempts of a newly discovered agent

(continued from last page)

DEVICE_DEFAULT_MODEL_NUMBER

```
public static final java.lang.String DEVICE_DEFAULT_MODEL_NUMBER
```

GENERAL_AGENT_DEFAULT_ROLE

```
public static final java.lang.String GENERAL_AGENT_DEFAULT_ROLE  
    default role for general agent.
```

MASTER_AGENT_DEFAULT_ROLE

```
public static final java.lang.String MASTER_AGENT_DEFAULT_ROLE  
    default role for master agent.
```

AGENT_ROLE_DEFAULT_MODEL_NUMBER

```
public static final java.lang.String AGENT_ROLE_DEFAULT_MODEL_NUMBER  
    default model for general and master agents.
```

DEFAULT_EVENT_RESOURCE_BUNDLE

```
public static final java.lang.String DEFAULT_EVENT_RESOURCE_BUNDLE  
    Resource bundle class for generic RMA events
```

SECURITY_PROP_AGENT_SECURE_MODE

```
public static final java.lang.String SECURITY_PROP_AGENT_SECURE_MODE  
    Configuration property for changing the agent security mode
```

DEFAULT_GA_JMX_KEY_ALIAS

```
public static final java.lang.String DEFAULT_GA_JMX_KEY_ALIAS  
    Name of the default General Agent JMX Authentication Key Alias
```

X509_CODE

```
public static final short X509_CODE  
    code for MA-GA key formats (PKCS8 and X509) which is stored in key file.
```

PKCS8_CODE

```
public static final short PKCS8_CODE
```

KEY_TYPE_PUBLIC

```
public static final byte KEY_TYPE_PUBLIC
```

KEY_TYPE_PRIVATE

```
public static final byte KEY_TYPE_PRIVATE
```

Constructors

MgmtConst

```
public MgmtConst()
```

Methods

isValidAgentVersion

```
public static boolean isValidAgentVersion(int version)
```

mapAgentVersionToString

```
public static java.lang.String mapAgentVersionToString(int version)
```

getDeviceTypes

```
public static int[] getDeviceTypes()
```

isWin32Type

```
public static boolean isWin32Type(int type)
```

is4690Type

```
public static boolean is4690Type(int type)
```

isLinuxType

```
public static boolean isLinuxType(int type)
```

com.ibm.retail.si.mgmt

Class MgmtDeviceInfo

java.lang.Object

└─com.ibm.retail.si.mgmt.MgmtDeviceInfo

All Implemented interfaces:

java.io.Serializable

```
public class MgmtDeviceInfo
extends java.lang.Object
implements java.io.Serializable
```

A Collection of information pertaining to a agent that has been discovered, and is being tracked by the discovery MBean: MgmtMasterHealth. Each MgmtAgent has an instance of this class for that agent.

Field Summary	
static long	AGENT_SECURED_BY_ANOTHER_MA
long	agentStartTime
int	agentType
int	agentVersion
boolean	connectionAttempted
int	connectionTics
static java.lang.String	COPYRIGHT
long	deviceFlags
java.lang.String	gaKeyAlias
static int	GENERAL_AGENT
static int	MASTER_AGENT
java.lang.String	mbeanQueryString
java.lang.String	mgmtProtocol
int	MissedTics
static int	VIRTUAL_AGENT

Constructor Summary

MgmtDeviceInfo(java.lang.String systemID,int systemID,java.lang.String systemID,java.net.InetAddress systemID,java.lang.String systemID,byte[] systemID,int systemID,java.lang.String systemID,int systemID)

Constructs a new instance with all needed values

MgmtDeviceInfo(java.lang.String systemID,int systemID,java.lang.String systemID,java.net.InetAddress systemID,int systemID,java.lang.String systemID,int systemID)

Constructs a new instance with all needed values but mac and netmask

MgmtDeviceInfo(java.lang.String systemId,int systemId,java.lang.String systemId,java.lang.String systemId,int systemId)

Constructor to obtain an instance containing the mininum values required to determine equality

Method Summary

java.lang.String	BuildKey()
void	decrementConnectionTics()
boolean	equals(java.lang.Object o) Determines equality based on device id, device type, system id, and management port
java.net.InetAddress	getAddress()
long	getAgentStartTime()
int	getAgentType()
int	getAgentVersion()
boolean	getConnectionAttempted()
int	getConnectionTics()
java.lang.String	getDeviceId()
int	getDeviceType()
int	getDiscoveryPingInterval() General Agents only
int	getDiscoveryTTL() The TTL value set on the discovery packets for this agent
java.lang.String	getGeneralAgentKeyAlias() Applicable to a general agent only, this method returns the authentication key alias being used by the general agent for JMX authentication

java.net.InetAddress	getLocalMAInterface()
byte[]	getMACAddress()
java.lang.String	getMbeanQueryString()
int	getMgmtPort()
java.lang.String	getMgmtProtocol()
int	getMissedTics()
java.lang.String	getNetworkMask()
java.lang.String	getStoreId() The store Id of the Master Agent, set by the Master Agent.
java.lang.String	getSystemId()
int	hashCode()
boolean	isAgentAlive() Non serialized value used only on the Master Agent that indicates whether or not agent discovery still sees the agent as alive.
boolean	isDeviceFlagSet(long flag) Check if a specific device flag is set for the device
boolean	isEnhancedSecurityMode() Returns whether or not the agent is running in enhanced security mode.
boolean	isStoreAndFwdEnabled() Non serialized value used only on the Master Agent that indicates whether or not event store and forward is enabled on the agent
void	setAgentStartTime(long agentStartTime)
void	setAgentType(int agentType)
void	setAgentVersion(int agentVersion)
void	setConnectionAttempted(boolean connectionAttempted)
void	setDeviceFlag(long flag,boolean flag) Set or reset the specified flag value, based on the requested action for the device.
void	setDiscoveryPingInterval(int configuredInterval) Sets the time between the transmissions of UDP discovery packets.
void	setGeneralAgentKeyAlias(java.lang.String alias)

void	setIsAgentAlive(boolean val) The agent discovery flag
void	setIsEnhancedSecurityMode(boolean enhancedSecMode)
void	setLocalMAInterface(java.net.InetAddress iFace) Used only internally on the Master Agent, the local Master Agent network interface that can connect to this General Agent
void	setMbeanQueryString(java.lang.String string)
void	setMgmtPort(int port)
void	setMgmtProtocol(java.lang.String prot)
void	setMissedTics(int i)
void	setStoreAndFwdEnabled(boolean isStoreAndFwdEnabled)
java.lang.String	toString()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

MissedTics

protected int **MissedTics**

gaKeyAlias

protected java.lang.String **gaKeyAlias**

GENERAL_AGENT

public static final int **GENERAL_AGENT**

(continued from last page)

MASTER_AGENT

```
public static final int MASTER_AGENT
```

VIRTUAL_AGENT

```
public static final int VIRTUAL_AGENT
```

agentType

```
protected int agentType
```

mbeanQueryString

```
protected java.lang.String mbeanQueryString
```

agentStartTime

```
protected long agentStartTime
```

connectionAttempted

```
protected boolean connectionAttempted
```

connectionTics

```
protected int connectionTics
```

mgmtProtocol

```
protected java.lang.String mgmtProtocol
```

deviceFlags

```
protected long deviceFlags
```

AGENT_SECURED_BY_ANOTHER_MA

```
public static final long AGENT_SECURED_BY_ANOTHER_MA
```

agentVersion

```
protected transient int agentVersion
```

Constructors

MgmtDeviceInfo

```
public MgmtDeviceInfo(java.lang.String systemID,
                     int deviceType,
                     java.lang.String deviceId,
                     java.net.InetAddress address,
                     java.lang.String networkMask,
                     byte[] macAddress,
                     int mgmtPort,
                     java.lang.String mgmtProtocol,
                     int configuredInterval)
```

Constructs a new instance with all needed values

Parameters:

systemID -
System Id of the remote agent

deviceType -
Device type of the agent device, as defined in MgmtConst

deviceId -
Device Id of the agent device

address -
Address of the interface to use for management connectivity

networkMask -
Network Mask of the interface to use for management connectivity

macAddress -
MAC address (hardware address) of the interface to use for management connectivity

mgmtPort -
Management port number

mgmtProtocol -
Name of the protocol used by the agent's JMXConnectorServer

configuredInterval -
For a general agent, the time interval between discovery broadcasts

MgmtDeviceInfo

```
public MgmtDeviceInfo(java.lang.String systemID,
                     int deviceType,
                     java.lang.String deviceId,
                     java.net.InetAddress address,
                     int mgmtPort,
                     java.lang.String mgmtProtocol,
                     int configuredInterval)
```

Constructs a new instance with all needed values but mac and netmask

See Also:

[com.ibm.retail.si.mgmt.MgmtDeviceInfo#MgmtDeviceInfo\(String, int, String, InetAddress, String, byte\[\], int, String, int\)](#)

MgmtDeviceInfo

```
public MgmtDeviceInfo(java.lang.String systemId,
                     int deviceType,
                     java.lang.String deviceId,
                     java.lang.String mgmtProtocol,
                     int mgmtPort)
```

Constructor to obtain an instance containing the minimum values required to determine equality

See Also:

(continued from last page)

`com.ibm.retail.si.mgmt.MgmtDeviceInfo#MgmtDeviceInfo(String, int, String, InetAddress, int, String, int)`

Methods

BuildKey

```
public java.lang.String BuildKey()
```

Returns:

A unique String key based on the agent information

toString

```
public java.lang.String toString()
```

See Also:

`java.lang.Object#toString()`

equals

```
public boolean equals(java.lang.Object o)
```

Determines equality based on device id, device type, system id, and management port

See Also:

`java.lang.Object#equals(java.lang.Object)`

hashCode

```
public int hashCode()
```

See Also:

`java.lang.Object#hashCode()`

setDeviceFlag

```
public void setDeviceFlag(long flag,  
                           boolean setIt)
```

Set or reset the specified flag value, based on the requested action for the device.

Parameters:

`flag` -
The bit flag value(s) to set (or reset) based on the value of `setIt`.
`setIt` -
If true, the bit flag is set. If false, the bit flag is reset.

isDeviceFlagSet

```
public boolean isDeviceFlagSet(long flag)
```

Check if a specific device flag is set for the device

(continued from last page)

Parameters:

flag -
The flag value(s) to check if set or not.

Returns:

True if the flag is set, otherwise false is returned.

getAgentVersion

```
public int getAgentVersion()
```

Returns:

Returns the Agent Version

setAgentVersion

```
public void setAgentVersion(int agentVersion)
```

Parameters:

agentVersion -
The Agent Version to set.

getMissedTics

```
public int getMissedTics()
```

Returns:

The number of seconds since a discovery packet has been received by the MgmtMasterHealthMBean

setMissedTics

```
public void setMissedTics(int i)
```

Parameters:

i -
New MissedTics value

See Also:

#getMissedTics()

getDeviceType

```
public int getDeviceType()
```

Returns:

The numerical device type for the device, as defined in MgmtConst

getSystemId

```
public java.lang.String getSystemId()
```

Returns:

The system identifier for this agent, which is a combination of device ID and management port

getDeviceId

```
public java.lang.String getDeviceId()
```

Returns:

The device identifier for this device

getAddress

```
public java.net.InetAddress getAddress()
```

Returns:

The address of the interface used for management

getNetworkMask

```
public java.lang.String getNetworkMask()
```

Returns:

The network mask of the interface used for management

getMACAddress

```
public byte[] getMACAddress()
```

Returns:

The MAC (hardware) address of the interface used for management

getDiscoveryTTL

```
public int getDiscoveryTTL()
```

The TTL value set on the discovery packets for this agent

Returns:

The TTL value set on the discovery packets for this agent

(continued from last page)

isEnhancedSecurityMode

```
public boolean isEnhancedSecurityMode()
```

Returns whether or not the agent is running in enhanced security mode. This currently applies only to Master Agents, V2R5 and later

Returns:

True if the agent is running in enhanced security mode, false otherwise

setIsEnhancedSecurityMode

```
public void setIsEnhancedSecurityMode(boolean enhancedSecMode)
```

getMgmtPort

```
public int getMgmtPort()
```

Returns:

Port number used for management

setMgmtPort

```
public void setMgmtPort(int port)
```

getMgmtProtocol

```
public java.lang.String getMgmtProtocol()
```

Returns:

Name of the protocol used by the agent's JMXConnectorServer

setMgmtProtocol

```
public void setMgmtProtocol(java.lang.String prot)
```

getAgentType

```
public int getAgentType()
```

Returns:

The type of agent, either MASTER_AGENT, GENERAL_AGENT, or VIRTUAL_AGENT

setAgentType

```
public void setAgentType(int agentType)
```

(continued from last page)

Parameters:

agentType -
The new agent type

See Also:

#getAgentType()

decrementConnectionTics

```
protected void decrementConnectionTics()
```

See Also:

#getConnectionTics()

getConnectionTics

```
protected int getConnectionTics()
```

Returns:

The number of seconds since the last connection attempt to this agent by the Master Agent

getAgentStartTime

```
public long getAgentStartTime()
```

Returns:

The time in milliseconds when this agent was started

setAgentStartTime

```
protected void setAgentStartTime(long agentStartTime)
```

Parameters:

agentStartTime -
New start time

See Also:

#getAgentStartTime()

setMbeanQueryString

```
public void setMbeanQueryString(java.lang.String string)  
throws javax.management.MalformedObjectNameException
```

Parameters:

string -
New value

(continued from last page)

Exceptions:

MalformedObjectNameException -
Invalid query string

See Also:

#getMbeanQueryString()

getMbeanQueryString

```
public java.lang.String getMbeanQueryString()
```

Returns:

The default MBean query string used by the Master Agent to determine the MBeans to proxy

getConnectionAttempted

```
public boolean getConnectionAttempted()
```

Returns:

True if an attempt has been made to contact the remote MgmtAgent

setConnectionAttempted

```
public void setConnectionAttempted(boolean connectionAttempted)
```

Parameters:

connectionAttempted -
New connection attempt status

See Also:

#getConnectionAttempted()

getLocalMAInterface

```
public java.net.InetAddress getLocalMAInterface()
```

setLocalMAInterface

```
public void setLocalMAInterface(java.net.InetAddress iFace)
```

Used only internally on the Master Agent, the local Master Agent network interface that can connect to this General Agent

Parameters:

iFace -
The network interface, or null if it has not been set internally by the Master Agent (Will be null on all General Agents)

getStoreId

```
public java.lang.String getStoreId()
```

(continued from last page)

The store Id of the Master Agent, set by the Master Agent. For general agent device information, the value will be set on the MA during discovery

Returns:

Returns the store Id of the Master Agent connected to (Will be null within General Agents)

isStoreAndFwdEnabled

```
public boolean isStoreAndFwdEnabled()
```

Non serialized value used only on the Master Agent that indicates whether or not event store and forward is enabled on the agent

Returns:

true if event store and forward is enabled on the agent, false otherwise

setStoreAndFwdEnabled

```
public void setStoreAndFwdEnabled(boolean isStoreAndFwdEnabled)
```

Parameters:

isStoreAndFwdEnabled -
The event store and forward flag to set.

getGeneralAgentKeyAlias

```
public java.lang.String getGeneralAgentKeyAlias()
```

Applicable to a general agent only, this method returns the authentication key alias being used by the general agent for JMX authentication

Returns:

The authentication key alias used by the General Agent

setGeneralAgentKeyAlias

```
public void setGeneralAgentKeyAlias(java.lang.String alias)
```

isAgentAlive

```
public boolean isAgentAlive()
```

Non serialized value used only on the Master Agent that indicates whether or not agent discovery still sees the agent as alive. This value is updated by agent discovery.

Returns:

True if the agent is discovered, false otherwise

setIsAgentAlive

```
protected void setIsAgentAlive(boolean val)
```

The agent discovery flag

Parameters:

(continued from last page)

val -
Agent discovery flag to set

getDiscoveryPingInterval

```
public int getDiscoveryPingInterval()
```

General Agents only

Returns:

The number of seconds between the transmissions of UDP discovery packets

setDiscoveryPingInterval

```
public void setDiscoveryPingInterval(int configuredInterval)
```

Sets the time between the transmissions of UDP discovery packets. If the value set is less than or equal to zero, then the default value is used (`MgmtConst.DefaultPingInterval`)

Parameters:

`configuredInterval` -
The new ping interval to set

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Class MgmtException

```

java.lang.Object
  |-- java.lang.Throwable
        |-- java.lang.Exception
              |-- com.ibm.retail.si.mgmt.MgmtException

```

```

public class MgmtException
extends java.lang.Exception

```

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

MgmtException()

MgmtException(java.lang.String message)

MgmtException(java.lang.Throwable rootCause)

MgmtException(java.lang.String message, java.lang.Throwable message)

Method Summary

java.lang.Throwable	getCause()
---------------------	------------

Methods inherited from : class java.lang.Throwable

fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

MgmtException

```
public MgmtException()
```

MgmtException

```
public MgmtException(java.lang.String message)
```

MgmtException

```
public MgmtException(java.lang.Throwable rootCause)
```

MgmtException

```
public MgmtException(java.lang.String message,  
                      java.lang.Throwable rootCause)
```

Methods

getCause

```
public java.lang.Throwable getCause()
```

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Interface MgmtExtendedControlMBean

All Subinterfaces:

MgmtHealthMBean, MgmtClientHealthMBean, VirtualAgentDiscoveryMBean, MgmtMasterHealthMBean

public interface MgmtExtendedControlMBean

Management interface for controlling extended management functions. This interface allows the remote creation and removal of extended capabilities that are not normally instantiated by the component's MBeans. Examples include extended debugging, extended logging,...

This interface should be implemented by any device/component that wishes to provide very detailed command/control/monitoring functions, but does not wish to expose those functions all the time. This interface would be implemented within an MBean that is always present, and the use of it will either create an instance of the extended function MBean or remove it. By using this functionality a management application can enable very granular control over a component ONLY when explicitly required.

This management interface includes the following attributes. These attributes are described in more detail in the accessor methods.

- ExtendedCapabilities
- CurrentlyActiveCapabilities

The following operations are included in this management interface. These are described in more detail in the corresponding method documentation.

- enableDebug
- destroyDebug
- enableDetailedLogControl
- destroyDetailedLogControl
- enableDetailedControl
- destroyDetailedControl

Field Summary

static java.lang.String	COPYRIGHT
static int	EXTENDED_CTRL
static int	EXTENDED_DEBUG
static int	EXTENDED_LOG

Method Summary

int	destroyDebug() Destroy the instance of the extended debug MBean.
int	destroyDetailedControl() Destroy the instance of the extended debug MBean.

int	destroyDetailedLogControl() Destroy the instance of the extended debug MBean.
javax.management.ObjectName	enableDebug() Enable, if available, the extended Debug facilities of this component.
javax.management.ObjectName	enableDetailedControl() Enable, if available, the extended Control facilities of this component.
javax.management.ObjectName	enableDetailedLogControl() Enable, if available, the extended Logging control facilities of this component.
int	getCurrentlyActiveCapabilities() Query the which extened functions are currently active.
int	getExtendedCapabilities() Query the capabilities of this implemetation of this interface.

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

EXTENDED_DEBUG

```
public static final int EXTENDED_DEBUG
```

EXTENDED_LOG

```
public static final int EXTENDED_LOG
```

EXTENDED_CTRL

```
public static final int EXTENDED_CTRL
```

Methods

getExtendedCapabilities

```
public int getExtendedCapabilities()  
Query the capabilities of this implemetation of this interface.
```

Returns:

int - A mask indicating the functions that are available for control by this interface.

getCurrentlyActiveCapabilities

```
public int getCurrentlyActiveCapabilities()
```

Query the which extened functions are currently active.

Returns:

int - A mask indicating the functions that are currently active.

enableDebug

```
public javax.management.ObjectName enableDebug()
```

Enable, if available, the extended Debug facilities of this component.

Returns:

ObjectName - The ObjectName of the newly created MBean.

destroyDebug

```
public int destroyDebug()
```

Destroy the instance of the extended debug MBean.

Returns:

int - General return code.

enableDetailedLogControl

```
public javax.management.ObjectName enableDetailedLogControl()
```

Enable, if available, the extended Logging control facilities of this component.

Returns:

ObjectName - The ObjectName of the newly created MBean.

destroyDetailedLogControl

```
public int destroyDetailedLogControl()
```

Destroy the instance of the extended debug MBean.

Returns:

int - General return code.

enableDetailedControl

```
public javax.management.ObjectName enableDetailedControl()
```

Enable, if available, the extended Control facilities of this component.

Returns:

ObjectName - The ObjectName of the newly created MBean.

(continued from last page)

destroyDetailedControl

```
public int destroyDetailedControl()
```

Destroy the instance of the extended debug MBean.

Returns:

int - General return code.

`com.ibm.retail.si.mgmt`

Interface `MgmtHardwareInventoryMBean`

All Superinterfaces:

`MgmtSimpleInventoryMBean`

```
public interface MgmtHardwareInventoryMBean
extends MgmtSimpleInventoryMBean
```

MBean Interface for hardware inventory. There is no function defined at this point. For now it is acceptable for hardware inventory to be handled by the `MgmtSimpleInventoryMBean` interface.

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

com.ibm.retail.si.mgmt

Interface MgmtHealthMBean

All Superinterfaces:

MgmtExtendedControlMBean

All Subinterfaces:

MgmtClientHealthMBean, VirtualAgentDiscoveryMBean, MgmtMasterHealthMBean

public interface **MgmtHealthMBean**

extends MgmtExtendedControlMBean

Agent Health MBean interface containing functionality provided by all health MBeans. It extends MgmtExtendedControlMBean to expose additional agent functionality.

This management interface includes the following attributes. These attributes are described in more detail in the accessor methods, and in the MgmtExtendedControlMBeaninterface.

- DeviceInfo
- Hostname
- IPAddress
- AgentStarted

The following operations are included in this management interface. These are described in more detail in the corresponding method documentation.

- startDiscovery
- stopDiscovery

No Notifications are emitted by methods in this interface.

See Also:

com.ibm.retail.si.mgmt.MgmtExtendedControlMBean

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

boolean	addConnectionAndAddress(java.lang.String jmxConnectionId, java.lang.String jmxConnectionId)
boolean	addModels(java.lang.String roleName, java.lang.String roleName)
boolean	addRole(java.lang.String roleName, java.lang.String roleName)
java.lang.String[]	getAuthorizedIpAddresses()
MgmtDeviceInfo	getDeviceInfo()

java.lang.String	getHostname()
java.lang.String	getIPAddress() On General Agents, the IP Address of the network interface that is sending discovery packets is returned.
java.lang.String[]	getModels(java.lang.String roleName)
java.lang.String[]	getRoles()
boolean	isAgentStarted()
boolean	persistConfigUpdates()
boolean	removeModel(java.lang.String roleName, java.lang.String roleName)
boolean	removeRole(java.lang.String roleName)

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

getDeviceInfo

```
public MgmtDeviceInfo getDeviceInfo()
```

Returns:

Agent Device information

getHostname

```
public java.lang.String getHostname()
```

Returns:

Hostname of the machine the agent is running on

getIPAddress

```
public java.lang.String getIPAddress()
```

On General Agents, the IP Address of the network interface that is sending discovery packets is returned. On Master Agents, the localhost IP address is returned.

(continued from last page)

Returns:

Discovery interface for general agents, or the localhost address for master agents

isAgentStarted

```
public boolean isAgentStarted()
```

Returns:

True if the MgmtAgent has started, false otherwise

addConnectionAndAddress

```
public boolean addConnectionAndAddress(java.lang.String jmxConnectionId,  
                                         java.lang.String ipAddress)
```

getAuthorizedIpAddresses

```
public java.lang.String[] getAuthorizedIpAddresses()
```

getRoles

```
public java.lang.String[] getRoles()  
                           throws MgmtException
```

getModels

```
public java.lang.String[] getModels(java.lang.String roleName)  
                                   throws MgmtException
```

addModels

```
public boolean addModels(java.lang.String roleName,  
                          java.lang.String modelName)  
                        throws MgmtException
```

removeModel

```
public boolean removeModel(java.lang.String roleName,  
                            java.lang.String modelName)  
                          throws MgmtException
```

addRole

```
public boolean addRole(java.lang.String roleName,  
                       java.lang.String modelNumbers)  
                      throws MgmtException
```

removeRole

```
public boolean removeRole(java.lang.String roleName)
    throws MgmtException
```

persistConfigUpdates

```
public boolean persistConfigUpdates()
    throws MgmtException
```


com.ibm.retail.si.mgmt

Interface MgmtJVMEEnvironmentMBean

public interface **MgmtJVMEEnvironmentMBean**

The purpose of this MBean is to provide specific information regarding the JVM / OS combination that this agent is running within.

The `ObjectName` of this MBean includes the following attributes, in addition to the SIF attribute of `DeviceID`:

- `SIFComponent=MGMT`
- `Id=JVMEEnvironment`

This management interface includes the following attributes. These attributes are described in more detail in the accessor methods.

- `ActiveThreadCount`
- `ActiveThreadNames`
- `AvailableProcessors`
- `ClassPath`
- `ClassVersion`
- `EnvSpecName`
- `EnvSpecVendor`
- `EnvSpecVersion`
- `ExtDirs`
- `FreeMemory`
- `InstallDirectory`
- `JITCompilerName`
- `LibPath`
- `MaxMemory`
- `OSArchitecture`
- `OSName`
- `OSVersion`
- `RuntimeVendor`
- `RuntimeVendorURL`
- `RuntimeVersion`
- `TmpPath`
- `TotalMemory`
- `UsedMemory`
- `VMImplName`
- `VMImplVendor`
- `VMImplVersion`
- `VMSpecName`
- `VMSpecVendor`
- `VMSpecVersion`

The following operations are included in this management interface. These are described in more detail in the corresponding method documentation.

- `executeGC`
- `javaDump`
- `heapDump`
- `systemDump`

This MBean emits no `Notifications`

Field Summary

<code>static</code> <code>java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------------------	------------------------

static java.lang.String	OBJECT_NAME_BASE
static java.lang.String	OBJECT_NAME_ID

Method Summary

void	executeGC() Runs the garbage collector.
int	getActiveThreadCount() Returns the number of threads currently active in this JVM.
java.lang.String[]	getActiveThreadNames() Returns a list of the names of all of the threads currently active in the JVM.
int	getAvailableProcessors() Returns the number of processors that are currently available for use by the JVM.
java.lang.String	getClassPath() Returns the Java class path.
java.lang.String	getClassVersion() Returns the Java class format version number.
long	getCurrentTime()
java.lang.String	getEnvSpecName() Returns the Java Runtime Environment specification name.
java.lang.String	getEnvSpecVendor() Returns the Java Runtime Environment specification vendor.
java.lang.String	getEnvSpecVersion() Returns the Java Runtime Environment specification version.
java.lang.String	getExtDirs() Returns the Path of extension directory or directories.
long	getFreeMemory() Returns the amount of free memory in the Java Virtual Machine.
java.lang.String	getInstallDirectory() Returns the Java installation directory.
java.lang.String	getJITCompilerName() Returns the Name of JIT compiler to use.
java.lang.String	getLibPath() Returns the List of paths to search when loading libraries.

long	getMaxMemory() Returns the maximum amount of memory that the Java virtual machine will attempt to use.
java.lang.String	getOSArchitecture() Returns the Operating system architecture.
java.lang.String	getOSName() Returns the Operating system name.
java.lang.String	getOSVersion() Returns the Operating system version.
java.lang.String	getRuntimeVendor() Returns the Java Runtime Environment vendor.
java.lang.String	getRuntimeVendorURL() Returns the Java vendor URL.
java.lang.String	getRuntimeVersion() Returns the Java Runtime Environment version.
java.lang.String	getTmpPath() Returns the Default temp file path.
long	getTotalMemory() Returns the total amount of memory in the Java virtual machine.
long	getUsedMemory() Returns the amount of used memory in the Java Virtual Machine.
java.lang.String	getVMImplName() Returns the Java Virtual Machine implementation name.
java.lang.String	getVMImplVendor() Returns the Java Virtual Machine implementation vendor.
java.lang.String	getVMImplVersion() Returns the Java Virtual Machine implementation version.
java.lang.String	getVMSpecName() Returns the Java Virtual Machine specification name.
java.lang.String	getVMSpecVendor() Returns the Java Virtual Machine specification vendor.
java.lang.String	getVMSpecVersion() Returns the Java Virtual Machine specification version.
boolean	heapDump() Implemented only for IBM JVMs, this method produces a Java heap dump in the running directory of the JVM (Will be RMA_HOME for the RMA Agent).

boolean	javaDump() Implemented only for IBM JVMs, this method produces a Java core dump in the running directory of the JVM (Will be RMA_HOME for the RMA Agent).
boolean	systemDump() Implemented only for IBM JVMs, this method produces a Java heap dump in the running directory of the JVM (Will be RMA_HOME for the RMA Agent).

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME_BASE

```
public static final java.lang.String OBJECT_NAME_BASE
```

Methods

getAvailableProcessors

```
public int getAvailableProcessors()
```

Returns the number of processors that are currently available for use by the JVM.

Returns:

int - the number of processors

getFreeMemory

```
public long getFreeMemory()
```

Returns the amount of free memory in the Java Virtual Machine.

Returns:

long - the amount of free memory in the jvm

getUsedMemory

```
public long getUsedMemory()
```

Returns the amount of used memory in the Java Virtual Machine.

Returns:

(continued from last page)

long - the amount of used memory in the jvm

Since:

2.3

getMaxMemory

public long **getMaxMemory**()

Returns the maximum amount of memory that the Java virtual machine will attempt to use.

Returns:

long - the maximum amount of jvm memory

getTotalMemory

public long **getTotalMemory**()

Returns the total amount of memory in the Java virtual machine.

Returns:

long - the total amount of jvm memory

executeGC

public void **executeGC**()

Runs the garbage collector.

getActiveThreadCount

public int **getActiveThreadCount**()

Returns the number of threads currently active in this JVM.

Returns:

int - the active thread count

getActiveThreadNames

public java.lang.String[] **getActiveThreadNames**()

Returns a list of the names of all of the threads currently active in the JVM.

Returns:

String[] - the active thread names

getRuntimeVersion

public java.lang.String **getRuntimeVersion**()

Returns the Java Runtime Environment version.

Returns:

String - the JRE version

getRuntimeVendor

```
public java.lang.String getRuntimeVendor()
```

Returns the Java Runtime Environment vendor.

Returns:

String - the JRE vendor

getRuntimeVendorURL

```
public java.lang.String getRuntimeVendorURL()
```

Returns the Java vendor URL.

Returns:

String - the JRE vendor URL

getInstallDirectory

```
public java.lang.String getInstallDirectory()
```

Returns the Java installation directory.

Returns:

String - the JRE installation directory

getVMSpecVersion

```
public java.lang.String getVMSpecVersion()
```

Returns the Java Virtual Machine specification version.

Returns:

String - the JVM spec version

getVMSpecVendor

```
public java.lang.String getVMSpecVendor()
```

Returns the Java Virtual Machine specification vendor.

Returns:

String - the JVM spec vendor

getVMSpecName

```
public java.lang.String getVMSpecName()
```

Returns the Java Virtual Machine specification name.

Returns:

String - the JVM spec name

(continued from last page)

getVMImplVersion

```
public java.lang.String getVMImplVersion()
```

Returns the Java Virtual Machine implementation version.

Returns:

String - the JVM implementation version

getVMImplVendor

```
public java.lang.String getVMImplVendor()
```

Returns the Java Virtual Machine implementation vendor.

Returns:

String - the JVM implementation vendor

getVMImplName

```
public java.lang.String getVMImplName()
```

Returns the Java Virtual Machine implementation name.

Returns:

String - the JVM implementation name

getEnvSpecVersion

```
public java.lang.String getEnvSpecVersion()
```

Returns the Java Runtime Environment specification version.

Returns:

String - the JRE spec version

getEnvSpecVendor

```
public java.lang.String getEnvSpecVendor()
```

Returns the Java Runtime Environment specification vendor.

Returns:

String - the JRE spec vendor

getEnvSpecName

```
public java.lang.String getEnvSpecName()
```

Returns the Java Runtime Environment specification name.

Returns:

String - the JRE spec name

(continued from last page)

getClassVersion

```
public java.lang.String getClassVersion()
```

Returns the Java class format version number.

Returns:

String - the Java class format version

getClassPath

```
public java.lang.String getClassPath()
```

Returns the Java class path.

Returns:

String - the JRE classpath

getLibPath

```
public java.lang.String getLibPath()
```

Returns the List of paths to search when loading libraries.

Returns:

String - the list of load library paths

getTmpPath

```
public java.lang.String getTmpPath()
```

Returns the Default temp file path.

Returns:

String - the default path for temp files

getJITCompilerName

```
public java.lang.String getJITCompilerName()
```

Returns the Name of JIT compiler to use.

Returns:

String - the name of the JIT compiler

getExtDirs

```
public java.lang.String getExtDirs()
```

Returns the Path of extension directory or directories.

Returns:

String - the extension(s) directory path

(continued from last page)

getOSName

```
public java.lang.String getOSName()
```

Returns the Operating system name.

Returns:

String - the OS name

getOSArchitecture

```
public java.lang.String getOSArchitecture()
```

Returns the Operating system architecture.

Returns:

String - the OS architecture

getOSVersion

```
public java.lang.String getOSVersion()
```

Returns the Operating system version.

Returns:

String - the OS version

javaDump

```
public boolean javaDump()
```

Implemented only for IBM JVMs, this method produces a Java core dump in the running directory of the JVM (Will be RMA_HOME for the RMA Agent). This dump is in a human-readable format produced by default when the JVM terminates unexpectedly because of an operating system signal, an OutOfMemoryError, or when the user enters a reserved key combination (for example, Ctrl-Break on Windows). The core dump summarizes the state of the JVM at the instant the signal occurred, including the stack traces of all running Threads.

Returns:

true if the request was successfully made, false otherwise

heapDump

```
public boolean heapDump()
```

Implemented only for IBM JVMs, this method produces a Java heap dump in the running directory of the JVM (Will be RMA_HOME for the RMA Agent). For IBM JVMs, this file is a .phd file, which must be read by a special tool.

Returns:

true if the request was successfully made, false otherwise

systemDump

```
public boolean systemDump()
```

Implemented only for IBM JVMs, this method produces a Java heap dump in the running directory of the JVM (Will be RMA_HOME for the RMA Agent). System dumps are platform-specific files that contain information about the active processes, threads, and system memory. System dumps are usually large. By default, system dumps are produced by the JVM only when the JVM fails unexpectedly because of a GPF (general protection fault) or a major JVM or system error.

(continued from last page)

Returns:

true if the request was successfully made, false otherwise

getCurrentTime

```
public long getCurrentTime()
```

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Interface MgmtMasterHealthMBean

All Superinterfaces:

MgmtHealthMBean, MgmtExtendedControlMBean

public interface **MgmtMasterHealthMBean**

extends MgmtHealthMBean

This interface represents the Master Agent side of Discovery and health checking. Its job is to monitor the clients for discovery and to make sure they are still there. Management interface for the MgmtMasterHealth MBean

This management interface includes the following attributes. These attributes are described in more detail in the accessor methods, and in the MgmtHealthMBeaninterface.

- KnownDeviceList
- StoreId

This MBean defines no operations

An AgentLostNotificationis emitted by classes implementing this interface when an agent is discovered to have been lost, either by too many missed discovery packets or by the receipt of a JMXConnectionNotificationof type JMXConnectionNotification.FAILED

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	OBJECT_NAME
static java.lang.String	OBJECT_NAME_ID

Method Summary

java.util.Vector	getKnownDeviceList()
int	getMaxDiscoveryTTLValue()
java.lang.String	getStoreId()

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME

```
public static final java.lang.String OBJECT_NAME
```

Methods**getKnownDeviceList**

```
public java.util.Vector getKnownDeviceList()
```

Returns:

A Vector of known active devices (MgmtDeviceInfo)

getStoreId

```
public java.lang.String getStoreId()
```

Returns:

The StoreId for the MasterAgent this MBean is running in

getMaxDiscoveryTTLValue

```
public int getMaxDiscoveryTTLValue()
```

Returns:

The highest TTL value amongst all incoming discovery packets

com.ibm.retail.si.mgmt

Interface MgmtSimpleInventoryMBean

All Subinterfaces:

MgmtSoftwareInventoryMBean, SIMgmtInventoryMBean, MgmtHardwareInventoryMBean

public interface MgmtSimpleInventoryMBean

MBean Interface for MgmtSimpleInventory. This interface represents defines the MBean interface for use as the base level component for both software and hardware inventory. It should never be implemented by itself, but should always be used as a base.

This management interface includes the following attributes. These attributes are described in more detail in the accessor methods.

- BuildNumber
- CurrentState
- Description
- FixLevel
- InstallationDate
- MajorVersion
- MinorVersion
- ProductName
- SerialNumber
- Version

This MBean defines no operations

This MBean emits no Notifications

Field Summary

static java.lang.String	COPYRIGHT
static int	INV_ERROR
static int	INV_INSTALLED_FAILED
static int	INV_INSTALLED_NOT_TESTED
static int	INV_INSTALLED_UNKNOWN
static int	INV_NOEXIST
static int	INV_NOTSUPPORTED
static int	INV_OK

Method Summary

java.lang.String	getBuildNumber() Retrieve the buildnumber (if available) that is associated with this component.
int	getCurrentState() Test the current state of this component.
java.lang.String	getDescription() Retrieve the Description of this component.
java.lang.String	getFixLevel() Retrieve the fix level (if applicable) associated with this component.
java.util.Date	getInstallationDate() Retrieve the date that this component was installed on the client system.
int	getMajorVersion() Retrieve the Major Version number associated with this component.
java.lang.String	getManufacturer() Retrieve the name of the manufacturer of this component.
int	getMinorVersion() Retrieve the Minor Version number associated with this component.
java.lang.String	getProductName() Retrieve the Product name of this component.
java.lang.String	getSerialNumber() Retrieve the serial number (if available) associated with this component.
java.lang.String	getVersion() Retrieve the FULL version for this component as a string.

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

INV_ERROR

```
public static final int INV_ERROR
```

INV_NOEXIST

```
public static final int INV_NOEXIST
```

(continued from last page)

INV_NOTSUPPORTED

```
public static final int INV_NOTSUPPORTED
```

INV_INSTALLED_NOT_TESTED

```
public static final int INV_INSTALLED_NOT_TESTED
```

INV_INSTALLED_UNKNOWN

```
public static final int INV_INSTALLED_UNKNOWN
```

INV_INSTALLED_FAILED

```
public static final int INV_INSTALLED_FAILED
```

INV_OK

```
public static final int INV_OK
```

Methods

getManufacturer

```
public java.lang.String getManufacturer()
```

Retrieve the name of the manufacturer of this component.

Returns:

String - the name of the component manufacturer

getProductName

```
public java.lang.String getProductName()
```

Retrieve the Product name of this component.

Returns:

String - the product name of the component

getDescription

```
public java.lang.String getDescription()
```

Retrieve the Description of this component.

Returns:

String - the description of the component

(continued from last page)

getVersion

```
public java.lang.String getVersion()
```

Retrieve the FULL version for this component as a string. This is meant to be a human readable string that is built up of all of the component parts.

Returns:

String - the FULL version of the component

getMajorVersion

```
public int getMajorVersion()
```

Retrieve the Major Version number associated with this component.

Returns:

int - the Major version of the component

getMinorVersion

```
public int getMinorVersion()
```

Retrieve the Minor Version number associated with this component.

Returns:

int - the Minor version of the component

getFixLevel

```
public java.lang.String getFixLevel()
```

Retrieve the fix level (if applicable) associated with this component.

Returns:

String - the Fix level of the component

getBuildNumber

```
public java.lang.String getBuildNumber()
```

Retrieve the buildnumber (if available) that is associated with this component.

Returns:

int - the Build number of the component

getSerialNumber

```
public java.lang.String getSerialNumber()
```

Retrieve the serial number (if available) associated with this component.

Returns:

String - the Serial number of the component

(continued from last page)

getInstallationDate

```
public java.util.Date getInstallationDate()
```

Retrieve the date that this component was installed on the client system.

Returns:

Date - the installation date of the component

getCurrentState

```
public int getCurrentState()
```

Test the current state of this component.

Returns:

int - see the INV_XXX statics defined within this class for appropriate return states.

com.ibm.retail.si.mgmt

Interface MgmtSoftwareInventoryMBean

All Superinterfaces:

MgmtSimpleInventoryMBean

All Subinterfaces:

SIMgmtInventoryMBean

public interface **MgmtSoftwareInventoryMBean**
 extends MgmtSimpleInventoryMBean

This interface represents defines the MBean interface for use in collecting software inventory.

This management interface includes the following attributes. These attributes are described in more detail in the accessor methods.

- ComponentCount
- Components
- InstalledPath
- PackageSize

This MBean defines no operations

This MBean emits no Notifications

Field Summary

<pre>static java.lang.String</pre>	COPYRIGHT
------------------------------------	-----------

Method Summary

int	<pre>getComponentCount()</pre> <p>Get the number of individual files that make up this package.</p>
MgmtSftComponent[]	<pre>getComponents()</pre> <p>Retrieve an array containing the information about every file that makes up this package.</p>
java.lang.String	<pre>getInstalledPath()</pre> <p>Retrieve the installed path for this piece of software.</p>
long	<pre>getPackageSize()</pre> <p>Retrieve the total amount of storage on the client consumed by this package.</p>

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

(continued from last page)

Methods

getInstalledPath

```
public java.lang.String getInstalledPath()
```

Retrieve the installed path for this piece of software.

Returns:

String, the installation path.

getPackageSize

```
public long getPackageSize()
```

Retrieve the total amount of storage on the client consumed by this package.

Returns:

long - size in bytes.

getComponentCount

```
public int getComponentCount()
```

Get the number of individual files that make up this package.

Returns:

int file count

getComponents

```
public MgmtSftComponent[] getComponents()
```

Retrieve an array containing the information about every file that makes up this package.

Returns:

MgmtSftComponent array of information for files in this package

com.ibm.retail.si.mgmt

Class ObjectNameFactory

java.lang.Object

└--com.ibm.retail.si.mgmt.ObjectNameFactory

public class **ObjectNameFactory**

extends java.lang.Object

Factory for creating custom ObjectNames for Regular and Proxied MBeans. ObjectNames are passed in and copied, adding and/or replacing additional attributes. The static initialize method should be called before getting the singleton instance for the first time in order to pass in configuration information

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

ObjectNameFactory(java.lang.String deviceId, java.lang.String deviceId, java.lang.String deviceId)

Method Summary

javax.management.ObjectName	createObjectName(javax.management.ObjectName objName) Appends the required values to the supplied ObjectName.
javax.management.ObjectName	createObjectName(javax.management.ObjectName objName, java.lang.String objName, java.lang.String objName, java.lang.String objName) Deprecated. <i>The Id key needs to be supplied, use createObjectName(ObjectName, String, String, String) instead</i>
javax.management.ObjectName	createObjectName(javax.management.ObjectName objName, java.lang.String objName, java.lang.String objName, java.lang.String objName) Creates a new ObjectName from an existing ObjectName that conforms to the SI Object Naming conventions, adding the supplied system information in addition to other required properties.
javax.management.ObjectName	createObjectName(java.lang.String domain, java.lang.String domain, java.lang.String domain, java.lang.String domain) Creates a new ObjectName from the supplied information that conforms to the SI Object Naming conventions, having the supplied system information in addition to other required properties.
javax.management.ObjectName	createProxyObjectName(javax.management.ObjectName objName, MgmtDeviceInfo objName) Create a modified ObjectName for a proxy of the supplied ObjectName

<pre>static ObjectNameFactory</pre>	<pre>getInstance()</pre> <p>Deprecated. <i>Class will no longer be a singleton in future releases. Obtain the <code>ObjectNameFactory</code> instance for an agent via the <code>MgmtAgent.getObjectNameFactory()</code> method</i></p>
<pre>static void</pre>	<pre>initialize(java.lang.String deviceId, java.lang.String deviceId, java.lang.String deviceId)</pre> <p>Deprecated. <i>Class will no longer be a singleton in future releases. Obtain the <code>ObjectNameFactory</code> instance for an agent via the <code>MgmtAgent.getObjectNameFactory()</code> method</i></p>

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

ObjectNameFactory

```
public ObjectNameFactory(java.lang.String deviceId,
java.lang.String systemId,
java.lang.String storeId)
```

Parameters:

- deviceId - Device ID added only to regular ObjectNames
- systemId - System ID added only to regular ObjectNames
- storeId - Store ID to add to proxied MBeans, should be null for GA's

Methods

createProxyObjectName

```
public javax.management.ObjectName createProxyObjectName(javax.management.ObjectName
objName,
```

```
MgmtDeviceInfo devInfo)
```

```
throws
```

```
javax.management.MalformedObjectNameException
```

Create a modified ObjectName for a proxy of the supplied ObjectName

Parameters:

- objName - Source ObjectName

(continued from last page)

devInfo -
MgmtDeviceInfo matching the source device

Returns:

ObjectName for a proxy of the source instance, having new attributes and values based on parameters supplied to this factory

Exceptions:

MalformedObjectNameException -
Error creating new ObjectName

createObjectName

```
public javax.management.ObjectName createObjectName( javax.management.ObjectName
objName,
                                                    java.lang.String component,
                                                    java.lang.String devMajor,
                                                    java.lang.String devMinor)
                                                    throws
javax.management.MalformedObjectNameException
```

Deprecated. *The Id key needs to be supplied, use createObjectName(ObjectName, String, String, String) instead*

For usage within a general agent, this method creates a new ObjectName for a regular MBean, adding device and system information in addition to the supplied component and version information

Parameters:

objName -
Source ObjectName instance
component -
Component name the MBean matches
devMajor -
Major version of the component being represented
devMinor -
Minor version of the component being represented

Returns:

New ObjectName based on the supplied instance with additional information

Exceptions:

MalformedObjectNameException -
Invalid parameter values supplied

createObjectName

```
public javax.management.ObjectName createObjectName( javax.management.ObjectName
objName,
                                                    java.lang.String id,
                                                    java.lang.String component,
                                                    java.lang.String devMajor,
                                                    java.lang.String devMinor)
                                                    throws
javax.management.MalformedObjectNameException
```

Creates a new ObjectName from an existing ObjectName that conforms to the SI Object Naming conventions, adding the supplied system information in addition to other required properties.

Parameters:

objName -
Source ObjectName instance
id -
Type/Identifier for the MBean, cannot be null
component -
Component name the MBean matches, can be null

(continued from last page)

devMajor -
Major version of the component being represented, can be null
devMinor -
Minor version of the component being represented, can be null

Returns:

New ObjectName based on the supplied instance with additional information

Exceptions:

MalformedObjectNameException -
Invalid parameter values supplied

createObjectName

```
public javax.management.ObjectName createObjectName( javax.management.ObjectName
objName)
```

throws

```
javax.management.MalformedObjectNameException
```

Appends the required values to the supplied ObjectName. Assumes that an Id and Component have been assigned to the supplied ObjectName. Otherwise, a MalformedObjectNameException will be thrown

Parameters:

objName -
Base ObjectName with required keys set

Returns:

ObjectName with system keys added

Exceptions:

MalformedObjectNameException -
A bad ObjectName or required Id and Component values were not supplied in base ObjectName

createObjectName

```
public javax.management.ObjectName createObjectName( java.lang.String domain,
java.lang.String id,
java.lang.String component,
java.lang.String devMajor,
java.lang.String devMinor)
```

throws

```
javax.management.MalformedObjectNameException
```

Creates a new ObjectName from the supplied information that conforms to the SI Object Naming conventions, having the supplied system information in addition to other required properties.

Parameters:

domain -
Domain portion of the new ObjectName
id -
Type/Identifier for the MBean, cannot be null
component -
Component name the MBean matches, can be null
devMajor -
Major version of the component being represented, can be null
devMinor -
Minor version of the component being represented, can be null

Returns:

New ObjectName based on the supplied instance with additional information

Exceptions:

(continued from last page)

MalformedObjectNameException -
Invalid parameter values supplied

initialize

```
public static void initialize(java.lang.String deviceId,  
                               java.lang.String systemId,  
                               java.lang.String storeId)
```

Deprecated. Class will no longer be a singleton in future releases. Obtain the `ObjectNameFactory` instance for an agent via the `MgmtAgent.getObjectNameFactory()` method

Initializes the singleton instance with the supplied attributes. Some

Parameters:

`deviceId` -
Device ID added only to regular ObjectNames
`systemId` -
System ID added only to regular ObjectNames
`storeId` -
Store ID to add to proxied MBeans, should be null for GA's

See Also:

`com.ibm.retail.si.mgmt.MgmtAgent#getObjectNameFactory()`

getInstance

```
public static ObjectNameFactory getInstance()  
                               throws MgmtException
```

Deprecated. Class will no longer be a singleton in future releases. Obtain the `ObjectNameFactory` instance for an agent via the `MgmtAgent.getObjectNameFactory()` method

Returns:

Singleton instance of this class. If a singleton hasn't been initialized via the `initialize()` method, then a `MgmtException` will be thrown

Exceptions:

`MgmtException` -
Singleton instance has not been initialized

See Also:

`com.ibm.retail.si.mgmt.MgmtAgent#getObjectNameFactory()`

com.ibm.retail.si.mgmt Class RMAFile

```
java.lang.Object
  |
  +--com.ibm.retail.si.mgmt.RMAFile
```

```
public class RMAFile
extends java.lang.Object
```

Wrapper class for working with files in RMA. A system dependent File implementation is created depending on the device type of the system. On 4690 platforms an instance of `com.ibm.OS4690.File4690` will be created, and on all other platforms an instance of `java.io.File` will be created.

When creating an instance from a `File4690` instance, always pass in the result of `File4690.getAbsolutePath()`.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

RMAFile(java.io.File file) Creates an instance from an existing File
RMAFile(RMAFile parent, java.lang.String parent) Creates a new instance from a parent abstract pathname and a child pathname string.
RMAFile(java.io.File parent, java.lang.String parent) Creates a new instance from a parent abstract pathname and a child pathname string.
RMAFile(java.lang.String pathname) Creates a new File instance from a parent abstract pathname and a child pathname string.
RMAFile(java.lang.String parent, java.lang.String parent) Creates a new instance from a parent pathname string and a child pathname string.

Method Summary

boolean	canRead()
boolean	canWrite()
static java.lang.String	convertFDriveToLinuxPath(java.lang.String path) converts ENH_4690_F_DRIVE\xx\x.
static java.lang.String	convertLinuxPathToFDrive(java.lang.String path) converts ENH_4690_F_DRIVE_MAPPING/xx/x.
java.io.InputStrea m	createInputStream() Creates a system dependent file input stream to the underlying file.

boolean	createNewFile()
java.io.OutputStream	createOutputStream(boolean append) Creates a file output stream to the underlying file.
java.io.RandomAccessFile	createRandomAccessFile(java.lang.String mode) Creates an implementation specific random access file, with the supplied read/write flags
boolean	delete()
void	deleteOnExit()
boolean	equals(java.lang.Object o)
boolean	exists()
java.lang.String	getAbsolutePath()
java.lang.String	getCanonicalPath()
java.io.File	getJvmFile() Returns a File object that can be used to access the file by JVM I/O classes.
java.lang.String	getName()
java.lang.Object	getOS4690File() Returns the underlying File4690instance, if supported.
java.lang.String	getParent()
RMAFile	getParentFile()
java.lang.String	getPath() Note: This will return the linux path for 4690 enhanced F: drive
static java.lang.String	getPathSeparator() Returns the implementation specific path separator String
static char	getPathSeparatorChar() Returns the implementation specific path separator character
java.io.File	getRealFile() Returns the underlying Fileinstance.
static java.lang.String	getSeparator() Returns the implementation specific separator String
static char	getSeparatorChar() Returns the implementation specific separator character
int	hashCode()

boolean	isAbsolute()
boolean	isDirectory()
boolean	isFile()
boolean	isHidden()
long	lastModified()
long	length()
java.lang.String[]	list()
java.lang.String[]	list(RMAFilenameFilter fileNameFilter)
RMAFile[]	listFiles() Returns a list of files in the directory represented by this instance.
RMAFile[]	listFiles(RMAFileFilter fileFilter) Returns a list of files in the directory represented by this instance.
RMAFile[]	listFiles(RMAFilenameFilter fileNameFilter) Returns a list of files in the directory represented by this instance.
static RMAFile[]	listRoots()
boolean	mkdir()
boolean	makedirs()
boolean	renameTo(RMAFile dest)
boolean	setLastModified(long lastModified)
boolean	setReadOnly()
java.lang.String	toString() NOTE: This will return F:\ for 4690 Enhanced F: drive (not the linux path)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

RMAFile

```
public RMAFile(java.io.File file)
```

Creates an instance from an existing File

Parameters:

file -
Existing File instance

RMAFile

```
public RMAFile(RMAFile parent,  
              java.lang.String child)
```

Creates a new instance from a parent abstract pathname and a child pathname string. If parent is null then the new instance is created as if by invoking the single-argument constructor on the given child pathname string.

Parameters:

parent -
Parent file
child -
Child path

RMAFile

```
public RMAFile(java.io.File parent,  
              java.lang.String child)
```

Creates a new instance from a parent abstract pathname and a child pathname string. If parent is null then the new instance is created as if by invoking the single-argument constructor on the given child pathname string.

Parameters:

parent -
Parent file
child -
Child path

RMAFile

```
public RMAFile(java.lang.String pathname)
```

Creates a new File instance from a parent abstract pathname and a child pathname string.

Parameters:

pathname -
Path name

RMAFile

```
public RMAFile(java.lang.String parent,  
              java.lang.String child)
```

Creates a new instance from a parent pathname string and a child pathname string. If parent is null then the new instance is created as if by invoking the single-argument constructor on the given child pathname string.

(continued from last page)

Parameters:

parent -
Parent path name
child -
Child path name

Methods

convertFDriveToLinuxPath

```
public static java.lang.String convertFDriveToLinuxPath(java.lang.String path)  
    converts ENH_4690_F_DRIVE\xx\x.x to ENH_4690_F_DRIVE_MAPPING/xx/x.x
```

Parameters:

path -
incoming path to convert

Returns:

If on 4960 Enhanced and F: drive, then return converted path. Else return un-converted path.

convertLinuxPathToFDrive

```
public static java.lang.String convertLinuxPathToFDrive(java.lang.String path)  
    converts ENH_4690_F_DRIVE_MAPPING/xx/x.x to ENH_4690_F_DRIVE\xx\x.x
```

Parameters:

path -
incoming path to convert

Returns:

If on 4960 Enhanced and F: drive, then return converted path. Else returns un-converted path.

createInputStream

```
public java.io.InputStream createInputStream()  
    throws java.io.IOException
```

Creates a system dependent file input stream to the underlying file.

Returns:

The newly created file input stream, or null if the underlying file is null

Exceptions:

IOException -
Error creating the file input stream

createOutputStream

```
public java.io.OutputStream createOutputStream(boolean append)  
    throws java.io.IOException
```

Creates a file output stream to the underlying file. If the supplied argument is true, then bytes will be written to the end of the file rather than the beginning.

Parameters:

append -
If true, then bytes will be written to the end of the file rather than the beginning

(continued from last page)

Returns:

The newly created stream, or null if the underlying file is null

Exceptions:

`IOException` -
Error creating the stream

createRandomAccessFile

```
public java.io.RandomAccessFile createRandomAccessFile(java.lang.String mode)  
                                     throws java.io.IOException
```

Creates an implementation specific random access file, with the supplied read/write flags

Parameters:

`mode` -
The access mode

Returns:

Implementation specific `RandomAccessFile`, or null if the underlying file is null

Exceptions:

`IOException` -
Error creating the random access file

canRead

```
public boolean canRead()
```

See Also:

`java.io.File#canRead()`

canWrite

```
public boolean canWrite()
```

See Also:

`java.io.File#canWrite()`

createNewFile

```
public boolean createNewFile()  
                                     throws java.io.IOException
```

See Also:

`java.io.File#createNewFile()`

delete

```
public boolean delete()
```

(continued from last page)

See Also:

java.io.File#delete()

deleteOnExit

```
public void deleteOnExit()
```

See Also:

java.io.File#deleteOnExit()

exists

```
public boolean exists()
```

See Also:

java.io.File#exists()

getAbsolutePath

```
public java.lang.String getAbsolutePath()
```

See Also:

java.io.File#getAbsolutePath()

getCanonicalPath

```
public java.lang.String getCanonicalPath()  
                        throws java.io.IOException
```

See Also:

java.io.File#getCanonicalPath()

getName

```
public java.lang.String getName()
```

See Also:

java.io.File#getName()

getParent

```
public java.lang.String getParent()
```

See Also:

(continued from last page)

`java.io.File#getParent()`

getParentFile

```
public RMAFile getParentFile()
```

getPath

```
public java.lang.String getPath()
```

Note: This will return the linux path for 4690 enhanced F: drive

See Also:

`java.io.File#getPath()`

getRealFile

```
public java.io.File getRealFile()
```

Returns the underlying `File` instance. The instance will be non-null depending on the runtime platform

Returns:

The underlying `File` instance, or null if running on 4690

getOS4690File

```
public java.lang.Object getOS4690File()
```

Returns the underlying `File4690` instance, if supported. The instance will be non-null depending on the runtime platform. The instance is returned as an `Object` that must be casted to a `File4690` instance.

Returns:

The underlying `File4690` instance, or null if not running on 4690

getJvmFile

```
public java.io.File getJvmFile()  
throws java.io.IOException
```

Returns a `File` object that can be used to access the file by JVM I/O classes. For non-4690 platforms, this returns the same value that is returned by `getRealFile()`.

Returns:

File object that can be used by Java I/O classes

See Also:

`com.ibm.OS4690.File4690#getJvmPath()`

isAbsolute

```
public boolean isAbsolute()
```

See Also:

(continued from last page)

java.io.File#isAbsolute()

isDirectory

public boolean **isDirectory**()

See Also:

java.io.File#isDirectory()

isFile

public boolean **isFile**()

See Also:

java.io.File#isFile()

isHidden

public boolean **isHidden**()

See Also:

java.io.File#isHidden()

lastModified

public long **lastModified**()

See Also:

java.io.File#lastModified()

length

public long **length**()

See Also:

java.io.File#length()

list

public java.lang.String[] **list**()

See Also:

java.io.File#list()

list

```
public java.lang.String[] list(RMAFilenameFilter fileNameFilter)
```

See Also:

```
java.io.File#list( FilenameFilter )
```

listFiles

```
public RMAFile[] listFiles()
```

Returns a list of files in the directory represented by this instance. If the instance does not represent a directory, then null is returned.

See Also:

```
java.io.File#listFiles()
```

listFiles

```
public RMAFile[] listFiles(RMAFilenameFilter fileNameFilter)
```

Returns a list of files in the directory represented by this instance. If the instance does not represent a directory, then null is returned.

Parameters:

```
fileNameFilter - RMAFilenameFilter  
instance
```

Returns:

Array of files in the current directory, or an empty array if the directory is empty, or null if the instance does not represent a directory

See Also:

```
java.io.File#listFiles(FilenameFilter)
```

listFiles

```
public RMAFile[] listFiles(RMAFileFilter fileFilter)
```

Returns a list of files in the directory represented by this instance. If the instance does not represent a directory, then null is returned. Either filter argument can be null, but if that argument is the one to be used when the method is called, then it will follow the underlying implementation's handling of a null filter

Parameters:

```
fileFilter - RMAFileFilter  
instance to be used
```

Returns:

Array of files in the current directory, or an empty array if the directory is empty, or null if the instance does not represent a directory

See Also:

```
java.io.File#listFiles(java.io.FileFilter)
```

mkdir

public boolean **mkdir**()

See Also:

java.io.File#mkdir()

mkdirs

public boolean **mkdirs**()

See Also:

java.io.File#mkdirs()

renameTo

public boolean **renameTo**(RMAFile dest)

See Also:

java.io.File#renameTo(File)

setLastModified

public boolean **setLastModified**(long lastModified)

See Also:

java.io.File#setLastModified(long)

setReadOnly

public boolean **setReadOnly**()

See Also:

java.io.File#setReadOnly()

equals

public boolean **equals**(java.lang.Object o)

See Also:

java.lang.Object#equals(java.lang.Object)

(continued from last page)

hashCode

```
public int hashCode()
```

See Also:

```
java.lang.Object#hashCode()
```

toString

```
public java.lang.String toString()
```

NOTE: This will return F:\ for 4690 Enhanced F: drive (not the linux path)

See Also:

```
java.lang.Object#toString()
```

getPathSeparator

```
public static java.lang.String getPathSeparator()
```

Returns the implementation specific path separator String

Returns:

The implementation specific path separator String

getPathSeparatorChar

```
public static char getPathSeparatorChar()
```

Returns the implementation specific path separator character

Returns:

The implementation specific path separator character

getSeparator

```
public static java.lang.String getSeparator()
```

Returns the implementation specific separator String

Returns:

The implementation specific separator String

getSeparatorChar

```
public static char getSeparatorChar()
```

Returns the implementation specific separator character

Returns:

The implementation specific separator character

(continued from last page)

listRoots

```
public static RMAFile[] listRoots()
```

See Also:

[java.io.File#listRoots\(\)](#)

`com.ibm.retail.si.mgmt`

Interface **RMAFileFilter**

public interface **RMAFileFilter**

File filter interface used with the `RMAFile` class.

See Also:

`java.io.FileFilter`

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>boolean</code>	<code>accept(RMAFile pathname)</code>
----------------------	---------------------------------------

Fields

COPYRIGHT

public static final `java.lang.String` **COPYRIGHT**

Methods

accept

public boolean **accept**(`RMAFile` pathname)

See Also:

`java.io.FileFilter#accept(java.io.File)`

com.ibm.retail.si.mgmt

Class RMAFileJavaImpl

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.RMAFileJavaImpl

```

All Implemented interfaces:

RMAFilePlatformImpl

```

public class RMAFileJavaImpl
  extends java.lang.Object
  implements RMAFilePlatformImpl

```

RMAFile implementation wrapper for regular Java File access

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

RMAFileJavaImpl()

Method Summary

boolean	canRead()
boolean	canWrite()
java.io.InputStream	createInputStream()
boolean	createNewFile()
java.io.OutputStream	createOutputStream(boolean append)
java.io.RandomAccessFile	createRandomAccessFile(java.lang.String mode)
boolean	delete()
void	deleteOnExit()
boolean	exists()
java.lang.String	getAbsolutePath()

java.lang.String	getCanonicalPath()
java.io.File	getJvmFile()
java.lang.String	getName()
java.lang.Object	getOS4690File()
java.lang.String	getParent()
RMAFile	getParentFile()
java.lang.String	getPath()
java.lang.String	getPathSeparator()
char	getPathSeparatorChar()
java.io.File	getRealFile()
java.lang.String	getSeparator()
char	getSeparatorChar()
int	hashCode()
void	init(RMAFile file, java.lang.String file)
void	init(java.lang.String pathname)
void	init(java.lang.String parent, java.lang.String parent)
boolean	isAbsolute()
boolean	isDirectory()
boolean	isFile()
boolean	isHidden()
long	lastModified()
long	length()
java.lang.String[]	list()
java.lang.String[]	list(RMAFilenameFilter fileNameFilter)

RMAFile[]	listFiles(RMAFileFilter fileFilter)
RMAFile[]	listFilesFileNameFilter(RMAFilenameFilter fileNameFilter)
RMAFile[]	listRoots()
boolean	mkdir()
boolean	makedirs()
boolean	renameTo(RMAFile dest)
boolean	setLastModified(long lastModified)
boolean	setReadOnly()
java.lang.String	toString()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Constructors

RMAFileJavaImpl

public **RMAFileJavaImpl**()

Methods

init

public void **init**(java.lang.String pathname)

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#init(java.lang.String)

(continued from last page)

init

```
public void init(RMAFile file,  
                java.lang.String child)
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#init(com.ibm.retail.si.mgmt.RMAFile, java.lang.String)

init

```
public void init(java.lang.String parent,  
                java.lang.String child)
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#init(java.lang.String, java.lang.String)

canRead

```
public boolean canRead()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#canRead()

canWrite

```
public boolean canWrite()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#canWrite()

createInputStream

```
public java.io.InputStream createInputStream()  
                            throws java.io.IOException
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#createInputStream()

createNewFile

```
public boolean createNewFile()  
                throws java.io.IOException
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#createNewFile()

createOutputStream

```
public java.io.OutputStream createOutputStream(boolean append)
                                throws java.io.IOException
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#createOutputStream(boolean)

createRandomAccessFile

```
public java.io.RandomAccessFile createRandomAccessFile(java.lang.String mode)
                                throws java.io.IOException
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#createRandomAccessFile(java.lang.String)

delete

```
public boolean delete()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#delete()

deleteOnExit

```
public void deleteOnExit()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#deleteOnExit()

exists

```
public boolean exists()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#exists()

getAbsolutePath

```
public java.lang.String getAbsolutePath()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getAbsolutePath()

getCanonicalPath

```
public java.lang.String getCanonicalPath()  
                        throws java.io.IOException
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getCanonicalPath()

getJvmFile

```
public java.io.File getJvmFile()  
                   throws java.io.IOException
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getJvmFile()

getName

```
public java.lang.String getName()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getName()

getParent

```
public java.lang.String getParent()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getParent()

getParentFile

```
public RMAFile getParentFile()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getParentFile()

getPath

```
public java.lang.String getPath()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getPath()

getRealFile

```
public java.io.File getRealFile()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getRealFile()

getOS4690File

```
public java.lang.Object getOS4690File()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getOS4690File()

isAbsolute

```
public boolean isAbsolute()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#isAbsolute()

isDirectory

```
public boolean isDirectory()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#isDirectory()

isFile

```
public boolean isFile()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#isFile()

isHidden

```
public boolean isHidden()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#isHidden()

(continued from last page)

lastModified

```
public long lastModified()
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#lastModified()
```

length

```
public long length()
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#length()
```

list

```
public java.lang.String[] list()
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#list()
```

list

```
public java.lang.String[] list(RMAFilenameFilter fileNameFilter)
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#list(com.ibm.retail.si.mgmt.RMAFilenameFilter)
```

listFilesFileNameFilter

```
public RMAFile[] listFilesFileNameFilter(RMAFilenameFilter fileNameFilter)
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#listFiles(com.ibm.retail.si.mgmt.RMAFilenameFilter)
```

listFiles

```
public RMAFile[] listFiles(RMAFileFilter fileFilter)
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#listFiles(com.ibm.retail.si.mgmt.RMAFileFilter)
```

(continued from last page)

mkdir

```
public boolean mkdir()
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#mkdir()
```

mkdirs

```
public boolean mkdirs()
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#mkdirs()
```

renameTo

```
public boolean renameTo(RMAFile dest)
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#renameTo(com.ibm.retail.si.mgmt.RMAFile)
```

setLastModified

```
public boolean setLastModified(long lastModified)
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#setLastModified(long)
```

setReadOnly

```
public boolean setReadOnly()
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#setReadOnly()
```

listRoots

```
public RMAFile[] listRoots()
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#listRoots()
```

(continued from last page)

toString

```
public java.lang.String toString()
```

See Also:

```
java.lang.Object#toString()
```

hashCode

```
public int hashCode()
```

See Also:

```
java.lang.Object#hashCode()
```

getPathSeparator

```
public java.lang.String getPathSeparator()
```

getPathSeparatorChar

```
public char getPathSeparatorChar()
```

getSeparator

```
public java.lang.String getSeparator()
```

getSeparatorChar

```
public char getSeparatorChar()
```

`com.ibm.retail.si.mgmt`

Interface **RMAFilenameFilter**

public interface **RMAFilenameFilter**

File name filter interface used with the `RMAFile` class.

See Also:

`java.io.FilenameFilter`

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>boolean</code>	<code>accept(RMAFile dir, java.lang.String dir)</code>
----------------------	--------------------------------------------------------

Fields

COPYRIGHT

public static final `java.lang.String` **COPYRIGHT**

Methods

accept

```
public boolean accept(RMAFile dir,  
                       java.lang.String name)
```

See Also:

`java.io.FilenameFilter#accept(java.io.File, String)`

com.ibm.retail.si.mgmt

Class RMAFileOS4690Impl

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.RMAFileOS4690Impl

```

All Implemented interfaces:

RMAFilePlatformImpl

public class **RMAFileOS4690Impl**

extends java.lang.Object

implements RMAFilePlatformImpl

RMAFile implementation for 4690.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

RMAFileOS4690Impl()

Method Summary

boolean	canRead()
boolean	canWrite()
java.io.InputStream	createInputStream()
boolean	createNewFile()
java.io.OutputStream	createOutputStream(boolean append)
java.io.RandomAccessFile	createRandomAccessFile(java.lang.String mode)
boolean	delete()
void	deleteOnExit()
boolean	exists()
java.lang.String	getAbsolutePath()

java.lang.String	getCanonicalPath()
java.io.File	getJvmFile()
java.lang.String	getName()
java.lang.Object	getOS4690File()
java.lang.String	getParent()
RMAFile	getParentFile()
java.lang.String	getPath()
java.lang.String	getPathSeparator()
char	getPathSeparatorChar()
java.io.File	getRealFile()
java.lang.String	getSeparator()
char	getSeparatorChar()
int	hashCode()
void	init(RMAFile file, java.lang.String file)
void	init(java.lang.String pathname)
void	init(java.lang.String parent, java.lang.String parent)
boolean	isAbsolute()
boolean	isDirectory()
boolean	isFile()
boolean	isHidden()
long	lastModified()
long	length()
java.lang.String[]	list()
java.lang.String[]	list(RMAFilenameFilter fileNameFilter)

RMAFile[]	listFiles(RMAFileFilter fileFilter)
RMAFile[]	listFilesFileNameFilter(RMAFilenameFilter fileNameFilter)
RMAFile[]	listRoots()
boolean	mkdir()
boolean	makedirs()
boolean	renameTo(RMAFile dest)
boolean	setLastModified(long lastModified)
boolean	setReadOnly()
java.lang.String	toString()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Constructors

RMAFileOS4690Impl

public **RMAFileOS4690Impl**()

Methods

init

public void **init**(java.lang.String pathname)

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#init(java.lang.String)

(continued from last page)

init

```
public void init(RMAFile file,  
                java.lang.String child)
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#init(com.ibm.retail.si.mgmt.RMAFile, java.lang.String)

init

```
public void init(java.lang.String parent,  
                java.lang.String child)
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#init(java.lang.String, java.lang.String)

canRead

```
public boolean canRead()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#canRead()

canWrite

```
public boolean canWrite()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#canWrite()

createInputStream

```
public java.io.InputStream createInputStream()  
                            throws java.io.IOException
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#createInputStream()

createNewFile

```
public boolean createNewFile()  
                throws java.io.IOException
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#createNewFile()

createOutputStream

```
public java.io.OutputStream createOutputStream(boolean append)
                                throws java.io.IOException
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#createOutputStream(boolean)

createRandomAccessFile

```
public java.io.RandomAccessFile createRandomAccessFile(java.lang.String mode)
                                throws java.io.IOException
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#createRandomAccessFile(java.lang.String)

delete

```
public boolean delete()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#delete()

deleteOnExit

```
public void deleteOnExit()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#deleteOnExit()

exists

```
public boolean exists()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#exists()

getAbsolutePath

```
public java.lang.String getAbsolutePath()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getAbsolutePath()

getCanonicalPath

```
public java.lang.String getCanonicalPath()  
                        throws java.io.IOException
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getCanonicalPath()

getJvmFile

```
public java.io.File getJvmFile()  
                  throws java.io.IOException
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getJvmFile()

getName

```
public java.lang.String getName()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getName()

getParent

```
public java.lang.String getParent()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getParent()

getParentFile

```
public RMAFile getParentFile()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getParentFile()

getPath

```
public java.lang.String getPath()
```

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getPath()

getRealFile

```
public java.io.File getRealFile()
```

See Also:

`com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getRealFile()`

getOS4690File

```
public java.lang.Object getOS4690File()
```

See Also:

`com.ibm.retail.si.mgmt.RMAFilePlatformImpl#getOS4690File()`

isAbsolute

```
public boolean isAbsolute()
```

See Also:

`com.ibm.retail.si.mgmt.RMAFilePlatformImpl#isAbsolute()`

isDirectory

```
public boolean isDirectory()
```

See Also:

`com.ibm.retail.si.mgmt.RMAFilePlatformImpl#isDirectory()`

isFile

```
public boolean isFile()
```

See Also:

`com.ibm.retail.si.mgmt.RMAFilePlatformImpl#isFile()`

isHidden

```
public boolean isHidden()
```

See Also:

`com.ibm.retail.si.mgmt.RMAFilePlatformImpl#isHidden()`

(continued from last page)

lastModified

```
public long lastModified()
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#lastModified()
```

length

```
public long length()
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#length()
```

list

```
public java.lang.String[] list()
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#list()
```

list

```
public java.lang.String[] list(RMAFilenameFilter fileNameFilter)
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#list(com.ibm.retail.si.mgmt.RMAFilenameFilter)
```

listFilesFileNameFilter

```
public RMAFile[] listFilesFileNameFilter(RMAFilenameFilter fileNameFilter)
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#listFiles(com.ibm.retail.si.mgmt.RMAFilenameFilter)
```

listFiles

```
public RMAFile[] listFiles(RMAFileFilter fileFilter)
```

See Also:

```
com.ibm.retail.si.mgmt.RMAFilePlatformImpl#listFiles(com.ibm.retail.si.mgmt.RMAFileFilter)
```

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mkdir

public boolean **mkdir**()

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#mkdir()

mkdirs

public boolean **mkdirs**()

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#mkdirs()

renameTo

public boolean **renameTo**(RMAFile dest)

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#renameTo(com.ibm.retail.si.mgmt.RMAFile)

setLastModified

public boolean **setLastModified**(long lastModified)

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#setLastModified(long)

setReadOnly

public boolean **setReadOnly**()

See Also:

com.ibm.retail.si.mgmt.RMAFilePlatformImpl#setReadOnly()

listRoots

public RMAFile[] **listRoots**()

See Also:

java.io.File#listRoots()

(continued from last page)

getPathSeparator

```
public java.lang.String getPathSeparator()
```

getPathSeparatorChar

```
public char getPathSeparatorChar()
```

getSeparator

```
public java.lang.String getSeparator()
```

getSeparatorChar

```
public char getSeparatorChar()
```

toString

```
public java.lang.String toString()
```

See Also:

[java.lang.Object#toString\(\)](#)

hashCode

```
public int hashCode()
```

See Also:

[java.lang.Object#hashCode\(\)](#)

com.ibm.retail.si.mgmt

Interface RMAFilePlatformImpl**All Known Implementing Classes:**

RMAFileOS4690Impl, RMAFileJavaImpl

public interface **RMAFilePlatformImpl**

Interface implemented by classes that provide file access through the RMAFile class.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

boolean	canRead()
boolean	canWrite()
java.io.InputStrea m	createInputStream() Creates a system dependent file input stream to the underlying file.
boolean	createNewFile()
java.io.OutputStre am	createOutputStream(boolean append) Creates a file output stream to the underlying file.
java.io.RandomAcce ssFile	createRandomAccessFile(java.lang.String mode) Creates an implementation specific random access file, with the supplied read/write flags
boolean	delete()
void	deleteOnExit()
boolean	exists()
java.lang.String	getAbsolutePath()
java.lang.String	getCanonicalPath()
java.io.File	getJvmFile() Returns a File object that can be used to access the file by JVM I/O classes.
java.lang.String	getName()

java.lang.Object	getOS4690File() Returns the underlying File4690instance, if supported.
java.lang.String	getParent()
RMAFile	getParentFile()
java.lang.String	getPath() Note: This will return the linux path for 4690 enhanced F: drive
java.lang.String	getPathSeparator() Returns the implementation specific path separator String
char	getPathSeparatorChar() Returns the implementation specific path separator character
java.io.File	getRealFile() Returns the underlying Fileinstance.
java.lang.String	getSeparator() Returns the implementation specific separator String
char	getSeparatorChar() Returns the implementation specific separator character
void	init(RMAFile file, java.lang.String file)
void	init(java.lang.String pathname)
void	init(java.lang.String parent, java.lang.String parent)
boolean	isAbsolute()
boolean	isDirectory()
boolean	isFile()
boolean	isHidden()
long	lastModified()
long	length()
java.lang.String[]	list()
java.lang.String[]	list(RMAFilenameFilter fileNameFilter)
RMAFile[]	listFiles(RMAFileFilter fileFilter) Returns a list of files in the directory represented by this instance.

RMAFile[]	listFilesFileNameFilter(RMAFilenameFilter fileNameFilter) Returns a list of files in the directory represented by this instance.
RMAFile[]	listRoots()
boolean	mkdir()
boolean	makedirs()
boolean	renameTo(RMAFile dest)
boolean	setLastModified(long lastModified)
boolean	setReadOnly()

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

init

```
public void init(java.lang.String pathname)
```

init

```
public void init(RMAFile file,  
                java.lang.String child)
```

init

```
public void init(java.lang.String parent,  
                java.lang.String child)
```

canRead

```
public boolean canRead()
```

See Also:

java.io.File#canRead()

canWrite

```
public boolean canWrite()
```

See Also:

```
java.io.File#canWrite()
```

createInputStream

```
public java.io.InputStream createInputStream()  
    throws java.io.IOException
```

Creates a system dependent file input stream to the underlying file.

Returns:

The newly created file input stream, or null if the underlying file is null

Exceptions:

IOException -
Error creating the file input stream

createOutputStream

```
public java.io.OutputStream createOutputStream(boolean append)  
    throws java.io.IOException
```

Creates a file output stream to the underlying file. If the supplied argument is true, then bytes will be written to the end of the file rather than the beginning.

Parameters:

append -
If true, then bytes will be written to the end of the file rather than the beginning

Returns:

The newly created stream, or null if the underlying file is null

Exceptions:

IOException -
Error creating the stream

createRandomAccessFile

```
public java.io.RandomAccessFile createRandomAccessFile(java.lang.String mode)  
    throws java.io.IOException
```

Creates an implementation specific random access file, with the supplied read/write flags

Parameters:

mode -
The access mode

Returns:

Implementation specific RandomAccessFile, or null if the underlying file is null

Exceptions:

IOException -
Error creating the random access file

createNewFile

```
public boolean createNewFile()  
    throws java.io.IOException
```

See Also:

java.io.File#createNewFile()

delete

```
public boolean delete()
```

See Also:

java.io.File#delete()

deleteOnExit

```
public void deleteOnExit()
```

See Also:

java.io.File#deleteOnExit()

exists

```
public boolean exists()
```

See Also:

java.io.File#exists()

getAbsolutePath

```
public java.lang.String getAbsolutePath()
```

See Also:

java.io.File#getAbsolutePath()

getCanonicalPath

```
public java.lang.String getCanonicalPath()  
    throws java.io.IOException
```

See Also:

java.io.File#getCanonicalPath()

getName

```
public java.lang.String getName()
```

See Also:

```
java.io.File#getName()
```

getParent

```
public java.lang.String getParent()
```

See Also:

```
java.io.File#getParent()
```

getParentFile

```
public RMAFile getParentFile()
```

getPath

```
public java.lang.String getPath()
```

Note: This will return the linux path for 4690 enhanced F: drive

See Also:

```
java.io.File#getPath()
```

getRealFile

```
public java.io.File getRealFile()
```

Returns the underlying `File` instance. The instance will be non-null depending on the runtime platform

Returns:

The underlying `File` instance, or null if running on 4690

getOS4690File

```
public java.lang.Object getOS4690File()
```

Returns the underlying `File4690` instance, if supported. The instance will be non-null depending on the runtime platform. The instance is returned as an `Object` that must be casted to a `File4690` instance.

Returns:

The underlying `File4690` instance, or null if not running on 4690

getJvmFile

```
public java.io.File getJvmFile()  
throws java.io.IOException
```

(continued from last page)

Returns a File object that can be used to access the file by JVM I/O classes. For non-4690 platforms, this returns the same value that is returned by `getRealFile()`.

Returns:

File object that can be used by Java I/O classes

See Also:

`com.ibm.OS4690.File4690#getJvmPath()`

isAbsolute

```
public boolean isAbsolute()
```

See Also:

`java.io.File#isAbsolute()`

isDirectory

```
public boolean isDirectory()
```

See Also:

`java.io.File#isDirectory()`

isFile

```
public boolean isFile()
```

See Also:

`java.io.File#isFile()`

isHidden

```
public boolean isHidden()
```

See Also:

`java.io.File#isHidden()`

lastModified

```
public long lastModified()
```

See Also:

`java.io.File#lastModified()`

(continued from last page)

length

```
public long length()
```

See Also:

```
java.io.File#length()
```

list

```
public java.lang.String[] list()
```

See Also:

```
java.io.File#list()
```

list

```
public java.lang.String[] list(RMAFilenameFilter fileNameFilter)
```

See Also:

```
java.io.File#list( FilenameFilter )
```

listFilesFileNameFilter

```
public RMAFile[] listFilesFileNameFilter(RMAFilenameFilter fileNameFilter)
```

Returns a list of files in the directory represented by this instance. If the instance does not represent a directory, then null is returned.

Parameters:

```
fileNameFilter - RMAFilenameFilter  
instance
```

Returns:

Array of files in the current directory, or an empty array if the directory is empty, or null if the instance does not represent a directory

See Also:

```
java.io.File#listFiles(FilenameFilter)
```

listFiles

```
public RMAFile[] listFiles(RMAFileFilter fileFilter)
```

Returns a list of files in the directory represented by this instance. If the instance does not represent a directory, then null is returned. Either filter argument can be null, but if that argument is the one to be used when the method is called, then it will follow the underlying implementation's handling of a null filter

Parameters:

```
fileFilter - RMAFileFilter  
instance to be used
```

Returns:

(continued from last page)

Array of files in the current directory, or an empty array if the directory is empty, or null if the instance does not represent a directory

See Also:

java.io.File#listFiles(java.io.FileFilter)

mkdir

```
public boolean mkdir()
```

See Also:

java.io.File#mkdir()

mkdirs

```
public boolean mkdirs()
```

See Also:

java.io.File#mkdirs()

renameTo

```
public boolean renameTo(RMAFile dest)
```

See Also:

java.io.File#renameTo(File)

setLastModified

```
public boolean setLastModified(long lastModified)
```

See Also:

java.io.File#setLastModified(long)

setReadOnly

```
public boolean setReadOnly()
```

See Also:

java.io.File#setReadOnly()

listRoots

```
public RMAFile[] listRoots()
```

(continued from last page)

See Also:

java.io.File#listRoots()

getPathSeparator

public java.lang.String **getPathSeparator()**

Returns the implementation specific path separator String

Returns:

The implementation specific path separator String

getPathSeparatorChar

public char **getPathSeparatorChar()**

Returns the implementation specific path separator character

Returns:

The implementation specific path separator character

getSeparator

public java.lang.String **getSeparator()**

Returns the implementation specific separator String

Returns:

The implementation specific separator String

getSeparatorChar

public char **getSeparatorChar()**

Returns the implementation specific separator character

Returns:

The implementation specific separator character

com.ibm.retail.si.mgmt

Interface SIMgmtInventoryMBean

All Superinterfaces:

MgmtSoftwareInventoryMBean, MgmtSimpleInventoryMBean

public interface **SIMgmtInventoryMBean**
 extends MgmtSoftwareInventoryMBean

This MBean interface exposes inventory information (version, level, etc) about the SI Systems Management Components. It is an extension of MgmtSoftwareInventoryMBean, with no additional methods.

The `ObjectName` of this MBean includes the following attributes, in addition to the SIF attribute of `DeviceID`:

- SIFComponent=MGMT
- Id=SIMgmtInventory

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	OBJECT_NAME_BASE
static java.lang.String	OBJECT_NAME_ID

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME_BASE

```
public static final java.lang.String OBJECT_NAME_BASE
```

com.ibm.retail.si.mgmt

Class Version

java.lang.Object

└--com.ibm.retail.si.mgmt.Version

public class **Version**

extends java.lang.Object

Field Summary

static java.lang.String	CMVC_RELEASE
static java.lang.String	DESCRIPTION
static java.lang.String	IBM_COPYRIGHT
static java.lang.String	IBM_COPYRIGHT_SHORT
static java.lang.String	MAINT_LEVEL
static java.lang.String	MANUFACTURER
static java.lang.String	PID
static java.lang.String	PRODUCT
static java.lang.String	RC_NUM
static java.lang.String	RELEASE
static java.lang.String	VERSION

Constructor Summary

Version()

Method Summary

static java.lang.String	getDescription() Retrieve a full description for this component, including name and version
static java.lang.String	getMaintenanceLevel() Returns the maintenance level or build number for SI Systems Management

<code>static java.lang.String</code>	<code>getMajorVersion()</code> Returns the major version number for SI Systems Management
<code>static java.lang.String</code>	<code>getManufacturer()</code> Retrieve the name of the manufacturer of this component.
<code>static java.lang.String</code>	<code>getMinorVersion()</code> Returns the minor version number for SI Systems Management
<code>static java.lang.String</code>	<code>getProductName()</code> Returns the program information for SI Systems Management
<code>static java.lang.String</code>	<code>getVersion()</code>
<code>static void</code>	<code>main(java.lang.String[] args)</code>

Methods inherited from : class java.lang.Object

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields**PID**

`public static final java.lang.String PID`

IBM_COPYRIGHT

`public static final java.lang.String IBM_COPYRIGHT`

IBM_COPYRIGHT_SHORT

`public static final java.lang.String IBM_COPYRIGHT_SHORT`

MANUFACTURER

`public static final java.lang.String MANUFACTURER`

PRODUCT

`public static final java.lang.String PRODUCT`

(continued from last page)

DESCRIPTION

```
public static final java.lang.String DESCRIPTION
```

VERSION

```
public static final java.lang.String VERSION
```

RELEASE

```
public static final java.lang.String RELEASE
```

MAINT_LEVEL

```
public static final java.lang.String MAINT_LEVEL
```

CMVC_RELEASE

```
public static final java.lang.String CMVC_RELEASE
```

RC_NUM

```
public static final java.lang.String RC_NUM
```

Constructors

Version

```
public Version()
```

Methods

main

```
public static void main(java.lang.String[] args)
```

getVersion

```
public static java.lang.String getVersion()
```

getMajorVersion

```
public static java.lang.String getMajorVersion()
```

Returns the major version number for SI Systems Management

getMinorVersion

```
public static java.lang.String getMinorVersion()
```

Returns the minor version number for SI Systems Management

getMaintenanceLevel

```
public static java.lang.String getMaintenanceLevel()
```

Returns the maintenance level or build number for SI Systems Management

getProductName

```
public static java.lang.String getProductName()
```

Returns the program information for SI Systems Management

Returns:

String product name

getManufacturer

```
public static java.lang.String getManufacturer()
```

Retrieve the name of the manufacturer of this component.

Returns:

String manufacturer

getDescription

```
public static java.lang.String getDescription()
```

Retrieve a full description for this component, including name and version

Returns:

String description

Package

com.ibm.retail.si.mgmt.capture

com.ibm.retail.si.mgmt.capture

Interface CaptureAgentRecord

public interface **CaptureAgentRecord**

Encapsulates history information about the capture on a specific device, which includes information about each capture defined in the policy

Field Summary

<pre> static java.lang.String </pre>	COPYRIGHT
--------------------------------------	-----------

Method Summary

<pre> CaptureInstanceRec ord </pre>	<pre> getInstanceRecord(int id) </pre> <p>Returns the instance record matching the supplied Id</p>
<pre> CaptureInstanceRec ord </pre>	<pre> getInstanceRecordForCapture(java.lang.String captureId) </pre>
<pre> CaptureInstanceRec ord </pre>	<pre> getInstanceRecordForMBean(java.lang.String mbeanId) </pre> <p>Deprecated. Use <code><code>getInstanceRecordsForMBean(String)</code></code> instead</p>
<pre> CaptureInstanceRec ord[] </pre>	<pre> getInstanceRecords() </pre>
<pre> CaptureInstanceRec ord[] </pre>	<pre> getInstanceRecordsForMBean(java.lang.String mbeanId) </pre> <p>Returns all instance records for the supplied MBean</p>
<pre> java.lang.String </pre>	<pre> getState() </pre>
<pre> java.lang.String </pre>	<pre> getSystemId() </pre>

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

getSystemId

```
public java.lang.String getSystemId()
```

Returns:

(continued from last page)

The system (agent) Id of the agent where the set of captures have taken place

getState

```
public java.lang.String getState()
```

Returns:

The aggregate state of the set of captures on this agent

getInstanceRecordForMBean

```
public CaptureInstanceRecord getInstanceRecordForMBean(java.lang.String mbeanId)
```

Deprecated. Use `getInstanceRecordsForMBean(String)` instead

Parameters:

mbeanId -
Id of the capture MBean to search for

Returns:

If one or more instance records exist for the supplied MBean, the first one will be returned. Otherwise, null will be returned.

getInstanceRecord

```
public CaptureInstanceRecord getInstanceRecord(int id)
```

Returns the instance record matching the supplied Id

Parameters:

id -
Instance record id to search for

Returns:

The matching instance record, or null if none is found

getInstanceRecordsForMBean

```
public CaptureInstanceRecord[] getInstanceRecordsForMBean(java.lang.String mbeanId)
```

Returns all instance records for the supplied MBean

Parameters:

mbeanId

Returns:

CaptureInstanceRecord[] for the supplied mbeanId

getInstanceRecordForCapture

```
public CaptureInstanceRecord getInstanceRecordForCapture(java.lang.String captureId)
```

(continued from last page)

Parameters:

captureId -
Id of the capture to search for

Returns:

If an instance record exists for the supplied capture, it will be returned. Otherwise, null will be returned.

getInstanceRecords

```
public CaptureInstanceRecord[] getInstanceRecords()
```

Returns:

Array of CaptureInstanceRecords, one for each DataCaptureMBean that is invoked as part of the policy

com.ibm.retail.si.mgmt.capture
Interface CaptureFile

public interface **CaptureFile**

Encapsulates information about a data capture file, including name and whether or not it has been transferred

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>java.lang.String</code>	<code>getFileName()</code>
-------------------------------	----------------------------

<code>boolean</code>	<code>hasTransferred()</code>
----------------------	-------------------------------

Fields

COPYRIGHT

`public static final java.lang.String COPYRIGHT`

Methods

getFileName

`public java.lang.String getFileName()`

hasTransferred

`public boolean hasTransferred()`

com.ibm.retail.si.mgmt.capture Interface CaptureHistory

public interface **CaptureHistory**

Encapsulates history information for the execution of a data capture policy

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>java.lang.String</code>	<code>getContext()</code>
<code>CapturePolicyInvocationRecord</code>	<code>getInvocation(long startDate)</code>
<code>CapturePolicyInvocationRecord[]</code>	<code>getInvocations()</code>
<code>java.lang.String</code>	<code>getPolicyId()</code>

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

getPolicyId

public java.lang.String **getPolicyId()**

Returns:

The Id of the capture policy

getInvocation

public CapturePolicyInvocationRecord **getInvocation**(long startDate)

Parameters:

`startDate` -
Starting date of the invocations to search for

(continued from last page)

Returns:

If an invocation record exists for the supplied start date, it will be returned. Otherwise, null will be returned.

getInvocations

```
public CapturePolicyInvocationRecord[] getInvocations()
```

Returns:

Array of CapturePolicyInvocationRecords, one for each policy invocation

getContext

```
public java.lang.String getContext()
```

com.ibm.retail.si.mgmt.capture

Interface CaptureInstanceRecord

public interface **CaptureInstanceRecord**

Encapsulates history information about the capture on a particular DataCaptureMBeanInstance

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>CaptureFile[]</code>	<code>getCaptureFiles()</code>
<code>java.lang.String</code>	<code>getCaptureId()</code>
<code>CaptureLogMsg[]</code>	<code>getCaptureLog()</code>
<code>java.lang.String</code>	<code>getCaptureState()</code>
<code>int</code>	<code>getId()</code>
<code>java.lang.String</code>	<code>getMBeanId()</code>
<code>CaptureLogMsg[]</code>	<code>getTransferLog()</code>
<code>java.lang.String</code>	<code>getTransferState()</code>

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

getId

public int **getId()****Returns:**

The Id for the instance record, created based on the MBean Id and capture parameters

getMBeanId

```
public java.lang.String getMBeanId()
```

Returns:

Id of the capture MBean

getCaptureId

```
public java.lang.String getCaptureId()
```

Returns:

Id of the capture

getCaptureState

```
public java.lang.String getCaptureState()
```

Returns:

The state of the capture

getTransferState

```
public java.lang.String getTransferState()
```

Returns:

The state of the capture file transfer

getCaptureFiles

```
public CaptureFile[] getCaptureFiles()
```

Returns:

The list of files associated with this capture

getCaptureLog

```
public CaptureLogMsg[] getCaptureLog()
```

Returns:

The capture log for this instance, as an array of CaptureLogMsg, sorted by timestamp

(continued from last page)

getTransferLog

```
public CaptureLogMsg[] getTransferLog()
```

Returns:

The transfer log for this instance, as an array of `CaptureLogMsg`, sorted by timestamp

com.ibm.retail.si.mgmt.capture

Interface CaptureLogMsg

public interface **CaptureLogMsg**

Encapsulates a capture or transfer log message

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>java.lang.String</code>	<code>getMsgKey()</code>
<code>java.lang.String[]</code>	<code>getMsgParms()</code>
<code>long</code>	<code>getTimeStamp()</code>

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

getTimeStamp

```
public long getTimeStamp()
```

Returns:

Timestamp of the message, in milliseconds

getMsgKey

```
public java.lang.String getMsgKey()
```

Returns:

Returns the msgKey.

(continued from last page)

getMsgParms

```
public java.lang.String[] getMsgParms()
```

Returns:

The message parameters as used in text substitution, or an empty array if there none

com.ibm.retail.si.mgmt.capture

Interface CapturePolicyInvocationRecord

public interface **CapturePolicyInvocationRecord**

Represents a capture policy invocation, whether initiated from an unsolicited capture event or a manual policy invocation

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>CaptureAgentRecord</code>	<code>getAgentRecord(java.lang.String systemId)</code>
<code>CaptureAgentRecord []</code>	<code>getAgentRecords()</code>
<code>java.lang.String</code>	<code>getInvocationState()</code>
<code>long</code>	<code>getStartDate()</code>

Fields

COPYRIGHT

`public static final java.lang.String COPYRIGHT`

Methods

getAgentRecords

`public CaptureAgentRecord[] getAgentRecords()`

getAgentRecord

`public CaptureAgentRecord getAgentRecord(java.lang.String systemId)`

getStartDate

`public long getStartDate()`

Returns:

(continued from last page)

The time when the policy was invoked on this agent, in milliseconds

getInvocationState

```
public java.lang.String getInvocationState()
```

Returns:

The aggregate state of the captures on all applicable agents

com.ibm.retail.si.mgmt.capture

Class DataCaptureConst

java.lang.Object

└--com.ibm.retail.si.mgmt.capture.DataCaptureConst

public final class **DataCaptureConst**

extends java.lang.Object

Field Summary

static java.lang.String	CONTEXT_ACTIVE
static java.lang.String	CONTEXT_COMPLETE
static java.lang.String	CONTEXT_DRAFT
static java.lang.String	COPYRIGHT
static java.lang.String	DEFAULT_CAPTURE_POLICY_DESCRIPTION
static int	DEFAULT_CAPTURE_TIMEOUT Deprecated. Use the <i>DEFAULT_CAPTURE_TIMEOUT</i> value in <i>DataCaptureMBean</i>
static java.lang.String	POL_DEV_STATE_COMPLETED_CLEAN Policy or device capture has completed, and no errors were reported
static java.lang.String	POL_DEV_STATE_COMPLETED_ERRS Policy or device capture has completed, and errors were reported
static java.lang.String	POL_DEV_STATE_IN_PROG_CLEAN Policy or device capture is in progress, and no errors have been reported
static java.lang.String	POL_DEV_STATE_IN_PROG_ERRS Policy or device capture is in progress, but errors have been reported
static java.lang.String	POL_DEV_STATE_NOT_STARTED Policy or device capture has not started
static java.lang.String	REL_CONFIG_DIR The relative directory under the RMA home containing the data capture configuration data
static java.lang.String	REL_DATA_DIR
static java.lang.String	RESOURCE_BUNDLE

Constructor Summary

`DataCaptureConst()`

Methods inherited from : class `java.lang.Object`

`clone`, `equals`, `finalize`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Fields

COPYRIGHT

`public static final java.lang.String COPYRIGHT`

DEFAULT_CAPTURE_TIMEOUT

`public static final int DEFAULT_CAPTURE_TIMEOUT`

Deprecated. Use the `DEFAULT_CAPTURE_TIMEOUT` value in `DataCaptureMBean`

The default capture timeout for a `DataCapturePolicy` created without an explicit timeout. The value is in milliseconds.

REL_CONFIG_DIR

`public static final java.lang.String REL_CONFIG_DIR`

The relative directory under the RMA home containing the data capture configuration data

REL_DATA_DIR

`public static final java.lang.String REL_DATA_DIR`

POL_DEV_STATE_NOT_STARTED

`public static final java.lang.String POL_DEV_STATE_NOT_STARTED`

Policy or device capture has not started

POL_DEV_STATE_IN_PROG_ERRS

`public static final java.lang.String POL_DEV_STATE_IN_PROG_ERRS`

Policy or device capture is in progress, but errors have been reported

POL_DEV_STATE_IN_PROG_CLEAN

`public static final java.lang.String POL_DEV_STATE_IN_PROG_CLEAN`

Policy or device capture is in progress, and no errors have been reported

POL_DEV_STATE_COMPLETED_ERRS

`public static final java.lang.String POL_DEV_STATE_COMPLETED_ERRS`

(continued from last page)

Policy or device capture has completed, and errors were reported

POL_DEV_STATE_COMPLETED_CLEAN

```
public static final java.lang.String POL_DEV_STATE_COMPLETED_CLEAN
```

Policy or device capture has completed, and no errors were reported

RESOURCE_BUNDLE

```
public static final java.lang.String RESOURCE_BUNDLE
```

CONTEXT_DRAFT

```
public static final java.lang.String CONTEXT_DRAFT
```

CONTEXT_ACTIVE

```
public static final java.lang.String CONTEXT_ACTIVE
```

CONTEXT_COMPLETE

```
public static final java.lang.String CONTEXT_COMPLETE
```

DEFAULT_CAPTURE_POLICY_DESCRIPTION

```
public static final java.lang.String DEFAULT_CAPTURE_POLICY_DESCRIPTION
```

Constructors

DataCaptureConst

```
public DataCaptureConst()
```

com.ibm.retail.si.mgmt.capture

Interface DataCaptureHistoryMBeanpublic interface **DataCaptureHistoryMBean****Field Summary**

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME_ID</code>

Method Summary

<code>boolean</code>	<code>deleteInvocationRecords(java.lang.String policyId, long[] policyId)</code> Attempts to delete all invocations from the history matching the supplied Id.
<code>CaptureHistory[]</code>	<code>getAllActiveCaptureHistories()</code>
<code>CaptureHistory[]</code>	<code>getAllCaptureHistories()</code>
<code>CaptureHistory[]</code>	<code>getAllCompletedCaptureHistories()</code>
<code>CaptureHistory</code>	<code>getCaptureHistory(java.lang.String policyId)</code>

Fields**COPYRIGHT**public static final java.lang.String **COPYRIGHT****OBJECT_NAME_ID**public static final java.lang.String **OBJECT_NAME_ID****OBJECT_NAME**public static final java.lang.String **OBJECT_NAME****Methods**

(continued from last page)

getAllCaptureHistories

```
public CaptureHistory[] getAllCaptureHistories()
```

getAllCompletedCaptureHistories

```
public CaptureHistory[] getAllCompletedCaptureHistories()
```

getAllActiveCaptureHistories

```
public CaptureHistory[] getAllActiveCaptureHistories()
```

getCaptureHistory

```
public CaptureHistory getCaptureHistory(java.lang.String policyId)
```

deleteInvocationRecords

```
public boolean deleteInvocationRecords(java.lang.String policyId,  
                                       long[] invocationStartDates)
```

Attempts to delete all invocations from the history matching the supplied Id. Even if one deletion fails or is non-existent, all subsequent deletions will be attempted.

Parameters:

`policyId` -
Id of the policy from which to delete the invocation histories
`invocationStartDates` -
Start dates for the invocations to delete

Returns:

true if all invocations succeeded, false if one or more failed

com.ibm.retail.si.mgmt.capture

Interface DataCaptureManagerMBeanpublic interface **DataCaptureManagerMBean****Field Summary**

static java.lang.String	COPYRIGHT
static java.lang.String	OBJECT_NAME
static java.lang.String	OBJECT_NAME_ID

Method Summary

void	abortInvocationOnAgent(java.lang.String policyId, long policyId, java.lang.String policyId) Sends an abort signal to all running captures for a policy invocation on an agent
void	abortInvocationOnMBean(java.lang.String policyId, long policyId, java.lang.String policyId, java.lang.String policyId) Sends an abort signal to an individual capture for a policy invocation on an agent
void	activatePolicy(java.lang.String policyId)
java.lang.String	getCaptureBundleDirectory()
java.lang.String[]	getCompletedCaptureFiles()
int	getHistoryDeletionThreshold() Returns the capture history deletion threshold, which is the number of days a policy invocation will remain in progress before being deleted.
long	getInitTransferRetryPeriod() Returns the initial capture file transfer retry period, which is the number of milliseconds before the first retry after a transfer error.
long	getMaxTransferRetryPeriod() Returns the maximum capture file transfer retry period, given in milliseconds
void	invokePolicy(java.lang.String policyId) Manually invoke a policy on all applicable devices
void	removePolicy(java.lang.String policyId) Deletes the policy matching the supplied Id.
void	setHistoryDeletionThreshold(int numDays) Sets the capture history deletion threshold, given in the number of days.

void	<pre>setInitTransferRetryPeriod(long millis)</pre> <p>Sets the initial capture file transfer retry period, given in milliseconds.</p>
void	<pre>setMaxTransferRetryPeriod(long millis)</pre> <p>Sets the maximum capture file transfer retry period, given in milliseconds.</p>
void	<pre>terminatePolicy(java.lang.String policyId)</pre>

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME

```
public static final java.lang.String OBJECT_NAME
```

Methods

terminatePolicy

```
public void terminatePolicy(java.lang.String policyId)
    throws MgmtException
```

Parameters:

policyId -
ID of the policy to terminate

Exceptions:

MgmtException -
If the supplied policy does not exist or is not in active state

removePolicy

```
public void removePolicy(java.lang.String policyId)
    throws MgmtException
```

Deletes the policy matching the supplied Id. The policy must be terminated

Parameters:

policyId -
Policy Id

Exceptions:

(continued from last page)

MgmtException -
If the supplied policy does not exist or is not in a completed state

activatePolicy

```
public void activatePolicy(java.lang.String policyId)
    throws MgmtException
```

Parameters:

policyId -
ID of the policy to activate

Exceptions:

MgmtException -
If the supplied policy does not exist or is not in draft state

invokePolicy

```
public void invokePolicy(java.lang.String policyId)
    throws MgmtException
```

Manually invoke a policy on all applicable devices

Parameters:

policyId -
Id of the policy to invoke

abortInvocationOnAgent

```
public void abortInvocationOnAgent(java.lang.String policyId,
    long startDate,
    java.lang.String systemId)
    throws MgmtException
```

Sends an abort signal to all running captures for a policy invocation on an agent

Parameters:

policyId -
Id of the policy
startDate -
Start date of the policy invocation, as obtained from the CaptrePolicyInvocationRecord
systemId -
System Id of the agent to abort

Exceptions:

MgmtException -
If no record exists for the policy, invocation, or agent

abortInvocationOnMBean

```
public void abortInvocationOnMBean(java.lang.String policyId,
    long startDate,
    java.lang.String systemId,
    java.lang.String mbeanId)
    throws MgmtException
```

Sends an abort signal to an individual capture for a policy invocation on an agent

Parameters:

policyId -
Id of the policy
startDate -
Start date of the policy invocation, as obtained from the CaptrePolicyInvocationRecord

(continued from last page)

`systemId` -
System Id of the agent to where the capture is running
`mbeanId` -
Id of the capture MBean to abort

Exceptions:

`MgmtException` -
If no record exists for the policy, invocation, agent, or MBean

getHistoryDeletionThreshold

```
public int getHistoryDeletionThreshold()
```

Returns the capture history deletion threshold, which is the number of days a policy invocation will remain in progress before being deleted.

Returns:

The number of days before an in-progress policy invocation will be deleted

setHistoryDeletionThreshold

```
public void setHistoryDeletionThreshold(int numDays)
```

Sets the capture history deletion threshold, given in the number of days.

Parameters:

`numDays` -
The number of days before an in-progress policy invocation will be deleted

getInitTransferRetryPeriod

```
public long getInitTransferRetryPeriod()
```

Returns the initial capture file transfer retry period, which is the number of milliseconds before the first retry after a transfer error. After each retry, the period is doubled, until the period reaches the maximum

Returns:

The initial capture file transfer retry period, in milliseconds

setInitTransferRetryPeriod

```
public void setInitTransferRetryPeriod(long millis)
```

Sets the initial capture file transfer retry period, given in milliseconds. The value must be at least 15000, the default value.

Parameters:

`millis` -
The initial capture file transfer retry period, in milliseconds

getMaxTransferRetryPeriod

```
public long getMaxTransferRetryPeriod()
```

Returns the maximum capture file transfer retry period, given in milliseconds

Returns:

The maximum capture file transfer retry period, given in milliseconds

(continued from last page)

setMaxTransferRetryPeriod

```
public void setMaxTransferRetryPeriod(long millis)
```

Sets the maximum capture file transfer retry period, given in milliseconds. The value supplied must be greater than or equal to the initial transfer retry period. The default value is 10 minutes.

Parameters:

millis -
The maximum capture file transfer retry period, in milliseconds

getCaptureBundleDirectory

```
public java.lang.String getCaptureBundleDirectory()
```

Returns:

The directory on the Master Agent where completed captures are kept

getCompletedCaptureFiles

```
public java.lang.String[] getCompletedCaptureFiles()
```

Returns:

A list of fully qualified file names, each corresponding to a completed capture bundle on the Master Agent

com.ibm.retail.si.mgmt.capture

Interface DataCaptureMBean

All Known Implementing Classes:
DataCaptureMBeanSupport

public interface DataCaptureMBean

MBean interface implemented by all components that support diagnostic data capture. Captures can be manually triggered, or automatically triggered based on detection of a system error. It is up to each implementation to detect system errors and initiate captures.

Upon the completion of a capture, implementations should emit a `DataCaptureNotification` to indicate completion.

Implementations make use of a capture id, which uniquely identifies a capture. It is returned by the `capture()` methods to represent a capture. Once initiated, the capture Id is used by other methods to obtain information about that capture.

See Also:

com.ibm.retail.si.mgmt.notifications.DataCaptureNotification

Field Summary

<code>static java.lang.String</code>	COPYRIGHT
<code>static int</code>	DEFAULT_CAPTURE_TIMEOUT The default capture timeout for a <code>DataCapturePolicy</code> created without an explicit timeout.
<code>static java.lang.String</code>	OBJ_NAME_MBEAN_TYPE_VAL Value that should be supplied in the <code>ObjectName</code> for this MBean for the key property <code>MgmtConst</code> .
<code>static java.lang.String</code>	SOLICITED_TYPE Capture type representing a capture that was manually triggered
<code>static java.lang.String</code>	UNSOLICITED_TYPE Capture type representing a capture that resulted from a system detected error

Method Summary

<code>void</code>	<code>abortCapture(java.lang.String captureId)</code> Aborts a currently running capture.
<code>java.lang.String</code>	<code>capture(java.lang.String type, long type)</code> Initiates a capture of the supplied type, taking no parameters.
<code>java.lang.String</code>	<code>capture(java.lang.String type, long type, java.lang.String[] type)</code> Initiates a capture of the target component with the supplied parameters.
<code>boolean</code>	<code>captureExists(java.lang.String captureId)</code> Returns whether or not a capture matching the supplied id exists.

void	deleteCapture(java.lang.String captureId) Deletes the record of the supplied capture, including its files.
java.lang.String[]	getAllCaptures()
java.lang.String	getCaptureErrorMessage(java.lang.String captureId) Returns the error message associated with a capture, if one exists.
java.lang.String[]	getCaptureFiles(java.lang.String captureId) Returns the list of files pertaining to the supplied capture.
java.lang.String[]	getCaptureParameterNames() Returns the list of capture parameter names, either as a text string or as a resource bundle key for each name.
java.lang.String	getCaptureResult(java.lang.String captureId) Return the capture result from the supplied capture id, if it exists
java.lang.String[]	getCompletedCaptures()
java.lang.String	getDescription() Return the text description of this MBean, or a resource bundle key to the description, which will be a key into the optional resource bundle
java.lang.String[]	getInProgressCaptures()
java.lang.String	getResourceBundleName() Optional resource bundle name of capture MBean meta data
java.lang.String	invokeSolicitedCapture() Invokes a solicited capture with default values

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

OBJ_NAME_MBEAN_TYPE_VAL

public static final java.lang.String **OBJ_NAME_MBEAN_TYPE_VAL**

Value that should be supplied in the ObjectName for this MBean for the key property
MgmtConst.OBJ_NAME_MBEAN_TYPE

SOLICITED_TYPE

public static final java.lang.String **SOLICITED_TYPE**

Capture type representing a capture that was manually triggered

(continued from last page)

UNSOLICITED_TYPE

```
public static final java.lang.String UNSOLICITED_TYPE
    Capture type representing a capture that resulted from a system detected error
```

DEFAULT_CAPTURE_TIMEOUT

```
public static final int DEFAULT_CAPTURE_TIMEOUT
    The default capture timeout for a DataCapturePolicy created without an explicit timeout. The value is in milliseconds.
```

Methods

capture

```
public java.lang.String capture(java.lang.String type,
                               long timeout,
                               java.lang.String[] params)
    throws MgmtException
```

Initiates a capture of the target component with the supplied parameters. The returned capture id is used to uniquely identify the capture to the caller, and is used in other methods in this MBean. Upon completion of the capture, a `DataCaptureNotification` is emitted with the supplied capture type. The value supplied for the type of capture must be one of the types defined by this interface. It is important to note that captures can take place over extended periods of time, so calls to this method resulting in long running captures should not block. Although it is not required,* captures taking extended periods of time should be executed in a separate Thread.

Parameters:

`type` -
Capture type, whether or not the capture is being triggered manually, or as the result of a system detected error. The value supplied should be one of the capture types defined in this interface

`timeout` -
Wait period (in ms) before the capture will time out

`params` -
Optional parameters for the capture

Returns:

String Unique identifier for the capture, used for referring to the capture by other methods in this MBean.

Exceptions:

`MgmtException` -
A capture could not be initiated

See Also:

`com.ibm.retail.si.mgmt.notifications.DataCaptureNotification`

capture

```
public java.lang.String capture(java.lang.String type,
                               long timeout)
    throws MgmtException
```

Initiates a capture of the supplied type, taking no parameters. Intended to serve as a default capture.

Parameters:

`type` -
Capture type, whether or not the capture is being triggered manually, or as the result of a system detected error. The value supplied should be one of the capture types defined in this interface

`timeout` -
Wait period (in ms) before the capture will time out

Returns:

(continued from last page)

String Unique identifier for the capture, used for referring to the capture by other methods in this MBean.

Exceptions:

MgmtException -
A capture could not be initiated

See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBean#capture(String, long, String[])

invokeSolicitedCapture

```
public java.lang.String invokeSolicitedCapture()  
                        throws MgmtException
```

Invokes a solicited capture with default values

Returns:

String Unique identifier for the capture, used for referring to the capture by other methods in this MBean.

Exceptions:

MgmtException -
A capture could not be initiated

abortCapture

```
public void abortCapture(java.lang.String captureId)  
                        throws MgmtException
```

Aborts a currently running capture. Implementations should emit a DataCaptureNotification once capture execution has ended.

Parameters:

captureId -
Id of the capture to abort. If the capture exists and is not running, the call will do nothing

Exceptions:

MgmtException -
if the supplied capture does not exist.

getAllCaptures

```
public java.lang.String[] getAllCaptures()
```

Returns:

String[] All capture ids that have been initiated or completed.

getCompletedCaptures

```
public java.lang.String[] getCompletedCaptures()
```

Returns:

String[] All capture ids that have completed.

(continued from last page)

getInProgressCaptures

```
public java.lang.String[] getInProgressCaptures()
```

Returns:

String[] All capture ids that are in progress (not completed)

getCaptureFiles

```
public java.lang.String[] getCaptureFiles(java.lang.String captureId)
```

Returns the list of files pertaining to the supplied capture. Each String in the array is the fully qualified, operating system path to the file. An empty array is returned if the capture does not exist, has not completed, or if there are no files with a capture.

Parameters:

captureId -
Id of the capture to search for

Returns:

String[] of fully qualified filenames pertaining to the supplied capture id, or an empty array if the capture has not completed, or the capture does not exist

getCaptureErrorMessage

```
public java.lang.String getCaptureErrorMessage(java.lang.String captureId)
```

Returns the error message associated with a capture, if one exists.

Parameters:

captureId -
Id of the capture to search for

Returns:

The last error message, or null if the capture does not exist or if there is no error message

deleteCapture

```
public void deleteCapture(java.lang.String captureId)  
    throws MgmtException
```

Deletes the record of the supplied capture, including its files. If the capture is running, then it will be aborted

Parameters:

captureId -
Id of the capture to delete

Exceptions:

MgmtException -
If there is an error aborting the capture

captureExists

```
public boolean captureExists(java.lang.String captureId)
```

Returns whether or not a capture matching the supplied id exists.

Parameters:

(continued from last page)

captureId -
Capture Id to search for

Returns:

true
if a capture exists that matches the supplied id, or false otherwise.

getCaptureResult

public java.lang.String **getCaptureResult**(java.lang.String captureId)

Return the capture result from the supplied capture id, if it exists

Parameters:

captureId -
Capture ID to search for

Returns:

The capture result from the capture matching the supplied capture if it exists, or null otherwise

getDescription

public java.lang.String **getDescription**()

Return the text description of this MBean, or a resource bundle key to the description, which will be a key into the optional resource bundle

Returns:

Text description of the MBean, or resource bundle key

getCaptureParameterNames

public java.lang.String[] **getCaptureParameterNames**()

Returns the list of capture parameter names, either as a text string or as a resource bundle key for each name. Any parameter name prefixed with a * can have any number of that parameter, and must be the last parameter.

Returns:

Array of capture parameter names, in the form of a text String or resource bundle key

getResourceBundleName

public java.lang.String **getResourceBundleName**()

Optional resource bundle name of capture MBean meta data

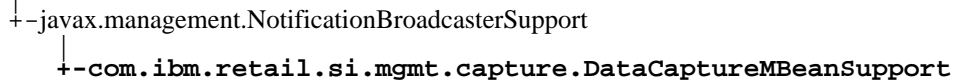
Returns:

Resource bundle name, or null if none is used

com.ibm.retail.si.mgmt.capture

Class DataCaptureMBeanSupport

java.lang.Object

**All Implemented interfaces:**

javax.management.DynamicMBean, javax.management.MBeanRegistration, DataCaptureMBean, javax.management.NotificationEmitter

Direct Known Subclasses:

RMADataCaptureMBean, GenericLogCaptureMBean

public abstract class DataCaptureMBeanSupport

extends javax.management.NotificationBroadcasterSupport

implements javax.management.NotificationEmitter, DataCaptureMBean, javax.management.MBeanRegistration, javax.management.DynamicMBean

Base implementation of the DataCaptureMBeaninterface. This class handles much of the details and overhead of tracking and performing a capture. Classes that extend it implement the performCapture() method to do the application specific capture.

Implementations must conform to RMA Object Naming conventions, including supplying a unique value for the key MgmtConst.OBJ_NAME_ID_KEY and the value DataCaptureMBean.OBJ_NAME_MBEAN_TYPE_VAL for the key MgmtConst.OBJ_NAME_MBEAN_TYPE_KEY.

See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBean

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	PROP_CAPTURE_REQUEST_STORAGE_CLASS_NAME

Constructor Summary

DataCaptureMBeanSupport()

Method Summary

void	abortCapture(java.lang.String captureId)
void	addUnsolicitedCapture(java.lang.String[] captureFiles) Called by a subclass when an unsolicited capture has been performed, and a DataCaptureNotificationneeds to be sent.
javax.management.MBeanAttributeInfo[]	attributeInfo()

java.lang.String	capture(java.lang.String type,long type)
java.lang.String	capture(java.lang.String type,long type,java.lang.String[] type)
void	captureCompleted(DataCaptureRequest request) Method called after a capture has completed.
boolean	captureExists(java.lang.String captureId)
javax.management.MBeanConstructorInfo[]	constructorInfo()
void	deleteCapture(java.lang.String captureId) This method also calls postCaptureDeleted() after the capture has been deleted
java.lang.String	generateCaptureId()
java.lang.String[]	getAllCaptures()
java.lang.Object	getAttribute(java.lang.String attribute)
javax.management.AttributeList	getAttributes(java.lang.String[] attributeNames)
java.lang.String	getCaptureErrorMessage(java.lang.String captureId)
java.lang.String[]	getCaptureFiles(java.lang.String captureId)
java.lang.String[]	getCaptureParameterNames()
java.lang.String	getCaptureResult(java.lang.String captureId)
java.lang.String[]	getCompletedCaptures()
java.lang.String	getDescription()
java.lang.String[]	getInProgressCaptures()
javax.management.MBeanInfo	getMBeanInfo()
java.lang.String	getResourceBundleName()
java.lang.Object	invoke(java.lang.String operation,java.lang.Object[] operation,java.lang.String[] operation)
java.lang.String	invokeSolicitedCapture()
java.lang.String	invokeUnsolicitedCapture()

javax.management.MBeanNotificationInfo[]	notificationInfo()
javax.management.MBeanOperationInfo[]	operationInfo()
abstract DataCaptureRequest	performCapture(DataCaptureRequest request) Method implemented by subclasses that performs the application specific capture.
void	postCaptureDeleted(java.lang.String captureId) Method called in deleteCapture() after the capture files for a capture have been deleted.
void	postDeregister()
void	postRegister(java.lang.Boolean arg0)
void	preDeregister()
javax.management.ObjectName	preRegister(javax.management.MBeanServer arg0, javax.management.ObjectName arg0)
void	sendAbortedDataCaptureNotification(DataCaptureRequest request) Method that sends a DataCaptureNotification for an aborted capture
void	sendFailureDataCaptureCopyErrorsNotification(DataCaptureRequest request) Method that sends a failure DataCaptureNotification
void	sendFailureDataCaptureNotification(DataCaptureRequest request) Method that sends a failure DataCaptureNotification
void	sendSuccessDataCaptureNotification(DataCaptureRequest request) Method that sends a successful DataCaptureNotification
void	sendTimeoutDataCaptureNotification(DataCaptureRequest request) Method that sends a DataCaptureNotification for a timed out capture
void	setAttribute(javax.management.Attribute attribute)
javax.management.AttributeList	setAttributes(javax.management.AttributeList attributes)
void	setCaptureResult(DataCaptureRequest request, java.lang.String request) Method called by subclasses to set the capture state that prevents the state of a timed out or aborted capture from being overwritten

Methods inherited from : class javax.management.NotificationBroadcasterSupport

addNotificationListener, getNotificationInfo, handleNotification, removeNotificationListener, removeNotificationListener, sendNotification

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

PROP_CAPTURE_REQUEST_STORAGE_CLASS_NAME

```
public static final java.lang.String PROP_CAPTURE_REQUEST_STORAGE_CLASS_NAME
```

Constructors

DataCaptureMBeanSupport

```
public DataCaptureMBeanSupport()
```

Methods

preRegister

```
public javax.management.ObjectName preRegister(javax.management.MBeanServer arg0,  
                                                javax.management.ObjectName arg1)  
        throws java.lang.Exception
```

See Also:

```
javax.management.MBeanRegistration#preRegister(javax.management.MBeanServer,  
javax.management.ObjectName)
```

postDeregister

```
public void postDeregister()
```

See Also:

```
javax.management.MBeanRegistration#postDeregister()
```

postRegister

```
public void postRegister(java.lang.Boolean arg0)
```

See Also:

```
javax.management.MBeanRegistration#postRegister(java.lang.Boolean)
```

preDeregister

```
public void preDeregister()  
    throws java.lang.Exception
```

See Also:

[javax.management.MBeanRegistration#preDeregister\(\)](#)

getAttribute

```
public java.lang.Object getAttribute(java.lang.String attribute)  
    throws javax.management.AttributeNotFoundException,  
           javax.management.MBeanException,  
           javax.management.ReflectionException
```

See Also:

[javax.management.DynamicMBean#getAttribute\(java.lang.String\)](#)

getAttributes

```
public javax.management.AttributeList getAttributes(java.lang.String[] attributeNames)
```

See Also:

[DynamicMBean#getAttributes\(java.lang.String\[\]\)](#)

constructorInfo

```
protected javax.management.MBeanConstructorInfo[] constructorInfo()
```

notificationInfo

```
protected javax.management.MBeanNotificationInfo[] notificationInfo()
```

operationInfo

```
protected javax.management.MBeanOperationInfo[] operationInfo()
```

attributeInfo

```
protected javax.management.MBeanAttributeInfo[] attributeInfo()
```

getMBeanInfo

```
public javax.management.MBeanInfo getMBeanInfo()
```

invoke

```
public java.lang.Object invoke(java.lang.String operation,  
                                java.lang.Object[] params,  
                                java.lang.String[] signature)  
    throws javax.management.MBeanException,  
           javax.management.ReflectionException
```

See Also:

DynamicMBean#invoke(java.lang.String, java.lang.Object[], java.lang.String[])

setAttribute

```
public void setAttribute(javax.management.Attribute attribute)  
    throws javax.management.AttributeNotFoundException,  
           javax.management.InvalidAttributeValueException,  
           javax.management.MBeanException,  
           javax.management.ReflectionException
```

See Also:

javax.management.DynamicMBean#setAttribute(javax.management.Attribute)

setAttributes

```
public javax.management.AttributeList setAttributes(javax.management.AttributeList  
attributes)
```

See Also:

javax.management.DynamicMBean#setAttributes(javax.management.AttributeList)

capture

```
public java.lang.String capture(java.lang.String type,  
                                long timeout,  
                                java.lang.String[] params)  
    throws MgmtException
```

See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBean#capture(String, long, String[])

capture

```
public java.lang.String capture(java.lang.String type,  
                                long timeout)  
    throws MgmtException
```

See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBean#capture(String, long)

invokeSolicitedCapture

```
public java.lang.String invokeSolicitedCapture()  
                                throws MgmtException
```

See Also:

[com.ibm.retail.si.mgmt.capture.DataCaptureMBean#invokeSolicitedCapture\(\)](#)

invokeUnsolicitedCapture

```
public java.lang.String invokeUnsolicitedCapture()  
                                throws MgmtException
```

abortCapture

```
public void abortCapture(java.lang.String captureId)  
                                throws MgmtException
```

See Also:

[com.ibm.retail.si.mgmt.capture.DataCaptureMBean#abortCapture\(String\)](#)

getAllCaptures

```
public java.lang.String[] getAllCaptures()
```

See Also:

[com.ibm.retail.si.mgmt.capture.DataCaptureMBean#getAllCaptures\(\)](#)

getCompletedCaptures

```
public java.lang.String[] getCompletedCaptures()
```

See Also:

[com.ibm.retail.si.mgmt.capture.DataCaptureMBean#getCompletedCaptures\(\)](#)

getInProgressCaptures

```
public java.lang.String[] getInProgressCaptures()
```

See Also:

[com.ibm.retail.si.mgmt.capture.DataCaptureMBean#getInProgressCaptures\(\)](#)

getCaptureResult

```
public java.lang.String getCaptureResult(java.lang.String captureId)
```

(continued from last page)

See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBean#getCaptureResult(java.lang.String)

getCaptureErrorMessage

```
public java.lang.String getCaptureErrorMessage(java.lang.String captureId)
```

See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBean#getCaptureErrorMessage(java.lang.String)

getCaptureFiles

```
public java.lang.String[] getCaptureFiles(java.lang.String captureId)
```

See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBean#getCaptureFiles(java.lang.String)

deleteCapture

```
public void deleteCapture(java.lang.String captureId)  
    throws MgmtException
```

This method also calls `postCaptureDeleted()` after the capture has been deleted

See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBean#deleteCapture(java.lang.String)

postCaptureDeleted

```
protected void postCaptureDeleted(java.lang.String captureId)
```

Method called in `deleteCapture()` after the capture files for a capture have been deleted. Allows for subclasses to perform implementation-specific

Parameters:

captureId -
Id of the capture that has been deleted

captureExists

```
public boolean captureExists(java.lang.String captureId)
```

See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBean#captureExists(java.lang.String)

getDescription

```
public java.lang.String getDescription()
```

(continued from last page)

See Also:`com.ibm.retail.si.mgmt.capture.DataCaptureMBean#getDescription()`

getCaptureParameterNames

```
public java.lang.String[] getCaptureParameterNames()
```

See Also:`com.ibm.retail.si.mgmt.capture.DataCaptureMBean#getCaptureParameterNames()`

getResourceBundleName

```
public java.lang.String getResourceBundleName()
```

See Also:`com.ibm.retail.si.mgmt.capture.DataCaptureMBean#getResourceBundleName()`

performCapture

```
protected abstract DataCaptureRequest performCapture(DataCaptureRequest request)  
                                         throws java.lang.InterruptedException,  
                                         java.lang.Exception
```

Method implemented by subclasses that performs the application specific capture. Implementations modify the supplied `DataCaptureRequest` instance to add capture file names and to indicate success or failure of the capture. It is important to know that the thread executing the capture can be interrupted at any time if the capture is aborted or times out. When this occurs, the thread executing the capture will first be interrupted and finally stopped via the `stop()` method after a brief wait. As soon as the Thread is interrupted any subsequent updates to the `DataCaptureRequest` will not be reflected in the final capture result. Thus, it is important that any modifications to the request (i.e. adding files, error messages) be done as soon as possible. Also, whenever possible (i.e. at the beginning of a loop iteration), a call to `Thread.currentThread().isInterrupted()` should be made to see if the capture has been aborted.

Parameters:

`request` -
The `DataCaptureRequest` instance that is modified

captureCompleted

```
protected void captureCompleted(DataCaptureRequest request)
```

Method called after a capture has completed. The default behaviour is to send a `DataCaptureNotification` based on the information in the supplied request.

Parameters:

`request` -
`DataCaptureRequest` from the completed capture

generateCaptureId

```
protected java.lang.String generateCaptureId()
```

sendSuccessDataCaptureNotification

```
protected void sendSuccessDataCaptureNotification(DataCaptureRequest request)
```

Method that sends a successful `DataCaptureNotification`

(continued from last page)

Parameters:

request -
DataCaptureRequest with information for the notification

sendFailureDataCaptureNotification

```
protected void sendFailureDataCaptureNotification(DataCaptureRequest request)
```

Method that sends a failure DataCaptureNotification

Parameters:

request -
DataCaptureRequest with information for the notification

sendFailureDataCaptureCopyErrorsNotification

```
protected void sendFailureDataCaptureCopyErrorsNotification(DataCaptureRequest request)
```

Method that sends a failure DataCaptureNotification

Parameters:

request -
DataCaptureRequest with information for the notification

sendAbortedDataCaptureNotification

```
protected void sendAbortedDataCaptureNotification(DataCaptureRequest request)
```

Method that sends a DataCaptureNotification for an aborted capture

Parameters:

request -
DataCaptureRequest with information for the notification

sendTimeoutDataCaptureNotification

```
protected void sendTimeoutDataCaptureNotification(DataCaptureRequest request)
```

Method that sends a DataCaptureNotification for a timed out capture

Parameters:

request -
DataCaptureRequest with information for the notification

addUnsolicitedCapture

```
protected void addUnsolicitedCapture(java.lang.String[] captureFiles)
```

Called by a subclass when an unsolicited capture has been performed, and a DataCaptureNotification needs to be sent.

Parameters:

captureFiles -
String[] Files pertaining to the capture

setCaptureResult

```
protected void setCaptureResult(DataCaptureRequest request,  
                                java.lang.String newState)
```

Method called by subclasses to set the capture state that prevents the state of a timed out or aborted capture from being overwritten

(continued from last page)

Parameters:

request -
DataCaptureRequest to modify
newState -
State to attempt to set

com.ibm.retail.si.mgmt.capture

Interface DataCapturePolicyRegistryMBeanpublic interface **DataCapturePolicyRegistryMBean**

Registry for data capture policies.

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME_ID</code>

Method Summary

<code>boolean</code>	<code>addCapturePolicy(DataCapturePolicy policy)</code> Adds the supplied policy to the registry if it is not already in the registry.
<code>DataCapturePolicy[]</code>	<code>getAllActiveCapturePolicies()</code>
<code>DataCapturePolicy[]</code>	<code>getAllCapturePolicies()</code> Returns all <code>DataCapturePolicies</code> in the registry, sorted by policy ID
<code>DataCapturePolicy[]</code>	<code>getAllCompletedCapturePolicies()</code>
<code>DataCapturePolicy[]</code>	<code>getAllDraftCapturePolicies()</code> Returns all <code>DataCapturePolicies</code> in the registry that are in <code>CONTEXT_DRAFT</code> context, sorted by policy ID
<code>DataCapturePolicy</code>	<code>getPolicy(java.lang.String policyId)</code> Retrieves a policy by Id.
<code>boolean</code>	<code>updateCapturePolicy(DataCapturePolicy policy)</code> If a policy is present with the same policy Id as that of the supplied policy, then it will be replaced with the supplied policy with the

Fields**COPYRIGHT**public static final java.lang.String **COPYRIGHT**

(continued from last page)

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME

```
public static final java.lang.String OBJECT_NAME
```

Methods

addCapturePolicy

```
public boolean addCapturePolicy(DataCapturePolicy policy)
```

Adds the supplied policy to the registry if it is not already in the registry.

Parameters:

policy -
DataCapturePolicy to add

Returns:

true
if the policy was added successfully to the registry, false otherwise

Exceptions:

IllegalArgumentException -
If the policy is not in CONTEXT_DRAFT context

getPolicy

```
public DataCapturePolicy getPolicy(java.lang.String policyId)
```

Retrieves a policy by Id.

Parameters:

policyId -
The policy Id to search for

Returns:

The DataCapturePolicy instance, if it is in the registry, or null otherwise

updateCapturePolicy

```
public boolean updateCapturePolicy(DataCapturePolicy policy)
```

If a policy is present with the same policy Id as that of the supplied policy, then it will be replaced with the supplied policy with the

Parameters:

policy -
DataCapturePolicy to update

Returns:

true
if the supplied policy was updated with that supplied, or false otherwise

Exceptions:

IllegalArgumentException -
If the policy is not in CONTEXT_DRAFT context

getAllCapturePolicies

```
public DataCapturePolicy[] getAllCapturePolicies()
```

Returns all DataCapturePolicies in the registry, sorted by policy ID

Returns:

DataCapturePolicy[] All policies in the registry

getAllDraftCapturePolicies

```
public DataCapturePolicy[] getAllDraftCapturePolicies()
```

Returns all DataCapturePolicies in the registry that are in CONTEXT_DRAFT context, sorted by policy ID

Returns:

DataCapturePolicy[] All draft policies in the registry

getAllActiveCapturePolicies

```
public DataCapturePolicy[] getAllActiveCapturePolicies()
```

getAllCompletedCapturePolicies

```
public DataCapturePolicy[] getAllCompletedCapturePolicies()
```

com.ibm.retail.si.mgmt.capture

Interface DataCaptureRequest

public interface **DataCaptureRequest**

Interface that encapsulates a data capture request to a subclass of `DataCaptureMBeanSupport`. Instances of this class are passed to subclasses in the `performCapture()` method and other callback methods.

Field Summary

<pre> static java.lang.String </pre>	COPYRIGHT
------------------------------------------------------------------	-----------

Method Summary

void	addCaptureFilename(<code>java.lang.String captureFileName</code>)
void	addFailedFilename(<code>java.lang.String failedFileName</code>)
<code>java.lang.String[]</code>	getCaptureFiles()
<code>java.lang.String</code>	getCaptureId()
<code>java.lang.String</code>	getCaptureResult()
<code>java.lang.String</code>	getCaptureType()
<code>java.lang.String</code>	getErrorMessage()
<code>java.lang.String[]</code>	getFailedFiles()
<code>java.lang.String[]</code>	getParams()
void	setCaptureResult(<code>java.lang.String captureResult</code>)
void	setErrorMessage(<code>java.lang.String errorMessage</code>)

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

(continued from last page)

getCaptureId

```
public java.lang.String getCaptureId()
```

Returns:

Returns the capture ID.

getParams

```
public java.lang.String[] getParams()
```

Returns:

Returns the parameters for the capture.

getCaptureType

```
public java.lang.String getCaptureType()
```

Returns:

Returns the capture type.

getCaptureFiles

```
public java.lang.String[] getCaptureFiles()
```

Returns:

Returns the capture files.

addCaptureFilename

```
public void addCaptureFilename(java.lang.String captureFileName)
```

Parameters:

captureFileName -
The fully qualified filename to add

getCaptureResult

```
public java.lang.String getCaptureResult()
```

Returns:

Returns the capture result, indicating success or failure. Will return a predefined type from class `DataCaptureNotification`. If a capture has not completed, null is returned

(continued from last page)

setCaptureResult

```
public void setCaptureResult(java.lang.String captureResult)
```

Parameters:

captureResult -
The capture result to set. Must be one of the predefined types from class DataCaptureNotification

getErrorMessage

```
public java.lang.String getErrorMessage()
```

Returns:

Returns the error message.

setErrorMessages

```
public void setErrorMessages(java.lang.String errorMessage)
```

Parameters:

errorMessage -
The error message to set.

addFailedFilename

```
public void addFailedFilename(java.lang.String failedFileName)
```

Parameters:

failedFileName -
The name of a file that did not get captured

getFailedFiles

```
public java.lang.String[] getFailedFiles()
```

Returns:

files that did not get copied

com.ibm.retail.si.mgmt.capture

Class DeviceCapturePolicyApplication

java.lang.Object

└-com.ibm.retail.si.mgmt.policies.DevicePolicyApplication

└-com.ibm.retail.si.mgmt.capture.DeviceCapturePolicyApplication

```
public class DeviceCapturePolicyApplication
extends DevicePolicyApplication
```

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class com.ibm.retail.si.mgmt.policies.DevicePolicyApplication

COPYRIGHT, deviceId

Constructor Summary

DeviceCapturePolicyApplication(java.lang.String deviceId, java.lang.String deviceId, java.lang.String[] deviceId)

DeviceCapturePolicyApplication(java.lang.String deviceId, java.lang.String deviceId)

Method Summary

PolicyApplication	deepCopy()
boolean	equals(java.lang.Object o)
java.lang.String[]	getCaptureParams()
java.lang.String	getMBeanId()
int	hashCode()
void	setCaptureParams(java.lang.String[] params)
void	setMbeanId(java.lang.String mbeanId)
java.lang.String	toXML(int numberOfTabs, java.lang.String numberOfTabs)

Methods inherited from : class com.ibm.retail.si.mgmt.policies.DevicePolicyApplication

```
deepCopy, equals, getApplicableDevices, getApplicationType, getDeviceId, hashCode,
setDeviceId, toString, toXML
```

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

DeviceCapturePolicyApplication

```
public DeviceCapturePolicyApplication(java.lang.String deviceId,
                                       java.lang.String mbeanId,
                                       java.lang.String[] captureParams)
```

DeviceCapturePolicyApplication

```
public DeviceCapturePolicyApplication(java.lang.String deviceId,
                                       java.lang.String mbeanId)
```

Methods

getMBeanId

```
public java.lang.String getMBeanId()
```

Returns:

Returns the mbeanId.

setMbeanId

```
public void setMbeanId(java.lang.String mbeanId)
```

Parameters:

mbeanId -
The mbeanId to set.

(continued from last page)

getCaptureParams

```
public java.lang.String[] getCaptureParams()
```

Returns:

Returns the captureParams.

setCaptureParams

```
public void setCaptureParams(java.lang.String[] params)
```

Parameters:

params -
The capture parameters to set.

toXML

```
public java.lang.String toXML(int numberOfTabs,  
                               java.lang.String namespace)
```

See Also:

com.ibm.retail.si.mgmt.policies.DevicePolicyApplication#toXML(int, java.lang.String)

equals

```
public boolean equals(java.lang.Object o)
```

hashCode

```
public int hashCode()
```

See Also:

java.lang.Object#hashCode()

deepCopy

```
public PolicyApplication deepCopy()
```

See Also:

com.ibm.retail.si.mgmt.policies.DevicePolicyApplication#deepCopy()

com.ibm.retail.si.mgmt.capture

Class DeviceTypeCapturePolicyApplication

java.lang.Object

└-com.ibm.retail.si.mgmt.policies.DeviceTypePolicyApplication

└-com.ibm.retail.si.mgmt.capture.DeviceTypeCapturePolicyApplication

public class **DeviceTypeCapturePolicyApplication**

extends DeviceTypePolicyApplication

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class com.ibm.retail.si.mgmt.policies.DeviceTypePolicyApplication

COPYRIGHT, deviceType, modelNumber, role, WILD_CARD

Constructor Summary

DeviceTypeCapturePolicyApplication(int deviceType, java.lang.String deviceType, java.lang.String deviceType, java.lang.String deviceType, java.lang.String[] deviceType)

DeviceTypeCapturePolicyApplication(int deviceType, java.lang.String deviceType, java.lang.String deviceType, java.lang.String deviceType)

Method Summary

PolicyApplication	deepCopy()
boolean	equals(java.lang.Object o)
java.lang.String[]	getCaptureParams()
java.lang.String	getMBeanId()
int	hashCode()
void	setCaptureParams(java.lang.String[] params)
void	setMBeanId(java.lang.String mbeanId)
java.lang.String	toXML(int numberOfTabs, java.lang.String numberOfTabs)

Methods inherited from : class com.ibm.retail.si.mgmt.policies.DeviceTypePolicyApplication

```
deepCopy, equals, getApplicableDevices, getApplicationType, getDeviceType,
getModelNumber, getRole, hashCode, setDeviceType, setModelNumber, setRole, toString,
toXML
```

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

DeviceTypeCapturePolicyApplication

```
public DeviceTypeCapturePolicyApplication(int deviceType,
                                           java.lang.String role,
                                           java.lang.String modelNumber,
                                           java.lang.String mbeanId,
                                           java.lang.String[] captureParams)
```

DeviceTypeCapturePolicyApplication

```
public DeviceTypeCapturePolicyApplication(int deviceType,
                                           java.lang.String role,
                                           java.lang.String modelNumber,
                                           java.lang.String mbeanId)
```

Methods

getMBeanId

```
public java.lang.String getMBeanId()
```

Returns:

Returns the mbeanId.

setMBeanId

```
public void setMBeanId(java.lang.String mbeanId)
```

Parameters:

(continued from last page)

mbeanId -
The mbeanId to set.

getCaptureParams

```
public java.lang.String[] getCaptureParams()
```

Returns:

Returns the captureParams.

setCaptureParams

```
public void setCaptureParams(java.lang.String[] params)
```

Parameters:

params -
The capture parameters to set.

equals

```
public boolean equals(java.lang.Object o)
```

See Also:

[com.ibm.retail.si.mgmt.policies.DeviceTypePolicyApplication#equals\(java.lang.Object\)](#)

hashCode

```
public int hashCode()
```

See Also:

[com.ibm.retail.si.mgmt.policies.DeviceTypePolicyApplication#hashCode\(\)](#)

toXML

```
public java.lang.String toXML(int numberOfTabs,  
                               java.lang.String namespace)
```

See Also:

[com.ibm.retail.si.mgmt.policies.DevicePolicyApplication#toXML\(int, java.lang.String\)](#)

deepCopy

```
public PolicyApplication deepCopy()
```

See Also:

[com.ibm.retail.si.mgmt.policies.DevicePolicyApplication#deepCopy\(\)](#)

com.ibm.retail.si.mgmt.capture

Class GenericLogCaptureMBean

java.lang.Object

├--javax.management.NotificationBroadcasterSupport

├--com.ibm.retail.si.mgmt.capture.DataCaptureMBeanSupport

└--com.ibm.retail.si.mgmt.capture.GenericLogCaptureMBean

public class **GenericLogCaptureMBean**

extends DataCaptureMBeanSupport

Capture implementation that captures only the files or filename patterns that are supplied as capture parameters. All files must be fully qualified paths. Filename patterns can include the * and ? characters in the file name only.

See Also:

com.ibm.retail.si.mgmt.capture.WildcardFilenameFilter

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	OBJECT_NAME_BASE
static java.lang.String	OBJECT_NAME_ID

Fields inherited from : class com.ibm.retail.si.mgmt.capture.DataCaptureMBeanSupport

COPYRIGHT, PROP_CAPTURE_REQUEST_STORAGE_CLASS_NAME

Constructor Summary

GenericLogCaptureMBean()

Method Summary

java.lang.String[]	getCaptureParameterNames()
java.lang.String	getDescription()
java.lang.String	getResourceBundleName()
DataCaptureRequest	performCapture(DataCaptureRequest request)
void	postCaptureDeleted(java.lang.String captureId)

Methods inherited from : class com.ibm.retail.si.mgmt.capture.DataCaptureMBeanSupport

abortCapture, addUnsolicitedCapture, attributeInfo, capture, capture, captureCompleted, captureExists, constructorInfo, deleteCapture, generateCaptureId, getAllCaptures, getAttribute, getAttributes, getCaptureErrorMessage, getCaptureFiles, getCaptureParameterNames, getCaptureResult, getCompletedCaptures, getDescription, getInProgressCaptures, getMBeanInfo, getResourceBundleName, invoke, invokeSolicitedCapture, invokeUnsolicitedCapture, notificationInfo, operationInfo, performCapture, postCaptureDeleted, postDeregister, postRegister, preDeregister, preRegister, sendAbortedDataCaptureNotification, sendFailureDataCaptureCopyErrorsNotification, sendFailureDataCaptureNotification, sendSuccessDataCaptureNotification, sendTimeoutDataCaptureNotification, setAttribute, setAttributes, setCaptureResult

Methods inherited from : class javax.management.NotificationBroadcasterSupport

addNotificationListener, getNotificationInfo, handleNotification, removeNotificationListener, removeNotificationListener, sendNotification

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

OBJECT_NAME_ID

public static final java.lang.String **OBJECT_NAME_ID**

OBJECT_NAME_BASE

public static final java.lang.String **OBJECT_NAME_BASE**

Constructors

GenericLogCaptureMBean

public **GenericLogCaptureMBean**()

Methods

getDescription

public java.lang.String **getDescription**()

(continued from last page)

See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBeanSupport#getDescription()

getCaptureParameterNames

```
public java.lang.String[] getCaptureParameterNames()
```

See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBeanSupport#getCaptureParameterNames()

getResourceBundleName

```
public java.lang.String getResourceBundleName()
```

See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBeanSupport#getResourceBundleName()

performCapture

```
protected DataCaptureRequest performCapture(DataCaptureRequest request)  
    throws java.lang.InterruptedException,  
           java.lang.Exception
```

See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBeanSupport#performCapture(com.ibm.retail.si.mgmt.capture.DataCaptureRequest)

postCaptureDeleted

```
protected void postCaptureDeleted(java.lang.String captureId)
```

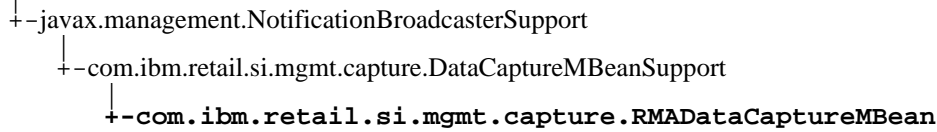
See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBeanSupport#postCaptureDeleted(java.lang.String)

com.ibm.retail.si.mgmt.capture

Class RMADDataCaptureMBean

java.lang.Object

public class **RMADDataCaptureMBean**

extends DataCaptureMBeanSupport

Implementation of the DataCaptureMBean that supports diagnostic captures for and RMA agent running as a service. Works by reading the logging configuration and copying the log files to a temporary location.

See Also:

com.ibm.retail.si.mgmt.capture.DataCaptureMBean

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	LOG_FILE Name of the log file to read from the classpath, exposed as public so that it can be modified at runtime
static java.lang.String	OBJECT_NAME_BASE
static java.lang.String	OBJECT_NAME_ID

Fields inherited from : class com.ibm.retail.si.mgmt.capture.DataCaptureMBeanSupport

COPYRIGHT, PROP_CAPTURE_REQUEST_STORAGE_CLASS_NAME

Constructor Summary

RMADDataCaptureMBean()

Method Summary

DataCaptureRequest	performCapture(DataCaptureRequest request) Executes the RMA Data Capture by obtaining the logging configuration and copying the log files to a temporary location
void	postCaptureDeleted(java.lang.String captureId)

Methods inherited from : class com.ibm.retail.si.mgmt.capture.DataCaptureMBeanSupport

```

abortCapture, addUnsolicitedCapture, attributeInfo, capture, capture,
captureCompleted, captureExists, constructorInfo, deleteCapture, generateCaptureId,
getAllCaptures, getAttribute, getAttributes, getCaptureErrorMessage, getCaptureFiles,
getCaptureParameterNames, getCaptureResult, getCompletedCaptures, getDescription,
getInProgressCaptures, getMBeanInfo, getResourceBundleName, invoke,
invokeSolicitedCapture, invokeUnsolicitedCapture, notificationInfo, operationInfo,
performCapture, postCaptureDeleted, postDeregister, postRegister, preDeregister,
preRegister, sendAbortedDataCaptureNotification,
sendFailureDataCaptureCopyErrorsNotification, sendFailureDataCaptureNotification,
sendSuccessDataCaptureNotification, sendTimeoutDataCaptureNotification, setAttribute,
setAttributes, setCaptureResult

```

Methods inherited from : class javax.management.NotificationBroadcasterSupport

```

addNotificationListener, getNotificationInfo, handleNotification,
removeNotificationListener, removeNotificationListener, sendNotification

```

Methods inherited from : class java.lang.Object

```

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME_BASE

```
public static final java.lang.String OBJECT_NAME_BASE
```

LOG_FILE

```
public static final java.lang.String LOG_FILE
```

Name of the log file to read from the classpath, exposed as public so that it can be modified at runtime

Constructors

RMADDataCaptureMBean

```
public RMADDataCaptureMBean()
```

Methods

(continued from last page)

performCapture

```
protected DataCaptureRequest performCapture(DataCaptureRequest request)
                                throws java.lang.InterruptedException,
                                        java.lang.Exception
```

Executes the RMA Data Capture by obtaining the logging configuration and copying the log files to a temporary location

See Also:

[com.ibm.retail.si.mgmt.capture.DataCaptureMBeanSupport#performCapture\(DataCaptureRequest\)](#)

postCaptureDeleted

```
protected void postCaptureDeleted(java.lang.String captureId)
```

See Also:

[com.ibm.retail.si.mgmt.capture.DataCaptureMBeanSupport#postCaptureDeleted\(java.lang.String\)](#)

Package

com.ibm.retail.si.mgmt.cim

com.ibm.retail.si.mgmt.cim

Interface CIMAdapterMBean

public interface **CIMAdapterMBean**

MBean that acts as an Adapter between local CIM (Common Information Model) objects and JMX by managing the creation of proxy MBeans, instances of `CIMProxyMBean`. Additionally, CIM Indications, or events, are converted into Notifications.

Upon registration, the MBean makes a connection to a local CIMOM and begins interrogation on one or more CIM namespaces, creating proxy MBeans for classes that are in the MBean's class name filter. Runtime modifications of this filter via the MBean interface will trigger the creation or deletion of proxy MBeans.

The `ObjectName` of this MBean includes the following attributes, in addition to the attribute of `DeviceID`:

- `SIFComponent=MGMT`
- `Id=CIMAdapter`

This management interface includes the following attributes. These attributes are described in more detail in the accessor methods.

- `Active`
- `NativeLibVersion`
- `Version`
- `CIMOMImpl`
- `ActiveNamespaces`
- `ConnectedNamespaces`

The following operations are included in this management interface. These are described in more detail in the corresponding method documentation.

- `getClassFilter`
- `getDiscoveredClasses`
- `getExtrinsicEventClasses`
- `getExtrinsicEventMappingClass`
- `addClassToFilter`
- `addNamespace`
- `addExtrinsicEventRegistration`
- `removeNamespace`
- `removeClassFromFilter`
- `removeExtrinsicEventRegistration`
- `setLifecycleEventsFlag`

This MBean emits Notifications corresponding to extrinsic CIM Indications, or events.

Field Summary

<code>static</code> <code>java.lang.String</code>	<code>OBJECT_NAME_BASE</code>
<code>static</code> <code>java.lang.String</code>	<code>OBJECT_NAME_ID</code>

Method Summary

<code>boolean</code>	<code>addClassToFilter(java.lang.String namespace, java.lang.String namespace, boolean namespace)</code> Adds the supplied CIM class name to the class filter, causing any applicable instances to be immediately added.
----------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

boolean	<p><code>addExtrinsicEventRegistration(java.lang.String namespace, java.lang.String namespace, java.lang.String namespace)</code></p> <p>Registers the supplied CIM event class and associated <code>CIMEventMapper</code> class into the configuration for the supplied namespace.</p>
boolean	<p><code>addNamespace(java.lang.String namespace)</code></p> <p>Adds a namespace to the configuration, and then tries to initialize a connection to it.</p>
<code>java.lang.String[]</code>	<p><code>getActiveNamespaces()</code></p> <p>Namespaces for which there are filter elements defined, which usually matches the list of connected namespaces, but may not always</p>
<code>java.lang.String</code>	<p><code>getCIMOMImpl()</code></p> <p>If the native library is loaded, returns the name of the underlying CIM implementation (e.</p>
<code>java.lang.String[]</code>	<p><code>getClassFilter(java.lang.String namespace)</code></p> <p>Returns the list of class names that make up the supplied namespace's inclusion class filter for creating MBeans</p>
<code>java.lang.String[]</code>	<p><code>getConnectedNamespaces()</code></p> <p>Namespaces for which there are filter elements defined and where there is an active connection</p>
<code>java.lang.String[]</code>	<p><code>getDiscoveredClasses(java.lang.String namespace)</code></p> <p>Returns a list of all class names in the supplied namespace.</p>
<code>java.lang.String[]</code>	<p><code>getExtrinsicEventClasses(java.lang.String namespace)</code></p> <p>Returns the extrinsic CIM event class names registered in the supplied namespace</p>
<code>java.lang.String</code>	<p><code>getExtrinsicEventMappingClass(java.lang.String namespace, java.lang.String namespace)</code></p> <p>Returns the <code>CIMEventMapper</code> class associated with the supplied CIM event class</p>
<code>java.lang.String</code>	<p><code>getNativeLibVersion()</code></p> <p>If active, returns the version of the loaded native library</p>
<code>java.lang.String</code>	<p><code>getVersion()</code></p> <p>Returns the version of the MBean, which should match that of the native library</p>
boolean	<p><code>isActive()</code></p> <p>Returns whether or not the native library has been loaded and the MBean is running</p>
boolean	<p><code>isDeleteNativeTraceFileOnStartup()</code></p> <p>Returns whether or not the native trace file is deleted upon agent startup</p>
boolean	<p><code>isNativeTraceEnabled()</code></p> <p>Returns whether or not native tracing is currently enabled</p>
boolean	<p><code>removeClassFromFilter(java.lang.String namespace, java.lang.String namespace)</code></p> <p>Removes the supplied CIM class name from the class filter, causing any applicable instances to be immediately removed.</p>

boolean	<pre>removeExtrinsicEventRegistration(java.lang.String namespace, java.lang.String namespace)</pre> <p>Removes the registration of the supplied extrinsic CIM event class from the configuration for the supplied namespace.</p>
boolean	<pre>removeNamespace(java.lang.String namespace)</pre> <p>Removes the namespace from the configuration, along with any MBeans that have been created.</p>
void	<pre>setDeleteNativeTraceFileOnStartup(boolean flag)</pre> <p>Toggles deletion of the native trace file upon startup</p>
boolean	<pre>setLifecycleEventsFlag(java.lang.String nameSpace, java.lang.String nameSpace, boolean nameSpace)</pre> <p>Sets the flag for registration of lifecycle events for the supplied class in the supplied namespace.</p>
void	<pre>setNativeTraceEnabled(boolean flag)</pre> <p>Toggles native tracing</p>

Fields

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME_BASE

```
public static final java.lang.String OBJECT_NAME_BASE
```

Methods

isActive

```
public boolean isActive()
```

Returns whether or not the native library has been loaded and the MBean is running

Returns:

true
if the native library has been loaded and the MBean is running, false otherwise.

getNativeLibVersion

```
public java.lang.String getNativeLibVersion()
```

If active, returns the version of the loaded native library

Returns:

If active, the version of the loaded native library, in the form: <version>.<release>.<maint_level>

(continued from last page)

isNativeTraceEnabled

```
public boolean isNativeTraceEnabled()
```

Returns whether or not native tracing is currently enabled

Returns:

true if native tracing is enabled, false otherwise

setNativeTraceEnabled

```
public void setNativeTraceEnabled(boolean flag)
```

Toggles native tracing

Parameters:

flag -
true if native tracing is to be enabled, false otherwise

isDeleteNativeTraceFileOnStartup

```
public boolean isDeleteNativeTraceFileOnStartup()
```

Returns whether or not the native trace file is deleted upon agent startup

Returns:

true if the native trace file is deleted upon startup, false otherwise

setDeleteNativeTraceFileOnStartup

```
public void setDeleteNativeTraceFileOnStartup(boolean flag)
```

Toggles deletion of the native trace file upon startup

Parameters:

flag -
true if the native trace file is deleted upon startup, false otherwise

getVersion

```
public java.lang.String getVersion()
```

Returns the version of the MBean, which should match that of the native library

Returns:

The version of the MBean, in the form: <version>.<release>.<maint_level>

getCIMOMImpl

```
public java.lang.String getCIMOMImpl()
```

If the native library is loaded, returns the name of the underlying CIM implementation (e.g. Pegasus, WMI)

Returns:

If active, the name of the underlying CIM implementation

getActiveNamespaces

```
public java.lang.String[] getActiveNamespaces()
```

(continued from last page)

Namespaces for which there are filter elements defined, which usually matches the list of connected namespaces, but may not always

Returns:

The list of namespaces for which class filters are defined, or an empty array of there are none

getConnectedNamespaces

```
public java.lang.String[] getConnectedNamespaces()
```

Namespaces for which there are filter elements defined and where there is an active connection

Returns:

The list of connected namespaces

getDiscoveredClasses

```
public java.lang.String[] getDiscoveredClasses(java.lang.String nameSpace)
```

Returns a list of all class names in the supplied namespace. Can be used as a means for obtaining all possible class names that can be added to the filter

Parameters:

nameSpace -
Namespace to query

Returns:

String[] All CIM class names in the supplied namespace, or null if there is no connection to the supplied namespace

getClassFilter

```
public java.lang.String[] getClassFilter(java.lang.String nameSpace)
```

Returns the list of class names that make up the supplied namespace's inclusion class filter for creating MBeans

Parameters:

nameSpace -
Namespace to query

Returns:

String[] CIM Class names whose instances should be proxied by this MBean for the supplied namespace

addNamespace

```
public boolean addNamespace(java.lang.String namespace)
```

Adds a namespace to the configuration, and then tries to initialize a connection to it. Even if the connection attempt fails, the namespace will be added.

Parameters:

namespace -
Namespace to add

Returns:

true if the namespace was added successfully to the configuration, false if it already exists

(continued from last page)

removeNamespace

```
public boolean removeNamespace(java.lang.String namespace)
```

Removes the namespace from the configuration, along with any MBeans that have been created.

Parameters:

namespace -
Namespace to remove

Returns:

true if the namespace was in the configuration and was removed, false otherwise

addClassToFilter

```
public boolean addClassToFilter(java.lang.String nameSpace,  
                                java.lang.String className,  
                                boolean enableLifecycleEvents)
```

Adds the supplied CIM class name to the class filter, causing any applicable instances to be immediately added. In addition to adding a new namespace to the configuration if it did not already exist, the configuration is also persisted if changes are made.

Parameters:

nameSpace -
Namespace to which to add the supplied class name
className -
CIM Class name to add to the filter
enableLifecycleEvents -
If true, then registration for lifecycle events will occur

Returns:

true if the class was successfully added. False is returned if the class is already a member of the filter

removeClassFromFilter

```
public boolean removeClassFromFilter(java.lang.String nameSpace,  
                                      java.lang.String className)
```

Removes the supplied CIM class name from the class filter, causing any applicable instances to be immediately removed. In addition to removing the namespace from the configuration if it is now empty, the configuration is also persisted if changes are made.

Parameters:

nameSpace -
Namespace to which to add the supplied class name
className -
CIM Class name to remove from the filter

Returns:

true if the class was successfully removed. False is returned if the class is not a member of the filter

setLifecycleEventsFlag

```
public boolean setLifecycleEventsFlag(java.lang.String nameSpace,  
                                       java.lang.String className,  
                                       boolean value)
```

Sets the flag for registration of lifecycle events for the supplied class in the supplied namespace. If the value changes, then the configuration will be persisted and the registration added or removed.

Parameters:

(continued from last page)

namespace -
Target namespace
className -
Target class
value -
New value

Returns:

true if the class exists in the supplied namespace's filter.

getExtrinsicEventClasses

```
public java.lang.String[] getExtrinsicEventClasses(java.lang.String namespace)
```

Returns the extrinsic CIM event class names registered in the supplied namespace

Parameters:

namespace -
Target namespace

Returns:

The CIM event class names registered in the supplied namespace, or an empty array if there are none

getExtrinsicEventMappingClass

```
public java.lang.String getExtrinsicEventMappingClass(java.lang.String namespace,  
java.lang.String eventClass)
```

Returns the CIMEventMapperclass associated with the supplied CIM event class

Parameters:

namespace -
Target namespace
eventClass -
CIM event class to search for

Returns:

The associated mapping class name, or null if the supplied CIM event class is not registered

addExtrinsicEventRegistration

```
public boolean addExtrinsicEventRegistration(java.lang.String namespace,  
java.lang.String eventClass,  
java.lang.String eventMappingClass)
```

Registers the supplied CIM event class and associated CIMEventMapperclass into the configuration for the supplied namespace.

Parameters:

namespace -
Target namespace
eventClass -
CIM event class
eventMappingClass - CIMEventMapper
class name to use for creating events

Returns:

true if the registration was added successfully, false if the registration already exists

(continued from last page)

removeExtrinsicEventRegistration

```
public boolean removeExtrinsicEventRegistration( java.lang.String namespace,  
                                                java.lang.String eventClass)
```

Removes the registration of the supplied extrinsic CIM event class from the configuration for the supplied namespace.

Parameters:

namespace -
Target namespace
eventClass -
Extrinsic CIM event class to unregister

Returns:

true if the registration was removed successfully, false if it did not exist

com.ibm.retail.si.mgmt.cim

Interface CIMEventMapper

public interface **CIMEventMapper**

Interface implemented by objects that map CIMInstances representing CIM Indications (events) into RtlNotifications.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

RtlNotification	createCIMNotification (CIMInstance indicationInstance) Generates a RtlNotificationinstance from the supplied CIM Event.
-----------------	-----------------------------------------------------------------------------------------------------------------------------------

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

createCIMNotification

```
public RtlNotification createCIMNotification(CIMInstance indicationInstance)
    throws MgmtException
```

Generates a RtlNotificationinstance from the supplied CIM Event. It is possible for this method to return null if the implementation has a filtering mechanism enabled that results in no notification being created for the CIM indication.

Parameters:

indicationInstance -
 CIMInstance representing the CIM Indication

Returns:

A RtlNotificationinstance based on the information in the CIM Indication, or null if no notification is to be created based on the rules defined in the implementation

Exceptions:

MgmtException -
 Invalid CIM Event or invalid data

Package

com.ibm.retail.si.mgmt.config

com.ibm.retail.si.mgmt.config

Class HardwareModelConfig

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.config.HardwareModelConfig

```

public class **HardwareModelConfig**

extends java.lang.Object

Class that maintains a mapping between hardware model names and their machine type numbers

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	MODEL_IBM469X
static java.lang.String	MODEL_KIOSK
static java.lang.String	MODEL_SUREONE
static java.lang.String	MODEL_SUREPOS100
static java.lang.String	MODEL_SUREPOS300
static java.lang.String	MODEL_SUREPOS500
static java.lang.String	MODEL_SUREPOS600
static java.lang.String	MODEL_SUREPOS700
static java.lang.String	MODELS_FILE_NAME Properties file that houses the model information

Method Summary

static HardwareModelConfig	getInstance()
static java.lang.String	getMachineModel(int deviceType) Utility method that obtains the model/type for the currently running platform
java.util.List	getMachineTypes(java.lang.String modelName) Returns a List of 4 character model numbers for the supplied model name

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,  
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

MODELS_FILE_NAME

```
public static final java.lang.String MODELS_FILE_NAME
```

Properties file that houses the model information

MODEL_KIOSK

```
public static final java.lang.String MODEL_KIOSK
```

MODEL_SUREONE

```
public static final java.lang.String MODEL_SUREONE
```

MODEL_SUREPOS100

```
public static final java.lang.String MODEL_SUREPOS100
```

MODEL_SUREPOS300

```
public static final java.lang.String MODEL_SUREPOS300
```

MODEL_SUREPOS500

```
public static final java.lang.String MODEL_SUREPOS500
```

MODEL_SUREPOS600

```
public static final java.lang.String MODEL_SUREPOS600
```

MODEL_SUREPOS700

```
public static final java.lang.String MODEL_SUREPOS700
```

(continued from last page)

MODEL_IBM469X

```
public static final java.lang.String MODEL_IBM469X
```

Methods

getInstance

```
public static HardwareModelConfig getInstance()
```

getMachineTypes

```
public java.util.List getMachineTypes(java.lang.String modelName)
```

Returns a List of 4 character model numbers for the supplied model name

Parameters:

modelName -
Model name to search for

Returns:

List of model names, or an empty List if none exist or the model name is not found

getMachineModel

```
public static java.lang.String getMachineModel(int deviceType)
```

Utility method that obtains the model/type for the currently running platform

Parameters:

deviceType -
Device type of the current platform

Returns:

The seven character model/type of the current machine, or null if not found or an unsupported platform

com.ibm.retail.si.mgmt.config

Interface MgmtAgentStartupMBean

public interface **MgmtAgentStartupMBean**

MBean that provides an extension to the default agent startup sequence for creating MBeans and adding `NotificationListener`s. Configuration is persisted in an XML file.

The XML configuration is manageable through this MBean interface.

Field Summary

<code>static java.lang.String</code>	COPYRIGHT
<code>static java.lang.String</code>	OBJECT_NAME_BASE
<code>static java.lang.String</code>	OBJECT_NAME_ID

Method Summary

<code>java.lang.String</code>	<code>addMBeanNoArgs(java.lang.String className, java.lang.String className)</code> Adds a MBean that takes no arguments to the startup configuration.
<code>java.lang.String</code>	<code>addMBeanWithArgs(java.lang.String className, java.lang.String className, java.lang.String className)</code> Adds a MBean that takes arguments to the startup configuration.
<code>java.lang.String</code>	<code>addNotificationListener(java.lang.String broadcasterObjName, java.lang.String broadcasterObjName)</code> Adds a <code>NotificationListener</code> pair to the configuration.
<code>java.lang.String</code>	<code>getCurrentXml()</code>
<code>java.lang.String</code>	<code>getPersistedXmlLevel1()</code>
<code>java.lang.String</code>	<code>getPersistedXmlLevel2()</code>
<code>java.lang.String</code>	<code>persistCurrentXml()</code>
<code>java.lang.String</code>	<code>removeMBean(java.lang.String objName)</code> Removes the supplied MBean from the startup configuration
<code>java.lang.String</code>	<code>removeNotificationListener(java.lang.String broadcasterObjName, java.lang.String broadcasterObjName)</code>
<code>java.lang.String</code>	<code>resetCurrentXmlToLevel1()</code>
<code>java.lang.String</code>	<code>resetCurrentXmlToLevel2()</code>

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME_BASE

```
public static final java.lang.String OBJECT_NAME_BASE
```

Methods

addNotificationListener

```
public java.lang.String addNotificationListener(java.lang.String broadcasterObjName,  
                                                java.lang.String listenerObjName)
```

Adds a NotificationListener pair to the configuration. A listener pair represents a listener MBean being added as a NotificationListener to a source MBean.

Parameters:

broadcasterObjName -
MBean the listener is to be added to
listenerObjName -
MBean that will listen for notifications

Returns:

String an appropriate message as to whether the operation was successful

Exceptions:

InvalidAttributeValueException -
If either of the ObjectNames are malformed

removeNotificationListener

```
public java.lang.String removeNotificationListener(java.lang.String  
broadcasterObjName,  
                                                    java.lang.String listenerObjName)
```

addMBeanNoArgs

```
public java.lang.String addMBeanNoArgs(java.lang.String className,  
                                       java.lang.String objName)
```

Adds a MBean that takes no arguments to the startup configuration.

Parameters:

(continued from last page)

className -
Class name of the MBean
objName -
ObjectName of the MBean

Returns:

String an appropriate message as to whether the operation was successful

addMBeanWithArgs

```
public java.lang.String addMBeanWithArgs( java.lang.String className,  
                                           java.lang.String objName,  
                                           java.lang.String argTypes,  
                                           java.lang.String argValues)
```

Adds a MBean that takes arguments to the startup configuration.

Parameters:

className -
Class name of the MBean
objName -
ObjectName of the MBean
argTypes -
String of comma-delimited argument types to pass to the MBean constructor; must correspond to argValues
argValues -
String of comma-delimited argument values to pass to the MBean constructor; must correspond to argTypes

Returns:

String an appropriate message as to whether the operation was successful

removeMBean

```
public java.lang.String removeMBean( java.lang.String objName)
```

Removes the supplied MBean from the startup configuration

Parameters:

objName -
MBean to be removed

Returns:

String an appropriate message as to whether the operation was successful MBean does not exist in the configuration

getCurrentXml

```
public java.lang.String getCurrentXml()
```

getPersistedXmlLevel1

```
public java.lang.String getPersistedXmlLevel1()
```

getPersistedXmlLevel2

```
public java.lang.String getPersistedXmlLevel2()
```

(continued from last page)

persistCurrentXml

```
public java.lang.String persistCurrentXml()
```

resetCurrentXmlToLevel1

```
public java.lang.String resetCurrentXmlToLevel1()
```

resetCurrentXmlToLevel2

```
public java.lang.String resetCurrentXmlToLevel2()
```

Package

com.ibm.retail.si.mgmt.eventcontrol

com.ibm.retail.si.mgmt.eventcontrol Interface EventControlFilter

public interface **EventControlFilter**

Filter that determines whether or not an EventControlMBean should add itself as a NotificationListener to a given MBean.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

javax.management.NotificationFilter	getNotificationFilterForMBean(javax.management.ObjectName oName) Method to provide the means for supplying a custom NotificationFilter for a MBean
boolean	isMBeanEnabled(javax.management.ObjectName oName) Method that determines if a listener should be added to the supplied MBean

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

isMBeanEnabled

public boolean **isMBeanEnabled**(javax.management.ObjectName oName)

Method that determines if a listener should be added to the supplied MBean

Parameters:

oName -
ObjectName of the MBean to test

Returns:

true
if the EventControlMBean should add itself as a listener, false otherwise

getNotificationFilterForMBean

public javax.management.NotificationFilter

getNotificationFilterForMBean(javax.management.ObjectName oName)

Method to provide the means for supplying a custom NotificationFilter for a MBean

Parameters:

(continued from last page)

oName -
ObjectName of the MBean being listened to

Returns:

A Notification filter for the supplied MBean, or null if there is to be no filtering on the supplied MBean

com.ibm.retail.si.mgmt.eventcontrol Interface EventControlMBean

public interface EventControlMBean

MBean that acts as a central collection point for all General Agent events. Event store and forwarding can be optionally enabled, which will buffer events when Master Agent connections are lost.

To receive events when store and forward is not enabled, simply add a NotificationListener to this MBean.

To receive events when store and forward is enabled, Master Agents must register their Remote JMX Connection ID using the `registerAgentConnection()` method and make calls on to the subsequently create `EventEmitterMBean`.

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME_BASE</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME_ID</code>

Method Summary

<code>void</code>	<code>clearBuffersForAgent(java.lang.String systemId)</code> Clears the EventQueue, EventBuffer, and BufferFileCollection for the supplied Master Agent
<code>int</code>	<code>getBufferSizeThreshold()</code> Returns the buffer size threshold, which is the number of events that will cause an EventBuffer to flush to disk
<code>long</code>	<code>getBufferTimeThreshold()</code> Returns the buffer time threshold, which is the amount of time that the events in an EventBuffer will remain in memory before being flushed to disk
<code>java.lang.String[]</code>	<code>getEventBufferNames()</code> Returns a list of the current EventBuffer names
<code>int</code>	<code>getEventExpirationCleanupFrequency()</code>
<code>int</code>	<code>getEventExpirationTimeout()</code>
<code>int</code>	<code>getMaxEvents()</code> The maximum number of allowed persisted events.
<code>java.lang.String[]</code>	<code>getRegisteredAgents()</code> Returns a list of remote agents who have registered an agent connection

boolean	isStoreAndForwardEnabled()
javax.management.ObjectName	registerAgentConnection(java.lang.String systemId, java.lang.String systemId) Registers a Master Agent's remote JMX connection, returning the ObjectName of an EventEmitterMBean created to event Notifications for the supplied connection.
void	removeAgentBuffers(java.lang.String systemId) This method stops event forwarding and buffering (if there are running EventEmitters) clears the EventQueue, EventBuffer, and BufferFileCollection for the supplied calling system Id, and removes the registration for that agent, preventing any future buffering.
void	setBufferSizeThreshold(int sizeThreshold) Sets the buffer size threshold, persisting it to the agent configuration under the key EventControl.
void	setBufferTimeThreshold(long timeThreshold) Sets the buffer time threshold, persisting it to the agent configuration under the key EventControl.
void	setEventExpirationCleanupFrequency(int frequency) Sets the number of hours (1 or greater) between checks for expired events
void	setEventExpirationTimeout(int eventExpirationTimeout) Sets the event expiration timeout (days)
void	setMaxEvents(int maxEvents) Sets the maximum number of events, persisting it to the agent configuration under the key EventControl.
void	setStoreAndForwardEnabled(boolean enabled) Sets flag for the the store and forward feature, persisting it to the agent configuration under the key EventControl.

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME_BASE

```
public static final java.lang.String OBJECT_NAME_BASE
```

(continued from last page)

OBJECT_NAME

```
public static final java.lang.String OBJECT_NAME
```

Methods

registerAgentConnection

```
public javax.management.ObjectName registerAgentConnection(java.lang.String systemId,  
                                                         java.lang.String  
                                                         connectionId)
```

throws MgmtException

Registers a Master Agent's remote JMX connection, returning the `ObjectName` of an `EventEmitterMBean` created to event Notifications for the supplied connection. After calling this method, a `NotificationListener` should be added to the `EventEmitterMBean` created, and its `start()` method should be called to begin emitting events

Parameters:

`systemId` -
System ID of the Master Agent
`connectionId` -
Connection ID of the remote JMX connection

Returns:

`ObjectName` The `ObjectName` of the `EventEmitterMBean` created to emit events

See Also:

`com.ibm.retail.si.mgmt.eventcontrol.EventEmitterMBean#start()`

removeAgentBuffers

```
public void removeAgentBuffers(java.lang.String systemId)
```

This method stops event forwarding and buffering (if there are running `EventEmitters`) clears the `EventQueue`, `EventBuffer`, and `BufferFileCollection` for the supplied calling system Id, and removes the registration for that agent, preventing any future buffering. This method should be called when it is known that no more event buffering should occur.

Parameters:

`systemId` -
System Id of the agent buffers to clear

clearBuffersForAgent

```
public void clearBuffersForAgent(java.lang.String systemId)
```

Clears the `EventQueue`, `EventBuffer`, and `BufferFileCollection` for the supplied Master Agent

Parameters:

`systemId` -
System ID of the Master Agent to clear

isStoreAndForwardEnabled

```
public boolean isStoreAndForwardEnabled()
```

Returns:

(continued from last page)

Whether or not the store and forward feature is enabled on this agent

setStoreAndForwardEnabled

```
public void setStoreAndForwardEnabled(boolean enabled)  
                                     throws MgmtException
```

Sets flag for the the store and forward feature, persisting it to the agent configuration under the key `EventControl.CONFIG_KEY_STORE_AND_FORWARD_ENABLED`

Parameters:

`enabled` -
New value

Exceptions:

`MgmtException` -
Error persisting changes

getRegisteredAgents

```
public java.lang.String[] getRegisteredAgents()
```

Returns a list of remote agents who have registered an agent connection

Returns:

List of currently registered agents

getEventBufferNames

```
public java.lang.String[] getEventBufferNames()
```

Returns a list of the current EventBuffer names

Returns:

List of the current EventBuffer names

getMaxEvents

```
public int getMaxEvents()
```

The maximum number of allowed persisted events. After this number of events has been persisted, then the oldest persisted events will begin being deleted

Returns:

The maximum number of events

setMaxEvents

```
public void setMaxEvents(int maxEvents)  
                       throws MgmtException
```

Sets the maximum number of events, persisting it to the agent configuration under the key `EventControl.CONFIG_KEY_STORE_AND_FORWARD_MAXEVENTS`

Parameters:

`maxEvents` -
The new value

Exceptions:

(continued from last page)

MgmtException -
Error persisting changes

getBufferSizeThreshold

```
public int getBufferSizeThreshold()
```

Returns the buffer size threshold, which is the number of events that will cause an `EventBuffer` to flush to disk

Returns:

The buffer size threshold

setBufferSizeThreshold

```
public void setBufferSizeThreshold(int sizeThreshold)  
    throws MgmtException
```

Sets the buffer size threshold, persisting it to the agent configuration under the key `EventControl.CONFIG_KEY_STORE_AND_FORWARD_BUFFER_SIZE_THRESHOLD`

Parameters:

`sizeThreshold` -
The new value

Exceptions:

MgmtException -
Error persisting changes

getBufferTimeThreshold

```
public long getBufferTimeThreshold()
```

Returns the buffer time threshold, which is the amount of time that the events in an `EventBuffer` will remain in memory before being flushed to disk

Returns:

The buffer time threshold

setBufferTimeThreshold

```
public void setBufferTimeThreshold(long timeThreshold)  
    throws MgmtException
```

Sets the buffer time threshold, persisting it to the agent configuration under the key `EventControl.CONFIG_KEY_STORE_AND_FORWARD_BUFFER_TIME_THRESHOLD`

Parameters:

`timeThreshold` -
The new value

Exceptions:

MgmtException -
Error persisting the changes

getEventExpirationTimeout

```
public int getEventExpirationTimeout()
```

Returns:

The number of days after which the stored events for a Master Agent will be deleted

setEventExpirationTimeout

```
public void setEventExpirationTimeout(int eventExpirationTimeout)  
                                     throws MgmtException
```

Sets the event expiration timeout (days)

Parameters:

eventExpirationTimeout -
New expiration timeout value (days)

getEventExpirationCleanupFrequency

```
public int getEventExpirationCleanupFrequency()
```

Returns:

The number of hours between checks for expired events

setEventExpirationCleanupFrequency

```
public void setEventExpirationCleanupFrequency(int frequency)  
                                               throws MgmtException
```

Sets the number of hours (1 or greater) between checks for expired events

Parameters:

frequency -
The number of hours (1 or greater) between checks for expired events

Exceptions:

MgmtException -
Error persisting the setting

com.ibm.retail.si.mgmt.eventcontrol

Class EventDeserializationErrorNotification

java.lang.Object

+--java.util.EventObject

+--javax.management.Notification

+--com.ibm.retail.si.mgmt.notifications.RtlNotification

+--com.ibm.retail.si.mgmt.notifications.RtlErrorNotification

+--

com.ibm.retail.si.mgmt.eventcontrol.EventDeserializationErrorNotificationpublic class **EventDeserializationErrorNotification**

extends RtlErrorNotification

Notification class that takes place of a persisted notification when it cannot be deserialized, due to an `InvalidClassException` or a `ClassNotFoundException`. The raw binary data of the original notification is attached to each instance, and the sequence number and timestamp of this Notification will match that of the original

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlErrorNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

EventDeserializationErrorNotification(java.lang.String maSystemId, long maSystemId, long maSystemId, byte[] maSystemId)

Creates a new instance

Method Summary

byte[]	getEventData()
--------	----------------

long	getEventMask()
java.lang.String	getTargetAgentId()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlErrorNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

EventDeserializationErrorNotification

```
public EventDeserializationErrorNotification(java.lang.String maSystemId,
                                             long sequenceNumber,
                                             long timeStamp,
                                             byte[] eventData)
```

Creates a new instance

Parameters:

maSystemId -
The system Id of the target Master Agent
sequenceNumber -
Sequence number of the original Notification
timeStamp -
Time stamp of the original Notification

(continued from last page)

eventData -
The raw data of the original Notification

Methods

getEventData

```
public byte[] getEventData()
```

Returns:

Raw data of the original Notification

getTargetAgentId

```
public java.lang.String getTargetAgentId()
```

Returns:

The system Id of the target Master Agent

getEventMask

```
public long getEventMask()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlErrorNotification#getEventMask\(\)](#)

Package

com.ibm.retail.si.mgmt.itd.events

com.ibm.retail.si.mgmt.itd.events

Interface TWGEventDetailGenerator

public interface **TWGEventDetailGenerator**

Implemented by classes that create `TWGEventDetail` objects for a specific type of event. The qualifiers and `Notification` instance supplied to the `createEventDetails()` method should be used to determine create the detail information.

Instances are registered with a group of events by supplying the classname in a published event XML file.

See Also:

`com.ibm.retail.si.mgmt.itd.server.RetailPublishedEventList`

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>TWGEventDetail[]</code>	<code>createEventDetails(java.lang.String[] qualifiers, javax.management.Notification qualifiers)</code> Create a set of <code>TWGEventDetail</code> objects using the information in the supplied event.
-------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Fields

COPYRIGHT

`public static final java.lang.String COPYRIGHT`

Methods

createEventDetails

`public TWGEventDetail[] createEventDetails(java.lang.String[] qualifiers,
javax.management.Notification notification)`

Create a set of `TWGEventDetail` objects using the information in the supplied event. If the supplied qualifiers or event information is not compatible, then null should be returned.

Parameters:

`qualifiers` -
Event qualifiers
`notification` -
Event instance

Returns:

An array of `TWGEventDetail` objects created based on the supplied information, or null if any failure occurs or the information supplied is not compatible.

Package

com.ibm.retail.si.mgmt.itd.filetransfer.server

com.ibm.retail.si.mgmt.itd.filetransfer.server

Class RetailFSServerTask

java.lang.Object

└-com.ibm.retail.si.mgmt.itd.filetransfer.server.RetailFSServerTask

public class **RetailFSServerTask**

extends java.lang.Object

Server side communications for RetailFSAgent. Implements server side of File Transfer to allow RetailFSAgent implementation to perform file transfers to RMA Master Agents connected to the IBM Director Server.

Field Summary

static int	CAN_READ Checks whether a file can be read from arg1 - String filename returns - Boolean
static int	CAN_WRITE Checks whether a file can be written to arg1 - String filename returns - Boolean
static java.lang.String	CLASSNAME
static java.lang.String	COPYRIGHT
static int	CREATE_FILE Creates a new file arg1 - String filename
static int	DELETE Deletes a file arg1 - String filename returns - Boolean true if success, false otherwise
static int	EXISTS Checks whether a file exists arg1 - String filename returns - Boolean true if exists, false otherwise
static int	GET_DIR Gets the contents of a directory arg1 - String path name returns - RMA DirectoryEntry[]
static int	GET_DRIVE_DELIM
static int	GET_ENV_VAR
static int	GET_FILE_ATTR Gets the attributes of a file arg1 - String filename returns - RMA DirectoryEntryObject
static int	GET_FILE_SIZE Gets the size of a file arg1 - String filename returns - Long size
static int	GET_NAME_DELIM

static int	GET_PATH_DELIM
static int	GET_ROOT Gets the root filesystem listing for a system returns - RMA DirectoryEntry[]
static int	GET_ROOT_DELIM
static int	IS_ABS
static int	IS_DIR Checks whether specified path is a directory arg1 - String path returns - Boolean
static int	IS_FILE Checks whether specified path is a file arg1 - String path returns - Boolean
static int	MKDIR Creates the specified directory arg1 - String path name returns - Boolean true if success, false otherwise
static int	MKDIR_w_ATTRS
static int	READ_BLOCK Reads a byte[] of data from a file arg1 - String filename arg2 - Integer offset in file arg3 - Integer index in byte[] arg4 - Integer length to read return1 - byte[] return2 - Integer number of bytes read
static int	RENAME Renames a file arg1 - String filename arg2 - String new filename returns - Boolean true if success, false otherwise
static int	RMDIR Removes the specified directory arg1 - String path name returns - Boolean true if success, false otherwise
static int	WRITE_BLOCK Write a byte[] of data to the end of a file arg1 - String filename arg2 - byte[] data

Constructor Summary

RetailFSServerTask()

Method Summary

boolean	CommandReceived(ServiceNode sn, Command sn) Override.
static java.lang.String	getFileStreamingAddress(RetailJMXDeviceManagedObject maMo) Obtain the IP address to use for streaming to the Master agent
void	run()

boolean	serverActivate(TWGTask task)
void	serverDeactivate()
int	subtaskActivate(TWGTaskActivation act)
void	subtaskDeactivate(TWGTaskActivation act)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

CLASSNAME

public static final java.lang.String **CLASSNAME**

GET_DRIVE_DELIM

public static final int **GET_DRIVE_DELIM**

GET_NAME_DELIM

public static final int **GET_NAME_DELIM**

GET_PATH_DELIM

public static final int **GET_PATH_DELIM**

GET_ROOT_DELIM

public static final int **GET_ROOT_DELIM**

GET_ENV_VAR

public static final int **GET_ENV_VAR**

GET_DIR

public static final int **GET_DIR**

Gets the contents of a directory arg1 - String pathnamereturns - RMA DirectoryEntry[]

GET_ROOT

public static final int **GET_ROOT**

Gets the root filesystem listing for a system returns - RMA DirectoryEntry[]

MKDIR

public static final int **MKDIR**

Creates the specified directory arg1 - String pathnamereturns - Boolean true if success, false otherwise

MKDIR_w_ATTRS

public static final int **MKDIR_w_ATTRS**

RMDIR

public static final int **RMDIR**

Removes the specified directory arg1 - String pathnamereturns - Boolean true if success, false otherwise

GET_FILE_ATTR

public static final int **GET_FILE_ATTR**

Gets the attributes of a file arg1 - String filenamereurns - RMA DirectoryEntryObject

GET_FILE_SIZE

public static final int **GET_FILE_SIZE**

Gets the size of a file arg1 - String filenamereurns - Long size

EXISTS

public static final int **EXISTS**

Checks whether a file exists arg1 - String filenamereurns - Boolean true if exists, false otherwise

DELETE

public static final int **DELETE**

Deletes a file arg1 - String filenamereurns - Boolean true if success, false otherwise

RENAME

public static final int **RENAME**

Renames a file arg1 - String filenamearg2 - String new filenamereurns - Boolean true if success, false otherwise

(continued from last page)

IS_ABS

```
public static final int IS_ABS
```

IS_FILE

```
public static final int IS_FILE
```

Checks whether specified path is a file arg1 - String path returns - Boolean

IS_DIR

```
public static final int IS_DIR
```

Checks whether specified path is a directory arg1 - String path returns - Boolean

CAN_READ

```
public static final int CAN_READ
```

Checks whether a file can be read from arg1 - String filename returns - Boolean

CAN_WRITE

```
public static final int CAN_WRITE
```

Checks whether a file can be written to arg1 - String filename returns - Boolean

CREATE_FILE

```
public static final int CREATE_FILE
```

Creates a new file arg1 - String filename

WRITE_BLOCK

```
public static final int WRITE_BLOCK
```

Write a byte[] of data to the end of a file arg1 - String filename arg2 - byte[] data

READ_BLOCK

```
public static final int READ_BLOCK
```

Reads a byte[] of data from a file arg1 - String filename arg2 - Integer offset in file arg3 - Integer index in byte[] arg4 - Integer length to read return1 - byte[] return2 - Integer number of bytes read

Constructors

RetailFSServerTask

```
public RetailFSServerTask()
```

Methods

serverActivate

```
public boolean serverActivate(TWGTask task)
```

(continued from last page)

serverDeactivate

```
public void serverDeactivate()
```

subtaskActivate

```
public int subtaskActivate(TWGTaskActivation act)
```

subtaskDeactivate

```
public void subtaskDeactivate(TWGTaskActivation act)
```

run

```
public void run()
```

CommandReceived

```
public boolean CommandReceived(ServiceNode sn,  
                                Command cmd)
```

Override... assumes last parameter of Command cmd argument is the Long oid of the MA system to talk to

See Also:

```
com.tivoli.twg.libs.CommandReceivedListener#CommandReceived(com.tivoli.twg.libs.ServiceNode,  
com.tivoli.twg.libs.Command)
```

getFileStreamingAddress

```
public static java.lang.String getFileStreamingAddress(RetailJMXDeviceManagedObject  
maMo)
```

Obtain the IP address to use for streaming to the Master agent

Parameters:

maMo -
Master Agent managed object

Returns:

The IP Address String, or null if there is no connection or address stored with the MO

Package

com.ibm.retail.si.mgmt.itd.server

com.ibm.retail.si.mgmt.itd.server

Class JMXDeviceConnectionException

```

java.lang.Object
  |-- java.lang.Throwable
    |-- java.lang.Exception
      |-- com.ibm.retail.si.mgmt.itd.server.JMXDeviceConnectionException

```

```

public class JMXDeviceConnectionException
extends java.lang.Exception

```

JMX Device connection exception - used to indicate that an error occurred attempting to communicate to a JMX device. This is typically due to the connection being down.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

```
JMXDeviceConnectionException(java.lang.String message, java.lang.Throwable message)
```

Constructor for exception with text message and cause

Methods inherited from : class java.lang.Throwable

```
fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, initCause,
printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString
```

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

JMXDeviceConnectionException

```
public JMXDeviceConnectionException(java.lang.String message,
                                     java.lang.Throwable cause)
```

(continued from last page)

Constructor for exception with text message and cause

Parameters:

- message -
- message for exception
- cause -
- cause for exception

com.ibm.retail.si.mgmt.itd.server

Class JMXDeviceEventHandlerException

```

java.lang.Object
  |-- java.lang.Throwable
        |-- java.lang.Exception
              |-- com.ibm.retail.si.mgmt.itd.server.JMXDeviceEventHandlerException

```

```

public class JMXDeviceEventHandlerException
extends java.lang.Exception

```

JMX Device event handler exception - used to indicate that an error occurred when attempting to add or remove an event handler from a JMX device. This is typically due to the connection being down.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

```

JMXDeviceEventHandlerException(java.lang.String message, java.lang.Throwable message)
    Constructor for exception with text message and cause

```

Methods inherited from : class java.lang.Throwable

```

fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, initCause,
printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

```

Methods inherited from : class java.lang.Object

```

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

```

Fields

COPYRIGHT

```

public static final java.lang.String COPYRIGHT

```

Constructors

JMXDeviceEventHandlerException

```

public JMXDeviceEventHandlerException(java.lang.String message,
                                     java.lang.Throwable cause)

```


(continued from last page)

Constructor for exception with text message and cause

Parameters:

- message -
- message for exception
- cause -
- cause for exception

com.ibm.retail.si.mgmt.itd.server

Class JMXDeviceManagedObject

java.lang.Object

├--TWGManagedObject

└--com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

Direct Known Subclasses:

RetailJMXDeviceManagedObject

```
public class JMXDeviceManagedObject
```

```
extends TWGManagedObject
```

This class extends the TWGManagedObject class to create a managed object for generic JMX devices. This base object will contain the following information to help uniquely identify the object: IP Address used to connect to the device Port number used to connect to the device Host name for the device

See Also:

com.tivoli.twg.engine.TWGManagedObject

Field Summary

static java.lang.String	ATTRIB_JMX_CNX_IP_ATTR
static java.lang.String	ATTRIB_JMX_CNX_PORT
static java.lang.String	ATTRIB_JMX_HOSTNAME
static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT
java.lang.String	deviceHost
java.lang.String	deviceIP
int	devicePort
boolean	maOffline

Constructor Summary

JMXDeviceManagedObject()	Default constructor for base JMX Device managed object
JMXDeviceManagedObject(java.lang.String devIP,int devIP,java.lang.String devIP)	Constructor for a base JMX Device managed object.

Method Summary

void	copyTo(TWGManagedObject managedObject) Copy instance data to another managed object.
void	Delete() Destructor for JMXDeviceManagedObject: remove object from lists
void	Destroy() Destroy for JMXDeviceManagedObject
java.lang.Object	executeJMXMethod(javax.management.ObjectName name, java.lang.String name, java.lang.Object[] name, java.lang.String[] name) Execute a method on the JMX device.
java.lang.String	getAttributeDescription(java.lang.String id, java.util.Locale id) Get description string for given attribute in given locale
java.lang.String[]	getAttributeIDList() Attribute ID enumeration : this method is expected to return a List of strings containing the String names of the attributes supported for a given object.
int	getAttributeType(java.lang.String id) Get type of attribute value for given attribute
DataValue	getAttributeValue(java.lang.String id, java.util.Locale id) Get value of attribute with given ID
java.lang.String	getConnectionID() Return a formatted string for this object containing the hostname and port concatenated together.
static java.lang.String	getConnectionID(java.lang.String devHost) Return a formatted string containing the hostname and port concatenated together.
java.lang.String	getDeviceHost() Get the hostname of the JMX device
java.lang.String	getDeviceIPAddress() Get the IP address used to connect to this JMX device
int	getDevicePort() Get the port used to connect to this JMX device
java.lang.String	getJMXClassName(javax.management.ObjectName name) Get the JMX class name for the specified object name for the JMX device
javax.management.MBeanOperationInfo[]	getJMXMethods(javax.management.ObjectName name) Get a list of all of the JMX methods for the JMX device
java.util.Set	getJMXObjectNames(java.lang.String qryFilter) Get a list of all of the JMX object names from the JMX Device.

java.util.Set	getJMXObjectNames(java.lang.String qryFilter, javax.management.QueryExp qryFilter) Get a list of all of the JMX object names from the JMX Device.
javax.management.MBeanAttributeInfo[]	getJMXProperties(javax.management.ObjectName name) Get a list of all of the JMX attributes for the JMX device
java.lang.Object	getJMXPropertyValue(javax.management.ObjectName name, java.lang.String name) Get the value of a specific property for the object name from the JMX Device
javax.management.AttributeList	getJMXPropertyValues(javax.management.ObjectName name, java.lang.String[] name) Get the values of a list of properties for the object name from the JMX Device
javax.management.MBeanInfo	getMBeanInfo(javax.management.ObjectName name) Get the set of attributes and operations which are available for management operations for the JMX device.
java.lang.String	getSystemID() Return a unique string to define this MO.
boolean	isMAOffline() Special flag for tracking the MO's connection status with its Master Agent (not persisted)
void	restoreData(TWGPersistentObjectDictionary dictionary, boolean dictionary) Method for restoring persistent object data.
void	saveData(TWGPersistentObjectDictionary dictionary) Method for saving persistent object data.
boolean	setAttributeValue(java.lang.String id, DataValue id) Set value of attribute with given ID
void	setDeviceHost(java.lang.String devHost) Set the hostname of this JMX device
void	setDeviceIPAddress(java.lang.String devIP) Set the IP address used to connect to this JMX device
void	setDevicePort(int devPt) Set the port used to connect to this JMX device
void	setJMXPropertyValue(javax.management.ObjectName name, javax.management.Attribute name) Set the value of a specific property for the object name from the JMX Device
void	setMAOffline(boolean offline) Set the flag for tracking the MO's connection status with its Master Agent (not persisted)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME  
    Our classname
```

ATTRIB_JMX_CNX_IP_ATTR

```
public static final java.lang.String ATTRIB_JMX_CNX_IP_ATTR
```

ATTRIB_JMX_CNX_PORT

```
public static final java.lang.String ATTRIB_JMX_CNX_PORT
```

ATTRIB_JMX_HOSTNAME

```
public static final java.lang.String ATTRIB_JMX_HOSTNAME
```

deviceIP

```
protected java.lang.String deviceIP
```

devicePort

```
protected int devicePort
```

deviceHost

```
protected java.lang.String deviceHost
```

maOffline

```
protected boolean maOffline
```

Constructors

(continued from last page)

JMXDeviceManagedObject

```
public JMXDeviceManagedObject()
```

Default constructor for base JMX Device managed object

JMXDeviceManagedObject

```
public JMXDeviceManagedObject(java.lang.String devIP,  
                               int devPt,  
                               java.lang.String devHost)
```

Constructor for a base JMX Device managed object.

Methods

getConnectionID

```
public java.lang.String getConnectionID()
```

Return a formatted string for this object containing the hostname and port concatenated together. This is the unique connection ID for all MOs from the same master agent. If not an RMA device, then it is unique to that MO.

Returns:

A string containing the hostname and port information separated by a colon.

getConnectionID

```
public static java.lang.String getConnectionID(java.lang.String devHost)
```

Return a formatted string containing the hostname and port concatenated together. This call uses the information passed in.

Returns:

A string containing the Hostname and port information separated by a colon.

getSystemID

```
protected java.lang.String getSystemID()
```

Return a unique string to define this MO. Each subclass may provide a more unique definition based on the information available at that level. The base JMX device will define this using host, IP and port together.

Returns:

A string containing the storeID, deviceID and IP address together.

copyTo

```
protected void copyTo(TWGManagedObject managedObject)
```

Copy instance data to another managed object.

Parameters:

managedObject -
target managed object.

Delete

```
public void Delete()
```

Destructor for JMXDeviceManagedObject: remove object from lists

Destroy

```
public void Destroy()
    throws TWGObjectDestroyException
    Destroy for JMXDeviceManagedObject
```

Exceptions:

TWGObjectDestroyException -
if error during destroy

saveData

```
protected void saveData(TWGPersistentObjectDictionary dictionary)
    throws TWGPersistentObjectSaveException
    Method for saving persistent object data.
```

Parameters:

dictionary -
used to collect persistent object.

Exceptions:

TWGPersistentObjectSaveException -
thrown to abort save procedure.

restoreData

```
protected void restoreData(TWGPersistentObjectDictionary dictionary,
    boolean resolveObjectRefs)
    throws TWGPersistentObjectRestoreException
    Method for restoring persistent object data.
```

Parameters:

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

getDeviceIPAddress

```
protected java.lang.String getDeviceIPAddress()
    Get the IP address used to connect to this JMX device
```

Returns:

A string containing the IP address used for the connection to the JMX device

setDeviceIPAddress

```
protected void setDeviceIPAddress(java.lang.String devIP)
    Set the IP address used to connect to this JMX device
```

Parameters:

devIP -
A string containing the IP address used to connect to the JMX device

getDevicePort

protected int **getDevicePort**()

Get the port used to connect to this JMX device

Returns:

The value of the port number used for the connection to the JMX device

setDevicePort

protected void **setDevicePort**(int devPt)

Set the port used to connect to this JMX device

Parameters:

devPt -

The value of the port number used for the connection to the JMX device

getDeviceHost

protected java.lang.String **getDeviceHost**()

Get the hostname of the JMX device

Returns:

A string containing the hostname of the JMX device

setDeviceHost

protected void **setDeviceHost**(java.lang.String devHost)

Set the hostname of this JMX device

Parameters:

devHost -

A string containing the hostname of this JMX device

isMAOffline

protected boolean **isMAOffline**()

Special flag for tracking the MO's connection status with its Master Agent (not persisted)

Returns:

true if the MO's Master Agent is offline, false otherwise

setMAOffline

protected void **setMAOffline**(boolean offline)

Set the flag for tracking the MO's connection status with its Master Agent (not persisted)

Parameters:

offline -

Master Agent connection status flag to set

(continued from last page)

getAttributeIDList

```
public java.lang.String[] getAttributeIDList()
```

Attribute ID enumeration : this method is expected to return a List of strings containing the String names of the attributes supported for a given object. Subclasses of base classes implementing the interface should report additional attributes by adding them to the list returned by the base class.

getAttributeValue

```
public DataValue getAttributeValue(java.lang.String id,  
                                     java.util.Locale loc)
```

Get value of attribute with given ID

Parameters:

id -
- attribute ID requested
loc -
- locale to use for value, if applicable

Returns:

value object, or null if no value

setAttributeValue

```
public boolean setAttributeValue(java.lang.String id,  
                                   DataValue val)
```

Set value of attribute with given ID

Parameters:

id -
- attribute ID to be set
val -
- attribute value to be set

Returns:

true if set successful, false if not successful

getAttributeType

```
public int getAttributeType(java.lang.String id)
```

Get type of attribute value for given attribute

Parameters:

id -
- attribute ID

Returns:

DataValue type of attribute, or DataValue.NONE_TYPE if undefined

getAttributeDescription

```
public java.lang.String getAttributeDescription(java.lang.String id,  
                                                  java.util.Locale loc)
```

Get description string for given attribute in given locale

Parameters:

(continued from last page)

id -
- attribute ID
loc -
- locale to use for description

Returns:

description string, or null if not available

getJMXObjectNames

```
public java.util.Set getJMXObjectNames(java.lang.String qryFilter)  
                                     throws JMXDeviceConnectionException
```

Get a list of all of the JMX object names from the JMX Device.

Parameters:

If -
qryFilter is null, then get ALL object names from device. If a filter string is passed, use it as part of the query string.

Returns:

A collection containing the object names queried from the device.

getJMXObjectNames

```
public java.util.Set getJMXObjectNames(java.lang.String qryFilter,  
                                       javax.management.QueryExp exp)  
                                       throws JMXDeviceConnectionException
```

Get a list of all of the JMX object names from the JMX Device.

Parameters:

If -
qryFilter is null, then get ALL object names from device. If a filter string is passed, use it as part of the query string.
exp -
query expression

Returns:

A collection containing the object names queried from the device.

getMBeanInfo

```
public javax.management.MBeanInfo getMBeanInfo(javax.management.ObjectName name)  
                                               throws JMXDeviceConnectionException
```

Get the set of attributes and operations which are available for management operations for the JMX device.

Parameters:

name -
The object name on the device to get the MBean information for.

Returns:

An MBeanInfo object containing the attributes and operations for the device.

getJMXClassName

```
public java.lang.String getJMXClassName(javax.management.ObjectName name)  
                                       throws JMXDeviceConnectionException
```

Get the JMX class name for the specified object name for the JMX device

(continued from last page)

Parameters:

name -
The object name on the device to get the class name for.

Returns:

A string containing the class name for the specified object name.

getJMXProperties

```
public javax.management.MBeanAttributeInfo[]  
getJMXProperties( javax.management.ObjectName name)           throws  
JMXDeviceConnectionException
```

Get a list of all of the JMX attributes for the JMX device

Parameters:

name -
The object name on the device to get the attributes for.

Returns:

An array containing the JMX attributes for the device.

getJMXPropertyValue

```
public java.lang.Object getJMXPropertyValue( javax.management.ObjectName name,  
                                              java.lang.String property)  
                                              throws JMXDeviceConnectionException
```

Get the value of a specific property for the object name from the JMX Device

Parameters:

name -
The object name on the device to get the value of the property.
property -
A string identifying the property to get the value for.

Returns:

An object representing the value of the property specified.

setJMXPropertyValue

```
public void setJMXPropertyValue( javax.management.ObjectName name,  
                                javax.management.Attribute attrib)  
                                throws JMXDeviceConnectionException,  
                                       JMXDeviceSetAttributeException
```

Set the value of a specific property for the object name from the JMX Device

Parameters:

name -
The object name on the device to set the value of the property.
attrib -
A string identifying the property and new value to set.

(continued from last page)

getJMXPropertyValues

```
public javax.management.AttributeList getJMXPropertyValues( javax.management.ObjectName
name,
                                                                java.lang.String[]
propList)
```

throws

JMXDeviceConnectionException

Get the values of a list of properties for the object name from the JMX Device

Parameters:

name -
The object name on the device to get the property values for.
propList -
A list of strings identifying the properties to return values for.

Returns:

A list of objects containing the property values requested.

getJMXMethods

```
public javax.management.MBeanOperationInfo[] getJMXMethods( javax.management.ObjectName
name)
```

throws

JMXDeviceConnectionException

Get a list of all of the JMX methods for the JMX device

Parameters:

name -
The object name on the device to get the method information for.

Returns:

An array containing the JMX attributes for the device.

executeJMXMethod

```
public java.lang.Object executeJMXMethod( javax.management.ObjectName name,
                                             java.lang.String methodName,
                                             java.lang.Object[] values,
                                             java.lang.String[] types)
throws JMXDeviceConnectionException,
       JMXDeviceMethodInvocationException
```

Execute a method on the JMX device.

Parameters:

name -
The object name on the device to execute the method on.
mthdInfo -
An MBeanOperationInfo object that provides the name of the method to execute and a description of the parameter information.
parms -
The parameter values to pass on the method execution.

Returns:

An object containing the return value from the method call.

Exceptions:

JMXDeviceMethodInvocationException -
thrown if any invocation errors occur

com.ibm.retail.si.mgmt.itd.server

Class JMXDeviceMethodInvocationException

```

java.lang.Object
  |-- java.lang.Throwable
    |-- java.lang.Exception
      |-- com.ibm.retail.si.mgmt.itd.server.JMXDeviceMethodInvocationException

```

```

public class JMXDeviceMethodInvocationException
extends java.lang.Exception

```

JMX Device method invocation exception - used to indicate that a general error occurred while attempting to invoke a method on a JMX device.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

JMXDeviceMethodInvocationException(java.lang.String message, java.lang.Throwable message)
 Constructor for exception with text message and cause

Methods inherited from : class java.lang.Throwable

fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

JMXDeviceMethodInvocationException

```
public JMXDeviceMethodInvocationException(java.lang.String message,
                                         java.lang.Throwable cause)
```

(continued from last page)

Constructor for exception with text message and cause

Parameters:

- message -
- message for exception
- cause -
- cause for exception

com.ibm.retail.si.mgmt.itd.server

Class JMXDeviceSetAttributeException

```

java.lang.Object
  |-- java.lang.Throwable
    |-- java.lang.Exception
      |-- com.ibm.retail.si.mgmt.itd.server.JMXDeviceSetAttributeException

```

```

public class JMXDeviceSetAttributeException
extends java.lang.Exception

```

JMX Device set attribute exception - used to indicate that a general error occurred while attempting to set the value of an attribute on a JMX device.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

JMXDeviceSetAttributeException(java.lang.String message, java.lang.Throwable message)

Constructor for exception with text message and cause

Methods inherited from : class java.lang.Throwable

fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Constructors

JMXDeviceSetAttributeException

```

public JMXDeviceSetAttributeException(java.lang.String message,
                                     java.lang.Throwable cause)

```

(continued from last page)

Constructor for exception with text message and cause

Parameters:

- message -
- message for exception
- cause -
- cause for exception

com.ibm.retail.si.mgmt.itd.server

Class Retail4690ControllerManagedObject

java.lang.Object

+--TWGManagedObject

+--com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

+--com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

+--**com.ibm.retail.si.mgmt.itd.server.Retail4690ControllerManagedObject****public class Retail4690ControllerManagedObject**

extends RetailJMXDeviceManagedObject

This class extends the RetailJMXDeviceManagedObject class to create a managed object specifically for the 4690 controllers for retail store systems.

See Also:

com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

Field Summary

static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

AGENT_TYPE_GENERAL_AGENT_STR, AGENT_TYPE_MASTER_AGENT_STR, AGENT_TYPE_VIRTUAL_AGENT_STR, agentType, agentVer, ATTRIB_FLAGS_SUSPENDABLE, ATTRIB_FLAGS_SYSTEM_SECURED, ATTRIB_RMA_DEVICE_TYPE, ATTRIB_RMA_MASTER_DEV_ID, ATTRIB_RMA_MGMT_PORT, ATTRIB_RMA_MGMT_PROTOCOL, ATTRIB_RMA_MODEL_NUMBER, ATTRIB_RMA_MODEL_TYPE, ATTRIB_RMA_NETWORK_MASK, ATTRIB_RMA_STORE_NAME, CLASSNAME, COPYRIGHT, DEVICE_TYPE_4690_STR, DEVICE_TYPE_CONSUMER_STR, DEVICE_TYPE_IRESTERM_STR, DEVICE_TYPE_LINUX_STR, DEVICE_TYPE_POSTERM_STR, DEVICE_TYPE_UNKNOWN_STR, DEVICE_TYPE_WIN2K_STR, DEVICE_TYPE_WIN2K3_STR, DEVICE_TYPE_WINVISTA_STR, DEVICE_TYPE_WINXP_STR, deviceID, deviceType, ipAddress, IRES_BSRVR_MO_TYPE, KIOSK_MO_TYPE, MACAddress, maLastEventID, masterDeviceID, mgmtPort, mgmtProtocol, modelNumber, modelType, networkMask, PEGASUS_IRES_TYPE, retailMoList, rjmxMoType, rtlAttribFlags, SCS_BOSS_APP_TYPE, SCS_BOSS_MO_TYPE, SCS_BOSS_POSBC_TYPE, SCS_BOSS_SIGUI_TYPE, SCS_LANE_MO_TYPE, SHADOWCLASSNAME, storeID

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

ATTRIB_JMX_CNX_IP_ATTR, ATTRIB_JMX_CNX_PORT, ATTRIB_JMX_HOSTNAME, CLASSNAME, COPYRIGHT, deviceHost, deviceIP, devicePort, maOffline

Constructor Summary

Retail4690ControllerManagedObject()

Default constructor for Retail 4690 controller managed object

```

Retail4690ControllerManagedObject(java.lang.String devIP,int devIP,java.lang.String
devIP,java.lang.String devIP,int devIP,int devIP,int devIP,java.lang.String
devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,byte[] devIP,int
devIP,java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP)

```

Method Summary

void	copyTo(TWGManagedObject managedObject) Copy instance data to another managed object.
void	restoreData(TWGPersistentObjectDictionary dictionary,boolean dictionary) Method for restoring persistent object data.
void	saveData(TWGPersistentObjectDictionary dictionary) Method for saving persistent object data.

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

```

addDirectorServices, copyTo, Delete, Destroy, enablePowerServices, executeJMXMethod,
getAddress, getAllJMXObjectNames, getAllJMXObjectNames, getAttributeDescription,
getAttributeIDList, getAttributeType, getAttributeValue, getAttributeValueString,
GetConShadowClass, getCurrentSystemTime, getDeviceID, getDeviceType, getJMXMethods,
getJMXObjectNames, getJMXObjectNames, getJMXObjectNames, getJMXProperties,
getJMXPropertyValue, getJMXPropertyValues, getLastEventID, getMACAddress,
getMasterAgentRetailID, getMBeanInfo, getMgmtPort, getMgmtProtocol, getModelInfo,
getNetworkMask, getRetailDevice, getRetailDeviceList, getRetailID, getRetailID,
getRetailID, GetShadowRecord, getStoreId, getSystemID, getSystemID, getVersion,
initializeMasterAgentConnections, is4690OSType, is4690OSType,
IsClientServiceSupported, isLinuxOSType, isLinuxOSType, isMasterAgentType,
isSuspendSupported, isSystemSecured, isWindowsOSType, isWindowsOSType,
ObjectChangedNotify, ObjectStateChangeNotify, refreshMOAttributesOnReconnect,
removeSetPingIntervalTask, requestPowerdown, requestRestart, requestShutdown,
requestSuspend, requestWakeOnLAN, restoreData, saveData, setAttributeValue,
setJMXPropertyValue, setLastEventID, setMgmtPort, setMgmtProtocol, setSecured,
setSecured, setState, setSuspendSupported, unsetSecured, unsetSecured, updateMOData,
updateMOSMasterIP, updateMOStates

```

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

```

copyTo, Delete, Destroy, executeJMXMethod, getAttributeDescription,
getAttributeIDList, getAttributeType, getAttributeValue, getConnectionID,
getConnectionID, getDeviceHost, getDeviceIPAddress, getDevicePort, getJMXClassName,
getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXProperties,
getJMXPropertyValue, getJMXPropertyValues, getMBeanInfo, getSystemID, isMAOffline,
restoreData, saveData, setAttributeValue, setDeviceHost, setDeviceIPAddress,
setDevicePort, setJMXPropertyValue, setMAOffline

```

Methods inherited from : class java.lang.Object

```

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

```

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME  
    Our classname
```

Constructors

Retail4690ControllerManagedObject

```
public Retail4690ControllerManagedObject()  
    Default constructor for Retail 4690 controller managed object
```

Retail4690ControllerManagedObject

```
public Retail4690ControllerManagedObject(java.lang.String devIP,  
                                           int devPt,  
                                           java.lang.String devHost,  
                                           java.lang.String stID,  
                                           int agtTyp,  
                                           int agtVer,  
                                           int devTyp,  
                                           java.lang.String devID,  
                                           java.lang.String mgmtPrtcl,  
                                           java.lang.String ipAddr,  
                                           java.lang.String networkMask,  
                                           byte[] MACAddress,  
                                           int mgmtPt,  
                                           java.lang.String maDevID,  
                                           int moType,  
                                           java.lang.String modTyp,  
                                           java.lang.String modNum)
```

Methods

copyTo

```
protected void copyTo(TWGManagedObject managedObject)
```

Copy instance data to another managed object.

Parameters:

managedObject -
target managed object.

saveData

```
protected void saveData(TWGPersistentObjectDictionary dictionary)  
    throws TWGPersistentObjectSaveException
```

Method for saving persistent object data.

Parameters:

dictionary -
used to collect persistent object.

(continued from last page)

Exceptions:

TWGPersistentObjectSaveException -
thrown to abort save procedure.

restoreData

```
protected void restoreData(TWGPersistentObjectDictionary dictionary,  
                           boolean resolveObjectRefs)  
    throws TWGPersistentObjectRestoreException
```

Method for restoring persistent object data.

Parameters:

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

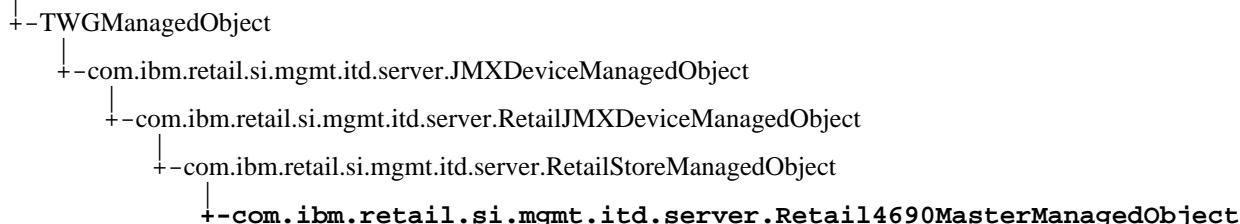
Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

com.ibm.retail.si.mgmt.itd.server

Class Retail4690MasterManagedObject

java.lang.Object

public class **Retail4690MasterManagedObject**

extends RetailStoreManagedObject

This class extends the RetailStoreManagedObject class to create a managed object specifically for the 4690 controllers in enhanced mode for retail store systems that are running as a master agent.

See Also:

com.ibm.retail.si.mgmt.itd.server.RetailStoreManagedObject

Field Summary

static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailStoreManagedObject

CLASSNAME, COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

AGENT_TYPE_GENERAL_AGENT_STR, AGENT_TYPE_MASTER_AGENT_STR, AGENT_TYPE_VIRTUAL_AGENT_STR, agentType, agentVer, ATTRIB_FLAGS_SUSPENDABLE, ATTRIB_FLAGS_SYSTEM_SECURED, ATTRIB_RMA_DEVICE_TYPE, ATTRIB_RMA_MASTER_DEV_ID, ATTRIB_RMA_MGMT_PORT, ATTRIB_RMA_MGMT_PROTOCOL, ATTRIB_RMA_MODEL_NUMBER, ATTRIB_RMA_MODEL_TYPE, ATTRIB_RMA_NETWORK_MASK, ATTRIB_RMA_STORE_NAME, CLASSNAME, COPYRIGHT, DEVICE_TYPE_4690_STR, DEVICE_TYPE_CONSUMER_STR, DEVICE_TYPE_IRESTERM_STR, DEVICE_TYPE_LINUX_STR, DEVICE_TYPE_POSTERM_STR, DEVICE_TYPE_UNKNOWN_STR, DEVICE_TYPE_WIN2K_STR, DEVICE_TYPE_WIN2K3_STR, DEVICE_TYPE_WINVISTA_STR, DEVICE_TYPE_WINXP_STR, deviceID, deviceType, ipAddress, IRES_BSRVR_MO_TYPE, KIOSK_MO_TYPE, MACAddress, maLastEventID, masterDeviceID, mgmtPort, mgmtProtocol, modelNumber, modelType, networkMask, PEGASUS_IRES_TYPE, retailMoList, rjmxDMoType, rtlAttribFlags, SCS_BOSS_APP_TYPE, SCS_BOSS_MO_TYPE, SCS_BOSS_POSBC_TYPE, SCS_BOSS_SIGUI_TYPE, SCS_LANE_MO_TYPE, SHADOWCLASSNAME, storeID

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

ATTRIB_JMX_CNX_IP_ATTR, ATTRIB_JMX_CNX_PORT, ATTRIB_JMX_HOSTNAME, CLASSNAME, COPYRIGHT, deviceHost, deviceIP, devicePort, maOffline

Constructor Summary

`Retail4690MasterManagedObject()`

Default constructor for Retail 4690 controller master agent managed object

`Retail4690MasterManagedObject(java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP,int devIP,int devIP,int devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,byte[] devIP,int devIP,java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP)`

Method Summary

void	<code>copyTo(TWGManagedObject managedObject)</code> Copy instance data to another managed object.
------	------------------------------------------------------------------------------------------------------

void	<code>restoreData(TWGPersistentObjectDictionary dictionary,boolean dictionary)</code> Method for restoring persistent object data.
------	---------------------------------------------------------------------------------------------------------------------------------------

void	<code>saveData(TWGPersistentObjectDictionary dictionary)</code> Method for saving persistent object data.
------	--------------------------------------------------------------------------------------------------------------

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.RetailStoreManagedObject`

`copyTo`, `enablePowerServices`, `getListOfMOsManaged`, `getSystemID`, `ObjectChangedNotify`, `ObjectStateChangeNotify`, `restoreData`, `saveData`

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject`

`addDirectorServices`, `copyTo`, `Delete`, `Destroy`, `enablePowerServices`, `executeJMXMethod`, `getAddress`, `getAllJMXObjectNames`, `getAllJMXObjectNames`, `getAttributeDescription`, `getAttributeIDList`, `getAttributeType`, `getAttributeValue`, `getAttributeValueString`, `GetConShadowClass`, `getCurrentSystemTime`, `getDeviceID`, `getDeviceType`, `getJMXMethods`, `getJMXObjectNames`, `getJMXObjectNames`, `getJMXObjectNames`, `getJMXProperties`, `getJMXPropertyValue`, `getJMXPropertyValues`, `getLastEventID`, `getMACAddress`, `getMasterAgentRetailID`, `getMBeanInfo`, `getMgmtPort`, `getMgmtProtocol`, `getModelInfo`, `getNetworkMask`, `getRetailDevice`, `getRetailDeviceList`, `getRetailID`, `getRetailID`, `getRetailID`, `GetShadowRecord`, `getStoreId`, `getSystemID`, `getSystemID`, `getVersion`, `initializeMasterAgentConnections`, `is4690OSType`, `is4690OSType`, `isClientServiceSupported`, `isLinuxOSType`, `isLinuxOSType`, `isMasterAgentType`, `isSuspendSupported`, `isSystemSecured`, `isWindowsOSType`, `isWindowsOSType`, `ObjectChangedNotify`, `ObjectStateChangeNotify`, `refreshMOAttributesOnReconnect`, `removeSetPingIntervalTask`, `requestPowerdown`, `requestRestart`, `requestShutdown`, `requestSuspend`, `requestWakeOnLAN`, `restoreData`, `saveData`, `setAttributeValue`, `setJMXPropertyValue`, `setLastEventID`, `setMgmtPort`, `setMgmtProtocol`, `setSecured`, `setSecured`, `setState`, `setSuspendSupported`, `unsetSecured`, `unsetSecured`, `updateMOData`, `updateMOsMasterIP`, `updateMOStates`

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject`

`copyTo`, `Delete`, `Destroy`, `executeJMXMethod`, `getAttributeDescription`, `getAttributeIDList`, `getAttributeType`, `getAttributeValue`, `getConnectionID`, `getConnectionID`, `getDeviceHost`, `getDeviceIPAddress`, `getDevicePort`, `getJMXClassName`, `getJMXMethods`, `getJMXObjectNames`, `getJMXObjectNames`, `getJMXProperties`, `getJMXPropertyValue`, `getJMXPropertyValues`, `getMBeanInfo`, `getSystemID`, `isMAOffline`, `restoreData`, `saveData`, `setAttributeValue`, `setDeviceHost`, `setDeviceIPAddress`, `setDevicePort`, `setJMXPropertyValue`, `setMAOffline`

Methods inherited from : class `java.lang.Object`

`clone`, `equals`, `finalize`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME  
    Our classname
```

Constructors

Retail4690MasterManagedObject

```
public Retail4690MasterManagedObject()  
    Default constructor for Retail 4690 controller master agent managed object
```

Retail4690MasterManagedObject

```
public Retail4690MasterManagedObject(java.lang.String devIP,  
    int devPt,  
    java.lang.String devHost,  
    java.lang.String stID,  
    int agtTyp,  
    int agtVer,  
    int devTyp,  
    java.lang.String devID,  
    java.lang.String mgmtPrtcl,  
    java.lang.String ipAddr,  
    java.lang.String networkMask,  
    byte[] MACAddress,  
    int mgmtPt,  
    java.lang.String maDevID,  
    int moType,  
    java.lang.String modTyp,  
    java.lang.String modNum)
```

Methods

copyTo

```
protected void copyTo(TWGManagedObject managedObject)  
    Copy instance data to another managed object.
```

Parameters:

managedObject -
target managed object.

(continued from last page)

saveData

```
protected void saveData(TWGPersistentObjectDictionary dictionary)
    throws TWGPersistentObjectSaveException
```

Method for saving persistent object data.

Parameters:

dictionary -
used to collect persistent object.

Exceptions:

TWGPersistentObjectSaveException -
thrown to abort save procedure.

restoreData

```
protected void restoreData(TWGPersistentObjectDictionary dictionary,
    boolean resolveObjectRefs)
    throws TWGPersistentObjectRestoreException
```

Method for restoring persistent object data.

Parameters:

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

com.ibm.retail.si.mgmt.itd.server

Class Retail4690TerminalManagedObject

java.lang.Object

+-TWGManagedObject

+-com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

+-com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

+-com.ibm.retail.si.mgmt.itd.server.Retail4690TerminalManagedObject

public class **Retail4690TerminalManagedObject**

extends RetailJMXDeviceManagedObject

This class extends the RetailJMXDeviceManagedObject class to create a managed object specifically for the 4690 terminals for retail store systems.

See Also:

com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

Field Summary

static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

AGENT_TYPE_GENERAL_AGENT_STR, AGENT_TYPE_MASTER_AGENT_STR, AGENT_TYPE_VIRTUAL_AGENT_STR, agentType, agentVer, ATTRIB_FLAGS_SUSPENDABLE, ATTRIB_FLAGS_SYSTEM_SECURED, ATTRIB_RMA_DEVICE_TYPE, ATTRIB_RMA_MASTER_DEV_ID, ATTRIB_RMA_MGMT_PORT, ATTRIB_RMA_MGMT_PROTOCOL, ATTRIB_RMA_MODEL_NUMBER, ATTRIB_RMA_MODEL_TYPE, ATTRIB_RMA_NETWORK_MASK, ATTRIB_RMA_STORE_NAME, CLASSNAME, COPYRIGHT, DEVICE_TYPE_4690_STR, DEVICE_TYPE_CONSUMER_STR, DEVICE_TYPE_IRESTERM_STR, DEVICE_TYPE_LINUX_STR, DEVICE_TYPE_POSTERM_STR, DEVICE_TYPE_UNKNOWN_STR, DEVICE_TYPE_WIN2K_STR, DEVICE_TYPE_WIN2K3_STR, DEVICE_TYPE_WINVISTA_STR, DEVICE_TYPE_WINXP_STR, deviceID, deviceType, ipAddress, IRES_BSRVR_MO_TYPE, KIOSK_MO_TYPE, MACAddress, maLastEventID, masterDeviceID, mgmtPort, mgmtProtocol, modelNumber, modelType, networkMask, PEGASUS_IRES_TYPE, retailMoList, rjmxdMoType, rtlAttribFlags, SCS_BOSS_APP_TYPE, SCS_BOSS_MO_TYPE, SCS_BOSS_POSBC_TYPE, SCS_BOSS_SIGUI_TYPE, SCS_LANE_MO_TYPE, SHADOWCLASSNAME, storeID

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

ATTRIB_JMX_CNX_IP_ATTR, ATTRIB_JMX_CNX_PORT, ATTRIB_JMX_HOSTNAME, CLASSNAME, COPYRIGHT, deviceHost, deviceIP, devicePort, maOffline

Constructor Summary

Retail4690TerminalManagedObject()

Default constructor for Retail 4690 terminal managed object

```

Retail4690TerminalManagedObject(java.lang.String devIP,int devIP,java.lang.String
devIP,java.lang.String devIP,int devIP,int devIP,int devIP,java.lang.String
devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,byte[] devIP,int
devIP,java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP)

```

Method Summary

void	copyTo(TWGManagedObject managedObject) Copy instance data to another managed object.
void	restoreData(TWGPersistentObjectDictionary dictionary,boolean dictionary) Method for restoring persistent object data.
void	saveData(TWGPersistentObjectDictionary dictionary) Method for saving persistent object data.

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

```

addDirectorServices, copyTo, Delete, Destroy, enablePowerServices, executeJMXMethod,
getAddress, getAllJMXObjectNames, getAllJMXObjectNames, getAttributeDescription,
getAttributeIDList, getAttributeType, getAttributeValue, getAttributeValueString,
GetConShadowClass, getCurrentSystemTime, getDeviceID, getDeviceType, getJMXMethods,
getJMXObjectNames, getJMXObjectNames, getJMXObjectNames, getJMXProperties,
getJMXPropertyValue, getJMXPropertyValues, getLastEventID, getMACAddress,
getMasterAgentRetailID, getMBeanInfo, getMgmtPort, getMgmtProtocol, getModelInfo,
getNetworkMask, getRetailDevice, getRetailDeviceList, getRetailID, getRetailID,
getRetailID, GetShadowRecord, getStoreId, getSystemID, getSystemID, getVersion,
initializeMasterAgentConnections, is4690OSType, is4690OSType,
IsClientServiceSupported, isLinuxOSType, isLinuxOSType, isMasterAgentType,
isSuspendSupported, isSystemSecured, isWindowsOSType, isWindowsOSType,
ObjectChangedNotify, ObjectStateChangeNotify, refreshMOAttributesOnReconnect,
removeSetPingIntervalTask, requestPowerdown, requestRestart, requestShutdown,
requestSuspend, requestWakeOnLAN, restoreData, saveData, setAttributeValue,
setJMXPropertyValue, setLastEventID, setMgmtPort, setMgmtProtocol, setSecured,
setSecured, setState, setSuspendSupported, unsetSecured, unsetSecured, updateMOData,
updateMOSMasterIP, updateMOSStates

```

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

```

copyTo, Delete, Destroy, executeJMXMethod, getAttributeDescription,
getAttributeIDList, getAttributeType, getAttributeValue, getConnectionID,
getConnectionID, getDeviceHost, getDeviceIPAddress, getDevicePort, getJMXClassName,
getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXProperties,
getJMXPropertyValue, getJMXPropertyValues, getMBeanInfo, getSystemID, isMAOffline,
restoreData, saveData, setAttributeValue, setDeviceHost, setDeviceIPAddress,
setDevicePort, setJMXPropertyValue, setMAOffline

```

Methods inherited from : class java.lang.Object

```

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

```

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME  
    Our classname
```

Constructors

Retail4690TerminalManagedObject

```
public Retail4690TerminalManagedObject()  
    Default constructor for Retail 4690 terminal managed object
```

Retail4690TerminalManagedObject

```
public Retail4690TerminalManagedObject(java.lang.String devIP,  
    int devPt,  
    java.lang.String devHost,  
    java.lang.String stID,  
    int agtTyp,  
    int agtVer,  
    int devTyp,  
    java.lang.String devID,  
    java.lang.String mgmtPrtcl,  
    java.lang.String ipAddr,  
    java.lang.String networkMask,  
    byte[] MACAddress,  
    int mgmtPt,  
    java.lang.String maDevID,  
    int moType,  
    java.lang.String modTyp,  
    java.lang.String modNum)
```

Methods

copyTo

```
protected void copyTo(TWGManagedObject managedObject)  
    Copy instance data to another managed object.
```

Parameters:

managedObject -
target managed object.

saveData

```
protected void saveData(TWGPersistentObjectDictionary dictionary)  
    throws TWGPersistentObjectSaveException
```

Method for saving persistent object data.

Parameters:

dictionary -
used to collect persistent object.

(continued from last page)

Exceptions:

TWGPersistentObjectSaveException -
thrown to abort save procedure.

restoreData

```
protected void restoreData(TWGPersistentObjectDictionary dictionary,  
                           boolean resolveObjectRefs)  
    throws TWGPersistentObjectRestoreException
```

Method for restoring persistent object data.

Parameters:

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

com.ibm.retail.si.mgmt.itd.server

Class RetailIRESBranchServerManagedObject

java.lang.Object

public class **RetailIRESBranchServerManagedObject**

extends RetailStoreManagedObject

This class extends the RetailStoreManagedObject class to create a special master agent managed object specifically for the IRES Branch Server systems for retail store systems.

See Also:

com.ibm.retail.si.mgmt.itd.server.RetailStoreManagedObject

Field Summary

static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailStoreManagedObject

CLASSNAME, COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

AGENT_TYPE_GENERAL_AGENT_STR, AGENT_TYPE_MASTER_AGENT_STR, AGENT_TYPE_VIRTUAL_AGENT_STR, agentType, agentVer, ATTRIB_FLAGS_SUSPENDABLE, ATTRIB_FLAGS_SYSTEM_SECURED, ATTRIB_RMA_DEVICE_TYPE, ATTRIB_RMA_MASTER_DEV_ID, ATTRIB_RMA_MGMT_PORT, ATTRIB_RMA_MGMT_PROTOCOL, ATTRIB_RMA_MODEL_NUMBER, ATTRIB_RMA_MODEL_TYPE, ATTRIB_RMA_NETWORK_MASK, ATTRIB_RMA_STORE_NAME, CLASSNAME, COPYRIGHT, DEVICE_TYPE_4690_STR, DEVICE_TYPE_CONSUMER_STR, DEVICE_TYPE_IRESTERM_STR, DEVICE_TYPE_LINUX_STR, DEVICE_TYPE_POSTERM_STR, DEVICE_TYPE_UNKNOWN_STR, DEVICE_TYPE_WIN2K_STR, DEVICE_TYPE_WIN2K3_STR, DEVICE_TYPE_WINVISTA_STR, DEVICE_TYPE_WINXP_STR, deviceID, deviceType, ipAddress, IRES_BSRVR_MO_TYPE, KIOSK_MO_TYPE, MACAddress, maLastEventID, masterDeviceID, mgmtPort, mgmtProtocol, modelNumber, modelType, networkMask, PEGASUS_IRES_TYPE, retailMoList, rjmxDeviceType, rtaAttribFlags, SCS_BOSS_APP_TYPE, SCS_BOSS_MO_TYPE, SCS_BOSS_POSBC_TYPE, SCS_BOSS_SIGUI_TYPE, SCS_LANE_MO_TYPE, SHADOWCLASSNAME, storeID

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

ATTRIB_JMX_CNX_IP_ATTR, ATTRIB_JMX_CNX_PORT, ATTRIB_JMX_HOSTNAME, CLASSNAME, COPYRIGHT, deviceHost, deviceIP, devicePort, maOffline

Constructor Summary

`RetailIRESBranchServerManagedObject()`

Default constructor for Retail IRES Branch Server managed object

`RetailIRESBranchServerManagedObject(java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP,int devIP,int devIP,int devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,byte[] devIP,int devIP,java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP)`

Method Summary

void	<code>restoreData(TWGPersistentObjectDictionary dictionary,boolean dictionary)</code> Method for restoring persistent object data.
------	---------------------------------------------------------------------------------------------------------------------------------------

void	<code>saveData(TWGPersistentObjectDictionary dictionary)</code> Method for saving persistent object data.
------	--------------------------------------------------------------------------------------------------------------

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.RetailStoreManagedObject`

`copyTo, enablePowerServices, getListOfMOsManaged, getSystemID, ObjectChangedNotify, ObjectStateChangeNotify, restoreData, saveData`

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject`

`addDirectorServices, copyTo, Delete, Destroy, enablePowerServices, executeJMXMethod, getAddress, getAllJMXObjectNames, getAllJMXObjectNames, getAttributeDescription, getAttributeIDList, getAttributeType, getAttributeValue, getAttributeValueString, GetConShadowClass, getCurrentSystemTime, getDeviceID, getDeviceType, getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXObjectNames, getJMXProperties, getJMXPropertyValue, getJMXPropertyValues, getLastEventID, getMACAddress, getMasterAgentRetailID, getMBeanInfo, getMgmtPort, getMgmtProtocol, getModelInfo, getNetworkMask, getRetailDevice, getRetailDeviceList, getRetailID, getRetailID, getRetailID, GetShadowRecord, getStoreId, getSystemID, getSystemID, getVersion, initializeMasterAgentConnections, is4690OSType, is4690OSType, isClientServiceSupported, isLinuxOSType, isLinuxOSType, isMasterAgentType, isSuspendSupported, isSystemSecured, isWindowsOSType, isWindowsOSType, ObjectChangedNotify, ObjectStateChangeNotify, refreshMOAttributesOnReconnect, removeSetPingIntervalTask, requestPowerdown, requestRestart, requestShutdown, requestSuspend, requestWakeOnLAN, restoreData, saveData, setAttributeValue, setJMXPropertyValue, setLastEventID, setMgmtPort, setMgmtProtocol, setSecured, setSecured, setState, setSuspendSupported, unsetSecured, unsetSecured, updateMOData, updateMOsMasterIP, updateMOStates`

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject`

`copyTo, Delete, Destroy, executeJMXMethod, getAttributeDescription, getAttributeIDList, getAttributeType, getAttributeValue, getConnectionID, getConnectionID, getDeviceHost, getDeviceIPAddress, getDevicePort, getJMXClassName, getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXProperties, getJMXPropertyValue, getJMXPropertyValues, getMBeanInfo, getSystemID, isMAOffline, restoreData, saveData, setAttributeValue, setDeviceHost, setDeviceIPAddress, setDevicePort, setJMXPropertyValue, setMAOffline`

Methods inherited from : class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME  
    Our classname
```

Constructors

RetailIRESBranchServerManagedObject

```
public RetailIRESBranchServerManagedObject()  
    Default constructor for Retail IRES Branch Server managed object
```

RetailIRESBranchServerManagedObject

```
public RetailIRESBranchServerManagedObject(java.lang.String devIP,  
                                             int devPt,  
                                             java.lang.String devHost,  
                                             java.lang.String stID,  
                                             int agtTyp,  
                                             int agtVer,  
                                             int devTyp,  
                                             java.lang.String devID,  
                                             java.lang.String mgmtPrtcl,  
                                             java.lang.String ipAddr,  
                                             java.lang.String networkMask,  
                                             byte[] MACAddress,  
                                             int mgmtPt,  
                                             java.lang.String maDevID,  
                                             int moType,  
                                             java.lang.String modTyp,  
                                             java.lang.String modNum)
```

Methods

saveData

```
protected void saveData(TWGPersistentObjectDictionary dictionary)  
    throws TWGPersistentObjectSaveException
```

Method for saving persistent object data.

Parameters:

dictionary -
used to collect persistent object.

Exceptions:

TWGPersistentObjectSaveException -
thrown to abort save procedure.

restoreData

```
protected void restoreData(TWGPersistentObjectDictionary dictionary,  
                             boolean resolveObjectRefs)  
    throws TWGPersistentObjectRestoreException
```

Method for restoring persistent object data.

Parameters:

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

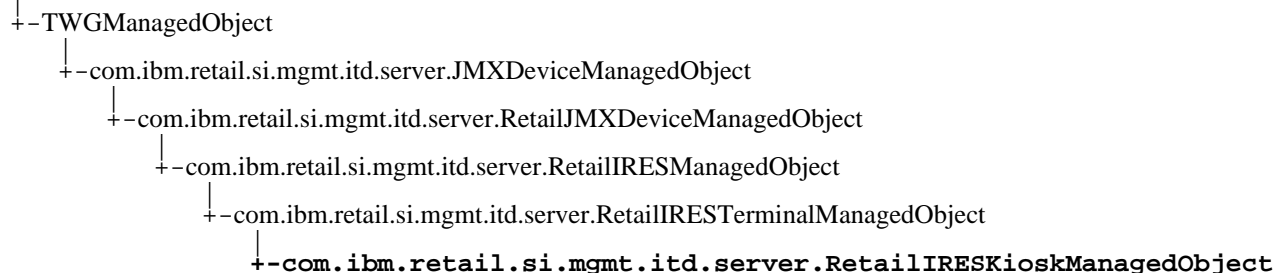
Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

com.ibm.retail.si.mgmt.itd.server

Class RetailIRESKioskManagedObject

java.lang.Object



```

public class RetailIRESKioskManagedObject
extends RetailIRESTerminalManagedObject

```

This class extends the RetailIRESTerminalManagedObject class to create a managed object specifically for the IRES based Kiosk devices for retail store systems.

See Also:

com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

Field Summary

static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailIRESTerminalManagedObject

CLASSNAME, COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailIRESManagedObject

CLASSNAME, COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

AGENT_TYPE_GENERAL_AGENT_STR, AGENT_TYPE_MASTER_AGENT_STR, AGENT_TYPE_VIRTUAL_AGENT_STR, agentType, agentVer, ATTRIB_FLAGS_SUSPENDABLE, ATTRIB_FLAGS_SYSTEM_SECURED, ATTRIB_RMA_DEVICE_TYPE, ATTRIB_RMA_MASTER_DEV_ID, ATTRIB_RMA_MGMT_PORT, ATTRIB_RMA_MGMT_PROTOCOL, ATTRIB_RMA_MODEL_NUMBER, ATTRIB_RMA_MODEL_TYPE, ATTRIB_RMA_NETWORK_MASK, ATTRIB_RMA_STORE_NAME, CLASSNAME, COPYRIGHT, DEVICE_TYPE_4690_STR, DEVICE_TYPE_CONSUMER_STR, DEVICE_TYPE_IRES_TERM_STR, DEVICE_TYPE_LINUX_STR, DEVICE_TYPE_POSTERM_STR, DEVICE_TYPE_UNKNOWN_STR, DEVICE_TYPE_WIN2K_STR, DEVICE_TYPE_WIN2K3_STR, DEVICE_TYPE_WINVISTA_STR, DEVICE_TYPE_WINXP_STR, deviceID, deviceType, ipAddress, IRES_BSRVR_MO_TYPE, KIOSK_MO_TYPE, MACAddress, maLastEventID, masterDeviceID, mgmtPort, mgmtProtocol, modelNumber, modelType, networkMask, PEGASUS_IRES_TYPE, retailMoList, rjmxMoType, rtlAttribFlags, SCS_BOSS_APP_TYPE, SCS_BOSS_MO_TYPE, SCS_BOSS_POSBC_TYPE, SCS_BOSS_SIGUI_TYPE, SCS_LANE_MO_TYPE, SHADOWCLASSNAME, storeID

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

ATTRIB_JMX_CNX_IP_ATTR, ATTRIB_JMX_CNX_PORT, ATTRIB_JMX_HOSTNAME, CLASSNAME, COPYRIGHT, deviceHost, deviceIP, devicePort, maOffline

Constructor Summary

RetailIRESKioskManagedObject()

Default constructor for IRES based Retail Kiosk managed objects

RetailIRESKioskManagedObject(java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP,int devIP,int devIP,int devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,byte[] devIP,int devIP,java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP)

Method Summary

void	copyTo(TWGManagedObject managedObject) Copy instance data to another managed object.
------	-----------------------------------------------------------------------------------------

void	restoreData(TWGPersistentObjectDictionary dictionary,boolean dictionary) Method for restoring persistent object data.
------	--------------------------------------------------------------------------------------------------------------------------

void	saveData(TWGPersistentObjectDictionary dictionary) Method for saving persistent object data.
------	-------------------------------------------------------------------------------------------------

Methods inherited from : class

com.ibm.retail.si.mgmt.itd.server.RetailIRESTerminalManagedObject

restoreData, saveData

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailIRESManagedObject

restoreData, saveData

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

addDirectorServices, copyTo, Delete, Destroy, enablePowerServices, executeJMXMethod, getAddress, getAllJMXObjectNames, getAllJMXObjectNames, getAttributeDescription, getAttributeIDList, getAttributeType, getAttributeValue, getAttributeValueString, GetConShadowClass, getCurrentSystemTime, getDeviceID, getDeviceType, getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXObjectNames, getJMXProperties, getJMXPropertyValue, getJMXPropertyValues, getLastEventID, getMACAddress, getMasterAgentRetailID, getMBeanInfo, getMgmtPort, getMgmtProtocol, getModelInfo, getNetworkMask, getRetailDevice, getRetailDeviceList, getRetailID, getRetailID, getRetailID, GetShadowRecord, getStoreId, getSystemID, getSystemID, getVersion, initializeMasterAgentConnections, is4690OSType, is4690OSType, isClientServiceSupported, isLinuxOSType, isLinuxOSType, isMasterAgentType, isSuspendSupported, isSystemSecured, isWindowsOSType, isWindowsOSType, ObjectChangedNotify, ObjectStateChangeNotify, refreshMOAttributesOnReconnect, removeSetPingIntervalTask, requestPowerdown, requestRestart, requestShutdown, requestSuspend, requestWakeOnLAN, restoreData, saveData, setAttributeValue, setJMXPropertyValue, setLastEventID, setMgmtPort, setMgmtProtocol, setSecured, setSecured, setState, setSuspendSupported, unsetSecured, unsetSecured, updateMOData, updateMOsMasterIP, updateMOStates

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

```
copyTo, Delete, Destroy, executeJMXMethod, getAttributeDescription,
getAttributeIDList, getAttributeType, getAttributeValue, getConnectionID,
getConnectionID, getDeviceHost, getDeviceIPAddress, getDevicePort, getJMXClassName,
getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXProperties,
getJMXPropertyValue, getJMXPropertyValues, getMBeanInfo, getSystemID, isMAOffline,
restoreData, saveData, setAttributeValue, setDeviceHost, setDeviceIPAddress,
setDevicePort, setJMXPropertyValue, setMAOffline
```

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME
    Our classname
```

Constructors

RetailIRESKioskManagedObject

```
public RetailIRESKioskManagedObject()
    Default constructor for IRES based Retail Kiosk managed objects
```

RetailIRESKioskManagedObject

```
public RetailIRESKioskManagedObject( java.lang.String devIP,
                                       int devPt,
                                       java.lang.String devHost,
                                       java.lang.String stID,
                                       int agtTyp,
                                       int agtVer,
                                       int devTyp,
                                       java.lang.String devID,
                                       java.lang.String mgmtPrtcl,
                                       java.lang.String ipAddr,
                                       java.lang.String networkMask,
                                       byte[] MACAddress,
                                       int mgmtPt,
                                       java.lang.String maDevID,
                                       int moType,
                                       java.lang.String modTyp,
                                       java.lang.String modNum)
```

Methods

(continued from last page)

copyTo

protected void **copyTo**(TWGManagedObject managedObject)

Copy instance data to another managed object.

Parameters:

managedObject -
target managed object.

saveData

protected void **saveData**(TWGPersistentObjectDictionary dictionary)
throws TWGPersistentObjectSaveException

Method for saving persistent object data.

Parameters:

dictionary -
used to collect persistent object.

Exceptions:

TWGPersistentObjectSaveException -
thrown to abort save procedure.

restoreData

protected void **restoreData**(TWGPersistentObjectDictionary dictionary,
boolean resolveObjectRefs)
throws TWGPersistentObjectRestoreException

Method for restoring persistent object data.

Parameters:

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

com.ibm.retail.si.mgmt.itd.server

Class RetailIRESManagedObject

java.lang.Object

|--TWGManagedObject

|--com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

|--com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

|--**com.ibm.retail.si.mgmt.itd.server.RetailIRESManagedObject****Direct Known Subclasses:**

RetailIRESTerminalManagedObject

public class **RetailIRESManagedObject**

extends RetailJMXDeviceManagedObject

This class extends the RetailJMXDeviceManagedObject class to create a managed object specifically for the IRES systems for retail store systems.

See Also:

com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

Field Summary

static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

AGENT_TYPE_GENERAL_AGENT_STR, AGENT_TYPE_MASTER_AGENT_STR, AGENT_TYPE_VIRTUAL_AGENT_STR, agentType, agentVer, ATTRIB_FLAGS_SUSPENDABLE, ATTRIB_FLAGS_SYSTEM_SECURED, ATTRIB_RMA_DEVICE_TYPE, ATTRIB_RMA_MASTER_DEV_ID, ATTRIB_RMA_MGMT_PORT, ATTRIB_RMA_MGMT_PROTOCOL, ATTRIB_RMA_MODEL_NUMBER, ATTRIB_RMA_MODEL_TYPE, ATTRIB_RMA_NETWORK_MASK, ATTRIB_RMA_STORE_NAME, CLASSNAME, COPYRIGHT, DEVICE_TYPE_4690_STR, DEVICE_TYPE_CONSUMER_STR, DEVICE_TYPE_IRES_TERM_STR, DEVICE_TYPE_LINUX_STR, DEVICE_TYPE_POSTERM_STR, DEVICE_TYPE_UNKNOWN_STR, DEVICE_TYPE_WIN2K_STR, DEVICE_TYPE_WIN2K3_STR, DEVICE_TYPE_WINVISTA_STR, DEVICE_TYPE_WINXP_STR, deviceID, deviceType, ipAddress, IRES_BSRVR_MO_TYPE, KIOSK_MO_TYPE, MACAddress, maLastEventID, masterDeviceID, mgmtPort, mgmtProtocol, modelNumber, modelType, networkMask, PEGASUS_IRES_TYPE, retailMoList, rjmxMoType, rtlAttribFlags, SCS_BOSS_APP_TYPE, SCS_BOSS_MO_TYPE, SCS_BOSS_POSBC_TYPE, SCS_BOSS_SIGUI_TYPE, SCS_LANE_MO_TYPE, SHADOWCLASSNAME, storeID

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

ATTRIB_JMX_CNX_IP_ATTR, ATTRIB_JMX_CNX_PORT, ATTRIB_JMX_HOSTNAME, CLASSNAME, COPYRIGHT, deviceHost, deviceIP, devicePort, maOffline

Constructor Summary

RetailIRESManagedObject()

Default constructor for Retail IRES system managed object

```
RetailIRESManagedObject(java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String
devIP,int devIP,int devIP,int devIP,java.lang.String devIP,java.lang.String
devIP,java.lang.String devIP,java.lang.String devIP,byte[] devIP,int devIP,java.lang.String
devIP,int devIP,java.lang.String devIP,java.lang.String devIP)
```

Method Summary

void	restoreData(TWGPersistentObjectDictionary dictionary,boolean dictionary) Method for restoring persistent object data.
------	--------------------------------------------------------------------------------------------------------------------------

void	saveData(TWGPersistentObjectDictionary dictionary) Method for saving persistent object data.
------	-------------------------------------------------------------------------------------------------

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

addDirectorServices, copyTo, Delete, Destroy, enablePowerServices, executeJMXMethod, getAddress, getAllJMXObjectNames, getAllJMXObjectNames, getAttributeDescription, getAttributeIDList, getAttributeType, getAttributeValue, getAttributeValueString, GetConShadowClass, getCurrentSystemTime, getDeviceID, getDeviceType, getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXObjectNames, getJMXProperties, getJMXPropertyValue, getJMXPropertyValues, getLastEventID, getMACAddress, getMasterAgentRetailID, getMBeanInfo, getMgmtPort, getMgmtProtocol, getModelInfo, getNetworkMask, getRetailDevice, getRetailDeviceList, getRetailID, getRetailID, getRetailID, GetShadowRecord, getStoreId, getSystemID, getSystemID, getVersion, initializeMasterAgentConnections, is4690OSType, is4690OSType, isClientServiceSupported, isLinuxOSType, isLinuxOSType, isMasterAgentType, isSuspendSupported, isSystemSecured, isWindowsOSType, isWindowsOSType, ObjectChangedNotify, ObjectStateChangeNotify, refreshMOAttributesOnReconnect, removeSetPingIntervalTask, requestPowerdown, requestRestart, requestShutdown, requestSuspend, requestWakeOnLAN, restoreData, saveData, setAttributeValue, setJMXPropertyValue, setLastEventID, setMgmtPort, setMgmtProtocol, setSecured, setSecured, setState, setSuspendSupported, unsetSecured, unsetSecured, updateMOData, updateMOsMasterIP, updateMOStates

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

copyTo, Delete, Destroy, executeJMXMethod, getAttributeDescription, getAttributeIDList, getAttributeType, getAttributeValue, getConnectionID, getConnectionID, getDeviceHost, getDeviceIPAddress, getDevicePort, getJMXClassName, getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXProperties, getJMXPropertyValue, getJMXPropertyValues, getMBeanInfo, getSystemID, isMAOffline, restoreData, saveData, setAttributeValue, setDeviceHost, setDeviceIPAddress, setDevicePort, setJMXPropertyValue, setMAOffline

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME  
    Our classname
```

Constructors

RetailIRESManagedObject

```
public RetailIRESManagedObject()  
    Default constructor for Retail IRES system managed object
```

RetailIRESManagedObject

```
public RetailIRESManagedObject(java.lang.String devIP,  
    int devPt,  
    java.lang.String devHost,  
    java.lang.String stID,  
    int agtTyp,  
    int agtVer,  
    int devTyp,  
    java.lang.String devID,  
    java.lang.String mgmtPrtcl,  
    java.lang.String ipAddr,  
    java.lang.String networkMask,  
    byte[] MACAddress,  
    int mgmtPt,  
    java.lang.String maDevID,  
    int moType,  
    java.lang.String modTyp,  
    java.lang.String modNum)
```

Methods

saveData

```
protected void saveData(TWGPersistentObjectDictionary dictionary)  
    throws TWGPersistentObjectSaveException
```

Method for saving persistent object data.

Parameters:

dictionary -
used to collect persistent object.

Exceptions:

TWGPersistentObjectSaveException -
thrown to abort save procedure.

(continued from last page)

restoreData

```
protected void restoreData(TWGPersistentObjectDictionary dictionary,  
                             boolean resolveObjectRefs)  
    throws TWGPersistentObjectRestoreException
```

Method for restoring persistent object data.

Parameters:

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

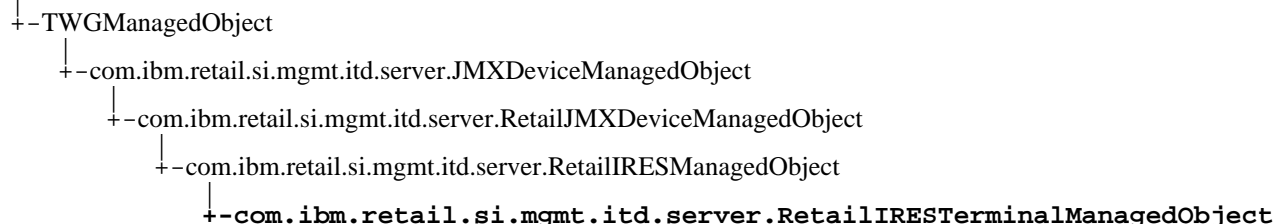
Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

com.ibm.retail.si.mgmt.itd.server

Class RetailIRESTerminalManagedObject

java.lang.Object

**Direct Known Subclasses:**

RetailIRESKioskManagedObject

public class **RetailIRESTerminalManagedObject**

extends RetailIRESManagedObject

This class extends the RetailJMXDeviceManagedObject class to create a managed object specifically for the IRES systems for retail store systems.

See Also:

com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

Field Summary

static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailIRESManagedObject

CLASSNAME, COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

AGENT_TYPE_GENERAL_AGENT_STR, AGENT_TYPE_MASTER_AGENT_STR, AGENT_TYPE_VIRTUAL_AGENT_STR, agentType, agentVer, ATTRIB_FLAGS_SUSPENDABLE, ATTRIB_FLAGS_SYSTEM_SECURED, ATTRIB_RMA_DEVICE_TYPE, ATTRIB_RMA_MASTER_DEV_ID, ATTRIB_RMA_MGMT_PORT, ATTRIB_RMA_MGMT_PROTOCOL, ATTRIB_RMA_MODEL_NUMBER, ATTRIB_RMA_MODEL_TYPE, ATTRIB_RMA_NETWORK_MASK, ATTRIB_RMA_STORE_NAME, CLASSNAME, COPYRIGHT, DEVICE_TYPE_4690_STR, DEVICE_TYPE_CONSUMER_STR, DEVICE_TYPE_IRES_TERM_STR, DEVICE_TYPE_LINUX_STR, DEVICE_TYPE_POSTERM_STR, DEVICE_TYPE_UNKNOWN_STR, DEVICE_TYPE_WIN2K_STR, DEVICE_TYPE_WIN2K3_STR, DEVICE_TYPE_WINVISTA_STR, DEVICE_TYPE_WINXP_STR, deviceID, deviceType, ipAddress, IRES_BSRVR_MO_TYPE, KIOSK_MO_TYPE, MACAddress, maLastEventID, masterDeviceID, mgmtPort, mgmtProtocol, modelNumber, modelType, networkMask, PEGASUS_IRES_TYPE, retailMoList, rjmxMoType, rtlAttribFlags, SCS_BOSS_APP_TYPE, SCS_BOSS_MO_TYPE, SCS_BOSS_POSBC_TYPE, SCS_BOSS_SIGUI_TYPE, SCS_LANE_MO_TYPE, SHADOWCLASSNAME, storeID

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

ATTRIB_JMX_CNX_IP_ATTR, ATTRIB_JMX_CNX_PORT, ATTRIB_JMX_HOSTNAME, CLASSNAME, COPYRIGHT, deviceHost, deviceIP, devicePort, maOffline

Constructor Summary

`RetailIRESTerminalManagedObject()`

Default constructor for Retail IRES system managed object

`RetailIRESTerminalManagedObject(java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP,int devIP,int devIP,int devIP,int devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,byte[] devIP,int devIP,java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP)`

Method Summary

void	<code>restoreData(TWGPersistentObjectDictionary dictionary,boolean dictionary)</code> Method for restoring persistent object data.
------	---------------------------------------------------------------------------------------------------------------------------------------

void	<code>saveData(TWGPersistentObjectDictionary dictionary)</code> Method for saving persistent object data.
------	--------------------------------------------------------------------------------------------------------------

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.RetailIRESManagedObject`

`restoreData, saveData`

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject`

`addDirectorServices, copyTo, Delete, Destroy, enablePowerServices, executeJMXMethod, getAddress, getAllJMXObjectNames, getAllJMXObjectNames, getAttributeDescription, getAttributeIDList, getAttributeType, getAttributeValue, getAttributeValueString, GetConShadowClass, getCurrentSystemTime, getDeviceID, getDeviceType, getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXObjectNames, getJMXProperties, getJMXPropertyValue, getJMXPropertyValues, getLastEventID, getMACAddress, getMasterAgentRetailID, getMBeanInfo, getMgmtPort, getMgmtProtocol, getModelInfo, getNetworkMask, getRetailDevice, getRetailDeviceList, getRetailID, getRetailID, getRetailID, GetShadowRecord, getStoreID, getSystemID, getSystemID, getVersion, initializeMasterAgentConnections, is4690OSType, is4690OSType, isClientServiceSupported, isLinuxOSType, isLinuxOSType, isMasterAgentType, isSuspendSupported, isSystemSecured, isWindowsOSType, isWindowsOSType, ObjectChangedNotify, ObjectStateChangeNotify, refreshMOAttributesOnReconnect, removeSetPingIntervalTask, requestPowerdown, requestRestart, requestShutdown, requestSuspend, requestWakeOnLAN, restoreData, saveData, setAttributeValue, setJMXPropertyValue, setLastEventID, setMgmtPort, setMgmtProtocol, setSecured, setSecured, setState, setSuspendSupported, unsetSecured, unsetSecured, updateMOData, updateMOSMasterIP, updateMOStates`

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject`

`copyTo, Delete, Destroy, executeJMXMethod, getAttributeDescription, getAttributeIDList, getAttributeType, getAttributeValue, getConnectionID, getConnectionID, getDeviceHost, getDeviceIPAddress, getDevicePort, getJMXClassName, getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXProperties, getJMXPropertyValue, getJMXPropertyValues, getMBeanInfo, getSystemID, isMAOffline, restoreData, saveData, setAttributeValue, setDeviceHost, setDeviceIPAddress, setDevicePort, setJMXPropertyValue, setMAOffline`

Methods inherited from : class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME
```

Our classname

Constructors

RetailIRESTerminalManagedObject

```
public RetailIRESTerminalManagedObject()
```

Default constructor for Retail IRES system managed object

RetailIRESTerminalManagedObject

```
public RetailIRESTerminalManagedObject(java.lang.String devIP,  
                                         int devPt,  
                                         java.lang.String devHost,  
                                         java.lang.String stID,  
                                         int agtTyp,  
                                         int agtVer,  
                                         int devTyp,  
                                         java.lang.String devID,  
                                         java.lang.String mgmtPrtcl,  
                                         java.lang.String ipAddr,  
                                         java.lang.String networkMask,  
                                         byte[] MACAddress,  
                                         int mgmtPt,  
                                         java.lang.String maDevID,  
                                         int moType,  
                                         java.lang.String modTyp,  
                                         java.lang.String modNum)
```

Methods

saveData

```
protected void saveData(TWGPersistentObjectDictionary dictionary)  
    throws TWGPersistentObjectSaveException
```

Method for saving persistent object data.

Parameters:

dictionary -
used to collect persistent object.

Exceptions:

(continued from last page)

TWGPersistentObjectSaveException -
thrown to abort save procedure.

restoreData

```
protected void restoreData(TWGPersistentObjectDictionary dictionary,  
                           boolean resolveObjectRefs)  
    throws TWGPersistentObjectRestoreException
```

Method for restoring persistent object data.

Parameters:

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

com.ibm.retail.si.mgmt.itd.server

Class RetailJMXDeviceConManagedObject

java.lang.Object

├-TWGConManagedObject

└-com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceConManagedObject

```
public class RetailJMXDeviceConManagedObject
extends TWGConManagedObject
```

Console object used to shadow the state of a TWGImageSet object in the Director Server.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

RetailJMXDeviceConManagedObject(long obj_id)

Constructor for a RetailJMXDeviceConManagedObject using the given object ID.

Method Summary

int	getState() Get state value
-----	-------------------------------

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

RetailJMXDeviceConManagedObject

```
public RetailJMXDeviceConManagedObject(long obj_id)
```

Constructor for a RetailJMXDeviceConManagedObject using the given object ID.

Parameters:

(continued from last page)

`obj_id` -
The object ID of the retail console object

Exceptions:

`DuplicateObjectIDException` -
if ID is duplicate of an existing object ID

Methods

getState

```
public int getState()
```

Get state value

Returns:

state value

com.ibm.retail.si.mgmt.itd.server

Class RetailJMXDeviceManagedObject

java.lang.Object

├-TWGManagedObject

├-com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

├-com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

Direct Known Subclasses:RetailWindowsPOSManagedObject, RetailStoreManagedObject, RetailPSADeviceManagedObject,
RetailIRESManagedObject, Retail4690TerminalManagedObject, Retail4690ControllerManagedObjectpublic class **RetailJMXDeviceManagedObject**

extends JMXDeviceManagedObject

This class extends the TWGManagedObject class to create a managed object for retail store systems devices. This base object will contain the following information to help uniquely identify the object: StoreID of the Master agent DeviceID of the general agent (if different) ipAddr used to talk to general agent (if different)

See Also:

com.tivoli.twg.engine.TWGManagedObject

Field Summary

static java.lang.String	AGENT_TYPE_GENERAL_AGENT_STR
static java.lang.String	AGENT_TYPE_MASTER_AGENT_STR
static java.lang.String	AGENT_TYPE_VIRTUAL_AGENT_STR
int	agentType
int	agentVer
static int	ATTRIB_FLAGS_SUSPENDABLE
static int	ATTRIB_FLAGS_SYSTEM_SECURED
static java.lang.String	ATTRIB_RMA_DEVICE_TYPE
static java.lang.String	ATTRIB_RMA_MASTER_DEV_ID
static java.lang.String	ATTRIB_RMA_MGMT_PORT
static java.lang.String	ATTRIB_RMA_MGMT_PROTOCOL
static java.lang.String	ATTRIB_RMA_MODEL_NUMBER

static java.lang.String	ATTRIB_RMA_MODEL_TYPE
static java.lang.String	ATTRIB_RMA_NETWORK_MASK
static java.lang.String	ATTRIB_RMA_STORE_NAME
static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT
static java.lang.String	DEVICE_TYPE_4690_STR
static java.lang.String	DEVICE_TYPE_CONSUMER_STR
static java.lang.String	DEVICE_TYPE_IRESTERM_STR
static java.lang.String	DEVICE_TYPE_LINUX_STR
static java.lang.String	DEVICE_TYPE_POSTERM_STR
static java.lang.String	DEVICE_TYPE_UNKNOWN_STR
static java.lang.String	DEVICE_TYPE_WIN2K_STR
static java.lang.String	DEVICE_TYPE_WIN2K3_STR
static java.lang.String	DEVICE_TYPE_WINVISTA_STR
static java.lang.String	DEVICE_TYPE_WINXP_STR
java.lang.String	deviceID
int	deviceType
java.lang.String	ipAddress
static int	IRES_BSRVR_MO_TYPE
static int	KIOSK_MO_TYPE
byte[]	MACAddress
long	maLastEventID
java.lang.String	masterDeviceID

int	mgmtPort
java.lang.String	mgmtProtocol
java.lang.String	modelName
java.lang.String	modelType
java.lang.String	networkMask
static int	PEGASUS_IRES_TYPE
static java.util.Map	retailMoList List of retail managed objects that we've already created
int	rjmxMoType
long	rtlAttribFlags
static int	SCS_BOSS_APP_TYPE
static int	SCS_BOSS_MO_TYPE
static int	SCS_BOSS_POSBC_TYPE
static int	SCS_BOSS_SIGUI_TYPE
static int	SCS_LANE_MO_TYPE
static java.lang.String	SHADOWCLASSNAME
java.lang.String	storeID

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

ATTRIB_JMX_CNX_IP_ATTR, ATTRIB_JMX_CNX_PORT, ATTRIB_JMX_HOSTNAME, CLASSNAME, COPYRIGHT, deviceHost, deviceIP, devicePort, maOffline

Constructor Summary

RetailJMXDeviceManagedObject()

Default constructor for retail store managed object

RetailJMXDeviceManagedObject(java.lang.String devIP, int devIP, java.lang.String devIP, java.lang.String devIP, int devIP, int devIP, int devIP, java.lang.String devIP, java.lang.String devIP, java.lang.String devIP, int devIP, java.lang.String devIP, int devIP, java.lang.String devIP, java.lang.String devIP)

Default constructor for retail store managed object

```

RetailJMXDeviceManagedObject(java.lang.String devIP,int devIP,java.lang.String
devIP,java.lang.String devIP,int devIP,int devIP,int devIP,java.lang.String
devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,byte[] devIP,int
devIP,java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP)

```

Method Summary

void	addDirectorServices() Enable this POS managed object for the following Director tasks: - Resource monitoring (will only work for those supported by Monitor plug-in) - Process management (only supports Windows O/S processes)
void	copyTo(TWGManagedObject managedObject) Copy instance data to another managed object.
void	Delete() Destructor for RetailJMXDeviceManagedObject: remove object from lists
void	Destroy() Destroy for RetailJMXDeviceManagedObject
void	enablePowerServices() This method is meant to be implemented by child classes that wish to limit their power function support
java.lang.Object	executeJMXMethod(javax.management.ObjectName name,java.lang.String name,java.lang.Object[] name,java.lang.String[] name) Execute a method on the JMX device.
java.lang.String	getAddress() Get the IP address for this object
java.util.Set	getAllJMXObjectNames(java.lang.String queryFilter) Get a list of all of the JMX object names from the JMX Device.
java.util.Set	getAllJMXObjectNames(java.lang.String queryFilter,javax.management.QueryExp queryFilter) Get a list of all of the JMX object names from the JMX Device.
java.lang.String	getAttributeDescription(java.lang.String id,java.util.Locale id) Get description string for given attribute in given locale
java.lang.String[]	getAttributeIDList() Attribute ID enumeration : this method is expected to return a List of strings containing the String names of the attributes supported for a given object.
int	getAttributeType(java.lang.String id) Get type of attribute value for given attribute
DataValue	getAttributeValue(java.lang.String id,java.util.Locale id) Get value of attribute with given ID
java.lang.String	getAttributeValueString(java.lang.String id,java.util.Locale id) Override the unlicensed state string to instead return our description of the use of this state.

java.lang.String	GetConShadowClass() Get name of console shadow class.
long	getCurrentSystemTime() Attempts to make a remote call to retrieve the current system time in millis from the JvmeEnvironmentMBean on v2r3 and later agents
java.lang.String	getDeviceID()
int	getDeviceType()
javax.management.MBeanOperationInfo[]	getJMXMethods(javax.management.ObjectName name) Get a list of all of the JMX methods for the JMX device
java.util.Set	getJMXObjectNames(java.lang.String qryFilter) Get a list of all of the JMX object names from the JMX Device.
java.util.Set	getJMXObjectNames(java.lang.String qryFilter, javax.management.QueryExpr qryFilter) Get a list of all of the JMX object names from the JMX Device.
java.util.Set	getJMXObjectNames(java.lang.String qryFilter, java.lang.String qryFilter) Get a list of all of the JMX object names from the JMX Device for a specified class.
javax.management.MBeanAttributeInfo[]	getJMXProperties(javax.management.ObjectName name) Get a list of all of the JMX attributes for the JMX device
java.lang.Object	getJMXPropertyValue(javax.management.ObjectName name, java.lang.String name) Get the value of a specific property for the object name from the JMX Device
javax.management.AttributeList	getJMXPropertyValues(javax.management.ObjectName name, java.lang.String[] name) Get the values of a list of properties for the object name from the JMX Device
long	getLastEventID() Get the last event number that was received from this master agent managed object.
byte[]	getMACAddress()
java.lang.String	getMasterAgentRetailID() Return a unique string composed of the 3 pieces of object information that define our master agent's MO.
javax.management.MBeanInfo	getMBeanInfo(javax.management.ObjectName name) Get the set of attributes and operations which are available for management operations for the JMX device.
int	getMgmtPort()
java.lang.String	getMgmtProtocol()

int	getModelInfo() Return the state of the special model flag value for this managed object.
java.lang.String	getNetworkMask()
static RetailJMXDeviceManagedObject	getRetailDevice(java.lang.String retailID) Get the retail device object that matches the identifying ID
static java.util.Enumeration	getRetailDeviceList() Get a list of all of the retail devices that have been created.
java.lang.String	getRetailID() Return a unique string composed of the 3 pieces of object information that define this MO.
static java.lang.String	getRetailID(java.lang.String stoID, java.lang.String stoID) Return a unique string using the 2 pieces of object information that define an MO.
static java.lang.String	getRetailID(java.lang.String stoID, java.lang.String stoID, int stoID, boolean stoID) Return a unique string using the 3 pieces of object information that define an MO.
byte[]	GetShadowRecord(java.util.Locale locale) Special override of the shadow record buffer to modify the state data so that we will display the offline due to the master agent connection icon.
java.lang.String	getStoreId()
java.lang.String	getSystemID() Return a unique string to define this MO.
static java.lang.String	getSystemID(java.lang.String devID, int devID, boolean devID) Return a unique string to define an MO based on the parameters passed.
int	getVersion() Gives the RMA agent version in the same form as MgmtConst
static void	initializeMasterAgentConnections() Enumerates through the current device list and initializes master agent connections.
boolean	is4690OSType() Check if this object is a Linux O/S type device
static boolean	is4690OSType(int devType) Check if this object is a 4690 O/S type device (controller or terminal)
boolean	isClientServiceSupported(java.lang.String svcname) Test for support for a given client service
boolean	isLinuxOSType() Check if this object is a Linux O/S type device
static boolean	isLinuxOSType(int devType) Check if this object is a Linux O/S type device

boolean	isMasterAgentType() Check if this object has an agent type of master agent (needed for checking before object morphing may have occurred).
boolean	isSuspendSupported() Check if this retail system supports the suspend task
boolean	isSystemSecured() Check if this retail system has been secured or not
boolean	isWindowsOSType() Check if this object is a Windows O/S type device
static boolean	isWindowsOSType(int devType) Check if this object is a Windows O/S type device
void	ObjectChangedNotify(int reasonCode) Send notifications of a TWGManagedObject change to all listeners.
void	ObjectStateChangeNotify(int old_state,int old_state)
void	refreshMOAttributesOnReconnect(MgmtDeviceInfo mdi,java.lang.String mdi) This method will refresh the version and ip address information cached away in the attributes for this managed object.
void	removeSetPingIntervalTask() RMA Managed objects do not support the setting of individual ping intervals.
void	requestPowerdown(java.lang.Object reqObjID,TWGManagedObjectActionListener reqObjID) Request a powerdown of this retail managed object by making a call to the proxy MBean.
void	requestRestart(java.lang.Object reqObjID,TWGManagedObjectActionListener reqObjID) Request a restart of this retail managed object by making a call to the proxy MBean.
void	requestShutdown(java.lang.Object reqObjID,TWGManagedObjectActionListener reqObjID) Request a shutdown (and poweroff) of this retail managed object by making a call to the proxy MBean.
void	requestSuspend(java.lang.Object reqObjID,TWGManagedObjectActionListener reqObjID) Request a suspend of this retail managed object by making a call to the proxy MBean.
void	requestWakeOnLAN(java.lang.Object reqObjID,TWGManagedObjectActionListener reqObjID) Request a Wake up via the LAN for this retail managed object by making a call to the proxy MBean.
void	restoreData(TWGPersistentObjectDictionary dictionary,boolean dictionary) Method for restoring persistent object data.
void	saveData(TWGPersistentObjectDictionary dictionary) Method for saving persistent object data.

boolean	setAttributeValue(java.lang.String id,DataValue id) Set value of attribute with given ID
void	setJMXPropertyValue(javax.management.ObjectName name, javax.management.Attribute name) Set the value of a specific property for the object name from the JMX Device
void	setLastEventID(long evtID) Save away the last event number that was received from this master agent managed object.
void	setMgmtPort(int port)
void	setMgmtProtocol(int protocol) Set the protocol string based on the protocol passed in.
void	setSecured() Sets the MO to secured, putting the lock icon next to it
void	setSecured(boolean notRequestable)
void	setState(int new_state)
void	setSuspendSupported(boolean flg) Set managed object 'suspend supported' flag
void	unsetSecured() Clears the secured status on the MO, removing the lock icon from it
void	unsetSecured(boolean notRequestable)
static void	updateMOData(MasterAgentConnection maCnx,OrderedObjectList maCnx) Update MO data when discovery operation is performed.
static void	updateMOsMasterIP(RMADiscoveryEntry rde) Update the IP address of any MOs whose master agent info was updated by a configuration change
static void	updateMOStates(MasterAgentConnection maCnx,OrderedObjectList maCnx,boolean maCnx) Update the states of any affected MOs due to a connection state change.

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

copyTo, Delete, Destroy, executeJMXMethod, getAttributeDescription, getAttributeIDList, getAttributeType, getAttributeValue, getConnectionID, getConnectionID, getDeviceHost, getDeviceIPAddress, getDevicePort, getJMXClassName, getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXProperties, getJMXPropertyValue, getJMXPropertyValues, getMBeanInfo, getSystemID, isMAOffline, restoreData, saveData, setAttributeValue, setDeviceHost, setDeviceIPAddress, setDevicePort, setJMXPropertyValue, setMAOffline

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME  
    Our classname
```

SHADOWCLASSNAME

```
public static final java.lang.String SHADOWCLASSNAME
```

ATTRIB_RMA_STORE_NAME

```
public static final java.lang.String ATTRIB_RMA_STORE_NAME
```

ATTRIB_RMA_DEVICE_TYPE

```
public static final java.lang.String ATTRIB_RMA_DEVICE_TYPE
```

ATTRIB_RMA_MGMT_PORT

```
public static final java.lang.String ATTRIB_RMA_MGMT_PORT
```

ATTRIB_RMA_MGMT_PROTOCOL

```
public static final java.lang.String ATTRIB_RMA_MGMT_PROTOCOL
```

ATTRIB_RMA_MASTER_DEV_ID

```
public static final java.lang.String ATTRIB_RMA_MASTER_DEV_ID
```

ATTRIB_RMA_NETWORK_MASK

```
public static final java.lang.String ATTRIB_RMA_NETWORK_MASK
```

ATTRIB_RMA_MODEL_TYPE

```
public static final java.lang.String ATTRIB_RMA_MODEL_TYPE
```

(continued from last page)

ATTRIB_RMA_MODEL_NUMBER

```
public static final java.lang.String ATTRIB_RMA_MODEL_NUMBER
```

AGENT_TYPE_MASTER_AGENT_STR

```
public static final java.lang.String AGENT_TYPE_MASTER_AGENT_STR
```

AGENT_TYPE_GENERAL_AGENT_STR

```
public static final java.lang.String AGENT_TYPE_GENERAL_AGENT_STR
```

AGENT_TYPE_VIRTUAL_AGENT_STR

```
public static final java.lang.String AGENT_TYPE_VIRTUAL_AGENT_STR
```

DEVICE_TYPE_4690_STR

```
public static final java.lang.String DEVICE_TYPE_4690_STR
```

DEVICE_TYPE_CONSUMER_STR

```
public static final java.lang.String DEVICE_TYPE_CONSUMER_STR
```

DEVICE_TYPE_LINUX_STR

```
public static final java.lang.String DEVICE_TYPE_LINUX_STR
```

DEVICE_TYPE_POSTERM_STR

```
public static final java.lang.String DEVICE_TYPE_POSTERM_STR
```

DEVICE_TYPE_WIN2K_STR

```
public static final java.lang.String DEVICE_TYPE_WIN2K_STR
```

DEVICE_TYPE_WIN2K3_STR

```
public static final java.lang.String DEVICE_TYPE_WIN2K3_STR
```

(continued from last page)

DEVICE_TYPE_WINXP_STR

```
public static final java.lang.String DEVICE_TYPE_WINXP_STR
```

DEVICE_TYPE_WINVISTA_STR

```
public static final java.lang.String DEVICE_TYPE_WINVISTA_STR
```

DEVICE_TYPE_IRESTERM_STR

```
public static final java.lang.String DEVICE_TYPE_IRESTERM_STR
```

DEVICE_TYPE_UNKNOWN_STR

```
public static final java.lang.String DEVICE_TYPE_UNKNOWN_STR
```

retailMoList

```
protected static java.util.Map retailMoList
```

List of retail managed objects that we've already created

storeID

```
protected java.lang.String storeID
```

agentType

```
protected int agentType
```

agentVer

```
protected int agentVer
```

deviceType

```
protected int deviceType
```

deviceID

```
protected java.lang.String deviceID
```

masterDeviceID

```
protected java.lang.String masterDeviceID
```

ipAddress

protected java.lang.String **ipAddress**

networkMask

protected java.lang.String **networkMask**

MACAddress

protected byte **MACAddress**

mgmtProtocol

protected java.lang.String **mgmtProtocol**

mgmtPort

protected int **mgmtPort**

modelType

protected java.lang.String **modelType**

modelName

protected java.lang.String **modelName**

maLastEventID

protected long **maLastEventID**

rjmxDMoType

protected int **rjmxDMoType**

SCS_BOSS_MO_TYPE

public static final int **SCS_BOSS_MO_TYPE**

(continued from last page)

SCS_LANE_MO_TYPE

```
public static final int SCS_LANE_MO_TYPE
```

IRES_BSRVR_MO_TYPE

```
public static final int IRES_BSRVR_MO_TYPE
```

KIOSK_MO_TYPE

```
public static final int KIOSK_MO_TYPE
```

PEGASUS_IRES_TYPE

```
public static final int PEGASUS_IRES_TYPE
```

SCS_BOSS_POSBC_TYPE

```
public static final int SCS_BOSS_POSBC_TYPE
```

SCS_BOSS_SIGUI_TYPE

```
public static final int SCS_BOSS_SIGUI_TYPE
```

SCS_BOSS_APP_TYPE

```
public static final int SCS_BOSS_APP_TYPE
```

rtlAttribFlags

```
protected long rtlAttribFlags
```

ATTRIB_FLAGS_SUSPENDABLE

```
public static final int ATTRIB_FLAGS_SUSPENDABLE
```

ATTRIB_FLAGS_SYSTEM_SECURED

```
public static final int ATTRIB_FLAGS_SYSTEM_SECURED
```

Constructors

(continued from last page)

RetailJMXDeviceManagedObject

```
public RetailJMXDeviceManagedObject()  
    Default constructor for retail store managed object
```

RetailJMXDeviceManagedObject

```
public RetailJMXDeviceManagedObject(java.lang.String devIP,  
    int devPt,  
    java.lang.String devHost,  
    java.lang.String stID,  
    int agtTyp,  
    int agtVer,  
    int devTyp,  
    java.lang.String devID,  
    java.lang.String mgmtPrtcl,  
    java.lang.String ipAddr,  
    int mgmtPt,  
    java.lang.String maDevID,  
    int moType,  
    java.lang.String modTyp,  
    java.lang.String modNum)
```

Default constructor for retail store managed object

RetailJMXDeviceManagedObject

```
public RetailJMXDeviceManagedObject(java.lang.String devIP,  
    int devPt,  
    java.lang.String devHost,  
    java.lang.String stID,  
    int agtTyp,  
    int agtVer,  
    int devTyp,  
    java.lang.String devID,  
    java.lang.String mgmtPrtcl,  
    java.lang.String ipAddr,  
    java.lang.String networkMask,  
    byte[] MACAddress,  
    int mgmtPt,  
    java.lang.String maDevID,  
    int moType,  
    java.lang.String modTyp,  
    java.lang.String modNum)
```

Methods

getRetailID

```
public java.lang.String getRetailID()
```

Return a unique string composed of the 3 pieces of object information that define this MO.

Returns:

A string containing the storeID, deviceID and IP address together.

getVersion

```
public int getVersion()
```

Gives the RMA agent version in the same form as MgmtConst

(continued from last page)

Returns:

int version number

addDirectorServicesprotected void **addDirectorServices**()

Enable this POS managed object for the following Director tasks: - Resource monitoring (will only work for those supported by Monitor plug-in) - Process management (only supports Windows O/S processes)

enablePowerServicesprotected void **enablePowerServices**()

This method is meant to be implemented by child classes that wish to limit their power function support

removeSetPingIntervalTaskpublic void **removeSetPingIntervalTask**()

RMA Managed objects do not support the setting of individual ping intervals. We need to remove this task as it is bound to the base MO type.

IsClientServiceSupportedpublic boolean **IsClientServiceSupported**(java.lang.String svcname)

Test for support for a given client service

Parameters:

svcname -
- service name to be tested

Returns:

true if supported, false if not

getMasterAgentRetailIDpublic java.lang.String **getMasterAgentRetailID**()

Return a unique string composed of the 3 pieces of object information that define our master agent's MO.

Returns:

A string containing the storeID, master deviceID and master IP address together.

getRetailID

```
public static java.lang.String getRetailID(java.lang.String stoID,  
                                           java.lang.String devID,  
                                           int mgPt,  
                                           boolean mstrAgt)
```

Return a unique string using the 3 pieces of object information that define an MO. This is used in caching away our list of MOs for future searches.

Returns:

A string containing the storeID, deviceID and management port together.

(continued from last page)

getRetailID

```
public static java.lang.String getRetailID(java.lang.String stoID,  
                                             java.lang.String sysID)
```

Return a unique string using the 2 pieces of object information that define an MO.

Returns:

A string containing the storeID, deviceID and management port together.

getSystemID

```
public static java.lang.String getSystemID(java.lang.String devID,  
                                             int mgPt,  
                                             boolean mstrAgt)
```

Return a unique string to define an MO based on the parameters passed. All RMA devices will return the systemID as defined by RMA (the deviceID and port together and will prefix master agents with ma-).

Parameters:

devID -
A string containing the deviceID to use within the system ID
mgPt -
The port number to use within the system ID
mstrAgt -
A flag indicating if the system ID is for a master agent.

Returns:

A string containing the prefix/device/port combination based on info passed.

getSystemID

```
public java.lang.String getSystemID()
```

Return a unique string to define this MO. Each subclass may provide a more unique definition based on the information available at that level. The RMA device will return the systemID as defined by RMA (the deviceID and port together).

Returns:

A string containing the deviceID/port

getDeviceID

```
public java.lang.String getDeviceID()
```

Returns:

Returns the deviceID.

getDeviceType

```
public int getDeviceType()
```

Returns:

Returns the deviceType.

(continued from last page)

getStoreId

```
public java.lang.String getStoreId()
```

Returns:

Returns the store ID retrieved from the Master Agent at discovery time.

isMasterAgentType

```
public boolean isMasterAgentType()
```

Check if this object has an agent type of master agent (needed for checking before object morphing may have occurred).

isWindowsOSType

```
public boolean isWindowsOSType()
```

Check if this object is a Windows O/S type device

isWindowsOSType

```
public static boolean isWindowsOSType(int devType)
```

Check if this object is a Windows O/S type device

isLinuxOSType

```
public boolean isLinuxOSType()
```

Check if this object is a Linux O/S type device

isLinuxOSType

```
public static boolean isLinuxOSType(int devType)
```

Check if this object is a Linux O/S type device

is4690OSType

```
public boolean is4690OSType()
```

Check if this object is a Linux O/S type device

is4690OSType

```
public static boolean is4690OSType(int devType)
```

Check if this object is a 4690 O/S type device (controller or terminal)

copyTo

```
protected void copyTo(TWGManagedObject managedObject)
```

Copy instance data to another managed object.

Parameters:

`managedObject` -
target managed object.

(continued from last page)

Delete

```
public void Delete()
```

Destructor for RetailJMXDeviceManagedObject: remove object from lists

Destroy

```
public void Destroy()  
    throws TWGObjectDestroyException
```

Destroy for RetailJMXDeviceManagedObject

Exceptions:

TWGObjectDestroyException -
if error during destroy

saveData

```
protected void saveData(TWGPersistentObjectDictionary dictionary)  
    throws TWGPersistentObjectSaveException
```

Method for saving persistent object data.

Parameters:

dictionary -
used to collect persistent object.

Exceptions:

TWGPersistentObjectSaveException -
thrown to abort save procedure.

restoreData

```
protected void restoreData(TWGPersistentObjectDictionary dictionary,  
    boolean resolveObjectRefs)  
    throws TWGPersistentObjectRestoreException
```

Method for restoring persistent object data.

Parameters:

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

ObjectChangedNotify

```
public void ObjectChangedNotify(int reasonCode)
```

Send notifications of a TWGManagedObject change to all listeners. We are overriding the base method here to handle the tracking of our MOs. The morphing of an object causes the old one to be removed from our master list, but we need to readd the newly created object back into the list after morphing has completed.

Parameters:

reasonCode -
A value indicating what kind of change occurred to the object.

(continued from last page)

ObjectStateChangeNotify

```
public void ObjectStateChangeNotify(int old_state,  
                                     int new_state)
```

See Also:

com.tivoli.twg.engine.TWGManagedObject#ObjectStateChangeNotify(int, int) Override this method to allow dynamic updates to supported tasks

GetConShadowClass

```
public java.lang.String GetConShadowClass()
```

Get name of console shadow class. Override here so that we can do our state switching.

GetShadowRecord

```
public byte[] GetShadowRecord(java.util.Locale locale)
```

Special override of the shadow record buffer to modify the state data so that we will display the offline due to the master agent connection icon.

Parameters:

locale -
Locale of requested data

Returns:

A Byte array containing an opaque data representation of attribute values to be delivered to the console shadow class.

getRetailDevice

```
public static RetailJMXDeviceManagedObject getRetailDevice(java.lang.String retailID)
```

Get the retail device object that matches the identifying ID

Parameters:

retailID -
The unique ID of the device to locate.

Returns:

The RetailJMXDeviceManagedObject with the specified ID. If null is returned, there is no matching object with that ID.

getRetailDeviceList

```
protected static java.util.Enumeration getRetailDeviceList()
```

Get a list of all of the retail devices that have been created.

Returns:

An enumeration of the RetailJMXDeviceManagedObjects created to date.

updateMOData

```
public static void updateMOData(MasterAgentConnection maCnx,  
                                 OrderedObjectList mdiList)
```

(continued from last page)

Update MO data when discovery operation is performed. (This is separate from `updateMOStates` and should only contain updates that require extra remote calls that we only want to perform when discovery is run explicitly). NOTE: This is a best effort operation and will not be rescheduled if any part fails.

Parameters:

`maCnx` -
This master agent connection
`mdiList` -
List of system Id's of agents that are currently connected to the Master Agent

updateMOStates

```
public static void updateMOStates(MasterAgentConnection maCnx,  
    OrderedObjectList mdiList,  
    boolean connected)
```

Update the states of any affected MOs due to a connection state change.

Parameters:

`maCnx` -
This master agent connection
`mdiList` -
List of system Id's of agents that are currently connected to the Master Agent
`connected` -
A flag indicating the type of change. If true, a connection was established. If false, a connection was lost.

updateMOsMasterIP

```
public static void updateMOsMasterIP(RMADiscoveryEntry rde)
```

Update the IP address of any MOs whose master agent info was updated by a configuration change

Parameters:

`rde` -
The discovery entry containing the Hostname and port to find the MOs for, along with the new IP address to set in the MO

refreshMOAttributesOnReconnect

```
public void refreshMOAttributesOnReconnect(MgmtDeviceInfo mdi,  
    java.lang.String connectionAddress)
```

This method will refresh the version and ip address information cached away in the attributes for this managed object. If it has changed, the attributes will be updated with the new values. For Master Agent MO's only, the IP address used to make the connection can be supplied to store a value different from the agent's device info. This is necessary for RMI connections.

Parameters:

`mdi` -
Newest information about the agent, to compare
`connectionAddress` -
For Master Agent MO's only, the IP address used to make the Master Agent connection

getAddress

```
public java.lang.String getAddress()
```

Get the IP address for this object

Returns:

address the IP address in the form of a String

(continued from last page)

getNetworkMask

```
public java.lang.String getNetworkMask()
```

getMACAddress

```
public byte[] getMACAddress()
```

getMgmtPort

```
public int getMgmtPort()
```

setMgmtPort

```
public void setMgmtPort(int port)
```

getMgmtProtocol

```
public java.lang.String getMgmtProtocol()
```

setMgmtProtocol

```
public void setMgmtProtocol(int protocol)
```

Set the protocol string based on the protocol passed in. Note: This will use the current port setting also in determining the string to set.

Parameters:

protocol

setState

```
public void setState(int new_state)
```

getLastEventID

```
public long getLastEventID()
```

Get the last event number that was received from this master agent managed object.

Returns:

The number that is cached away from the last event received by this MA MO.

setLastEventID

```
public void setLastEventID(long evtID)
```

Save away the last event number that was received from this master agent managed object.

Parameters:

(continued from last page)

evtID -

The number that should be saved away as the ID of the last event received by this MA MO.

getModelInfo

```
public int getModelInfo()
```

Return the state of the special model flag value for this managed object. This is used to help determine the managed object type for this system.

Returns:

An integer flag indicating one of the *_MO_TYPE flag values.

requestShutdown

```
public void requestShutdown(java.lang.Object reqObjID,  
                             TWGManagedObjectActionListener resultListener)
```

Request a shutdown (and poweroff) of this retail managed object by making a call to the proxy MBean.

Parameters:

reqObjID -
- arbitrary request ID object (passed back to result listener)
resultListener -
- result listener

requestPowerdown

```
public void requestPowerdown(java.lang.Object reqObjID,  
                              TWGManagedObjectActionListener resultListener)
```

Request a powerdown of this retail managed object by making a call to the proxy MBean.

Parameters:

reqObjID -
- arbitrary request ID object (passed back to result listener)
resultListener -
- result listener

requestRestart

```
public void requestRestart(java.lang.Object reqObjID,  
                             TWGManagedObjectActionListener resultListener)
```

Request a restart of this retail managed object by making a call to the proxy MBean.

Parameters:

reqObjID -
- arbitrary request ID object (passed back to result listener)
resultListener -
- result listener

requestWakeOnLAN

```
public void requestWakeOnLAN(java.lang.Object reqObjID,  
                              TWGManagedObjectActionListener resultListener)
```

Request a Wake up via the LAN for this retail managed object by making a call to the proxy MBean.

Parameters:

reqObjID -
- arbitrary request ID object (passed back to result listener)
resultListener -
- result listener

requestSuspend

```
public void requestSuspend(java.lang.Object reqObjID,  
                           TWGManagedObjectActionListener resultListener)
```

Request a suspend of this retail managed object by making a call to the proxy MBean.

Parameters:

reqObjID -
- arbitrary request ID object (passed back to result listener)
resultListener -
- result listener

setSecured

```
public void setSecured()
```

Sets the MO to secured, putting the lock icon next to it

setSecured

```
public void setSecured(boolean notRequestable)
```

unsetSecured

```
public void unsetSecured()
```

Clears the secured status on the MO, removing the lock icon from it

unsetSecured

```
public void unsetSecured(boolean notRequestable)
```

setSuspendSupported

```
public void setSuspendSupported(boolean flg)
```

Set managed object 'suspend supported' flag

Parameters:

flg -
The new value of the flag, true if enabling

isSuspendSupported

```
public boolean isSuspendSupported()
```

Check if this retail system supports the suspend task

Returns:

True if this retail system supports the suspend task, otherwise false is returned.

isSystemSecured

```
public boolean isSystemSecured()
```

Check if this retail system has been secured or not

(continued from last page)

Returns:

True if this retail system is secured for RMA, otherwise false is returned.

getAttributeIDList

```
public java.lang.String[] getAttributeIDList()
```

Attribute ID enumeration : this method is expected to return a List of strings containing the String names of the attributes supported for a given object. Subclasses of base classes implementing the interface should report additional attributes by adding them to the list returned by the base class.

getAttributeValue

```
public DataValue getAttributeValue(java.lang.String id,  
                                     java.util.Locale loc)
```

Get value of attribute with given ID

Parameters:

id -
- attribute ID requested
loc -
- locale to use for value, if applicable

Returns:

value object, or null if no value

setAttributeValue

```
public boolean setAttributeValue(java.lang.String id,  
                                   DataValue val)
```

Set value of attribute with given ID

Parameters:

id -
- attribute ID to be set
val -
- attribute value to be set

Returns:

true if set successful, false if not successful

getAttributeType

```
public int getAttributeType(java.lang.String id)
```

Get type of attribute value for given attribute

Parameters:

id -
- attribute ID

Returns:

DataValue type of attribute, or DataValue.NONE_TYPE if undefined

(continued from last page)

getAttributeDescription

```
public java.lang.String getAttributeDescription(java.lang.String id,  
                                                java.util.Locale loc)
```

Get description string for given attribute in given locale

Parameters:

id -
- attribute ID
loc -
- locale to use for description

Returns:

description string, or null if not available

getAttributeValueString

```
public java.lang.String getAttributeValueString(java.lang.String id,  
                                                java.util.Locale loc)
```

Override the unlicensed state string to instead return our description of the use of this state.

getJMXObjectNames

```
public java.util.Set getJMXObjectNames(java.lang.String qryFilter)  
                                throws JMXDeviceConnectionException
```

Get a list of all of the JMX object names from the JMX Device. Only get the objects for this device, not for any others.

Returns:

A collection containing the object names queried from the device.

getJMXObjectNames

```
public java.util.Set getJMXObjectNames(java.lang.String qryFilter,  
                                       javax.management.QueryExp exp)  
                                throws JMXDeviceConnectionException
```

Get a list of all of the JMX object names from the JMX Device. Only get the objects for this device, not for any others.

Returns:

A collection containing the object names queried from the device.

getMBeanInfo

```
public javax.management.MBeanInfo getMBeanInfo(javax.management.ObjectName name)  
                                throws JMXDeviceConnectionException
```

Get the set of attributes and operations which are available for management operations for the JMX device.

Parameters:

name -
The object name on the device to get the MBean information for.

Returns:

An MBeanInfo object containing the attributes and operations for the device.

(continued from last page)

getJMXProperties

```
public javax.management.MBeanAttributeInfo[]  
getJMXProperties( javax.management.ObjectName name )           throws  
JMXDeviceConnectionException
```

Get a list of all of the JMX attributes for the JMX device

Parameters:

name -
The object name on the device to get the attributes for.

Returns:

An array containing the JMX attributes for the device.

getJMXPropertyValue

```
public java.lang.Object getJMXPropertyValue( javax.management.ObjectName name,  
                                              java.lang.String property)  
                                              throws JMXDeviceConnectionException
```

Get the value of a specific property for the object name from the JMX Device

Parameters:

name -
The object name on the device to get the value of the property.
property -
A string identifying the property to get the value for.

Returns:

An object representing the value of the property specified.

setJMXPropertyValue

```
public void setJMXPropertyValue( javax.management.ObjectName name,  
                                 javax.management.Attribute attrib)  
                                 throws JMXDeviceConnectionException,  
                                       JMXDeviceSetAttributeException
```

Set the value of a specific property for the object name from the JMX Device

Parameters:

name -
The object name on the device to set the value of the property.
attrib -
A string identifying the property and new value to set.

getJMXPropertyValues

```
public javax.management.AttributeList getJMXPropertyValues( javax.management.ObjectName  
name,  
                                                             java.lang.String[]  
propList)  
JMXDeviceConnectionException           throws
```

Get the values of a list of properties for the object name from the JMX Device

Parameters:

name -
The object name on the device to get the property values for.
propList -
A list of strings identifying the properties to return values for.

(continued from last page)

Returns:

A list of objects containing the property values requested.

getJMXMethods

```
public javax.management.MBeanOperationInfo[] getJMXMethods( javax.management.ObjectName  
name)
```

throws

JMXDeviceConnectionException

Get a list of all of the JMX methods for the JMX device

Parameters:

name -
The object name on the device to get the method information for.

Returns:

An array containing the JMX attributes for the device.

executeJMXMethod

```
public java.lang.Object executeJMXMethod( javax.management.ObjectName name,  
                                           java.lang.String methodName,  
                                           java.lang.Object[] values,  
                                           java.lang.String[] types)  
                                           throws JMXDeviceConnectionException,  
                                           JMXDeviceMethodInvocationException
```

Execute a method on the JMX device.

Parameters:

name -
The object name on the device to execute the method on.
mthdInfo -
An MBeanOperationInfo object that provides the name of the method to execute and a description of the parameter information.
parms -
The parameter values to pass on the method execution.

Returns:

An object containing the return value from the method call.

Exceptions:

JMXDeviceMethodInvocationException -
thrown if any invocation errors occur

getJMXObjectNames

```
public java.util.Set getJMXObjectNames( java.lang.String qryFilter,  
                                         java.lang.String className)  
                                         throws JMXDeviceConnectionException
```

Get a list of all of the JMX object names from the JMX Device for a specified class. Only get the objects for this device, not for any others.

Returns:

A collection containing the object names queried from the device for the specified class.

(continued from last page)

getAllJMXObjectNames

```
public java.util.Set getAllJMXObjectNames(java.lang.String queryFilter)
    throws JMXDeviceConnectionException
```

Get a list of all of the JMX object names from the JMX Device. Get the objects for this device and for any others.

Returns:

A collection containing the object names queried from the device.

getAllJMXObjectNames

```
public java.util.Set getAllJMXObjectNames(java.lang.String queryFilter,
    javax.management.QueryExp exp)
    throws JMXDeviceConnectionException
```

Get a list of all of the JMX object names from the JMX Device. Get the objects for this device and for any others.

Returns:

A collection containing the object names queried from the device.

getCurrentSystemTime

```
public long getCurrentSystemTime()
```

Attempts to make a remote call to retrieve the current system time in millis from the JVMEnvironmentMBean on v2r3 and later agents

Returns:

-1 if < v2r3 agent or if no connection was possible

initializeMasterAgentConnections

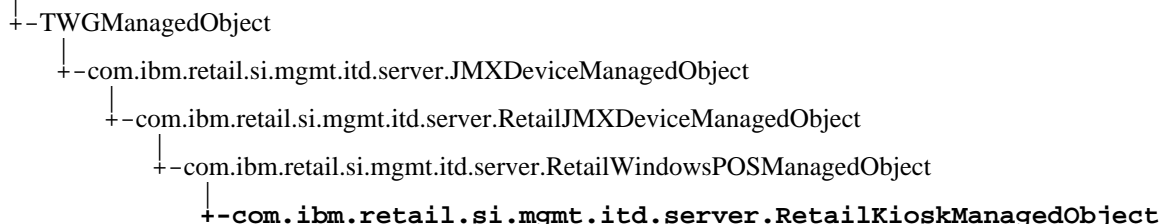
```
protected static void initializeMasterAgentConnections()
```

Enumerates through the current device list and initializes master agent connections. Called only during startup

com.ibm.retail.si.mgmt.itd.server

Class RetailKioskManagedObject

java.lang.Object



```

public class RetailKioskManagedObject
extends RetailWindowsPOSManagedObject

```

This class extends the RetailWindowsPOSManagedObject class to create a managed object specifically for the Windows based Kiosk devices for retail store systems.

See Also:

com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

Field Summary

static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailWindowsPOSManagedObject

CLASSNAME, COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

AGENT_TYPE_GENERAL_AGENT_STR, AGENT_TYPE_MASTER_AGENT_STR, AGENT_TYPE_VIRTUAL_AGENT_STR, agentType, agentVer, ATTRIB_FLAGS_SUSPENDABLE, ATTRIB_FLAGS_SYSTEM_SECURED, ATTRIB_RMA_DEVICE_TYPE, ATTRIB_RMA_MASTER_DEV_ID, ATTRIB_RMA_MGMT_PORT, ATTRIB_RMA_MGMT_PROTOCOL, ATTRIB_RMA_MODEL_NUMBER, ATTRIB_RMA_MODEL_TYPE, ATTRIB_RMA_NETWORK_MASK, ATTRIB_RMA_STORE_NAME, CLASSNAME, COPYRIGHT, DEVICE_TYPE_4690_STR, DEVICE_TYPE_CONSUMER_STR, DEVICE_TYPE_IRESTERM_STR, DEVICE_TYPE_LINUX_STR, DEVICE_TYPE_POSTERM_STR, DEVICE_TYPE_UNKNOWN_STR, DEVICE_TYPE_WIN2K_STR, DEVICE_TYPE_WIN2K3_STR, DEVICE_TYPE_WINVISTA_STR, DEVICE_TYPE_WINXP_STR, deviceID, deviceType, ipAddress, IRES_BSRVR_MO_TYPE, KIOSK_MO_TYPE, MACAddress, maLastEventID, masterDeviceID, mgmtPort, mgmtProtocol, modelNumber, modelType, networkMask, PEGASUS_IRES_TYPE, retailMoList, rjmxMoType, rtlAttribFlags, SCS_BOSS_APP_TYPE, SCS_BOSS_MO_TYPE, SCS_BOSS_POSBC_TYPE, SCS_BOSS_SIGUI_TYPE, SCS_LANE_MO_TYPE, SHADOWCLASSNAME, storeID

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

ATTRIB_JMX_CNX_IP_ATTR, ATTRIB_JMX_CNX_PORT, ATTRIB_JMX_HOSTNAME, CLASSNAME, COPYRIGHT, deviceHost, deviceIP, devicePort, maOffline

Constructor Summary

`RetailKioskManagedObject()`

Default constructor for Retail Kiosk managed object

`RetailKioskManagedObject(java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP,int devIP,int devIP,int devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,byte[] devIP,int devIP,java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP)`

Method Summary

void	<code>copyTo(TWGManagedObject managedObject)</code> Copy instance data to another managed object.
void	<code>ObjectChangedNotify(int reasonCode)</code> Override the changed notification to handle for our kiosk mo.
void	<code>restoreData(TWGPersistentObjectDictionary dictionary,boolean dictionary)</code> Method for restoring persistent object data.
void	<code>saveData(TWGPersistentObjectDictionary dictionary)</code> Method for saving persistent object data.

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.RetailWindowsPOSManagedObject`

`copyTo, restoreData, saveData`

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject`

`addDirectorServices, copyTo, Delete, Destroy, enablePowerServices, executeJMXMethod, getAddress, getAllJMXObjectNames, getAllJMXObjectNames, getAttributeDescription, getAttributeIDList, getAttributeType, getAttributeValue, getAttributeValueString, GetConShadowClass, getCurrentSystemTime, getDeviceID, getDeviceType, getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXObjectNames, getJMXProperties, getJMXPropertyValue, getJMXPropertyValues, getLastEventID, getMACAddress, getMasterAgentRetailID, getMBeanInfo, getMgmtPort, getMgmtProtocol, getModelInfo, getNetworkMask, getRetailDevice, getRetailDeviceList, getRetailID, getRetailID, getRetailID, GetShadowRecord, getStoreId, getSystemID, getSystemID, getVersion, initializeMasterAgentConnections, is4690OSType, is4690OSType, IsClientServiceSupported, isLinuxOSType, isLinuxOSType, isMasterAgentType, isSuspendSupported, isSystemSecured, isWindowsOSType, isWindowsOSType, ObjectChangedNotify, ObjectStateChangeNotify, refreshMOAttributesOnReconnect, removeSetPingIntervalTask, requestPowerdown, requestRestart, requestShutdown, requestSuspend, requestWakeOnLAN, restoreData, saveData, setAttributeValue, setJMXPropertyValue, setLastEventID, setMgmtPort, setMgmtProtocol, setSecured, setSecured, setState, setSuspendSupported, unsetSecured, unsetSecured, updateMOData, updateMOsMasterIP, updateMOStates`

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject`

`copyTo, Delete, Destroy, executeJMXMethod, getAttributeDescription, getAttributeIDList, getAttributeType, getAttributeValue, getConnectionID, getConnectionID, getDeviceHost, getDeviceIPAddress, getDevicePort, getJMXClassName, getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXProperties, getJMXPropertyValue, getJMXPropertyValues, getMBeanInfo, getSystemID, isMAOffline, restoreData, saveData, setAttributeValue, setDeviceHost, setDeviceIPAddress, setDevicePort, setJMXPropertyValue, setMAOffline`

Methods inherited from : class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME  
    Our classname
```

Constructors

RetailKioskManagedObject

```
public RetailKioskManagedObject()  
    Default constructor for Retail Kiosk managed object
```

RetailKioskManagedObject

```
public RetailKioskManagedObject(java.lang.String devIP,  
    int devPt,  
    java.lang.String devHost,  
    java.lang.String stID,  
    int agtTyp,  
    int agtVer,  
    int devTyp,  
    java.lang.String devID,  
    java.lang.String mgmtPrtcl,  
    java.lang.String ipAddr,  
    java.lang.String networkMask,  
    byte[] MACAddress,  
    int mgmtPt,  
    java.lang.String maDevID,  
    int moType,  
    java.lang.String modTyp,  
    java.lang.String modNum)
```

Methods

copyTo

```
protected void copyTo(TWGManagedObject managedObject)  
    Copy instance data to another managed object.
```

Parameters:

managedObject -
target managed object.

saveData

```
protected void saveData(TWGPersistentObjectDictionary dictionary)
    throws TWGPersistentObjectSaveException
```

Method for saving persistent object data.

Parameters:

dictionary -
used to collect persistent object.

Exceptions:

TWGPersistentObjectSaveException -
thrown to abort save procedure.

restoreData

```
protected void restoreData(TWGPersistentObjectDictionary dictionary,
    boolean resolveObjectRefs)
    throws TWGPersistentObjectRestoreException
```

Method for restoring persistent object data.

Parameters:

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

ObjectChangedNotify

```
public void ObjectChangedNotify(int reasonCode)
```

Override the changed notification to handle for our kiosk mo. A Kiosk mo has no subclasses, so if we are here, we are done morphing so it is safe to register our retail client services

Parameters:

reasonCode -
A value indicating what kind of change occurred to the object.

com.ibm.retail.si.mgmt.itd.server

Class RetailPSADeviceManagedObject

java.lang.Object

+-TWGManagedObject

+-com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

+-com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

+-com.ibm.retail.si.mgmt.itd.server.RetailPSADeviceManagedObject

public class RetailPSADeviceManagedObject

extends RetailJMXDeviceManagedObject

This class extends the RetailJMXDeviceManagedObject class to create a managed object specifically for the Personal Shopper Assistant (PSA) devices for retail store systems.

See Also:

com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

Field Summary

static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

AGENT_TYPE_GENERAL_AGENT_STR, AGENT_TYPE_MASTER_AGENT_STR, AGENT_TYPE_VIRTUAL_AGENT_STR, agentType, agentVer, ATTRIB_FLAGS_SUSPENDABLE, ATTRIB_FLAGS_SYSTEM_SECURED, ATTRIB_RMA_DEVICE_TYPE, ATTRIB_RMA_MASTER_DEV_ID, ATTRIB_RMA_MGMT_PORT, ATTRIB_RMA_MGMT_PROTOCOL, ATTRIB_RMA_MODEL_NUMBER, ATTRIB_RMA_MODEL_TYPE, ATTRIB_RMA_NETWORK_MASK, ATTRIB_RMA_STORE_NAME, CLASSNAME, COPYRIGHT, DEVICE_TYPE_4690_STR, DEVICE_TYPE_CONSUMER_STR, DEVICE_TYPE_IRESTERM_STR, DEVICE_TYPE_LINUX_STR, DEVICE_TYPE_POSTERM_STR, DEVICE_TYPE_UNKNOWN_STR, DEVICE_TYPE_WIN2K_STR, DEVICE_TYPE_WIN2K3_STR, DEVICE_TYPE_WINVISTA_STR, DEVICE_TYPE_WINXP_STR, deviceID, deviceType, ipAddress, IRES_BSRVR_MO_TYPE, KIOSK_MO_TYPE, MACAddress, maLastEventID, masterDeviceID, mgmtPort, mgmtProtocol, modelNumber, modelType, networkMask, PEGASUS_IRES_TYPE, retailMoList, rjmxdMoType, rtlAttribFlags, SCS_BOSS_APP_TYPE, SCS_BOSS_MO_TYPE, SCS_BOSS_POSBC_TYPE, SCS_BOSS_SIGUI_TYPE, SCS_LANE_MO_TYPE, SHADOWCLASSNAME, storeID

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

ATTRIB_JMX_CNX_IP_ATTR, ATTRIB_JMX_CNX_PORT, ATTRIB_JMX_HOSTNAME, CLASSNAME, COPYRIGHT, deviceHost, deviceIP, devicePort, maOffline

Constructor Summary

RetailPSADeviceManagedObject()

Default constructor for a Retail Personal Shopper Assistant Device managed object

```

RetailPSADeviceManagedObject(java.lang.String devIP,int devIP,java.lang.String
devIP,java.lang.String devIP,int devIP,int devIP,int devIP,java.lang.String
devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,byte[] devIP,int
devIP,java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP)

```

Method Summary

void	copyTo(TWGManagedObject managedObject) Copy instance data to another managed object.
void	restoreData(TWGPersistentObjectDictionary dictionary,boolean dictionary) Method for restoring persistent object data.
void	saveData(TWGPersistentObjectDictionary dictionary) Method for saving persistent object data.

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

```

addDirectorServices, copyTo, Delete, Destroy, enablePowerServices, executeJMXMethod,
getAddress, getAllJMXObjectNames, getAllJMXObjectNames, getAttributeDescription,
getAttributeIDList, getAttributeType, getAttributeValue, getAttributeValueString,
GetConShadowClass, getCurrentSystemTime, getDeviceID, getDeviceType, getJMXMethods,
getJMXObjectNames, getJMXObjectNames, getJMXObjectNames, getJMXProperties,
getJMXPropertyValue, getJMXPropertyValues, getLastEventID, getMACAddress,
getMasterAgentRetailID, getMBeanInfo, getMgmtPort, getMgmtProtocol, getModelInfo,
getNetworkMask, getRetailDevice, getRetailDeviceList, getRetailID, getRetailID,
getRetailID, GetShadowRecord, getStoreId, getSystemID, getSystemID, getVersion,
initializeMasterAgentConnections, is4690OSType, is4690OSType,
IsClientServiceSupported, isLinuxOSType, isLinuxOSType, isMasterAgentType,
isSuspendSupported, isSystemSecured, isWindowsOSType, isWindowsOSType,
ObjectChangedNotify, ObjectStateChangeNotify, refreshMOAttributesOnReconnect,
removeSetPingIntervalTask, requestPowerdown, requestRestart, requestShutdown,
requestSuspend, requestWakeOnLAN, restoreData, saveData, setAttributeValue,
setJMXPropertyValue, setLastEventID, setMgmtPort, setMgmtProtocol, setSecured,
setSecured, setState, setSuspendSupported, unsetSecured, unsetSecured, updateMOData,
updateMOSMasterIP, updateMOSStates

```

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

```

copyTo, Delete, Destroy, executeJMXMethod, getAttributeDescription,
getAttributeIDList, getAttributeType, getAttributeValue, getConnectionID,
getConnectionID, getDeviceHost, getDeviceIPAddress, getDevicePort, getJMXClassName,
getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXProperties,
getJMXPropertyValue, getJMXPropertyValues, getMBeanInfo, getSystemID, isMAOffline,
restoreData, saveData, setAttributeValue, setDeviceHost, setDeviceIPAddress,
setDevicePort, setJMXPropertyValue, setMAOffline

```

Methods inherited from : class java.lang.Object

```

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

```

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME
```

Our classname

Constructors

RetailPSADeviceManagedObject

```
public RetailPSADeviceManagedObject()
```

Default constructor for a Retail Personal Shopper Assistant Device managed object

RetailPSADeviceManagedObject

```
public RetailPSADeviceManagedObject(java.lang.String devIP,  
                                       int devPt,  
                                       java.lang.String devHost,  
                                       java.lang.String stID,  
                                       int agtTyp,  
                                       int agtVer,  
                                       int devTyp,  
                                       java.lang.String devID,  
                                       java.lang.String mgmtPrctl,  
                                       java.lang.String ipAddr,  
                                       java.lang.String networkMask,  
                                       byte[] MACAddress,  
                                       int mgmtPt,  
                                       java.lang.String maDevID,  
                                       int moType,  
                                       java.lang.String modTyp,  
                                       java.lang.String modNum)
```

Methods

copyTo

```
protected void copyTo(TWGManagedObject managedObject)
```

Copy instance data to another managed object.

Parameters:

managedObject -
target managed object.

saveData

```
protected void saveData(TWGPersistentObjectDictionary dictionary)  
                        throws TWGPersistentObjectSaveException
```

Method for saving persistent object data.

Parameters:

dictionary -
used to collect persistent object.

(continued from last page)

Exceptions:

TWGPersistentObjectSaveException -
thrown to abort save procedure.

restoreData

```
protected void restoreData(TWGPersistentObjectDictionary dictionary,  
                           boolean resolveObjectRefs)  
    throws TWGPersistentObjectRestoreException
```

Method for restoring persistent object data.

Parameters:

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

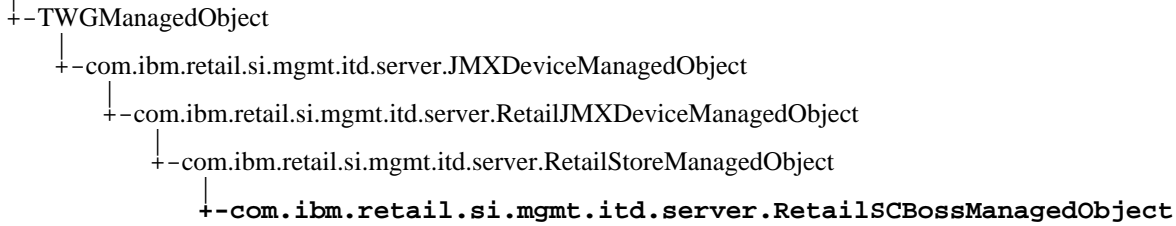
Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

com.ibm.retail.si.mgmt.itd.server

Class RetailSCBossManagedObject

java.lang.Object



public class **RetailSCBossManagedObject**
 extends RetailStoreManagedObject

This class extends the RetailJMXDeviceManagedObject class to create a managed object specifically for the Self-checkout Back Office Servers (BOSS) for retail store systems.

See Also:

com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

Field Summary

static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailStoreManagedObject

CLASSNAME, COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

AGENT_TYPE_GENERAL_AGENT_STR, AGENT_TYPE_MASTER_AGENT_STR, AGENT_TYPE_VIRTUAL_AGENT_STR, agentType, agentVer, ATTRIB_FLAGS_SUSPENDABLE, ATTRIB_FLAGS_SYSTEM_SECURED, ATTRIB_RMA_DEVICE_TYPE, ATTRIB_RMA_MASTER_DEV_ID, ATTRIB_RMA_MGMT_PORT, ATTRIB_RMA_MGMT_PROTOCOL, ATTRIB_RMA_MODEL_NUMBER, ATTRIB_RMA_MODEL_TYPE, ATTRIB_RMA_NETWORK_MASK, ATTRIB_RMA_STORE_NAME, CLASSNAME, COPYRIGHT, DEVICE_TYPE_4690_STR, DEVICE_TYPE_CONSUMER_STR, DEVICE_TYPE_IRESTERM_STR, DEVICE_TYPE_LINUX_STR, DEVICE_TYPE_POSTERM_STR, DEVICE_TYPE_UNKNOWN_STR, DEVICE_TYPE_WIN2K_STR, DEVICE_TYPE_WIN2K3_STR, DEVICE_TYPE_WINVISTA_STR, DEVICE_TYPE_WINXP_STR, deviceID, deviceType, ipAddress, IRES_BSRVR_MO_TYPE, KIOSK_MO_TYPE, MACAddress, maLastEventID, masterDeviceID, mgmtPort, mgmtProtocol, modelNumber, modelType, networkMask, PEGASUS_IRES_TYPE, retailMoList, rjmxDeviceType, rtaAttribFlags, SCS_BOSS_APP_TYPE, SCS_BOSS_MO_TYPE, SCS_BOSS_POSBC_TYPE, SCS_BOSS_SIGUI_TYPE, SCS_LANE_MO_TYPE, SHADOWCLASSNAME, storeID

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

ATTRIB_JMX_CNX_IP_ATTR, ATTRIB_JMX_CNX_PORT, ATTRIB_JMX_HOSTNAME, CLASSNAME, COPYRIGHT, deviceHost, deviceIP, devicePort, maOffline

Constructor Summary

`RetailSCBossManagedObject()`

Default constructor for Retail Self checkout BOSS managed object

`RetailSCBossManagedObject(java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP,int devIP,int devIP,int devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,byte[] devIP,int devIP,java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP)`

Method Summary

`void copyTo(TWGManagedObject managedObject)`
Copy instance data to another managed object.

`void restoreData(TWGPersistentObjectDictionary dictionary,boolean dictionary)`
Method for restoring persistent object data.

`void saveData(TWGPersistentObjectDictionary dictionary)`
Method for saving persistent object data.

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailStoreManagedObject

`copyTo`, `enablePowerServices`, `getListOfMOsManaged`, `getSystemID`, `ObjectChangedNotify`, `ObjectStateChangeNotify`, `restoreData`, `saveData`

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

`addDirectorServices`, `copyTo`, `Delete`, `Destroy`, `enablePowerServices`, `executeJMXMethod`, `getAddress`, `getAllJMXObjectNames`, `getAllJMXObjectNames`, `getAttributeDescription`, `getAttributeIDList`, `getAttributeType`, `getAttributeValue`, `getAttributeValueString`, `GetConShadowClass`, `getCurrentSystemTime`, `getDeviceID`, `getDeviceType`, `getJMXMethods`, `getJMXObjectNames`, `getJMXObjectNames`, `getJMXObjectNames`, `getJMXProperties`, `getJMXPropertyValue`, `getJMXPropertyValues`, `getLastEventID`, `getMACAddress`, `getMasterAgentRetailID`, `getMBeanInfo`, `getMgmtPort`, `getMgmtProtocol`, `getModelInfo`, `getNetworkMask`, `getRetailDevice`, `getRetailDeviceList`, `getRetailID`, `getRetailID`, `getRetailID`, `GetShadowRecord`, `getStoreId`, `getSystemID`, `getSystemID`, `getVersion`, `initializeMasterAgentConnections`, `is4690OSType`, `is4690OSType`, `isClientServiceSupported`, `isLinuxOSType`, `isLinuxOSType`, `isMasterAgentType`, `isSuspendSupported`, `isSystemSecured`, `isWindowsOSType`, `isWindowsOSType`, `ObjectChangedNotify`, `ObjectStateChangeNotify`, `refreshMOAttributesOnReconnect`, `removeSetPingIntervalTask`, `requestPowerdown`, `requestRestart`, `requestShutdown`, `requestSuspend`, `requestWakeOnLAN`, `restoreData`, `saveData`, `setAttributeValue`, `setJMXPropertyValue`, `setLastEventID`, `setMgmtPort`, `setMgmtProtocol`, `setSecured`, `setSecured`, `setState`, `setSuspendSupported`, `unsetSecured`, `unsetSecured`, `updateMOData`, `updateMOsMasterIP`, `updateMOStates`

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

`copyTo`, `Delete`, `Destroy`, `executeJMXMethod`, `getAttributeDescription`, `getAttributeIDList`, `getAttributeType`, `getAttributeValue`, `getConnectionID`, `getConnectionID`, `getDeviceHost`, `getDeviceIPAddress`, `getDevicePort`, `getJMXClassName`, `getJMXMethods`, `getJMXObjectNames`, `getJMXObjectNames`, `getJMXProperties`, `getJMXPropertyValue`, `getJMXPropertyValues`, `getMBeanInfo`, `getSystemID`, `isMAOffline`, `restoreData`, `saveData`, `setAttributeValue`, `setDeviceHost`, `setDeviceIPAddress`, `setDevicePort`, `setJMXPropertyValue`, `setMAOffline`

Methods inherited from : class java.lang.Object

`clone`, `equals`, `finalize`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME
```

Our classname

Constructors

RetailSCBossManagedObject

```
public RetailSCBossManagedObject()
```

Default constructor for Retail Self checkout BOSS managed object

RetailSCBossManagedObject

```
public RetailSCBossManagedObject(java.lang.String devIP,  
    int devPt,  
    java.lang.String devHost,  
    java.lang.String stID,  
    int agtTyp,  
    int agtVer,  
    int devTyp,  
    java.lang.String devID,  
    java.lang.String mgmtPrtcl,  
    java.lang.String ipAddr,  
    java.lang.String networkMask,  
    byte[] MACAddress,  
    int mgmtPt,  
    java.lang.String maDevID,  
    int moType,  
    java.lang.String modTyp,  
    java.lang.String modNum)
```

Methods

copyTo

```
protected void copyTo(TWGManagedObject managedObject)
```

Copy instance data to another managed object.

Parameters:

managedObject -
target managed object.

(continued from last page)

saveData

```
protected void saveData(TWGPersistentObjectDictionary dictionary)
    throws TWGPersistentObjectSaveException
```

Method for saving persistent object data.

Parameters:

dictionary -
used to collect persistent object.

Exceptions:

TWGPersistentObjectSaveException -
thrown to abort save procedure.

restoreData

```
protected void restoreData(TWGPersistentObjectDictionary dictionary,
    boolean resolveObjectRefs)
    throws TWGPersistentObjectRestoreException
```

Method for restoring persistent object data.

Parameters:

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

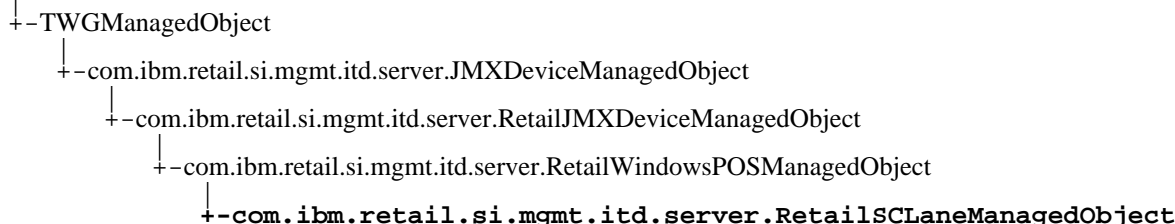
Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

com.ibm.retail.si.mgmt.itd.server

Class RetailSCLaneManagedObject

java.lang.Object

public class **RetailSCLaneManagedObject**

extends RetailWindowsPOSManagedObject

This class extends the RetailJMXDeviceManagedObject class to create a managed object specifically for the Self-checkout lanes for retail store systems.

See Also:

com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

Field Summary

static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailWindowsPOSManagedObject

CLASSNAME, COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

AGENT_TYPE_GENERAL_AGENT_STR, AGENT_TYPE_MASTER_AGENT_STR, AGENT_TYPE_VIRTUAL_AGENT_STR, agentType, agentVer, ATTRIB_FLAGS_SUSPENDABLE, ATTRIB_FLAGS_SYSTEM_SECURED, ATTRIB_RMA_DEVICE_TYPE, ATTRIB_RMA_MASTER_DEV_ID, ATTRIB_RMA_MGMT_PORT, ATTRIB_RMA_MGMT_PROTOCOL, ATTRIB_RMA_MODEL_NUMBER, ATTRIB_RMA_MODEL_TYPE, ATTRIB_RMA_NETWORK_MASK, ATTRIB_RMA_STORE_NAME, CLASSNAME, COPYRIGHT, DEVICE_TYPE_4690_STR, DEVICE_TYPE_CONSUMER_STR, DEVICE_TYPE_IRESTERM_STR, DEVICE_TYPE_LINUX_STR, DEVICE_TYPE_POSTERM_STR, DEVICE_TYPE_UNKNOWN_STR, DEVICE_TYPE_WIN2K_STR, DEVICE_TYPE_WIN2K3_STR, DEVICE_TYPE_WINVISTA_STR, DEVICE_TYPE_WINXP_STR, deviceID, deviceType, ipAddress, IRES_BSRVR_MO_TYPE, KIOSK_MO_TYPE, MACAddress, maLastEventID, masterDeviceID, mgmtPort, mgmtProtocol, modelNumber, modelType, networkMask, PEGASUS_IRES_TYPE, retailMoList, rjmxDMoType, rtlAttribFlags, SCS_BOSS_APP_TYPE, SCS_BOSS_MO_TYPE, SCS_BOSS_POSBC_TYPE, SCS_BOSS_SIGUI_TYPE, SCS_LANE_MO_TYPE, SHADOWCLASSNAME, storeID

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

ATTRIB_JMX_CNX_IP_ATTR, ATTRIB_JMX_CNX_PORT, ATTRIB_JMX_HOSTNAME, CLASSNAME, COPYRIGHT, deviceHost, deviceIP, devicePort, maOffline

Constructor Summary

`RetailSCLaneManagedObject()`

Default constructor for Retail Self checkout lane managed object

`RetailSCLaneManagedObject(java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP,int devIP,int devIP,int devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,byte[] devIP,int devIP,java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP)`

Method Summary

void	<code>copyTo(TWGManagedObject managedObject)</code> Copy instance data to another managed object.
------	------------------------------------------------------------------------------------------------------

void	<code>restoreData(TWGPersistentObjectDictionary dictionary,boolean dictionary)</code> Method for restoring persistent object data.
------	---------------------------------------------------------------------------------------------------------------------------------------

void	<code>saveData(TWGPersistentObjectDictionary dictionary)</code> Method for saving persistent object data.
------	--------------------------------------------------------------------------------------------------------------

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.RetailWindowsPOSManagedObject`

`copyTo`, `restoreData`, `saveData`

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject`

`addDirectorServices`, `copyTo`, `Delete`, `Destroy`, `enablePowerServices`, `executeJMXMethod`, `getAddress`, `getAllJMXObjectNames`, `getAllJMXObjectNames`, `getAttributeDescription`, `getAttributeIDList`, `getAttributeType`, `getAttributeValue`, `getAttributeValueString`, `GetConShadowClass`, `getCurrentSystemTime`, `getDeviceID`, `getDeviceType`, `getJMXMethods`, `getJMXObjectNames`, `getJMXObjectNames`, `getJMXObjectNames`, `getJMXProperties`, `getJMXPropertyValue`, `getJMXPropertyValues`, `getLastEventID`, `getMACAddress`, `getMasterAgentRetailID`, `getMBeanInfo`, `getMgmtPort`, `getMgmtProtocol`, `getModelInfo`, `getNetworkMask`, `getRetailDevice`, `getRetailDeviceList`, `getRetailID`, `getRetailID`, `getRetailID`, `GetShadowRecord`, `getStoreId`, `getSystemID`, `getSystemID`, `getVersion`, `initializeMasterAgentConnections`, `is4690OSType`, `is4690OSType`, `IsClientServiceSupported`, `isLinuxOSType`, `isLinuxOSType`, `isMasterAgentType`, `isSuspendSupported`, `isSystemSecured`, `isWindowsOSType`, `isWindowsOSType`, `ObjectChangedNotify`, `ObjectStateChangeNotify`, `refreshMOAttributesOnReconnect`, `removeSetPingIntervalTask`, `requestPowerdown`, `requestRestart`, `requestShutdown`, `requestSuspend`, `requestWakeOnLAN`, `restoreData`, `saveData`, `setAttributeValue`, `setJMXPropertyValue`, `setLastEventID`, `setMgmtPort`, `setMgmtProtocol`, `setSecured`, `setSecured`, `setState`, `setSuspendSupported`, `unsetSecured`, `unsetSecured`, `updateMOData`, `updateMOSMasterIP`, `updateMOStates`

Methods inherited from : class `com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject`

`copyTo`, `Delete`, `Destroy`, `executeJMXMethod`, `getAttributeDescription`, `getAttributeIDList`, `getAttributeType`, `getAttributeValue`, `getConnectionID`, `getConnectionID`, `getDeviceHost`, `getDeviceIPAddress`, `getDevicePort`, `getJMXClassName`, `getJMXMethods`, `getJMXObjectNames`, `getJMXObjectNames`, `getJMXProperties`, `getJMXPropertyValue`, `getJMXPropertyValues`, `getMBeanInfo`, `getSystemID`, `isMAOffline`, `restoreData`, `saveData`, `setAttributeValue`, `setDeviceHost`, `setDeviceIPAddress`, `setDevicePort`, `setJMXPropertyValue`, `setMAOffline`

Methods inherited from : class `java.lang.Object`

`clone`, `equals`, `finalize`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME
```

Our classname

Constructors

RetailSCLaneManagedObject

```
public RetailSCLaneManagedObject()
```

Default constructor for Retail Self checkout lane managed object

RetailSCLaneManagedObject

```
public RetailSCLaneManagedObject(java.lang.String devIP,  
    int devPt,  
    java.lang.String devHost,  
    java.lang.String stID,  
    int agtTyp,  
    int agtVer,  
    int devTyp,  
    java.lang.String devID,  
    java.lang.String mgmtPrtcl,  
    java.lang.String ipAddr,  
    java.lang.String networkMask,  
    byte[] MACAddress,  
    int mgmtPt,  
    java.lang.String maDevID,  
    int moType,  
    java.lang.String modTyp,  
    java.lang.String modNum)
```

Methods

copyTo

```
protected void copyTo(TWGManagedObject managedObject)
```

Copy instance data to another managed object.

Parameters:

managedObject -
target managed object.

(continued from last page)

saveData

```
protected void saveData(TWGPersistentObjectDictionary dictionary)
    throws TWGPersistentObjectSaveException
```

Method for saving persistent object data.

Parameters:

dictionary -
used to collect persistent object.

Exceptions:

TWGPersistentObjectSaveException -
thrown to abort save procedure.

restoreData

```
protected void restoreData(TWGPersistentObjectDictionary dictionary,
    boolean resolveObjectRefs)
    throws TWGPersistentObjectRestoreException
```

Method for restoring persistent object data.

Parameters:

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

com.ibm.retail.si.mgmt.itd.server

Class RetailStoreManagedObject

java.lang.Object

├─TWGManagedObject

├─com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

├─com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

├─**com.ibm.retail.si.mgmt.itd.server.RetailStoreManagedObject****Direct Known Subclasses:**

RetailSCBossManagedObject, RetailIRESBranchServerManagedObject, Retail4690MasterManagedObject

public class **RetailStoreManagedObject**

extends RetailJMXDeviceManagedObject

This class extends the TWGManagedObject class to create a managed object for retail store systems devices. This base object will contain the following information to help uniquely identify the object: StoreID of the Master agent DeviceID of the general agent (if different) ipAddr used to talk to general agent (if different)

See Also:

com.tivoli.twg.engine.TWGManagedObject

Field Summary

static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

AGENT_TYPE_GENERAL_AGENT_STR, AGENT_TYPE_MASTER_AGENT_STR, AGENT_TYPE_VIRTUAL_AGENT_STR, agentType, agentVer, ATTRIB_FLAGS_SUSPENDABLE, ATTRIB_FLAGS_SYSTEM_SECURED, ATTRIB_RMA_DEVICE_TYPE, ATTRIB_RMA_MASTER_DEV_ID, ATTRIB_RMA_MGMT_PORT, ATTRIB_RMA_MGMT_PROTOCOL, ATTRIB_RMA_MODEL_NUMBER, ATTRIB_RMA_MODEL_TYPE, ATTRIB_RMA_NETWORK_MASK, ATTRIB_RMA_STORE_NAME, CLASSNAME, COPYRIGHT, DEVICE_TYPE_4690_STR, DEVICE_TYPE_CONSUMER_STR, DEVICE_TYPE_IRESTERM_STR, DEVICE_TYPE_LINUX_STR, DEVICE_TYPE_POSTERM_STR, DEVICE_TYPE_UNKNOWN_STR, DEVICE_TYPE_WIN2K_STR, DEVICE_TYPE_WIN2K3_STR, DEVICE_TYPE_WINVISTA_STR, DEVICE_TYPE_WINXP_STR, deviceID, deviceType, ipAddress, IRES_BSRVR_MO_TYPE, KIOSK_MO_TYPE, MACAddress, maLastEventID, masterDeviceID, mgmtPort, mgmtProtocol, modelNumber, modelType, networkMask, PEGASUS_IRES_TYPE, retailMoList, rjmxMoType, rtlAttribFlags, SCS_BOSS_APP_TYPE, SCS_BOSS_MO_TYPE, SCS_BOSS_POSBC_TYPE, SCS_BOSS_SIGUI_TYPE, SCS_LANE_MO_TYPE, SHADOWCLASSNAME, storeID

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

ATTRIB_JMX_CNX_IP_ATTR, ATTRIB_JMX_CNX_PORT, ATTRIB_JMX_HOSTNAME, CLASSNAME, COPYRIGHT, deviceHost, deviceIP, devicePort, maOffline

Constructor Summary

RetailStoreManagedObject()

Default constructor for retail store managed object

```
RetailStoreManagedObject(java.lang.String devIP,int devIP,java.lang.String
devIP,java.lang.String devIP,int devIP,int devIP,int devIP,java.lang.String
devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,byte[] devIP,int
devIP,java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP)
```

Method Summary

void	copyTo(TWGManagedObject managedObject) Copy instance data to another managed object.
void	enablePowerServices()
IntValueSet	getListOfMOSManaged() Return a list of all of the managed objects that are managed by this master agent managed object.
java.lang.String	getSystemID() Return a unique string to define this MO.
void	ObjectChangedNotify(int reasonCode) Send notifications of a TWGManagedObject change to all listeners.
void	ObjectStateChangeNotify(int old_state,int old_state)
void	restoreData(TWGPersistentObjectDictionary dictionary,boolean dictionary) Method for restoring persistent object data.
void	saveData(TWGPersistentObjectDictionary dictionary) Method for saving persistent object data.

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

```
addDirectorServices, copyTo, Delete, Destroy, enablePowerServices, executeJMXMethod,
getAddress, getAllJMXObjectNames, getAllJMXObjectNames, getAttributeDescription,
getAttributeIDList, getAttributeType, getAttributeValue, getAttributeValueString,
GetConShadowClass, getCurrentSystemTime, getDeviceID, getDeviceType, getJMXMethods,
getJMXObjectNames, getJMXObjectNames, getJMXObjectNames, getJMXProperties,
getJMXPropertyValue, getJMXPropertyValues, getLastEventID, getMACAddress,
getMasterAgentRetailID, getMBeanInfo, getMgmtPort, getMgmtProtocol, getModelInfo,
getNetworkMask, getRetailDevice, getRetailDeviceList, getRetailID, getRetailID,
getRetailID, GetShadowRecord, getStoreId, getSystemID, getSystemID, getVersion,
initializeMasterAgentConnections, is4690OSType, is4690OSType,
isClientServiceSupported, isLinuxOSType, isLinuxOSType, isMasterAgentType,
isSuspendSupported, isSystemSecured, isWindowsOSType, isWindowsOSType,
ObjectChangedNotify, ObjectStateChangeNotify, refreshMOAttributesOnReconnect,
removeSetPingIntervalTask, requestPowerdown, requestRestart, requestShutdown,
requestSuspend, requestWakeOnLAN, restoreData, saveData, setAttributeValue,
setJMXPropertyValue, setLastEventID, setMgmtPort, setMgmtProtocol, setSecured,
setSecured, setState, setSuspendSupported, unsetSecured, unsetSecured, updateMOData,
updateMOSMasterIP, updateMOSStates
```

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

```
copyTo, Delete, Destroy, executeJMXMethod, getAttributeDescription,
getAttributeIDList, getAttributeType, getAttributeValue, getConnectionID,
getConnectionID, getDeviceHost, getDeviceIPAddress, getDevicePort, getJMXClassName,
getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXProperties,
getJMXPropertyValue, getJMXPropertyValues, getMBeanInfo, getSystemID, isMAOffline,
restoreData, saveData, setAttributeValue, setDeviceHost, setDeviceIPAddress,
setDevicePort, setJMXPropertyValue, setMAOffline
```

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME
    Our classname
```

Constructors

RetailStoreManagedObject

```
public RetailStoreManagedObject()
    Default constructor for retail store managed object
```

RetailStoreManagedObject

```
public RetailStoreManagedObject(java.lang.String devIP,
    int devPt,
    java.lang.String devHost,
    java.lang.String stID,
    int agtTyp,
    int agtVer,
    int devTyp,
    java.lang.String devID,
    java.lang.String mgmtPrtcl,
    java.lang.String ipAddr,
    java.lang.String networkMask,
    byte[] MACAddress,
    int mgmtPt,
    java.lang.String maDevID,
    int moType,
    java.lang.String modTyp,
    java.lang.String modNum)
```

Methods

(continued from last page)

copyTo

```
protected void copyTo(TWGManagedObject managedObject)
```

Copy instance data to another managed object.

Parameters:

managedObject -
target managed object.

getSystemID

```
public java.lang.String getSystemID()
```

Return a unique string to define this MO. Each subclass may provide a more unique definition based on the information available at that level. The RMA device will return the systemID as defined by RMA (the deviceID and port together). If the device is the master agent, we need to prefix the deviceID with ma-.

Returns:

A string containing the deviceID/port

enablePowerServices

```
protected void enablePowerServices()
```

getListOfMOsManaged

```
public IntValueSet getListOfMOsManaged()
```

Return a list of all of the managed objects that are managed by this master agent managed object. This is done by enumerating the list of all managed objects, and checking if the master retail ID of the mo matches the one for this master MO.

Returns:

A list of all of the managed object IDs for the mo's that are managed by this MO.

saveData

```
protected void saveData(TWGPersistentObjectDictionary dictionary)  
throws TWGPersistentObjectSaveException
```

Method for saving persistent object data.

Parameters:

dictionary -
used to collect persistent object.

Exceptions:

TWGPersistentObjectSaveException -
thrown to abort save procedure.

restoreData

```
protected void restoreData(TWGPersistentObjectDictionary dictionary,  
boolean resolveObjectRefs)  
throws TWGPersistentObjectRestoreException
```

Method for restoring persistent object data.

Parameters:

(continued from last page)

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

ObjectChangedNotify

```
public void ObjectChangedNotify(int reasonCode)
```

Send notifications of a TWGManagedObject change to all listeners. We are overriding the base method here to handle the registration of our event handler after morphing of our master agent MO has completed.

Parameters:

reasonCode -
A value indicating what kind of change occurred to the object.

ObjectStateChangeNotify

```
public void ObjectStateChangeNotify(int old_state,  
                                     int new_state)
```

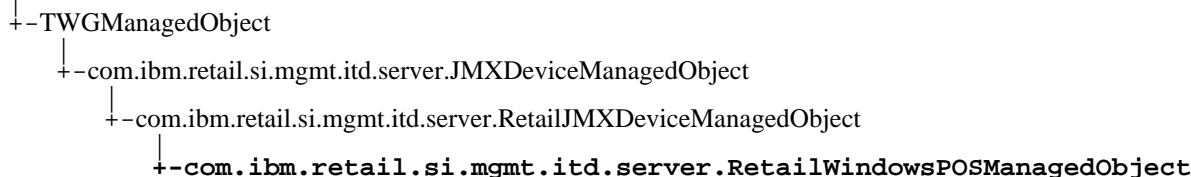
See Also:

com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject#ObjectStateChangeNotify(int, int)

com.ibm.retail.si.mgmt.itd.server

Class RetailWindowsPOSManagedObject

java.lang.Object

**Direct Known Subclasses:**

RetailSCLaneManagedObject, RetailKioskManagedObject

public class **RetailWindowsPOSManagedObject**

extends RetailJMXDeviceManagedObject

This class extends the RetailJMXDeviceManagedObject class to create a managed object specifically for the Windows Point-of-Sale devices for retail store systems.

See Also:

com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

Field Summary

static java.lang.String	CLASSNAME Our classname
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

AGENT_TYPE_GENERAL_AGENT_STR, AGENT_TYPE_MASTER_AGENT_STR, AGENT_TYPE_VIRTUAL_AGENT_STR, agentType, agentVer, ATTRIB_FLAGS_SUSPENDABLE, ATTRIB_FLAGS_SYSTEM_SECURED, ATTRIB_RMA_DEVICE_TYPE, ATTRIB_RMA_MASTER_DEV_ID, ATTRIB_RMA_MGMT_PORT, ATTRIB_RMA_MGMT_PROTOCOL, ATTRIB_RMA_MODEL_NUMBER, ATTRIB_RMA_MODEL_TYPE, ATTRIB_RMA_NETWORK_MASK, ATTRIB_RMA_STORE_NAME, CLASSNAME, COPYRIGHT, DEVICE_TYPE_4690_STR, DEVICE_TYPE_CONSUMER_STR, DEVICE_TYPE_IRES_TERM_STR, DEVICE_TYPE_LINUX_STR, DEVICE_TYPE_POSTERM_STR, DEVICE_TYPE_UNKNOWN_STR, DEVICE_TYPE_WIN2K_STR, DEVICE_TYPE_WIN2K3_STR, DEVICE_TYPE_WINVISTA_STR, DEVICE_TYPE_WINXP_STR, deviceID, deviceType, ipAddress, IRES_BSRVR_MO_TYPE, KIOSK_MO_TYPE, MACAddress, maLastEventID, masterDeviceID, mgmtPort, mgmtProtocol, modelNumber, modelType, networkMask, PEGASUS_IRES_TYPE, retailMoList, rjmxMoType, rtlAttribFlags, SCS_BOSS_APP_TYPE, SCS_BOSS_MO_TYPE, SCS_BOSS_POSBC_TYPE, SCS_BOSS_SIGUI_TYPE, SCS_LANE_MO_TYPE, SHADOWCLASSNAME, storeID

Fields inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

ATTRIB_JMX_CNX_IP_ATTR, ATTRIB_JMX_CNX_PORT, ATTRIB_JMX_HOSTNAME, CLASSNAME, COPYRIGHT, deviceHost, deviceIP, devicePort, maOffline

Constructor Summary

RetailWindowsPOSManagedObject()

Default constructor for Retail Windows POS managed object

```
RetailWindowsPOSManagedObject(java.lang.String devIP,int devIP,java.lang.String
devIP,java.lang.String devIP,int devIP,int devIP,int devIP,java.lang.String
devIP,java.lang.String devIP,java.lang.String devIP,java.lang.String devIP,byte[] devIP,int
devIP,java.lang.String devIP,int devIP,java.lang.String devIP,java.lang.String devIP)
```

Method Summary

void	copyTo(TWGManagedObject managedObject) Copy instance data to another managed object.
void	restoreData(TWGPersistentObjectDictionary dictionary,boolean dictionary) Method for restoring persistent object data.
void	saveData(TWGPersistentObjectDictionary dictionary) Method for saving persistent object data.

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.RetailJMXDeviceManagedObject

addDirectorServices, copyTo, Delete, Destroy, enablePowerServices, executeJMXMethod, getAddress, getAllJMXObjectNames, getAllJMXObjectNames, getAttributeDescription, getAttributeIDList, getAttributeType, getAttributeValue, getAttributeValueString, GetConShadowClass, getCurrentSystemTime, getDeviceID, getDeviceType, getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXObjectNames, getJMXProperties, getJMXPropertyValue, getJMXPropertyValues, getLastEventID, getMACAddress, getMasterAgentRetailID, getMBeanInfo, getMgmtPort, getMgmtProtocol, getModelInfo, getNetworkMask, getRetailDevice, getRetailDeviceList, getRetailID, getRetailID, getRetailID, GetShadowRecord, getStoreID, getSystemID, getSystemID, getVersion, initializeMasterAgentConnections, is46900SType, is46900SType, IsClientServiceSupported, isLinuxOSType, isLinuxOSType, isMasterAgentType, isSuspendSupported, isSystemSecured, isWindowsOSType, isWindowsOSType, ObjectChangedNotify, ObjectStateChangeNotify, refreshMOAttributesOnReconnect, removeSetPingIntervalTask, requestPowerdown, requestRestart, requestShutdown, requestSuspend, requestWakeOnLAN, restoreData, saveData, setAttributeValue, setJMXPropertyValue, setLastEventID, setMgmtPort, setMgmtProtocol, setSecured, setSecured, setState, setSuspendSupported, unsetSecured, unsetSecured, updateMOData, updateMOSMasterIP, updateMOSStates

Methods inherited from : class com.ibm.retail.si.mgmt.itd.server.JMXDeviceManagedObject

copyTo, Delete, Destroy, executeJMXMethod, getAttributeDescription, getAttributeIDList, getAttributeType, getAttributeValue, getConnectionID, getConnectionID, getDeviceHost, getDeviceIPAddress, getDevicePort, getJMXClassName, getJMXMethods, getJMXObjectNames, getJMXObjectNames, getJMXProperties, getJMXPropertyValue, getJMXPropertyValues, getMBeanInfo, getSystemID, isMAOffline, restoreData, saveData, setAttributeValue, setDeviceHost, setDeviceIPAddress, setDevicePort, setJMXPropertyValue, setMAOffline

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

CLASSNAME

```
public static final java.lang.String CLASSNAME  
    Our classname
```

Constructors

RetailWindowsPOSManagedObject

```
public RetailWindowsPOSManagedObject()  
    Default constructor for Retail Windows POS managed object
```

RetailWindowsPOSManagedObject

```
public RetailWindowsPOSManagedObject(java.lang.String devIP,  
    int devPt,  
    java.lang.String devHost,  
    java.lang.String stID,  
    int agtTyp,  
    int agtVer,  
    int devTyp,  
    java.lang.String devID,  
    java.lang.String mgmtPrtcl,  
    java.lang.String ipAddr,  
    java.lang.String networkMask,  
    byte[] MACAddress,  
    int mgmtPt,  
    java.lang.String maDevID,  
    int moType,  
    java.lang.String modTyp,  
    java.lang.String modNum)
```

Methods

copyTo

```
protected void copyTo(TWGManagedObject managedObject)  
    Copy instance data to another managed object.
```

Parameters:

managedObject -
target managed object.

saveData

```
protected void saveData(TWGPersistentObjectDictionary dictionary)  
    throws TWGPersistentObjectSaveException  
    Method for saving persistent object data.
```

Parameters:

dictionary -
used to collect persistent object.

(continued from last page)

Exceptions:

TWGPersistentObjectSaveException -
thrown to abort save procedure.

restoreData

```
protected void restoreData(TWGPersistentObjectDictionary dictionary,  
                           boolean resolveObjectRefs)  
    throws TWGPersistentObjectRestoreException
```

Method for restoring persistent object data.

Parameters:

dictionary -
used to restore persistent object.
resolveObjectRefs -
Used to indicate if object references should be resolved during restore.

Exceptions:

TWGPersistentObjectRestoreException -
thrown to abort restore procedure.

Package

com.ibm.retail.si.mgmt.logging

MBean interfaces and classes for logging control of JDK, Log4J and Syslog.

The remote logging MBeans forward logging events as `RtlNotifications`

com.ibm.retail.si.mgmt.logging Class JDKHandlerMBean

```
java.lang.Object
  |
  +--com.ibm.retail.si.mgmt.logging.JDKHandlerMBean
```

All Implemented interfaces:

```
javax.management.DynamicMBean
```

```
public class JDKHandlerMBean
  extends java.lang.Object
  implements javax.management.DynamicMBean
```

MBean for making non persistent changes to the logging levels on JDK Logging Handlers

The `ObjectName` of this MBean includes the following attributes, in addition to the `SIF` attribute of `DeviceID`:

- `SIFComponent=MGMT`
- `Id=JDKHandlers`

This management interface has a dynamic list of attributes, each of which is the class name of the `Handler`, and whose value is the `Handler`'s level.

This MBean defines no operations

This MBean emits no `Notifications`

Field Summary

<code>static</code> <code>java.lang.String</code>	<code>COPYRIGHT</code>
<code>static</code> <code>java.util.logging.Log</code> <code>Manager</code>	<code>manager</code>
<code>static</code> <code>java.lang.String</code>	<code>OBJECT_NAME_BASE</code>
<code>static</code> <code>java.lang.String</code>	<code>OBJECT_NAME_ID</code>

Constructor Summary

<code>JDKHandlerMBean()</code>

Method Summary

<code>java.lang.Object</code>	<code>getAttribute(java.lang.String attributeName)</code>
<code>javax.management.AttributeList</code>	<code>getAttributes(java.lang.String[] attributeNames)</code>

java.util.logging.Handler	getHandler(java.lang.String handlerName) Obtains the Handlerinstance from the root logger based on the supplied class name
java.util.ArrayList	getHandlerNames() Returns an ArrayList of all current Handlers' classnames.
javax.management.MBeanInfo	getMBeanInfo()
java.lang.Object	invoke(java.lang.String operation, java.lang.Object[] operation, java.lang.String[] operation)
void	setAttribute(javax.management.Attribute newAttribute)
javax.management.AttributeList	setAttributes(javax.management.AttributeList attrs)
void	setHandlerLevel(java.lang.String handlerName, java.lang.String handlerName) Sets the level of a Handler.

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields**COPYRIGHT**

public static final java.lang.String **COPYRIGHT**

OBJECT_NAME_ID

public static final java.lang.String **OBJECT_NAME_ID**

OBJECT_NAME_BASE

public static final java.lang.String **OBJECT_NAME_BASE**

manager

protected static final java.util.logging.LogManager **manager**

Constructors

(continued from last page)

JDKHandlerMBean

```
public JDKHandlerMBean()
```

Methods

setHandlerLevel

```
protected void setHandlerLevel(java.lang.String handlerName,  
                                java.lang.String levelStr)  
    throws MgmtException,  
           javax.management.InvalidAttributeValueException
```

Sets the level of a Handler.

Parameters:

handlerName -
Class name of the Handler to change
levelStr -
Valid levels are: SEVERE, WARNING, INFO, CONFIG, FINE, FINER, FINEST

Exceptions:

MgmtException -
No Handler matching the supplied class name, or a null or invalid level was specified

getHandlerNames

```
protected java.util.ArrayList getHandlerNames()
```

Returns an ArrayList of all current Handlers' classnames.

Returns:

ArrayList of the current Handlers' classnames.

getHandler

```
protected java.util.logging.Handler getHandler(java.lang.String handlerName)
```

Obtains the Handler instance from the root logger based on the supplied class name

Parameters:

handlerName -
Class name of the Handler

Returns:

Handler from the root logger, or null if none exists

getAttribute

```
public java.lang.Object getAttribute(java.lang.String attributeName)  
    throws javax.management.AttributeNotFoundException,  
           javax.management.MBeanException,  
           javax.management.ReflectionException
```

See Also:

DynamicMBean#getAttribute(java.lang.String)

getAttributes

```
public javax.management.AttributeList getAttributes(java.lang.String[] attributeNames)
```

See Also:

DynamicMBean#getAttributes(java.lang.String[])

invoke

```
public java.lang.Object invoke(java.lang.String operation,  
                                java.lang.Object[] params,  
                                java.lang.String[] signature)
```

Returns:

null because this MBean has no operations defined

See Also:

DynamicMBean#invoke(java.lang.String, java.lang.Object[], java.lang.String[])

setAttribute

```
public void setAttribute(javax.management.Attribute newAttribute)  
    throws javax.management.AttributeNotFoundException,  
           javax.management.InvalidAttributeValueException,  
           javax.management.MBeanException,  
           javax.management.ReflectionException
```

See Also:

DynamicMBean#setAttribute(javax.management.Attribute)

setAttributes

```
public javax.management.AttributeList setAttributes(javax.management.AttributeList  
attrs)
```

See Also:

DynamicMBean#setAttributes(javax.management.AttributeList)

getMBeanInfo

```
public javax.management.MBeanInfo getMBeanInfo()
```


com.ibm.retail.si.mgmt.logging

Class JDKLoggerMBean

java.lang.Object

└--com.ibm.retail.si.mgmt.logging.JDKLoggerMBean

All Implemented interfaces:

javax.management.DynamicMBean

public class **JDKLoggerMBean**

extends java.lang.Object

implements javax.management.DynamicMBean

Dynamic MBean that allows for dynamic, non persistent changes to JDK Logger logging levels.

The `ObjectName` of this MBean includes the following attributes, in addition to the SIF attribute of `DeviceID`:

- SIFComponent=MGMT
- Id=JDKLoggers

This management interface has a dynamic list of attributes, each of which is the name of the `Logger`, and whose value is the `Logger`'s level.

The following operations are included in this management interface. These are described in more detail in the corresponding method documentation.

- `readConfiguration`

This MBean emits no `Notifications`

Field Summary

static java.lang.String	COPYRIGHT
static java.util.logging.Log Manager	manager
static java.lang.String	OBJECT_NAME_BASE
static java.lang.String	OBJECT_NAME_ID

Constructor Summary

JDKLoggerMBean()	Constructor
------------------	-------------

Method Summary

java.lang.Object	getAttribute(java.lang.String attributeName)
------------------	----------------------------------------------

javax.management.AttributeList	getAttributes(java.lang.String[] attributeNames)
java.util.ArrayList	getLoggerNames() Returns an ArrayList of the current logger names.
javax.management.MBeanInfo	getMBeanInfo()
java.lang.Object	invoke(java.lang.String operation, java.lang.Object[] operation, java.lang.String[] operation)
void	readConfiguration() Reload the configuration file for logger properties
void	setAttribute(javax.management.Attribute newAttribute)
javax.management.AttributeList	setAttributes(javax.management.AttributeList attrs)
void	setLoggerLevel(java.lang.String loggerName, java.lang.String loggerName) Sets the level of a logger.

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

OBJECT_NAME_ID

public static final java.lang.String **OBJECT_NAME_ID**

OBJECT_NAME_BASE

public static final java.lang.String **OBJECT_NAME_BASE**

manager

protected static final java.util.logging.LogManager **manager**

Constructors

(continued from last page)

JDKLoggerMBean

```
public JDKLoggerMBean()
```

Constructor

Methods

setLoggerLevel

```
protected void setLoggerLevel(java.lang.String loggerName,  
                               java.lang.String levelStr)  
    throws MgmtException,  
           javax.management.InvalidAttributeValueException
```

Sets the level of a logger.

Parameters:

loggerName -
Name of the logger to modify
levelStr -
Valid levels are: SEVERE, WARNING, INFO, CONFIG, FINE, FINER, FINEST

getLoggerNames

```
protected java.util.ArrayList getLoggerNames()
```

Returns an ArrayList of the current logger names.

Returns:

ArrayList of the current logger names.

readConfiguration

```
public void readConfiguration()  
    throws java.io.IOException
```

Reload the configuration file for logger properties

Exceptions:

java.io.IOException

getAttribute

```
public java.lang.Object getAttribute(java.lang.String attributeName)  
    throws javax.management.AttributeNotFoundException,  
           javax.management.MBeanException,  
           javax.management.ReflectionException
```

See Also:

DynamicMBean#getAttribute(java.lang.String)

getAttributes

```
public javax.management.AttributeList getAttributes(java.lang.String[] attributeNames)
```

See Also:

(continued from last page)

`DynamicMBean#getAttributes(java.lang.String[])`

invoke

```
public java.lang.Object invoke(java.lang.String operation,  
                                java.lang.Object[] params,  
                                java.lang.String[] signature)
```

See Also:

`DynamicMBean#invoke(java.lang.String, java.lang.Object[], java.lang.String[])`

setAttribute

```
public void setAttribute(javax.management.Attribute newAttribute)  
    throws javax.management.AttributeNotFoundException,  
           javax.management.InvalidAttributeValueException,  
           javax.management.MBeanException,  
           javax.management.ReflectionException
```

See Also:

`DynamicMBean#setAttribute(javax.management.Attribute)`

setAttributes

```
public javax.management.AttributeList setAttributes(javax.management.AttributeList  
    attrs)
```

See Also:

`DynamicMBean#setAttributes(javax.management.AttributeList)`

getMBeanInfo

```
public javax.management.MBeanInfo getMBeanInfo()
```

com.ibm.retail.si.mgmt.logging

Class Log4JLoggerMBean

java.lang.Object

└--com.ibm.retail.si.mgmt.logging.Log4JLoggerMBean

All Implemented interfaces:

javax.management.DynamicMBean

public class **Log4JLoggerMBean**

extends java.lang.Object

implements javax.management.DynamicMBean

Dynamic MBean that allows for dynamic, non persistent changes to Log4J Logger logging levels.

The `ObjectName` of this MBean includes the following attributes, in addition to the SIF attribute of `DeviceID`:

- `SIFComponent=MGMT`
- `Id=Log4JLoggers`

This management interface has a dynamic list of attributes, each of which is the name of the `Logger`, and whose value is the `Logger`'s level.

The following operations are included in this management interface. These are described in more detail in the corresponding method documentation.

- `resetConfiguration`

This MBean emits no `Notifications`

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	OBJECT_NAME_BASE
static java.lang.String	OBJECT_NAME_ID

Constructor Summary

Log4JLoggerMBean() Constructor

Method Summary

java.lang.Object	getAttribute(java.lang.String attributeName)
javax.management.AttributeList	getAttributes(java.lang.String[] attributeNames)

java.util.ArrayList	getLoggerNames() Returns an ArrayList of the current logger names.
javax.management.MBeanInfo	getMBeanInfo()
java.lang.Object	invoke(java.lang.String operation, java.lang.Object[] operation, java.lang.String[] operation)
void	resetConfiguration() Reload the configuration file for logger properties
void	setAttribute(javax.management.Attribute newAttribute)
javax.management.AttributeList	setAttributes(javax.management.AttributeList attrs)
void	setLoggerLevel(java.lang.String loggerName, java.lang.String loggerName) Sets the level of a logger.

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields**COPYRIGHT**

public static final java.lang.String **COPYRIGHT**

OBJECT_NAME_ID

public static final java.lang.String **OBJECT_NAME_ID**

OBJECT_NAME_BASE

public static final java.lang.String **OBJECT_NAME_BASE**

Constructors**Log4JLoggerMBean**

public **Log4JLoggerMBean**()
Constructor

Methods

(continued from last page)

setLoggerLevel

```
protected void setLoggerLevel(java.lang.String loggerName,  
                               java.lang.String levelStr)  
    throws MgmtException
```

Sets the level of a logger.

Parameters:

loggerName -
Name of logger to set level for
levelStr -
Valid levels are: FATAL, ERROR, WARN, INFO, DEBUG, ALL, OFF

getLoggerNames

```
protected java.util.ArrayList getLoggerNames()
```

Returns an ArrayList of the current logger names.

Returns:

ArrayList of the current logger names.

resetConfiguration

```
public void resetConfiguration()
```

Reload the configuration file for logger properties

getAttribute

```
public java.lang.Object getAttribute(java.lang.String attributeName)  
    throws javax.management.AttributeNotFoundException,  
           javax.management.MBeanException,  
           javax.management.ReflectionException
```

See Also:

DynamicMBean#getAttribute(java.lang.String)

getAttributes

```
public javax.management.AttributeList getAttributes(java.lang.String[] attributeNames)
```

See Also:

DynamicMBean#getAttributes(java.lang.String[])

invoke

```
public java.lang.Object invoke(java.lang.String operation,  
                                java.lang.Object[] params,  
                                java.lang.String[] signature)
```

See Also:

DynamicMBean#invoke(java.lang.String, java.lang.Object[], java.lang.String[])

setAttribute

```
public void setAttribute(javax.management.Attribute newAttribute)
    throws javax.management.AttributeNotFoundException,
           javax.management.InvalidAttributeValueException,
           javax.management.MBeanException,
           javax.management.ReflectionException
```

See Also:

DynamicMBean#setAttribute(javax.management.Attribute)

setAttributes

```
public javax.management.AttributeList setAttributes(javax.management.AttributeList
attrs)
```

See Also:

DynamicMBean#setAttributes(javax.management.AttributeList)

getMBeanInfo

```
public javax.management.MBeanInfo getMBeanInfo()
```


com.ibm.retail.si.mgmt.logging

Class MgmtLoggingCtrlMBean

java.lang.Object

└─com.ibm.retail.si.mgmt.logging.MgmtLoggingCtrlMBean

All Implemented interfaces:

javax.management.MBeanRegistration, javax.management.DynamicMBean

public class **MgmtLoggingCtrlMBean**

extends java.lang.Object

implements javax.management.DynamicMBean, javax.management.MBeanRegistration

Dynamic MBean that instantiates all applicable Logging MBeans for JDK Logging, or Log4J.

The `ObjectName` of this MBean includes the following attributes, in addition to the `SIF` attribute of `DeviceID`:- `SIFComponent=MGMT`- `Id=MgmtLoggingCtrl`

This MBean has no attributes.

This MBean has no methods.

This MBean emits no Notifications

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	OBJECT_NAME_BASE
static java.lang.String	OBJECT_NAME_ID

Constructor Summary

MgmtLoggingCtrlMBean(MgmtAgent agent)

Method Summary

java.lang.Object	getAttribute(java.lang.String attributeName)
javax.management.AttributeList	getAttributes(java.lang.String[] attributeNames)
javax.management.MBeanInfo	getMBeanInfo()

java.lang.Object	invoke(java.lang.String operation, java.lang.Object[] operation, java.lang.String[] operation)
void	postDeregister()
void	postRegister(java.lang.Boolean registrationDone)
void	preDeregister()
javax.management.ObjectName	preRegister(javax.management.MBeanServer server, javax.management.ObjectName server)
void	setAttribute(javax.management.Attribute newAttribute)
javax.management.AttributeList	setAttributes(javax.management.AttributeList attrs)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

OBJECT_NAME_ID

public static final java.lang.String **OBJECT_NAME_ID**

OBJECT_NAME_BASE

public static final java.lang.String **OBJECT_NAME_BASE**

Constructors

MgmtLoggingCtrlMBean

public **MgmtLoggingCtrlMBean**(MgmtAgent agent)

Methods

(continued from last page)

postDeregister

```
public void postDeregister()
```

See Also:

```
javax.management.MBeanRegistration#postDeregister()
```

postRegister

```
public void postRegister(java.lang.Boolean registrationDone)
```

See Also:

```
javax.management.MBeanRegistration#postRegister(java.lang.Boolean)
```

preDeregister

```
public void preDeregister()  
    throws java.lang.Exception
```

See Also:

```
javax.management.MBeanRegistration#preDeregister()
```

preRegister

```
public javax.management.ObjectName preRegister(javax.management.MBeanServer server,  
    javax.management.ObjectName name)  
    throws java.lang.Exception
```

See Also:

```
javax.management.MBeanRegistration#preRegister(javax.management.MBeanServer,  
    javax.management.ObjectName)
```

getAttribute

```
public java.lang.Object getAttribute(java.lang.String attributeName)  
    throws javax.management.AttributeNotFoundException,  
    javax.management.MBeanException,  
    javax.management.ReflectionException
```

See Also:

```
DynamicMBean#getAttribute(java.lang.String)
```

getAttributes

```
public javax.management.AttributeList getAttributes(java.lang.String[] attributeNames)
```

(continued from last page)

See Also:`DynamicMBean#getAttributes(java.lang.String[])`

invoke

```
public java.lang.Object invoke(java.lang.String operation,  
                                java.lang.Object[] params,  
                                java.lang.String[] signature)
```

See Also:`DynamicMBean#invoke(java.lang.String, java.lang.Object[], java.lang.String[])`

setAttribute

```
public void setAttribute(javax.management.Attribute newAttribute)  
    throws javax.management.AttributeNotFoundException,  
           javax.management.InvalidAttributeValueException,  
           javax.management.MBeanException,  
           javax.management.ReflectionException
```

See Also:`DynamicMBean#setAttribute(javax.management.Attribute)`

setAttributes

```
public javax.management.AttributeList setAttributes(javax.management.AttributeList  
attrs)
```

See Also:`DynamicMBean#setAttributes(javax.management.AttributeList)`

getMBeanInfo

```
public javax.management.MBeanInfo getMBeanInfo()
```

Package

com.ibm.retail.si.mgmt.masteragent

Provides the classes required for a Master Agent, including its core MBeans:

- ProxyManagerMBean: Manages remote General Agent MBean Proxies.
- RemoteConnectorMBean: Makes MBeanServerConnections to General Agents.
- RemoteServerPoolMBean: Manages the MBeanServerConnections to General Agents.

com.ibm.retail.si.mgmt.masteragent

Class MgmtRemoteMBeanProxyException

```

java.lang.Object
  |-- java.lang.Throwable
        |-- java.lang.Exception
              |-- java.lang.RuntimeException
                    |-- javax.management.JMRuntimeException
                          |-- com.ibm.retail.si.mgmt.masteragent.MgmtRemoteMBeanProxyException

```

public class **MgmtRemoteMBeanProxyException**

extends javax.management.JMRuntimeException

RuntimeException for Remote MBean Proxies

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

MgmtRemoteMBeanProxyException()
MgmtRemoteMBeanProxyException(java.lang.String message)
MgmtRemoteMBeanProxyException(java.lang.Throwable rootCause)
MgmtRemoteMBeanProxyException(java.lang.String message, java.lang.Throwable message)

Method Summary

java.lang.Throwable	getCause()
---------------------	------------

Methods inherited from : class java.lang.Throwable

fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

MgmtRemoteMBeanProxyException

```
public MgmtRemoteMBeanProxyException()
```

MgmtRemoteMBeanProxyException

```
public MgmtRemoteMBeanProxyException(java.lang.String message)
```

MgmtRemoteMBeanProxyException

```
public MgmtRemoteMBeanProxyException(java.lang.Throwable rootCause)
```

MgmtRemoteMBeanProxyException

```
public MgmtRemoteMBeanProxyException(java.lang.String message,  
                                       java.lang.Throwable rootCause)
```

Methods

getCause

```
public java.lang.Throwable getCause()
```

com.ibm.retail.si.mgmt.masteragent

Interface ProxyManagerMBeanpublic interface **ProxyManagerMBean**

The purpose of this MBean is to provide a facility to communicate with agent MBeanServers to 'simulate' mbean proxies. The methods in this MBean are used to make MBean calls onto general agent MBeans in the store. The general agent's system Id, or agent Id, is the first parameter for all of the methods.

Field Summary

<code>static java.lang.String</code>	COPYRIGHT
<code>static java.lang.String</code>	OBJECT_NAME
<code>static java.lang.String</code>	OBJECT_NAME_ID

Method Summary

<code>java.lang.Object</code>	<code>getAttribute(java.lang.String systemId, javax.management.ObjectName systemId, java.lang.String systemId)</code> Gets the requested attribute from the MBean matching the query on the specified system
<code>javax.management.AttributeList</code>	<code>getAttributes(java.lang.String systemId, javax.management.ObjectName systemId, java.lang.String[] systemId)</code> Gets the specified attributes from the MBean matching the query on the specified system
<code>javax.management.MBeanInfo[]</code>	<code>getMBeanInfos(java.lang.String systemId, javax.management.ObjectName systemId)</code> Calls <code>getMBeanInfos(String, ObjectName, boolean,boolean,boolean,boolean)</code> method with all boolean values true
<code>java.lang.Object[] []</code>	<code>getMBeanInfos(java.lang.String systemId, javax.management.ObjectName systemId, boolean systemId, boolean systemId, boolean systemId, boolean systemId)</code> Returns all MBeanInfo objects for all MasterAgent MBeans and MBean proxies.
<code>java.util.Set</code>	<code>getObjectNames(java.lang.String systemId, java.lang.String systemId, javax.management.QueryExp systemId)</code> Gets all ObjectNames matching the specified query on the specified system; will retrieve from ALL systems if systemId value is passed in as null.
<code>java.lang.Object</code>	<code>invokeMethod(java.lang.String systemId, javax.management.ObjectName systemId, java.lang.String systemId, java.lang.Object[] systemId, java.lang.String[] systemId)</code> Invokes the specified method on the MBean matching the query on the specified system
<code>java.util.Set</code>	<code>queryNames(java.lang.String systemId, javax.management.ObjectName systemId, javax.management.QueryExp systemId)</code> Gets all ObjectNames matching the specified query on the specified system

java.util.Set	<pre>queryNamesForClass(java.lang.String systemId, javax.management.ObjectName systemId, java.lang.String systemId)</pre> <p>Custom query to allow us to retrieve all of the MBeans of a specific MBean class (like SoftwareInventory) for a specific device in one remote query.</p>
void	<pre>setAttribute(java.lang.String systemId, javax.management.ObjectName systemId, javax.management.Attribute attribute systemId)</pre> <p>Sets the specified attribute on the MBean matching the query on the specified system</p>

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME

```
public static final java.lang.String OBJECT_NAME
```

Methods

getMBeanInfos

```
public java.lang.Object[][] getMBeanInfos(java.lang.String systemId,
                                           javax.management.ObjectName queryName,
                                           boolean includeAttrs,
                                           boolean includeCons,
                                           boolean includeOps,
                                           boolean includeNots)
                                           throws java.io.IOException
```

Returns all MBeanInfo objects for all MasterAgent MBeans and MBean proxies. For performance, a subset of the MBean information can be returned, depending upon the values of the supplied parameters

Parameters:

```
systemId -
  Id of the agent to query
queryName -
  Query ObjectName to use to find the MBeans on the General Agent
includeAttrs -
  Include MBeanAttributeInfo in the final result
includeCons -
  Include MBeanConstructorInfo in the final result
includeOps -
  Include MBeanOperationInfo in the final result
includeNots -
  Include MBeanNotificationInfo in the final result
```

Returns:

(continued from last page)

An Object[][] of ObjectName Strings and MBeanInfo objects for the MBeans found on the agent with the supplied query

Exceptions:

IOException

getMBeanInfos

```
public javax.management.MBeanInfo[] getMBeanInfos(java.lang.String systemId,
                                                    javax.management.ObjectName
queryName)
```

throws java.io.IOException

Calls getMBeanInfos(String, ObjectName, boolean,boolean,boolean,boolean) method with all boolean values true

Parameters:

systemId -
Id of the agent to query. Will attempt to use systemId found in the query ObjectName if this value is null
queryName -
Query ObjectName to use to find the MBeans on the General Agent

Returns:

An MBeanInfo[] of MBeanInfo objects

Exceptions:

IOException

See Also:

com.ibm.retail.si.mgmt.masteragent.ProxyManagerMBean#getMBeanInfos(java.lang.String, javax.management.ObjectName, boolean, boolean, boolean, boolean)

queryNamesForClass

```
public java.util.Set queryNamesForClass(java.lang.String systemId,
                                           javax.management.ObjectName queryOn,
                                           java.lang.String clsName)
```

Custom query to allow us to retrieve all of the MBeans of a specific MBean class (like SoftwareInventory) for a specific device in one remote query.

Parameters:

systemId -
Id of the agent to query. Will attempt to use systemId found in the query ObjectName if this value is null
queryOn -
ObjectName of the system for whom we need to get the MBeans of.
clsName -
A string containing the name of the class to find the MBeans for.

Returns:

An array of ObjectName objects listing those MBean proxies who are subclasses of the specified class name.

queryNames

```
public java.util.Set queryNames(java.lang.String systemId,
                                   javax.management.ObjectName queryOn,
                                   javax.management.QueryExp expr)
```

Gets all ObjectNames matching the specified query on the specified system

Parameters:

(continued from last page)

systemId -
 Id of the agent to query. Will attempt to use systemId found in the query ObjectName if this value is null
queryOn -
 Query ObjectName
expr -
 Optional query expression to go with the query (can be null)

Returns:

Set of ObjectNames returned from the query

getObjectNames

```
public java.util.Set getObjectNames(java.lang.String systemId,
                                     java.lang.String query,
                                     javax.management.QueryExp expr)
    throws javax.management.MalformedObjectNameException
```

Gets all ObjectNames matching the specified query on the specified system; will retrieve from ALL systems if systemId value is passed in as null.

Parameters:

systemId -
 Id of the agent to query. Will retrieve from ALL systems if systemId value is passed in as null.
query -
 Query ObjectName
expr -
 Optional query expression to go with the query (can be null)

Returns:

Set of ObjectNames returned from the query

Exceptions:

MalformedObjectNameException

getAttributes

```
public javax.management.AttributeList getAttributes(java.lang.String systemId,
                                                     javax.management.ObjectName
queryOn,
                                                     java.lang.String[] propList)
```

Gets the specified attributes from the MBean matching the query on the specified system

Parameters:

systemId -
 Id of the agent to query. Will attempt to use systemId found in the query ObjectName if this value is null
queryOn -
 Query ObjectName
propList -
 String[] of properties (attributes) to retrieve

Returns:

AttributeList returned from the query

invokeMethod

```
public java.lang.Object invokeMethod(java.lang.String systemId,
                                       javax.management.ObjectName queryOn,
                                       java.lang.String methodName,
                                       java.lang.Object[] params,
                                       java.lang.String[] types)
```

Invokes the specified method on the MBean matching the query on the specified system

(continued from last page)

Parameters:

`systemId` -
Id of the agent to query. Will attempt to use `systemId` found in the query `ObjectName` if this value is null
`queryOn` -
Query `ObjectName`
`methodName` -
String name of the method to invoke
`params` -
`Object[]` of the parameters for the specified method
`types` -
`String[]` of the object types of the parameters array

Returns:

Object returned from the method call

setAttribute

```
public void setAttribute(java.lang.String systemId,  
                          javax.management.ObjectName queryOn,  
                          javax.management.Attribute attr)
```

Sets the specified attribute on the MBean matching the query on the specified system

Parameters:

`systemId` -
Id of the agent to query. Will attempt to use `systemId` found in the query `ObjectName` if this value is null
`queryOn` -
Query `ObjectName`
`attr` -
Attribute to be set

getAttribute

```
public java.lang.Object getAttribute(java.lang.String systemId,  
                                       javax.management.ObjectName queryOn,  
                                       java.lang.String attr)
```

Gets the requested attribute from the MBean matching the query on the specified system

Parameters:

`systemId` -
Id of the agent to query. Will attempt to use `systemId` found in the query `ObjectName` if this value is null
`queryOn` -
Query `ObjectName`
`attr` -
Name of the attribute to obtain

Returns:

Attribute value, or null if an error occurred

`com.ibm.retail.si.mgmt.masteragent`

Interface **RemoteConnectorMBean**

public interface **RemoteConnectorMBean**

The purpose of this MBean is to make `MBeanServerConnections` to newly discovered agents, and to trigger the creation of `MgmtRemoteMBeanProxys`.

The `ObjectName` of this MBean includes the following attributes, in addition to the SIF attribute of `DeviceID`:

- `SIFComponent=MGMT`
- `Id=RemoteConnector`

This management interface defines no attributes

This management interface defines no methods

An `AgentDiscoveredNotification` is emitted by classes implementing this interface when a connection has been established to a newly discovered agent and its corresponding `MBeanServerConnection` has been stored in the `RemoteServerPool`.

An `AgentConnectionFailedNotification` is emitted by classes implementing this interface upon a failed connection attempt to a newly discovered agent.

Field Summary

<code>static</code> <code>java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------------------	------------------------

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

com.ibm.retail.si.mgmt.masteragent

Interface RemoteServerPoolMBean

public interface **RemoteServerPoolMBean**

MBean interface definition for the RemoteServerPool, contains methods to add, get and remove MBeanServerConnections from the pool.

The ObjectName of this MBean includes the following attributes, in addition to the SIF attribute of DeviceID:

- SIFComponent=MGMT
- Id=RemoteServerPool

This management interface includes the following attributes. These attributes are described in more detail in the accessor methods.

- AllDevInfo
- Servers
- Size

The following operations are included in this management interface. These are described in more detail in the corresponding method documentation.

- addRemoteServer
- allRoles
- getConnectionId
- getDevInfo
- devDevInfoByDevice
- getDevInfoByType
- getModels
- getRoles
- getServer
- getServers
- removeRemoteServer

This MBean emits no Notifications.

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	OBJECT_NAME_BASE
static java.lang.String	OBJECT_NAME_ID

Method Summary

void	addRemoteServer(MgmtDeviceInfo devInfo, javax.management.remote.JMXConnector devInfo, javax.management.MBeanServerConnection devInfo) Adds a MBeanServerConnection reference to the pool.
java.util.Collection	allRoles()

MgmtDeviceInfo[]	getAllDevInfo()
java.lang.String	getConnectionId(java.lang.String systemId) Returns the remote JMX connection ID for the supplied agent
MgmtDeviceInfo	getDevInfo(java.lang.String jndiName) Returns the MgmtDeviceInfo object for a remote agent
MgmtDeviceInfo[]	getDevInfoByDevice(java.lang.String deviceId) Returns an array of currently known MgmtDeviceInfo running the supplied device
MgmtDeviceInfo[]	getDevInfoByType(java.lang.Integer deviceType) Returns a List of currently known MgmtDeviceInfo that are of the supplied device type
java.lang.String[]	getModels(java.lang.String agentID, java.lang.String agentID) Returns the list of model names for the supplied agent and role
java.lang.String[]	getRoles(java.lang.String agentID) Returns the list of roles for the supplied agent
javax.management.MBeanServerConnection	getServer(java.lang.String jndiName) Returns a reference to a MBeanServerConnection that has been stored in the pool, which is associated by the JNDI name of the remote agent
java.lang.Integer	getSize()
boolean	registerAgentStatusListener(AgentStatusListener asl)
boolean	removeAgentStatusListener(AgentStatusListener asl)
void	removeRemoteServer(MgmtDeviceInfo devInfo)

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME_BASE

```
public static final java.lang.String OBJECT_NAME_BASE
```

Methods

(continued from last page)

addRemoteServer

```
public void addRemoteServer(MgmtDeviceInfo devInfo,  
                             javax.management.remote.JMXConnector connector,  
                             javax.management.MBeanServerConnection server)
```

Adds a MBeanServerConnection reference to the pool. It uses the MgmtDeviceInfo object from the agent which contains the MBeanServerConnection reference to use as a key for storing the servers in the pool.

Parameters:

devInfo -
MgmtDeviceInfo object corresponding to the remote agent.
connector -
JMXConnector used to obtain this MBeanServerConnection
server -
MBeanServerConnection reference

removeRemoteServer

```
public void removeRemoteServer(MgmtDeviceInfo devInfo)
```

getServer

```
public javax.management.MBeanServerConnection getServer(java.lang.String jndiName)
```

Returns a reference to a MBeanServerConnection that has been stored in the pool, which is associated by the JNDI name of the remote agent

Parameters:

jndiName -
JNDI name associated to a remote agent

Returns:

MBeanServerConnection if one exists for the supplied name, or null

getAllDevInfo

```
public MgmtDeviceInfo[] getAllDevInfo()
```

Returns:

Array containing each MgmtDeviceInfo corresponding to each stored MBeanServerConnection.

getDevInfo

```
public MgmtDeviceInfo getDevInfo(java.lang.String jndiName)
```

Returns the MgmtDeviceInfo object for a remote agent

Parameters:

jndiName -
JNDI Name of the remote agent connection

Returns:

MgmtDeviceInfo object for a remote agent, or null if none exists

(continued from last page)

getDevInfoByDevice

```
public MgmtDeviceInfo[] getDevInfoByDevice(java.lang.String deviceId)
```

Returns an array of currently known MgmtDeviceInfo running the supplied device

Parameters:

deviceId -
Device to search for

Returns:

MgmtDeviceInfo[] of information about each running agent on the supplied device, or an empty array if no agents are known

getDevInfoByType

```
public MgmtDeviceInfo[] getDevInfoByType(java.lang.Integer deviceType)
```

Returns a List of currently known MgmtDeviceInfo that are of the supplied device type

Parameters:

deviceType -
Integer device type to search for

Returns:

Array of currently known MgmtDeviceInfo that are of the supplied device type, or an empty array if no devices of that type are known

allRoles

```
public java.util.Collection allRoles()
```

getRoles

```
public java.lang.String[] getRoles(java.lang.String agentID)  
                                throws MgmtException
```

Returns the list of roles for the supplied agent

Parameters:

agentID -
System ID of the agent

Returns:

String[] of role names, or an empty array if none exist

Exceptions:

MgmtException -
Error occurred obtaining the roles

getModels

```
public java.lang.String[] getModels(java.lang.String agentID,  
                                     java.lang.String roleName)  
                                throws MgmtException
```

Returns the list of model names for the supplied agent and role

Parameters:

(continued from last page)

agentID -
System ID of the agent
roleName -
Name of the role

Returns:

String[] of model names, or an empty array if none exist

Exceptions:

MgmtException -
Error occurred obtaining the models

getSize

```
public java.lang.Integer getSize()
```

Returns:

Integer size of the server pool

getConnectionId

```
public java.lang.String getConnectionId(java.lang.String systemId)
```

Returns the remote JMX connection ID for the supplied agent

Parameters:

systemId -
System ID of the agent to search for

Returns:

The String connection ID, or null if the connection does not exist or if there was an error obtaining the connection Id.

registerAgentStatusListener

```
public boolean registerAgentStatusListener(AgentStatusListener asl)
```

removeAgentStatusListener

```
public boolean removeAgentStatusListener(AgentStatusListener asl)
```

Package

com.ibm.retail.si.mgmt.monitor

Classes for MBean Monitor policy control. The `MonitorManagerMBean` is the primary interface for controlling `MonitorPolicy`, and for applying policies on newly discovered agents.

com.ibm.retail.si.mgmt.monitor

Class AgentMonitorPolicyAction

java.lang.Object

└-com.ibm.retail.si.mgmt.monitor.MonitorPolicyAction

└-com.ibm.retail.si.mgmt.monitor.AgentMonitorPolicyAction

public class **AgentMonitorPolicyAction**
 extends MonitorPolicyAction

MonitorPolicyAction that applies to a single agent.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class com.ibm.retail.si.mgmt.monitor.MonitorPolicyAction

COPYRIGHT, id, policy

Constructor Summary

AgentMonitorPolicyAction(MonitorPolicy policy, java.lang.String policy)

Construct an instance that will apply the new monitor to a specific agent based on the supplied system Id.

Method Summary

boolean	equals(java.lang.Object o) Determines equality by comparing the policies and system identifiers
java.lang.Object	getTargetIdentifier() Returns the agent system Id associated with this policy
int	hashCode()
java.lang.String	toString()

Methods inherited from : class com.ibm.retail.si.mgmt.monitor.MonitorPolicyAction

getId, getPolicy, getTargetIdentifier, init, setId, setPolicy, toString, toXML

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

AgentMonitorPolicyAction

```
public AgentMonitorPolicyAction(MonitorPolicy policy,  
                                java.lang.String systemId)
```

Construct an instance that will apply the new monitor to a specific agent based on the supplied system Id.

Parameters:

- policy -
- The MonitorPolicy to associate with this action.
- systemId -
- The system Id of the agent that will have the policy applied.

Methods

getTargetIdentifier

```
public java.lang.Object getTargetIdentifier()
```

Returns the agent system Id associated with this policy

Returns:

String the action's target systemId

equals

```
public boolean equals(java.lang.Object o)
```

Determines equality by comparing the policies and system identifiers

See Also:

java.lang.Object#equals(java.lang.Object)

hashCode

```
public int hashCode()
```

toString

```
public java.lang.String toString()
```

com.ibm.retail.si.mgmt.monitor

Interface BooleanMonitorMBean

public interface **BooleanMonitorMBean**

extends javax.management.monitor.MonitorMBean

MBean interface for the BooleanMonitorMBean.

Field Summary

<pre>static java.lang.String</pre>	COPYRIGHT
------------------------------------	-----------

Method Summary

boolean	<pre>getNotifyFalse()</pre> <p>Flag that, when true, sends a notification if the attribute value is false</p>
boolean	<pre>getNotifyTrue()</pre> <p>Flag that, when true, sends a notification if the attribute value is true</p>
void	<pre>setNotifyFalse(boolean notifyFalse)</pre>
void	<pre>setNotifyTrue(boolean notifyTrue)</pre>

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

getNotifyFalse

public boolean **getNotifyFalse**()

Flag that, when true, sends a notification if the attribute value is false

Returns:

value of the flag

setNotifyFalse

public void **setNotifyFalse**(boolean notifyFalse)

(continued from last page)

Parameters:

notifyFalse -
The notifyFalse to set.

getNotifyTrue

```
public boolean getNotifyTrue()
```

Flag that, when true, sends a notification if the attribute value is true

Returns:

value of the flag

setNotifyTrue

```
public void setNotifyTrue(boolean notifyTrue)
```

Parameters:

notifyTrue -
The notifyTrue to set.

com.ibm.retail.si.mgmt.monitor

Class DeviceMonitorPolicyAction

java.lang.Object

└-com.ibm.retail.si.mgmt.monitor.MonitorPolicyAction

└-com.ibm.retail.si.mgmt.monitor.DeviceMonitorPolicyAction

```
public class DeviceMonitorPolicyAction
extends MonitorPolicyAction
```

MonitorPolicyAction that applies to an entire device.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class com.ibm.retail.si.mgmt.monitor.MonitorPolicyAction

COPYRIGHT, id, policy

Constructor Summary

DeviceMonitorPolicyAction(MonitorPolicy policy, java.lang.String policy)

Construct an instance that will apply the new monitor to all agents on the device based on the supplied device Id.

Method Summary

boolean	equals(java.lang.Object o) Determines equality by comparing the policies and device identifiers
java.lang.Object	getTargetIdentifier() Returns the deviceId associated with this policy
int	hashCode()

Methods inherited from : class com.ibm.retail.si.mgmt.monitor.MonitorPolicyAction

getId, getPolicy, getTargetIdentifier, init, setId, setPolicy, toString, toXML

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

DeviceMonitorPolicyAction

```
public DeviceMonitorPolicyAction(MonitorPolicy policy,  
                                 java.lang.String deviceId)
```

Construct an instance that will apply the new monitor to all agents on the device based on the supplied device Id.

Parameters:

- policy -
- The MonitorPolicy to associate with this action.
- deviceId -
- The deviceId of the device whose agents will have the policy applied.

Methods

getTargetIdentifier

```
public java.lang.Object getTargetIdentifier()
```

Returns the deviceId associated with this policy

Returns:

String the action's target deviceId

equals

```
public boolean equals(java.lang.Object o)
```

Determines equality by comparing the policies and device identifiers

See Also:

java.lang.Object#equals(java.lang.Object)

hashCode

```
public int hashCode()
```

com.ibm.retail.si.mgmt.monitor

Class DeviceTypeMonitorPolicyAction

java.lang.Object

└-com.ibm.retail.si.mgmt.monitor.MonitorPolicyAction

└-com.ibm.retail.si.mgmt.monitor.DeviceTypeMonitorPolicyAction

public class **DeviceTypeMonitorPolicyAction**

extends MonitorPolicyAction

MonitorPolicyAction that applies to a device type. Valid types are defined in the MgmtConst class.

See Also:

com.ibm.retail.si.mgmt.MgmtConst

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class com.ibm.retail.si.mgmt.monitor.MonitorPolicyAction

COPYRIGHT, id, policy

Constructor Summary

DeviceTypeMonitorPolicyAction(MonitorPolicy policy, java.lang.Integer policy)

Construct an instance that will apply the new monitor to all discovered devices of the supplied device type.

Method Summary

boolean	equals(java.lang.Object o) Determines equality by comparing the policies and device types
java.lang.Object	getTargetIdentifier() Returns the device type associated with this policy
int	hashCode()

Methods inherited from : class com.ibm.retail.si.mgmt.monitor.MonitorPolicyAction

getId, getPolicy, getTargetIdentifier, init, setId, setPolicy, toString, toXML

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

DeviceTypeMonitorPolicyAction

```
public DeviceTypeMonitorPolicyAction(MonitorPolicy policy,  
                                     java.lang.Integer deviceType)
```

Construct an instance that will apply the new monitor to all discovered devices of the supplied device type.

Parameters:

- policy -
- The policy to associate with this action
- deviceType -
- Numerical device type whose devices will have the policy applied

Methods

getTargetIdentifier

```
public java.lang.Object getTargetIdentifier()
```

Returns the device type associated with this policy

Returns:

The action's target device type

equals

```
public boolean equals(java.lang.Object o)
```

Determines equality by comparing the policies and device types

See Also:

`java.lang.Object#equals(java.lang.Object)`

hashCode

```
public int hashCode()
```

com.ibm.retail.si.mgmt.monitor

Interface MonitorManagerMBean

public interface **MonitorManagerMBean**

This MBean is responsible for applying JMX Monitors to agents based on `MonitorPolicy`s added to this MBean. Policies are added/removed using the `addMonitorPolicy`, `removeMonitorPolicy` methods. Once `MonitorPolicy` objects have been added, they can then be mapped or unmapped to a device type or a specific device using one of the `registerMonitor()` or `deregisterMonitor()` methods. When a device is discovered, any applicable policies and their corresponding Monitors will be applied.

The `ObjectName` of this MBean includes the following attributes, in addition to the `SIF` attribute of `DeviceID`:

- `SIFComponent=MGMT`
- `Id=MonitorManager`

This management interface includes the following attributes. These attributes are described in more detail in the accessor methods.

- `AllMonitorPolicies`
- `AllMonitorPolicyActions`

The following operations are included in this management interface. These are described in more detail in the corresponding method documentation.

- `addMonitorPolicy`
- `updateMonitorPolicy`
- `containsPolicy`
- `deregisterAllMonitors`
- `deregisterMonitor`
- `getAllMonitorPolicyActions`
- `getMonitorPolicyActions`
- `getMonitorPolicyAction`
- `getMonitorPolicy`
- `getAllMonitorPolicy`
- `isMonitorRegistered`
- `registerMonitor`
- `removeAllPolicies`
- `removeMonitorPolicy`

This MBean emits no `Notifications`, although each instantiated `Monitor` will emit `MonitorNotifications`.

Field Summary

<code>static</code> <code>java.lang.String</code>	<code>COPYRIGHT</code>
<code>static</code> <code>java.lang.String</code>	<code>OBJECT_NAME</code>
<code>static</code> <code>java.lang.String</code>	<code>OBJECT_NAME_ID</code>
<code>static</code> <code>java.lang.String</code>	<code>SYS_PROP_MONITOR_POLICY_STORE_CLASSNAME</code> Property specifying the class name to use for storing monitor policies

Method Summary

boolean	addMonitorPolicy(MonitorPolicy policy) Adds a MonitorPolicy from the registry.
boolean	containsPolicy(MonitorPolicy policy) Returns true if the supplied MonitorPolicy has been added, otherwise false.
boolean	containsPolicy(java.lang.String policyId) Returns true if a policy matching the supplied identifier has been added, otherwise false.
void	deregisterAllMonitors() Removes all monitor registrations for all policies
boolean	deregisterAndRemoveMonitorPolicy(java.lang.String itdID, java.lang.String itdID) IBM Director has removed the monitor from the specified system.
boolean	deregisterMonitor(MonitorPolicyAction action) Removes the registration for the supplied MonitorPolicyAction, and, if the action was enabled, unregisters any created MonitorMBeans.
boolean	deregisterMonitor(java.lang.String id) Removes the registration for the supplied MonitorPolicyActionid, and, if the action was enabled, unregisters any created MonitorMBeans.
java.lang.String[]	getActionListForSystem(java.lang.String systemID) Get the list of all IBM Director IDs for the monitors for the system specified.
MonitorPolicy[]	getAllMonitorPolicies() Return an array of all stored monitor policies.
MonitorPolicyAction[]	getAllMonitorPolicyActions() Return an array of all stored monitor policy actions.
MonitorPolicy	getMonitorPolicy(java.lang.String policyId) Retrieves the MonitorPolicy matching the supplied policy identifier, or null if it cannot be found.
MonitorPolicyAction	getMonitorPolicyAction(java.lang.String actionId) Retrieves the MonitorPolicyAction associated with the supplied identifier, or null if it cannot be found.
MonitorPolicyAction[]	getMonitorPolicyActions(java.lang.String policyId) Retrieves all MonitorPolicyAction associated with the supplied policy identifier, or null if it cannot be found.
MonitorPolicy	getMonitorPolicyWithPrefix(java.lang.String threshId) Retrieves the MonitorPolicy matching the specified threshold identifier, or null if it cannot be found.
javax.management.ObjectName[]	getProxyNamesForMonitorPolicy(java.lang.String policyId) Retrieves an ObjectName[] array of the proxy ObjectNames for the mbeans registered for this monitor policy.
java.lang.String[]	getSystemsForAppliedMonitorPolicy(java.lang.String policyId) Return a list of the system IDs that are associated with the monitor policy specified.

boolean	isMonitorRegistered(MonitorPolicyAction action) Returns whether or not the supplied MonitorPolicyAction is registered
boolean	registerMonitor(MonitorPolicyAction action) Registers the supplied MonitorPolicyAction and, if the action is enabled, applies it to all active and newly discovered devices that match the MonitorPolicyAction's target identifier (device type, device id, or system id).
boolean	registerMonitors(MonitorPolicyAction[] action) Registers the supplied MonitorPolicyActions and, if the action is enabled, applies it to all active and newly discovered devices that match the MonitorPolicyAction's target identifier (device type, device id, or system id).
void	removeAllPolicies() Removes all MonitorPolicy objects and any registrations
MonitorPolicy	removeMonitorPolicy(MonitorPolicy policy) Removes the MonitorPolicy object equal to that supplied, plus any registrations of those policies.
MonitorPolicy	removeMonitorPolicy(java.lang.String policyId) Removes the MonitorPolicy matching the supplied policy identifier, and any registrations of that policy.
boolean	updateMonitorPolicy(MonitorPolicy policy) Updates a MonitorPolicy in the registry by removing the policy, re-adding it, and then re-applying it if necessary
boolean	updateMonitorPolicy(MonitorPolicy policy, java.lang.String policy) Updates a MonitorPolicy in the registry by removing the policy, re-adding it, and then re-applying it if necessary

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME

```
public static final java.lang.String OBJECT_NAME
```

SYS_PROP_MONITOR_POLICY_STORE_CLASSNAME

```
public static final java.lang.String SYS_PROP_MONITOR_POLICY_STORE_CLASSNAME
```

Property specifying the class name to use for storing monitor policies

(continued from last page)

See Also:

com.ibm.retail.si.mgmt.monitor.MonitorPolicyRegistry

Methods

addMonitorPolicy

```
public boolean addMonitorPolicy(MonitorPolicy policy)
```

Adds a `MonitorPolicy` from the registry. Returns `true` if the policy was added, or `false` if the policy has already been added.

Parameters:

`policy` -
MonitorPolicy to add

Returns:

`true` if the policy was successfully added, or `false` if the policy has already been added.

updateMonitorPolicy

```
public boolean updateMonitorPolicy(MonitorPolicy policy)
```

Updates a `MonitorPolicy` in the registry by removing the policy, re-adding it, and then re-applying it if necessary

Parameters:

`policy` -
MonitorPolicy to update

Returns:

`true` if the policy was successfully re-added (and re-applied if applicable) or `false` otherwise.

updateMonitorPolicy

```
public boolean updateMonitorPolicy(MonitorPolicy policy,  
                                     java.lang.String oldPolicyId)
```

Updates a `MonitorPolicy` in the registry by removing the policy, re-adding it, and then re-applying it if necessary

Parameters:

`policy` -
MonitorPolicy to update
`oldPolicyId` -
A string containing the policy name to be removed. This is used for the case where the user wants to modify the name of the policy.

Returns:

`true` if the policy was successfully re-added (and re-applied if applicable) or `false` otherwise.

removeMonitorPolicy

```
public MonitorPolicy removeMonitorPolicy(MonitorPolicy policy)
```

Removes the `MonitorPolicy` object equal to that supplied, plus any registrations of those policies. This method returns the `MonitorPolicy` removed or null if it was not removed.

Parameters:

(continued from last page)

policy -
MonitorPolicy to remove

Returns:

The MonitorPolicy that was removed, or null if it was not removed

removeMonitorPolicy

```
public MonitorPolicy removeMonitorPolicy(java.lang.String policyId)
```

Removes the MonitorPolicy matching the supplied policy identifier, and any registrations of that policy. This method returns the MonitorPolicy removed, or null if it was not removed.

Parameters:

policyId -
Identifier of the MonitorPolicy to remove

Returns:

The MonitorPolicy that was removed, or null if it was not added

removeAllPolicies

```
public void removeAllPolicies()
```

Removes all MonitorPolicy objects and any registrations

containsPolicy

```
public boolean containsPolicy(MonitorPolicy policy)
```

Returns true if the supplied MonitorPolicy has been added, otherwise false.

Parameters:

policy -
MonitorPolicy to search for

Returns:

true if a policy matching the supplied policy identifier has been added, false otherwise.

containsPolicy

```
public boolean containsPolicy(java.lang.String policyId)
```

Returns true if a policy matching the supplied identifier has been added, otherwise false.

Parameters:

policyId -
MonitorPolicy identifier to search for

Returns:

true if a policy matching the supplied policy identifier has been added, false otherwise.

getMonitorPolicy

```
public MonitorPolicy getMonitorPolicy(java.lang.String policyId)
```

Retrieves the MonitorPolicy matching the supplied policy identifier, or null if it cannot be found.

Parameters:

(continued from last page)

`policyId` -
Policy identifier of the `MonitorPolicy` to retrieve

Returns:

`MonitorPolicy`
matching the supplied policy identifier, or null if it cannot be found.

getMonitorPolicyWithPrefix

`public MonitorPolicy getMonitorPolicyWithPrefix(java.lang.String threshId)`
Retrieves the `MonitorPolicy` matching the specified threshold identifier, or null if it cannot be found.

Parameters:

`threshId` -
Threshold identifier of the `MonitorPolicy` to retrieve

Returns:

`MonitorPolicy`
matching the specified threshold identifier, or null if it cannot be found.

getAllMonitorPolicies

`public MonitorPolicy[] getAllMonitorPolicies()`
Return an array of all stored monitor policies.

Returns:

`MonitorPolicy[]` An array of monitor policies.

registerMonitor

`public boolean registerMonitor(MonitorPolicyAction action)`
throws `MgmtException`

Registers the supplied `MonitorPolicyAction` and, if the action is enabled, applies it to all active and newly discovered devices that match the `MonitorPolicyAction`'s target identifier (device type, device id, or system id).

Parameters:

`action` -
The `MonitorPolicyAction` to register

Returns:

`true`
if the registration was added and applied successfully, or `false` if a registration for the supplied action already exists.

Exceptions:

`MgmtException`

See Also:

`com.ibm.retail.si.mgmt.monitor.MonitorPolicyAction`

registerMonitors

`public boolean registerMonitors(MonitorPolicyAction[] action)`
throws `MgmtException`

Registers the supplied `MonitorPolicyActions` and, if the action is enabled, applies it to all active and newly discovered devices that match the `MonitorPolicyAction`'s target identifier (device type, device id, or system id).

Parameters:

(continued from last page)

`action` -
an array containing the `MonitorPolicyAction` objects to register

Returns:

`true`
if the registration was added and applied successfully for all actions, or `false` if a registration for one of the supplied actions already existed.

Exceptions:

`MgmtException`

See Also:

`com.ibm.retail.si.mgmt.monitor.MonitorPolicyAction`

deregisterAllMonitors

```
public void deregisterAllMonitors()
```

Removes all monitor registrations for all policies

deregisterMonitor

```
public boolean deregisterMonitor(MonitorPolicyAction action)  
    throws MgmtException
```

Removes the registration for the supplied `MonitorPolicyAction`, and, if the action was enabled, unregisters any created `MonitorMBeans`.

Parameters:

`action` -
The `MonitorPolicyAction` to deregister

Returns:

`boolean true` if the action was deregistered successfully, `false` otherwise

Exceptions:

`MgmtException` -
Error unregistering the general agent's `MonitorMBean`

deregisterMonitor

```
public boolean deregisterMonitor(java.lang.String id)  
    throws MgmtException
```

Removes the registration for the supplied `MonitorPolicyActionid`, and, if the action was enabled, unregisters any created `MonitorMBeans`.

Parameters:

`id` -
String id for the `MonitorPolicyAction` to deregister

Returns:

`boolean true` if the action was deregistered successfully, `false` otherwise

Exceptions:

`MgmtException` -
Error unregistering the general agent's `MonitorMBean`

(continued from last page)

deregisterAndRemoveMonitorPolicy

```
public boolean deregisterAndRemoveMonitorPolicy( java.lang.String itdID,  
                                                java.lang.String systemID)  
        throws MgmtException
```

IBM Director has removed the monitor from the specified system. We need to deregister it and if there are no systems using it, then remove it.

Parameters:

`itdID` -
A unique string that identifies the monitor policy action to be deregistered/removed.
`systemID` -
The name of the specific system to remove the monitor policy for

See Also:

`com.ibm.retail.si.mgmt.monitor.MonitorManagerMBean#deregisterMonitor(String)`

getActionListForSystem

```
public java.lang.String[] getActionListForSystem( java.lang.String systemID)
```

Get the list of all IBM Director IDs for the monitors for the system specified.

getSystemsForAppliedMonitorPolicy

```
public java.lang.String[] getSystemsForAppliedMonitorPolicy( java.lang.String policyId)
```

Return a list of the system IDs that are associated with the monitor policy specified.

Parameters:

`policyId` -
The ID of the policy we need to get the systems for.

Returns:

An array of the system IDs the specified monitor policy has been applied to

getAllMonitorPolicyActions

```
public MonitorPolicyAction[] getAllMonitorPolicyActions()
```

Return an array of all stored monitor policy actions.

Returns:

`MonitorPolicyAction[]` An array of monitor policy actions.

getMonitorPolicyActions

```
public MonitorPolicyAction[] getMonitorPolicyActions( java.lang.String policyId)
```

Retrieves all `MonitorPolicyAction` associated with the supplied policy identifier, or null if it cannot be found.

Parameters:

`policyId` -
Policy identifier

Returns:

`MonitorPolicyAction[]`
containing all actions whose policy matches the supplied policy identifier, or an empty array if none can be found.

(continued from last page)

getMonitorPolicyAction

```
public MonitorPolicyAction getMonitorPolicyAction(java.lang.String actionId)
```

Retrieves the MonitorPolicyAction associated with the supplied identifier, or null if it cannot be found.

Parameters:

actionId -
MonitorPolicyAction identifier

Returns:

MonitorPolicyAction
matching the identifier or null if none found.

getProxyNamesForMonitorPolicy

```
public javax.management.ObjectName[] getProxyNamesForMonitorPolicy(java.lang.String  
policyId)
```

Retrieves an ObjectName[] array of the proxy ObjectNames for the mbeans registered for this monitor policy. This will return all proxy object names for an mbean on any agent that this policy is active on.

Parameters:

policyId -
MonitorPolicy identifier

Returns:

ObjectName[]
of proxy mbeans

isMonitorRegistered

```
public boolean isMonitorRegistered(MonitorPolicyAction action)
```

Returns whether or not the supplied MonitorPolicyAction is registered

Parameters:

action -
MonitorPolicyAction to search for

Returns:

true
if the supplied action is registered, false otherwise

com.ibm.retail.si.mgmt.monitor

Class MonitorPolicy

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.monitor.MonitorPolicy

```

All Implemented interfaces:

XMLFormattable, java.io.Serializable

public class **MonitorPolicy**

extends java.lang.Object

implements java.io.Serializable, XMLFormattable

Monitor Policy Object. Contains the information required to manage a monitor, system wide, and is used in conjunction with MonitorManagerMBean.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

MonitorPolicy() Constructs and instance with empty properties
MonitorPolicy(java.lang.String monitorClassName, javax.management.AttributeList monitorClassName, java.lang.String monitorClassName, java.lang.String monitorClassName)
MonitorPolicy(java.lang.String monitorClassName, javax.management.AttributeList monitorClassName, java.lang.String monitorClassName, java.lang.String monitorClassName, java.lang.String monitorClassName)

Method Summary

boolean	equals(java.lang.Object o) Determines equality by comparing the policies' identifiers
javax.management.AttributeList	getAttributeList()
java.lang.String	getDescription() User-provided description for this policy.
java.lang.String	getId()
java.lang.String	getMbeanClassName()
java.lang.String	getMonitorClassName()

javax.management.QueryExpression	getQueryExpression()
javax.management.ObjectName	getQueryObjectName()
java.lang.String	getQueryString() Query string to for finding the ObjectNames of the selected MBeans to monitor as the ObservedObject
int	hashCode()
void	setAttributeList(javax.management.AttributeList attributeList)
void	setDescription(java.lang.String description)
void	setId(java.lang.String policyId)
void	setMbeanClassName(java.lang.String mbeanClassName) To monitor all MBeans of a specific class, a fully qualified class name is supplied
void	setMonitorClassName(java.lang.String monitorClassName)
void	setQueryExpression(javax.management.QueryExpression exp)
void	setQueryString(java.lang.String queryString)
java.lang.String	toString()
java.lang.String	toXML(int numberOfTabs, java.lang.String numberOfTabs)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields**COPYRIGHT**

public static final java.lang.String **COPYRIGHT**

Constructors**MonitorPolicy**

public **MonitorPolicy**()

Constructs and instance with empty properties

MonitorPolicy

```
public MonitorPolicy( java.lang.String monitorClassName,  
                    javax.management.AttributeList attributeList,  
                    java.lang.String queryString,  
                    java.lang.String description)
```

MonitorPolicy

```
public MonitorPolicy( java.lang.String monitorClassName,  
                    javax.management.AttributeList attributeList,  
                    java.lang.String queryString,  
                    java.lang.String description,  
                    java.lang.String mbeanClassName)
```

Parameters:

- monitorClassName -
- The name of the monitor class to be created.
- attributeList -
- The attribute list with all the attributes.

Methods

getMonitorClassName

```
public java.lang.String getMonitorClassName()
```

Returns:

String the monitor class name.

setMonitorClassName

```
public void setMonitorClassName(java.lang.String monitorClassName)
```

Parameters:

- monitorClassName -
New monitor class name

See Also:

#getMonitorClassName()

getAttributeList

```
public javax.management.AttributeList getAttributeList()
```

Returns:

AttributeList the list with all the attributes.

(continued from last page)

setAttributeList

```
public void setAttributeList(javax.management.AttributeList attributeList)
```

Parameters:

attributeList -
New AttributeList

See Also:

#getAttributeList()

getId

```
public java.lang.String getId()
```

Returns:

String identifier for this policy

setId

```
public void setId(java.lang.String policyId)
```

getDescription

```
public java.lang.String getDescription()
```

User-provided description for this policy. Currently also returned as the unique ID for this policy.

Returns:

User-provided description for this policy

setDescription

```
public void setDescription(java.lang.String description)
```

getQueryString

```
public java.lang.String getQueryString()
```

Query string to for finding the ObjectNames of the selected MBeans to monitor as the ObservedObject

Returns:

Id property of the name of the MBean to monitor

getQueryExpression

```
public javax.management.QueryExp getQueryExpression()
```

(continued from last page)

setQueryExpression

```
public void setQueryExpression(javax.management.QueryExp exp)
```

setQueryString

```
public void setQueryString(java.lang.String queryString)
```

getQueryObjectName

```
public javax.management.ObjectName getQueryObjectName()
```

getMbeanClassName

```
public java.lang.String getMbeanClassName()
```

Returns:

Returns the mbeanClassName

setMbeanClassName

```
public void setMbeanClassName(java.lang.String mbeanClassName)
```

To monitor all MBeans of a specific class, a fully qualified class name is supplied

Parameters:

mbeanClassName -
The mbeanClassName to set.

equals

```
public boolean equals(java.lang.Object o)
```

Determines equality by comparing the policies' identifiers

See Also:

java.lang.Object#equals(java.lang.Object)

hashCode

```
public int hashCode()
```

See Also:

java.lang.Object#hashCode()

toString

```
public java.lang.String toString()
```

toXML

```
public java.lang.String toXML(int numberOfTabs,  
                               java.lang.String namespace)
```

See Also:

[com.ibm.retail.si.mgmt.util.XMLFormattable#toXML\(int, java.lang.String\)](#)

com.ibm.retail.si.mgmt.monitor

Class MonitorPolicyAction

java.lang.Object

└-com.ibm.retail.si.mgmt.monitor.MonitorPolicyAction

All Implemented interfaces:

XMLFormattable, java.io.Serializable

Direct Known Subclasses:

DeviceTypeMonitorPolicyAction, DeviceMonitorPolicyAction, AgentMonitorPolicyAction

public abstract class **MonitorPolicyAction**

extends java.lang.Object

implements java.io.Serializable, XMLFormattable

Maps a MonitorPolicy to a specific system id or device type for where the monitor is to be applied. Subclasses should implement the `getTargetIdentifier` method to supply a unique target for the policy.

Field Summary

static java.lang.String	COPYRIGHT
java.lang.String	id
com.ibm.retail.si.mgmt.monitor.MonitorPolicy	policy

Constructor Summary

MonitorPolicyAction(MonitorPolicy policy)

Method Summary

java.lang.String	getId()
MonitorPolicy	getPolicy()
abstract java.lang.Object	getTargetIdentifier() Returns the Object which identifies the target of the MonitorPolicy
void	init()
void	setId(java.lang.String id)
void	setPolicy(MonitorPolicy policy)

java.lang.String	toString()
java.lang.String	toXML(int numberOfTabs, java.lang.String numberOfTabs)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

policy

```
protected com.ibm.retail.si.mgmt.monitor.MonitorPolicy policy
```

id

```
protected java.lang.String id
```

Constructors

MonitorPolicyAction

```
public MonitorPolicyAction(MonitorPolicy policy)
```

Methods

init

```
protected void init()
```

setPolicy

```
public void setPolicy(MonitorPolicy policy)
```

getPolicy

```
public MonitorPolicy getPolicy()
```

(continued from last page)

Returns:

MonitorPolicy associated with this action

getId

```
public java.lang.String getId()
```

setId

```
public void setId(java.lang.String id)
```

getTargetIdentifier

```
public abstract java.lang.Object getTargetIdentifier()
```

Returns the Object which identifies the target of the MonitorPolicy

Returns:

Object which identifies the target of this MonitorPolicyAction's MonitorPolicy

toString

```
public java.lang.String toString()
```

toXML

```
public java.lang.String toXML(int numberOfTabs,  
                               java.lang.String namespace)
```

See Also:

[com.ibm.retail.si.mgmt.util.XMLFormattable#toXML\(int, java.lang.String\)](#)

com.ibm.retail.si.mgmt.monitor

Interface RMABaseMonitorMBean**All Subinterfaces:**

RMARecordableMonitorMBean, RMAStrngMonitorMBean, RMAGaugeMonitorMBean

public interface **RMABaseMonitorMBean**

extends javax.management.monitor.MonitorMBean

This class defines the MBean interface for the base RMA Monitors. These monitors provide the additional functionality that is defined by the IBM Director monitoring interface so that we can use the current User Interface in conjunction with RMA.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

void	flagDeletePersistentRecordsOnDeregister(boolean flag) Flags monitor to delete any persistent recording data from the database file and recording files when it gets unregistered.
java.lang.Object	getDerivedGauge() Get the current value of this monitor as an object.
long	getDerivedGaugeTimestamp() Get the time (in ms) corresponding to the last derived gauge value returned.
long	getMinimumDuration() Get the time the threshold condition must continuously exist before an event is generated
boolean	getMonitorEnabled() Get the enabled state of this monitor.
long	getResendDelay() Get the length of time that must transpire after an initial event is triggered before a subsequent event is triggered
boolean	getSignalOnChange() Get the state of whether we should send an event whenever the value is modified.
java.lang.String	getUserDefinedGaugeClass() Get the name of the class that should be used to query and calculate the current value of this monitor as an object.
void	setMinimumDuration(long time) Set the time the threshold condition must continuously exist before an event is generated
void	setMonitorEnabled(boolean enb) Set the monitor to be enabled or disabled based on the flag passed in.

void	<pre>setResendDelay(long time)</pre> <p>Set the length of time that must transpire after an initial event is triggered before a subsequent event is triggered</p>
void	<pre>setSignalOnChange(boolean signal)</pre> <p>Set whether we should send an event whenever the value is modified.</p>
void	<pre>setUserDefinedGaugeClass(java.lang.String className)</pre> <p>Set the name of the class that should be used to query and calculate the current value of this monitor as an object.</p>

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

flagDeletePersistentRecordsOnDeregister

```
public void flagDeletePersistentRecordsOnDeregister(boolean flag)
```

Flags monitor to delete any persistent recording data from the database file and recording files when it gets unregistered.

Parameters:

flag -
true if delete on degregister, false otherwise

setMinimumDuration

```
public void setMinimumDuration(long time)
```

Set the time the threshold condition must continuously exist before an event is generated

Parameters:

time -
The time (in ms) that the condition must maintain before sending an event

getMinimumDuration

```
public long getMinimumDuration()
```

Get the time the threshold condition must continuously exist before an event is generated

Returns:

The time (in ms) that the condition must persist before sending an event

setResendDelay

```
public void setResendDelay(long time)
```

Set the length of time that must transpire after an initial event is triggered before a subsequent event is triggered

Parameters:

(continued from last page)

`time -`

The time (in ms) since the initial event to delay before sending an event again.

getResendDelay

```
public long getResendDelay()
```

Get the length of time that must transpire after an initial event is triggered before a subsequent event is triggered

Returns:

The time (in ms) since the initial event to delay before sending an event again.

setSignalOnChange

```
public void setSignalOnChange(boolean signal)
```

Set whether we should send an event whenever the value is modified. Special setting to ignore monitor specific rules.

Parameters:

`signal -`

If true, override any other setting and send event when value changes, otherwise false indicates monitor operates as normal.

getSignalOnChange

```
public boolean getSignalOnChange()
```

Get the state of whether we should send an event whenever the value is modified.

Returns:

If true, the monitor is overriding any other setting and will send an event whenever the monitor value changes.

setMonitorEnabled

```
public void setMonitorEnabled(boolean enb)
```

Set the monitor to be enabled or disabled based on the flag passed in.

Parameters:

`enb -`

If true, the monitor is enabled, otherwise false indicates the monitor should be disabled.

getMonitorEnabled

```
public boolean getMonitorEnabled()
```

Get the enabled state of this monitor.

Returns:

If true, the monitor is enabled, otherwise false indicates it is disabled.

getDerivedGauge

```
public java.lang.Object getDerivedGauge()
```

Get the current value of this monitor as an object. This is the value that is used by the monitoring program to determine if the criteria has been met for a notification to occur.

Returns:

The object that should be checked to see if an event should be generated based on this monitor configuration.

getDerivedGaugeTimestamp

```
public long getDerivedGaugeTimestamp()
```

Get the time (in ms) corresponding to the last derived gauge value returned.

Returns:

The sampling time for the last monitor check.

setUserDefinedGaugeClass

```
public void setUserDefinedGaugeClass(java.lang.String className)  
    throws RMAMonitorException
```

Set the name of the class that should be used to query and calculate the current value of this monitor as an object.

Parameters:

className -

A string containing the name of the class that should be used to query and calculate the current gauge value. The implementing class should instantiate an instance of this class and use it as part of the executeMonitor method.

getUserDefinedGaugeClass

```
public java.lang.String getUserDefinedGaugeClass()
```

Get the name of the class that should be used to query and calculate the current value of this monitor as an object.

Returns:

A string containing the name of the class that will be used to query and calculate the current gauge value.

com.ibm.retail.si.mgmt.monitor

Interface RMAGaugeMonitorMBean**All Superinterfaces:**

RMARecordableMonitorMBean, RMABaseMonitorMBean

public interface **RMAGaugeMonitorMBean**

extends RMARecordableMonitorMBean

This class defines the MBean interface for the base RMA Monitors. These monitors provide the additional functionality that is defined by the IBM Director monitoring interface so that we can use the current User Interface in conjunction with RMA.

Field Summary

<pre> static java.lang.String </pre>	COPYRIGHT
------------------------------------------------------------------	-----------

Method Summary

double[][][]	<pre>getAccumulatorValues()</pre> <p>Get access to the raw data for the accumulator.</p>
double	<pre>getAverageValue()</pre> <p>Return the average value for all samples in the accumulated range.</p>
double	<pre>getCurrentValue()</pre> <p>Return the last sampled value as a number.</p>
double	<pre>getHighError()</pre> <p>Get the value to compare the sample against for the high error notification check.</p>
double	<pre>getHighValue()</pre> <p>Return the highest value for all samples in the accumulated range.</p>
double	<pre>getHighWarning()</pre> <p>Get the value to compare the sample against for the high warning notification check.</p>
double	<pre>getLowError()</pre> <p>Get the value to compare the sample against for the low error notification check.</p>
double	<pre>getLowValue()</pre> <p>Return the lowest value for all samples in the accumulated range.</p>
double	<pre>getLowWarning()</pre> <p>Get the value to compare the sample against for the low warning notification check.</p>
boolean	<pre>isAccumulatorEnabled()</pre> <p>Get the enabled state of the accumulator.</p>

void	<pre>setAccumulator(boolean enb)</pre> <p>Enable/disable accumulation of ranges and values.</p>
void	<pre>setHighError(double value)</pre> <p>Set the value to compare the sample against and send a critical notification if sample is above or equal to the value and other criteria are met</p>
void	<pre>setHighWarning(double value)</pre> <p>Set the value to compare the sample against and send a warning notification if sample is above or equal to the value and other criteria are met</p>
void	<pre>setLowError(double value)</pre> <p>Set the value to compare the sample against and send a critical notification if sample is below or equal to the value and other criteria are met</p>
void	<pre>setLowWarning(double value)</pre> <p>Set the value to compare the sample against and send a warning notification if sample is below or equal to the value and other criteria are met</p>

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

setHighError

```
public void setHighError(double value)
```

Set the value to compare the sample against and send a critical notification if sample is above or equal to the value and other criteria are met

Parameters:

value -
The value to compare against.

getHighError

```
public double getHighError()
```

Get the value to compare the sample against for the high error notification check.

Returns:

The value to compare against for the high error notification.

setHighWarning

```
public void setHighWarning(double value)
```

Set the value to compare the sample against and send a warning notification if sample is above or equal to the value and other criteria are met

(continued from last page)

Parameters:

value -
The value to compare against.

getHighWarning

```
public double getHighWarning()
```

Get the value to compare the sample against for the high warning notification check.

Returns:

The value to compare against for the high warning notification.

setLowError

```
public void setLowError(double value)
```

Set the value to compare the sample against and send a critical notification if sample is below or equal to the value and other criteria are met

Parameters:

value -
The value to compare against.

getLowError

```
public double getLowError()
```

Get the value to compare the sample against for the low error notification check.

Returns:

The value to compare against for the low error notification.

setLowWarning

```
public void setLowWarning(double value)
```

Set the value to compare the sample against and send a warning notification if sample is below or equal to the value and other criteria are met

Parameters:

value -
The value to compare against.

getLowWarning

```
public double getLowWarning()
```

Get the value to compare the sample against for the low warning notification check.

Returns:

The value to compare against for the low warning notification.

setAccumulator

```
public void setAccumulator(boolean enb)
```

Enable/disable accumulation of ranges and values.

Parameters:

(continued from last page)

enb -

If true, the accumulation of values is enabled, otherwise false indicates no accumulation will occur.

isAccumulatorEnabled

public boolean **isAccumulatorEnabled**()

Get the enabled state of the accumulator.

Returns:

If true, the accumulator is enabled, otherwise false indicates it is disabled.

getAccumulatorValues

public double[][] **getAccumulatorValues**()

Get access to the raw data for the accumulator. This method returns the sample values for the samples that have been accumulated (as an array). First column contains the timestamps, the second column contains the sampled value taken for that timestamp.

getCurrentValue

public double **getCurrentValue**()

Return the last sampled value as a number.

Returns:

The value of the last sample taken for the monitor.

getAverageValue

public double **getAverageValue**()

Return the average value for all samples in the accumulated range.

Returns:

The value of the average sample for the monitor.

getHighValue

public double **getHighValue**()

Return the highest value for all samples in the accumulated range.

Returns:

The value of the highest sample for the monitor that was accumulated.

getLowValue

public double **getLowValue**()

Return the lowest value for all samples in the accumulated range.

Returns:

The value of the lowest sample for the monitor that was accumulated.

com.ibm.retail.si.mgmt.monitor

Class RMAMonitorException

```

java.lang.Object
  |
  +- java.lang.Throwable
      |
      +- java.lang.Exception
          |
          +- com.ibm.retail.si.mgmt.monitor.RMAMonitorException
  
```

```

public class RMAMonitorException
extends java.lang.Exception
  
```

Exception class for RMA Monitoring problems.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

```
RMAMonitorException(java.lang.String message)
```

```
RMAMonitorException(java.lang.String message, java.lang.Throwable message)
```

```
RMAMonitorException(java.lang.Throwable cause)
```

Methods inherited from : class java.lang.Throwable

```
fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, initCause,
printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString
```

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

(continued from last page)

RMAMonitorException

```
public RMAMonitorException(java.lang.String message)
```

RMAMonitorException

```
public RMAMonitorException(java.lang.String message,  
                             java.lang.Throwable cause)
```

RMAMonitorException

```
public RMAMonitorException(java.lang.Throwable cause)
```

com.ibm.retail.si.mgmt.monitor

Interface RMARecordableMonitorMBean

All Superinterfaces:

RMABaseMonitorMBean

All Subinterfaces:

RMAStringMonitorMBean, RMAGaugeMonitorMBean

public interface **RMARecordableMonitorMBean**

extends RMABaseMonitorMBean

This class defines the interface for the recording function to add for base RMA Monitors. Monitors that support the ability to record their values and to return the information recorded will implement this additional interface.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

java.lang.Object	getRecordedData(long beginTime) Get the data that has been recorded by this monitor, based on the parameters specified.
long	getRecordingDuration() Get the length of time the recording of data for this monitor will run for.
long	getRecordingRate() Get the rate at which monitoring data is recorded.
java.lang.String	getRecordingUnits() Get a string that indicates the units used by the recorded values.
long	getStartTime() Get the time (in ms) that we should start recording the information for the monitor specified.
long	getStopTime() Get the time (in ms) that we should stop the recording of information for the monitor specified.
boolean	isRecording() Get the recording state of this monitor.
void	setRecordingDuration(long time) Set the length of time the recording of data for this monitor should run for.
void	setRecordingRate(long rate) Set the rate at which monitoring data is recorded.

void	<pre>setStartTime(long time)</pre> <p>Set the time (in ms) that we should start recording the information for the monitor specified.</p>
void	<pre>setStopTime(long time)</pre> <p>Set the time (in ms) that we should stop the recording of information for the monitor specified.</p>
void	<pre>startRecording()</pre> <p>Start recording the monitored information immediately, ignoring all other triggers set.</p>
void	<pre>stopRecording()</pre> <p>Stop any on-going recordings immediately, ignoring any other triggers set to stop a recording.</p>

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

setRecordingRate

```
public void setRecordingRate(long rate)
           throws RMAMonitorException
```

Set the rate at which monitoring data is recorded. The value passed in is the interval between collections. Note that this sampling can be different than the monitored value.

Parameters:

`rate` -
The time (in ms) between the recorded samples of the monitored information.

Exceptions:

`RMAMonitorException` -
if recording is already in progress

getRecordingRate

```
public long getRecordingRate()
```

Get the rate at which monitoring data is recorded. This is the value of the interval between the sampling of the data to be recorded.

Returns:

The time (in ms) between the recorded samples of the monitored information.

startRecording

```
public void startRecording()
           throws RMAMonitorException
```

Start recording the monitored information immediately, ignoring all other triggers set.

(continued from last page)

Exceptions:

`RMAMonitorException` -
if `StartTime` and 1 of `RecordingDuration` or `StopTime` are not set.

stopRecording

```
public void stopRecording()
```

Stop any on-going recordings immediately, ignoring any other triggers set to stop a recording.

isRecording

```
public boolean isRecording()
```

Get the recording state of this monitor.

Returns:

If true, the monitor is recording data, otherwise false indicates nothing is being recorded.

setStartTime

```
public void setStartTime(long time)  
    throws RMAMonitorException
```

Set the time (in ms) that we should start recording the information for the monitor specified. This allows recording to be scheduled to occur on a specific date/time.

Parameters:

`time` -
The time that recording should start.

Exceptions:

`RMAMonitorException` -
if recording is already in progress

getStartTime

```
public long getStartTime()
```

Get the time (in ms) that we should start recording the information for the monitor specified.

Returns:

The time that recording should start.

setStopTime

```
public void setStopTime(long time)  
    throws RMAMonitorException
```

Set the time (in ms) that we should stop the recording of information for the monitor specified. This allows recording to be scheduled to occur on a specific date/time.

Parameters:

`time` -
The time that recording should stop.

Exceptions:

`RMAMonitorException` -
if recording is already in progress

(continued from last page)

getStopTime

```
public long getStopTime()
```

Get the time (in ms) that we should stop the recording of information for the monitor specified.

Returns:

The time that recording should stop.

setRecordingDuration

```
public void setRecordingDuration(long time)  
    throws RMAMonitorException
```

Set the length of time the recording of data for this monitor should run for.

Parameters:

`time` -
The time (in ms) that monitored information should be recorded.

Exceptions:

`RMAMonitorException` -
if recording is already in progress

getRecordingDuration

```
public long getRecordingDuration()
```

Get the length of time the recording of data for this monitor will run for.

Returns:

The time (in ms) that monitored information will be recorded.

getRecordedData

```
public java.lang.Object getRecordedData(long beginTime)  
    throws RMAMonitorException
```

Get the data that has been recorded by this monitor, based on the parameters specified.

Parameters:

`beginTime` -
If -1 is specified, return all data that has been recorded. If a valid time is specified, return only the data that was recorded from that starting time onward.

Returns:

An object containing all of the recorded data. This will contain both the values and timestamps in a format that will be easy to place into a format supported by IBM Director.

Exceptions:

`RMAMonitorException` -
if errors occur accessing monitor recording data

getRecordingUnits

```
public java.lang.String getRecordingUnits()
```

Get a string that indicates the units used by the recorded values.

Returns:

(continued from last page)

A string specifying the units of the recorded values.

com.ibm.retail.si.mgmt.monitor

Interface RMAStringMonitorMBean

All Superinterfaces:

RMARecordableMonitorMBean, RMABaseMonitorMBean

public interface **RMAStringMonitorMBean**
 extends RMARecordableMonitorMBean

This class defines the MBean interface for the base RMA Monitors. These monitors provide the additional functionality that is defined by the IBM Director monitoring interface so that we can use the current User Interface in conjunction with RMA.

Field Summary

<code>static java.lang.String</code>	COPYRIGHT
------------------------------------------	-----------

Method Summary

<code>int</code>	<code>getDefaultStateType()</code> Get the event state to return for strings that do not match any of the strings in the above lists.
<code>java.lang.String[]</code>	<code>getErrorStrings()</code> Get the list of strings that if matched, should indicate an error status
<code>java.lang.String[]</code>	<code>getNormalStrings()</code> Get the list of strings that if matched, should indicate a normal status
<code>java.lang.String[]</code>	<code>getWarningStrings()</code> Get the list of strings that if matched, should indicate a warning status
<code>void</code>	<code>setDefaultStateType(int stateflag)</code> Set the event state to return for strings that do not match any of the strings in the above lists.
<code>void</code>	<code>setErrorStrings(java.lang.String[] estringlist)</code> Set the list of strings that if matched, should indicate an error status
<code>void</code>	<code>setNormalStrings(java.lang.String[] nstringlist)</code> Set the list of strings that if matched, should indicate an normal status
<code>void</code>	<code>setWarningStrings(java.lang.String[] wstringlist)</code> Set the list of strings that if matched, should indicate an warning status

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

setErrorStrings

```
public void setErrorStrings(java.lang.String[] estringlist)
```

Set the list of strings that if matched, should indicate an error status

Parameters:

`estringlist` -
An array of 0 or more strings that should be compared against to determine if we should send an error notification when matched.

getErrorStrings

```
public java.lang.String[] getErrorStrings()
```

Get the list of strings that if matched, should indicate an error status

Returns:

The array of strings to compare against for the error notification.

setWarningStrings

```
public void setWarningStrings(java.lang.String[] wstringlist)
```

Set the list of strings that if matched, should indicate a warning status

Parameters:

`wstringlist` -
An array of 0 or more strings that should be compared against to determine if we should send an error notification when matched.

getWarningStrings

```
public java.lang.String[] getWarningStrings()
```

Get the list of strings that if matched, should indicate a warning status

Returns:

The array of strings to compare against for the warning notification.

setNormalStrings

```
public void setNormalStrings(java.lang.String[] nstringlist)
```

Set the list of strings that if matched, should indicate a normal status

Parameters:

`nstringlist` -
An array of 0 or more strings that should be compared against to determine if we should reset notification status when matched.

(continued from last page)

getNormalStrings

```
public java.lang.String[] getNormalStrings()
```

Get the list of strings that if matched, should indicate a normal status

Returns:

The array of strings to compare against for the normal classification.

setDefaultStateType

```
public void setDefaultStateType(int stateflag)
```

Set the event state to return for strings that do not match any of the strings in the above lists.

Parameters:

stateflag -
The state to assume for all unmatched strings.

getDefaultStateType

```
public int getDefaultStateType()
```

Get the event state to return for strings that do not match any of the strings in the above lists.

Returns:

A flag indicating the state to use for all unmatched strings.

Package

com.ibm.retail.si.mgmt.notifications

This package contains the Remote Management Agent Notification classes, a filter for these Notification classes (`RtlNotificationFilter`), and `MgmtNotificationControlMBean`, which provides central control of the the Notifications emitted from all General Agents in the store.

com.ibm.retail.si.mgmt.notifications

Class AgentConnectionFailedNotification

```

java.lang.Object
  +- java.util.EventObject
    +- javax.management.Notification
      +- com.ibm.retail.si.mgmt.notifications.RtlNotification
        +- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
          +- com.ibm.retail.si.mgmt.notifications.AgentConnectionFailedNotification

```

```
public class AgentConnectionFailedNotification
```

```
extends RtlInformationNotification
```

Notification emitted indicating a set of failed connection attempts to a GeneralAgent has occurred

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class javax.management.Notification

source

Fields inherited from class java.util.EventObject

source

Constructor Summary

AgentConnectionFailedNotification(java.lang.Object source, MgmtDeviceInfo source)

Method Summary

java.lang.String[]	getEventQualifiers()
MgmtDeviceInfo	getMgmtDeviceInfo()

java.lang.String	getMsgKey()
java.lang.String[]	getMsgParams()
java.lang.String	getResourceBundle()
void	setDefaultMask()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

AgentConnectionFailedNotification

```
public AgentConnectionFailedNotification(java.lang.Object source,  
                                         MgmtDeviceInfo devInfo)
```

Methods

(continued from last page)

setDefaultMask

protected void **setDefaultMask()**

See Also:

com.ibm.retail.si.mgmt.notifications.RtlWarningNotification#setDefaultMask()

getMgmtDeviceInfo

public MgmtDeviceInfo **getMgmtDeviceInfo()**

Returns:

MgmtDeviceInfo the encapsulated object with the remote agent's information

getEventQualifiers

public java.lang.String[] **getEventQualifiers()**

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getEventQualifiers()

getMsgKey

public java.lang.String **getMsgKey()**

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgKey()

getMsgParams

public java.lang.String[] **getMsgParams()**

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgParams()

getResourceBundle

public java.lang.String **getResourceBundle()**

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getResourceBundle()

com.ibm.retail.si.mgmt.notifications

Class AgentDiscoveredNotification

```

java.lang.Object
  |-- java.util.EventObject
        |-- javax.management.Notification
              |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                          |-- com.ibm.retail.si.mgmt.notifications.AgentDiscoveredNotification

```

```
public class AgentDiscoveredNotification
```

```
extends RtlInformationNotification
```

```
RtlInformationNotification
```

for discovery of a new GeneralAgent, it encapsulates a MgmtDeviceInfoobject which has the necessary information to handle and work with the remote agents.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class javax.management.Notification

source

Fields inherited from class java.util.EventObject

source

Constructor Summary

AgentDiscoveredNotification(java.lang.Object source, MgmtDeviceInfo source)

Method Summary

java.lang.String[]	getEventQualifiers()
--------------------	----------------------

MgmtDeviceInfo	getMgmtDeviceInfo()
java.lang.String	getMsgKey()
java.lang.String[]	getMsgParams()
java.lang.String	getResourceBundle()
void	setDefaultMask()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

AgentDiscoveredNotification

```
public AgentDiscoveredNotification(java.lang.Object source,  
                                  MgmtDeviceInfo devInfo)
```

(continued from last page)

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlWarningNotification#setDefaultMask()

getMgmtDeviceInfo

```
public MgmtDeviceInfo getMgmtDeviceInfo()
```

Returns:

MgmtDeviceInfo the encapsulated object with the remote agent's information

getEventQualifiers

```
public java.lang.String[] getEventQualifiers()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getEventQualifiers()

getMsgKey

```
public java.lang.String getMsgKey()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgKey()

getMsgParams

```
public java.lang.String[] getMsgParams()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgParams()

getResourceBundle

```
public java.lang.String getResourceBundle()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getResourceBundle()

com.ibm.retail.si.mgmt.notifications Class AgentLostNotification

```

java.lang.Object
  |-- java.util.EventObject
        |-- javax.management.Notification
              |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                          |-- com.ibm.retail.si.mgmt.notifications.AgentLostNotification
  
```

public class **AgentLostNotification**
extends RtlInformationNotification

RtlInformationNotification
for release of a GeneralAgent that is being managed, it encapsulates a MgmtDeviceInfo object which has the necessary information to remote the remote agent from the pool.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class javax.management.Notification

source

Fields inherited from class java.util.EventObject

source

Constructor Summary

AgentLostNotification(java.lang.Object source, MgmtDeviceInfo source)

Method Summary

java.lang.String[]	getEventQualifiers()
--------------------	----------------------

MgmtDeviceInfo	getMgmtDeviceInfo()
java.lang.String	getMsgKey()
java.lang.String[]	getMsgParams()
java.lang.String	getResourceBundle()
void	setDefaultMask()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

AgentLostNotification

```
public AgentLostNotification(java.lang.Object source,  
                             MgmtDeviceInfo devInfo)
```


(continued from last page)

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlWarningNotification#setDefaultMask()

getMgmtDeviceInfo

```
public MgmtDeviceInfo getMgmtDeviceInfo()
```

Returns:

MgmtDeviceInfo the encapsulated object with the remote agent's information

getEventQualifiers

```
public java.lang.String[] getEventQualifiers()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getEventQualifiers()

getMsgKey

```
public java.lang.String getMsgKey()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgKey()

getMsgParams

```
public java.lang.String[] getMsgParams()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgParams()

getResourceBundle

```
public java.lang.String getResourceBundle()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getResourceBundle()

com.ibm.retail.si.mgmt.notifications

Class AgentShutdownNotification

```

java.lang.Object
  |-- java.util.EventObject
        |-- javax.management.Notification
              |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                          |-- com.ibm.retail.si.mgmt.notifications.AgentShutdownNotification

```

```

public class AgentShutdownNotification
extends RtlInformationNotification

```

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class javax.management.Notification

source

Fields inherited from class java.util.EventObject

source

Constructor Summary

AgentShutdownNotification(java.lang.Object source, MgmtDeviceInfo source)

Method Summary

java.lang.String[]	getEventQualifiers()
MgmtDeviceInfo	getMgmtDeviceInfo()
java.lang.String	getMsgKey()

java.lang.String[]	getMsgParams()
java.lang.String	getResourceBundle()
void	setDefaultMask()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

AgentShutdownNotification

```
public AgentShutdownNotification(java.lang.Object source,  
                                MgmtDeviceInfo devInfo)
```

Methods

(continued from last page)

setDefaultMask

protected void **setDefaultMask()**

See Also:

com.ibm.retail.si.mgmt.notifications.RtlWarningNotification#setDefaultMask()

getEventQualifiers

public java.lang.String[] **getEventQualifiers()**

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getEventQualifiers()

getMsgKey

public java.lang.String **getMsgKey()**

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgKey()

getMsgParams

public java.lang.String[] **getMsgParams()**

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgParams()

getResourceBundle

public java.lang.String **getResourceBundle()**

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getResourceBundle()

getMgmtDeviceInfo

public MgmtDeviceInfo **getMgmtDeviceInfo()**

Returns:

MgmtDeviceInfo the encapsulated object with the remote agent's information

com.ibm.retail.si.mgmt.notifications

Class CIMMethodCompletionNotification

```

java.lang.Object
  +- java.util.EventObject
    +- javax.management.Notification
      +- com.ibm.retail.si.mgmt.notifications.RtlNotification
        +- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
          +- com.ibm.retail.si.mgmt.notifications.CIMMethodCompletionNotification

```

```

public class CIMMethodCompletionNotification
extends RtlInformationNotification

```

Notification emitted when a delayed CIM method invocation completes

Field Summary

static java.lang.String	COPYRIGHT
javax.wbem.client.CIM MethodReturn	returnValue

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

CIMMethodCompletionNotification(java.lang.String methodName, java.lang.Object
methodName, java.lang.String methodName, CIMMethodReturn methodName)

CIMMethodCompletionNotification(java.lang.Object source, java.lang.String source, CIMMethodReturn
source)

Method Summary

java.lang.String[]	getEventQualifiers()
java.lang.String	getMsgKey()
java.lang.String[]	getMsgParams()
java.lang.String	getResourceBundle()
CIMMethodReturn	getReturnValue()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

returnValue

```
protected javax.wbem.client.CIMMethodReturn returnValue
```

Constructors

(continued from last page)

CIMMethodCompletionNotification

```
public CIMMethodCompletionNotification(java.lang.String methodName,  
                                       java.lang.Object source,  
                                       java.lang.String message,  
                                       CIMMethodReturn retVal)
```

CIMMethodCompletionNotification

```
public CIMMethodCompletionNotification(java.lang.Object source,  
                                       java.lang.String message,  
                                       CIMMethodReturn retVal)
```

Methods

getReturnValue

```
public CIMMethodReturn getReturnValue()
```

getEventQualifiers

```
public java.lang.String[] getEventQualifiers()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#getEventQualifiers\(\)](#)

getMsgKey

```
public java.lang.String getMsgKey()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgKey\(\)](#)

getMsgParams

```
public java.lang.String[] getMsgParams()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgParams\(\)](#)

getResourceBundle

```
public java.lang.String getResourceBundle()
```

See Also:

(continued from last page)

com.ibm.retail.si.mgmt.notifications.RtlNotification#getResourceBundle()

com.ibm.retail.si.mgmt.notifications

Class ConnectionKeyExpirationNotification

```

java.lang.Object
  |-- java.util.EventObject
        |-- javax.management.Notification
              |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                          |--
                                com.ibm.retail.si.mgmt.notifications.ConnectionKeyExpirationNotification

```

```

public class ConnectionKeyExpirationNotification

```

```

extends RtlInformationNotification

```

This notification class will contain the lump of inventory data

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

ConnectionKeyExpirationNotification(java.lang.Object evtSrc, java.lang.String
evtSrc, java.lang.String evtSrc)

Method Summary

java.lang.String	getAlias()
------------------	------------

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

ConnectionKeyExpirationNotification

```
public ConnectionKeyExpirationNotification(java.lang.Object evtSrc,  
                                           java.lang.String a,  
                                           java.lang.String type)
```

Methods

getAlias

```
public java.lang.String getAlias()
```

com.ibm.retail.si.mgmt.notifications

Class DataCaptureNotification

```

java.lang.Object
  |
  +-- java.util.EventObject
        |
        +-- javax.management.Notification
              |
              +-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |
                    +-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                          |
                          +-- com.ibm.retail.si.mgmt.notifications.DataCaptureNotification

```

public class **DataCaptureNotification**

extends RtlInformationNotification

Notification class representing the completion of a diagnostic capture via the DataCaptureMBeaninterface.

Field Summary	
static java.lang.String	CAPTURE_ABORTED Represents a successful capture
static java.lang.String	CAPTURE_COPY_ERRORS Represents file copy failures (i.
static java.lang.String	CAPTURE_FAILED Represents a failed capture
static java.lang.String	CAPTURE_IN_PROGRESS Represents a capture that timed out
static java.lang.String	CAPTURE_SUCCESS Represents a successful capture
static java.lang.String	CAPTURE_TIMED_OUT Represents a capture that timed out
java.lang.String[]	captureFiles
java.lang.String	captureId
java.lang.String	captureMBeanId
java.lang.String	captureResult
javax.management.ObjectName	captureSource
java.lang.String	captureType

static java.lang.String	COPYRIGHT
java.lang.String	errorMessage

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

DataCaptureNotification(javax.management.ObjectName captureSource, java.lang.String captureSource, java.lang.String captureSource, java.lang.String captureSource, java.lang.String[] captureSource, java.lang.String captureSource)

Method Summary

java.lang.String[]	getCaptureFiles()
java.lang.String	getCaptureId()
java.lang.String	getCaptureMBeanId()
java.lang.String	getCaptureResult()
javax.management.ObjectName	getCaptureSource()
java.lang.String	getCaptureType()
java.lang.String	getErrorMessage()
java.lang.String[]	getEventQualifiers()
java.lang.String	getMsgKey()
java.lang.String[]	getMsgParams()

java.lang.String	getResourceBundle()
void	setCaptureFiles(java.lang.String[] captureFiles)
void	setCaptureId(java.lang.String captureId)
void	setCaptureResult(java.lang.String captureResult)
void	setCaptureSource(javax.management.ObjectName captureSource)
void	setCaptureType(java.lang.String captureType)
void	setDefaultMask()
void	setErrorMessage(java.lang.String errorMessage)

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields**COPYRIGHT**

```
public static final java.lang.String COPYRIGHT
```

(continued from last page)

CAPTURE_IN_PROGRESS

```
public static final java.lang.String CAPTURE_IN_PROGRESS
```

Represents a capture that timed out

CAPTURE_SUCCESS

```
public static final java.lang.String CAPTURE_SUCCESS
```

Represents a successful capture

CAPTURE_FAILED

```
public static final java.lang.String CAPTURE_FAILED
```

Represents a failed capture

CAPTURE_COPY_ERRORS

```
public static final java.lang.String CAPTURE_COPY_ERRORS
```

Represents file copy failures (i.e. probably partial success)

CAPTURE_ABORTED

```
public static final java.lang.String CAPTURE_ABORTED
```

Represents a successful capture

CAPTURE_TIMED_OUT

```
public static final java.lang.String CAPTURE_TIMED_OUT
```

Represents a capture that timed out

captureId

```
protected java.lang.String captureId
```

captureType

```
protected java.lang.String captureType
```

captureSource

```
protected javax.management.ObjectName captureSource
```

captureMBeanId

```
protected java.lang.String captureMBeanId
```

captureResult

```
protected java.lang.String captureResult
```

errorMessage

protected java.lang.String **errorMessage**

captureFiles

protected java.lang.String **captureFiles**

Constructors

DataCaptureNotification

```
public DataCaptureNotification(javax.management.ObjectName captureSource,
                               java.lang.String captureType,
                               java.lang.String captureId,
                               java.lang.String captureResult,
                               java.lang.String[] captureFiles,
                               java.lang.String errorMessage)
```

Parameters:

captureSource -
ObjectName of the DataCaptureMBean that performed the capture, which may or may not be the same as the MBean emitting this Notification.

captureType -
Constant defining the type of capture, as defined by DataCaptureMBean

captureId -
Unique Id for the capture that completed

captureResult -
String indicating capture success or failure. Must be either of the constant values CAPTURE_SUCCESSOR or CAPTURE_FAILURE.

captureFiles -
String[] of fully qualified paths on the agent device to the files pertaining to the capture

errorMessage -
Error message indicating why the capture failed, should be null for a successful capture

Exceptions:

IllegalArgumentException -
An unknown capture type or capture result is supplied

See Also:

[com.ibm.retail.si.mgmt.capture.DataCaptureMBean](#)

Methods

setDefaultMask

protected void **setDefaultMask()**

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlWarningNotification#setDefaultMask\(\)](#)

(continued from last page)

getCaptureId

```
public java.lang.String getCaptureId()
```

Returns:

Unique Id for the capture that completed

setCaptureId

```
protected void setCaptureId(java.lang.String captureId)
```

Parameters:

captureId -
The captureId to set.

getCaptureSource

```
public javax.management.ObjectName getCaptureSource()
```

Returns:

ObjectName of the DataCaptureMBean that performed the capture, which may or may not be the same as the MBean emitting this Notification.

setCaptureSource

```
protected void setCaptureSource(javax.management.ObjectName captureSource)
```

Parameters:

captureSource -
The captureSource to set.

getCaptureMBeanId

```
public java.lang.String getCaptureMBeanId()
```

getCaptureType

```
public java.lang.String getCaptureType()
```

Returns:

Constant defining the type of capture, as defined by DataCaptureMBean

setCaptureType

```
protected void setCaptureType(java.lang.String captureType)
```

Parameters:

(continued from last page)

`captureType` -
The `captureType` to set, as defined by `DataCaptureMBean`

getCaptureResult

```
public java.lang.String getCaptureResult()
```

Returns:

Returns the `captureResult`, as defined by the constants in `DataCaptureNotification`

setCaptureResult

```
protected void setCaptureResult(java.lang.String captureResult)
```

Parameters:

`captureResult` -
The `captureResult` to set, as defined by the constants in `DataCaptureNotification`

getErrorMessage

```
public java.lang.String getErrorMessage()
```

Returns:

Error message indicating why the capture failed, should be null for a successful capture

setErrorMessage

```
protected void setErrorMessage(java.lang.String errorMessage)
```

Parameters:

`errorMessage` -
The `errorMessage` to set.

getCaptureFiles

```
public java.lang.String[] getCaptureFiles()
```

Returns:

`String[]` of fully qualified paths on the agent device to the files pertaining to the capture

setCaptureFiles

```
protected void setCaptureFiles(java.lang.String[] captureFiles)
```

Parameters:

`captureFiles` -
The `captureFiles` to set.

(continued from last page)

getEventQualifiers

```
public java.lang.String[] getEventQualifiers()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getEventQualifiers()

getMsgKey

```
public java.lang.String getMsgKey()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgKey()

getMsgParams

```
public java.lang.String[] getMsgParams()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgParams()

getResourceBundle

```
public java.lang.String getResourceBundle()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getResourceBundle()

com.ibm.retail.si.mgmt.notifications

Class InvalidAgentProtocolNotification

```

java.lang.Object
  |-- java.util.EventObject
      |-- javax.management.Notification
          |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
              |-- com.ibm.retail.si.mgmt.notifications.RtlErrorNotification
                  |-- com.ibm.retail.si.mgmt.notifications.InvalidAgentProtocolNotification

```

```
public class InvalidAgentProtocolNotification
```

```
extends RtlErrorNotification
```

```
User data = invalid protocol
```

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlErrorNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class javax.management.Notification

source

Fields inherited from class java.util.EventObject

source

Constructor Summary

InvalidAgentProtocolNotification(java.lang.Object source, java.lang.String source, java.lang.Object source)

Method Summary

java.lang.String	getMsgKey()
java.lang.String[]	getMsgParams()

java.lang.String	getResourceBundle()
void	setDefaultMask()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlErrorNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

InvalidAgentProtocolNotification

```
public InvalidAgentProtocolNotification(java.lang.Object source,
                                       java.lang.String message,
                                       java.lang.Object userData)
```

Methods

setDefaultMask

```
protected void setDefaultMask()
```

(continued from last page)

See Also:

com.ibm.retail.si.mgmt.notifications.RtlWarningNotification#setDefaultMask()

getMsgKey

```
public java.lang.String getMsgKey()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgKey()

getMsgParams

```
public java.lang.String[] getMsgParams()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgParams()

getResourceBundle

```
public java.lang.String getResourceBundle()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getResourceBundle()

com.ibm.retail.si.mgmt.notifications

Interface MgmtNotificationControlMBean

public interface **MgmtNotificationControlMBean**

This interface describes the Notification Collection & Control function to be implemented on the Master Agent. Its job is to register as a NotificationListener on all General Agent and Master Agent MBean that emit Notifications. When Notifications are received, they are resent.

The ObjectName of this MBean includes the following attributes, in addition to the SIF attribute of DeviceID:

- SIFComponent=MGMT
- Id=NotificationControl

This management interface includes no attributes.

There are no operations are included in this management interface.

This MBean emits all Notifications of various types which are emitted from each General Agent.

The getXXXStoredNotification() methods that were deprecated have been removed.

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification , com.ibm.retail.si.mgmt.notifications.RtlCriticalNotification ,
 com.ibm.retail.si.mgmt.notifications.RtlEmergencyNotification , com.ibm.retail.si.mgmt.notifications.RtlAlertNotification ,
 com.ibm.retail.si.mgmt.notifications.RtlErrorNotification , com.ibm.retail.si.mgmt.notifications.RtlWarningNotification ,
 com.ibm.retail.si.mgmt.notifications.RtlNoticeNotification , com.ibm.retail.si.mgmt.notifications.RtlInformationNotification ,
 com.ibm.retail.si.mgmt.notifications.RtlDebugNotification , com.ibm.retail.si.mgmt.notifications.RtlTracePointNotification ,
 com.ibm.retail.si.mgmt.notifications.RtlConsumerNotification

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	OBJECT_NAME
static java.lang.String	OBJECT_NAME_ID

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME

```
public static final java.lang.String OBJECT_NAME
```

com.ibm.retail.si.mgmt.notifications

Class MgmtSDCompletionNotification

```

java.lang.Object
  |
  +- java.util.EventObject
      |
      +- javax.management.Notification
          |
          +- com.ibm.retail.si.mgmt.notifications.RtlNotification
              |
              +- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                  |
                  +- com.ibm.retail.si.mgmt.notifications.MgmtSDCompletionNotification
  
```

```

public class MgmtSDCompletionNotification
extends RtlInformationNotification
  
```

Software Distribution completion Notification class

See Also:

RtlInformationNotification

Field Summary

static java.lang.String	COPYRIGHT
boolean	isInstall
int	RC
com.ibm.retail.si.mgmt. t.swdist.MgmtSftPackage	swPackage

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class javax.management.Notification

source

Fields inherited from class java.util.EventObject

source

Constructor Summary


```
MgmtSDCompletionNotification(java.lang.Object source, java.lang.String source, MgmtSftPackage
source, boolean source, int source)
```

Construct a MgmtSDCompletionNotification for submission to the agent.

Method Summary

int	getCompletionCode() Retrieve the completion code for this distribution.
MgmtSftPackage	getSwPackage() Retrieve the Package
boolean	isInstall()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

swPackage

protected com.ibm.retail.si.mgmt.swdist.MgmtSftPackage **swPackage**

RC

protected int **RC**

isInstall

protected boolean **isInstall**

Constructors

MgmtSDCompletionNotification

```
public MgmtSDCompletionNotification(java.lang.Object source,  
                                   java.lang.String message,  
                                   MgmtSftPackage swPackage,  
                                   boolean isInstall,  
                                   int RC)
```

Construct a MgmtSDCompletionNotification for submission to the agent.

Parameters:

source -
The object that generated this notification
message -
Caller provided message
swPackage -
The software package this Notification is associated with.
isInstall -
True if an install package, false if uninstall
RC -
The return or completion code associated with this Distribution. These codes are defined in:
MgmtSoftwareDistClientMBean;

Methods

getSwPackage

```
public MgmtSftPackage getSwPackage()
```

Retrieve the Package

Returns:

MgmtSftPackage software package reference

getCompletionCode

```
public int getCompletionCode()
```

Retrieve the completion code for this distribution.

Returns:

int completion code

(continued from last page)

isInstall

```
public boolean isInstall()
```

Returns:

True if the completed distribution was an installation, false if an un-installation

com.ibm.retail.si.mgmt.notifications

Class MgmtSDProgressNotification

```

java.lang.Object
  |
  +-- java.util.EventObject
        |
        +-- javax.management.Notification
              |
              +-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |
                    +-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                          |
                          +-- com.ibm.retail.si.mgmt.notifications.MgmtSDProgressNotification
  
```

```

public class MgmtSDProgressNotification
extends RtlInformationNotification
  
```

Software Distribution Progress Notification class

See Also:

RtlInformationNotification

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class javax.management.Notification

source

Fields inherited from class java.util.EventObject

source

Constructor Summary

MgmtSDProgressNotification(java.lang.Object source, MgmtSftPackage source, int source, java.lang.String source)

Construct a MgmtSDProgressNotification for submission to the agent.

Method Summary

java.lang.String	getMessage() Retrieve the Message associated with this notification.
int	getPercentage() Retrieve the complete percentage indicated by this notification.
MgmtSftPackage	getSwPackage() Retrieve the Package associated with this notification.

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

MgmtSDProgressNotification

```
public MgmtSDProgressNotification(java.lang.Object source,
                                  MgmtSftPackage swPackage,
                                  int percentage,
                                  java.lang.String Message)
```

Construct a MgmtSDProgressNotification for submission to the agent.

Parameters:

(continued from last page)

`source` -

The object that generated this notification

`swPackage` -

The software package this Notification is associated with.

`percentage` -

The percentage complete that this notification is announcing.

`Message` -

A text message that 'may' be included if needed. NOTE: that given NLS requirements, this may in fact be a translation tag, based on implementation.

Methods

getSwPackage

```
public MgmtSftPackage getSwPackage()
```

Retrieve the Package associated with this notification.

Returns:

MgmtSftPackage software package reference

getPercentage

```
public int getPercentage()
```

Retrieve the complete percentage indicated by this notification.

Returns:

int completion percentage

getMessage

```
public java.lang.String getMessage()
```

Retrieve the Message associated with this notification. This can be NULL.

Returns:

String message

com.ibm.retail.si.mgmt.notifications

Class MgmtSDStartedNotification

```

java.lang.Object
  |
  +-- java.util.EventObject
        |
        +-- javax.management.Notification
              |
              +-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |
                    +-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                          |
                          +-- com.ibm.retail.si.mgmt.notifications.MgmtSDStartedNotification

```

```

public class MgmtSDStartedNotification
extends RtlInformationNotification

```

Software Distribution Started Notification class. Sent when a software distribution has been successfully signaled

See Also:

RtlInformationNotification

Field Summary

java.lang.String	clientSystemId
static java.lang.String	COPYRIGHT
boolean	isInstall
int	RC
com.ibm.retail.si.mgmt. t.swdist.MgmtSftPacka ge	swPackage

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

MgmtSDStartedNotification(java.lang.Object source, java.lang.String source, MgmtSftPackage source, java.lang.String source, boolean source, int source)

Construct a MgmtSDCompletionNotification for submission to the agent.

Method Summary

java.lang.String	getClientSystemId()
int	getCompletionCode() Retrieve the completion code returned by the client
MgmtSftPackage	getSwPackage() Retrieve the Package
boolean	isInstall()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

(continued from last page)

swPackage

protected com.ibm.retail.si.mgmt.swdist.MgmtSftPackage **swPackage**

RC

protected int **RC**

clientSystemId

protected java.lang.String **clientSystemId**

isInstall

protected boolean **isInstall**

Constructors

MgmtSDStartedNotification

```
public MgmtSDStartedNotification(java.lang.Object source,  
                                 java.lang.String message,  
                                 MgmtSftPackage swPackage,  
                                 java.lang.String clientSystemId,  
                                 boolean isInstall,  
                                 int RC)
```

Construct a MgmtSDCompletionNotification for submission to the agent.

Parameters:

source -
The object that generated this notification
message -
Caller provided message
swPackage -
The software package this Notification is associated with.
clientSystemId -
The system ID of the client where the distribution was triggered
RC -
The return code from the client. These codes are defined in: MgmtSoftwareDistClientMBean;

Methods

getSwPackage

```
public MgmtSftPackage getSwPackage()
```

Retrieve the Package

Returns:

MgmtSftPackage software package reference

(continued from last page)

getCompletionCode

```
public int getCompletionCode()
```

Retrieve the completion code returned by the client

Returns:

int completion code

isInstall

```
public boolean isInstall()
```

Returns:

True if the distribution is an installation, false if an uninstallation

getClientSystemId

```
public java.lang.String getClientSystemId()
```

Returns:

String System ID of the client where the distribution was triggered

com.ibm.retail.si.mgmt.notifications

Class MgmtSWPActionRequestNotification

```

java.lang.Object
  |-- java.util.EventObject
      |-- javax.management.Notification
          |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
              |-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                  |-- com.ibm.retail.si.mgmt.notifications.MgmtSWPActionRequestNotification

```

```

public class MgmtSWPActionRequestNotification
extends RtlInformationNotification

```

The `MgmtSWPActionRequestNotification` is a subclass of `RtlInformationNotification` that is used for notifying the `MgmtSWPolicyMaster` of availability for software policy actioning. The notification returns a `String` indicating that a software policy actioning request has been issued.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from class `com.ibm.retail.si.mgmt.notifications.RtlInformationNotification`

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from class `com.ibm.retail.si.mgmt.notifications.RtlNotification`

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class `javax.management.Notification`

source

Fields inherited from class `java.util.EventObject`

source

Constructor Summary

`MgmtSWPActionRequestNotification(java.lang.Object source, MgmtDeviceInfo source)`

Methods inherited from class `com.ibm.retail.si.mgmt.notifications.RtlInformationNotification`

setDefaultMask

Methods inherited from class `com.ibm.retail.si.mgmt.notifications.RtlNotification`

```
applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams,  
getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp,  
setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice,  
setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp
```

Methods inherited from : class javax.management.Notification

```
getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber,  
setSource, setTimeStamp, setUserData, toString
```

Methods inherited from : class java.util.EventObject

```
getSource, toString
```

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,  
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

MgmtSWPActionRequestNotification

```
public MgmtSWPActionRequestNotification(java.lang.Object source,  
                                         MgmtDeviceInfo devInfo)
```

com.ibm.retail.si.mgmt.notifications

Class MgmtSWPDeviceStateNotification

```

java.lang.Object
  |
  +-- java.util.EventObject
        |
        +-- javax.management.Notification
              |
              +-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |
                    +-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                          |
                          +-- com.ibm.retail.si.mgmt.notifications.MgmtSWPDeviceStateNotification

```

```

public class MgmtSWPDeviceStateNotification
extends RtlInformationNotification

```

The `MgmtSWPDeviceStateNotification` is a subclass of `RtlInformationNotification` that is used for notifying the `MgmtSWPolicyMaster` of software policy actioning progress. The notification returns a formatted `String` from the `DeviceStateMessage` class representing the software policy execution state, device ID, return code of the last software policy execution step.

Also returned is execution progress information, including the following:

- The transfer state of the policy XML file (Per the constants in the `SWDClientConst` class)
- The transfer state of the policy resource files (Per the constants in the `SWDClientConst` class)
- The number of execution steps defined in the policy
- The number of execution steps completed
- The total number of resource files defined in the policy
- The combined total size (in bytes) of all resource files defined in the policy
- The total number of resource files transferred
- The total number of resource file bytes transferred

Even though Notifications should be received in the order in which they were sent, one should always regard

Field Summary

<code>static</code> <code>java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------------------	------------------------

Fields inherited from : class `com.ibm.retail.si.mgmt.notifications.RtlInformationNotification`

`COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE`

Fields inherited from : class `com.ibm.retail.si.mgmt.notifications.RtlNotification`

`COPYRIGHT, FILTER_MASK_SYSTEM_EVENT`

Fields inherited from : class `javax.management.Notification`

`source`

Fields inherited from : class `java.util.EventObject`

`source`

Constructor Summary

MgmtSWPDeviceStateNotification(java.lang.Object source, java.lang.String source, MgmtDeviceInfo source)

MgmtSWPDeviceStateNotification(java.lang.Object source, java.lang.String source, MgmtDeviceInfo source, java.lang.String[] source, java.lang.String[] source)

Deprecated.

MgmtSWPDeviceStateNotification(java.lang.Object source, java.lang.String source, MgmtDeviceInfo source, SWLogMsg[] source, SWLogMsg[] source, SWLogMsg[] source)

Method Summary

SWLogMsg[]	getClientExecLogMsgs() Returns any logged client execution messages.
java.lang.String[]	getEventQualifiers()
int	getNumExecStepsCompleted()
int	getNumTransferredResFiles()
int	getPolicyResFileDownloadState()
int	getPolicyXMLFileDownloadState()
SWLogMsg[]	getStdErrLogMsgs() Returns any messages captured from the standard error stream.
java.lang.String[]	getStdErrMessages() Returns any messages captured from the standard error stream from this execution step.
SWLogMsg[]	getStdOutLogMsgs() Returns any messages captured from the standard out stream.
java.lang.String[]	getStdOutMessages() Returns any messages captured from the standard out stream from this execution step.
int	getTotalNumExecSteps()
int	getTotalNumResFiles()
long	getTotalResFileBytes()
long	getTransferredResFileBytes()
void	setDefaultMask()
void	setNumExecStepsCompleted(int numExecStepsCompleted)

void	setNumTransferredResFiles(int numTransferredResFiles)
void	setPolicyResFileDownloadState(int policyResFileDownloadState)
void	setPolicyXMLFileDownloadState(int policyXMLFileDownloadState)
void	setTotalNumExecSteps(int totalNumExecSteps)
void	setTotalNumResFiles(int totalNumResFiles)
void	setTotalResFileBytes(long totalResFileBytes)
void	setTransferredResFileBytes(long transferredResFileBytes)

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields**COPYRIGHT**

```
public static final java.lang.String COPYRIGHT
```

Constructors

(continued from last page)

MgmtSWPDeviceStateNotification

```
public MgmtSWPDeviceStateNotification(java.lang.Object source,  
                                       java.lang.String stateAndReturnCode,  
                                       MgmtDeviceInfo devInfo)
```

MgmtSWPDeviceStateNotification

```
public MgmtSWPDeviceStateNotification(java.lang.Object source,  
                                       java.lang.String stateAndReturnCode,  
                                       MgmtDeviceInfo devInfo,  
                                       java.lang.String[] stdoutMessages,  
                                       java.lang.String[] stderrMessages)
```

Deprecated.

MgmtSWPDeviceStateNotification

```
public MgmtSWPDeviceStateNotification(java.lang.Object source,  
                                       java.lang.String stateAndReturnCode,  
                                       MgmtDeviceInfo devInfo,  
                                       SWLogMsg[] clientExecMsgs,  
                                       SWLogMsg[] stdoutMsgs,  
                                       SWLogMsg[] stderrMsgs)
```

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlWarningNotification#setDefaultMask\(\)](#)

getStdOutMessages

```
public java.lang.String[] getStdOutMessages()
```

Returns any messages captured from the standard out stream from this execution step. Always returns null if the client is not a version 1 agent

Returns:

String[] of messages in order, or null if there are none

getStdErrMessages

```
public java.lang.String[] getStdErrMessages()
```

Returns any messages captured from the standard error stream from this execution step. Always returns null if the client is not a version 1 agent

Returns:

(continued from last page)

String[] of messages in order, or null if there are none

getClientExecLogMsgs

```
public SWLogMsg[] getClientExecLogMsgs()
```

Returns any logged client execution messages. Always returns null if the client is a version 1 agent

Returns:

Array of SWLogMsg, or null if there are no messages or if the client is a version 1 agent

getStdOutLogMsgs

```
public SWLogMsg[] getStdOutLogMsgs()
```

Returns any messages captured from the standard out stream. Always returns null if the client is a version 1 agent

Returns:

Array of SWLogMsg, or null if there are no messages or if the client is a version 1 agent

getStdErrLogMsgs

```
public SWLogMsg[] getStdErrLogMsgs()
```

Returns any messages captured from the standard error stream. Always returns null if the client is a version 1 agent

Returns:

Array of SWLogMsg, or null if there are no messages or if the client is a version 1 agent

getPolicyXMLFileDownloadState

```
public int getPolicyXMLFileDownloadState()
```

Returns:

Returns the transfer state of the policy XML file, as defined in SWDClientConst

setPolicyXMLFileDownloadState

```
public void setPolicyXMLFileDownloadState(int policyXMLFileDownloadState)
```

Parameters:

policyXMLFileDownloadState -
The policy XML file download state to set.

getPolicyResFileDownloadState

```
public int getPolicyResFileDownloadState()
```

Returns:

Returns the transfer state of the policy resource files, as defined in SWDClientConst

setPolicyResFileDownloadState

```
public void setPolicyResFileDownloadState(int policyResFileDownloadState)
```

Parameters:

policyResFileDownloadState -
The policy resource file download state to set.

getTotalNumResFiles

```
public int getTotalNumResFiles()
```

Returns:

Returns the total number of resource files defined in the policy XML file

setTotalNumResFiles

```
public void setTotalNumResFiles(int totalNumResFiles)
```

Parameters:

totalNumResFiles -
The total number of resource files defined in the policy XML file

getTotalResFileBytes

```
public long getTotalResFileBytes()
```

Returns:

Returns the total number of bytes

setTotalResFileBytes

```
public void setTotalResFileBytes(long totalResFileBytes)
```

Parameters:

totalResFileBytes -
The totalResFileBytes to set.

getNumTransferredResFiles

```
public int getNumTransferredResFiles()
```

Returns:

Returns the numTransferredResFiles.

(continued from last page)

setNumTransferredResFiles

```
public void setNumTransferredResFiles(int numTransferredResFiles)
```

Parameters:

numTransferredResFiles -
The numTransferredResFiles to set.

getTransferredResFileBytes

```
public long getTransferredResFileBytes()
```

Returns:

Returns the transferredResFileBytes.

setTransferredResFileBytes

```
public void setTransferredResFileBytes(long transferredResFileBytes)
```

Parameters:

transferredResFileBytes -
The transferredResFileBytes to set.

getTotalNumExecSteps

```
public int getTotalNumExecSteps()
```

Returns:

Returns the totalNumExecSteps.

setTotalNumExecSteps

```
public void setTotalNumExecSteps(int totalNumExecSteps)
```

Parameters:

totalNumExecSteps -
The totalNumExecSteps to set.

getNumExecStepsCompleted

```
public int getNumExecStepsCompleted()
```

Returns:

Returns the numExecStepsCompleted.

setNumExecStepsCompleted

```
public void setNumExecStepsCompleted(int numExecStepsCompleted)
```

(continued from last page)

Parameters:

numExecStepsCompleted -
The numExecStepsCompleted to set.

getEventQualifiers

```
public java.lang.String[] getEventQualifiers()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#getEventQualifiers\(\)](#)

com.ibm.retail.si.mgmt.notifications

Class NotificationProcessor

java.lang.Object

└-com.ibm.retail.si.mgmt.notifications.NotificationProcessor

public class **NotificationProcessor**

extends java.lang.Object

Singleton MasterAgent Object that acts as a collection point for all General Agent and Master Agent Notifications for all MgmtNotificationControlMBeans. Instances of NotificationProcessorListener are added in order to receive client Notifications.

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	DEFAULT_EVENT_FETCH_CALL_TIMEOUT Default fetchEvents() call timeout
static java.lang.String	DEFAULT_EVENT_FETCH_MAX_EVENTS Default number of events per fetchEvents() call
static java.lang.String	DEFAULT_EVENT_QUEUE_MEMORY_CAPACITY Assuming a default value for fetchMaxEvents

Constructor Summary

NotificationProcessor(int fetchSize,int fetchSize,int fetchSize,NotificationProcessorData fetchSize,DiskOverflowStorage fetchSize)

Initializes a new instance.

Method Summary

void	addEventFetcher (javax.management.ObjectName eventCtrlName, javax.management.MBeanServerConnection eventCtrlName, java.lang.String eventCtrlName, MgmtDeviceInfo eventCtrlName, java.lang.String eventCtrlName, java.lang.String eventCtrlName) Starts and registers an event fetching thread to a remote agent with no event filtering.
void	addEventFetcher (javax.management.ObjectName eventCtrlName, javax.management.MBeanServerConnection eventCtrlName, java.lang.String eventCtrlName, MgmtDeviceInfo eventCtrlName, java.lang.String eventCtrlName, java.lang.String eventCtrlName, long eventCtrlName) Starts and registers an event fetching thread to a remote agent.
void	addNotificationProcessorListener (NotificationProcessorListener listener, NotificationProcessorFilter listener) Adds a NotificationProcessorListener if one has not been registered

void	<code>removeEventFetcher(java.lang.String targetId, java.lang.String targetId)</code> Stops and unregisters an event fetching thread for the supplied target Id, if one exists
void	<code>removeNotificationProcessorListener(NotificationProcessorListener listener)</code> Removes the supplied listener
void	<code>setFetchTimerTaskInterval(long millis)</code>
void	<code>shutdown()</code>
void	<code>start()</code>
boolean	<code>updateEventFilter(java.lang.String targetId, long targetId)</code> Updates the event filter mask on the EventFetcherThread for the supplied agent
void	<code>updateThreadPriorities(int newPriority)</code> Sets the thread priority for all of the event processing threads to that supplied.

Methods inherited from : class java.lang.Object

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields**COPYRIGHT**

`public static final java.lang.String COPYRIGHT`

DEFAULT_EVENT_FETCH_MAX_EVENTS

`public static final java.lang.String DEFAULT_EVENT_FETCH_MAX_EVENTS`

Default number of events per fetchEvents() call

DEFAULT_EVENT_FETCH_CALL_TIMEOUT

`public static final java.lang.String DEFAULT_EVENT_FETCH_CALL_TIMEOUT`

Default fetchEvents() call timeout

DEFAULT_EVENT_QUEUE_MEMORY_CAPACITY

`public static final java.lang.String DEFAULT_EVENT_QUEUE_MEMORY_CAPACITY`

Assuming a default value for fetchMaxEvents

Constructors

(continued from last page)

NotificationProcessor

```
public NotificationProcessor(int fetchSize,  
                             int fetchTimeout,  
                             int memoryQueueCapacity,  
                             NotificationProcessorData data,  
                             DiskOverflowStorage storage)
```

Initializes a new instance.

Parameters:

`fetchSize` -
The maximum number of events to fetch per remote call
`fetchTimeout` -
The amount of time, in ms, to wait on each remote event fetch call
`memoryQueueCapacity` -
Threshold for the number of events that will be held in memory before overflowing to disk
`data` -
NotificationProcessorData instance to house sequence number information
`storage` -
DiskOverflowStorage instance to be used when the in memory queue reaches capacity

Methods

start

```
public void start()
```

shutdown

```
public void shutdown()
```

addNotificationProcessorListener

```
public void addNotificationProcessorListener(NotificationProcessorListener listener,  
                                             NotificationProcessorFilter filter)
```

Adds a NotificationProcessorListener if one has not been registered

Parameters:

`listener` -
NotificationProcessorListener to add
`filter` -
Optional filter for events

removeNotificationProcessorListener

```
public void removeNotificationProcessorListener(NotificationProcessorListener  
listener)
```

Removes the supplied listener

Parameters:

`listener` -
Listener to remove

(continued from last page)

removeEventFetcher

```
public void removeEventFetcher(java.lang.String targetId,  
                               java.lang.String callerSystemId)
```

Stops and unregisters an event fetching thread for the supplied target Id, if one exists

Parameters:

targetId -
Id of the event fetcher
callerSystemId -
Id of the caller, used by the target agent to identify the caller

addEventFetcher

```
public void addEventFetcher(javax.management.ObjectName eventCtrlName,  
                             javax.management.MBeanServerConnection connection,  
                             java.lang.String targetId,  
                             MgmtDeviceInfo devInfo,  
                             java.lang.String callerSystemId,  
                             java.lang.String connectionId)
```

Starts and registers an event fetching thread to a remote agent with no event filtering.

Parameters:

eventCtrlName -
ObjectName of the EventControlMBean
connection -
MBeanServerConnection to the agent
targetId -
Unique identifier for the event fetcher
devInfo -
Information about the target agent
callerSystemId -
Id of the caller, used by the target agent to identify the caller
connectionId -
ID of the remote JMX Connection

addEventFetcher

```
public void addEventFetcher(javax.management.ObjectName eventCtrlName,  
                             javax.management.MBeanServerConnection connection,  
                             java.lang.String targetId,  
                             MgmtDeviceInfo devInfo,  
                             java.lang.String callerSystemId,  
                             java.lang.String connectionId,  
                             long filterMask)
```

Starts and registers an event fetching thread to a remote agent. The supplied target Id uniquely identifies the fetcher, and is used to reference it in all other methods that update the fetcher.

Parameters:

eventCtrlName -
ObjectName of the EventControlMBean
connection -
MBeanServerConnection to the agent
targetId -
Unique identifier for the event fetcher
devInfo -
Information about the target agent
callerSystemId -
Id of the caller, used by the target agent to identify the caller
connectionId -
ID of the remote JMX Connection
filterMask -
Bit mask for the event filter to be passed to fetchEvents()

(continued from last page)

updateEventFilter

```
public boolean updateEventFilter(java.lang.String targetId,  
                                  long filter)
```

Updates the event filter mask on the EventFetcherThread for the supplied agent

Parameters:

targetId -
Client Id of the EventFetcherThread to update
filter -
New event filter bit mask

Returns:

true if the filter was updated, false if the supplied Id is null or there is no fetching thread for the supplied agent

updateThreadPriorities

```
public void updateThreadPriorities(int newPriority)
```

Sets the thread priority for all of the event processing threads to that supplied. Any attempt to set the priority to anything more than `Thread.NORM_PRIORITY-1` will result in no change.

Parameters:

newPriority -
New thread priority

setFetchTimerTaskInterval

```
protected void setFetchTimerTaskInterval(long millis)
```

com.ibm.retail.si.mgmt.notifications

Interface NotificationProcessorData

public interface **NotificationProcessorData**

Objects that implement this interface maintain information about the sequence numbers of the last received event for the `NotificationProcessor`.

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>long</code>	<code>getLastEventSequenceNumber(MgmtDeviceInfo device)</code> Gets the last recorded sequence number of the event last received for the supplied agent
<code>void</code>	<code>persistLastEventSequenceNumber(MgmtDeviceInfo device, long device)</code> Sets the last sequence number for the supplied agent, persisting the sequence number properties file

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

getLastEventSequenceNumber

```
public long getLastEventSequenceNumber(MgmtDeviceInfo device)
```

Gets the last recorded sequence number of the event last received for the supplied agent

Parameters:

`device` -
Agent to query

Returns:

Event sequence number, or -1 if no sequence number has been recorded for the agent

persistLastEventSequenceNumber

```
public void persistLastEventSequenceNumber(MgmtDeviceInfo device,  
                                             long seqNo)  
throws MgmtException
```

Sets the last sequence number for the supplied agent, persisting the sequence number properties file

(continued from last page)

Parameters:

device -
Device info for the agent to set
seqNo -
Last sequence number for the agent

Exceptions:

MgmtException -
Error persisting the sequence number

com.ibm.retail.si.mgmt.notifications

Interface NotificationProcessorFilter

public interface **NotificationProcessorFilter**

Filter for NotificationProcessorListeners added to a NotificationProcessor.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

boolean	isEnabled(<code>javax.management.Notification not</code> , <code>MgmtDeviceInfo origDevice</code>) Method that determines if an event should be forwarded to a listener
---------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

isEnabled

public boolean **isEnabled**(`javax.management.Notification not`,
`MgmtDeviceInfo origDevice`)

Method that determines if an event should be forwarded to a listener

Parameters:

`not` -
 Event instance
`origDevice` -
 Device information for the originating device

Returns:

true
 if the event is to be forwarded, false otherwise

com.ibm.retail.si.mgmt.notifications

Interface NotificationProcessorListener

public interface **NotificationProcessorListener**

Callback interface for receiving Notifications from the NotificationProcessor

See Also:

com.ibm.retail.si.mgmt.notifications.NotificationProcessor

Field Summary

<pre>static java.lang.String</pre>	COPYRIGHT
------------------------------------	-----------

Method Summary

<pre>void</pre>	<pre>receiveNotification(javax.management.Notification notification,MgmtDeviceInfo notification)</pre> <p>Called by the NotificationProcessor to forward a Notification to this listener</p>
<pre>void</pre>	<pre>receiveNotifications(javax.management.Notification[] notifications,MgmtDeviceInfo notifications)</pre>

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

receiveNotification

public void **receiveNotification**(javax.management.Notification notification,
MgmtDeviceInfo origDevice)

Called by the NotificationProcessor to forward a Notification to this listener

Parameters:

```
notification -
Notification instance
origDevice -
Device information for the originating agent
```

receiveNotifications

public void **receiveNotifications**(javax.management.Notification[] notifications,
MgmtDeviceInfo origDevice)

com.ibm.retail.si.mgmt.notifications Class RtlAlertNotification

```

java.lang.Object
  |
  +- java.util.EventObject
      |
      +- javax.management.Notification
          |
          +- com.ibm.retail.si.mgmt.notifications.RtlNotification
              |
              +- com.ibm.retail.si.mgmt.notifications.RtlAlertNotification
  
```

Direct Known Subclasses:

RtlMonitoredAlertNotification

```

public class RtlAlertNotification
extends RtlNotification
  
```

This is used to represent an Alertable condition that has occurred in the system. Alert events are defined as those things that very important but not terminal to the operation of the system. It is advisable that devices wishing to define Alert Notifications that are unique to themselves, sub-class this Class to make the resulting Notification filterable at a finer granularity, and more usable by a management application.

See Also:

javax.management.Notification, com.ibm.retail.si.mgmt.notifications.RtlNotification

Field Summary

static java.lang.String	COPYRIGHT
static long	FILTER_MASK
static java.lang.String	NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

```
RtlAlertNotification(java.lang.Object source, java.lang.String source)
```

Creates a new instance of this Notificaiton where the caller supplies both a Message string, and a source Object.

RtlAlertNotification(java.lang.Object source, java.lang.String source, java.lang.Object source)

Creates a new instance of this Notificaiton where the caller supplies a Message string, a source object, and a user data Object.

Method Summary

void setDefaultMask()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

NOTIFICATION_TYPE

public static final java.lang.String **NOTIFICATION_TYPE**

FILTER_MASK

public static final long **FILTER_MASK**

Constructors

(continued from last page)

RtlAlertNotification

```
public RtlAlertNotification(java.lang.Object source,  
                           java.lang.String Message)
```

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object. While extremely useful, care should be taken in using this form of the constructor since the object passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.

RtlAlertNotification

```
public RtlAlertNotification(java.lang.Object source,  
                           java.lang.String Message,  
                           java.lang.Object userData)
```

Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object. While extremely useful, care should be taken in using this form of the constructor since the objects passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.
- userData -
- a caller supplied data object.

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#setDefaultMask\(\)](#)

com.ibm.retail.si.mgmt.notifications

Class RtlConsumerNotification

```

java.lang.Object
  |
  +-- java.util.EventObject
        |
        +-- javax.management.Notification
              |
              +-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |
                    +-- com.ibm.retail.si.mgmt.notifications.RtlConsumerNotification

```

```

public class RtlConsumerNotification

```

```

extends RtlNotification

```

This Notification type is used by application components that wish to record entries relevant to a consumers activity, in a consumer log.

See Also:

[javax.management.Notification](#), [com.ibm.retail.si.mgmt.notifications.RtlNotification](#)

Field Summary

<code>static java.lang.String</code>	COPYRIGHT
<code>static long</code>	FILTER_MASK
<code>static java.lang.String</code>	NOTIFICATION_TYPE

Fields inherited from : class `com.ibm.retail.si.mgmt.notifications.RtlNotification`

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class `javax.management.Notification`

source

Fields inherited from : class `java.util.EventObject`

source

Constructor Summary

```

RtlConsumerNotification(java.lang.Object source, java.lang.String source)

```

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object.

```

RtlConsumerNotification(java.lang.Object source, java.lang.String source, java.lang.Object source)

```

Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object.

Method Summary

void	setDefaultMask()
------	------------------

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

NOTIFICATION_TYPE

```
public static final java.lang.String NOTIFICATION_TYPE
```

FILTER_MASK

```
public static final long FILTER_MASK
```

Constructors

RtlConsumerNotification

```
public RtlConsumerNotification(java.lang.Object source,
                               java.lang.String Message)
```

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object. While extremely useful, care should be taken in using this form of the constructor since the object passed in will be serialized and passed through the Notification sub-system.

(continued from last page)

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.

RtlConsumerNotification

```
public RtlConsumerNotification( java.lang.Object source,  
                               java.lang.String Message,  
                               java.lang.Object userData)
```

Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object. While extremely useful, care should be taken in using this form of the constructor since the objects passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.
- userData -
- a caller supplied data object.

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#setDefaultMask\(\)](#)

com.ibm.retail.si.mgmt.notifications Class RtlCriticalNotification

```

java.lang.Object
  |-- java.util.EventObject
        |-- javax.management.Notification
              |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |-- com.ibm.retail.si.mgmt.notifications.RtlCriticalNotification

```

public class **RtlCriticalNotification**
extends RtlNotification

This is used to represent a Critical event that has occurred in the system. Critical events are defined as those things that need immediate attention, and that represent a serious compromise to the integrity of the device. It is advisable that devices wishing to define Critical Notifications that are unique to themselves, sub-class this Class to make the resulting Notification filterable at a finer granularity, and more usable by a management application.

See Also:

javax.management.Notification, com.ibm.retail.si.mgmt.notifications.RtlNotification

Field Summary

static java.lang.String	COPYRIGHT
static long	FILTER_MASK
static java.lang.String	NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

RtlCriticalNotification(java.lang.Object source, java.lang.String source)

Creates a new instance of this Notificaiton where the caller supplies both a Message string, and a source Object.

RtlCriticalNotification(java.lang.Object source, java.lang.String source, java.lang.Object source)

Creates a new instance of this Notificaiton where the caller supplies a Message string, a source object, and a user data Object.

Method Summary

void	setDefaultMask()
------	------------------

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

NOTIFICATION_TYPE

public static final java.lang.String **NOTIFICATION_TYPE**

FILTER_MASK

public static final long **FILTER_MASK**

Constructors

RtlCriticalNotification

public **RtlCriticalNotification**(java.lang.Object source,
java.lang.String Message)

(continued from last page)

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object. While extremely useful, care should be taken in using this form of the constructor since the object passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.

RtlCriticalNotification

```
public RtlCriticalNotification( java.lang.Object source,  
                               java.lang.String Message,  
                               java.lang.Object userData)
```

Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object. While extremely useful, care should be taken in using this form of the constructor since the objects passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.
- userData -
- a caller supplied data object.

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#setDefaultMask\(\)](#)

com.ibm.retail.si.mgmt.notifications Class RtlDebugNotification

```

java.lang.Object
  |
  +-- java.util.EventObject
        |
        +-- javax.management.Notification
              |
              +-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |
                    +-- com.ibm.retail.si.mgmt.notifications.RtlDebugNotification
  
```

Direct Known Subclasses:

SystemStateChangeNotification, SWPkgDistStagingProgressNotification

```

public class RtlDebugNotification
extends RtlNotification
  
```

This is to be used by development to pass debug information up through the system. It is advisable that devices wishing to define Debug Notifications that are unique to themselves, sub-class this Class to make the resulting Notification filterable at a finer granularity, and more usable by a management application.

See Also:

javax.management.Notification, com.ibm.retail.si.mgmt.notifications.RtlNotification

Field Summary

static java.lang.String	COPYRIGHT
static long	FILTER_MASK
static java.lang.String	NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

```
RtlDebugNotification(java.lang.Object source, java.lang.String source)
```

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object.

RtlDebugNotification(java.lang.Object source, java.lang.String source, java.lang.Object source)
 Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object.

Method Summary

void setDefaultMask()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

NOTIFICATION_TYPE

public static final java.lang.String **NOTIFICATION_TYPE**

FILTER_MASK

public static final long **FILTER_MASK**

Constructors

(continued from last page)

RtlDebugNotification

```
public RtlDebugNotification(java.lang.Object source,  
                             java.lang.String Message)
```

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object. While extremely useful, care should be taken in using this form of the constructor since the object passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.

RtlDebugNotification

```
public RtlDebugNotification(java.lang.Object source,  
                             java.lang.String Message,  
                             java.lang.Object userData)
```

Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object. While extremely useful, care should be taken in using this form of the constructor since the objects passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.
- userData -
- a caller supplied data object.

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#setDefaultMask\(\)](#)

com.ibm.retail.si.mgmt.notifications

Class RtlEmergencyNotification

```

java.lang.Object
  |-- java.util.EventObject
        |-- javax.management.Notification
              |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |-- com.ibm.retail.si.mgmt.notifications.RtlEmergencyNotification

```

```

public class RtlEmergencyNotification
extends RtlNotification

```

This is used to represent an Emergency condition that has occurred in the system. Emergency events are defined as those things that require immediate attention but are not terminal to the operation of the system. It is advisable that devices wishing to define Emergency Notifications that are unique to themselves, sub-class this Class to make the resulting Notification filterable at a finer granularity, and more usable by a management application.

See Also:

javax.management.Notification, com.ibm.retail.si.mgmt.notifications.RtlNotification

Field Summary

static java.lang.String	COPYRIGHT
static long	FILTER_MASK
static java.lang.String	NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

RtlEmergencyNotification(java.lang.Object source, java.lang.String source)

Creates a new instance of this Notificaiton where the caller supplies both a Message string, and a source Object.

RtlEmergencyNotification(java.lang.Object source, java.lang.String source, java.lang.Object source)

Creates a new instance of this Notificaiton where the caller supplies a Message string, a source object, and a user data Object.

Method Summary

void | setDefaultMask()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

NOTIFICATION_TYPE

public static final java.lang.String **NOTIFICATION_TYPE**

FILTER_MASK

public static final long **FILTER_MASK**

Constructors

(continued from last page)

RtlEmergencyNotification

```
public RtlEmergencyNotification(java.lang.Object source,  
                               java.lang.String Message)
```

Creates a new instance of this Notificaiton where the caller supplies both a Message string, and a source Object. While extremely useful, care should be taken in using this form of the constructor since the object passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.

RtlEmergencyNotification

```
public RtlEmergencyNotification(java.lang.Object source,  
                               java.lang.String Message,  
                               java.lang.Object userData)
```

Creates a new instance of this Notificaiton where the caller supplies a Message string, a source object, and a user data Object. While extremely useful, care should be taken in using this form of the constructor since the objects passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.
- userData -
- a caller supplied data object.

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#setDefaultMask\(\)](#)

com.ibm.retail.si.mgmt.notifications Class RtlErrorNotification

```

java.lang.Object
  |
  +-- java.util.EventObject
        |
        +-- javax.management.Notification
              |
              +-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |
                    +-- com.ibm.retail.si.mgmt.notifications.RtlErrorNotification
  
```

Direct Known Subclasses:

RtlMonitoredErrorNotification, EventDeserializationErrorNotification, StoredNotificationRetrievalErrorNotification, InvalidAgentProtocolNotification

```

public class RtlErrorNotification
extends RtlNotification
  
```

This is used to represent an Error condition that has occurred in the system. Error events are defined as an unexpected erroneous condition that the system detected and handled. It is advisable that devices wishing to define Error Notifications that are unique to themselves, sub-class this Class to make the resulting Notification filterable at a finer granularity, and more usable by a management application.

See Also:

javax.management.Notification, com.ibm.retail.si.mgmt.notifications.RtlNotification

Field Summary

static java.lang.String	COPYRIGHT
static long	FILTER_MASK
static java.lang.String	NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

```
RtlErrorNotification(java.lang.Object source, java.lang.String source)
```

Creates a new instance of this Notificaiton where the caller supplies both a Message string, and a source Object.

RtlErrorNotification(java.lang.Object source, java.lang.String source, java.lang.Object source)
 Creates a new instance of this Notificaiton where the caller supplies a Message string, a source object, and a user data Object.

Method Summary

void setDefaultMask()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

NOTIFICATION_TYPE

public static final java.lang.String **NOTIFICATION_TYPE**

FILTER_MASK

public static final long **FILTER_MASK**

Constructors

(continued from last page)

RtlErrorNotification

```
public RtlErrorNotification(java.lang.Object source,  
                             java.lang.String Message)
```

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object. While extremely useful, care should be taken in using this form of the constructor since the object passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.

RtlErrorNotification

```
public RtlErrorNotification(java.lang.Object source,  
                             java.lang.String Message,  
                             java.lang.Object userData)
```

Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object. While extremely useful, care should be taken in using this form of the constructor since the objects passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.
- userData -
- a caller supplied data object.

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#setDefaultMask\(\)](#)

com.ibm.retail.si.mgmt.notifications

Class RtlInformationNotification

```

java.lang.Object
  |-- java.util.EventObject
        |-- javax.management.Notification
              |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

```

Direct Known Subclasses:

FileTransferNotification, SystemInventoryUpdatedNotification, RtlMonitoredInformationNotification, RtlMonitorNotification, MgmtSWPDeviceStateNotification, MgmtSWPActionRequestNotification, MgmtSDStartedNotification, MgmtSDProgressNotification, MgmtSDCompletionNotification, DataCaptureNotification, ConnectionKeyExpirationNotification, AgentShutdownNotification, SWPkgDistStagingStatusNotification, CIMMethodCompletionNotification, AgentLostNotification, AgentDiscoveredNotification, AgentConnectionFailedNotification

```

public class RtlInformationNotification

```

```

extends RtlNotification

```

This is used to represent a condition within the system that an application might be interested in. Information events are defined as a condition that is not detrimental to the operation of the system but rather that something in the system has changed. That change could be configuration or status related. It is advisable that devices wishing to define Information Notifications that are unique to themselves, sub-class this Class to make the resulting Notification filterable at a finer granularity, and more usable by a management application.

See Also:

javax.management.Notification, com.ibm.retail.si.mgmt.notifications.RtlNotification

Field Summary

static java.lang.String	COPYRIGHT
static long	FILTER_MASK
static java.lang.String	NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

`RtlInformationNotification(java.lang.Object source, java.lang.String source)`

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object.

`RtlInformationNotification(java.lang.Object source, java.lang.String source, java.lang.Object source)`

Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object.

Method Summary

void	setDefaultMask()
------	------------------

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

`applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp`

Methods inherited from : class javax.management.Notification

`getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString`

Methods inherited from : class java.util.EventObject

`getSource, toString`

Methods inherited from : class java.lang.Object

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields

COPYRIGHT

`public static final java.lang.String COPYRIGHT`

NOTIFICATION_TYPE

`public static final java.lang.String NOTIFICATION_TYPE`

FILTER_MASK

`public static final long FILTER_MASK`

(continued from last page)

Constructors

RtlInformationNotification

```
public RtlInformationNotification(java.lang.Object source,  
                                java.lang.String Message)
```

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object. While extremely useful, care should be taken in using this form of the constructor since the object passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.

RtlInformationNotification

```
public RtlInformationNotification(java.lang.Object source,  
                                java.lang.String Message,  
                                java.lang.Object userData)
```

Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object. While extremely useful, care should be taken in using this form of the constructor since the objects passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.
- userData -
- a caller supplied data object.

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#setDefaultMask\(\)](#)

com.ibm.retail.si.mgmt.notifications

Class RtlMonitoredAlertNotification

```

java.lang.Object
  |
  +- java.util.EventObject
      |
      +- javax.management.Notification
          |
          +- com.ibm.retail.si.mgmt.notifications.RtlNotification
              |
              +- com.ibm.retail.si.mgmt.notifications.RtlAlertNotification
                  |
                  +- com.ibm.retail.si.mgmt.notifications.RtlMonitoredAlertNotification
  
```

All Implemented interfaces:

RtlMonitoredNotification, java.io.Serializable

```

public class RtlMonitoredAlertNotification
  extends RtlAlertNotification
  implements java.io.Serializable, RtlMonitoredNotification
  
```

A notification class that will wrapper a JMX MonitorNotification as a critical error level notification.

Field Summary

<pre> static java.lang.String </pre>	COPYRIGHT
------------------------------------------------	-----------

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlAlertNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

```

RtlMonitoredAlertNotification( javax.management.monitor.MonitorNotification
monitorNot, java.lang.String monitorNot)
  
```

Create a monitored error notification by wrapping an existing MonitorNotification.

RtlMonitoredAlertNotification(java.lang.String type, java.lang.Object type, long type, java.lang.String type, javax.management.ObjectName type, java.lang.String type, java.lang.Object type, java.lang.Object type)

Create a monitored error notification by wrapping an existing MonitorNotification.

Method Summary

java.lang.Object	getDerivedGauge() Set the value of the derived gauge that triggered this monitor notification.
java.lang.String	getObservedAttribute() Get the attribute of the observed object that triggered this monitor notification.
javax.management.ObjectName	getObservedObject() Get the observed object that triggered this monitor notification.
java.lang.Object	getTrigger() Get the value of the trigger information for this notification.
void	setDerivedGauge(java.lang.Object derivedGauge) Set the value of the derived gauge that triggered this monitor notification.
void	setObservedAttribute(java.lang.String observedAttribute) Set the attribute of the observed object that triggered this monitor notification.
void	setObservedObject(javax.management.ObjectName observedObject) Set the observed object that triggered this monitor notification.
void	setTrigger(java.lang.Object trigger) Set the value of the trigger information for this notification.

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlAlertNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

RtlMonitoredAlertNotification

```
public RtlMonitoredAlertNotification( javax.management.monitor.MonitorNotification  
monitorNot,                                     java.lang.String message)
```

Create a monitored error notification by wrapping an existing MonitorNotification.

Parameters:

monitorNot -
The original monitor notification used as the source for this one.
message -
The Notification message to include as part of this notification

RtlMonitoredAlertNotification

```
public RtlMonitoredAlertNotification( java.lang.String type,  
                                     java.lang.Object source,  
                                     long timestamp,  
                                     java.lang.String message,  
                                     javax.management.ObjectName observed,  
                                     java.lang.String attr,  
                                     java.lang.Object derGauge,  
                                     java.lang.Object trig)
```

Create a monitored error notification by wrapping an existing MonitorNotification.

Parameters:

message -
The Notification message to include as part of this notification

Methods

getDerivedGauge

```
public java.lang.Object getDerivedGauge()
```

Set the value of the derived gauge that triggered this monitor notification.

Returns:

The derivedGauge value that caused this monitor notification to be sent.

setDerivedGauge

```
public void setDerivedGauge( java.lang.Object derivedGauge)
```

Set the value of the derived gauge that triggered this monitor notification.

(continued from last page)

Parameters:

`derivedGauge` -
The `derivedGauge` value that caused this monitor notification to be sent.

getObservedAttribute

```
public java.lang.String getObservedAttribute()
```

Get the attribute of the observed object that triggered this monitor notification.

Returns:

Returns the monitored attribute that caused this monitor notification

setObservedAttribute

```
public void setObservedAttribute(java.lang.String observedAttribute)
```

Set the attribute of the observed object that triggered this monitor notification.

Parameters:

`observedAttribute` -
The monitored attribute that caused this monitor notification.

getObservedObject

```
public javax.management.ObjectName getObservedObject()
```

Get the observed object that triggered this monitor notification.

Returns:

The observed object that caused this monitor notification to be sent.

setObservedObject

```
public void setObservedObject(javax.management.ObjectName observedObject)
```

Set the observed object that triggered this monitor notification.

Parameters:

`observedObject` -
The observed object that caused this monitor notification to be sent.

getTrigger

```
public java.lang.Object getTrigger()
```

Get the value of the trigger information for this notification.

Returns:

The trigger information for this notification.

setTrigger

```
public void setTrigger(java.lang.Object trigger)
```

Set the value of the trigger information for this notification.

Parameters:

`trigger` -
The trigger to set.

com.ibm.retail.si.mgmt.notifications

Class RtlMonitoredErrorNotification

```

java.lang.Object
  |-- java.util.EventObject
      |-- javax.management.Notification
          |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
              |-- com.ibm.retail.si.mgmt.notifications.RtlErrorNotification
                  |-- com.ibm.retail.si.mgmt.notifications.RtlMonitoredErrorNotification

```

All Implemented interfaces:

RtlMonitoredNotification, java.io.Serializable

```

public class RtlMonitoredErrorNotification
  extends RtlErrorNotification
  implements java.io.Serializable, RtlMonitoredNotification

```

A notification class that will wrapper a JMX MonitorNotification as an error level notification.

Field Summary

<pre> static java.lang.String </pre>	COPYRIGHT
--------------------------------------	-----------

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlErrorNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

```

RtlMonitoredErrorNotification( javax.management.monitor.MonitorNotification
monitorNot, java.lang.String monitorNot)

```

Create a monitored error notification by wrapping an existing MonitorNotification.

RtlMonitoredErrorNotification(java.lang.String type, java.lang.Object type, long type, java.lang.String type, javax.management.ObjectName type, java.lang.String type, java.lang.Object type, java.lang.Object type)

Create a monitored error notification by wrapping an existing MonitorNotification.

Method Summary

java.lang.Object	getDerivedGauge() Set the value of the derived gauge that triggered this monitor notification.
java.lang.String	getObservedAttribute() Get the attribute of the observed object that triggered this monitor notification.
javax.management.ObjectName	getObservedObject() Get the observed object that triggered this monitor notification.
java.lang.Object	getTrigger() Get the value of the trigger information for this notification.
void	setDerivedGauge(java.lang.Object derivedGauge) Set the value of the derived gauge that triggered this monitor notification.
void	setObservedAttribute(java.lang.String observedAttribute) Set the attribute of the observed object that triggered this monitor notification.
void	setObservedObject(javax.management.ObjectName observedObject) Set the observed object that triggered this monitor notification.
void	setTrigger(java.lang.Object trigger) Set the value of the trigger information for this notification.

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlErrorNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

RtlMonitoredErrorNotification

```
public RtlMonitoredErrorNotification( javax.management.monitor.MonitorNotification  
monitorNot,                               java.lang.String message)
```

Create a monitored error notification by wrapping an existing MonitorNotification.

Parameters:

monitorNot -
The original monitor notification used as the source for this one.
message -
The Notification message to include as part of this notification

RtlMonitoredErrorNotification

```
public RtlMonitoredErrorNotification( java.lang.String type,  
                                       java.lang.Object source,  
                                       long timestamp,  
                                       java.lang.String message,  
                                       javax.management.ObjectName observed,  
                                       java.lang.String attr,  
                                       java.lang.Object derGauge,  
                                       java.lang.Object trig)
```

Create a monitored error notification by wrapping an existing MonitorNotification.

Parameters:

message -
The Notification message to include as part of this notification

Methods

getDerivedGauge

```
public java.lang.Object getDerivedGauge()
```

Set the value of the derived gauge that triggered this monitor notification.

Returns:

The derivedGauge value that caused this monitor notification to be sent.

setDerivedGauge

```
public void setDerivedGauge( java.lang.Object derivedGauge)
```

Set the value of the derived gauge that triggered this monitor notification.

(continued from last page)

Parameters:

`derivedGauge` -
The `derivedGauge` value that caused this monitor notification to be sent.

getObservedAttribute

```
public java.lang.String getObservedAttribute()
```

Get the attribute of the observed object that triggered this monitor notification.

Returns:

Returns the monitored attribute that caused this monitor notification

setObservedAttribute

```
public void setObservedAttribute(java.lang.String observedAttribute)
```

Set the attribute of the observed object that triggered this monitor notification.

Parameters:

`observedAttribute` -
The monitored attribute that caused this monitor notification.

getObservedObject

```
public javax.management.ObjectName getObservedObject()
```

Get the observed object that triggered this monitor notification.

Returns:

The observed object that caused this monitor notification to be sent.

setObservedObject

```
public void setObservedObject(javax.management.ObjectName observedObject)
```

Set the observed object that triggered this monitor notification.

Parameters:

`observedObject` -
The observed object that caused this monitor notification to be sent.

getTrigger

```
public java.lang.Object getTrigger()
```

Get the value of the trigger information for this notification.

Returns:

The trigger information for this notification.

setTrigger

```
public void setTrigger(java.lang.Object trigger)
```

Set the value of the trigger information for this notification.

Parameters:

`trigger` -
The trigger to set.

com.ibm.retail.si.mgmt.notifications

Class RtlMonitoredInformationNotification

```

java.lang.Object
  |-- java.util.EventObject
        |-- javax.management.Notification
              |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                          |--
                                com.ibm.retail.si.mgmt.notifications.RtlMonitoredInformationNotification

```

All Implemented interfaces:

RtlMonitoredNotification, java.io.Serializable

```

public class RtlMonitoredInformationNotification
  extends RtlInformationNotification
  implements java.io.Serializable, RtlMonitoredNotification

```

A notification class that will wrapper a JMX MonitorNotification as an informational level notification.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class javax.management.Notification

source

Fields inherited from class java.util.EventObject

source

Constructor Summary

```

RtlMonitoredInformationNotification(javax.management.monitor.MonitorNotification
monitorNot, java.lang.String monitorNot)

```

Create a monitored info notification by wrapping an existing MonitorNotification.

RtlMonitoredInformationNotification(java.lang.String type, java.lang.Object type, long type, java.lang.String type, javax.management.ObjectName type, java.lang.String type, java.lang.Object type, java.lang.Object type)

Create a monitored info notification by wrapping an existing MonitorNotification.

Method Summary

java.lang.Object	getDerivedGauge() Set the value of the derived gauge that triggered this monitor notification.
java.lang.String	getObservedAttribute() Get the attribute of the observed object that triggered this monitor notification.
javax.management.ObjectName	getObservedObject() Get the observed object that triggered this monitor notification.
java.lang.Object	getTrigger() Get the value of the trigger information for this notification.
void	setDerivedGauge(java.lang.Object derivedGauge) Set the value of the derived gauge that triggered this monitor notification.
void	setObservedAttribute(java.lang.String observedAttribute) Set the attribute of the observed object that triggered this monitor notification.
void	setObservedObject(javax.management.ObjectName observedObject) Set the observed object that triggered this monitor notification.
void	setTrigger(java.lang.Object trigger) Set the value of the trigger information for this notification.

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

RtlMonitoredInformationNotification

```
public  
RtlMonitoredInformationNotification( javax.management.monitor.MonitorNotification  
monitorNot,  
                                     java.lang.String message)
```

Create a monitored info notification by wrapping an existing MonitorNotification.

Parameters:

monitorNot -
The original monitor notification used as the source for this one.
message -
The Notification message to include as part of this notification

RtlMonitoredInformationNotification

```
public RtlMonitoredInformationNotification( java.lang.String type,  
                                           java.lang.Object source,  
                                           long timestamp,  
                                           java.lang.String message,  
                                           javax.management.ObjectName observed,  
                                           java.lang.String attr,  
                                           java.lang.Object derGauge,  
                                           java.lang.Object trig)
```

Create a monitored info notification by wrapping an existing MonitorNotification.

Parameters:

message -
The Notification message to include as part of this notification

Methods

getDerivedGauge

```
public java.lang.Object getDerivedGauge()
```

Set the value of the derived gauge that triggered this monitor notification.

Returns:

The derivedGauge value that caused this monitor notification to be sent.

setDerivedGauge

```
public void setDerivedGauge(java.lang.Object derivedGauge)
```

(continued from last page)

Set the value of the derived gauge that triggered this monitor notification.

Parameters:

`derivedGauge` -
The `derivedGauge` value that caused this monitor notification to be sent.

getObservedAttribute

```
public java.lang.String getObservedAttribute()
```

Get the attribute of the observed object that triggered this monitor notification.

Returns:

Returns the monitored attribute that caused this monitor notification

setObservedAttribute

```
public void setObservedAttribute(java.lang.String observedAttribute)
```

Set the attribute of the observed object that triggered this monitor notification.

Parameters:

`observedAttribute` -
The monitored attribute that caused this monitor notification.

getObservedObject

```
public javax.management.ObjectName getObservedObject()
```

Get the observed object that triggered this monitor notification.

Returns:

The observed object that caused this monitor notification to be sent.

setObservedObject

```
public void setObservedObject(javax.management.ObjectName observedObject)
```

Set the observed object that triggered this monitor notification.

Parameters:

`observedObject` -
The observed object that caused this monitor notification to be sent.

getTrigger

```
public java.lang.Object getTrigger()
```

Get the value of the trigger information for this notification.

Returns:

The trigger information for this notification.

setTrigger

```
public void setTrigger(java.lang.Object trigger)
```

Set the value of the trigger information for this notification.

Parameters:

(continued from last page)

trigger -
The trigger to set.

com.ibm.retail.si.mgmt.notifications

Interface RtlMonitoredNotification

All Known Implementing Classes:

RtlMonitoredWarningNotification, RtlMonitoredInformationNotification, RtlMonitoredErrorNotification, RtlMonitoredAlertNotification

public interface **RtlMonitoredNotification**

An interface class defining the methods required for a Notification class to include the additional information for a monitored notification (i.e. a notification that wraps a JMX MonitorNotification).

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

java.lang.Object	getDerivedGauge() Set the value of the derived gauge that triggered this monitor notification.
java.lang.String	getObservedAttribute() Get the attribute of the observed object that triggered this monitor notification.
javax.management.ObjectName	getObservedObject() Get the observed object that triggered this monitor notification.
java.lang.Object	getTrigger() Get the value of the trigger information for this notification.
void	setDerivedGauge(java.lang.Object derivedGauge) Set the value of the derived gauge that triggered this monitor notification.
void	setObservedAttribute(java.lang.String observedAttribute) Set the attribute of the observed object that triggered this monitor notification.
void	setObservedObject(javax.management.ObjectName observedObject) Set the observed object that triggered this monitor notification.
void	setTrigger(java.lang.Object trigger) Set the value of the trigger information for this notification.

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

getDerivedGauge

```
public java.lang.Object getDerivedGauge()
```

Set the value of the derived gauge that triggered this monitor notification.

Returns:

The derivedGauge value that caused this monitor notification to be sent.

setDerivedGauge

```
public void setDerivedGauge(java.lang.Object derivedGauge)
```

Set the value of the derived gauge that triggered this monitor notification.

Parameters:

derivedGauge -
The derivedGauge value that caused this monitor notification to be sent.

getObservedAttribute

```
public java.lang.String getObservedAttribute()
```

Get the attribute of the observed object that triggered this monitor notification.

Returns:

Returns the monitored attribute that caused this monitor notification

setObservedAttribute

```
public void setObservedAttribute(java.lang.String observedAttribute)
```

Set the attribute of the observed object that triggered this monitor notification.

Parameters:

observedAttribute -
The monitored attribute that caused this monitor notification.

getObservedObject

```
public javax.management.ObjectName getObservedObject()
```

Get the observed object that triggered this monitor notification.

Returns:

The observed object that caused this monitor notification to be sent.

setObservedObject

```
public void setObservedObject(javax.management.ObjectName observedObject)
```

Set the observed object that triggered this monitor notification.

Parameters:

observedObject -
The observed object that caused this monitor notification to be sent.

getTrigger

```
public java.lang.Object getTrigger()
```

Get the value of the trigger information for this notification.

Returns:

The trigger information for this notification.

setTrigger

```
public void setTrigger(java.lang.Object trigger)
```

Set the value of the trigger information for this notification.

Parameters:

trigger -
The trigger to set.

com.ibm.retail.si.mgmt.notifications

Class RtlMonitoredWarningNotification

```

java.lang.Object
  |
  +- java.util.EventObject
      |
      +- javax.management.Notification
          |
          +- com.ibm.retail.si.mgmt.notifications.RtlNotification
              |
              +- com.ibm.retail.si.mgmt.notifications.RtlWarningNotification
                  |
                  +- com.ibm.retail.si.mgmt.notifications.RtlMonitoredWarningNotification
  
```

All Implemented interfaces:

RtlMonitoredNotification, java.io.Serializable

```

public class RtlMonitoredWarningNotification
  extends RtlWarningNotification
  implements java.io.Serializable, RtlMonitoredNotification
  
```

A notification class that will wrapper a JMX MonitorNotification as a warning level notification.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlWarningNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

```

RtlMonitoredWarningNotification( javax.management.monitor.MonitorNotification
monitorNot, java.lang.String monitorNot)
  
```

Create a monitored error notification by wrapping an existing MonitorNotification.

RtlMonitoredWarningNotification(java.lang.String type, java.lang.Object type, long type, java.lang.String type, javax.management.ObjectName type, java.lang.String type, java.lang.Object type, java.lang.Object type)

Create a monitored error notification by wrapping an existing MonitorNotification.

Method Summary

java.lang.Object	getDerivedGauge() Set the value of the derived gauge that triggered this monitor notification.
java.lang.String	getObservedAttribute() Get the attribute of the observed object that triggered this monitor notification.
javax.management.ObjectName	getObservedObject() Get the observed object that triggered this monitor notification.
java.lang.Object	getTrigger() Get the value of the trigger information for this notification.
void	setDerivedGauge(java.lang.Object derivedGauge) Set the value of the derived gauge that triggered this monitor notification.
void	setObservedAttribute(java.lang.String observedAttribute) Set the attribute of the observed object that triggered this monitor notification.
void	setObservedObject(javax.management.ObjectName observedObject) Set the observed object that triggered this monitor notification.
void	setTrigger(java.lang.Object trigger) Set the value of the trigger information for this notification.

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlWarningNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

RtlMonitoredWarningNotification

```
public RtlMonitoredWarningNotification( javax.management.monitor.MonitorNotification  
monitorNot,                                     java.lang.String message)
```

Create a monitored error notification by wrapping an existing MonitorNotification.

Parameters:

monitorNot -
The original monitor notification used as the source for this one.
message -
The Notification message to include as part of this notification

RtlMonitoredWarningNotification

```
public RtlMonitoredWarningNotification( java.lang.String type,  
                                       java.lang.Object source,  
                                       long timestamp,  
                                       java.lang.String message,  
                                       javax.management.ObjectName observed,  
                                       java.lang.String attr,  
                                       java.lang.Object derGauge,  
                                       java.lang.Object trig)
```

Create a monitored error notification by wrapping an existing MonitorNotification.

Parameters:

message -
The Notification message to include as part of this notification

Methods

getDerivedGauge

```
public java.lang.Object getDerivedGauge()
```

Set the value of the derived gauge that triggered this monitor notification.

Returns:

The derivedGauge value that caused this monitor notification to be sent.

setDerivedGauge

```
public void setDerivedGauge( java.lang.Object derivedGauge)
```

Set the value of the derived gauge that triggered this monitor notification.

(continued from last page)

Parameters:

`derivedGauge` -
The `derivedGauge` value that caused this monitor notification to be sent.

getObservedAttribute

```
public java.lang.String getObservedAttribute()
```

Get the attribute of the observed object that triggered this monitor notification.

Returns:

Returns the monitored attribute that caused this monitor notification

setObservedAttribute

```
public void setObservedAttribute(java.lang.String observedAttribute)
```

Set the attribute of the observed object that triggered this monitor notification.

Parameters:

`observedAttribute` -
The monitored attribute that caused this monitor notification.

getObservedObject

```
public javax.management.ObjectName getObservedObject()
```

Get the observed object that triggered this monitor notification.

Returns:

The observed object that caused this monitor notification to be sent.

setObservedObject

```
public void setObservedObject(javax.management.ObjectName observedObject)
```

Set the observed object that triggered this monitor notification.

Parameters:

`observedObject` -
The observed object that caused this monitor notification to be sent.

getTrigger

```
public java.lang.Object getTrigger()
```

Get the value of the trigger information for this notification.

Returns:

The trigger information for this notification.

setTrigger

```
public void setTrigger(java.lang.Object trigger)
```

Set the value of the trigger information for this notification.

Parameters:

`trigger` -
The trigger to set.

com.ibm.retail.si.mgmt.notifications

Class RtlMonitorNotification

```

java.lang.Object
  |
  +-- java.util.EventObject
        |
        +-- javax.management.Notification
              |
              +-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |
                    +-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                          |
                          +-- com.ibm.retail.si.mgmt.notifications.RtlMonitorNotification

```

```

public class RtlMonitorNotification
extends RtlInformationNotification

```

Notification class that wrappers a JMX MonitorNotification

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	DERIVED_GAUGE_KEY
static java.lang.String	MONITOR_ID_KEY
static java.lang.String	MONITOR_MBEAN_KEY
static java.lang.String	OBSERVED_ATTRIBUTE_KEY
static java.lang.String	OBSERVED_MBEAN_KEY
static java.lang.String	OBSERVED_OBJECT_KEY
static java.lang.String	SOURCE_KEY
static java.lang.String	TRIGGER_KEY

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

RtlMonitorNotification(javax.management.monitor.MonitorNotification monitorNot, java.lang.String monitorNot)

Creates a new instance

RtlMonitorNotification(java.lang.String type, java.lang.Object type, long type, java.lang.String type, javax.management.ObjectName type, java.lang.String type, java.lang.Object type, java.lang.Object type)

Method Summary

static java.lang.String	createNotificationMessage(javax.management.monitor.MonitorNotification mn)
static java.lang.String	createNotificationMessage(java.lang.Object source, java.lang.Object source, java.lang.String source, java.lang.Object source, java.lang.Object source)
static java.util.Map	createUserData(javax.management.monitor.MonitorNotification mn)
static java.util.Map	createUserData(java.lang.Object source, java.lang.Object source, java.lang.String source, java.lang.Object source, java.lang.Object source)
java.lang.Object	getDerivedGauge()
java.lang.String	getObservedAttribute()
javax.management.ObjectName	getObservedObject()
java.lang.Object	getTrigger()
static java.lang.String[]	parseQualifiers(java.lang.String notType)
void	setDerivedGauge(java.lang.Object derivedGauge)
void	setObservedAttribute(java.lang.String observedAttribute)
void	setObservedObject(javax.management.ObjectName observedObject)
void	setTrigger(java.lang.Object trigger)

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

SOURCE_KEY

```
public static final java.lang.String SOURCE_KEY
```

MONITOR_ID_KEY

```
public static final java.lang.String MONITOR_ID_KEY
```

MONITOR_MBEAN_KEY

```
public static final java.lang.String MONITOR_MBEAN_KEY
```

OBSERVED_OBJECT_KEY

```
public static final java.lang.String OBSERVED_OBJECT_KEY
```

OBSERVED_MBEAN_KEY

```
public static final java.lang.String OBSERVED_MBEAN_KEY
```

(continued from last page)

OBSERVED_ATTRIBUTE_KEY

```
public static final java.lang.String OBSERVED_ATTRIBUTE_KEY
```

DERIVED_GAUGE_KEY

```
public static final java.lang.String DERIVED_GAUGE_KEY
```

TRIGGER_KEY

```
public static final java.lang.String TRIGGER_KEY
```

Constructors

RtlMonitorNotification

```
public RtlMonitorNotification(javax.management.monitor.MonitorNotification monitorNot,  
                               java.lang.String message)
```

Creates a new instance

Parameters:

monitorNot -
Source monitor notification
message -
Notification message

RtlMonitorNotification

```
public RtlMonitorNotification(java.lang.String type,  
                               java.lang.Object source,  
                               long timestamp,  
                               java.lang.String message,  
                               javax.management.ObjectName observed,  
                               java.lang.String attr,  
                               java.lang.Object derGauge,  
                               java.lang.Object trig)
```

Methods

parseQualifiers

```
public static java.lang.String[] parseQualifiers(java.lang.String notType)
```

createUserData

```
public static java.util.Map  
createUserData(javax.management.monitor.MonitorNotification mn)
```

createUserData

```
public static java.util.Map createUserData(java.lang.Object source,  
                                             java.lang.Object observedObject,  
                                             java.lang.String observedAttribute,  
                                             java.lang.Object derivedGauge,  
                                             java.lang.Object trigger)
```

createNotificationMessage

```
public static java.lang.String  
createNotificationMessage(javax.management.monitor.MonitorNotification mn)
```

createNotificationMessage

```
public static java.lang.String createNotificationMessage(java.lang.Object source,  
                                                         java.lang.Object  
observedObject,                                                         java.lang.String  
observedAttribute,                                                         java.lang.Object  
derivedGauge,                                                         java.lang.Object trigger)
```

getDerivedGauge

```
public java.lang.Object getDerivedGauge()
```

Returns:

Returns the derivedGauge.

setDerivedGauge

```
protected void setDerivedGauge(java.lang.Object derivedGauge)
```

Parameters:

derivedGauge -
The derivedGauge to set.

getObservedAttribute

```
public java.lang.String getObservedAttribute()
```

Returns:

Returns the observedAttribute.

setObservedAttribute

```
protected void setObservedAttribute(java.lang.String observedAttribute)
```

(continued from last page)

Parameters:

observedAttribute -
The observedAttribute to set.

getObservedObject

```
public javax.management.ObjectName getObservedObject()
```

Returns:

Returns the observedObject.

setObservedObject

```
protected void setObservedObject(javax.management.ObjectName observedObject)
```

Parameters:

observedObject -
The observedObject to set.

getTrigger

```
public java.lang.Object getTrigger()
```

Returns:

Returns the trigger.

setTrigger

```
protected void setTrigger(java.lang.Object trigger)
```

Parameters:

trigger -
The trigger to set.

com.ibm.retail.si.mgmt.notifications Class RtlNoticeNotification

```

java.lang.Object
  |
  +-- java.util.EventObject
        |
        +-- javax.management.Notification
              |
              +-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |
                    +-- com.ibm.retail.si.mgmt.notifications.RtlNoticeNotification
  
```

```

public class RtlNoticeNotification
extends RtlNotification
  
```

This is used to represent a condition defined as as a less severe form of Warning. Notice events are defined as a condition that is not detrimental to the operation of the system but that rather that a parameter of operation in the system is getting close to a point where it could become a problem. It is advisable that devices wishing to define Notice Notifications that are unique to themselves, sub-class this Class to make the resulting Notification filterable at a finer granularity, and more usable by a management application.

See Also:

javax.management.Notification, com.ibm.retail.si.mgmt.notifications.RtlNotification

Field Summary

static java.lang.String	COPYRIGHT
static long	FILTER_MASK
static java.lang.String	NOTIFICATION_TYPE

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class javax.management.Notification

source

Fields inherited from class java.util.EventObject

source

Constructor Summary

RtlNoticeNotification(java.lang.Object source, java.lang.String source)

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object.

RtlNoticeNotification(java.lang.Object source, java.lang.String source, java.lang.Object source)
 Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object.

Method Summary

void | setDefaultMask()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

NOTIFICATION_TYPE

public static final java.lang.String **NOTIFICATION_TYPE**

FILTER_MASK

public static final long **FILTER_MASK**

Constructors

(continued from last page)

RtlNoticeNotification

```
public RtlNoticeNotification(java.lang.Object source,  
                             java.lang.String Message)
```

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object. While extremely useful, care should be taken in using this form of the constructor since the object passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.

RtlNoticeNotification

```
public RtlNoticeNotification(java.lang.Object source,  
                             java.lang.String Message,  
                             java.lang.Object userData)
```

Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object. While extremely useful, care should be taken in using this form of the constructor since the objects passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.
- userData -
- a caller supplied data object.

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#setDefaultMask\(\)](#)

com.ibm.retail.si.mgmt.notifications

Class RtlNotification

```

java.lang.Object
  |-- java.util.EventObject
        |-- javax.management.Notification
              |-- com.ibm.retail.si.mgmt.notifications.RtlNotification

```

Direct Known Subclasses:

RtlWarningNotification, RtlTracePointNotification, RtlNoticeNotification, RtlInformationNotification, RtlErrorNotification, RtlEmergencyNotification, RtlDebugNotification, RtlCriticalNotification, RtlConsumerNotification, RtlAlertNotification

```

public abstract class RtlNotification
extends javax.management.Notification

```

This class is intended to be the base class used for all notifications issued by all RSS components. It should never be instantiated itself, but rather one of it's derived classes should always be used. Base Notification classes are defined by this architecture that have the following order of significance: RtlCriticalNotification RtlEmergencyNotification RtlAlertNotification RtlErrorNotification RtlWarningNotification RtlNoticeNotification RtlInformationNotification RtlDebugNotification RtlTracePointNotification RtlConsumerNotification

See Also:

javax.management.Notification, com.ibm.retail.si.mgmt.notifications.RtlCriticalNotification, com.ibm.retail.si.mgmt.notifications.RtlEmergencyNotification, com.ibm.retail.si.mgmt.notifications.RtlAlertNotification, com.ibm.retail.si.mgmt.notifications.RtlErrorNotification, com.ibm.retail.si.mgmt.notifications.RtlWarningNotification, com.ibm.retail.si.mgmt.notifications.RtlNoticeNotification, com.ibm.retail.si.mgmt.notifications.RtlInformationNotification, com.ibm.retail.si.mgmt.notifications.RtlDebugNotification, com.ibm.retail.si.mgmt.notifications.RtlTracePointNotification, com.ibm.retail.si.mgmt.notifications.RtlConsumerNotification

Field Summary

static java.lang.String	COPYRIGHT
static long	FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

RtlNotification(java.lang.Object source, java.lang.String source)

RtlNotification(java.lang.Object source, java.lang.String source, java.lang.String source)

RtlNotification(java.lang.Object source, java.lang.String source, java.lang.String source, java.lang.Object source)

Method Summary

void	applyEventMask(long applyMask) Apply the supplied mask to this event's mask
long	getEventMask() Method that returns the set of mask bits that the particular event provides.
java.lang.String[]	getEventQualifiers() The qualifiers are an ordered array of Strings giving the family of the event in the first element, and qualifiers and subqualifiers in subsequent entries.
java.lang.String	getMsgKey() Optional parameter for the resource bundle key for this event's translatable message.
java.lang.String[]	getMsgParams() Optional parameter for the message parameters supplied for formatting the event's translatable message.
MgmtDeviceInfo	getOriginatingDevice() Get information about the device that generated the notification.
java.lang.String	getResourceBundle() Optional parameter for the fully qualified class name of the resource bundle for obtaining a translatable message for this event.
long	getSystemSequenceNo() Get the System level assigned sequence number.
long	getSystemTimeStamp() Get the System level assigned Timestamp.
void	setDefaultMask() Method to be overridden by subclasses for setting the default mask for the event
void	setEventQualifiers(java.lang.String[] eventQualifiers) Sets the qualifiers for this event
void	setMsgKey(java.lang.String msgKey) Sets the resource bundle key for this event's translatable message.
void	setMsgParams(java.lang.String[] msgParams) Sets the optional message parameters for formatting the event's translatable message.
void	setOriginatingDevice(MgmtDeviceInfo deviceInfo) Used by the Master Agent to set the originating This is assigned at the time this Notification is received by the Master Agent.

void	<pre>setResourceBundle(java.lang.String resourceBundle)</pre> <p>Sets the resource bundle class for this event</p>
void	<pre>setSystemSequenceNo(long SeqNo)</pre> <p>Used by the Master Agent to set a system wide sequence number.</p>
void	<pre>setSystemTimeStamp(long Stamp)</pre> <p>Used by the Master Agent to set a system wide timestamp.</p>

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

FILTER_MASK_SYSTEM_EVENT

```
public static final long FILTER_MASK_SYSTEM_EVENT
```

Constructors

RtlNotification

```
protected RtlNotification(java.lang.Object source,
                           java.lang.String Type)
```

RtlNotification

```
protected RtlNotification(java.lang.Object source,
                           java.lang.String Type,
                           java.lang.String Message)
```

(continued from last page)

RtlNotification

```
protected RtlNotification( java.lang.Object source,  
                           java.lang.String Type,  
                           java.lang.String Message,  
                           java.lang.Object userData)
```

Methods

GetSystemSequenceNo

```
public long GetSystemSequenceNo()
```

Get the System level assigned sequence number. This number is assigned to this notification by the Master Agent upon receipt.

Returns:

long, the system wide sequence number.

SetSystemSequenceNo

```
protected void SetSystemSequenceNo(long SeqNo)
```

Used by the Master Agent to set a system wide sequence number. This number is assigned at the time this Notification is received by the Master Agent.

Parameters:

SeqNo -
- The system wide sequence number.

GetSystemTimeStamp

```
public long GetSystemTimeStamp()
```

Get the System level assigned Timestamp. This timestamp is assigned to this notification by the Master Agent upon receipt. This timestamp is relative to the MasterAgent, and is meant to give system- wide context to all notificaitons.

Returns:

SystemtStamp, the system wide timestamp.

SetSystemTimeStamp

```
protected void SetSystemTimeStamp(long Stamp)
```

Used by the Master Agent to set a system wide timestamp. This is assigned at the time this Notification is received by the Master Agent.

Parameters:

Stamp -
- The system wide timestamp.

getOriginatingDevice

```
public MgmtDeviceInfo getOriginatingDevice()
```

Get information about the device that generated the notification. This value will be assigned when the notification is received by the MasterAgent

Returns:

(continued from last page)

deviceInfo - Source device information

getEventQualifiers

```
public java.lang.String[] getEventQualifiers()
```

The qualifiers are an ordered array of Strings giving the family of the event in the first element, and qualifiers and subqualifiers in subsequent entries. A default set of qualifiers is supplied for events from previous versions, or for events that don't override the defaults

Returns:

The qualifiers for this event

setEventQualifiers

```
public void setEventQualifiers(java.lang.String[] eventQualifiers)
```

Sets the qualifiers for this event

Parameters:

eventQualifiers -
New event qualifiers

getResourceBundle

```
public java.lang.String getResourceBundle()
```

Optional parameter for the fully qualified class name of the resource bundle for obtaining a translatable message for this event. If the event is not to be translated, this method returns null.

Returns:

The class name of the resource bundle, or null if the event is not translatable

setResourceBundle

```
public void setResourceBundle(java.lang.String resourceBundle)
```

Sets the resource bundle class for this event

Parameters:

resourceBundle -
Resource bundle class name

getMsgKey

```
public java.lang.String getMsgKey()
```

Optional parameter for the resource bundle key for this event's translatable message. If the event is not to be translated, this method returns null.

Returns:

The resource bundle key for the translated message, or null if the event is not translatable

setMsgKey

```
public void setMsgKey(java.lang.String msgKey)
```

Sets the resource bundle key for this event's translatable message.

Parameters:

(continued from last page)

`msgKey` -
The resource bundle key for the translated message

getMsgParams

```
public java.lang.String[] getMsgParams()
```

Optional parameter for the message parameters supplied for formatting the event's translatable message. If the event is not to be translated, this method returns an empty array.

Returns:

The message parameters for formatting the event's translatable message

setMsgParams

```
public void setMsgParams(java.lang.String[] msgParams)
```

Sets the optional message parameters for formatting the event's translatable message.

Parameters:

`msgParams` -
The message parameters for formatting the event's translatable message

getEventMask

```
public long getEventMask()
```

Method that returns the set of mask bits that the particular event provides.

Returns:

The event mask bits for this event class

applyEventMask

```
public void applyEventMask(long applyMask)
```

Apply the supplied mask to this event's mask

Parameters:

`applyMask` -
Mask to apply

setDefaultMask

```
protected void setDefaultMask()
```

Method to be overridden by subclasses for setting the default mask for the event

setOriginatingDevice

```
public void setOriginatingDevice(MgmtDeviceInfo deviceInfo)
```

Used by the Master Agent to set the originating This is assigned at the time this Notification is received by the Master Agent.

Parameters:

`deviceInfo` -
- Source device information

com.ibm.retail.si.mgmt.notifications

Class RtlNotificationFilter

java.lang.Object

└-com.ibm.retail.si.mgmt.notifications.RtlNotificationFilter

All Implemented interfaces:

java.io.Serializable, javax.management.NotificationFilter

public class **RtlNotificationFilter**

extends java.lang.Object

implements javax.management.NotificationFilter, java.io.Serializable

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

RtlNotificationFilter(java.lang.String[] filters)	Custom filter for a set of specified filters
---------------------------------------------------	----------------------------------------------

Method Summary

void	addFilters(java.lang.String[] newFilters) Add new filters to the current list of filters
java.lang.String[]	getFilters()
boolean	isNotificationEnabled(javax.management.Notification notification)
void	removeFilters(java.lang.String[] oldFilters) Remove these filters from the current list of filters
void	setFilters(java.lang.String[] filters) Replaces all of the filters
java.lang.String	toString()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

(continued from last page)

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

RtlNotificationFilter

```
public RtlNotificationFilter(java.lang.String[] filters)
```

Custom filter for a set of specified filters

Parameters:

`filters` -
String array with filters to set.

Methods

setFilters

```
public void setFilters(java.lang.String[] filters)
```

Replaces all of the filters

Parameters:

`filters`

addFilters

```
public void addFilters(java.lang.String[] newFilters)
```

Add new filters to the current list of filters

Parameters:

`newFilters` -
Filters to add.

getFilters

```
public java.lang.String[] getFilters()
```

removeFilters

```
public void removeFilters(java.lang.String[] oldFilters)
```

Remove these filters from the current list of filters

Parameters:

`oldFilters` -
Filters to remove.

isNotificationEnabled

```
public boolean isNotificationEnabled(javax.management.Notification notification)
```

(continued from last page)

See Also:

`javax.management.NotificationFilter#isNotificationEnabled(javax.management.Notification)`

toString

`public java.lang.String toString()`

See Also:

`java.lang.Object#toString()`

com.ibm.retail.si.mgmt.notifications

Class RtlTracePointNotification

```

java.lang.Object
  |
  +- java.util.EventObject
      |
      +- javax.management.Notification
          |
          +- com.ibm.retail.si.mgmt.notifications.RtlNotification
              |
              +- com.ibm.retail.si.mgmt.notifications.RtlTracePointNotification
  
```

```

public class RtlTracePointNotification
extends RtlNotification
  
```

This Notification type is used by the logging component of the General and Master agent for converting locally logged entries to notifications that can be forwarded through the centralized notification system. An application should not need to ever instantiate one of these directly. NOTE that timestamp, and sequence number are provided in the base class and should be set too.

See Also:

javax.management.Notification, com.ibm.retail.si.mgmt.notifications.RtlNotification

Field Summary

static java.lang.String	COPYRIGHT
static long	FILTER_MASK
static java.lang.String	NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

RtlTracePointNotification(java.lang.Object source, java.lang.String source)

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object.

RtlTracePointNotification(java.lang.Object source, java.lang.String source, java.lang.Object source)

Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object.

Method Summary

java.lang.String	getFileName()
int	getLevel()
java.lang.String	getLineNumber()
java.lang.String	getMethodName()
java.lang.String	getNdc()
java.lang.String	getOriginator()
java.lang.String	getSourceClassName()
java.lang.String	getTaskName()
int	getThreadId()
java.lang.Throwable	getThrowable()
void	setDefaultMask()
void	setFileName(java.lang.String string)
void	setLevel(int Level) Sets the level or severity of the log message.
void	setLineNumber(java.lang.String string)
void	setMethodName(java.lang.String string)
void	setNdc(java.lang.String ndc)
void	setOriginator(java.lang.String originator)
void	setSourceClassName(java.lang.String className)
void	setTaskName(java.lang.String Name)
void	setThreadId(int threadId)
void	setThrowable(java.lang.Throwable Thrown)

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

```
applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams,
getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp,
setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice,
setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp
```

Methods inherited from : class javax.management.Notification

```
getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber,
setSource, setTimeStamp, setUserData, toString
```

Methods inherited from : class java.util.EventObject

```
getSource, toString
```

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

NOTIFICATION_TYPE

```
public static final java.lang.String NOTIFICATION_TYPE
```

FILTER_MASK

```
public static final long FILTER_MASK
```

Constructors

RtlTracePointNotification

```
public RtlTracePointNotification(java.lang.Object source,
                                 java.lang.String Message)
```

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object. While extremely useful, care should be taken in using this form of the constructor since the object passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.

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RtlTracePointNotification

```
public RtlTracePointNotification( java.lang.Object source,  
                                 java.lang.String Message,  
                                 java.lang.Object userData)
```

Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object. While extremely useful, care should be taken in using this form of the constructor since the objects passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.
- userData -
- a caller supplied data object.

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#setDefaultMask\(\)](#)

getLevel

```
public int getLevel()
```

Returns:

int - The level or severity of the message, as defined by the levels in MgmtLoggingCtrlMBean

setLevel

```
public void setLevel(int Level)
```

Sets the level or severity of the log message. Should be obtained from MgmtLoggingCtrlMBean

Parameters:

- Level -
- int level, from MgmtLoggingCtrlMBean

getTaskName

```
public java.lang.String getTaskName()
```

Returns:

String - The name of the task where the message originated, which corresponds to the thread description from log4j, the tag in the message from syslog, or getSourceMethodName on the JDK 1.4 logger

(continued from last page)

setTaskName

```
public void setTaskName(java.lang.String Name)
```

Parameters:

- Name -
- The name of the task where the log message originated

See Also:

```
#getTaskName()
```

getOriginator

```
public java.lang.String getOriginator()
```

Returns:

String - Identifier indicating the logging category or entity taht logged the message. This corresponds to the Facility on syslog, getCategory() on log4j, and loggername on the JDK 1.4 logger

setOriginator

```
public void setOriginator(java.lang.String originator)
```

Parameters:

- originator -
- Sets the originator for this message

See Also:

```
#getOriginator()
```

getThrowable

```
public java.lang.Throwable getThrowable()
```

Returns:

Throwable - For error messages, the associated Throwable (Not used in Syslog)

setThrowable

```
public void setThrowable(java.lang.Throwable Thrown)
```

Parameters:

- Thrown -
- For error messages, the associated Throwable (Not used in Syslog)
-

getSourceClassName

```
public java.lang.String getSourceClassName()
```

(continued from last page)

Returns:

String - Class that allegedly issued the logging request (JDK and Log4J only)

setSourceClassName

```
public void setSourceClassName(java.lang.String className)
```

Parameters:

className -
- Class that allegedly issued the logging request (JDK and Log4J only)

getFileName

```
public java.lang.String getFileName()
```

Returns:

File name where the event occurred

getLineNumber

```
public java.lang.String getLineNumber()
```

Returns:

Line number within the file where the event occurred

getMethodName

```
public java.lang.String getMethodName()
```

Returns:

Name of the method where the event occurred

setFileName

```
public void setFileName(java.lang.String string)
```

Parameters:

string -
File name where the event occurred

setLineNumber

```
public void setLineNumber(java.lang.String string)
```

Parameters:

string -
Line number within the file where the event occurred

setMethodName

```
public void setMethodName(java.lang.String string)
```

Parameters:

string -
Name of the method where the event occurred

getNdc

```
public java.lang.String getNdc()
```

Returns:

ndc - The NDC (Nested Diagnostic Context) for this record (Log4J only)

setNdc

```
public void setNdc(java.lang.String ndc)
```

Parameters:

ndc -
- The NDC (Nested Diagnostic Context) for this record (Log4J only)

getThreadId

```
public int getThreadId()
```

Returns:

threadId - Thread identifier from where the message originated (JDK only)

setThreadId

```
public void setThreadId(int threadId)
```

Parameters:

threadId -
- Thread identifier from where the message originated (JDK only)

com.ibm.retail.si.mgmt.notifications Class RtlWarningNotification

```

java.lang.Object
  |
  +-- java.util.EventObject
        |
        +-- javax.management.Notification
              |
              +-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |
                    +-- com.ibm.retail.si.mgmt.notifications.RtlWarningNotification
  
```

Direct Known Subclasses:

SystemStateChangeErrorNotification, RtlMonitoredWarningNotification, PowerManagementErrorNotification

```

public class RtlWarningNotification
extends RtlNotification
  
```

This is used to represent a condition that has occurred on the system that warrants a Warning. Warning events are defined as a condition that is not detrimental to the operation of the system but that rather that a parameter of operation in the system is getting close to a point where it could become a problem. It is advisable that devices wishing to define Warning Notifications that are unique to themselves, sub-class this Class to make the resulting Notification filterable at a finer granularity, and more usable by a management application.

See Also:

javax.management.Notification, com.ibm.retail.si.mgmt.notifications.RtlNotification

Field Summary

static java.lang.String	COPYRIGHT
static long	FILTER_MASK
static java.lang.String	NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

```
RtlWarningNotification(java.lang.Object source, java.lang.String source)
```

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object.

RtlWarningNotification(java.lang.Object source, java.lang.String source, java.lang.Object source)

Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object.

Method Summary

void setDefaultMask()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

NOTIFICATION_TYPE

public static final java.lang.String **NOTIFICATION_TYPE**

FILTER_MASK

public static final long **FILTER_MASK**

Constructors

(continued from last page)

RtlWarningNotification

```
public RtlWarningNotification(java.lang.Object source,  
                             java.lang.String Message)
```

Creates a new instance of this Notification where the caller supplies both a Message string, and a source Object. While extremely useful, care should be taken in using this form of the constructor since the object passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.

RtlWarningNotification

```
public RtlWarningNotification(java.lang.Object source,  
                             java.lang.String Message,  
                             java.lang.Object userData)
```

Creates a new instance of this Notification where the caller supplies a Message string, a source object, and a user data Object. While extremely useful, care should be taken in using this form of the constructor since the objects passed in will be serialized and passed through the Notification sub-system.

Parameters:

- source -
- the object that has generated this notification.
- Message -
- a caller provided message.
- userData -
- a caller supplied data object.

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#setDefaultMask\(\)](#)

com.ibm.retail.si.mgmt.notifications

Class StoredNotificationRetrievalErrorNotification

```

java.lang.Object
  |
  +- java.util.EventObject
        |
        +- javax.management.Notification
              |
              +- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |
                    +- com.ibm.retail.si.mgmt.notifications.RtlErrorNotification
                          |
                          +-
com.ibm.retail.si.mgmt.notifications.StoredNotificationRetrievalErrorNotification

```

```

public class StoredNotificationRetrievalErrorNotification

```

```

extends RtlErrorNotification

```

Notification class that takes place of a StoredNotification's Notification instance when when a StoredNotification cannot be retrieved from disk, usually due to a `InvalidClassException` or a `ClassNotFoundException`. The raw binary data of the original notification is attached to each instance (if possible), and the system sequence number and system time stamp of the replacement StoredNotification will match that of the original

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlErrorNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class javax.management.Notification

source

Fields inherited from class java.util.EventObject

source

Constructor Summary

StoredNotificationRetrievalErrorNotification(java.lang.Object source, java.lang.String source, long source, long source, byte[] source)

Creates a new instance.

Method Summary

byte[]	getEventData()
--------	----------------

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlErrorNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

StoredNotificationRetrievalErrorNotification

```
public StoredNotificationRetrievalErrorNotification(java.lang.Object source,
java.lang.String message,
long sysSeqNumber,
long sysTimeStamp,
byte[] eventData)
```

Creates a new instance. The source object should be a serializable, universal type (i.e. String, ObjectName if possible).

Parameters:

- source - Object indicating where the deserialization error occurred.
- message - Message from the Exception that occurred during retrieval of the StoredNotification
- sysSeqNumber - System Sequence number of the original StoredNotification
- sysTimeStamp - System timestamp of the original StoredNotification

(continued from last page)

eventData -
The original StoredNotification, in binary form

Methods

getEventData

```
public byte[] getEventData()
```

Returns:

Raw data of the original StoredNotification

com.ibm.retail.si.mgmt.notifications

Class SWPkgDistStagingProgressNotification

java.lang.Object

+--java.util.EventObject

+--javax.management.Notification

+--com.ibm.retail.si.mgmt.notifications.RtlNotification

+--com.ibm.retail.si.mgmt.notifications.RtlDebugNotification

+--

com.ibm.retail.si.mgmt.notifications.SWPkgDistStagingProgressNotificationpublic class **SWPkgDistStagingProgressNotification**

extends RtlDebugNotification

Notification sent by the RMASWPackageDistributorMBean when a portion of the staging of a package has completed. The user data from this Notification is a XML String that contains the policy information or error information for each staged device. This information can be parsed into a PackageStatusXMLObject using the PackageStatusXMLParser.

See Also:

com.ibm.retail.si.mgmt.swdist.pkgdist.RMASWPackageDistributorMBean

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlDebugNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class javax.management.Notification

source

Fields inherited from class java.util.EventObject

source

Constructor Summary

SWPkgDistStagingProgressNotification(java.lang.Object source, java.lang.String source, java.lang.String source, java.lang.String source, java.lang.String[] source)

Method Summary

java.lang.String[]	getEventQualifiers()
java.lang.String	getJobId()
java.lang.String	getResourceBundle()
void	setDefaultMask()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlDebugNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

SWPkgDistStagingProgressNotification

```
public SWPkgDistStagingProgressNotification(java.lang.Object source,
                                             java.lang.String Message,
                                             java.lang.String jobId,
                                             java.lang.String msgKey,
                                             java.lang.String[] msgParms)
```

(continued from last page)

Parameters:

`source` -
Source of the notification, the `ObjectName` of the package distributor MBean
`Message` -
Notification message
`jobId` -
Job identifier passed in with the staging request
`msgKey` -
Identifier for the message
`msgParms`

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlWarningNotification#setDefaultMask\(\)](#)

getJobId

```
public java.lang.String getJobId()
```

Returns:

Returns the `jobId`, supplied in the original staging request

getEventQualifiers

```
public java.lang.String[] getEventQualifiers()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#getEventQualifiers\(\)](#)

getResourceBundle

```
public java.lang.String getResourceBundle()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#getResourceBundle\(\)](#)

com.ibm.retail.si.mgmt.notifications

Class SWPkgDistStagingStatusNotification

java.lang.Object

+--java.util.EventObject

+--javax.management.Notification

+--com.ibm.retail.si.mgmt.notifications.RtlNotification

+--com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

+--

com.ibm.retail.si.mgmt.notifications.SWPkgDistStagingStatusNotificationpublic class **SWPkgDistStagingStatusNotification**

extends RtlInformationNotification

Notification sent by the `RMASWPpackageDistributorMBean` when a staging request has completed. The user data from this Notification is a XML String that contains the policy information or error information for each staged device. This information can be parsed into a `PackageStatusXMLObject` using the `PackageStatusXMLParser`.

The resource bundle for all notifications is `com.ibm.retail.si.mgmt.resources.SWDResources`. No message keys or parameters are set, because those are included in the XML content.

See Also:`com.ibm.retail.si.mgmt.swdist.pkgdist.RMASWPpackageDistributorMBean`

Field Summary

static	COPYRIGHT
java.lang.String	

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

SWPkgDistStagingStatusNotification(java.lang.Object source, java.lang.String source, java.lang.String source, java.lang.String source)

Method Summary

java.lang.String	getJobId()
java.lang.String	getResourceBundle()
void	setDefaultMask()

Methods inherited from class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from class java.util.EventObject

getSource, toString

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

SWPkgDistStagingStatusNotification

```
public SWPkgDistStagingStatusNotification(java.lang.Object source,
                                           java.lang.String Message,
                                           java.lang.String xmlStatusStr,
                                           java.lang.String jobId)
```

(continued from last page)

Parameters:

`source` -
Source of the notification, the `ObjectName` of the package distributor MBean
`Message` -
Notification message
`xmlStatusStr` -
XML String containing status information for each staged device
`jobId` -
Job identifier passed in with the staging request

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlWarningNotification#setDefaultMask\(\)](#)

getJobId

```
public java.lang.String getJobId()
```

Returns:

Returns the `jobId`, supplied in the original staging request

getResourceBundle

```
public java.lang.String getResourceBundle()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#getResourceBundle\(\)](#)

com.ibm.retail.si.mgmt.notifications

Class SystemInventoryUpdatedNotification

java.lang.Object

+--java.util.EventObject

+--javax.management.Notification

+--com.ibm.retail.si.mgmt.notifications.RtlNotification

+--com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

+--

com.ibm.retail.si.mgmt.notifications.SystemInventoryUpdatedNotification**public class SystemInventoryUpdatedNotification**

extends RtlInformationNotification

This notification class will contain the lump of inventory data

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

SystemInventoryUpdatedNotification(java.lang.Object evtSrc, java.lang.String
evtSrc, java.lang.String evtSrc)

Method Summary

java.lang.Object	getUncompressedUserData()
------------------	---------------------------

Gets notification user data, but first it decompresses the bytes into an XML string which contains inventory data

void	<pre>setCompressedUserData(java.lang.Object userData)</pre> <p>Sets notification user data, but first compresses it (for this notification, it is an XML string)</p>
------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

```
setDefaultMask
```

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

```
applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams,
getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp,
setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice,
setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp
```

Methods inherited from : class javax.management.Notification

```
getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber,
setSource, setTimeStamp, setUserData, toString
```

Methods inherited from : class java.util.EventObject

```
getSource, toString
```

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

SystemInventoryUpdatedNotification

```
public SystemInventoryUpdatedNotification(java.lang.Object evtSrc,
                                         java.lang.String evtMsg,
                                         java.lang.String inventoryDataXML)
```

Methods

setCompressedUserData

```
public void setCompressedUserData(java.lang.Object userData)
    throws MgmtException
```

Sets notification user data, but first compresses it (for this notification, it is an XML string)

(continued from last page)

Parameters:

`userData` -
string containing inventory data XML

Exceptions:

`MgmtException` -
if an error occurs compressing XML string

getUncompressedUserData

```
public java.lang.Object getUncompressedUserData()  
                        throws MgmtException
```

Gets notification user data, but first it decompresses the bytes into an XML string which contains inventory data

Returns:

string containing inventory data XML

Exceptions:

`MgmtException` -
if an error occurs uncompressing bytes into XML string

com.ibm.retail.si.mgmt.notifications

Class SystemStateChangeErrorNotification

```

java.lang.Object
  |-- java.util.EventObject
        |-- javax.management.Notification
              |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |-- com.ibm.retail.si.mgmt.notifications.RtlWarningNotification
                          |--
                                com.ibm.retail.si.mgmt.notifications.SystemStateChangeErrorNotification

```

```
public class SystemStateChangeErrorNotification
```

```
extends RtlWarningNotification
```

Notification for when a state change request fails

Field Summary

<pre> static java.lang.String </pre>	COPYRIGHT
--------------------------------------	-----------

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlWarningNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

```
SystemStateChangeErrorNotification(javax.management.ObjectName source,int
source,java.lang.String source)
```

Creates an instance

Method Summary

<pre>java.lang.String[]</pre>	getEventQualifiers()
-------------------------------	----------------------

java.lang.String	getMsgKey()
java.lang.String[]	getMsgParams()
int	getRequestedState()
java.lang.String	getResourceBundle()
void	setDefaultMask()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlWarningNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

SystemStateChangeErrorNotification

```
public SystemStateChangeErrorNotification(javax.management.ObjectName source,
                                           int reqState,
                                           java.lang.String errorMessage)
```

Creates an instance

(continued from last page)

Parameters:

source -
Source MBean
reqState -
Originally requested state
errorMessage -
Error message

Methods

setDefaultMask

```
protected void setDefaultMask()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlWarningNotification#setDefaultMask()

getRequestedState

```
public int getRequestedState()
```

Returns:

Returns the requestedState.

getEventQualifiers

```
public java.lang.String[] getEventQualifiers()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getEventQualifiers()

getMsgKey

```
public java.lang.String getMsgKey()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgKey()

getMsgParams

```
public java.lang.String[] getMsgParams()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgParams()

(continued from last page)

getResourceBundle

```
public java.lang.String getResourceBundle()
```

See Also:

[com.ibm.retail.si.mgmt.notifications.RtlNotification#getResourceBundle\(\)](#)

com.ibm.retail.si.mgmt.notifications

Class SystemStateChangeNotification

```

java.lang.Object
  |
  +- java.util.EventObject
      |
      +- javax.management.Notification
          |
          +- com.ibm.retail.si.mgmt.notifications.RtlNotification
              |
              +- com.ibm.retail.si.mgmt.notifications.RtlDebugNotification
                  |
                  +- com.ibm.retail.si.mgmt.notifications.SystemStateChangeNotification
  
```

```

public class SystemStateChangeNotification
  
```

```

  extends RtlDebugNotification
  
```

Notification for a successful system state change

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlDebugNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class javax.management.Notification

source

Fields inherited from class java.util.EventObject

source

Constructor Summary

SystemStateChangeNotification(javax.management.ObjectName source,int source) Creates a new instance

Method Summary

java.lang.String[]	getEventQualifiers()
java.lang.String	getMsgKey()

java.lang.String[]	getMsgParams()
int	getNewState()
java.lang.String	getResourceBundle()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlDebugNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

SystemStateChangeNotification

```
public SystemStateChangeNotification(javax.management.ObjectName source,
                                     int newState)
```

Creates a new instance

Parameters:

source -
Source MBean
newState -
State changed to

(continued from last page)

Methods

getNewState

```
public int getNewState()
```

Returns:

Returns the newState.

getEventQualifiers

```
public java.lang.String[] getEventQualifiers()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getEventQualifiers()

getMsgKey

```
public java.lang.String getMsgKey()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgKey()

getMsgParams

```
public java.lang.String[] getMsgParams()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getMsgParams()

getResourceBundle

```
public java.lang.String getResourceBundle()
```

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getResourceBundle()

Package

com.ibm.retail.si.mgmt.policies

com.ibm.retail.si.mgmt.policies

Class DevicePolicyApplication

java.lang.Object

└-com.ibm.retail.si.mgmt.policies.DevicePolicyApplication

All Implemented interfaces:

XMLFormattable, java.io.Serializable, PolicyApplication

Direct Known Subclasses:

DeviceCapturePolicyApplication

public class **DevicePolicyApplication**

extends java.lang.Object

implements PolicyApplication, java.io.Serializable, XMLFormattable

Field Summary

static java.lang.String	COPYRIGHT
java.lang.String	deviceId

Constructor Summary

DevicePolicyApplication(java.lang.String deviceId)

Method Summary

PolicyApplication	deepCopy()
boolean	equals(java.lang.Object o)
MgmtDeviceInfo[]	getApplicableDevices(RemoteServerPoolMBean remoteServerPool)
java.lang.String	getApplicationType()
java.lang.String	getDeviceId()
int	hashCode()
void	setDeviceId(java.lang.String deviceId)
java.lang.String	toString()
java.lang.String	toXML(int numberOfTabs, java.lang.String numberOfTabs)

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait
```

Fields**COPYRIGHT**

```
public static final java.lang.String COPYRIGHT
```

deviceId

```
protected java.lang.String deviceId
```

Constructors**DevicePolicyApplication**

```
public DevicePolicyApplication(java.lang.String deviceId)
```

Methods**getApplicationType**

```
public java.lang.String getApplicationType()
```

See Also:

```
com.ibm.retail.si.mgmt.policies.PolicyApplication#getApplicationType()
```

getApplicableDevices

```
public MgmtDeviceInfo[] getApplicableDevices(RemoteServerPoolMBean remoteServerPool)
```

See Also:

```
com.ibm.retail.si.mgmt.policies.PolicyApplication#getApplicableDevices(com.ibm.retail.si.mgmt.masteragent.RemoteServerPoolMBean)
```

getDeviceId

```
public java.lang.String getDeviceId()
```

Returns:

(continued from last page)

Returns the deviceId.

setDeviceId

```
public void setDeviceId(java.lang.String deviceId)
```

Parameters:

deviceId -
The deviceId to set.

equals

```
public boolean equals(java.lang.Object o)
```

hashCode

```
public int hashCode()
```

See Also:

java.lang.Object#hashCode()

toString

```
public java.lang.String toString()
```

toXML

```
public java.lang.String toXML(int numberOfTabs,  
                               java.lang.String namespace)
```

See Also:

com.ibm.retail.si.mgmt.util.XMLFormattable#toXML(int, String)

deepCopy

```
public PolicyApplication deepCopy()
```

com.ibm.retail.si.mgmt.policies

Class DeviceTypePolicyApplication

java.lang.Object

```

  |
  |--com.ibm.retail.si.mgmt.policies.DeviceTypePolicyApplication

```

All Implemented interfaces:

XMLFormattable, java.io.Serializable, PolicyApplication

Direct Known Subclasses:

DeviceTypeCapturePolicyApplication

```

public class DeviceTypePolicyApplication

```

```

extends java.lang.Object

```

```

implements PolicyApplication, java.io.Serializable, XMLFormattable

```

Field Summary

static java.lang.String	COPYRIGHT
int	deviceType
java.lang.String	modelName
java.lang.String	role
static java.lang.String	WILD_CARD

Constructor Summary

```

DeviceTypePolicyApplication(int deviceType, java.lang.String deviceType, java.lang.String deviceType)

```

Method Summary

PolicyApplication	deepCopy()
boolean	equals(java.lang.Object o)
MgmtDeviceInfo[]	getApplicableDevices(RemoteServerPoolMBean remoteServerPool)
java.lang.String	getApplicationType()
int	getDeviceType()

java.lang.String	getModelNumber()
java.lang.String	getRole()
int	hashCode()
void	setDeviceType(int deviceType)
void	setModelNumber(java.lang.String modelNumber)
void	setRole(java.lang.String role)
java.lang.String	toString()
java.lang.String	toXML(int numberOfTabs, java.lang.String numberOfTabs)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

WILD_CARD

public static final java.lang.String **WILD_CARD**

deviceType

protected int **deviceType**

role

protected java.lang.String **role**

modelNumber

protected java.lang.String **modelNumber**

Constructors

(continued from last page)

DeviceTypePolicyApplication

```
public DeviceTypePolicyApplication(int deviceType,  
                                   java.lang.String role,  
                                   java.lang.String modelNumber)
```

Methods

getApplicationType

```
public java.lang.String getApplicationType()
```

See Also:

com.ibm.retail.si.mgmt.policies.PolicyApplication#getApplicationType()

getApplicableDevices

```
public MgmtDeviceInfo[] getApplicableDevices(RemoteServerPoolMBean remoteServerPool)
```

See Also:

com.ibm.retail.si.mgmt.policies.PolicyApplication#getApplicableDevices(com.ibm.retail.si.mgmt.masteragent.RemoteServerPoolMBean)

getDeviceType

```
public int getDeviceType()
```

Returns:

Returns the deviceType.

setDeviceType

```
public void setDeviceType(int deviceType)
```

Parameters:

deviceType -
The deviceType to set.

getModelNumber

```
public java.lang.String getModelNumber()
```

Returns:

Returns the modelNumber.

(continued from last page)

setModelNumber

```
public void setModelNumber(java.lang.String modelNumber)
```

Parameters:

modelNumber -
The modelNumber to set.

getRole

```
public java.lang.String getRole()
```

Returns:

Returns the role.

setRole

```
public void setRole(java.lang.String role)
```

Parameters:

role -
The role to set.

toString

```
public java.lang.String toString()
```

toXML

```
public java.lang.String toXML(int numberOfTabs,  
                               java.lang.String namespace)
```

See Also:

[com.ibm.retail.si.mgmt.util.XMLFormattable#toXML\(int, String\)](#)

equals

```
public boolean equals(java.lang.Object o)
```

hashCode

```
public int hashCode()
```

See Also:

[java.lang.Object#hashCode\(\)](#)

(continued from last page)

deepCopy

```
public PolicyApplication deepCopy()
```

com.ibm.retail.si.mgmt.policies

Class FTPInfo

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.policies.FTPInfo

```

All Implemented interfaces:

java.io.Serializable

```

public abstract class FTPInfo
extends java.lang.Object
implements java.io.Serializable

```

Generic container object for FTP logon information. Subclasses can add their own fields. For security purposes, the username and password fields maintain companion fields that are encrypted values. The encrypted values are only used when making an XML String representation of the object for configuration files.

Field Summary

static java.lang.String	COPYRIGHT
int	port
java.lang.String	xferImplementation

Constructor Summary

FTPInfo(java.lang.String hostname, int hostname, java.lang.String hostname, java.lang.String hostname, java.lang.String hostname)
Creates a new instance.

Method Summary

abstract java.lang.String	decryptValue(java.lang.String value)
abstract java.lang.String	encryptValue(java.lang.String value)
boolean	equals(java.lang.Object o)
java.lang.String	getEncPassword()
java.lang.String	getEncUsername()
java.lang.String	getHostname()
java.lang.String	getPassword()

int	getPort()
java.lang.String	getUsername()
java.lang.String	getXferImplementation()
int	hashCode()
void	setEncPassword(java.lang.String encPw)
void	setEncUsername(java.lang.String encUser)
void	setHostname(java.lang.String hostname)
void	setPassword(java.lang.String pw)
void	setPort(int port)
void	setUsername(java.lang.String user)
void	setXferImplementation(java.lang.String xferImplementation)
java.lang.String	toString()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

port

protected int **port**

xferImplementation

protected java.lang.String **xferImplementation**

Constructors

(continued from last page)

FTPInfo

```
public FTPInfo(java.lang.String hostname,  
               int port,  
               java.lang.String username,  
               java.lang.String password,  
               java.lang.String implName)
```

Creates a new instance.

Parameters:

hostname -
FTP server hostname
port -
FTP Server port
username -
Plaintext user name
password -
Plaintext password
implName -
The name of the file transfer implementation to use

Methods

equals

```
public boolean equals(java.lang.Object o)
```

hashCode

```
public int hashCode()
```

getHostname

```
public java.lang.String getHostname()
```

Returns:

Returns the hostname.

setHostname

```
public void setHostname(java.lang.String hostname)
```

Parameters:

hostname -
The hostname to set.

getPassword

```
public java.lang.String getPassword()
```

Returns:

(continued from last page)

Returns the password.

setPassword

```
public void setPassword(java.lang.String pw)
```

Parameters:

`pw` -
The password to set.

encryptValue

```
protected abstract java.lang.String encryptValue(java.lang.String value)
```

decryptValue

```
protected abstract java.lang.String decryptValue(java.lang.String value)
```

getEncPassword

```
public java.lang.String getEncPassword()
```

setEncPassword

```
public void setEncPassword(java.lang.String encPw)
```

getPort

```
public int getPort()
```

Returns:

Returns the port.

setPort

```
public void setPort(int port)
```

Parameters:

`port` -
The port to set.

getUsername

```
public java.lang.String getUsername()
```

Returns:

(continued from last page)

Returns the username.

setUsername

```
public void setUsername(java.lang.String user)
```

Parameters:

user -
The username to set.

getEncUsername

```
public java.lang.String getEncUsername()
```

setEncUsername

```
public void setEncUsername(java.lang.String encUser)
```

getXferImplementation

```
public java.lang.String getXferImplementation()
```

Returns:

Returns the xferImplementation.

setXferImplementation

```
public void setXferImplementation(java.lang.String xferImplementation)
```

Parameters:

xferImplementation -
The xferImplementation to set.

toString

```
public java.lang.String toString()
```

com.ibm.retail.si.mgmt.policies

Interface PolicyApplication

All Known Implementing Classes:

DeviceTypePolicyApplication, DevicePolicyApplication

public interface **PolicyApplication**

Field Summary

static java.lang.String	APP_TYPE_DEV_LIST
static java.lang.String	APP_TYPE_DEV_TYPE
static java.lang.String[]	APP_TYPES
static java.lang.String	COPYRIGHT

Method Summary

PolicyApplication	deepCopy()
MgmtDeviceInfo[]	getApplicableDevices(RemoteServerPoolMBean remoteServerPool)
java.lang.String	getApplicationType()

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

APP_TYPE_DEV_LIST

public static final java.lang.String **APP_TYPE_DEV_LIST**

APP_TYPE_DEV_TYPE

public static final java.lang.String **APP_TYPE_DEV_TYPE**

(continued from last page)

APP_TYPES

```
public static final java.lang.String APP_TYPES
```

Methods

getApplicationType

```
public java.lang.String getApplicationType()
```

getApplicableDevices

```
public MgmtDeviceInfo[] getApplicableDevices(RemoteServerPoolMBean remoteServerPool)
```

deepCopy

```
public PolicyApplication deepCopy()
```

com.ibm.retail.si.mgmt.policies

Class PolicyApplicationList

java.lang.Object

└--com.ibm.retail.si.mgmt.policies.PolicyApplicationList

All Implemented interfaces:

XMLFormattable, java.io.Serializable

public class **PolicyApplicationList**

extends java.lang.Object

implements java.io.Serializable, XMLFormattable

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

PolicyApplicationList(java.lang.String type)
Deprecated.
PolicyApplicationList()

Method Summary

void	addPolicyApplication(PolicyApplication app)
void	clear()
boolean	containsPolicyApplication(PolicyApplication app)
static PolicyApplicationL ist	copy(PolicyApplicationList sourceList)
boolean	equals(java.lang.Object o)
MgmtDeviceInfo[]	getApplicableDeviceList(java.lang.String deviceId, RemoteServerPoolMBean deviceId) Returns all agent information objects that have the supplied device ID
MgmtDeviceInfo[]	getApplicableDevices(RemoteServerPoolMBean remoteServerPool)
java.lang.String	getApplicationType()

PolicyApplication[]	getPolicyApplications()
int	hashCode()
static boolean	isValidApplicationType(java.lang.String type)
void	remotePolicyApplication(PolicyApplication app)
int	size()
java.lang.String	toString()
java.lang.String	toXML(int numberOfTabs, java.lang.String numberOfTabs)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Constructors

PolicyApplicationList

public **PolicyApplicationList**(java.lang.String type)
Deprecated.

PolicyApplicationList

public **PolicyApplicationList**()

Methods

isValidApplicationType

public static boolean **isValidApplicationType**(java.lang.String type)

(continued from last page)

copy

```
public static PolicyApplicationList copy(PolicyApplicationList sourceList)
```

getApplicationType

```
public java.lang.String getApplicationType()
```

addPolicyApplication

```
public void addPolicyApplication(PolicyApplication app)
```

remotePolicyApplication

```
public void remotePolicyApplication(PolicyApplication app)
```

containsPolicyApplication

```
public boolean containsPolicyApplication(PolicyApplication app)
```

size

```
public int size()
```

clear

```
public void clear()
```

equals

```
public boolean equals(java.lang.Object o)
```

hashCode

```
public int hashCode()
```

See Also:

```
java.lang.Object#hashCode()
```

toString

```
public java.lang.String toString()
```

toXML

```
public java.lang.String toXML(int numberOfTabs,  
                             java.lang.String namespace)
```

See Also:

com.ibm.retail.si.mgmt.util.XMLFormattable#toXML(int, String)

getPolicyApplications

```
public PolicyApplication[] getPolicyApplications()
```

getApplicableDevices

```
public MgmtDeviceInfo[] getApplicableDevices(RemoteServerPoolMBean remoteServerPool)
```

getApplicableDeviceList

```
public MgmtDeviceInfo[] getApplicableDeviceList(java.lang.String deviceId,  
                                                RemoteServerPoolMBean  
remoteServerPool)
```

Returns all agent information objects that have the supplied device ID

Parameters:

`deviceId` -
Device ID to search for
`remoteServerPool` -
RemoteServerPool MBean (or proxy) used to perform the query

Returns:

MgmtDeviceInfo array of agent information objects, or an empty array if there are none

com.ibm.retail.si.mgmt.policies

Class PolicyGUID

java.lang.Object

```

  |
  |--com.ibm.retail.si.mgmt.policies.PolicyGUID

```

All Implemented interfaces:

java.io.Serializable

public class **PolicyGUID**

extends java.lang.Object

implements java.io.Serializable

Globally unique identifier class based on a random number generator. An attempt is made to seed the generator based on the local system's IP address and system timestamp to make it globally unique. If that fails, then the system timestamp alone will be used.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

PolicyGUID()

Method Summary

static java.lang.String	getGUID()
----------------------------	-----------

static int	getGUIDInt()
------------	--------------

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHTpublic static final java.lang.String **COPYRIGHT**

Constructors

(continued from last page)

PolicyGUID

```
public PolicyGUID()
```

Methods

getGUID

```
public static java.lang.String getGUID()
```

getGUIDInt

```
public static int getGUIDInt()
```

Package

com.ibm.retail.si.mgmt.power

com.ibm.retail.si.mgmt.power

Class PowerManagementErrorNotification

```

java.lang.Object
  |
  +-- java.util.EventObject
        |
        +-- javax.management.Notification
              |
              +-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |
                    +-- com.ibm.retail.si.mgmt.notifications.RtlWarningNotification
                          |
                          +-- com.ibm.retail.si.mgmt.power.PowerManagementErrorNotification
  
```

```

public class PowerManagementErrorNotification
extends RtlWarningNotification
  
```

Event class for errors that occur when invoking power management functions

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlWarningNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class javax.management.Notification

source

Fields inherited from class java.util.EventObject

source

Constructor Summary

PowerManagementErrorNotification(java.lang.Object source, java.lang.String source, long source, long source)

Creates a new instance, with the supplied error message, power function, and activation Id.

Method Summary

long	getActivationId() The task activation ID supplied with the original request
------	--------------------------------------------------------------------------------

long	getFunction() The power management function that was attempted
java.lang.String	getResourceBundle()

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlWarningNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp

Methods inherited from : class javax.management.Notification

getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

PowerManagementErrorNotification

```
public PowerManagementErrorNotification(java.lang.Object source,
                                         java.lang.String errorMessage,
                                         long function,
                                         long activationId)
```

Creates a new instance, with the supplied error message, power function, and activation Id.

Parameters:

source -
Event source
errorMessage -
Exception error message

(continued from last page)

function -
Power function being invoked
activationId -
Task activation Id

Methods

getFunction

public long **getFunction**()

The power management function that was attempted

Returns:

The constant representing the power management function being invoked

See Also:

com.ibm.retail.si.mgmt.power.PowerManagementMBean

getActivationId

public long **getActivationId**()

The task activation ID supplied with the original request

Returns:

The task activation ID

getResourceBundle

public java.lang.String **getResourceBundle**()

See Also:

com.ibm.retail.si.mgmt.notifications.RtlNotification#getResourceBundle()

com.ibm.retail.si.mgmt.power

Interface PowerManagementMBean

public interface **PowerManagementMBean**

MBean interface for performing power management functions on a device. Each constant defined in this interface represents a power management function, like rebooting or shutting down. Each device returns a bit mask (from `getSupportedFunctions()`) representing the set of functions supported on that platform.

When a request to invoke a function is made, it is put onto a separate thread. If a failure occurs, then a `PowerManagementErrorNotification` is sent.

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
<code>static long</code>	<code>MASK_REBOOT</code> Support for shutting down and restarting the device
<code>static long</code>	<code>MASK_SHUTDOWN</code> Support for shutting down the device
<code>static long</code>	<code>MASK_SUSPEND</code> Support for suspending the device
<code>static java.lang.String</code>	<code>OBJECT_NAME_BASE</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME_ID</code>
<code>static long[]</code>	<code>POWER_FUNCTIONS</code>

Method Summary

<code>long</code>	<code>getSupportedFunctions()</code> Returns a bit mask representing the power management functions that this device supports
<code>boolean</code>	<code>invokePowerFunction(long function)</code> Invokes the power management action represented by the supplied function constant.

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```


(continued from last page)

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME_BASE

```
public static final java.lang.String OBJECT_NAME_BASE
```

MASK_REBOOT

```
public static final long MASK_REBOOT  
    Support for shutting down and restarting the device
```

MASK_SHUTDOWN

```
public static final long MASK_SHUTDOWN  
    Support for shutting down the device
```

MASK_SUSPEND

```
public static final long MASK_SUSPEND  
    Support for suspending the device
```

POWER_FUNCTIONS

```
public static final long POWER_FUNCTIONS
```

Methods

invokePowerFunction

```
public boolean invokePowerFunction(long function)  
    throws MgmtException
```

Invokes the power management action represented by the supplied function constant.

Parameters:

function -
Constant representing the action to invoke

Returns:

True if the request was received and scheduled

Exceptions:

MgmtException -
An error occurred invoking the action, the device is busy with another request, or the supplied function is not supported

getSupportedFunctions

```
public long getSupportedFunctions()
```

Returns a bit mask representing the power management functions that this device supports

(continued from last page)

Returns:

Mask representing the power management functions that this device supports

com.ibm.retail.si.mgmt.power

Interface PowerMgmtSupport

public interface **PowerMgmtSupport**

Implementations of this interface represent the platform specific implementation for power management. Each implementation exposes which power management functions it supports, and provides the implementation for those functions.

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>long</code>	<code>getSupportedFunctions()</code> Returns a bit mask representing the power management functions that this device supports
<code>void</code>	<code>invokePowerFunction(long function)</code> Invokes the power management action represented by the supplied function constant

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

invokePowerFunction

```
public void invokePowerFunction(long function)  
    throws MgmtException
```

Invokes the power management action represented by the supplied function constant

Parameters:

`function` -
Constant representing the action to invoke

Exceptions:

`MgmtException` -
An error occurred invoking the action

getSupportedFunctions

```
public long getSupportedFunctions()
```

Returns a bit mask representing the power management functions that this device supports

Returns:

(continued from last page)

Mask representing the power management functions that this device supports

com.ibm.retail.si.mgmt.power

Interface WakeOnLANControlMBeanpublic interface **WakeOnLANControlMBean**

MBean that transmits Wake On LAN magic packet requests from the machine where the MBean is registered. Routers may be configured to forward the broadcasts in order for them to arrive at the target subnet.

Field Summary

<code>static java.lang.String</code>	<code>CONFIG_PROP_PORT</code>
<code>static java.lang.String</code>	<code>COPYRIGHT</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME_BASE</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME_ID</code>

Method Summary

<code>int</code>	<code>getPort()</code> The destination port for all wake on LAN requests
<code>boolean</code>	<code>invokePowerFunctionOnAgent(long function, java.lang.String function)</code> Invokes the supplied power management function on the supplied agent
<code>boolean</code>	<code>sendWOLRequest(byte[] macAddress, java.lang.String macAddress, java.lang.String macAddress)</code> Broadcasts a magic packet request to the supplied agent.
<code>void</code>	<code>setPort(int port)</code> Set the destination port for all wake on LAN requests

Fields**COPYRIGHT**public static final java.lang.String **COPYRIGHT****OBJECT_NAME_ID**public static final java.lang.String **OBJECT_NAME_ID**

(continued from last page)

OBJECT_NAME_BASE

```
public static final java.lang.String OBJECT_NAME_BASE
```

CONFIG_PROP_PORT

```
public static final java.lang.String CONFIG_PROP_PORT
```

Methods

sendWOLRequest

```
public boolean sendWOLRequest(byte[] macAddress,  
                               java.lang.String hostIp,  
                               java.lang.String subnetMask)
```

Broadcasts a magic packet request to the supplied agent.

Parameters:

`macAddress` -
Target MAC Address data
`hostIp` -
Resolvable hostname or IP of the device or an address on the target subnet
`subnetMask` -
Subnet mask for the target subnet

Returns:

true if the request was sent, false if there were errors

invokePowerFunctionOnAgent

```
public boolean invokePowerFunctionOnAgent(long function,  
                                           java.lang.String agentId)  
                                           throws MgmtException
```

Invokes the supplied power management function on the supplied agent

Parameters:

`function` -
Power management function to invoke, via `PowerManagementMBean`
`agentId` -
Id of the agent to invoke the power function on

Returns:

true if the agent connection exists and the call was made successfully

Exceptions:

`MgmtException` -
Error making the remote call on the agent connection

getPort

```
public int getPort()
```

The destination port for all wake on LAN requests

Returns:

(continued from last page)

The destination port used for all wake on LAN requests

setPort

```
public void setPort(int port)
```

Set the destination port for all wake on LAN requests

Parameters:

`port` -
Destination port for all wake on LAN requests

Package

com.ibm.retail.si.mgmt.remote

com.ibm.retail.si.mgmt.remote

Class DefaultRMACredentialDecoder

java.lang.Object

└--com.ibm.retail.si.mgmt.remote.DefaultRMACredentialDecoder

All Implemented interfaces:

RMACredentialDecoder

public class **DefaultRMACredentialDecoder**

extends java.lang.Object

implements RMACredentialDecoder

Class that decodes RMA Credentials using an RSA encryption cipher. The format of the credentials has the leading byte containing the client agent version. The remaining bytes are two IP address byte arrays, encrypted. The JMX server's IP address follows the JMX client's IP address.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

DefaultRMACredentialDecoder()

Creates a decoder looking in the SSL config for the alias "

DefaultRMACredentialDecoder(java.lang.String sslAlias)

Creates a decoder looking in the SSL config for the supplied alias

DefaultRMACredentialDecoder(com.ibm.retail.si.util.SSLSetup sslParms)

Initializes the encoder, initializing the encryption cipher

Method Summary

RMAJMXCredentials	decodeCredentials(java.lang.Object credentials)
-------------------	-------------------------------------------------

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHTpublic static final java.lang.String **COPYRIGHT**

Constructors

DefaultRMACredentialDecoder

```
public DefaultRMACredentialDecoder()  
    Creates a decoder looking in the SSL config for the alias "SSL"
```

Exceptions:

Exception -
Error setting up encryption cipher

DefaultRMACredentialDecoder

```
public DefaultRMACredentialDecoder(java.lang.String sslAlias)  
    Creates a decoder looking in the SSL config for the supplied alias
```

Parameters:

sslAlias -
SSL Configuration alias

Exceptions:

Exception -
Error setting up encryption cipher

DefaultRMACredentialDecoder

```
public DefaultRMACredentialDecoder(com.ibm.retail.si.util.SSLSetup sslParms)  
    Initializes the encoder, initializing the encryption cipher
```

Parameters:

sslParms -
SSL Setup Information. If null (the default), then it will be initialized

Exceptions:

Exception -
Error setting up encryption cipher

Methods

decodeCredentials

```
public RMAJMXCredentials decodeCredentials(java.lang.Object credentials)  
    throws MgmtException
```

See Also:

com.ibm.retail.si.mgmt.remote.RMACredentialDecoder#decodeCredentials(Object)

com.ibm.retail.si.mgmt.remote

Class DefaultRMACredentialEncoder

java.lang.Object

└─com.ibm.retail.si.mgmt.remote.DefaultRMACredentialEncoder

All Implemented interfaces:

RMACredentialEncoder

public class **DefaultRMACredentialEncoder**

extends java.lang.Object

implements RMACredentialEncoder

Class that encodes RMA Credentials using an RSA encryption cipher. The format of the credentials has the leading byte containing the client agent version. The remaining bytes are two IP address byte arrays, encrypted. The JMX server's IP address follows the JMX client's IP address.

Field Summary

<pre> static java.lang.String </pre>	COPYRIGHT
------------------------------------------------------------------	-----------

Constructor Summary

DefaultRMACredentialEncoder()

DefaultRMACredentialEncoder(com.ibm.retail.si.util.SSLSetup sslParms)

Initializes the encoder, initializing the encryption cipher

Method Summary

byte[]	encodeCredentials(RMAJMXCredentials credentials)
--------	--------------------------------------------------

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHTpublic static final java.lang.String **COPYRIGHT**

Constructors

(continued from last page)

DefaultRMACredentialEncoder

```
public DefaultRMACredentialEncoder()
```

DefaultRMACredentialEncoder

```
public DefaultRMACredentialEncoder(com.ibm.retail.si.util.SSLSetup sslParms)
```

Initializes the encoder, initializing the encryption cipher

Parameters:

`sslParms` -
SSL Setup Information. If null (the default), then it will be initialized

Exceptions:

`Exception` -
Error setting up encryption cipher

Methods

encodeCredentials

```
public byte[] encodeCredentials(RMAJMXCredentials credentials)
```

See Also:

[com.ibm.retail.si.mgmt.remote.RMACredentialEncoder#encodeCredentials\(com.ibm.retail.si.mgmt.remote.RMAJMXCredentials\)](#)

com.ibm.retail.si.mgmt.remote

Interface RMACredentialDecoder

All Known Implementing Classes:

DefaultRMACredentialDecoder

public interface **RMACredentialDecoder**

Interface implemented by classes that decode credentials supplied to remote JMX connections to RMA agents. The credential data is decoded and parsed into a `RMAJMXCredentials` object by the `decodeCredentials()` method.

Field Summary

<code>static</code> <code>java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------------------	------------------------

Method Summary

<code>RMAJMXCredentials</code>	<code>decodeCredentials(java.lang.Object credentials)</code> Decodes and parses the supplied credential data into a <code>RMAJMXCredentials</code> object.
--------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

decodeCredentials

```
public RMAJMXCredentials decodeCredentials(java.lang.Object credentials)  
throws MgmtException
```

Decodes and parses the supplied credential data into a `RMAJMXCredentials` object.

Parameters:

`credentials` -
Credential data

Returns:

An `RMAJMXCredentials` object

Exceptions:

`MgmtException` -
Error parsing credentials, or data does not match expected values

com.ibm.retail.si.mgmt.remote

Interface RMACredentialEncoder

All Known Implementing Classes:

DefaultRMACredentialEncoder

public interface **RMACredentialEncoder**

Interface implemented by all classes that encode credentials used for remote JMX connections to RMA agents.

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>byte[]</code>	<code>encodeCredentials(RMAJMXCredentials credentials)</code> Encodes the supplied credentials
---------------------	---------------------------------------------------------------------------------------------------

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

encodeCredentials

public byte[] **encodeCredentials**(RMAJMXCredentials credentials)

Encodes the supplied credentials

Parameters:

credentials -
Credentials to encode

Returns:

Array of bytes containing the encoded credentials

com.ibm.retail.si.mgmt.remote

Class RMAJMXCredentials

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.remote.RMAJMXCredentials

```

All Implemented interfaces:

java.io.Serializable

public class **RMAJMXCredentials**

extends java.lang.Object

implements java.io.Serializable

Container class for credential information. This class contains the information for all of the different types of JMX authentication supported by Master Agents and General Agents. Each type is represented by a different constant. The format for each type of credentials is different, but all contain the agent version and the authentication type.

Field Summary

static int	AUTH_TYPE_GA_KEY_SIG Key based authentication to the General Agent
static int	AUTH_TYPE_MA_GA_LEGACY Pre-V2R5 authentication
static int	AUTH_TYPE_MA_KEY_SIG Key based authentication to the Master Agent
static int	AUTH_TYPE_MA_USERNAME_PW Username and password authentication to the Master Agent
static java.lang.String	COPYRIGHT

Constructor Summary

RMAJMXCredentials(int agentVersion, java.lang.String agentVersion, java.lang.String agentVersion)	Constructor for Master Agent password credentials
RMAJMXCredentials(int agentVersion, java.lang.String agentVersion, long agentVersion, byte[] agentVersion)	Constructor for General Agent key based credentials
RMAJMXCredentials(int agentVersion, byte[] agentVersion, byte[] agentVersion)	Constructor for legacy authentication credentials
RMAJMXCredentials(int agentVersion, java.lang.String agentVersion, byte[] agentVersion)	Constructor for Master Agent key based credentials

Method Summary

static byte[]	createGeneralAgentKeySignature(long numberToSign, java.security.PrivateKey numberToSign) Creates a digital signature for a set of General Agent key based credentials.
static RMAJMXCredentials	createGeneralAgentKeySignatureCredentials(java.lang.String alias, long alias, byte[] alias) Convenience method for creating General Agent key based credentials
static RMAJMXCredentials	createMasterAgentKeySignatureCredentials(java.lang.String alias, byte[] alias) Convenience method for creating Master Agent key based credentials
static RMAJMXCredentials	createMasterAgentUsernamePWCredentials(java.lang.String username, java.lang.String username) Convenience method for creating Master Agent password credentials
boolean	equals(java.lang.Object o)
int	getAgentVersion() Returns the agent version supplied in the credentials
java.lang.String	getAlias() Returns the key alias, for Master Agent key based credentials
int	getAuthType() Returns the constant representing the type of authentication represented by these credentials
byte[]	getJmxClientAddress() For legacy authentication, returns the client's IP address
byte[]	getJmxServerAddress() For legacy authentication, the IP address of the JMX server
java.lang.String	getPassword() Returns the password, for Master Agent password based credentials
long	getRandom() For General Agent credentials only, this method returns the random number signed by the Master Agent
byte[]	getSignature() Returns the digital signature used in Master Agent key based credentials
java.lang.String	getUsername() Returns the username, for Master Agent password based credentials
int	hashCode()
void	setAlias(java.lang.String alias)
void	setSignature(byte[] signature)
void	setUsername(java.lang.String username)

java.lang.String	toString()
------------------	------------

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

AUTH_TYPE_MA_GA_LEGACY

```
public static final int AUTH_TYPE_MA_GA_LEGACY
    Pre-V2R5 authentication
```

AUTH_TYPE_MA_USERNAME_PW

```
public static final int AUTH_TYPE_MA_USERNAME_PW
    Username and password authentication to the Master Agent
```

AUTH_TYPE_MA_KEY_SIG

```
public static final int AUTH_TYPE_MA_KEY_SIG
    Key based authentication to the Master Agent
```

AUTH_TYPE_GA_KEY_SIG

```
public static final int AUTH_TYPE_GA_KEY_SIG
    Key based authentication to the General Agent
```

Constructors

RMAJMXCredentials

```
public RMAJMXCredentials(int agentVersion,
    java.lang.String username,
    java.lang.String password)
```

Constructor for Master Agent password credentials

RMAJMXCredentials

```
public RMAJMXCredentials(int agentVersion,
    java.lang.String alias,
    long randomNumber,
    byte[] signature)
```

Constructor for General Agent key based credentials

Parameters:

(continued from last page)

agentVersion -
Target platform agent version
alias -
Key alias name
randomNumber -
Random number that is signed by the MA
signature -
Digital signature of a server supplied random number

RMAJMXCredentials

```
public RMAJMXCredentials(int agentVersion,  
                        byte[] jmxServerAddress,  
                        byte[] jmxClientAddress)
```

Constructor for legacy authentication credentials

RMAJMXCredentials

```
public RMAJMXCredentials(int agentVersion,  
                        java.lang.String alias,  
                        byte[] signature)
```

Constructor for Master Agent key based credentials

Parameters:

agentVersion -
Target platform agent version
alias -
Key alias name
signature -
Digital signature of a server supplied random number

Methods

createMasterAgentUsernamePWCredentials

```
public static RMAJMXCredentials  
createMasterAgentUsernamePWCredentials(java.lang.String username,  
java.lang.String password)
```

Convenience method for creating Master Agent password credentials

createMasterAgentKeySignatureCredentials

```
public static RMAJMXCredentials  
createMasterAgentKeySignatureCredentials(java.lang.String alias,  
signature) byte[]
```

Convenience method for creating Master Agent key based credentials

Parameters:

alias -
Key alias name
signature -
Digital signature of a server supplied random number

Returns:

Credentials

(continued from last page)

createGeneralAgentKeySignatureCredentials

```
public static RMAJMXCredentials  
createGeneralAgentKeySignatureCredentials(java.lang.String alias,  
signature) long random,  
byte[]
```

Convenience method for creating General Agent key based credentials

Parameters:

alias -
Key alias name
random -
Random number signed by the Master Agent
signature -
Digital signature of a server supplied random number

Returns:

Credentials

createGeneralAgentKeySignature

```
public static byte[] createGeneralAgentKeySignature(long numberToSign,  
privateKey) java.security.PrivateKey  
throws java.lang.Exception
```

Creates a digital signature for a set of General Agent key based credentials. The supplied number is signed with the supplied private key.

Parameters:

numberToSign -
Number to digitally sign
privateKey -
Private key to sign it with

Returns:

Byte array signature

Exceptions:

Exception -
Error signing the number

getAgentVersion

```
public int getAgentVersion()  
Returns the agent version supplied in the credentials
```

Returns:

Returns the agentVersion.

getAuthType

```
public int getAuthType()  
Returns the constant representing the type of authentication represented by these credentials
```

Returns:

The authentication type constant

getJmxClientAddress

```
public byte[] getJmxClientAddress()
```

For legacy authentication, returns the client's IP address

Returns:

Returns the jmxClientAddress.

getJmxServerAddress

```
public byte[] getJmxServerAddress()
```

For legacy authentication, the IP address of the JMX server

Returns:

Returns the jmxServerAddress.

setUsername

```
public void setUsername(java.lang.String username)
```

getUsername

```
public java.lang.String getUsername()
```

Returns the username, for Master Agent password based credentials

Returns:

The username, for Master Agent password based credentials

getPassword

```
public java.lang.String getPassword()
```

Returns the password, for Master Agent password based credentials

Returns:

The password, for Master Agent password based credentials

getAlias

```
public java.lang.String getAlias()
```

Returns the key alias, for Master Agent key based credentials

Returns:

The key alias, for Master Agent key based credentials

setAlias

```
public void setAlias(java.lang.String alias)
```

getSignature

```
public byte[] getSignature()
```

Returns the digital signature used in Master Agent key based credentials

Returns:

The digital signature used in Master Agent key based credentials

setSignature

```
public void setSignature(byte[] signature)
```

getRandom

```
public long getRandom()
```

For General Agent credentials only, this method returns the random number signed by the Master Agent

Returns:

Random number signed by the Master Agent

equals

```
public boolean equals(java.lang.Object o)
```

See Also:

java.lang.Object#equals(java.lang.Object)

hashCode

```
public int hashCode()
```

See Also:

java.lang.Object#hashCode()

toString

```
public java.lang.String toString()
```

See Also:

java.lang.Object#toString()

com.ibm.retail.si.mgmt.remote

Class RMASecurityException

```

java.lang.Object
  |-- java.lang.Throwable
    |-- java.lang.Exception
      |-- java.lang.RuntimeException
        |-- java.lang.SecurityException
          |-- com.ibm.retail.si.mgmt.remote.RMASecurityException

```

```

public class RMASecurityException

```

```

    extends java.lang.SecurityException

```

Security exception class specific to RMA. We include an error code to facilitate passing error information.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

RMASecurityException()
RMASecurityException(java.lang.String message, java.lang.Throwable message)
RMASecurityException(java.lang.String s)
RMASecurityException(java.lang.String s, int s)
RMASecurityException(java.lang.Throwable cause)

Method Summary

int	getErrorCode()
void	setErrorCode(int errCode)

Methods inherited from : class java.lang.Throwable

fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

RMASecurityException

```
public RMASecurityException()
```

RMASecurityException

```
public RMASecurityException(java.lang.String message,  
                             java.lang.Throwable cause)
```

RMASecurityException

```
public RMASecurityException(java.lang.String s)
```

RMASecurityException

```
public RMASecurityException(java.lang.String s,  
                             int e)
```

RMASecurityException

```
public RMASecurityException(java.lang.Throwable cause)
```

Methods

getErrorCode

```
public int getErrorCode()
```

setErrorCode

```
public void setErrorCode(int errCode)
```

Package

com.ibm.retail.si.mgmt.svc

com.ibm.retail.si.mgmt.svc

Class Version

java.lang.Object

└-com.ibm.retail.si.mgmt.svc.Version

public class **Version**

extends java.lang.Object

Version class for the main RMA library

Field Summary

static java.lang.String	CMVC_RELEASE
static java.lang.String	DESCRIPTION
static java.lang.String	IBM_COPYRIGHT
static java.lang.String	IBM_COPYRIGHT_SHORT
static java.lang.String	MAINT_LEVEL
static java.lang.String	MANUFACTURER
static java.lang.String	PID
static java.lang.String	PRODUCT
static java.lang.String	RC_NUM
static java.lang.String	RELEASE
static java.lang.String	VERSION

Constructor Summary

Version()

Method Summary

static java.lang.String	getDescription() Retrieve a full description for this component, including name and version
----------------------------	------------------------------------------------------------------------------------------------

<code>static java.lang.String</code>	<code>getMaintenanceLevel()</code> Returns the maintenance level or build number for SI Systems Management
<code>static java.lang.String</code>	<code>getMajorVersion()</code> Returns the major version number for SI Systems Management
<code>static java.lang.String</code>	<code>getManufacturer()</code> Retrieve the name of the manufacturer of this component.
<code>static java.lang.String</code>	<code>getMinorVersion()</code> Returns the minor version number for SI Systems Management
<code>static java.lang.String</code>	<code>getProductName()</code> Returns the program information for SI Systems Management
<code>static java.lang.String</code>	<code>getVersion()</code>
<code>static void</code>	<code>main(java.lang.String[] args)</code>

Methods inherited from : class java.lang.Object

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields**PID**

`public static final java.lang.String PID`

IBM_COPYRIGHT

`public static final java.lang.String IBM_COPYRIGHT`

IBM_COPYRIGHT_SHORT

`public static final java.lang.String IBM_COPYRIGHT_SHORT`

MANUFACTURER

`public static final java.lang.String MANUFACTURER`

PRODUCT

`public static final java.lang.String PRODUCT`

DESCRIPTION

```
public static final java.lang.String DESCRIPTION
```

VERSION

```
public static final java.lang.String VERSION
```

RELEASE

```
public static final java.lang.String RELEASE
```

MAINT_LEVEL

```
public static final java.lang.String MAINT_LEVEL
```

CMVC_RELEASE

```
public static final java.lang.String CMVC_RELEASE
```

RC_NUM

```
public static final java.lang.String RC_NUM
```

Constructors

Version

```
public Version()
```

Methods

main

```
public static void main(java.lang.String[] args)
```

getVersion

```
public static java.lang.String getVersion()
```

getMajorVersion

```
public static java.lang.String getMajorVersion()
```

(continued from last page)

Returns the major version number for SI Systems Management

getMinorVersion

```
public static java.lang.String getMinorVersion()
```

Returns the minor version number for SI Systems Management

getMaintenanceLevel

```
public static java.lang.String getMaintenanceLevel()
```

Returns the maintenance level or build number for SI Systems Management

getProductName

```
public static java.lang.String getProductName()
```

Returns the program information for SI Systems Management

Returns:

String

getManufacturer

```
public static java.lang.String getManufacturer()
```

Retrieve the name of the manufacturer of this component.

Returns:

String

getDescription

```
public static java.lang.String getDescription()
```

Retrieve a full description for this component, including name and version

Returns:

String

Package

com.ibm.retail.si.mgmt.swdist

Classes for Software Distribution policy control. The `MgmtSWPolicyMasterMBean` is the primary interface for controlling `SWPolicy`, and for triggering installations on general agents.

com.ibm.retail.si.mgmt.swdist

Class DefaultPolicyClientExecutionHelper

java.lang.Object

└-com.ibm.retail.si.mgmt.swdist.DefaultPolicyClientExecutionHelper

All Implemented interfaces:

PolicyClientExecutionHelper

public class **DefaultPolicyClientExecutionHelper**

extends java.lang.Object

implements PolicyClientExecutionHelper

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

DefaultPolicyClientExecutionHelper()

Method Summary

void	cancelExecution()
void	finalize()
java.lang.String	processExecutionStep(ExecutionStep execStep,ProgressMark execStep)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHTpublic static final java.lang.String **COPYRIGHT**

Constructors

(continued from last page)

DefaultPolicyClientExecutionHelper

```
public DefaultPolicyClientExecutionHelper()
```

Methods

finalize

```
protected void finalize()  
    throws java.lang.Throwable
```

See Also:

java.lang.Object#finalize()

cancelExecution

```
public void cancelExecution()
```

See Also:

com.ibm.retail.si.mgmt.swdist.PolicyClientExecutionHelper#cancelExecution()

processExecutionStep

```
public java.lang.String processExecutionStep(ExecutionStep execStep,  
    ProgressMark progMark)
```

See Also:

com.ibm.retail.si.mgmt.swdist.PolicyClientExecutionHelper#processExecutionStep(com.ibm.retail.si.mgmt.swdist.ExecutionStep, com.ibm.retail.si.mgmt.swdist.ProgressMark)

com.ibm.retail.si.mgmt.swdist

Class DefaultPolicyClientFileHelper

java.lang.Object

└─com.ibm.retail.si.mgmt.swdist.DefaultPolicyClientFileHelper

All Implemented interfaces:

PolicyClientFileHelper

public class **DefaultPolicyClientFileHelper**

extends java.lang.Object

implements PolicyClientFileHelper

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

DefaultPolicyClientFileHelper()

Method Summary

SWPolicyXML	getSWPolicyFromPersistence(ProgressMark progMark)
-------------	---------------------------------------------------

boolean	populateRcFromRcFile(ProgressMark progMark)
---------	---------------------------------------------

void	readFailureLog(ProgressMark marker)
------	-------------------------------------

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHTpublic static final java.lang.String **COPYRIGHT**

Constructors

(continued from last page)

DefaultPolicyClientFileHelper

```
public DefaultPolicyClientFileHelper()
```

Methods

populateRcFromRcFile

```
public boolean populateRcFromRcFile(ProgressMark progMark)
```

See Also:

com.ibm.retail.si.mgmt.swdist.PolicyClientFileHelper#populateRcFromRcFile(com.ibm.retail.si.mgmt.swdist.ProgressMark)

readFailureLog

```
public void readFailureLog(ProgressMark marker)
```

See Also:

com.ibm.retail.si.mgmt.swdist.PolicyClientFileHelper#readFailureLog(com.ibm.retail.si.mgmt.swdist.ProgressMark)

getSWPolicyFromPersistence

```
public SWPolicyXML getSWPolicyFromPersistence(ProgressMark progMark)
```

See Also:

com.ibm.retail.si.mgmt.swdist.PolicyClientFileHelper#getSWPolicyFromPersistence(com.ibm.retail.si.mgmt.swdist.PProgressMark)

com.ibm.retail.si.mgmt.swdist

Class DefaultPolicyInvocationHelper

java.lang.Object

└─com.ibm.retail.si.mgmt.swdist.DefaultPolicyInvocationHelper

All Implemented interfaces:

PolicyInvocationHelper

public class **DefaultPolicyInvocationHelper**

extends java.lang.Object

implements PolicyInvocationHelper

Helper class used by the Master Agent side of software distribution to process and transfer files.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

DefaultPolicyInvocationHelper(JMXAuthKeyStorage authKeyStorage, SWDistMasterNotificationEmitter authKeyStorage)

Method Summary

void	cancelCurrentTransfer()
SWPolicyXML	getSWPolicyFromPersistence(RMAFile policyXmlFile, DeviceSWPolicyRecord policyXmlFile)
void	populateResFilePaths(FileDesc[] resFiles, java.lang.String resFiles, java.lang.String[] resFiles, java.lang.String resFiles, java.lang.String[] resFiles, char resFiles)
void	sendNotifications(java.util.List logMsgs, MgmtDeviceInfo logMsgs, int logMsgs, int logMsgs) Sends a state notification with the supplied information
boolean	transferResourceFilesToClient(MgmtDeviceInfo devInfo, DeviceSWPolicyRecord devInfo, java.lang.String devInfo, java.lang.String devInfo, FileDesc[] devInfo, char devInfo)
boolean	transferSWPolicyXMLFileToClient(MgmtDeviceInfo devInfo, DeviceSWPolicyRecord devInfo, java.lang.String devInfo, java.lang.String devInfo)

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

DefaultPolicyInvocationHelper

```
public DefaultPolicyInvocationHelper(JMXAuthKeyStorage authKeyStorage,  
                                     SWDistMasterNotificationEmitter eventEmitter)
```

Parameters:

authKeyStorage -
Storage object for client authentication keys. Used to make file transfer connections to GA's

Methods

getSWPolicyFromPersistence

```
public SWPolicyXML getSWPolicyFromPersistence(RMAFile policyXmlFile,  
                                              DeviceSWPolicyRecord deviceRecord)
```

See Also:

com.ibm.retail.si.mgmt.swdist.PolicyInvocationHelper#getSWPolicyFromPersistence(com.ibm.retail.si.mgmt.RMAFile, com.ibm.retail.si.mgmt.swdist.DeviceSWPolicyRecord)

sendNotifications

```
public void sendNotifications(java.util.List logMsgs,  
                              MgmtDeviceInfo devInfo,  
                              int policyId,  
                              int policyState)
```

Sends a state notification with the supplied information

Parameters:

logMsgs -
List of SWLogMsginstances
devInfo -
Device information for the agent
policyId -
Policy ID
policyState -
Client device state to be reported

(continued from last page)

cancelCurrentTransfer

```
public void cancelCurrentTransfer()
```

See Also:

com.ibm.retail.si.mgmt.swdist.PolicyInvocationHelper#cancelCurrentTransfer()

transferSWPolicyXMLFileToClient

```
public boolean transferSWPolicyXMLFileToClient(MgmtDeviceInfo devInfo,  
                                               DeviceSWPolicyRecord deviceRecord,  
                                               java.lang.String localPolicyXMLPath,  
                                               java.lang.String remotePolicyXMLPath)
```

See Also:

com.ibm.retail.si.mgmt.swdist.PolicyInvocationHelper#transferSWPolicyXMLFileToClient(MgmtDeviceInfo,
DeviceSWPolicyRecord, String, String)

transferResourceFilesToClient

```
public boolean transferResourceFilesToClient(MgmtDeviceInfo devInfo,  
                                               DeviceSWPolicyRecord deviceRecord,  
                                               java.lang.String localStagingDir,  
                                               java.lang.String remoteStagingDir,  
                                               FileDesc[] resFiles,  
                                               char systemSeparatorChar)
```

See Also:

com.ibm.retail.si.mgmt.swdist.PolicyInvocationHelper#transferResourceFilesToClient(MgmtDeviceInfo,
DeviceSWPolicyRecord, String, String, FileDesc[], char)

populateResFilePaths

```
protected void populateResFilePaths(FileDesc[] resFiles,  
                                       java.lang.String localStagingPath,  
                                       java.lang.String[] localPaths,  
                                       java.lang.String remoteTargetPath,  
                                       java.lang.String[] remotePaths,  
                                       char remoteSeparatorChar)
```

com.ibm.retail.si.mgmt.swdist

Class DefaultPolicyInvocationHelperFactory

java.lang.Object

└--com.ibm.retail.si.mgmt.swdist.DefaultPolicyInvocationHelperFactory

All Implemented interfaces:

PolicyInvocationHelperFactory

public class **DefaultPolicyInvocationHelperFactory**

extends java.lang.Object

implements PolicyInvocationHelperFactory

Factory instance used by the Master Agent

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

DefaultPolicyInvocationHelperFactory(JMXAuthKeyStorage authKeyStorage)

Method Summary

PolicyInvocationHelper	createPolicyInvocationHelper()
void	setNotificationEmitter(SWDistMasterNotificationEmitter emitter)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHTpublic static final java.lang.String **COPYRIGHT**

Constructors

(continued from last page)

DefaultPolicyInvocationHelperFactory

```
public DefaultPolicyInvocationHelperFactory(JMXAuthKeyStorage authKeyStorage)
```

Parameters:

authKeyStorage -
Storage object for client authentication keys. Used to make file transfer connections to GA's

Methods

setNotificationEmitter

```
public void setNotificationEmitter(SWDistMasterNotificationEmitter emitter)
```

See Also:

com.ibm.retail.si.mgmt.swdist.PolicyInvocationHelperFactory#setNotificationEmitter(com.ibm.retail.si.mgmt.swdist.SWDistMasterNotificationEmitter)

createPolicyInvocationHelper

```
public PolicyInvocationHelper createPolicyInvocationHelper()
```

See Also:

com.ibm.retail.si.mgmt.swdist.PolicyInvocationHelperFactory#createPolicyInvocationHelper()

com.ibm.retail.si.mgmt.swdist

Class DefaultProgressMarkStorage

java.lang.Object

└─com.ibm.retail.si.mgmt.swdist.DefaultProgressMarkStorage

All Implemented interfaces:

ProgressMarkStorage

public class **DefaultProgressMarkStorage**

extends java.lang.Object

implements ProgressMarkStorage

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

DefaultProgressMarkStorage(MgmtDeviceInfo devInfo)

Method Summary

RMAFile	getStagingDirectory()
---------	-----------------------

ProgressMark	loadProgressMark()
--------------	--------------------

void	saveProgressMark(ProgressMark progMark)
------	-----------------------------------------

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHTpublic static final java.lang.String **COPYRIGHT**

Constructors

(continued from last page)

DefaultProgressMarkStorage

```
public DefaultProgressMarkStorage(MgmtDeviceInfo devInfo)
```

Methods

getStagingDirectory

```
public RMAFile getStagingDirectory()
```

See Also:

[com.ibm.retail.si.mgmt.swdist.ProgressMarkStorage#getStagingDirectory\(\)](#)

loadProgressMark

```
public ProgressMark loadProgressMark()
```

See Also:

[com.ibm.retail.si.mgmt.swdist.ProgressMarkStorage#loadProgressMark\(\)](#)

saveProgressMark

```
public void saveProgressMark(ProgressMark progMark)
    throws MgmtException
```

See Also:

[com.ibm.retail.si.mgmt.swdist.ProgressMarkStorage#saveProgressMark\(com.ibm.retail.si.mgmt.swdist.ProgressMark\)](#)

com.ibm.retail.si.mgmt.swdist

Class DeviceStateMessage

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.swdist.DeviceStateMessage

```

public class **DeviceStateMessage**

extends java.lang.Object

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

DeviceStateMessage(java.lang.String message)

Method Summary

void	addClientExecMessage(SWLogMsg msg)
void	addStdErrMessage(SWLogMsg msg)
void	addStdOutMessage(SWLogMsg msg)
static DeviceStateMessage	createDeferralMessage(int deviceState, java.lang.String deviceState, int deviceState, int deviceState, int deviceState) Creates a deferral message.
static DeviceStateMessage	createMessage(int deviceState, java.lang.String deviceState, int deviceState, java.lang.String deviceState)
static DeviceStateMessage	createSyncMessage(int deviceState, java.lang.String deviceState, int deviceState, java.lang.String deviceState)
SWLogMsg[]	getClientExecMessages()
int	getDeferralTime()
int	getDeferralType()
java.lang.String	getDeviceId()
java.lang.String	getDeviceState()

int	getDeviceStateInt()
int	getErrorCode() Returns the error code from this message, if one exists
int	getPolicyId()
java.lang.String	getRCVal()
SWLogMsg[]	getStdErrMessages() Standard error messages parsed from the device state message.
SWLogMsg[]	getStdOutMessages()
void	setErrorCode(int errorCode)
java.lang.String	toString()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

DeviceStateMessage

```
public DeviceStateMessage(java.lang.String message)
```

Methods

createSyncMessage

```
public static DeviceStateMessage createSyncMessage(int deviceState,
                                                    java.lang.String deviceId,
                                                    int policyId,
                                                    java.lang.String rcValue)
```

(continued from last page)

createMessage

```
public static DeviceStateMessage createMessage(int deviceState,  
                                               java.lang.String deviceId,  
                                               int policyId,  
                                               java.lang.String rcValue)
```

createDeferralMessage

```
public static DeviceStateMessage createDeferralMessage(int deviceState,  
                                                       java.lang.String deviceId,  
                                                       int policyId,  
                                                       int deferralType,  
                                                       int deferralTime)
```

Creates a deferral message. The supplied deferral time must be supplied but is only used with delta time deferral messages

Parameters:

deviceState -
Device state for the message
deviceId -
Device Id for the message
policyId -
Policy Id for the message
deferralType -
Deferral type, as supplied in MgmtSWPolicyDeferral
deferralTime -
Deferral time that must be supplied but is only used in delta-time deferral messages

Returns:

New DeviceStateMessage instance

getDeviceState

```
public java.lang.String getDeviceState()
```

getDeviceStateInt

```
public int getDeviceStateInt()
```

getDeviceId

```
public java.lang.String getDeviceId()
```

getRCVal

```
public java.lang.String getRCVal()
```

getPolicyId

```
public int getPolicyId()
```

getDeferralType

```
public int getDeferralType()
```

getDeferralTime

```
public int getDeferralTime()
```

getStdErrMessages

```
public SWLogMsg[] getStdErrMessages()
```

Standard error messages parsed from the device state message. Messages from older agents that do not supply timestamps will have the current time as their timestamp

Returns:

SWLogMsg[] of error messages, or an empty array if there are none

addStdErrMessage

```
public void addStdErrMessage(SWLogMsg msg)
```

getStdOutMessages

```
public SWLogMsg[] getStdOutMessages()
```

Returns:

SWLogMsg[] of messages, or an empty array if there are none

addStdOutMessage

```
public void addStdOutMessage(SWLogMsg msg)
```

getClientExecMessages

```
public SWLogMsg[] getClientExecMessages()
```

Returns:

SWLogMsg[] of client execution messages, or an empty array if there are none

addClientExecMessage

```
public void addClientExecMessage(SWLogMsg msg)
```

(continued from last page)

getErrorCode

```
public int getErrorCode()
```

Returns the error code from this message, if one exists

Returns:

The error code, or -1 if one does not exist

setErrorCode

```
public void setErrorCode(int errorCode)
```

Parameters:

errorCode -
New error code value, as defined in SWDClientConst

toString

```
public java.lang.String toString()
```

com.ibm.retail.si.mgmt.swdist

Class DeviceSWPolicyRecord

java.lang.Object

└--com.ibm.retail.si.mgmt.swdist.DeviceSWPolicyRecord

All Implemented interfaces:

XMLFormattable, java.io.Serializable

public class **DeviceSWPolicyRecord**

extends java.lang.Object

implements java.io.Serializable, XMLFormattable

Holds information about the device actioning state of a software policy on particular POS device.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

DeviceSWPolicyRecord(java.lang.String deviceID,int deviceID)
Creates a new device record for a newly activated device

Method Summary

boolean	equals(java.lang.Object o)
SWLogMsg[]	getClientExecMessages()
java.lang.String	getDeviceId()
int	getDeviceState()
java.lang.String	getDeviceStateString()
long	getDevRecUpdateTime()
int	getNumExecStepsCompleted()
int	getNumTransferredResFiles()
SWLogMsg[]	getPolicyExecMessages()
int	getPolicyId()

int	getPolicyResFileDownloadState()
int	getPolicyXMLFileDownloadState()
java.lang.String	getRc()
SWLogMsg[]	getStdErrMessages()
SWLogMsg[]	getStdOutMessages()
int	getTotalNumExecSteps()
int	getTotalNumResFiles()
long	getTotalResFileBytes()
long	getTransferredResFileBytes()
int	hashCode()
java.lang.String	toString()
java.lang.String	toXML(int numberOfTabs, java.lang.String numberOfTabs)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

DeviceSWPolicyRecord

```
public DeviceSWPolicyRecord(java.lang.String deviceID,
                             int policyId)
```

Creates a new device record for a newly activated device

Parameters:

deviceID -
Device Id
policyId -
Policy Id

Methods

toString

```
public java.lang.String toString()
```

toXML

```
public java.lang.String toXML(int numberOfTabs,  
                               java.lang.String namespace)
```

See Also:

```
com.ibm.retail.si.mgmt.util.XMLFormattable#toXML(int, String)
```

equals

```
public boolean equals(java.lang.Object o)
```

hashCode

```
public int hashCode()
```

getDeviceState

```
public int getDeviceState()
```

getDeviceStateString

```
public java.lang.String getDeviceStateString()
```

getDevRecUpdateTime

```
public long getDevRecUpdateTime()
```

getPolicyId

```
public int getPolicyId()
```

getDeviceId

```
public java.lang.String getDeviceId()
```

Returns:

(continued from last page)

device ID of the target device.

getRc

```
public java.lang.String getRc()
```

getPolicyExecMessages

```
public SWLogMsg[] getPolicyExecMessages()
```

getClientExecMessages

```
public SWLogMsg[] getClientExecMessages()
```

getStdOutMessages

```
public SWLogMsg[] getStdOutMessages()
```

getStdErrMessages

```
public SWLogMsg[] getStdErrMessages()
```

getNumExecStepsCompleted

```
public int getNumExecStepsCompleted()
```

Returns:

Returns the numExecStepsCompleted.

getNumTransferredResFiles

```
public int getNumTransferredResFiles()
```

Returns:

Returns the numTransferredResFiles.

getPolicyResFileDownloadState

```
public int getPolicyResFileDownloadState()
```

Returns:

Returns the policyResFileDownloadState.

getPolicyXMLFileDownloadState

```
public int getPolicyXMLFileDownloadState()
```

Returns:

Returns the policyXMLFileDownloadState.

getTotalNumExecSteps

```
public int getTotalNumExecSteps()
```

Returns:

Returns the totalNumExecSteps.

getTotalNumResFiles

```
public int getTotalNumResFiles()
```

Returns:

Returns the totalNumResFiles.

getTotalResFileBytes

```
public long getTotalResFileBytes()
```

Returns:

Returns the totalResFileBytes.

getTransferredResFileBytes

```
public long getTransferredResFileBytes()
```

Returns:

Returns the transferredResFileBytes.

com.ibm.retail.si.mgmt.swdist

Class ExecutionStep

java.lang.Object

└─com.ibm.retail.si.mgmt.swdist.ExecutionStep

All Implemented interfaces:

XMLFormattable

public class **ExecutionStep**

extends java.lang.Object

implements XMLFormattable

ExecutionStep This class represents the information for an install or uninstall execution step in the software policy XML. It contains string attributes for the executable instruction comprising the step, the expected return code for a successful execution of the step, and if the return code must be saved in a file due to the involvement of a system reboot in the step, the name of the file containing the return code.

Field Summary

static java.lang.String	COPYRIGHT
static int	EXEC_CHAR_BUFFER_LIMIT

Constructor Summary

ExecutionStep()

Method Summary

void	appendArgument(java.lang.String argVal)
boolean	equals(java.lang.Object o)
java.lang.String[]	getArguments()
java.lang.String[]	getCommandArray(PropertySource propSource) Returns a String[] with the commands and arguments required for a Runtime.
java.lang.String	getExecType()
java.lang.String	getExecutable()
java.lang.String	getExpectedRC()
java.lang.String	getFailureLog()

java.lang.String	getRcFile()
int	hashCode()
void	setExecType(java.lang.String exType)
void	setExecutable(java.lang.String exec)
void	setExpectedRC(java.lang.String rCode)
void	setFailureLog(java.lang.String failureLog)
void	setRcFile(java.lang.String rCodeFile)
java.lang.String	toString()
java.lang.String	toXML(int numberOfTabs, java.lang.String numberOfTabs)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

EXEC_CHAR_BUFFER_LIMIT

public static final int **EXEC_CHAR_BUFFER_LIMIT**

Constructors

ExecutionStep

public **ExecutionStep**()

Methods

getExecutable

public java.lang.String **getExecutable**()

setExecutable

```
public void setExecutable(java.lang.String exec)
```

setExecType

```
public void setExecType(java.lang.String exType)
```

getExecType

```
public java.lang.String getExecType()
```

Returns:

The execution type, as defined in SWDClientConst

getExpectedRC

```
public java.lang.String getExpectedRC()
```

setExpectedRC

```
public void setExpectedRC(java.lang.String rCode)
```

getRcFile

```
public java.lang.String getRcFile()
```

setRcFile

```
public void setRcFile(java.lang.String rCodeFile)
```

getFailureLog

```
public java.lang.String getFailureLog()
```

setFailureLog

```
public void setFailureLog(java.lang.String failureLog)
```

appendArgument

```
public void appendArgument(java.lang.String argVal)  
    throws java.io.IOException
```

(continued from last page)

getCommandArray

```
public java.lang.String[] getCommandArray(PropertySource propSource)
```

Returns a String[] with the commands and arguments required for a Runtime.exec() call. The command executable will be parsed with a StringTokenizer

Returns:

String[] of commands and arguments, or an empty array if no command has been set

getArguments

```
public java.lang.String[] getArguments()
```

toString

```
public java.lang.String toString()
```

See Also:

java.lang.Object#toString()

toXML

```
public java.lang.String toXML(int numberOfTabs,  
                               java.lang.String namespace)
```

See Also:

com.ibm.retail.si.mgmt.util.XMLFormattable#toXML(int, String)

equals

```
public boolean equals(java.lang.Object o)
```

See Also:

java.lang.Object#equals(java.lang.Object)

hashCode

```
public int hashCode()
```

See Also:

java.lang.Object#hashCode()

com.ibm.retail.si.mgmt.swdist Class **ExtractedFile**

java.lang.Object

└-com.ibm.retail.si.mgmt.swdist.ExtractedFile

All Implemented interfaces:

XMLFormattable

public class **ExtractedFile**
 extends java.lang.Object
 implements XMLFormattable

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

ExtractedFile(java.lang.String relPath)

Method Summary

java.lang.String	getFileName()
RMAFile	getFullLocalPath()
java.lang.String	getRelativeDirPath()
java.lang.String	getRelativePath()
void	setFullLocalPath(RMAFile fullLocalPath)
void	setFullLocalPath(java.lang.String fileName)
java.lang.String	toXML(int numberOfTabs, java.lang.String numberOfTabs)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

ExtractedFile

```
public ExtractedFile(java.lang.String relPath)
```

Methods

getRelativeDirPath

```
public java.lang.String getRelativeDirPath()
```

Returns:

Returns the relativeDirPath.

getFileName

```
public java.lang.String getFileName()
```

Returns:

Returns the fileName.

getRelativePath

```
public java.lang.String getRelativePath()
```

Returns:

Returns the relativePath.

getFullLocalPath

```
public RMAFile getFullLocalPath()
```

Returns:

Returns the fullLocalPath.

setFullLocalPath

```
public void setFullLocalPath(RMAFile fullLocalPath)
```


(continued from last page)

Parameters:

fullLocalPath -
The fullLocalPath to set.

setFullLocalPath

```
public void setFullLocalPath(java.lang.String fileName)
```

Parameters:

fileName -
String representing the full local path

toXML

```
public java.lang.String toXML(int numberOfTabs,  
                               java.lang.String namespace)
```

See Also:

com.ibm.retail.si.mgmt.util.XMLFormattable#toXML(int, java.lang.String)

com.ibm.retail.si.mgmt.swdist

Class FileDesc

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.swdist.FileDesc

```

All Implemented interfaces:

XMLFormattable

public class **FileDesc**

extends java.lang.Object

implements XMLFormattable

FileDesc The `FileDesc` class is a helper class that is used to represent a single software policy resource file. It contains a `String` attribute for the name of the resource file, which may include additional subdirectory information relative to the given FTP server directory path. Another `String` attribute is used to specify the checksum for the file (currently not used), and an `int` attribute is used to specify the size of the transferred resource file (currently not used).

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

FileDesc()

Method Summary

static java.lang.String	escapeXMLCharacters(java.lang.String filename) Escapes characters for XML like the &, etc.
java.lang.String	getResFileChecksum()
java.lang.String	getResFilename()
long	getResFileSize()
void	setResFileChecksum(java.lang.String fileCS)
void	setResFilename(java.lang.String fname)
void	setResFileSize(long fsize)
java.lang.String	toString()
java.lang.String	toXML(int numberOfTabs, java.lang.String numberOfTabs)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields**COPYRIGHT**

public static final java.lang.String **COPYRIGHT**

Constructors**FileDesc**

public **FileDesc**()

Methods**getResFilename**

public java.lang.String **getResFilename**()

setResFilename

public void **setResFilename**(java.lang.String fname)

getResFileChecksum

public java.lang.String **getResFileChecksum**()

setResFileChecksum

public void **setResFileChecksum**(java.lang.String fileCS)

getResFileSize

public long **getResFileSize**()

setResFileSize

public void **setResFileSize**(long fsize)

toString

```
public java.lang.String toString()
```

See Also:

```
java.lang.Object#toString()
```

toXML

```
public java.lang.String toXML(int numberOfTabs,  
                               java.lang.String namespace)
```

See Also:

```
com.ibm.retail.si.mgmt.util.XMLFormattable#toXML(int, String)
```

escapeXMLCharacters

```
protected static java.lang.String escapeXMLCharacters(java.lang.String filename)
```

Escapes characters for XML like the &, etc.

Parameters:

filename -
input filename to fix

Returns:

escaped output

com.ibm.retail.si.mgmt.swdist

Class FTPAccessInfo

java.lang.Object

└-com.ibm.retail.si.mgmt.swdist.FTPAccessInfo

All Implemented interfaces:

XMLFormattable, java.io.Serializable

public class **FTPAccessInfo**

extends java.lang.Object

implements java.io.Serializable, XMLFormattable

FTPAccessInfo The **FTPAccessInfo** class is a helper class that houses the FTP server information for policy files. It contains **String** attributes for the file path on the FTP server, the host name of the FTP server, the user name, and the password that can be used to log into the FTP server, and an **int** value for the FTP port.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

FTPAccessInfo(java.lang.String hostname, int hostname, java.lang.String hostname)	Constructor used for file streaming
FTPAccessInfo(java.lang.String hostname, int hostname, java.lang.String hostname, java.lang.String hostname, java.lang.String hostname, java.lang.String hostname)	Creates a new instance.
FTPAccessInfo()	

Method Summary

boolean	equals(java.lang.Object o)
java.lang.String	getEncPassword()
java.lang.String	getEncUsername()
java.lang.String	getFtpDirectoryPath()
java.lang.String	getFtpHostname()
java.lang.String	getFtpPassword()
int	getFtpPort()

java.lang.String	getFtpUsername()
java.lang.String	getResourceFileFTPPath()
java.lang.String	getXferImplementation()
java.util.Properties	getXferProperties() Creates a Properties object for the supplied file transfer implementation containing all of the information for using that implementation.
int	hashCode()
void	setEncPassword(java.lang.String encPassword)
void	setEncUsername(java.lang.String encUsername)
void	setFtpDirectoryPath(java.lang.String ftpDirPath)
void	setFtpHostname(java.lang.String hostname)
void	setFtpPassword(java.lang.String passwd)
void	setFtpPort(int port)
void	setFtpUsername(java.lang.String username)
void	setResourceFileFTPPath(java.lang.String resourceFilePath)
void	setXferImplementation(java.lang.String xferImplementation)
java.lang.String	toString()
java.lang.String	toXML(int numberOfTabs, java.lang.String numberOfTabs)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Constructors

(continued from last page)

FTPAccessInfo

```
public FTPAccessInfo(java.lang.String hostname,  
                    int port,  
                    java.lang.String xferImpl)
```

Constructor used for file streaming

Parameters:

hostname
port
xferImpl

FTPAccessInfo

```
public FTPAccessInfo(java.lang.String hostname,  
                    int port,  
                    java.lang.String username,  
                    java.lang.String password,  
                    java.lang.String ftpDir,  
                    java.lang.String xferImpl)
```

Creates a new instance.

Parameters:

hostname -
FTP server hostname
port -
FTP Server port
username -
User name plaintext
password -
Password plaintext
ftpDir -
Directory on FTP server with distribution policy

FTPAccessInfo

```
public FTPAccessInfo()
```

Methods

getFtpDirectoryPath

```
public java.lang.String getFtpDirectoryPath()
```

setFtpDirectoryPath

```
public void setFtpDirectoryPath(java.lang.String ftpDirPath)
```

getResourceFileFTPPath

```
public java.lang.String getResourceFileFTPPath()
```

Returns:

(continued from last page)

Returns the directory path on the FTP server where resource files are located

setResourceFileFTPPath

```
public void setResourceFileFTPPath(java.lang.String resourceFilePath)
```

Parameters:

resourceFilePath -
The directory path on the FTP server where resource files are located

getFtpHostname

```
public java.lang.String getFtpHostname()
```

setFtpHostname

```
public void setFtpHostname(java.lang.String hostname)
```

getFtpUsername

```
public java.lang.String getFtpUsername()
```

setFtpUsername

```
public void setFtpUsername(java.lang.String username)
```

Parameters:

username -
The username to set.

getEncUsername

```
public java.lang.String getEncUsername()
```

setEncUsername

```
public void setEncUsername(java.lang.String encUsername)
```

getFtpPassword

```
public java.lang.String getFtpPassword()
```

setFtpPassword

```
public void setFtpPassword(java.lang.String passwd)
```

getEncPassword

```
public java.lang.String getEncPassword()
```

setEncPassword

```
public void setEncPassword(java.lang.String encPassword)
```

getFtpPort

```
public int getFtpPort()
```

setFtpPort

```
public void setFtpPort(int port)
```

getXferImplementation

```
public java.lang.String getXferImplementation()
```

Returns:

Returns the constant for the file transfer implementation to use

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection

setXferImplementation

```
public void setXferImplementation(java.lang.String xferImplementation)
```

Parameters:

xferImplementation -
The implementation constant to set.

getXferProperties

```
public java.util.Properties getXferProperties()
```

Creates a Properties object for the supplied file transfer implementation containing all of the information for using that implementation.

Returns:

A Properties object with the required properties set for use with the FileTransferManager

equals

```
public boolean equals(java.lang.Object o)
```

(continued from last page)

hashCode

```
public int hashCode()
```

toString

```
public java.lang.String toString()
```

toXML

```
public java.lang.String toXML(int numberOfTabs,  
                               java.lang.String namespace)
```

See Also:

[com.ibm.retail.si.mgmt.util.XMLFormattable#toXML\(int, String\)](#)

com.ibm.retail.si.mgmt.swdist

Class MgmtSftComponent

java.lang.Object

└-com.ibm.retail.si.mgmt.swdist.MgmtSftComponent

All Implemented interfaces:

java.io.Serializable

public class **MgmtSftComponent**

extends java.lang.Object

implements java.io.Serializable

Class for defining a single file that is part of a software package, and its defining characteristics. This is a data only class with all public elements.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

MgmtSftComponent(java.lang.String fileName, java.lang.String fileName, long fileName)

Method Summary

boolean	equals(java.lang.Object o) Determines equality based on size, filename, and path name
java.lang.String	getFileName()
java.lang.String	getPathName()
long	getSize()
int	hashCode()
void	setFileName(java.lang.String string)
void	setPathName(java.lang.String string)
void	setSize(long l)
java.lang.String	toString()

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

MgmtSftComponent

```
public MgmtSftComponent(java.lang.String fileName,  
                        java.lang.String pathName,  
                        long size)
```

Methods

toString

```
public java.lang.String toString()
```

equals

```
public boolean equals(java.lang.Object o)  
    Determines equality based on size, filename, and path name
```

See Also:

Object#equals(java.lang.Object)

hashCode

```
public int hashCode()
```

getFileName

```
public java.lang.String getFileName()
```

Returns:

String File name of this component

(continued from last page)

getPathName

```
public java.lang.String getPathName()
```

Returns:

String FTP server path of this component

getSize

```
public long getSize()
```

Returns:

long Size of the file, in bytes

setFileName

```
public void setFileName(java.lang.String string)
```

Parameters:

string

See Also:

#setFileName(String)

setPathName

```
public void setPathName(java.lang.String string)
```

Parameters:

string

See Also:

#setPathName(String)

setSize

```
public void setSize(long l)
```

Parameters:

l

See Also:

#setSize(long)

com.ibm.retail.si.mgmt.swdist

Class MgmtSftPackage

java.lang.Object

└-com.ibm.retail.si.mgmt.swdist.MgmtSftPackage

All Implemented interfaces:

java.io.Serializable

public class **MgmtSftPackage**
 extends java.lang.Object
 implements java.io.Serializable

Holds information about a software package, which is a group of MgmtSftComponents installed as one unit

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

MgmtSftPackage(java.lang.String name)	Creates a package with no components
MgmtSftPackage(java.lang.String name, MgmtSftComponent[] name)	Creates a package with an initial set of components

Method Summary

void	addComponent(MgmtSftComponent component)
boolean	equals(java.lang.Object o) Determines equality based on name, hostPath, clientPath, and each MgmtCftComponent
java.lang.String	getClientPath() Optional installation parameter specifying a path on the client to install
MgmtSftComponent[]	getComponents()
java.lang.String	getHostPath()
java.lang.String	getName()
long	getSize() Returns the total size of all MgmtSftComponent in this package
int	hashCode()

void	setClientPath(java.lang.String clientPath)
void	setHostPath(java.lang.String hostPath)
java.lang.String	toString()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Constructors

MgmtSftPackage

public **MgmtSftPackage**(java.lang.String name)

Creates a package with no components

Parameters:

name -
Name of the package

MgmtSftPackage

public **MgmtSftPackage**(java.lang.String name,
MgmtSftComponent[] comps)

Creates a package with an initial set of components

Parameters:

name -
Name of the package
comps -
Array of MgmtSftComponent

Methods

getName

public java.lang.String **getName**()

addComponent

public void **addComponent**(MgmtSftComponent component)

getComponents

```
public MgmtSftComponent[] getComponents()
```

getClientPath

```
public java.lang.String getClientPath()
```

Optional installation parameter specifying a path on the client to install

Returns:

Client path for installation

getHostPath

```
public java.lang.String getHostPath()
```

Returns:

Path on the FTP server where this package can be located

setClientPath

```
public void setClientPath(java.lang.String clientPath)
```

Parameters:

clientPath -
New local client path

See Also:

#getClientPath()

setHostPath

```
public void setHostPath(java.lang.String hostPath)
```

Parameters:

hostPath -
New FTP server path for this package

See Also:

#getHostPath()

getSize

```
public long getSize()
```

Returns the total size of all MgmtSftComponent in this package

Returns:

(continued from last page)

Sum of all MgmtSftComponent's sizes

toString

```
public java.lang.String toString()
```

equals

```
public boolean equals(java.lang.Object o)
```

Determines equality based on name, hostPath, clientPath, and each MgmtCftComponent

See Also:

[Object#equals\(java.lang.Object\)](#)

hashCode

```
public int hashCode()
```

com.ibm.retail.si.mgmt.swdist

Interface MgmtSWPolicyMasterMBean

public interface **MgmtSWPolicyMasterMBean**

The `MgmtSWPolicyMasterMBean` specifies an interface for controlling the software policy management engine. This MBean also instantiates the other MBeans making up the RMA Software Policy Management Framework.

This MBean receives `MgmtSWDeviceStateNotifications` from devices that have had policies invoked on them.

This MBean receives `MgmtSWActionRequestNotifications` from any device that completes the processing of a software policy with a finalized state of `COMPLETED` or `FAILED`.

See Also:

`com.ibm.retail.si.mgmt.notifications.MgmtSWDeviceStateNotification` ,

`com.ibm.retail.si.mgmt.notifications.MgmtSWActionRequestNotification`

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME</code> ObjectName for this MBean
<code>static java.lang.String</code>	<code>OBJECT_NAME_ID</code>

Method Summary

<code>void</code>	<code>activateSWPolicy(int policyId)</code> Activates the software policy identified by the supplied policy ID.
<code>boolean</code>	<code>deleteDeviceRecord(int policyId, java.lang.String policyId)</code> Deletes the <code>DeviceSWPolicyRecord</code> matching the supplied device ID (if one exists) from the supplied policy's history.
<code>boolean</code>	<code>reinvokeDevice(int policyId, java.lang.String policyId)</code> Attempts to reinvoke the policy on the supplied device by deleting the existing device record for the device, creating a new device record, and scheduling it.
<code>void</code>	<code>terminateSWPolicy(int policyId)</code> Terminates the software policy matching the supplied ID, which sets its context to <code>Inactive</code> .

Fields

COPYRIGHT

`public static final java.lang.String COPYRIGHT`

(continued from last page)

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME

```
public static final java.lang.String OBJECT_NAME  
    ObjectName for this MBean
```

Methods

activateSWPolicy

```
public void activateSWPolicy(int policyId)  
    throws MgmtException
```

Activates the software policy identified by the supplied policy ID.

Parameters:

policyId -
integer ID of the policy to be activated.

terminateSWPolicy

```
public void terminateSWPolicy(int policyId)  
    throws MgmtException
```

Terminates the software policy matching the supplied ID, which sets its context to Inactive. Devices that are in the process of executing the software policy when it is terminated are allowed to complete.

Parameters:

policyId -
ID of the policy to be terminated

deleteDeviceRecord

```
public boolean deleteDeviceRecord(int policyId,  
    java.lang.String deviceId)
```

Deletes the DeviceSWPolicyRecord matching the supplied device ID (if one exists) from the supplied policy's history. If the device record is in the running or staged states, it cannot be deleted, in which case this method will do nothing. Once the device record has been deleted, the device will be invoked the next time that it is discovered or it is manually invoked using the `reinvokeDevice()` method

Parameters:

policyId -
ID of the policy to check
deviceId -
Device ID of the record to delete

Returns:

true
if the record was successfully found and deleted, false otherwise

reinvokeDevice

```
public boolean reinvokeDevice(int policyId,  
    java.lang.String deviceId)
```

(continued from last page)

Attempts to reinvoke the policy on the supplied device by deleting the existing device record for the device, creating a new device record, and scheduling it. A device will only be reinvoked if the current there is a current device record for the policy that is not in the running, staged, or scheduled state. Otherwise, nothing will be done.

Parameters:

`policyId` -
ID of the policy to check
`deviceId` -
Device ID of the record to reinvoke

Returns:

`true`
if the device was successfully reinvoked, `false` otherwise

com.ibm.retail.si.mgmt.swdist

Class OS4690PolicyClientExecutionHelper

java.lang.Object

└-com.ibm.retail.si.mgmt.swdist.OS4690PolicyClientExecutionHelper

All Implemented interfaces:

PolicyClientExecutionHelper

public class **OS4690PolicyClientExecutionHelper**

extends java.lang.Object

implements PolicyClientExecutionHelper

Execution helper class for 4690. Invokes each command using the 4690 RCP (Remote Command Processor).

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

OS4690PolicyClientExecutionHelper()
OS4690PolicyClientExecutionHelper(RMAFile selectionFile,RMAFile selectionFile,RMAFile selectionFile) <p>Constructor for unit-testing</p>

Method Summary

void	cancelExecution()
java.lang.String	clearRcpStatusFile(ProgressMark progMark) <p>This method resets the contents of the RCP status file.</p>
java.lang.String	invokeRcp(ProgressMark progMark)
static void	main(java.lang.String[] args)
java.lang.String	processExecutionStep(ExecutionStep executionStep,ProgressMark executionStep) <p>Invokes the command through RCP.</p>
java.lang.String	readStatusFile(ProgressMark progMark) <p>This method is called after the invocation of RCP completes to read the RCP status file, ADXCSHSF.</p>
java.lang.String	writeCommandToCommandFile(ExecutionStep execStep,ProgressMark execStep) <p>Writes the supplied command to the RMA command file, returning null for success or the error code in the case of error.</p>

java.lang.String	writeSelectionFile(ProgressMark progMark) Writes the RMA command file path to the RCP selection, returning null for success or the error code in the case of error.
java.lang.String	writeSelectionFile(ProgressMark progMark,int progMark,long progMark) Writes the RMA command file path to the RCP selection, returning null for success or the error code in the case of error.

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

OS4690PolicyClientExecutionHelper

```
public OS4690PolicyClientExecutionHelper()
```

OS4690PolicyClientExecutionHelper

```
protected OS4690PolicyClientExecutionHelper(RMAFile selectionFile,
                                             RMAFile commandFile,
                                             RMAFile statusFile)
```

Constructor for unit-testing

Parameters:

selectionFile -
RCP selection file
commandFile -
RCP command file path to use to list commands
statusFile -
RCP status file

Methods

cancelExecution

```
public void cancelExecution()
```

See Also:

com.ibm.retail.si.mgmt.swdist.PolicyClientExecutionHelper#cancelExecution()

processExecutionStep

```
public java.lang.String processExecutionStep(ExecutionStep executionStep,  
                                              ProgressMark progMark)
```

Invokes the command through RCP. RCP works by running the commands in a command file. The name and path of the command file to use is read by RCP from the selection file, C:\ADX_IDT1\ADXCASHCF.DAT. Status from the invocation is written to the RCP status file, C:\ADX_SDT1\ADXCASHSF.DAT. This method works by invoking only one command through RCP, using an RMA command file, and clearing the status file before invocation.

See Also:

com.ibm.retail.si.mgmt.swdist.PolicyClientExecutionHelper#processExecutionStep(com.ibm.retail.si.mgmt.swdist.ExecutionStep, com.ibm.retail.si.mgmt.swdist.ProgressMark)

writeCommandToCommandFile

```
protected java.lang.String writeCommandToCommandFile(ExecutionStep execStep,  
                                                      ProgressMark progMark)
```

Writes the supplied command to the RMA command file, returning null for success or the error code in the case of error. Log messages are written to the supplied ProgressMark.

Parameters:

execStep -
Command to be invoked
progMark -
Progress mark for log

Returns:

null if the command was successfully written to the command file, otherwise the error code

writeSelectionFile

```
protected java.lang.String writeSelectionFile(ProgressMark progMark)
```

Writes the RMA command file path to the RCP selection, returning null for success or the error code in the case of error. Log messages are written to the supplied ProgressMark.

Parameters:

progMark -
Progress mark for log

Returns:

null if the command file path was successfully written to the RCP selection file, otherwise the error code

writeSelectionFile

```
protected java.lang.String writeSelectionFile(ProgressMark progMark,  
                                              int maxFailures,  
                                              long retryPeriod)
```

Writes the RMA command file path to the RCP selection, returning null for success or the error code in the case of error. Log messages are written to the supplied ProgressMark.

Parameters:

progMark -
Progress mark for log
maxFailures -
The maximum number of failures before ending with error
retryPeriod -
The number of milliseconds between retries

(continued from last page)

Returns:

null if the command file path was successfully written to the RCP selection file, otherwise the error code

clearRcpStatusFile

```
protected java.lang.String clearRcpStatusFile(ProgressMark progMark)
```

This method resets the contents of the RCP status file. If it does not exist, it creates it, or clears out the contents in the event that it already exists. This method returns null for success or the error code in the case of error. Log messages are written to the supplied `ProgressMark`.

Parameters:

`progMark` -
Progress mark for log

Returns:

null if the RCP status file was created or reset, otherwise the error code

invokeRcp

```
protected java.lang.String invokeRcp(ProgressMark progMark)
```

readStatusFile

```
public java.lang.String readStatusFile(ProgressMark progMark)
```

This method is called after the invocation of RCP completes to read the RCP status file, ADXCShSF.DAT. The status file contains the final return code for the RCP job as well as any other log information. This method appends each line to the supplied progress mark as a standard out message, and looks for the line with the return code, and returns that value. If there is not line with the return code, or any lines that begin with `PARTIAL` or `FAILURE` to indicate failure, then the String `0` is returned, defaulting to success.

Parameters:

`progMark` -
Progress mark

Returns:

Return code parsed from the status file

main

```
public static void main(java.lang.String[] args)
```


com.ibm.retail.si.mgmt.swdist

Interface PolicyClientExecutionHelper

All Known Implementing Classes:

OS4690PolicyClientExecutionHelper, DefaultPolicyClientExecutionHelper

public interface **PolicyClientExecutionHelper**

Interface implemented by classes that invoke native commands for software distribution.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

void	cancelExecution() If supported, this method cancels the command currently being invoked (if there is one)
java.lang.String	processExecutionStep(ExecutionStep execStep, ProgressMark execStep) Invokes the command from the supplied ExecutionStep, saving progress and log information to the supplied ProgressMark.

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

processExecutionStep

```
public java.lang.String processExecutionStep(ExecutionStep execStep,
                                             ProgressMark progMark)
```

Invokes the command from the supplied ExecutionStep, saving progress and log information to the supplied ProgressMark. The return value for this method is the return code from the command.

Parameters:

- execStep - Command to invoke
- progMark - Progress marker object for status and log information

Returns:

The return code for the command

cancelExecution

```
public void cancelExecution()
```

If supported, this method cancels the command currently being invoked (if there is one)

com.ibm.retail.si.mgmt.swdist

Interface PolicyClientFileHelper

All Known Implementing Classes:

DefaultPolicyClientFileHelper

public interface **PolicyClientFileHelper**

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

SWPolicyXML	getSWPolicyFromPersistence(ProgressMark progMark)
boolean	populateRcFromRcFile(ProgressMark progMark) If a RC File is specified for a policy, this method will read the file and populate the progress mark with the RC
void	readFailureLog(ProgressMark marker) Called after a return code from read a file does not match the expected return code.

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

populateRcFromRcFile

public boolean **populateRcFromRcFile**(ProgressMark progMark)

If a RC File is specified for a policy, this method will read the file and populate the progress mark with the RC

Returns:

boolean *true* if the policy does not have a RC File specified, or if the policy does have a RC File specified and it was successfully read. *false* is returned and a special message is set as the RC if a RC File was specified and it could not be read.

readFailureLog

public void **readFailureLog**(ProgressMark marker)

(continued from last page)

Called after a return code from read a file does not match the expected return code. The failure log file is read and each line is added to the list of standard error messages for the device's log

Parameters:

marker -
Device's progress marker

getSWPolicyFromPersistence

```
public SWPolicyXML getSWPolicyFromPersistence(ProgressMark progMark)
```

com.ibm.retail.si.mgmt.swdist

Interface PolicyInvocationHelper

All Known Implementing Classes:

DefaultPolicyInvocationHelper

public interface PolicyInvocationHelper

Interface implemented by classes that perform the agent specific operations for invoking a software policy. These operations include:

- Parsing the policy XML file on the Master Agent
- Transferring files (policy XML and resource files) to clients

Implementations are responsible for making file transfer connections based on the type of agent.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

void	cancelCurrentTransfer() Cancels the currently running file transfer
SWPolicyXML	getSWPolicyFromPersistence(RMAFile policyXmlFile, DeviceSWPolicyRecord policyXmlFile) Parses the policy XML file from the supplied path TODO - Comment method getSWPolicyFromPersistence
boolean	transferResourceFilesToClient(MgmtDeviceInfo devInfo, DeviceSWPolicyRecord devInfo, java.lang.String devInfo, java.lang.String devInfo, FileDesc[] devInfo, char devInfo) Transfers the supplied resource files to the client
boolean	transferSWPolicyXMLFileToClient(MgmtDeviceInfo devInfo, DeviceSWPolicyRecord devInfo, java.lang.String devInfo, java.lang.String devInfo) Transfers the policy XML file to the client

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

(continued from last page)

getSWPolicyFromPersistence

```
public SWPolicyXML getSWPolicyFromPersistence(RMAFile policyXmlFile,  
                                              DeviceSWPolicyRecord deviceRecord)
```

Parses the policy XML file from the supplied path TODO - Comment method getSWPolicyFromPersistence

Parameters:

policyXmlFile -
Local path to the policy XML file on the MA
deviceRecord -
Device record used for adding log messages to the policy invocation log

Returns:

Data object for the parsed XML file

transferSWPolicyXMLFileToClient

```
public boolean transferSWPolicyXMLFileToClient(MgmtDeviceInfo devInfo,  
                                              DeviceSWPolicyRecord deviceRecord,  
                                              java.lang.String localPolicyXMLPath,  
                                              java.lang.String remotePolicyXMLPath)
```

Transfers the policy XML file to the client

Parameters:

devInfo -
Device information for the client
deviceRecord -
Device record for the client, used for adding log messages to the policy invocation log
localPolicyXMLPath -
Path to the policy XML file on the MA
remotePolicyXMLPath -
Destination path for the policy XML file on the client

Returns:

true if the file was transferred successfully, false otherwise

transferResourceFilesToClient

```
public boolean transferResourceFilesToClient(MgmtDeviceInfo devInfo,  
                                              DeviceSWPolicyRecord deviceRecord,  
                                              java.lang.String localStagingDir,  
                                              java.lang.String remoteStagingDir,  
                                              FileDesc[] resFiles,  
                                              char systemSeparatorChar)
```

Transfers the supplied resource files to the client

Parameters:

devInfo -
Device information for the client
deviceRecord -
Device record for the client, used for adding log messages to the policy invocation log
localStagingDir -
Local MA path for where the resource files are located
remoteStagingDir -
Remote destination path for the files
resFiles -
List of resource file paths from the parsed policy XML
systemSeparatorChar -
Platform separator character for the client, used to build a destination path for each file

Returns:

(continued from last page)

true if no files are to be transferred or all transferred successfully, false otherwise

cancelCurrentTransfer

```
public void cancelCurrentTransfer()
```

 Cancels the currently running file transfer

com.ibm.retail.si.mgmt.swdist

Interface PolicyInvocationHelperFactory

All Known Implementing Classes:

DefaultPolicyInvocationHelperFactory

public interface **PolicyInvocationHelperFactory**

Interface implemented by classes that create `PolicyInvocationHelper` instances for deploying software packages to clients from the Master Agent.

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>PolicyInvocationHelper</code>	<code>createPolicyInvocationHelper()</code> Creates a new invocation helper instance
<code>void</code>	<code>setNotificationEmitter(SWDistMasterNotificationEmitter emitter)</code> Sets the object for sending notifications, to be passed to newly created helper instances

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

createPolicyInvocationHelper

```
public PolicyInvocationHelper createPolicyInvocationHelper()
```

Creates a new invocation helper instance

Returns:

New instance

setNotificationEmitter

```
public void setNotificationEmitter(SWDistMasterNotificationEmitter emitter)
```

Sets the object for sending notifications, to be passed to newly created helper instances

Parameters:

(continued from last page)

emitter -
Notification emitter

com.ibm.retail.si.mgmt.swdist

Class PolicyInvocationRunnable

java.lang.Object

└-com.ibm.retail.si.mgmt.util.RMRunnable

└-com.ibm.retail.si.mgmt.swdist.PolicyInvocationRunnable

public class **PolicyInvocationRunnable**
 extends RMRunnable

Thread class that handles invoking the operations for a software policy on a single client. These operations include transferring files and making the client MBean calls.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class com.ibm.retail.si.mgmt.util.RMRunnable

cancelled, COPYRIGHT, name, wrapTask

Constructor Summary

```
PolicyInvocationRunnable( java.lang.String threadName, SWPolicyMasterEngine
threadName, MgmtSWPolicyMaster threadName, SWPolicy threadName, SWPolicyHistoryImpl
threadName, DeviceSWPolicyRecord threadName, MgmtDeviceInfo threadName, PolicyInvocationHelper
threadName, javax.management.MBeanServerConnection threadName, javax.management.ObjectName
threadName)
```

Creates a new instance

Method Summary

void	cancel()
------	----------

void	run()
------	-------

Methods inherited from : class com.ibm.retail.si.mgmt.util.RMRunnable

cancel, getName, getThreadPriority, isCancelled, run, setThread, setThreadPriority, stop, Stop

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

(continued from last page)

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

PolicyInvocationRunnable

```
public PolicyInvocationRunnable(java.lang.String threadName,
                               SWPolicyMasterEngine masterEngine,
                               MgmtSWPolicyMaster policyMaster,
                               SWPolicy targetPolicy,
                               SWPolicyHistoryImpl historyImpl,
                               DeviceSWPolicyRecord devRec,
                               MgmtDeviceInfo agentDeviceInfo,
                               PolicyInvocationHelper invocationHelper,
                               javax.management.MBeanServerConnection connection,
                               javax.management.ObjectName clientMBeanName)
```

Creates a new instance

Parameters:

threadName -
Name of the thread

masterEngine -
Parent SWPolicyMasterEngine instance

policyMaster -
Parent MgmtSWPolicyMaster instance used to send client notifications

targetPolicy -
Policy being invoked

historyImpl -
History for the policy being invoked

devRec -
Device record for the device being invoked upon

agentDeviceInfo -
Device information for the agent

invocationHelper -
Invocation helper instance for the agent, used to transfer files

connection -
MBeanServerConnection to the client

clientMBeanName -
ObjectName of the MgmtSWPolicyClient MBean on the client

Methods

run

```
public void run()
```

See Also:

[com.ibm.retail.si.mgmt.util.RMARunnable#run\(\)](#)

cancel

```
public void cancel()
```

(continued from last page)

See Also:

`com.ibm.retail.si.mgmt.util.RMARunnable#cancel()`

com.ibm.retail.si.mgmt.swdist

Interface ProgressMarkStorage

All Known Implementing Classes:
DefaultProgressMarkStorage

public interface **ProgressMarkStorage**

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>RMAFile</code>	<code>getStagingDirectory()</code>
<code>ProgressMark</code>	<code>loadProgressMark()</code>
<code>void</code>	<code>saveProgressMark(ProgressMark progMark)</code>

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

loadProgressMark

public ProgressMark **loadProgressMark()**

saveProgressMark

public void **saveProgressMark**(ProgressMark progMark)
throws MgntException

getStagingDirectory

public RMAFile **getStagingDirectory()**

com.ibm.retail.si.mgmt.swdist

Class SWDClientConst

java.lang.Object

└--com.ibm.retail.si.mgmt.swdist.SWDClientConst

public final class **SWDClientConst**

extends java.lang.Object

Field Summary

static java.lang.String	COPYRIGHT
static int	DEFERRAL_TYPE_DELTA Deferral constant for V1.
static java.lang.String	DEFERRAL_TYPE_DELTA_STR
static int	DEFERRAL_TYPE_NONE Deferral constant for V1.
static java.lang.String	DEFERRAL_TYPE_NONE_STR
static int	DEFERRAL_TYPE_SIGNAL Deferral constant for V1.
static java.lang.String	DEFERRAL_TYPE_SIGNAL_STR
static java.lang.String	DEV_STATE_COMPLETED_STR
static java.lang.String	DEV_STATE_DEFERRED_STR
static java.lang.String	DEV_STATE_FAILED_STR
static java.lang.String	DEV_STATE_PENDING_STATE_CHANGE_STR
static java.lang.String	DEV_STATE_RUNNING_STR
static java.lang.String	DEV_STATE_SCHEDULED_STR
static java.lang.String	DEV_STATE_STAGED_STR
static java.lang.String	DEV_STATE_SYNC_COMPLETED_STR
static java.lang.String	DEV_STATE_SYNC_FAILED_STR

static java.lang.String	DEV_STATE_SYNC_RUNNING_STR
static java.lang.String	DEV_STATE_UNKNOWN_STR
static int	DEVSWPOLICYSTATE_COMPLETED
static int	DEVSWPOLICYSTATE_DEFERRED
static int	DEVSWPOLICYSTATE_FAILED
static int	DEVSWPOLICYSTATE_PENDING_STATE_CHANGE
static int	DEVSWPOLICYSTATE_RUNNING
static int	DEVSWPOLICYSTATE_SCHEDULED
static int	DEVSWPOLICYSTATE_STAGED
static int	DEVSWPOLICYSTATE_SYNC_COMPLETED
static int	DEVSWPOLICYSTATE_SYNC_FAILED
static int	DEVSWPOLICYSTATE_SYNC_RUNNING
static int	DEVSWPOLICYSTATE_UNKNOWN
static int	ERROR_CODE_FILE_XFER_CONNECT Error code for when the client cannot reach the file transfer server, usually because the server is not up
static int	ERROR_CODE_FILE_XFER_ERROR
static int	ERROR_CODE_FILE_XFER_LOGIN Error code for when the client cannot authenticate to the file transfer server, usually due to incorrect credentials
static int	ERROR_CODE_MA_SIGNAL
static int	ERROR_CODE_MISSING_POLICY_FTP_INFO Error code for when the client attempts to make a FTP connection and does not have any FTP information.
static int	ERROR_CODE_POLICY_EXEC
static int	ERROR_CODE_POLICY_XML_PARSE
static int	ERROR_CODE_POLICY_XML_READ
static java.lang.String	EXEC_TYPE_NORMAL

static java.lang.String	EXEC_TYPE_REBOOT
static java.lang.String	GEN_OS
static java.lang.String	IBM4690_OS
static java.lang.String	LINUX_OS
static java.lang.String	MS_OS
static java.lang.String	PROP_NAME_CLIENT_TARGET_PATH
static java.lang.String	RESOURCE_BUNDLE
static java.lang.String	STD_ERR
static java.lang.String	STD_OUT
static int	SWP_FILEDNLD_STATE_COMPLETED
static java.lang.String	SWP_FILEDNLD_STATE_COMPLETED_STR
static int	SWP_FILEDNLD_STATE_FAILED
static java.lang.String	SWP_FILEDNLD_STATE_FAILED_STR
static int	SWP_FILEDNLD_STATE_PENDING
static java.lang.String	SWP_FILEDNLD_STATE_PENDING_STR

Constructor Summary

SWDClientConst()

Method Summary

static java.lang.String[]	getOSConstants()
static boolean	isValidDeviceState(int devState)
static boolean	isValidExecType(java.lang.String execType)
static boolean	isValidOSConstant(java.lang.String osConst)

<code>static java.lang.String</code>	<code>mapDeviceTypeToOSConstant(int deviceType)</code> Maps the supplied device type to an OS constant.
<code>static java.lang.String</code>	<code>mapSwpfileDnldState(int swpFileDnldState)</code> <code>mapSwpfileDnldState</code> This is a public static function for mapping the intvalues for file download state to an equivalent Stringvalue.
<code>static java.lang.String</code>	<code>mapSWPolicyDeviceState(int pState)</code> <code>mapSWPolicyDeviceState</code> A static method that returns a Stringvalue representing the supplied software policy device state integer.
<code>static int</code>	<code>unmapSwpfileDnldState(java.lang.String swpFileDnldState)</code> <code>unmapSwpfileDnldState</code> This is a public static function for remapping the Stringvalues for file download state to an equivalent intvalue.
<code>static int</code>	<code>unmapSWPolicyDeviceState(java.lang.String pState)</code> <code>unmapSWPolicyDeviceState</code> A static method that returns an intvalue representing the software policy device state code associated with the supplied String constant.

Methods inherited from : class java.lang.Object

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields**COPYRIGHT**

`public static final java.lang.String COPYRIGHT`

DEVSWPOLICYSTATE_UNKNOWN

`public static final int DEVSWPOLICYSTATE_UNKNOWN`

DEVSWPOLICYSTATE_SCHEDULED

`public static final int DEVSWPOLICYSTATE_SCHEDULED`

DEVSWPOLICYSTATE_STAGED

`public static final int DEVSWPOLICYSTATE_STAGED`

DEVSWPOLICYSTATE_DEFERRED

`public static final int DEVSWPOLICYSTATE_DEFERRED`

(continued from last page)

DEVSWPOLICYSTATE_RUNNING

```
public static final int DEVSWPOLICYSTATE_RUNNING
```

DEVSWPOLICYSTATE_FAILED

```
public static final int DEVSWPOLICYSTATE_FAILED
```

DEVSWPOLICYSTATE_COMPLETED

```
public static final int DEVSWPOLICYSTATE_COMPLETED
```

DEVSWPOLICYSTATE_SYNCFAILED

```
public static final int DEVSWPOLICYSTATE_SYNCFAILED
```

DEVSWPOLICYSTATE_SYNCCOMPLETED

```
public static final int DEVSWPOLICYSTATE_SYNCCOMPLETED
```

DEVSWPOLICYSTATE_SYNCRUNNING

```
public static final int DEVSWPOLICYSTATE_SYNCRUNNING
```

DEVSWPOLICYSTATE_PENDING_STATE_CHANGE

```
public static final int DEVSWPOLICYSTATE_PENDING_STATE_CHANGE
```

DEV_STATE_UNKNOWN_STR

```
public static final java.lang.String DEV_STATE_UNKNOWN_STR
```

DEV_STATE_SCHEDULED_STR

```
public static final java.lang.String DEV_STATE_SCHEDULED_STR
```

DEV_STATE_STAGED_STR

```
public static final java.lang.String DEV_STATE_STAGED_STR
```

DEV_STATE_DEFERRED_STR

```
public static final java.lang.String DEV_STATE_DEFERRED_STR
```

DEV_STATE_PENDING_STATE_CHANGE_STR

```
public static final java.lang.String DEV_STATE_PENDING_STATE_CHANGE_STR
```

DEV_STATE_RUNNING_STR

```
public static final java.lang.String DEV_STATE_RUNNING_STR
```

DEV_STATE_FAILED_STR

```
public static final java.lang.String DEV_STATE_FAILED_STR
```

DEV_STATE_COMPLETED_STR

```
public static final java.lang.String DEV_STATE_COMPLETED_STR
```

DEV_STATE_SYNC_FAILED_STR

```
public static final java.lang.String DEV_STATE_SYNC_FAILED_STR
```

DEV_STATE_SYNC_COMPLETED_STR

```
public static final java.lang.String DEV_STATE_SYNC_COMPLETED_STR
```

DEV_STATE_SYNC_RUNNING_STR

```
public static final java.lang.String DEV_STATE_SYNC_RUNNING_STR
```

EXEC_TYPE_NORMAL

```
public static final java.lang.String EXEC_TYPE_NORMAL
```

EXEC_TYPE_REBOOT

```
public static final java.lang.String EXEC_TYPE_REBOOT
```

SWP_FILEDNLD_STATE_PENDING

```
public static final int SWP_FILEDNLD_STATE_PENDING
```

(continued from last page)

SWP_FILEDNLD_STATE_FAILED

```
public static final int SWP_FILEDNLD_STATE_FAILED
```

SWP_FILEDNLD_STATE_COMPLETED

```
public static final int SWP_FILEDNLD_STATE_COMPLETED
```

SWP_FILEDNLD_STATE_PENDING_STR

```
public static final java.lang.String SWP_FILEDNLD_STATE_PENDING_STR
```

SWP_FILEDNLD_STATE_FAILED_STR

```
public static final java.lang.String SWP_FILEDNLD_STATE_FAILED_STR
```

SWP_FILEDNLD_STATE_COMPLETED_STR

```
public static final java.lang.String SWP_FILEDNLD_STATE_COMPLETED_STR
```

ERROR_CODE_FILE_XFER_CONNECT

```
public static final int ERROR_CODE_FILE_XFER_CONNECT
```

Error code for when the client cannot reach the file transfer server, usually because the server is not up

ERROR_CODE_FILE_XFER_LOGIN

```
public static final int ERROR_CODE_FILE_XFER_LOGIN
```

Error code for when the client cannot authenticate to the file transfer server, usually due to incorrect credentials

ERROR_CODE_FILE_XFER_ERROR

```
public static final int ERROR_CODE_FILE_XFER_ERROR
```

ERROR_CODE_POLICY_XML_PARSE

```
public static final int ERROR_CODE_POLICY_XML_PARSE
```

ERROR_CODE_POLICY_XML_READ

```
public static final int ERROR_CODE_POLICY_XML_READ
```

ERROR_CODE_POLICY_EXEC

```
public static final int ERROR_CODE_POLICY_EXEC
```

ERROR_CODE_MA_SIGNAL

```
public static final int ERROR_CODE_MA_SIGNAL
```

ERROR_CODE_MISSING_POLICY_FTP_INFO

```
public static final int ERROR_CODE_MISSING_POLICY_FTP_INFO
```

Error code for when the client attempts to make a FTP connection and does not have any FTP information. Usually happens when the client executing a policy is ended before a file transfer starts

MS_OS

```
public static final java.lang.String MS_OS
```

LINUX_OS

```
public static final java.lang.String LINUX_OS
```

IBM4690_OS

```
public static final java.lang.String IBM4690_OS
```

GEN_OS

```
public static final java.lang.String GEN_OS
```

DEFERRAL_TYPE_NONE

```
public static final int DEFERRAL_TYPE_NONE
```

Deferral constant for V1. No deferrals will be done. This is the default

DEFERRAL_TYPE_NONE_STR

```
public static final java.lang.String DEFERRAL_TYPE_NONE_STR
```

DEFERRAL_TYPE_DELTA

```
public static final int DEFERRAL_TYPE_DELTA
```

Deferral constant for V1. Deferral type where the Master Agent should wait a specific amount of time before trying execution again

DEFERRAL_TYPE_DELTA_STR

```
public static final java.lang.String DEFERRAL_TYPE_DELTA_STR
```

(continued from last page)

DEFERRAL_TYPE_SIGNAL

```
public static final int DEFERRAL_TYPE_SIGNAL
```

Deferral constant for V1. Deferral type where the client will send a notification when processing can begin

DEFERRAL_TYPE_SIGNAL_STR

```
public static final java.lang.String DEFERRAL_TYPE_SIGNAL_STR
```

STD_OUT

```
public static final java.lang.String STD_OUT
```

STD_ERR

```
public static final java.lang.String STD_ERR
```

PROP_NAME_CLIENT_TARGET_PATH

```
public static final java.lang.String PROP_NAME_CLIENT_TARGET_PATH
```

RESOURCE_BUNDLE

```
public static final java.lang.String RESOURCE_BUNDLE
```

Constructors

SWDClientConst

```
public SWDClientConst()
```

Methods

mapSWPolicyDeviceState

```
public static java.lang.String mapSWPolicyDeviceState(int pState)
```

mapSWPolicyDeviceState A static method that returns a Stringvalue representing the supplied software policy device state integer.

Parameters:

pState -
An intvalue that represents the software policy device state.

Returns:

A Stringvalue that represents the software policy device state.

(continued from last page)

unmapSWPolicyDeviceState

```
public static int unmapSWPolicyDeviceState(java.lang.String pState)
```

unmapSWPolicyDeviceState A static method that returns an intvalue representing the software policy device state code associated with the supplied String constant.

Parameters:

pState -
A Stringconstant value that represents the software policy device state.

Returns:

An intvalue that represents the software policy device state code.

isValidDeviceState

```
public static boolean isValidDeviceState(int devState)
```

isValidExecType

```
public static boolean isValidExecType(java.lang.String execType)
```

getOSConstants

```
public static java.lang.String[] getOSConstants()
```

isValidOSConstant

```
public static boolean isValidOSConstant(java.lang.String osConst)
```

mapDeviceTypeToOSConstant

```
public static java.lang.String mapDeviceTypeToOSConstant(int deviceType)
```

Maps the supplied device type to an OS constant. Any unknown type is mapped to GEN_OS

Parameters:

deviceType -
Device type to map

Returns:

Corresponding OS constant, or GEN_OSif there is no mapping

mapSwpfileDnldState

```
public static java.lang.String mapSwpfileDnldState(int swpFileDnldState)
```

mapSwpfileDnldState This is a public static function for mapping the intvalues for file download state to an equivalent Stringvalue.

Parameters:

swpFileDnldState -
An intvalue representing file download state.

(continued from last page)

Returns:

A Stringvalue representing the file download state.

unmapSwpfileDnldState

```
public static int unmapSwpfileDnldState(java.lang.String swpFileDnldState)
```

unmapSwpfileDnldState This is a public static function for remapping the Stringvalues for file download state to an equivalent intvalue.

Parameters:

swpFileDnldState -
A Stringvalue representing file download state.

Returns:

An intvalue representing the file download state, or -1 if it is not recognized

com.ibm.retail.si.mgmt.swdist

Class SWDCnst

java.lang.Object

└-com.ibm.retail.si.mgmt.swdist.SWDCnst

public final class **SWDCnst**

extends java.lang.Object

Field Summary

static int	CONTEXT_ACTIVE
static java.lang.String	CONTEXT_ACTIVE_STR
static int	CONTEXT_DRAFT
static java.lang.String	CONTEXT_DRAFT_STR
static int	CONTEXT_INACTIVE
static java.lang.String	CONTEXT_INACTIVE_STR
static int	CONTEXT_PAUSE
static java.lang.String	CONTEXT_PAUSE_STR
static java.lang.String	COPYRIGHT
static int	INSTALL
static java.lang.String	REL_CONFIG_DIR The relative directory under the RMA home containing software distribution data
static int	STATE_COMMITTED
static java.lang.String	STATE_COMMITTED_STR
static int	STATE_ESTAB_CLEAN
static java.lang.String	STATE_ESTAB_CLEAN_STR
static int	STATE_ESTAB_ERRS
static java.lang.String	STATE_ESTAB_ERRS_STR

static int	STATE_EXEC_CLEAN
static java.lang.String	STATE_EXEC_CLEAN_STR
static int	STATE_EXEC_ERRS
static java.lang.String	STATE_EXEC_ERRS_STR
static int	STATE_SCHEDULED
static java.lang.String	STATE_SCHEDULED_STR
static int	STATE_UNCOMMITTED
static java.lang.String	STATE_UNCOMMITTED_STR
static int	STATE_UNKNOWN
static java.lang.String	STATE_UNKNOWN_STR
static int	UNINSTALL

Constructor Summary

SWDCConst()

Method Summary

static boolean	isValidContext(int testContext)
static boolean	isValidInstallFlag(int testFlag)
static boolean	isValidPolicyState(int pState)
static java.lang.String	mapPolicyContext(int pContext)
static java.lang.String	mapPolicyState(int pState)
static int	unmapPolicyState(java.lang.String policyState)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

(continued from last page)

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

REL_CONFIG_DIR

```
public static final java.lang.String REL_CONFIG_DIR
```

The relative directory under the RMA home containing software distribution data

STATE_UNKNOWN

```
public static final int STATE_UNKNOWN
```

STATE_UNCOMMITTED

```
public static final int STATE_UNCOMMITTED
```

STATE_COMMITTED

```
public static final int STATE_COMMITTED
```

STATE_SCHEDULED

```
public static final int STATE_SCHEDULED
```

STATE_EXEC_ERRS

```
public static final int STATE_EXEC_ERRS
```

STATE_EXEC_CLEAN

```
public static final int STATE_EXEC_CLEAN
```

STATE_ESTAB_ERRS

```
public static final int STATE_ESTAB_ERRS
```

STATE_ESTAB_CLEAN

```
public static final int STATE_ESTAB_CLEAN
```

(continued from last page)

STATE_UNKNOWN_STR

```
public static final java.lang.String STATE_UNKNOWN_STR
```

STATE_UNCOMMITTED_STR

```
public static final java.lang.String STATE_UNCOMMITTED_STR
```

STATE_COMMITTED_STR

```
public static final java.lang.String STATE_COMMITTED_STR
```

STATE_SCHEDULED_STR

```
public static final java.lang.String STATE_SCHEDULED_STR
```

STATE_EXEC_ERRS_STR

```
public static final java.lang.String STATE_EXEC_ERRS_STR
```

STATE_EXEC_CLEAN_STR

```
public static final java.lang.String STATE_EXEC_CLEAN_STR
```

STATE_ESTAB_ERRS_STR

```
public static final java.lang.String STATE_ESTAB_ERRS_STR
```

STATE_ESTAB_CLEAN_STR

```
public static final java.lang.String STATE_ESTAB_CLEAN_STR
```

CONTEXT_DRAFT

```
public static final int CONTEXT_DRAFT
```

CONTEXT_ACTIVE

```
public static final int CONTEXT_ACTIVE
```

CONTEXT_PAUSE

```
public static final int CONTEXT_PAUSE
```

CONTEXT_INACTIVE

```
public static final int CONTEXT_INACTIVE
```

CONTEXT_DRAFT_STR

```
public static final java.lang.String CONTEXT_DRAFT_STR
```

CONTEXT_ACTIVE_STR

```
public static final java.lang.String CONTEXT_ACTIVE_STR
```

CONTEXT_PAUSE_STR

```
public static final java.lang.String CONTEXT_PAUSE_STR
```

CONTEXT_INACTIVE_STR

```
public static final java.lang.String CONTEXT_INACTIVE_STR
```

INSTALL

```
public static final int INSTALL
```

UNINSTALL

```
public static final int UNINSTALL
```

Constructors

SWDCnst

```
public SWDCnst()
```

Methods

isValidPolicyState

```
public static boolean isValidPolicyState(int pState)
```

mapPolicyState

```
public static java.lang.String mapPolicyState(int pState)
```

(continued from last page)

unmapPolicyState

```
public static int unmapPolicyState(java.lang.String policyState)
```

isValidContext

```
public static boolean isValidContext(int testContext)
```

mapPolicyContext

```
public static java.lang.String mapPolicyContext(int pContext)
```

isValidInstallFlag

```
public static boolean isValidInstallFlag(int testFlag)
```

com.ibm.retail.si.mgmt.swdist

Interface SWDistHistoryMBeanpublic interface **SWDistHistoryMBean****Field Summary**

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME_BASE</code> Base ObjectName for this MBean
<code>static java.lang.String</code>	<code>OBJECT_NAME_ID</code>

Method Summary

<code>SWPolicyHistory[]</code>	<code>getAllActiveDistHistories()</code>
<code>SWPolicyHistory[]</code>	<code>getAllCompletedDistHistories()</code>
<code>SWPolicyHistory[]</code>	<code>getAllPolicyHistories()</code>
<code>SWPolicyHistory</code>	<code>getPolicyHistory(int policyId)</code>

Fields**COPYRIGHT**public static final java.lang.String **COPYRIGHT****OBJECT_NAME_ID**public static final java.lang.String **OBJECT_NAME_ID****OBJECT_NAME_BASE**public static final java.lang.String **OBJECT_NAME_BASE**

Base ObjectName for this MBean

(continued from last page)

OBJECT_NAME

```
public static final java.lang.String OBJECT_NAME
```

Methods**getAllPolicyHistories**

```
public SWPolicyHistory[] getAllPolicyHistories()
```

getAllCompletedDistHistories

```
public SWPolicyHistory[] getAllCompletedDistHistories()
```

getAllActiveDistHistories

```
public SWPolicyHistory[] getAllActiveDistHistories()
```

getPolicyHistory

```
public SWPolicyHistory getPolicyHistory(int policyId)
```


com.ibm.retail.si.mgmt.swdist

Interface SWDistHistoryStorage

```
public interface SWDistHistoryStorage
```

Field Summary

<pre>static java.lang.String</pre>	<pre>COPYRIGHT</pre>
----------------------------------------	----------------------

Method Summary

<pre>SWPolicyHistory[]</pre>	<pre>loadHistories()</pre>
<pre>void</pre>	<pre>saveHistories(SWPolicyHistory[] histories)</pre>

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

loadHistories

```
public SWPolicyHistory[] loadHistories()  
    throws MgmtException
```

saveHistories

```
public void saveHistories(SWPolicyHistory[] histories)  
    throws MgmtException
```

com.ibm.retail.si.mgmt.swdist

Interface SWDistMasterNotificationEmitter

public interface **SWDistMasterNotificationEmitter**

Implemented by classes that emit software distribution notifications on behalf of a client. The notification instances supplied to the `sendStateNotification` method should have the originating device set.

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>void</code>	<code>sendStateNotification(MgmtSWPDeviceStateNotification notification)</code> Sends the supplied notification.
<code>void</code>	<code>sendStateNotification(SWLogMsg[] msgs, MgmtDeviceInfo msgs, int msgs, int msgs)</code> Sends a state notification created with the supplied informaton on behalf of the supplied client

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

sendStateNotification

```
public void sendStateNotification(MgmtSWPDeviceStateNotification notification)
```

Sends the supplied notification. The originating device should already be set on the notification.

Parameters:

`notification` -
Notification to send

sendStateNotification

```
public void sendStateNotification(SWLogMsg[] msgs,  
                                   MgmtDeviceInfo devInfo,  
                                   int policyId,  
                                   int policyState)
```

Sends a state notification created with the supplied informaton on behalf of the supplied client

Parameters:

(continued from last page)

msgs -
Log messages to include
devInfo -
Device info for the agent
policyId -
SW Policy ID
policyState -
Client invocation state to report for the client

com.ibm.retail.si.mgmt.swdist

Interface SWDistPolicyRegistryMBeanpublic interface **SWDistPolicyRegistryMBean****Field Summary**

static java.lang.String	COPYRIGHT
static java.lang.String	OBJECT_NAME
static java.lang.String	OBJECT_NAME_BASE Base ObjectName for this MBean
static java.lang.String	OBJECT_NAME_ID

Method Summary

boolean	addSWPolicy(SWPolicy policy)
SWPolicy	copySWPolicy(int policyId, java.lang.String policyId) Copies the policy matching the supplied policy ID
SWPolicy	copySWPolicy(SWPolicy sourcePolicy, java.lang.String sourcePolicy)
SWPolicy[]	getAllActiveSWPolicies()
SWPolicy[]	getAllCompletedSWPolicies()
SWPolicy[]	getAllDraftSWPolicies()
SWPolicy[]	getAllSWPolicies()
SWPolicy	getSWPolicy(int policyId)
boolean	removeSWPolicy(SWPolicy policy)
boolean	removeSWPolicyById(int policyId)
boolean	updateSWPolicy(SWPolicy policy)

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME_BASE

```
public static final java.lang.String OBJECT_NAME_BASE  
    Base ObjectName for this MBean
```

OBJECT_NAME

```
public static final java.lang.String OBJECT_NAME
```

Methods

addSWPolicy

```
public boolean addSWPolicy(SWPolicy policy)
```

copySWPolicy

```
public SWPolicy copySWPolicy(SWPolicy sourcePolicy,  
                             java.lang.String newDescription)
```

copySWPolicy

```
public SWPolicy copySWPolicy(int policyId,  
                             java.lang.String newDescription)
```

Copies the policy matching the supplied policy ID

Parameters:

`policyId` -
Source policy to copy
`newDescription` -
New description for the copy

Returns:

A copy of the supplied policy, having the supplied description

Exceptions:

`IllegalArgumentException` -
The policy matching the supplied ID cannot be found

(continued from last page)

removeSWPolicy

```
public boolean removeSWPolicy(SWPolicy policy)
```

removeSWPolicyById

```
public boolean removeSWPolicyById(int policyId)
```

getSWPolicy

```
public SWPolicy getSWPolicy(int policyId)
```

updateSWPolicy

```
public boolean updateSWPolicy(SWPolicy policy)
```

getAllActiveSWPolicies

```
public SWPolicy[] getAllActiveSWPolicies()
```

getAllSWPolicies

```
public SWPolicy[] getAllSWPolicies()
```

getAllDraftSWPolicies

```
public SWPolicy[] getAllDraftSWPolicies()
```

getAllCompletedSWPolicies

```
public SWPolicy[] getAllCompletedSWPolicies()
```

com.ibm.retail.si.mgmt.swdist

Interface SWDistPolicyRegistryStorage

public interface **SWDistPolicyRegistryStorage**

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>SWPolicy[]</code>	<code>loadPolicies()</code>
<code>void</code>	<code>savePolicies(SWPolicy[] policies)</code>

Fields

COPYRIGHT

`public static final java.lang.String COPYRIGHT`

Methods

loadPolicies

`public SWPolicy[] loadPolicies()
throws MgmtException`

savePolicies

`public void savePolicies(SWPolicy[] policies)
throws MgmtException`

com.ibm.retail.si.mgmt.swdist

Class SWDUtils

java.lang.Object

└--com.ibm.retail.si.mgmt.swdist.SWDUtils

```
public class SWDUtils
extends java.lang.Object
```

Field Summary

<pre>static java.lang.String</pre>	COPYRIGHT
------------------------------------	-----------

Constructor Summary

SWDUtils()

Method Summary

<pre>static void</pre>	deleteDirTree(RMAFile root)
<pre>static int</pre>	<pre>extractJar(java.lang.String pkgJar, RMAFile pkgJar, java.util.List pkgJar)</pre> <p>Extracts the supplied jar file name to the destination directory, filling the supplied List with ExtractedFileobjects for each extracted file.</p>

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields**COPYRIGHT**

```
public static final java.lang.String COPYRIGHT
```

Constructors**SWDUtils**

```
public SWDUtils()
```


(continued from last page)

Methods

extractJar

```
public static int extractJar(java.lang.String pkgJar,  
                             RMAFile destDir,  
                             java.util.List jarFileList)
```

Extracts the supplied jar file name to the destination directory, filling the supplied List with `ExtractedFile` objects for each extracted file. Returns -1 if there was an error. A File object is added to the supplied list as each file is extracted, so if an error occurs after a number of files have been extracted, the list will be partially filled and -1 will be returned. The caller should test the return code for -1 and possibly clean

Parameters:

`pkgJar` -
Full path to the jar/zip file
`destDir` -
RMAFile object pointing to destination directory
`jarFileList` -
List to put `ExtractedFile` describing each extracted file

Returns:

-1 if there was an error extracting files, 0 otherwise

Exceptions:

`IllegalArgumentException` -
Null list

deleteDirTree

```
public static void deleteDirTree(RMAFile root)
```

com.ibm.retail.si.mgmt.swdist

Interface SWLogMsg

public interface SWLogMsg

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

java.lang.String	getMessage() Deprecated. <i>Should use <code>getMessageKey()</code> and <code>getMessageParams()</code> instead, with an empty message key, and the message being in the first element of the message parameters</i>
java.lang.String	getMessageKey() Returns the resource bundle message key.
java.lang.String[]	getMessageParams()
java.lang.String	getResourceBundle() The resource bundle name for the message
long	getTimeStamp()

Fields**COPYRIGHT**public static final java.lang.String **COPYRIGHT****Methods****getTimeStamp**public long **getTimeStamp()****Returns:**

Timestamp of the message, in milliseconds

(continued from last page)

getMessage

```
public java.lang.String getMessage()
```

Deprecated. *Should use `getMsgKey()` and `getMsgParams()` instead, with an empty message key, and the message being in the first element of the message parameters*

Returns:

Log message text

getResourceBundle

```
public java.lang.String getResourceBundle()
```

The resource bundle name for the message

Returns:

The resource bundle name for the message

getMsgKey

```
public java.lang.String getMsgKey()
```

Returns the resource bundle message key. For older implementations, the key will be an empty String, with the log message being the first message parameter

Returns:

Returns the resource bundle message key

getMsgParms

```
public java.lang.String[] getMsgParms()
```

Returns:

The message parameters as used in text substitution, or an empty array if there none

com.ibm.retail.si.mgmt.swdist

Class SWPolicy

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.swdist.SWPolicy

```

All Implemented interfaces:

XMLFormattable, java.io.Serializable

public class **SWPolicy**

extends java.lang.Object

implements java.io.Serializable, XMLFormattable

SWPolicy The software policy class.

Field Summary

static java.lang.String	COPYRIGHT
static int	DEFAULT_MAX_FTP_FAILURES

Constructor Summary

SWPolicy() constructor that can be used to return the default values for a software policy.
SWPolicy(java.lang.String descriptor, long descriptor, FTPAccessInfo descriptor, java.lang.String descriptor, int descriptor, java.lang.String descriptor) Constructor for a new instance

Method Summary

void	addAppliedDevice(java.lang.String deviceId)
void	addAppliedDeviceType(int deviceType, java.lang.String deviceType, java.lang.String deviceType)
void	disableThrottle() Disables throttling by setting the throttle count to 0
void	enableThrottle(int throttleCount, int throttleCount) Enables throttling with the supplied values
boolean	equals(java.lang.Object o) Determines equality based on all fields and each MgmtSftComponent
java.lang.String	getClientTargetPath()

int	getContext() Get an intenumerator representing the context value of the Software Policy.
FTPAccessInfo	getFtpInfo()
int	getInstallOrUninstall() Get the install action of the Software Policy, as defined in SWDConst
int	getMaxClientFtpFailures() Returns the maximum number of times a client will try to transfer policy files
PolicyApplicationList	getPolicyApplicationList()
java.lang.String	getPolicyDescriptor() This function returns the text descriptor for the software policy.
int	getPolicyID() Gets the value of the unique sequence identifier for the Software Policy.
long	getPolicyScheduledTimeStamp() Get the time the policy is scheduled to be executed on store network devices in terms of information contained in a Dateobject.
java.lang.String	getPolicyType()
java.lang.String	getPolicyXMLFileName()
int	getRecoverableErrorLimit()
int	getRecoverableErrorRetryInterval()
int	getTargetSystemState()
int	getThrottleCount() Returns the throttle count for the policy, which is the maximum number of devices that can be running a policy at one time.
int	getThrottleTimeout() Returns the throttle timeout for the policy, which is the number of minutes of inactivity for a device that will cause another device to be invoked
int	hashCode()
void	removeAppliedDevice(java.lang.String deviceId)
void	removeAppliedDeviceType(int deviceType, java.lang.String deviceType, java.lang.String deviceType)
void	setClientTargetPath(java.lang.String targetPath)
void	setContext(int swPolicyContext) Set the context value of the Software Policy.

void	setInstallOrUninstall(int installUninstall) Set the Software Policy action to be an install (true) or uninstall (false).
void	setMaxClientFtpFailures(int maxClientFtpFailures)
void	setPolicyDescriptor(java.lang.String descriptor) This function sets the text descriptor for the software policy.
void	setPolicyFTPInfo(FTPAccessInfo ftpInfo)
void	setPolicyScheduledTimeStamp(long date) Set the time the policy is scheduled to be executed on store network devices.
void	setPolicyType(java.lang.String policyType) Set the policy type, creating a new PolicyApplicationList
void	setPolicyXMLFileName(java.lang.String xmlFileName)
void	setRecoverableErrorLimit(int limit)
void	setRecoverableErrorRetryInterval(int limit)
void	setTargetSystemState(int targetSystemState)
java.lang.String	toString()
java.lang.String	toXML(int numberOfTabs, java.lang.String numberOfTabs)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

DEFAULT_MAX_FTP_FAILURES

public static final int **DEFAULT_MAX_FTP_FAILURES**

Constructors

(continued from last page)

SWPolicy

```
public SWPolicy()
```

constructor that can be used to return the default values for a software policy.

SWPolicy

```
public SWPolicy(java.lang.String descriptor,  
                long scheduledTime,  
                FTPAccessInfo ftpInfo,  
                java.lang.String policyXMLFileName,  
                int installUninstall,  
                java.lang.String policyType)
```

Constructor for a new instance

Parameters:

descriptor -
Description for the policy
scheduledTime -
Time when the policy should execute
ftpInfo -
FTP Access information
policyXMLFileName -
Name of the policy XML file
installUninstall -
Install/Uninstall flag, as defined in SWDConst
policyType -
Policy type, as defined in PolicyApplication

Methods

getPolicyID

```
public int getPolicyID()
```

Gets the value of the unique sequence identifier for the Software Policy.

Returns:

An int describing the policy Identifier.

getPolicyDescriptor

```
public java.lang.String getPolicyDescriptor()
```

This function returns the text descriptor for the software policy.

Returns:

A String object describing the software policy.

setPolicyDescriptor

```
public void setPolicyDescriptor(java.lang.String descriptor)
```

This function sets the text descriptor for the software policy.

Parameters:

descriptor -
A String value that represents a text description of the software policy.

getPolicyScheduledTimeStamp

```
public long getPolicyScheduledTimeStamp()
```

Get the time the policy is scheduled to be executed on store network devices in terms of information contained in a Dateobject.

Returns:

A longvalue containing the day and time the Software Policy is to be executed by devices on the store network.

setPolicyScheduledTimeStamp

```
public void setPolicyScheduledTimeStamp(long date)
```

Set the time the policy is scheduled to be executed on store network devices.

Parameters:

date -

A longvalue containing the day and time the Software Policy is to be activated

getPolicyType

```
public java.lang.String getPolicyType()
```

Returns:

The policy type, as defined in PolicyApplication

setPolicyType

```
public void setPolicyType(java.lang.String policyType)
```

Set the policy type, creating a new PolicyApplicationList

Parameters:

policyType -

Policy type, as defined in PolicyApplication

getPolicyApplicationList

```
public PolicyApplicationList getPolicyApplicationList()
```

addAppliedDevice

```
public void addAppliedDevice(java.lang.String deviceId)
```

removeAppliedDevice

```
public void removeAppliedDevice(java.lang.String deviceId)
```

(continued from last page)

addAppliedDeviceType

```
public void addAppliedDeviceType(int deviceType,  
                                 java.lang.String role,  
                                 java.lang.String modelNumber)
```

removeAppliedDeviceType

```
public void removeAppliedDeviceType(int deviceType,  
                                     java.lang.String role,  
                                     java.lang.String modelNumber)
```

getContext

```
public int getContext()
```

Get an intenumerator representing the context value of the Software Policy.

Returns:

An intdescribing the Software Policy context.

setContext

```
public void setContext(int swPolicyContext)
```

Set the context value of the Software Policy.

Parameters:

swPolicyContext -
An intenumerator describing the Software Policy context.

getFtpInfo

```
public FTPAccessInfo getFtpInfo()
```

Returns:

A FTPAccessInfoobject containing the FTP Server information

setPolicyFTPInfo

```
public void setPolicyFTPInfo(FTPAccessInfo ftpInfo)
```

Parameters:

ftpInfo -
A FTPAccessInfoobject containing the FTP Server information

getPolicyXMLFileName

```
public java.lang.String getPolicyXMLFileName()
```

Returns:

(continued from last page)

The name of this policy's XML file name

setPolicyXMLFileName

```
public void setPolicyXMLFileName(java.lang.String xmlFileName)
```

Parameters:

xmlFileName -
The new policy XML file name

getInstallOrUninstall

```
public int getInstallOrUninstall()
```

Get the install action of the Software Policy, as defined in SWDConst

Returns:

A int that when true, indicates that the install portion of the Software Policy is to be executed, and when false, indicates that the uninstall portion of the Software Policy is to be executed.

See Also:

com.ibm.retail.si.mgmt.swdist.SWDConst

setInstallOrUninstall

```
public void setInstallOrUninstall(int installUninstall)
```

Set the Software Policy action to be an install (true) or uninstall (false). The constants are defined in SWDConst

Parameters:

installUninstall -
A boolean that when true, indicates that the install portion of the Software Policy is to be executed, and when false, indicates that the uninstall portion of the Software Policy is to be executed.

See Also:

com.ibm.retail.si.mgmt.swdist.SWDConst

getMaxClientFtpFailures

```
public int getMaxClientFtpFailures()
```

Returns the maximum number of times a client will try to transfer policy files

Returns:

Returns the maxClientFtpFailures.

setMaxClientFtpFailures

```
public void setMaxClientFtpFailures(int maxClientFtpFailures)
```

Parameters:

maxClientFtpFailures -
The maxClientFtpFailures to set.

getThrottleCount

```
public int getThrottleCount()
```

Returns the throttle count for the policy, which is the maximum number of devices that can be running a policy at one time. A value of 0 means throttling is disabled

Returns:

The throttle count

getThrottleTimeout

```
public int getThrottleTimeout()
```

Returns the throttle timeout for the policy, which is the number of minutes of inactivity for a device that will cause another device to be invoked

Returns:

The throttle timeout, in minutes

enableThrottle

```
public void enableThrottle(int throttleCount,  
                           int throttleTimeout)
```

Enables throttling with the supplied values

Parameters:

throttleCount -
The throttle count, which must be ≥ 1
throttleTimeout -
The throttle timeout, which must be ≥ 1

disableThrottle

```
public void disableThrottle()
```

Disables throttling by setting the throttle count to 0

setRecoverableErrorLimit

```
public void setRecoverableErrorLimit(int limit)
```

Parameters:

limit -
New recoverable error limit, must be ≥ 0

getRecoverableErrorLimit

```
public int getRecoverableErrorLimit()
```

Returns:

The maximum number of recoverable errors that can occur

(continued from last page)

setRecoverableErrorRetryInterval

```
public void setRecoverableErrorRetryInterval(int limit)
```

Parameters:

limit -
New retry interval, must be >= 1

getRecoverableErrorRetryInterval

```
public int getRecoverableErrorRetryInterval()
```

Returns:

The number of minutes between retries after a recoverable error occurs

getClientTargetPath

```
public java.lang.String getClientTargetPath()
```

Returns:

Returns the path on the client where the policy resource files should be downloaded

setClientTargetPath

```
public void setClientTargetPath(java.lang.String targetPath)
```

Parameters:

targetPath -
The path on the client where the policy resource files should be downloaded

getTargetSystemState

```
public int getTargetSystemState()
```

Returns:

Returns the system state that will be requested when the policy is applied on the client

setTargetSystemState

```
public void setTargetSystemState(int targetSystemState)
```

Parameters:

targetSystemState -
The targetSystemState to set.

toString

```
public java.lang.String toString()
```

(continued from last page)

toXML

```
public java.lang.String toXML(int numberOfTabs,  
                               java.lang.String namespace)
```

See Also:

`com.ibm.retail.si.mgmt.util.XMLFormattable#toXML(int, String)`

equals

```
public boolean equals(java.lang.Object o)  
    Determines equality based on all fields and each MgmtSftComponent
```

See Also:

`Object#equals(java.lang.Object)`

hashCode

```
public int hashCode()
```

com.ibm.retail.si.mgmt.swdist

Interface SWPolicyHistory

public interface SWPolicyHistory

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

DeviceSWPolicyRecord	getDeviceRecord(java.lang.String deviceId)
DeviceSWPolicyRecord[]	getDeviceRecords()
long	getLastUpdate()
int	getPolicyId()
int	getPolicyState()

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

getPolicyId

public int **getPolicyId()**

getPolicyState

public int **getPolicyState()**

getLastUpdate

public long **getLastUpdate()**

getDeviceRecords

```
public DeviceSWPolicyRecord[] getDeviceRecords()
```

getDeviceRecord

```
public DeviceSWPolicyRecord getDeviceRecord(java.lang.String deviceId)
```

com.ibm.retail.si.mgmt.swdist

Interface SWPolicyNotificationEmitter

public interface SWPolicyNotificationEmitter

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

void	sendDeviceStateNotification(ProgressMark progMark,boolean progMark) Sends a MgmtSWPDeviceStateNotificationbased on the information in the supplied ProgressMark
------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

sendDeviceStateNotification

public void **sendDeviceStateNotification**(ProgressMark progMark,
boolean clearLogs)

Sends a MgmtSWPDeviceStateNotificationbased on the information in the supplied ProgressMark

Parameters:

- progMark - ProgressMark containing the execution state
- clearLogs - If true, the progress mark's logs will be cleared after sending the notification

com.ibm.retail.si.mgmt.swdist

Class SWPolicyTarget

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.swdist.SWPolicyTarget

```

All Implemented interfaces:

XMLFormattable

public abstract class **SWPolicyTarget**

extends java.lang.Object

implements XMLFormattable

Abstract class for all SWPolicyTarget instances. A SWPolicyTarget corresponds to the set of resource files and commands for a particular platform.

Field Summary

static java.lang.String	COPYRIGHT
java.util.List	resourceFiles
java.lang.String	targetOS
long	totalResFileBytes

Constructor Summary

SWPolicyTarget(java.lang.String os)

Method Summary

void	addResFile(FileDesc fDescription) Adds the supplied resource file description.
int	getNumberResourceFiles() Returns the number of resource file descriptions in this target
FileDesc[]	getResourceFiles() Returns the list of resource file descriptions for this target
java.lang.String	getTargetOS() Returns the operating system constant for this target, as defined in SWDClientConst.
long	getTotalResFileBytes() Deprecated. The size is an optional attribute for file descriptions, so this information can't be guaranteed to be accurate

void	<pre>setTargetOS(java.lang.String targetOS)</pre> <p>Sets the operating system constant for this target, as defined in SWDClientConst.</p>
java.lang.String	<pre>toString()</pre>

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

targetOS

protected java.lang.String **targetOS**

resourceFiles

protected java.util.List **resourceFiles**

totalResFileBytes

protected long **totalResFileBytes**

Constructors

SWPolicyTarget

public **SWPolicyTarget**(java.lang.String os)

Methods

getTargetOS

public java.lang.String **getTargetOS**()

Returns the operating system constant for this target, as defined in SWDClientConst.

Returns:

The operating system constant

setTargetOS

```
public void setTargetOS(java.lang.String targetOS)
```

Sets the operating system constant for this target, as defined in SWDClientConst.

Parameters:

targetOS -
New operating system constant

getResourceFiles

```
public FileDesc[] getResourceFiles()
```

Returns the list of resource file descriptions for this target

Returns:

All resource file descriptions, or an empty array if there are none

addResFile

```
public void addResFile(FileDesc fDescription)
```

Adds the supplied resource file description. If already in the list, then it will not be added again

Parameters:

fDescription -
Resource file description to add

getNumberResourceFiles

```
public int getNumberResourceFiles()
```

Returns the number of resource file descriptions in this target

Returns:

The number of resource file descriptions in this target

getTotalResFileBytes

```
public long getTotalResFileBytes()
```

Deprecated. *The size is an optional attribute for file descriptions, so this information can't be guaranteed to be accurate*

Returns the total size of all resource files.

Returns:

The total size of all resource files, if defined in the resource file descriptions

toString

```
public java.lang.String toString()
```

See Also:

java.lang.Object#toString()

com.ibm.retail.si.mgmt.swdist

Interface SystemStateChangeListener

All Known Implementing Classes:

SystemStateManager

public interface SystemStateChangeListener

Interface implemented by classes that receive callbacks from . An instance implementing this interface is supplied to a `SystemStateHandler` when making a state change request. The `SystemStateHandler` uses the instance to asynchronously call back if and only if the request was deferred.

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>void</code>	<code>systemStateChangeOccurred(int newState, int newState, java.lang.String newState)</code> Callback method for deferred state change requests
-------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------

Fields

COPYRIGHT

`public static final java.lang.String COPYRIGHT`

Methods

systemStateChangeOccurred

```
public void systemStateChangeOccurred(int newState,
                                       int rc,
                                       java.lang.String errorMessage)
```

Callback method for deferred state change requests

Parameters:

`newState` -
State that was requested
`rc` -
Return code from the state change (Should be either `STATE_CHANGE_YES` or `STATE_CHANGE_NO`)
`errorMessage` -
If a no or an error occurred, an error message for logging and reporting

See Also:

`com.ibm.retail.si.mgmt.swdist.SystemStateHandler`

com.ibm.retail.si.mgmt.swdist

Interface SystemStateHandler

public interface **SystemStateHandler**

Interface implemented by classes that handle state change requests, which usually involves a set of actions.

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
<code>static int</code>	<code>STATE_CHANGE_DEFER</code>
<code>static int</code>	<code>STATE_CHANGE_NO</code>
<code>static int</code>	<code>STATE_CHANGE_YES</code>

Method Summary

<code>int</code>	<code>requestStateChange(int state, SystemStateChangeListener state)</code> State change requests made with the <code>requestStateChange</code> method should return immediately, and return one of three values, a YES, NO, or DEFER.
------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Fields

COPYRIGHT

`public static final java.lang.String COPYRIGHT`

STATE_CHANGE_YES

`public static final int STATE_CHANGE_YES`

STATE_CHANGE_NO

`public static final int STATE_CHANGE_NO`

STATE_CHANGE_DEFER

`public static final int STATE_CHANGE_DEFER`

Methods

(continued from last page)

requestStateChange

```
public int requestStateChange(int state,  
                               SystemStateChangeListener deferralListener)
```

State change requests made with the `requestStateChange` method should return immediately, and return one of three values, a YES, NO, or DEFER. DEFER should be returned if the state change process is non-trivial will take a period of time. In this case, the state change should be performed in a separate thread and a call back made to the supplied `SystemStateChangeListener`, indicating success or failure.

Parameters:

`state` -
State to change to
`deferralListener` -
Callback object for deferrals

Returns:

One of the return codes supplied in this interface, which should be returned immediately

com.ibm.retail.si.mgmt.swdist

Class SystemStateManager

java.lang.Object

```

  |
  |-- javax.management.NotificationBroadcasterSupport
  |
  |-- com.ibm.retail.si.mgmt.swdist.SystemStateManager

```

All Implemented interfaces:

javax.management.MBeanRegistration, SystemStateChangeListener, SystemStateManagerMBean, javax.management.NotificationEmitter

public class **SystemStateManager**

extends javax.management.NotificationBroadcasterSupport

implements javax.management.NotificationEmitter, SystemStateManagerMBean, SystemStateChangeListener, javax.management.MBeanRegistration

Field Summary

static java.lang.String	COPYRIGHT
static int	STATE_DATA_MAINT
static java.lang.String	STATE_DATA_MAINT_STR
static int	STATE_DIAGS
static java.lang.String	STATE_DIAGS_STR
static int	STATE_DRIVER_UPDATE
static java.lang.String	STATE_DRIVER_UPDATE_STR
static int	STATE_NOOP
static java.lang.String	STATE_NOOP_STR
static int	STATE_NORMAL
static java.lang.String	STATE_NORMAL_STR
static int	STATE_OS_UPDATE
static java.lang.String	STATE_OS_UPDATE_STR
static int	STATE_SW_MAINT

static java.lang.String	STATE_SW_MAINT_STR
static int	STATE_UNKNOWN
static java.lang.String	STATE_UNKNOWN_STR

Method Summary

int	changeState(int newState)
int	getCurrentState()
java.lang.String	getCurrentStateDescription()
static SystemStateManager	getInstance()
static int[]	getStates()
static java.lang.String[]	getStateStrings()
static boolean	isValidState(int state)
static java.lang.String	mapStateToString(int pState)
static int	mapStringToState(java.lang.String stateStr)
void	postDeregister()
void	postRegister(java.lang.Boolean registrationDone)
void	preDeregister()
javax.management.O bjectName	preRegister(javax.management.MBeanServer server, javax.management.ObjectName server)
boolean	setSystemStateHandler(SystemStateHandler handler) Sets the SystemStateHandler for this manager
void	systemStateChangeOccurred(int reqState, int reqState, java.lang.String reqState)

Methods inherited from : class javax.management.NotificationBroadcasterSupport

addNotificationListener, getNotificationInfo, handleNotification,
removeNotificationListener, removeNotificationListener, sendNotification

Methods inherited from : class java.lang.Object


```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

STATE_UNKNOWN

```
public static final int STATE_UNKNOWN
```

STATE_NOOP

```
public static final int STATE_NOOP
```

STATE_NORMAL

```
public static final int STATE_NORMAL
```

STATE_SW_MAINT

```
public static final int STATE_SW_MAINT
```

STATE_DATA_MAINT

```
public static final int STATE_DATA_MAINT
```

STATE_DIAGS

```
public static final int STATE_DIAGS
```

STATE_OS_UPDATE

```
public static final int STATE_OS_UPDATE
```

STATE_DRIVER_UPDATE

```
public static final int STATE_DRIVER_UPDATE
```

STATE_UNKNOWN_STR

```
public static final java.lang.String STATE_UNKNOWN_STR
```

STATE_NOOP_STR

```
public static final java.lang.String STATE_NOOP_STR
```

STATE_NORMAL_STR

```
public static final java.lang.String STATE_NORMAL_STR
```

STATE_SW_MAINT_STR

```
public static final java.lang.String STATE_SW_MAINT_STR
```

STATE_DATA_MAINT_STR

```
public static final java.lang.String STATE_DATA_MAINT_STR
```

STATE_DIAGS_STR

```
public static final java.lang.String STATE_DIAGS_STR
```

STATE_OS_UPDATE_STR

```
public static final java.lang.String STATE_OS_UPDATE_STR
```

STATE_DRIVER_UPDATE_STR

```
public static final java.lang.String STATE_DRIVER_UPDATE_STR
```

Methods

getStates

```
public static int[] getStates()
```

getStateStrings

```
public static java.lang.String[] getStateStrings()
```

isValidState

```
public static boolean isValidState(int state)
```

mapStateToString

```
public static java.lang.String mapStateToString(int pState)
```

mapStringToState

```
public static int mapStringToState(java.lang.String stateStr)
```

getInstance

```
public static SystemStateManager getInstance()
```

preRegister

```
public javax.management.ObjectName preRegister(javax.management.MBeanServer server,  
                                                javax.management.ObjectName name)  
        throws java.lang.Exception
```

See Also:

```
javax.management.MBeanRegistration#preRegister(javax.management.MBeanServer,  
        javax.management.ObjectName)
```

postRegister

```
public void postRegister(java.lang.Boolean registrationDone)
```

See Also:

```
javax.management.MBeanRegistration#postRegister(java.lang.Boolean)
```

preDeregister

```
public void preDeregister()  
        throws java.lang.Exception
```

See Also:

```
javax.management.MBeanRegistration#preDeregister()
```

postDeregister

```
public void postDeregister()
```

(continued from last page)

See Also:`javax.management.MBeanRegistration#postDeregister()`

getCurrentState`public int getCurrentState()`**See Also:**`com.ibm.retail.si.mgmt.swdist.SystemStateManagerMBean#getCurrentState()`

getCurrentStateDescription`public java.lang.String getCurrentStateDescription()`**See Also:**`com.ibm.retail.si.mgmt.swdist.SystemStateManagerMBean#getCurrentStateDescription()`

setSystemStateHandler`public boolean setSystemStateHandler(SystemStateHandler handler)`

Sets the `SystemStateHandler` for this manager

Parameters:

`handler` -
State handler to set

Returns:

`false`
if the supplied handler is null, `true` otherwise

changeState`public int changeState(int newState)`**See Also:**`com.ibm.retail.si.mgmt.swdist.SystemStateManagerMBean#changeState(int)`

systemStateChangeOccurred`public void systemStateChangeOccurred(int reqState,
int rc,
java.lang.String errorMessage)`**See Also:**`com.ibm.retail.si.mgmt.swdist.SystemStateChangeListener#systemStateChangeOccurred(int, int, String)`

Package

com.ibm.retail.si.mgmt.swdist.pkgdist

com.ibm.retail.si.mgmt.swdist.pkgdist

Class PackageDeploymentException

```

java.lang.Object
  |-- java.lang.Throwable
        |-- java.lang.Exception
                |-- com.ibm.retail.si.mgmt.swdist.pkgdist.PackageDeploymentException

```

```

public class PackageDeploymentException
extends java.lang.Exception

```

Exception class for package deployment errors. Each instance has a error message key supplied, which are defined in RMASWPackageDistributorConstants.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

PackageDeploymentException(java.lang.String message, java.lang.String message)

PackageDeploymentException(java.lang.String message, java.lang.String message, java.lang.Throwable message)

Method Summary

java.lang.String	getErrMsgKey()
------------------	----------------

Methods inherited from : class java.lang.Throwable

fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

PackageDeploymentException

```
public PackageDeploymentException(java.lang.String message,  
                                java.lang.String errMsgKey)
```

Parameters:

message -
Exception message
errMsgKey -
Error message key

PackageDeploymentException

```
public PackageDeploymentException(java.lang.String message,  
                                java.lang.String errMsgKey,  
                                java.lang.Throwable cause)
```

Parameters:

message -
Exception message
errMsgKey -
Error message key
cause -
Root cause

Methods

getErrMsgKey

```
public java.lang.String getErrMsgKey()
```

com.ibm.retail.si.mgmt.swdist.pkgdist

Class RMASWPackageDistributorConstants

java.lang.Object

└--com.ibm.retail.si.mgmt.swdist.pkgdist.RMASWPackageDistributorConstants

public final class **RMASWPackageDistributorConstants**

extends java.lang.Object

Error message constants for error messages passed in the XML reply from the staging of a package. The XML reply is contained in a SWPkgDistStagingStatusNotification.

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	ERR_MSG_FTP_CON_ERR
static java.lang.String	ERR_MSG_FTP_ERR
static java.lang.String	ERR_MSG_FTP_LOGON
static java.lang.String	ERR_MSG_NO_DEPLOY_PROPS
static java.lang.String	ERR_MSG_NO_DEVICES
static java.lang.String	ERR_MSG_NO_DTYPE_INFO
static java.lang.String	ERR_MSG_NO_FTP_HOST
static java.lang.String	ERR_MSG_NO_FTP_PW
static java.lang.String	ERR_MSG_NO_FTP_USER
static java.lang.String	ERR_MSG_NO_MATCH_DEV_DEV_TYPES
static java.lang.String	ERR_MSG_NO_POLICY_XML
static java.lang.String	ERR_MSG_PKG_DEPLOY_CANCEL
static java.lang.String	ERR_MSG_PKG_DIR_CREATE_ERR
static java.lang.String	ERR_MSG_PKG_FILE_EXTRACT_ERR
static java.lang.String	ERR_MSG_PKG_FILE_READ

<code>static java.lang.String</code>	<code>ERR_MSG_POL_ACTIVATE_ERROR</code>
<code>static java.lang.String</code>	<code>ERR_MSG_POL_REG_ERROR</code>
<code>static java.lang.String</code>	<code>PROG_MSG_CREATING_DEV_POLICIES</code>
<code>static java.lang.String</code>	<code>PROG_MSG_DELETING_STAGING_DIR</code>
<code>static java.lang.String</code>	<code>PROG_MSG_DEP_INFO_READ</code>
<code>static java.lang.String</code>	<code>PROG_MSG_PKG_FILE_EXTRACTED</code>
<code>static java.lang.String</code>	<code>PROG_MSG_XFER_PKG_FILES</code>
<code>static java.lang.String</code>	<code>REL_CONFIG_DIR</code> The relative directory under the RMA home containing the package distributor data

Constructor Summary

`RMASWPackageDistributorConstants()`

Methods inherited from : class `java.lang.Object`

`clone`, `equals`, `finalize`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Fields

COPYRIGHT

`public static final java.lang.String COPYRIGHT`

REL_CONFIG_DIR

`public static final java.lang.String REL_CONFIG_DIR`

The relative directory under the RMA home containing the package distributor data

ERR_MSG_PKG_DEPLOY_CANCEL

`public static final java.lang.String ERR_MSG_PKG_DEPLOY_CANCEL`

ERR_MSG_NO_DEVICES

`public static final java.lang.String ERR_MSG_NO_DEVICES`

ERR_MSG_NO_DTYPE_INFO

public static final java.lang.String **ERR_MSG_NO_DTYPE_INFO**

ERR_MSG_NO_MATCH_DEV_DEV_TYPES

public static final java.lang.String **ERR_MSG_NO_MATCH_DEV_DEV_TYPES**

ERR_MSG_NO_FTP_USER

public static final java.lang.String **ERR_MSG_NO_FTP_USER**

ERR_MSG_NO_FTP_PW

public static final java.lang.String **ERR_MSG_NO_FTP_PW**

ERR_MSG_NO_FTP_HOST

public static final java.lang.String **ERR_MSG_NO_FTP_HOST**

ERR_MSG_NO_POLICY_XML

public static final java.lang.String **ERR_MSG_NO_POLICY_XML**

ERR_MSG_NO_DEPLOY_PROPS

public static final java.lang.String **ERR_MSG_NO_DEPLOY_PROPS**

ERR_MSG_PKG_FILE_READ

public static final java.lang.String **ERR_MSG_PKG_FILE_READ**

ERR_MSG_PKG_DIR_CREATE_ERR

public static final java.lang.String **ERR_MSG_PKG_DIR_CREATE_ERR**

ERR_MSG_PKG_FILE_EXTRACT_ERR

public static final java.lang.String **ERR_MSG_PKG_FILE_EXTRACT_ERR**

(continued from last page)

ERR_MSG_POL_REG_ERROR

```
public static final java.lang.String ERR_MSG_POL_REG_ERROR
```

ERR_MSG_FTP_CON_ERR

```
public static final java.lang.String ERR_MSG_FTP_CON_ERR
```

ERR_MSG_FTP_LOGON

```
public static final java.lang.String ERR_MSG_FTP_LOGON
```

ERR_MSG_FTP_ERR

```
public static final java.lang.String ERR_MSG_FTP_ERR
```

ERR_MSG_POL_ACTIVATE_ERROR

```
public static final java.lang.String ERR_MSG_POL_ACTIVATE_ERROR
```

PROG_MSG_PKG_FILE_EXTRACTED

```
public static final java.lang.String PROG_MSG_PKG_FILE_EXTRACTED
```

PROG_MSG_DEP_INFO_READ

```
public static final java.lang.String PROG_MSG_DEP_INFO_READ
```

PROG_MSG_CREATING_DEV_POLICIES

```
public static final java.lang.String PROG_MSG_CREATING_DEV_POLICIES
```

PROG_MSG_XFER_PKG_FILES

```
public static final java.lang.String PROG_MSG_XFER_PKG_FILES
```

PROG_MSG_DELETING_STAGING_DIR

```
public static final java.lang.String PROG_MSG_DELETING_STAGING_DIR
```

Constructors

(continued from last page)

RMASWPackageDistributorConstants

```
public RMASWPackageDistributorConstants()
```

com.ibm.retail.si.mgmt.swdist.pkgdist

Interface RMASWPackageDistributorMBean

public interface **RMASWPackageDistributorMBean**

MBean for deploying a package onto a group of devices connected to a Master Agent. This MBean automates the process of creating RMA software policies by performing processing of a special package Jar file. The package jar file must reside on the Master Agent machine, usually by means of FTP or the `FileStreamerMBean`. The process of deploying the package is to call the `unpackAndStagePackage()` method, which opens and processing the package file. This involves extracting the files, transferring them to the store FTP Server, and creating a software policy for each device. Due to the possible timeouts for remote calls, this staging is done in the background. When the processing has completed, a `SWPkgDistStagingStatusNotification` is emitted.

It is required to pre-configure this MBean before using it, with the information of the FTP server to deploy to. This information is stored encrypted on the Master Agent machine.

The requirements for the package JAR file are:

- A file in the root called `deployment.properties`, containing deployment information for the target software policies
- A file in the root called `policy.xml`, containing the software policy XML data
- All of the files to be distributed to each client, in the directory tree that will be created on the client

The required properties in the `deployment.properties` file are: `public static final String COPYRIGHT = com.ibm.retail.si.mgmt.svc.Version.IBM_COPYRIGHT_SHORT;`

- `package_target_state`, listing the target state for the policy when deployed. The values for this property are defined in the `SystemStateManagerclass`
- `package_destinations`, a formatted list of client target directories for each applicable platform. The values for the various platforms is defined in the `SWDClientConstclass`. The format for the property is `{platform=directory,platform=directory...}`

Method Summary

void	<code>cancelPackageStagingAndDeployment(java.lang.String jobId)</code> Cancels the staging and deployment of the supplied package.
void	<code>cleanupPackageJar(java.lang.String file)</code>
java.lang.String	<code>getFtpHost()</code>
int	<code>getFtpPort()</code>
java.lang.String	<code>getFtpRoot()</code>
java.lang.String	<code>getFtpUser()</code>
java.lang.String	<code>getPackageJarTempDirectory()</code> The location for package jar files.
java.lang.String	<code>getXferImplementation()</code>
boolean	<code>isFtpPasswordSet()</code>
boolean	<code>setFtpHost(java.lang.String ftpHost)</code>

boolean	setFtpPort(int ftpPort)
boolean	setFtpPw(java.lang.String ftpPw)
boolean	setFtpRoot(java.lang.String ftpRoot)
boolean	setFtpUser(java.lang.String ftpUser) Sets the FTP User name
boolean	setXferImplementation(java.lang.String xferImplementation)
void	unpackAndStagePackage(java.lang.String jobId, java.lang.String jobId, java.lang.String[] jobId, int[] jobId) Submits a request to stage a package.

Methods

unpackAndStagePackage

```
public void unpackAndStagePackage(java.lang.String jobId,
                                   java.lang.String file,
                                   java.lang.String[] deviceIds,
                                   int[] deviceTypes)
```

Submits a request to stage a package. When the processing has completed, a SWPkgDistStagingStatusNotification is emitted.

Parameters:

jobId -
Identifier for this job.
file -
Fully qualified path to the package file on the Master Agent
deviceIds -
String[] of devices to deploy to
deviceTypes -
Array of device types, matching in order the devices supplied

cancelPackageStagingAndDeployment

```
public void cancelPackageStagingAndDeployment(java.lang.String jobId)
```

Cancels the staging and deployment of the supplied package. This includes cleanup of files and termination of policies

Parameters:

jobId -
Job to cancel

getPackageJarTempDirectory

```
public java.lang.String getPackageJarTempDirectory()
```

The location for package jar files. Used by applications to know where the preferred location of package files

Returns:

The preferred location for package jar files

(continued from last page)

setFtpHost

```
public boolean setFtpHost(java.lang.String ftpHost)
```

Parameters:

ftpHost -
FTP Hostname

Returns:

true
if the setting was set and persisted successfully

getFtpHost

```
public java.lang.String getFtpHost()
```

Returns:

The FTP Hostname

setFtpPort

```
public boolean setFtpPort(int ftpPort)
```

Parameters:

ftpPort -
FTP Port number

Returns:

true
if the setting was set and persisted successfully

getFtpPort

```
public int getFtpPort()
```

Returns:

The FTP Port

setFtpPw

```
public boolean setFtpPw(java.lang.String ftpPw)
```

Parameters:

ftpPw -
FTP Password

Returns:

true
if the setting was set and persisted successfully

(continued from last page)

isFtpPasswordSet

```
public boolean isFtpPasswordSet()
```

Returns:

```
true  
if the password has been set
```

setFtpUser

```
public boolean setFtpUser(java.lang.String ftpUser)
```

Sets the FTP User name

Parameters:

```
ftpUser -  
FTP User name
```

Returns:

```
true  
if the setting was set and persisted successfully
```

getFtpUser

```
public java.lang.String getFtpUser()
```

Returns:

The FTP User name

setXferImplementation

```
public boolean setXferImplementation(java.lang.String xferImplementation)
```

Parameters:

```
xferImplementation -  
The FTP Implementation, as used by the FileTransferMBean
```

Returns:

```
true  
if the setting was set and persisted successfully
```

getXferImplementation

```
public java.lang.String getXferImplementation()
```

Returns:

The FTP Implementation, as used by the FileTransferMBean

setFtpRoot

```
public boolean setFtpRoot(java.lang.String ftpRoot)
```

(continued from last page)

Parameters:

ftpRoot -

The FTP Root directory where package files from staged packages should be stored

Returns:

true

if the setting was set and persisted successfully

getFtpRoot

```
public java.lang.String getFtpRoot()
```

Returns:The FTP Root directory where package files from staged packages should be stored

cleanupPackageJar

```
public void cleanupPackageJar(java.lang.String file)
```

Package

com.ibm.retail.si.mgmt.util

SIF Management utility classes.

com.ibm.retail.si.mgmt.util

Class DiskOverflowQueue

java.lang.Object

└-com.ibm.retail.si.mgmt.util.DiskOverflowQueue

public class **DiskOverflowQueue**

extends java.lang.Object

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

DiskOverflowQueue(int capacity, java.lang.String capacity)

Method Summary

boolean	add(java.io.Serializable o)
void	closeQueue()
java.lang.Object	get()
boolean	isClosed()
boolean	isEmpty()
void	resetStorage()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

(continued from last page)

Constructors

DiskOverflowQueue

```
public DiskOverflowQueue(int capacity,  
                        java.lang.String filePath)
```

Methods

isClosed

```
public boolean isClosed()
```

add

```
public boolean add(java.io.Serializable o)  
                throws MgmtException
```

get

```
public java.lang.Object get()  
                        throws MgmtException
```

closeQueue

```
public void closeQueue()
```

isEmpty

```
public boolean isEmpty()
```

resetStorage

```
public void resetStorage()  
                throws MgmtException
```

com.ibm.retail.si.mgmt.util

Interface DiskOverflowStorage

public interface **DiskOverflowStorage**

Interface implemented by objects that handle the overflow storage for a `DiskOverflowQueue`. Specifically, instances of this interface handle the storage and retrieval of data to or from secondary storage in a FIFO like manner. Data is added when the memory capacity of the `DiskOverflowQueue` is exceeded. This interface also includes methods for storing the `DiskOverflowQueue`'s memory contents. This data is saved and restored when it is shutdown and restarted.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

void	<code>closeOverflowStorage()</code> Called when the <code>DiskOverflowQueue</code> shuts down, this method closes all secondary storage resources.
java.lang.String	<code>getFilePath()</code> Returns the path to the secondary storage file for event data
void	<code>insertDataBlock(byte[] data)</code> Store the supplied data
boolean	<code>isEmpty()</code>
DiskOverflowStorage	<code>recreateStorage()</code> Recreates this storage instance by deleting the current file and returning a newly created instance that points to the same file.
java.util.List	<code>restoreMemoryQueue()</code> Restores the contents of the saved memory queue.
byte[]	<code>retrieveDataBlock()</code> Retrieve the oldest data block
void	<code>saveMemoryQueue(java.util.List memQueue)</code> Saves the supplied memory queue, overwriting any previously stored data.

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

(continued from last page)

Methods

insertDataBlock

```
public void insertDataBlock(byte[] data)
                           throws MgmtException
```

Store the supplied data

Parameters:

data -
Data to store

Exceptions:

MgmtException -
Error storing data

retrieveDataBlock

```
public byte[] retrieveDataBlock()
              throws MgmtException
```

Retrieve the oldest data block

Returns:

byte[] of the oldest data block

Exceptions:

MgmtException -
Error reading data

isEmpty

```
public boolean isEmpty()
```

Returns:

true if there are no data blocks in storage, false otherwise

restoreMemoryQueue

```
public java.util.List restoreMemoryQueue()
                     throws MgmtException
```

Restores the contents of the saved memory queue.

Returns:

List of Serializable objects previously stored

Exceptions:

MgmtException -
Error reading data

saveMemoryQueue

```
public void saveMemoryQueue(java.util.List memQueue)
                          throws MgmtException
```

(continued from last page)

Saves the supplied memory queue, overwriting any previously stored data. Objects in the supplied List must implement the `Serializable` interface.

Parameters:

`memQueue` -
List of `Serializable` objects to store

Exceptions:

`MgmtException` -
Error storing data

closeOverflowStorage

```
public void closeOverflowStorage()
```

Called when the `DiskOverflowQueue` shuts down, this method closes all secondary storage resources.

getFilePath

```
public java.lang.String getFilePath()
```

Returns the path to the secondary storage file for event data

Returns:

The path to the secondary storage file for event data

recreateStorage

```
public DiskOverflowStorage recreateStorage()  
throws MgmtException
```

Recreates this storage instance by deleting the current file and returning a newly created instance that points to the same file.

Returns:

New instance to replace the current instance that uses the same file

Exceptions:

`MgmtException` -
Error creating new instance

com.ibm.retail.si.mgmt.util

Class MgmtUtils

java.lang.Object

└─com.ibm.retail.si.mgmt.util.MgmtUtils

public final class **MgmtUtils**

extends java.lang.Object

Static utility methods

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

MgmtUtils()

Method Summary

static java.lang.String	buffer2HexString(byte[] bytes)
static boolean	copyFile(RMAFile src,RMAFile src) Copies the source file to the destination file
static java.lang.Object	createMBeanProxy(javax.management.MBeanServerConnection mbsc, java.lang.String mbsc, java.lang.Class mbsc) Utility method for creating an MBean proxy instance via the MBeanServerInvocationHandlerclass
static long	createTimestamp() Utility method for creating a system timestamp
static boolean	deleteDirOrFile(java.io.File f) Deletes the supplied file or directory, including all subdirectories and files
static boolean	deleteDirOrFile(RMAFile rmaFile) Deletes the supplied file or directory, including all subdirectories and files, using a RMAFile
static java.lang.String	getBundleMessage(java.lang.String bundleName, java.lang.String bundleName, java.lang.String[] bundleName)
static int	getCandidateMgmtPort() Find a free port to use for managment.
static java.lang.String	getDeviceId(int deviceType) Creates a device identifier based on the supplied device type.

static int	getDeviceType() Attempts to automatically detect the device type of the current device.
static int	getDeviceTypeByName(java.lang.String deviceTypeStr) Returns a valid device type constant given a name String
static java.lang.String	getDeviceTypeName(int deviceType) Returns a String description for the supplied device type
static java.lang.ClassLoader	getExtensionClassLoader(java.lang.ClassLoader start) Searches up the ClassLoader hierarchy to find the extension classloader
static boolean	getIsBroadcaster(javax.management.MBeanServerConnection mbeanServer, javax.management.ObjectName mbeanServer)
static javax.management.ObjectName	getObjectName(javax.management.MBeanServerConnection mbs, java.lang.String mbs) Queries for the MBean with the supplied Id, matching any domain
static javax.management.ObjectName	getObjectName(javax.management.MBeanServerConnection mbs, java.lang.String mbs, java.lang.String mbs) Queries for the MBean with the supplied Id
static java.lang.String	getStoreId(int deviceType, MgmtAgentConfiguration deviceType) Obtains the store Id (Called on Master Agents only), either by making a system call (4690), or by obtaining it from the agent configuration (all other platforms).
static boolean	isMBeanRegisteredById(javax.management.MBeanServerConnection mbs, java.lang.String mbs, java.lang.String mbs) Returns whether or not an MBean with the supplied MBean ID on the supplied MBeanServerConnection is registered
static boolean	isMBeanRegisteredById(javax.management.MBeanServerConnection mbs, java.lang.String mbs, java.lang.String mbs, java.lang.String mbs) Returns whether or not an MBean proxy with the supplied MBean ID on the supplied agent is registered
static boolean	isValidDeviceType(int deviceType) Determines whether or not the supplied device type is valid
static byte[]	longToByteArray(long longInt) Creates a 4 byte array from the supplied long integer

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields**COPYRIGHT**

public static final java.lang.String **COPYRIGHT**

(continued from last page)

Constructors

MgmtUtils

```
public MgmtUtils()
```

Methods

createTimestamp

```
public static long createTimestamp()
```

Utility method for creating a system timestamp

Returns:

Current time in milliseconds

getExtensionClassLoader

```
public static java.lang.ClassLoader getExtensionClassLoader(java.lang.ClassLoader start)
```

Searches up the ClassLoader hierarchy to find the extension classloader

Parameters:

start -
ClassLoader to start search in

Returns:

Extension ClassLoader, or the starting ClassLoader if the starting ClassLoader has no parent

longToByteArray

```
public static byte[] longToByteArray(long longInt)
```

Creates a 4 byte array from the supplied long integer

Parameters:

longInt -
64 bit long

Returns:

4 byte array

isValidDeviceType

```
public static boolean isValidDeviceType(int deviceType)
```

Determines whether or not the supplied device type is valid

Parameters:

deviceType -
int device type to test

Returns:

(continued from last page)

True if the device type is valid, false otherwise

getDeviceTypeName

```
public static java.lang.String getDeviceTypeName(int deviceType)
```

Returns a String description for the supplied device type

Parameters:

deviceType -
int device type to look up

Returns:

Description of the supplied device type, or "Unrecognized device type" if the type is invalid

getDeviceTypeByName

```
public static int getDeviceTypeByName(java.lang.String deviceTypeStr)
```

Returns a valid device type constant given a name String

Parameters:

deviceTypeStr -
device type string to parse

Returns:

A valid device type constant, or MgmtConst.dTypeUnknownif unrecognized

getDeviceId

```
public static java.lang.String getDeviceId(int deviceType)
```

Creates a device identifier based on the supplied device type. If a device type specific method for creating a device type fails, then the hostname is used, and finally, a numerical representation of the localhost IP Address. The following are the device type specific methods: MgmtConst.POSTerm = [store controller].[terminal id]MgmtConst.dType4690 = [controller id]

Parameters:

deviceType -
int device type

Returns:

String device identifier

getDeviceType

```
public static int getDeviceType()
```

Attempts to automatically detect the device type of the current device. Returns MgmtConst.dTypeUnknownif a type cannot be determined.

Returns:

Automatically detected device type, or MgmtConst.dTypeUnknownif a type cannot be determined

getStoreId

```
public static java.lang.String getStoreId(int deviceType,  
MgmtAgentConfiguration config)
```

(continued from last page)

Obtains the store Id (Called on Master Agents only), either by making a system call (4690), or by obtaining it from the agent configuration (all other platforms). If an error occurred, null is returned

Parameters:

deviceType -
Device type of the MA
config -
Agent configuration

Returns:

The store Id, or null if not present or an error occurred

getCandidateMgmtPort

```
public static int getCandidateMgmtPort()
```

Find a free port to use for management. The search will start at MgmtConst.BASE_GA_MGMT_PORT and will increase until 32000 is reached.

Returns:

int Open port number

isMBeanRegisteredById

```
public static boolean isMBeanRegisteredById( javax.management.MBeanServerConnection
mbs,
                                             java.lang.String domain,
                                             java.lang.String mbeanId,
                                             java.lang.String systemId)
```

Returns whether or not an MBean proxy with the supplied MBean ID on the supplied agent is registered

Parameters:

mbs -
MBeanServerConnection to use to perform the query
domain -
Domain to use in the search query
mbeanId -
MBean ID to search for
systemId -
Agent ID to search for

Returns:

true
if the MBean is registered, false otherwise

isMBeanRegisteredById

```
public static boolean isMBeanRegisteredById( javax.management.MBeanServerConnection
mbs,
                                             java.lang.String domain,
                                             java.lang.String mbeanId)
```

Returns whether or not an MBean with the supplied MBean ID on the supplied MBeanServerConnection is registered

Parameters:

mbs -
MBeanServerConnection to use to perform the query
domain -
Domain to use in the search query
mbeanId -
MBean ID to search for

Returns:

(continued from last page)

true
if the MBean is registered, false otherwise

createMBeanProxy

```
public static java.lang.Object createMBeanProxy( javax.management.MBeanServerConnection  
mbsc,                                     java.lang.String mbeanId,  
                                             java.lang.Class mbeanInterfaceClass)
```

Utility method for creating an MBean proxy instance via the MBeanServerInvocationHandler class

Parameters:

mbsc -
MBeanServerConnection to connect to
mbeanId -
Id of the MBean to proxy
mbeanInterfaceClass -
Class object of the MBean interface of the target MBean

Returns:

Proxy object, or null if there was an error or if the MBean was not found

getObjectName

```
public static javax.management.ObjectName  
getObjectName( javax.management.MBeanServerConnection mbs,  
                                                        java.lang.String mbeanId)
```

Queries for the MBean with the supplied Id, matching any domain

Parameters:

mbs -
MBeanServer to query
mbeanId -
Id of the MBean to find

Returns:

The ObjectName of the first MBean found, or null if none found or an error

getObjectName

```
public static javax.management.ObjectName  
getObjectName( javax.management.MBeanServerConnection mbs,  
                                                        java.lang.String mbeanId,  
                                                        java.lang.String domain)
```

Queries for the MBean with the supplied Id

Parameters:

mbs -
MBeanServer to query
mbeanId -
Id of the MBean to find
domain -
Object name domain to query with

Returns:

The ObjectName of the first MBean found, or null if none found or an error

(continued from last page)

getIsBroadcaster

```
public static boolean getIsBroadcaster( javax.management.MBeanServerConnection
mbeanServer,
                                         javax.management.ObjectName objName )
```

deleteDirOrFile

```
public static boolean deleteDirOrFile( java.io.File f )
    Deletes the supplied file or directory, including all subdirectories and files
```

Parameters:

`f` -
File or directory to delete

Returns:

True if the file or directory was deleted, including all subdirectories. False otherwise

deleteDirOrFile

```
public static boolean deleteDirOrFile( RMAFile rmaFile )
    Deletes the supplied file or directory, including all subdirectories and files, using a RMAFile
```

Parameters:

`f` -
File or directory to delete

Returns:

True if the file or directory was deleted, including all subdirectories. False otherwise

getBundleMessage

```
public static java.lang.String getBundleMessage( java.lang.String bundleName,
                                                  java.lang.String msgKey,
                                                  java.lang.String[] msgParams )
```

buffer2HexString

```
public static java.lang.String buffer2HexString( byte[] bytes )
```

copyFile

```
public static boolean copyFile( RMAFile src,
                                RMAFile dest )
```

Copies the source file to the destination file

Parameters:

`src` -
Path to the source file
`dest` -
Path to the destination file

Returns:

(continued from last page)

true
if the copy succeeded, false otherwise

Package

com.ibm.retail.si.mgmt.util.roles

com.ibm.retail.si.mgmt.util.roles

Class AgentRolesConfiguration

java.lang.Object

└-com.ibm.retail.si.mgmt.util.roles.AgentRolesConfiguration

public class **AgentRolesConfiguration**

extends java.lang.Object

Object that contains all of the role information for an agent. An instance is stored with each MgmtAgent instance.

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	PROP_ROLE_INFO_STORAGE_CLASS_NAME

Constructor Summary

AgentRolesConfiguration(MgmtAgentConfiguration agentConfig)

Method Summary

boolean	addModels(java.lang.String roleName, java.lang.String[] roleName) Adds the supplied model names to the supplied role
boolean	addRole(java.lang.String roleName, java.lang.String[] roleName)
Role	getRole(java.lang.String roleName)
Roles	getRoles()
boolean	persistConfigUpdates()
boolean	removeModel(java.lang.String roleName, java.lang.String roleName) Removes the supplied model name from the supplied role
boolean	removeRole(java.lang.String roleName)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

(continued from last page)

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

PROP_ROLE_INFO_STORAGE_CLASS_NAME

```
public static final java.lang.String PROP_ROLE_INFO_STORAGE_CLASS_NAME
```

Constructors

AgentRolesConfiguration

```
public AgentRolesConfiguration(MgmtAgentConfiguration agentConfig)
```

Methods

persistConfigUpdates

```
public boolean persistConfigUpdates()
```

addRole

```
public boolean addRole(java.lang.String roleName,  
                       java.lang.String[] models)  
    throws MgmtException
```

getRole

```
public Role getRole(java.lang.String roleName)  
    throws MgmtException
```

removeRole

```
public boolean removeRole(java.lang.String roleName)  
    throws MgmtException
```

getRoles

```
public Roles getRoles()
```

(continued from last page)

addModels

```
public boolean addModels(java.lang.String roleName,  
                          java.lang.String[] modelNames)  
    throws MgmtException
```

Adds the supplied model names to the supplied role

Parameters:

roleName -
Role to add to
modelNames -
Models to add

Returns:

true
if the supplied models were added to the specified role, or false otherwise

removeModel

```
public boolean removeModel(java.lang.String roleName,  
                             java.lang.String model)  
    throws MgmtException
```

Removes the supplied model name from the supplied role

Parameters:

roleName -
Role to remove from
model -
Model to remove

Returns:

true
if the supplied model was removed from the specified role, or false otherwise

Package

com.ibm.retail.si.mgmt.virtualagent

com.ibm.retail.si.mgmt.virtualagent

Interface VirtualAgentDiscoveryMBean

All Superinterfaces:

MgmtClientHealthMBean, MgmtHealthMBean, MgmtExtendedControlMBean

public interface **VirtualAgentDiscoveryMBean**

extends MgmtClientHealthMBean

Discovery client MBean for virtual agents.

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>void</code>	<code>shutdownVirtualAgent()</code> Shuts down the virtual agent managed by this MBean
-------------------	-------------------------------------------------------------------------------------------

Fields

COPYRIGHT`public static final java.lang.String COPYRIGHT`

Methods

shutdownVirtualAgent

```
public void shutdownVirtualAgent()
    Shuts down the virtual agent managed by this MBean
```

com.ibm.retail.si.mgmt.virtualagent

Interface VirtualAgentManagerMBean

public interface **VirtualAgentManagerMBean**

MBean that exposes information about virtual agents running in the current JVM. Also runs a cleanup timer to check for resources from agents that are no longer online. The cleanup frequency (hours) and expiration timeout (days) are exposed as MBean attributes.

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME_BASE</code>
<code>static java.lang.String</code>	<code>OBJECT_NAME_ID</code>

Method Summary

<code>int</code>	<code>getExpirationCleanupFreq()</code>
<code>int</code>	<code>getExpirationTimeout()</code>
<code>int</code>	<code>getNumberOfRegisteredVirtualAgents()</code>
<code>java.lang.String[]</code>	<code>getRegisteredVirtualAgentIds()</code>
<code>void</code>	<code>performCleanup()</code> Performs a cleanup of resources from agents that are no longer registered, and whose resources have not been accessed in a
<code>void</code>	<code>setExpirationCleanupFreq(int expirationCleanupFreq)</code>
<code>void</code>	<code>setExpirationTimeout(int expirationTimeout)</code>
<code>boolean</code>	<code>shutdownVirtualAgent(java.lang.String systemId)</code> Shuts down the virtual agent matching the supplied agent Id

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

(continued from last page)

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME_BASE

```
public static final java.lang.String OBJECT_NAME_BASE
```

Methods

getRegisteredVirtualAgentIds

```
public java.lang.String[] getRegisteredVirtualAgentIds()
```

Returns:

The list of agent Ids from MgmtAgentFactory

getNumberOfRegisteredVirtualAgents

```
public int getNumberOfRegisteredVirtualAgents()
```

Returns:

The number of currently registered virtual agents

getExpirationCleanupFreq

```
public int getExpirationCleanupFreq()
```

Returns:

Returns the frequency (hours) of cleanup operations

setExpirationCleanupFreq

```
public void setExpirationCleanupFreq(int expirationCleanupFreq)
```

Parameters:

expirationCleanupFreq -
The expiration cleanup frequency

getExpirationTimeout

```
public int getExpirationTimeout()
```

Returns:

Returns the resource expiration timeout (days)

setExpirationTimeout

```
public void setExpirationTimeout(int expirationTimeout)
```

Parameters:

expirationTimeout -
The resource expiration timeout to set.

performCleanup

```
public void performCleanup()
```

Performs a cleanup of resources from agents that are no longer registered, and whose resources have not been accessed in a

shutdownVirtualAgent

```
public boolean shutdownVirtualAgent(java.lang.String systemId)
```

Shuts down the virtual agent matching the supplied agent Id

Parameters:

systemId -
Agent Id of the virtual agent to shut down

Returns:

true if the agent was found and shut down, false otherwise

Package

com.ibm.retail.si.mgmt.xfer

com.ibm.retail.si.mgmt.xfer

Class CompletionFileTransferStatus

java.lang.Object

└-com.ibm.retail.si.mgmt.xfer.FileTransferStatus

└-com.ibm.retail.si.mgmt.xfer.CompletionFileTransferStatus

public class **CompletionFileTransferStatus**

extends FileTransferStatus

Field Summary

static java.lang.String	COPYRIGHT
java.lang.String	errorMessage
boolean	isTransferSuccessful

Fields inherited from : class com.ibm.retail.si.mgmt.xfer.FileTransferStatus

COMPLETION_NOTIFICATION, connectionID, COPYRIGHT, ftpCommand, lastReplyCode, localFileName, notificationType, PROGRESS_NOTIFICATION, remoteFileName

Constructor Summary

CompletionFileTransferStatus(long connectionID, java.lang.String connectionID, int connectionID, java.lang.String connectionID, java.lang.String connectionID, boolean connectionID, java.lang.String connectionID)

Method Summary

java.lang.String	getErrorMessage()
boolean	isTransferSuccessful()
void	setErrorMessage(java.lang.String errorMessage)
void	setTransferSuccessful(boolean isTransferSuccessful)

Methods inherited from : class com.ibm.retail.si.mgmt.xfer.FileTransferStatus

getConnectionID, getFtpCommand, getLastReplyCode, getLocalFileName, getNotificationType, getRemoteFileName, mapNotificationTypeToStr, setConnectionID, setFtpCommand, setLastReplyCode, setLocalFileName, setNotificationType, setRemoteFileName, toString

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,  
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

isTransferSuccessful

```
protected boolean isTransferSuccessful
```

errorMessage

```
protected java.lang.String errorMessage
```

Constructors

CompletionFileTransferStatus

```
public CompletionFileTransferStatus(long connectionID,  
                                     java.lang.String ftpCommand,  
                                     int lastReplyCode,  
                                     java.lang.String localFileName,  
                                     java.lang.String remoteFileName,  
                                     boolean isTransferSuccessful,  
                                     java.lang.String errorMessage)
```

Parameters:

```
connectionID -  
Connection ID  
ftpCommand -  
Command run, PUT or GET  
lastReplyCode -  
Last reply code from the FTP Server  
localFileName -  
Local file name  
remoteFileName -  
Remote file name  
isTransferSuccessful -  
Whether or not the transfer was successful  
errorMessage -  
If applicable, the error message for an unsuccessful transfer
```

Methods

isTransferSuccessful

```
public boolean isTransferSuccessful()
```

(continued from last page)

Returns:

Returns isTransferSuccessful.

setTransferSuccessful

```
public void setTransferSuccessful(boolean isTransferSuccessful)
```

Parameters:

isTransferSuccessful -
new value set.

getErrorMessage

```
public java.lang.String getErrorMessage()
```

Returns:

Returns the errorMessage.

setErrorMessage

```
public void setErrorMessage(java.lang.String errorMessage)
```

Parameters:

errorMessage -
The errorMessage to set.

com.ibm.retail.si.mgmt.xfer

Interface DirectoryEntry

All Known Implementing Classes:

RMAFileTransferDirectoryEntry, UNIXDirectoryEntry, OS4690DirectoryEntry, DOSDirectoryEntry

public interface **DirectoryEntry**

Represents an entry from a server's directory listing. Not all fields will be mapped on each platform or implementation. The default values for entries that aren't supported are true(boolean) or an empty String (String) values.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

java.lang.String	getFileDate() Returns the date in the form of a String.
long	getFileDateMillis() Returns the data in the form of a long.
long	getFileSize()
java.lang.String	getName()
boolean	isDirectory()
boolean	isExecutable()
boolean	isReadable()
boolean	isWritable()

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

(continued from last page)

isDirectory

```
public boolean isDirectory()
```

Returns:

true if the entry represents a directory, false if it is a file

isReadable

```
public boolean isReadable()
```

Returns:

false If the file or directory is non-readable, true otherwise

isWritable

```
public boolean isWritable()
```

Returns:

false If the file or directory is non-writable, true otherwise

isExecutable

```
public boolean isExecutable()
```

Returns:

false If the file or directory is non-executable, true otherwise

getName

```
public java.lang.String getName()
```

Returns:

Name of the file or directory

getFileSize

```
public long getFileSize()
```

Returns:

Size of the file in bytes. Will be 0 for directories

(continued from last page)

getFileDate

```
public java.lang.String getFileDate()
```

Returns the date in the form of a String.

Returns:

String with the file or directory's date

getFileDateMillis

```
public long getFileDateMillis()
```

Returns the data in the form of a long. May not be supported on all implementations

Returns:

The entry date, in milliseconds, or -1 if not supported

com.ibm.retail.si.mgmt.xfer

Class DOSDirectoryEntry

java.lang.Object

└-com.ibm.retail.si.mgmt.xfer.DOSDirectoryEntry

All Implemented interfaces:

java.io.Serializable, DirectoryEntry

```
public class DOSDirectoryEntry
extends java.lang.Object
implements DirectoryEntry, java.io.Serializable
```

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

DOSDirectoryEntry(java.lang.String entryStr)

Method Summary

java.lang.String	getFileDate()
long	getFileDateMillis()
long	getFileSize()
java.lang.String	getName()
boolean	isDirectory()
boolean	isExecutable()
boolean	isReadable()
boolean	isWritable()
java.lang.String	toString()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

DOSDirectoryEntry

```
public DOSDirectoryEntry(java.lang.String entryStr)
```

Methods

isDirectory

```
public boolean isDirectory()
```

See Also:

[com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isDirectory\(\)](#)

isReadable

```
public boolean isReadable()
```

See Also:

[com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isReadable\(\)](#)

isWritable

```
public boolean isWritable()
```

See Also:

[com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isWritable\(\)](#)

isExecutable

```
public boolean isExecutable()
```

See Also:

[com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isExecutable\(\)](#)

getName

```
public java.lang.String getName()
```

See Also:

com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getName()

getFileSize

```
public long getFileSize()
```

See Also:

com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getFileSize()

getFileDate

```
public java.lang.String getFileDate()
```

See Also:

com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getFileDate()

getFileDateMillis

```
public long getFileDateMillis()
```

See Also:

com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getFileDateMillis()

toString

```
public java.lang.String toString()
```

com.ibm.retail.si.mgmt.xfer

Class FileTransferCompletionNotification

```

java.lang.Object
  |-- java.util.EventObject
        |-- javax.management.Notification
              |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                          |-- com.ibm.retail.si.mgmt.xfer.FileTransferNotification
                                |-- com.ibm.retail.si.mgmt.xfer.FileTransferProgressNotification
                                      |-- com.ibm.retail.si.mgmt.xfer.FileTransferCompletionNotification

```

```

public class FileTransferCompletionNotification
  extends FileTransferProgressNotification

```

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from class com.ibm.retail.si.mgmt.xfer.FileTransferProgressNotification

COPYRIGHT

Fields inherited from class com.ibm.retail.si.mgmt.xfer.FileTransferNotification

connectionID, COPYRIGHT, ftpCommand, lastReplyCode, localFileName, progressInterval, remoteFileName, transferPercentage

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from class javax.management.Notification

source

Fields inherited from class java.util.EventObject

source

Constructor Summary

`FileTransferCompletionNotification(java.lang.Object source, java.lang.String source, java.lang.Object source)`

`FileTransferCompletionNotification(java.lang.Object source, java.lang.String source)`

Method Summary

boolean	<code>isTransferSuccessful()</code>
---------	-------------------------------------

void	<code>setTransferSuccessful(boolean isTransferSuccessful)</code>
------	------------------------------------------------------------------

Methods inherited from : class com.ibm.retail.si.mgmt.xfer.FileTransferNotification

`getConnectionID, getFtpCommand, getLastReplyCode, getLocalFileName, getProgressInterval, getRemoteFileName, getTransferPercentage, setConnectionID, setFtpCommand, setLastReplyCode, setLocalFileName, setProgressInterval, setRemoteFileName, setTransferPercentage`

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

`setDefaultMask`

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

`applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams, getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp, setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice, setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp`

Methods inherited from : class javax.management.Notification

`getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber, setSource, setTimeStamp, setUserData, toString`

Methods inherited from : class java.util.EventObject

`getSource, toString`

Methods inherited from : class java.lang.Object

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields

COPYRIGHT

`public static final java.lang.String COPYRIGHT`

Constructors

FileTransferCompletionNotification

```
public FileTransferCompletionNotification( java.lang.Object source,  
                                         java.lang.String Message,  
                                         java.lang.Object userData)
```

Parameters:

source
Message
userData

FileTransferCompletionNotification

```
public FileTransferCompletionNotification( java.lang.Object source,  
                                         java.lang.String Message)
```

Parameters:

source
Message

Methods

isTransferSuccessful

```
public boolean isTransferSuccessful()
```

Returns:

boolean true if transfer successful

setTransferSuccessful

```
public void setTransferSuccessful(boolean isTransferSuccessful)
```

Parameters:

isTransferSuccessful -
The isTransferSuccessful to set.

com.ibm.retail.si.mgmt.xfer

Class FileTransferException

java.lang.Object

├-java.lang.Throwable

├-java.lang.Exception

└-com.ibm.retail.si.mgmt.xfer.FileTransferException

public class **FileTransferException**

extends java.lang.Exception

This exception is thrown for unexpected errors detected by RMA File Transfer Implementations

Field Summary

static java.lang.String	COPYRIGHT
static int	ERROR_AUTH
static int	ERROR_BAD_STATE Error that occurs when an attempt is made to execute a command and the connection is in an inconsistent state
static int	ERROR_BUSY
static int	ERROR_CONNECT
static int	ERROR_GENERAL

Constructor Summary

FileTransferException()
FileTransferException(java.lang.String message)
FileTransferException(java.lang.Throwable rootCause)
FileTransferException(java.lang.String message, java.lang.Throwable message)

Method Summary

java.lang.Throwable	getCause()
int	getErrorCode()

void	setErrorCode(int code)
------	------------------------

Methods inherited from : class java.lang.Throwable

fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields**COPYRIGHT**

public static final java.lang.String **COPYRIGHT**

ERROR_GENERAL

public static final int **ERROR_GENERAL**

ERROR_AUTH

public static final int **ERROR_AUTH**

ERROR_CONNECT

public static final int **ERROR_CONNECT**

ERROR_BAD_STATE

public static final int **ERROR_BAD_STATE**

Error that occurs when an attempt is made to execute a command and the connection is in an inconsistent state

ERROR_BUSY

public static final int **ERROR_BUSY**

Constructors**FileTransferException**

public **FileTransferException**()

FileTransferException

```
public FileTransferException(java.lang.String message)
```

FileTransferException

```
public FileTransferException(java.lang.Throwable rootCause)
```

FileTransferException

```
public FileTransferException(java.lang.String message,  
                             java.lang.Throwable rootCause)
```

Methods

getErrorCode

```
public int getErrorCode()
```

setErrorCode

```
public void setErrorCode(int code)
```

getCause

```
public java.lang.Throwable getCause()
```


com.ibm.retail.si.mgmt.xfer

Class FileTransferManager

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.xfer.FileTransferManager

```

public class **FileTransferManager**

extends java.lang.Object

This connection manager is responsible for managing all FileTransferConnections. The connection manager is a singleton that is accessible through the instance class method. It is also responsible for holding a list of connections. A unique identifier is created with every new connection. This unique identifier is used to perform any further transfer operations on the connection.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

FileTransferManager(java.util.Map activeImplementations)

Method Summary

long	createConnection(java.util.Properties connProps) Creates a connection with the supplied properties.
void	disconnect(long connectionID) Logs out and closes the supplied connection
void	finalize()
FileChecksumManager	getChecksumManager() Returns the FileChecksumManager instance used by all file streaming connections for caching checksums
FileTransferConnection	getConnection(long connectionID) Return the connection associated with a particular client identity.
static void	initializeInstance(java.util.Map activeImplementations) Initializes the singleton instance with the supplied list of active implementations, which is a map of implementation name to implementation class
static FileTransferManager	instance() The static method returns the singleton instance of the FileTransferManager.
boolean	isBusy(long connectionId)

boolean	isConnected(long connectionID) Returns whether or not the supplied connection is connected
void	removeInactiveConnections() Timer thread calls this method periodically to close inactive connections.
void	setActiveImplementations(java.util.Map activeImplementations)
static void	tearDownInstance() Tears down the singleton instance

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Constructors

FileTransferManager

protected **FileTransferManager**(java.util.Map activeImplementations)

Methods

instance

public static FileTransferManager **instance**()

The static method returns the singleton instance of the FileTransferManager.

Returns:

Connection Manager instance

initializeInstance

public static void **initializeInstance**(java.util.Map activeImplementations)

Initializes the singleton instance with the supplied list of active implementations, which is a map of implementation name to implementation class

Parameters:

activeImplementations -
Map of implementation names to class names

finalize

```
protected void finalize()  
    throws java.lang.Throwable
```

See Also:

java.lang.Object#finalize()

tearDownInstance

```
public static void tearDownInstance()  
    Tears down the singleton instance
```

getChecksumManager

```
public FileChecksumManager getChecksumManager()  
    Returns the FileChecksumManager instance used by all file streaming connections for caching checksums
```

Returns:

FileChecksumManager instance

setActiveImplementations

```
protected final void setActiveImplementations(java.util.Map activeImplementations)
```

removeInactiveConnections

```
public void removeInactiveConnections()  
    Timer thread calls this method periodically to close inactive connections.
```

createConnection

```
public long createConnection(java.util.Properties connProps)  
    throws FileTransferException
```

Creates a connection with the supplied properties. It is important that the property CONFIG_PROP_IMPL be defined with the name of the implementation to use (i.e. FTP).

Parameters:

connProps -
Connection properties

Returns:

ID of the newly created connection

Exceptions:

FileTransferException -
Error creating the connection instance or connecting occurred

disconnect

```
public void disconnect(long connectionID)  
    Logs out and closes the supplied connection
```

(continued from last page)

Parameters:

connectionID -
ID of the connection to disconnect

isConnected

public boolean **isConnected**(long connectionID)

Returns whether or not the supplied connection is connected

Parameters:

connectionID -
ID of the connection to test

Returns:

true
if the connection is connected, false otherwise

isBusy

public boolean **isBusy**(long connectionId)

getConnection

public FileTransferConnection **getConnection**(long connectionID)

Return the connection associated with a particular client identity.

Parameters:

connectionID -
Id of the connection to retrieve

Returns:

The FileTransferConnection matching the supplied ID, or null otherwise

com.ibm.retail.si.mgmt.xfer

Interface FileTransferMBean

public interface **FileTransferMBean**

MBean that supports file transfers to or from the current device. Connections are made using the `connect` method, in which information required to make the connection is supplied. Using the returned connection Id, subsequent calls can be made on that connection.

When invoking operations on this MBean over a remote JMX connection, socket timeouts could occur when the operations take a large amount of time. In particular, invoking the operations such as `put()` and `get()` on large files could take a long period of time, possibly resulting in a socket timeout on the remote JMX call. For transfers that take a large amount of time, an asynchronous call can be made to ensure that the remote call won't time out.

When making asynchronous `putAsync()` and `getAsync()` calls, a check is made to see if the connection is busy transferring a file or sending another command. If the connection is busy, then the request will not be made. This is done to ensure that remote JMX calls do not block when waiting for a lock on the connection. The `isBusy()` method provides non-synchronized access to the busy status of a connection.

Field Summary

<code>static int</code>	ASCII
<code>static int</code>	BINARY
<code>static java.lang.String</code>	COPYRIGHT
<code>static java.lang.String</code>	OBJECT_NAME_BASE
<code>static java.lang.String</code>	OBJECT_NAME_ID

Method Summary

<code>boolean</code>	<code>addImplementation(java.lang.String name, java.lang.String name)</code> Registers and attempts to activate a new implementation, using the supplied parameters
<code>boolean</code>	<code>ascii(long connectionId)</code> This convenience method is used to set the transfer type on the server to ascii.
<code>boolean</code>	<code>binary(long connectionId)</code> This method is used to set transfer type on the server server to binary.
<code>boolean</code>	<code>cdup(long connectionID)</code>
<code>boolean</code>	<code>changeDir(long connectionID, java.lang.String connectionID)</code> This method is used to change a directory on the FTP server.
<code>long</code>	<code>connect(java.util.Properties props)</code> Makes a file transfer connection using the information in the supplied properties object.

long	connect(java.lang.String ftpHost,int ftpHost,java.lang.String ftpHost,java.lang.String ftpHost) Connectes to an FTP server using the supplied credentials
boolean	delete(long connectionID,java.lang.String connectionID)
java.util.ArrayLis t	dir(long connectionID) lists current directory contents
java.util.ArrayLis t	dir(long connectionID,java.lang.String connectionID) lists contents of the specified directory.
void	disconnect(long connectionId) If connected, attempts to log out and disconnect from the FTP server currently connected to.
boolean	get(long connectionId,java.lang.String connectionId,java.lang.String connectionId) Transfers a remote file to a local location via FTP.
java.lang.String[]	getActiveImplementations() Returns an array of all registered file transfer implementation names whose corresponding class was loaded during startup and can be used to make a connection
boolean	getAsync(long connectionId,java.lang.String connectionId,java.lang.String connectionId) Transfers a remote file to a local location via FTP.
boolean	getAsync(long connectionId,java.lang.String connectionId,java.lang.String connectionId,int connectionId,long connectionId) Transfers a remote file to a local location via FTP.
java.lang.String	getImplementationClass(java.lang.String name) Returns the implementation class given the supplied implementation name
int	getLastCmdReplyCode(long connectionId) Method to return the command code of the last command issued.
java.lang.String	getLastCmdReplyString(long connectionId) Method to return the command reply string of the last command issued.
boolean	getLastCmdSuccess(long connectionId) Method to return the command success/failure of the last command issued.
java.lang.String[]	getRegisteredImplementations() Returns an array of all registered file transfer implementation names, not the class names
int	getTransferType(long connectionID) Retuns transfer type to be used for a ftp data transmission.
boolean	isBusy(long connectionId) Returns whether or not the supplied connection is currently busy

boolean	isConnected(long connectionId) Returns whether or not the connection matching the supplied Id is still connected
java.util.ArrayList	list(long connectionID) This method is used to get a full directory listing from the current directory, using the FTP LIST command.
java.util.ArrayList	list(long connectionID, java.lang.String connectionID) This method is used to get filtered directory contents from the FTP server over a data connection.
boolean	mkdir(long connectionID, java.lang.String connectionID) Creates directory on the remote ftp server.
boolean	mkdirFull(long connectionID, java.lang.String connectionID) This method takes a fully qualified directory path from the FTP root and attempts to create the entire path.
boolean	put(long connectionId, java.lang.String connectionId, java.lang.String connectionId) Transfers a local file to a remote location via FTP.
boolean	putAsync(long connectionId, java.lang.String connectionId, java.lang.String connectionId) Transfers a local file to a remote location asynchronously.
boolean	putAsync(long connectionId, java.lang.String connectionId, java.lang.String connectionId, int connectionId) Transfers a local file to a remote location via FTP.
java.lang.String	pwd(long connectionID) returns current working directory.
boolean	removeImplementation(java.lang.String name) Unregisters the implementation matching the supplied name, removing it from the configuration and the list of active implementations
boolean	rmdir(long connectionID, java.lang.String connectionID) Removes a directory on the remote ftp server.
boolean	rmdirFull(long connectionID, java.lang.String connectionID) Attempts to delete the supplied directory by changing to it and deleting all files and subdirectories recursively.
boolean	setTransferType(long connectionID, int connectionID) Sets transfer type to be used for a ftp data transmission.
java.lang.String	syst(long connectionID) Calls the FTP SYST command, returning the system type

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

OBJECT_NAME_ID

```
public static final java.lang.String OBJECT_NAME_ID
```

OBJECT_NAME_BASE

```
public static final java.lang.String OBJECT_NAME_BASE
```

ASCII

```
public static final int ASCII
```

BINARY

```
public static final int BINARY
```

Methods

getRegisteredImplementations

```
public java.lang.String[] getRegisteredImplementations()
```

Returns an array of all registered file transfer implementation names, not the class names

Returns:

Array of all registered file transfer implementation names

getActiveImplementations

```
public java.lang.String[] getActiveImplementations()
```

Returns an array of all registered file transfer implementation names whose corresponding class was loaded during startup and can be used to make a connection

Returns:

Array of all active file transfer implementation names

addImplementation

```
public boolean addImplementation(java.lang.String name,  
                                  java.lang.String className)
```

Registers and attempts to activate a new implementation, using the supplied parameters

Parameters:

name -
Name of the implementation

(continued from last page)

`className` -
Fully qualified class name of the implementation class

Returns:

`true`
if the implementation was added successfully, `false` if the implementation was already registered

removeImplementation

```
public boolean removeImplementation(java.lang.String name)
```

Unregisters the implementation matching the supplied name, removing it from the configuration and the list of active implementations

Parameters:

`name` -
Name of the implementation to remove

Returns:

`true`
if the implementation was removed successfully, `false` if the implementation was never registered

getImplementationClass

```
public java.lang.String getImplementationClass(java.lang.String name)
```

Returns the implementation class given the supplied implementation name

Parameters:

`name` -
Implementation name to query

Returns:

The class name for the supplied implementation, or null if no match was found

connect

```
public long connect(java.util.Properties props)  
    throws FileNotFoundException
```

Makes a file transfer connection using the information in the supplied properties object. In addition to any implementation specific information that needs to be supplied, the property `FileTransferConnection.CONFIG_PROP_IMPL` needs to be mapped to the name of the file transfer implementation to use

Parameters:

`props` -
Properties object containing connection information

Returns:

Connection ID of the newly created connection

Exceptions:

`FileNotFoundException` -
An error occurred making a connection, due to one of many possible problems (bad login, unknown implementation, etc)

(continued from last page)

connect

```
public long connect(java.lang.String ftpHost,  
                    int port,  
                    java.lang.String ftpUser,  
                    java.lang.String ftpPassword)  
    throws FileTransferException
```

Connectes to an FTP server using the supplied credentials

Parameters:

`ftpHost` -
Hostname or IP of the server to connect to
`port` -
The server port number
`ftpUser` -
FTP Username
`ftpPassword` -
FTP Password

Returns:

The connection Id for this connection

Exceptions:

`FileTransferException` -
A connection could not be made, or the supplied credentials are not correct

disconnect

```
public void disconnect(long connectionId)
```

If connected, attempts to log out and disconnect from the FTP server currently connected to. The connection will be forcibly closed and no errors will be reported.

Parameters:

`connectionId` -
Connection to close

isConnected

```
public boolean isConnected(long connectionId)
```

Returns whether or not the connection matching the supplied Id is still connected

Parameters:

`connectionId` -
to query

Returns:

`true`
if the supplied connection exists and is alive, `false` otherwise

getLastCmdSuccess

```
public boolean getLastCmdSuccess(long connectionId)  
    throws FileTransferException
```

Method to return the command success/failure of the last command issued. If no commands have yet been issued, then the method returns false.

Parameters:

`connectionId` -
to query

(continued from last page)

Returns:

true if the last file transfer command was successful, otherwise false

getLastCmdReplyCode

```
public int getLastCmdReplyCode(long connectionId)
    throws FileTransferException
```

Method to return the command code of the last command issued. If no commands have yet been issued, an implementation specific default value (such as 0) will be returned.

Parameters:

connectionId -
to query

Returns:

reply code from the last file transfer command.

getLastCmdReplyString

```
public java.lang.String getLastCmdReplyString(long connectionId)
    throws FileTransferException
```

Method to return the command reply string of the last command issued. If no commands have yet been issued, an implementation specific default value (such as an empty String) will be returned.

Parameters:

connectionId -
to query

Returns:

text of reply message from the last file transfer command.

put

```
public boolean put(long connectionId,
    java.lang.String localFilePath,
    java.lang.String remoteDirectory)
    throws FileTransferException
```

Transfers a local file to a remote location via FTP. Calls to this method will block until the transfer completes or an error occurs. When invoking this operation over a remote JMX connection, socket timeouts could occur if the operations take a large amount of time. In this case, the corresponding asynchronous call should be made to ensure that the remote call won't time out.

Parameters:

connectionId -
Connection Id of the connection to use
localFilePath -
Fully qualified or correct relative path to the file to transfer
remoteDirectory -
The destination directory on the FTP server.

Exceptions:

FileNotFoundException -
The local file given by localFilePath does not exist
FileTransferException -
Any error transferring the file

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferMBean#putAsync(long, String, String)

get

```
public boolean get(long connectionId,
                  java.lang.String localDirectory,
                  java.lang.String remoteFilePath)
    throws FileTransferException
```

Transfers a remote file to a local location via FTP. Calls to this method will block until the transfer completes or an error occurs. When invoking this operation over a remote JMX connection, socket timeouts could occur if the operations take a large amount of time. In this case, the corresponding asynchronous call should be made to ensure that the remote call won't time out.

Parameters:

`connectionId` -
Connection Id of the connection to use
`localDirectory` -
The destination directory on the local device
`remoteFilePath` -
Fully qualified FTP path of the file to transfer

Exceptions:

`FileTransferException` -
Any error transferring the file

See Also:

`com.ibm.retail.si.mgmt.xfer.FileTransferMBean#getAsync(long, String, String)`

isBusy

```
public boolean isBusy(long connectionId)
```

Returns whether or not the supplied connection is currently busy

Parameters:

`connectionId` -
ID of the connection to test

Returns:

`true`
if the connection is busy, `false` otherwise

putAsync

```
public boolean putAsync(long connectionId,
                        java.lang.String localFile,
                        java.lang.String remoteFile)
    throws FileTransferException
```

Transfers a local file to a remote location asynchronously. If the supplied connection is not busy, the request will be submitted and the transfer will be started. After returning, the transfer will run in the background. When complete, all `FileTransferNotificationListeners` will be notified. This method uses the `isBusy()` method to determine whether or not the supplied connection is busy. The request will only be sent if the connection is not busy, and this method will return `true`. Otherwise, `false` will be returned.

Parameters:

`connectionId` -
Id of the connection to use
`localFile` -
Path to the local file
`remoteFile` -
Name of the remote file

Returns:

(continued from last page)

true
if the request was successfully made, false if the connection was busy and the request could not be submitted

Exceptions:

FileTransferException -
Any error retrieving the connection or submitting the request

putAsync

```
public boolean putAsync(long connectionId,  
                       java.lang.String localFilePath,  
                       java.lang.String remoteDirectory,  
                       int progressInterval)  
    throws FileTransferException
```

Transfers a local file to a remote location via FTP. This method will return once the transfer is initiated and will run in the background. When complete, a FileTransferCompletionNotification will be sent. This method uses the isBusy() method to determine whether or not the supplied connection is busy. The request will only be sent if the connection is not busy, and this method will return true. Otherwise, false will be returned. Transfer progress can be optionally reported by supplying valid values (1-100) for the percentage interval. When supplied, FileTransferProgressNotifications will be sent on the supplied interval, calculated and rounded to 4KB boundaries.

Parameters:

connectionId -
Connection Id of the connection to use
localFilePath -
Fully qualified or correct relative path to the file to transfer
remoteDirectory -
The destination directory on the FTP server.
progressInterval -
Value representing the interval for reporting transfer progress via FileTransferProgressNotifications. Values outside of the range of 1-100 will be ignored and no Notifications will be sent. A value of 0 only reports upon completion

Returns:

true
if the request was successfully made, false if the connection was busy and the request could not be submitted

Exceptions:

FileTransferException -
Any error transferring the file

getAsync

```
public boolean getAsync(long connectionId,  
                       java.lang.String localFile,  
                       java.lang.String remoteFile)  
    throws FileTransferException
```

Transfers a remote file to a local location via FTP. This method will return once the transfer is initiated and will run in the background. When complete, FileTransferNotificationListeners will be notified. This method uses the isBusy() method to determine whether or not the supplied connection is busy. The request will only be sent if the connection is not busy, and this method will return true. Otherwise, false will be returned.

Parameters:

connectionId -
Id of the connection to use
localFile -
Path to the file to be created locally
remoteFile -
Remote file path

Returns:

true
if the request was successfully made, false if the connection was busy and the request could not be submitted

(continued from last page)

Exceptions:

`FileTransferException` -
Any error retrieving the connection or submitting the request

getAsync

```
public boolean getAsync(long connectionId,  
                        java.lang.String localDirectory,  
                        java.lang.String remoteFilePath,  
                        int progressInterval,  
                        long fileSize)  
    throws FileTransferException
```

Transfers a remote file to a local location via FTP. This method will return once the transfer is initiated and will run in the background. When complete, a `FileTransferCompletionNotification` will be sent. This method uses the `isBusy()` method to determine whether or not the supplied connection is busy. The request will only be sent if the connection is not busy, and this method will return `true`. Otherwise, `false` will be returned. Transfer progress can be optionally reported by supplying valid values (1-100) for the percentage interval. When supplied, `FileTransferProgressNotifications` will be sent on the supplied interval, calculated and rounded to 4KB boundaries. Because FTP does not support the reporting of file sizes, the file size for performing interval calculations must be specified. If the size and/or increments supplied are not consistent, then the only Notification sent will be at 100 percent.

Parameters:

`connectionId` -
Connection Id of the connection to use
`localDirectory` -
The destination directory on the local device
`remoteFilePath` -
Fully qualified FTP path of the file to transfer
`progressInterval` -
Optional value representing the interval for reporting transfer progress via
`FileTransferProgressNotifications` Values outside of the range of 1-100 will be ignored and no Notifications will be sent.

Returns:

`true`
if the request was successfully made, `false` if the connection was busy and the request could not be submitted

Exceptions:

`FileTransferException` -
Any error transferring the file.

ascii

```
public boolean ascii(long connectionId)  
    throws FileTransferException
```

This convenience method is used to set the transfer type on the server to `ascii`. Implementations that do not support the transfer type will always return `true`.

Parameters:

`connectionId` -
Connection Id of the connection to use

Returns:

`true` if the get completed successfully.

Exceptions:

`FileTransferException` -
Error occurred sending the remote command

(continued from last page)

binary

```
public boolean binary(long connectionId)
    throws FileTransferException
```

This method is used to set transfer type on the server server to binary. Implementations that do not support the transfer type will always return true.

Parameters:

connectionId -
Connection Id of the connection to use

Returns:

true if the get completed successfully.

Exceptions:

FileTransferException -
Error occurred sending the remote command

setTransferType

```
public boolean setTransferType(long connectionID,
    int transferType)
    throws FileTransferException
```

Sets transfer type to be used for a ftp data transmission.

Parameters:

connectionID -
- connectionId Connection ID of the connection to use.
transferType -
- data transfer type to use. Types are FileTransferMBean.ASCII or FileTransferMBean.BINARY

Returns:

true - if transfer type is successfully set or the implementation does not support it, otherwise returns false

Exceptions:

FileTransferException

getTransferType

```
public int getTransferType(long connectionID)
    throws FileTransferException
```

Retuns transfer type to be used for a ftp data transmission.

Parameters:

connectionID -
- connectionId Connection ID of the connection to use.

Returns:

int - one of two transfer types. FileTransferMBean.ASCII or FileTransferMBean.ASCII

Exceptions:

FileTransferException

(continued from last page)

mkdir

```
public boolean mkdir(long connectionID,  
                    java.lang.String directory)  
    throws FileTransferException
```

Creates directory on the remote ftp server.

Parameters:

connectionID -
- connectionId Connection Id of the connection to use.
directory -
- name of the directory to create on the remote ftp server. Directory name could be absolute or relative. Absolute directory name starts with "/". If absolute directory name is given, then directory will be created relative to ftproot directory. If relative directory name is given, directory will be created relative to present working directory.

Returns:

true - if directory has been successfully created, otherwise returns false

Exceptions:

FileTransferException -
- if any error creating the directory.

mkdirFull

```
public boolean mkdirFull(long connectionID,  
                        java.lang.String fullDirPath)  
    throws FileTransferException
```

This method takes a fully qualified directory path from the FTP root and attempts to create the entire path. For example, if /d1/d2 already exists, passing /d1/d2/d3/d4 will change to /d1/d2, create d3, change to d3, and make d4. Upon completion of the command, the current working directory will be the last directory created or changed to

Parameters:

connectionID -
Connection Id of the connection to use.
fullDirPath -
Fully qualified directory path to create

Returns:

true
if the path was created, false otherwise

Exceptions:

FileTransferException -
An invalid directory path was given, or an error occurred executing a command

rmdir

```
public boolean rmdir(long connectionID,  
                   java.lang.String directory)  
    throws FileTransferException
```

Removes a directory on the remote ftp server.

Parameters:

directory -
- name of the new directory to remove on the remote ftp server.
connectionID -
- Connection ID of the connection to use.

Returns:

true - if the directory has been successfully removed, otherwise returns false.

(continued from last page)

Exceptions:

FileTransferException

rmdirFull

```
public boolean rmdirFull(long connectionID,  
                          java.lang.String dir)  
    throws FileTransferException
```

Attempts to delete the supplied directory by changing to it and deleting all files and subdirectories recursively. The fully qualified path is required, not a relative path. Errors could occur if the present working directory is one that will be deleted.

Parameters:

connectionID -
Connection ID of the connection to use.
dir -
Fully qualified path of the directory to delete

Returns:

true if the command completed successfully

Exceptions:

FileTransferException -
Error occurred issuing commands, or an attempt was made to delete the root directory

delete

```
public boolean delete(long connectionID,  
                       java.lang.String file)  
    throws FileTransferException
```

Parameters:

connectionID -
- connectionId Connection Id of the connection to use.
file -
- name of the file to be deleted

Returns:

true - if the file has been successfully deleted

Exceptions:

FileTransferException -
- if any error deleting the file.

dir

```
public java.util.ArrayList dir(long connectionID)  
    throws FileTransferException
```

lists current directory contents

Parameters:

connectionID -
- Connection ID of the connection to use.

Returns:

returns an ArrayList of the contents of the directory.

Exceptions:

(continued from last page)

FileTransferException

dir

```
public java.util.ArrayList dir(long connectionID,  
                                java.lang.String directory)  
    throws FileTransferException
```

lists contents of the specified directory.

Parameters:

connectionID -
- Connection ID of the connection to use.
directory -
- name of the directory to list contents of. Directory name could be absolute or relative. Absolute directory name starts with "/".

Returns:

returns an ArrayList of the contents of the directory.

Exceptions:

FileTransferException

list

```
public java.util.ArrayList list(long connectionID)  
    throws FileTransferException
```

This method is used to get a full directory listing from the current directory, using the FTP LIST command.

Parameters:

connectionID -
Connection ID of the connection to use.

Returns:

An ArrayList of names, or null if there are none

Exceptions:

FileTransferException

list

```
public java.util.ArrayList list(long connectionID,  
                                java.lang.String filter)  
    throws FileTransferException
```

This method is used to get filtered directory contents from the FTP server over a data connection.

Parameters:

connectionID -
Connection ID of the connection to use.
filter -
the filter to apply to the dir command.

Returns:

An ArrayList of names, or null if there are none

Exceptions:

FileTransferException -
Error occurred sending the remote command

syst

```
public java.lang.String syst(long connectionID)
    throws FileTransferException
```

Calls the FTP SYST command, returning the system type

Parameters:

connectionID -
Connection ID of the connection to use.

Returns:

A String from the server indicating the system type

Exceptions:

FileTransferException -
Error occurred sending the remote command

cdup

```
public boolean cdup(long connectionID)
    throws FileTransferException
```

Parameters:

connectionID

Returns:

true
if the command was successful, false otherwise

Exceptions:

FileTransferException

changeDir

```
public boolean changeDir(long connectionID,
    java.lang.String d)
    throws FileTransferException
```

This method is used to change a directory on the FTP server.

Parameters:

d -
is the directory to change to.

Returns:

true if the change dir completed successfully.

pwd

```
public java.lang.String pwd(long connectionID)
    throws FileTransferException
```

returns current working directory.

Parameters:

connectionID -
- Connection ID of the connection to use.

(continued from last page)

Returns:

String - returns name of the current working directory.

Exceptions:

FileTransferException

com.ibm.retail.si.mgmt.xfer

Class FileTransferNotification

```

java.lang.Object
  |-- java.util.EventObject
        |-- javax.management.Notification
              |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
                    |-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                          |-- com.ibm.retail.si.mgmt.xfer.FileTransferNotification

```

Direct Known Subclasses:

FileTransferProgressNotification

```

public class FileTransferNotification
extends RtlInformationNotification

```

Field Summary

long	connectionID
static java.lang.String	COPYRIGHT
java.lang.String	ftpCommand
int	lastReplyCode
java.lang.String	localFileName
int	progressInterval
java.lang.String	remoteFileName
int	transferPercentage

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

FileTransferNotification(java.lang.Object source, java.lang.String source, java.lang.Object source)

FileTransferNotification(java.lang.Object source, java.lang.String source)

Method Summary

long	getConnectionID()
java.lang.String	getFtpCommand()
int	getLastReplyCode()
java.lang.String	getLocalFileName()
int	getProgressInterval()
java.lang.String	getRemoteFileName()
int	getTransferPercentage()
void	setConnectionID(long connectionID)
void	setFtpCommand(java.lang.String ftpCommand)
void	setLastReplyCode(int lastReplyCode)
void	setLocalFileName(java.lang.String localFileName)
void	setProgressInterval(int progressInterval)
void	setRemoteFileName(java.lang.String remoteFileName)
void	setTransferPercentage(int transferPercentage)

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

setDefaultMask

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

```
applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams,
getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp,
setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice,
setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp
```

Methods inherited from : class javax.management.Notification

```
getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber,
setSource, setTimeStamp, setUserData, toString
```

Methods inherited from : class java.util.EventObject

```
getSource, toString
```

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

lastReplyCode

```
protected int lastReplyCode
```

connectionID

```
protected long connectionID
```

localFileName

```
protected java.lang.String localFileName
```

remoteFileName

```
protected java.lang.String remoteFileName
```

transferPercentage

```
protected int transferPercentage
```

progressInterval

protected int **progressInterval**

ftpCommand

protected java.lang.String **ftpCommand**

Constructors

FileTransferNotification

```
public FileTransferNotification(java.lang.Object source,  
                               java.lang.String Message,  
                               java.lang.Object userData)
```

Parameters:

source
Message
userData

FileTransferNotification

```
public FileTransferNotification(java.lang.Object source,  
                               java.lang.String message)
```

Parameters:

source
message

Methods

getConnectionID

```
public long getConnectionID()
```

Returns:

Returns the connectionID.

setConnectionID

```
public void setConnectionID(long connectionID)
```

Parameters:

connectionID -
The connectionID to set.

(continued from last page)

getLastReplyCode

```
public int getLastReplyCode()
```

Returns:

Returns the lastReplyCode.

setLastReplyCode

```
public void setLastReplyCode(int lastReplyCode)
```

Parameters:

lastReplyCode -
The lastReplyCode to set.

getLocalFileName

```
public java.lang.String getLocalFileName()
```

Returns:

Returns the localFileName.

setLocalFileName

```
public void setLocalFileName(java.lang.String localFileName)
```

Parameters:

localFileName -
The localFileName to set.

getProgressInterval

```
public int getProgressInterval()
```

Returns:

Returns the progressInterval.

setProgressInterval

```
public void setProgressInterval(int progressInterval)
```

Parameters:

progressInterval -
The progressInterval to set.

getRemoteFileName

```
public java.lang.String getRemoteFileName()
```

(continued from last page)

Returns:

Returns the remoteFileName.

setRemoteFileName

```
public void setRemoteFileName(java.lang.String remoteFileName)
```

Parameters:

remoteFileName -
The remoteFileName to set.

getTransferPercentage

```
public int getTransferPercentage()
```

Returns:

Returns the transferPercentage.

setTransferPercentage

```
public void setTransferPercentage(int transferPercentage)
```

Parameters:

transferPercentage -
The transferPercentage to set.

getFtpCommand

```
public java.lang.String getFtpCommand()
```

Returns:

Returns the ftpCommand.

setFtpCommand

```
public void setFtpCommand(java.lang.String ftpCommand)
```

Parameters:

ftpCommand -
The ftpCommand to set.

com.ibm.retail.si.mgmt.xfer

Class FileTransferProgressNotification

```

java.lang.Object
  |-- java.util.EventObject
      |-- javax.management.Notification
          |-- com.ibm.retail.si.mgmt.notifications.RtlNotification
              |-- com.ibm.retail.si.mgmt.notifications.RtlInformationNotification
                  |-- com.ibm.retail.si.mgmt.xfer.FileTransferNotification
                      |-- com.ibm.retail.si.mgmt.xfer.FileTransferProgressNotification

```

Direct Known Subclasses:

FileTransferCompletionNotification

public class **FileTransferProgressNotification**

extends FileTransferNotification

Field Summary

<pre> static java.lang.String </pre>	COPYRIGHT
------------------------------------------------------	-----------

Fields inherited from : class com.ibm.retail.si.mgmt.xfer.FileTransferNotification

connectionID, COPYRIGHT, ftpCommand, lastReplyCode, localFileName, progressInterval, remoteFileName, transferPercentage

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

COPYRIGHT, FILTER_MASK, NOTIFICATION_TYPE

Fields inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

COPYRIGHT, FILTER_MASK_SYSTEM_EVENT

Fields inherited from : class javax.management.Notification

source

Fields inherited from : class java.util.EventObject

source

Constructor Summary

```
FileTransferProgressNotification(java.lang.Object source, java.lang.String
source, java.lang.Object source)
```

```
FileTransferProgressNotification(java.lang.Object source, java.lang.String source)
```

Methods inherited from : class com.ibm.retail.si.mgmt.xfer.FileTransferNotification

```
getConnectionID, getFtpCommand, getLastReplyCode, getLocalFileName,
getProgressInterval, getRemoteFileName, getTransferPercentage, setConnectionID,
setFtpCommand, setLastReplyCode, setLocalFileName, setProgressInterval,
setRemoteFileName, setTransferPercentage
```

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlInformationNotification

```
setDefaultMask
```

Methods inherited from : class com.ibm.retail.si.mgmt.notifications.RtlNotification

```
applyEventMask, getEventMask, getEventQualifiers, getMsgKey, getMsgParams,
getOriginatingDevice, getResourceBundle, GetSystemSequenceNo, GetSystemTimeStamp,
setDefaultMask, setEventQualifiers, setMsgKey, setMsgParams, setOriginatingDevice,
setResourceBundle, SetSystemSequenceNo, SetSystemTimeStamp
```

Methods inherited from : class javax.management.Notification

```
getMessage, getSequenceNumber, getTimeStamp, getType, getUserData, setSequenceNumber,
setSource, setTimeStamp, setUserData, toString
```

Methods inherited from : class java.util.EventObject

```
getSource, toString
```

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

FileTransferProgressNotification

```
public FileTransferProgressNotification(java.lang.Object source,
                                       java.lang.String message,
                                       java.lang.Object userData)
```

(continued from last page)

Parameters:

source -
Notification source
Message -
Notification message
userData -
Notification data

FileTransferProgressNotification

```
public FileTransferProgressNotification(java.lang.Object source,  
                                       java.lang.String message)
```

Parameters:

source -
Notification source
Message -
Notification message

com.ibm.retail.si.mgmt.xfer

Class FileTransferStatus

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.xfer.FileTransferStatus

```

All Implemented interfaces:

java.io.Serializable

Direct Known Subclasses:

ProgressFileTransferStatus, CompletionFileTransferStatus

public class **FileTransferStatus**

extends java.lang.Object

implements java.io.Serializable

Field Summary

static int	COMPLETION_NOTIFICATION
long	connectionID
static java.lang.String	COPYRIGHT
java.lang.String	ftpCommand
int	lastReplyCode
java.lang.String	localFileName
int	notificationType
static int	PROGRESS_NOTIFICATION
java.lang.String	remoteFileName

Constructor Summary

```
FileTransferStatus(int type, long type, java.lang.String type, int type, java.lang.String
type, java.lang.String type)
```

Method Summary

long	getConnectionID()
java.lang.String	getFtpCommand()

int	getLastReplyCode()
java.lang.String	getLocalFileName()
int	getNotificationType()
java.lang.String	getRemoteFileName()
static java.lang.String	mapNotificationTypeToStr(int notType)
void	setConnectionID(long connectionID)
void	setFtpCommand(java.lang.String ftpCommand)
void	setLastReplyCode(int lastReplyCode)
void	setLocalFileName(java.lang.String localFileName)
void	setNotificationType(int notificationType)
void	setRemoteFileName(java.lang.String remoteFileName)
java.lang.String	toString()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

PROGRESS_NOTIFICATION

public static final int **PROGRESS_NOTIFICATION**

COMPLETION_NOTIFICATION

public static final int **COMPLETION_NOTIFICATION**

(continued from last page)

notificationType

protected int **notificationType**

lastReplyCode

protected int **lastReplyCode**

connectionID

protected long **connectionID**

localFileName

protected java.lang.String **localFileName**

remoteFileName

protected java.lang.String **remoteFileName**

ftpCommand

protected java.lang.String **ftpCommand**

Constructors

FileTransferStatus

```
public FileTransferStatus(int type,
                          long connectionID,
                          java.lang.String ftpCommand,
                          int lastReplyCode,
                          java.lang.String localFileName,
                          java.lang.String remoteFileName)
```

Parameters:

type -
The notification type, as defined by the constants in this class

connectionID -
Connection ID

ftpCommand -
Command run, PUT or GET

lastReplyCode -
Last reply code from the FTP Server

localFileName -
Local file name

remoteFileName -
Remote file name

Methods

(continued from last page)

getNotificationType

```
public int getNotificationType()
```

Returns:

Returns the notificationType.

setNotificationType

```
public void setNotificationType(int notificationType)
```

Parameters:

notificationType -
The notificationType to set, as defined by the constants in this class

getConnectionID

```
public long getConnectionID()
```

Returns:

Returns the connectionID.

setConnectionID

```
public void setConnectionID(long connectionID)
```

Parameters:

connectionID -
The connectionID to set.

getLastReplyCode

```
public int getLastReplyCode()
```

Returns:

Returns the lastReplyCode.

setLastReplyCode

```
public void setLastReplyCode(int lastReplyCode)
```

Parameters:

lastReplyCode -
The lastReplyCode to set.

(continued from last page)

getLocalFileName

```
public java.lang.String getLocalFileName()
```

Returns:

Returns the localFileName.

setLocalFileName

```
public void setLocalFileName(java.lang.String localFileName)
```

Parameters:

localFileName -
The localFileName to set.

getRemoteFileName

```
public java.lang.String getRemoteFileName()
```

Returns:

Returns the remoteFileName.

setRemoteFileName

```
public void setRemoteFileName(java.lang.String remoteFileName)
```

Parameters:

remoteFileName -
The remoteFileName to set.

toString

```
public java.lang.String toString()
```

See Also:

java.lang.Object#toString()

getFtpCommand

```
public java.lang.String getFtpCommand()
```

Returns:

Returns the ftpCommand.

setFtpCommand

```
public void setFtpCommand(java.lang.String ftpCommand)
```

(continued from last page)

Parameters:

ftpCommand -
The ftpCommand to set.

mapNotificationTypeToStr

```
public static java.lang.String mapNotificationTypeToStr(int notType)
```

com.ibm.retail.si.mgmt.xfer

Class OS4690DirectoryEntry

java.lang.Object

|--com.ibm.retail.si.mgmt.xfer.OS4690DirectoryEntry

All Implemented interfaces:

java.io.Serializable, DirectoryEntry

public class **OS4690DirectoryEntry**
 extends java.lang.Object
 implements DirectoryEntry, java.io.Serializable

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

OS4690DirectoryEntry(java.lang.String entryStr)

Method Summary

java.lang.String	getFileDate()
long	getFileDateMillis()
long	getFileSize()
java.lang.String	getName()
boolean	isDirectory()
boolean	isExecutable()
boolean	isReadable()
boolean	isWritable()
java.lang.String	toString()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
 wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

OS4690DirectoryEntry

```
public OS4690DirectoryEntry(java.lang.String entryStr)
```

Methods

isDirectory

```
public boolean isDirectory()
```

See Also:

[com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isDirectory\(\)](#)

isReadable

```
public boolean isReadable()
```

See Also:

[com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isReadable\(\)](#)

isWritable

```
public boolean isWritable()
```

See Also:

[com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isWritable\(\)](#)

isExecutable

```
public boolean isExecutable()
```

See Also:

[com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isExecutable\(\)](#)

getName

```
public java.lang.String getName()
```

See Also:

`com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getName()`

getFileSize

```
public long getFileSize()
```

See Also:

`com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getFileSize()`

getFileDate

```
public java.lang.String getFileDate()
```

See Also:

`com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getFileDate()`

getFileDateMillis

```
public long getFileDateMillis()
```

See Also:

`com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getFileDateMillis()`

toString

```
public java.lang.String toString()
```

com.ibm.retail.si.mgmt.xfer

Class ProgressFileTransferStatus

java.lang.Object

├--com.ibm.retail.si.mgmt.xfer.FileTransferStatus

└--**com.ibm.retail.si.mgmt.xfer.ProgressFileTransferStatus**public class **ProgressFileTransferStatus**

extends FileTransferStatus

Field Summary

static java.lang.String	COPYRIGHT
int	progressInterval
int	transferPercentage

Fields inherited from : class com.ibm.retail.si.mgmt.xfer.FileTransferStatus

COMPLETION_NOTIFICATION, connectionID, COPYRIGHT, ftpCommand, lastReplyCode, localFileName, notificationType, PROGRESS_NOTIFICATION, remoteFileName

Constructor Summary

ProgressFileTransferStatus(long connectionID, java.lang.String connectionID, int connectionID, java.lang.String connectionID, java.lang.String connectionID, int connectionID, int connectionID)

Method Summary

int	getProgressInterval()
int	getTransferPercentage()
void	setProgressInterval(int progressInterval)
void	setTransferPercentage(int transferPercentage)
java.lang.String	toString()

Methods inherited from : class com.ibm.retail.si.mgmt.xfer.FileTransferStatus

```
getConnectionID, getFtpCommand, getLastReplyCode, getLocalFileName,  
getNotificationType, getRemoteFileName, mapNotificationTypeToStr, setConnectionID,  
setFtpCommand, setLastReplyCode, setLocalFileName, setNotificationType,  
setRemoteFileName, toString
```

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,  
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

transferPercentage

```
protected int transferPercentage
```

progressInterval

```
protected int progressInterval
```

Constructors

ProgressFileTransferStatus

```
public ProgressFileTransferStatus(long connectionID,  
                                java.lang.String ftpCommand,  
                                int lastReplyCode,  
                                java.lang.String localFileName,  
                                java.lang.String remoteFileName,  
                                int transferPercentage,  
                                int progressInterval)
```

Parameters:

```
connectionID -  
Connection ID  
ftpCommand -  
Command run, PUT or GET  
lastReplyCode -  
Last reply code from the FTP Server  
localFileName -  
Local file name  
remoteFileName -  
Remote file name  
transferPercentage -  
The percentage of the transfer that has completed  
progressInterval -  
The percentage increment for this transfer
```


(continued from last page)

Methods

getTransferPercentage

```
public int getTransferPercentage()
```

Returns:

Returns the transferPercentage.

setTransferPercentage

```
public void setTransferPercentage(int transferPercentage)
```

Parameters:

transferPercentage -
The transferPercentage to set.

getProgressInterval

```
public int getProgressInterval()
```

Returns:

Returns the progressInterval.

setProgressInterval

```
public void setProgressInterval(int progressInterval)
```

Parameters:

progressInterval -
The progressInterval to set.

toString

```
public java.lang.String toString()
```

com.ibm.retail.si.mgmt.xfer

Class UNIXDirectoryEntry

java.lang.Object

```

  |
  +--com.ibm.retail.si.mgmt.xfer.UNIXDirectoryEntry

```

All Implemented interfaces:

java.io.Serializable, DirectoryEntry

```

public class UNIXDirectoryEntry
extends java.lang.Object
implements DirectoryEntry, java.io.Serializable

```

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

UNIXDirectoryEntry(java.lang.String entryStr)

Method Summary

java.lang.String	getFileDate()
long	getFileDateMillis()
long	getFileSize()
java.lang.String	getGroupID()
java.lang.String	getName()
java.lang.String	getOwnerID()
boolean	isDirectory()
boolean	isExecutable()
boolean	isReadable()
boolean	isWritable()
java.lang.String	toString()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields**COPYRIGHT**

public static final java.lang.String **COPYRIGHT**

Constructors**UNIXDirectoryEntry**

public **UNIXDirectoryEntry**(java.lang.String entryStr)

Parameters:

entryStr

Exceptions:

IllegalArgumentException

NumberFormatException

Methods**isDirectory**

public boolean **isDirectory**()

See Also:

com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isDirectory()

isReadable

public boolean **isReadable**()

See Also:

com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isReadable()

isWritable

public boolean **isWritable**()

See Also:

(continued from last page)

`com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isWritable()`

isExecutable

`public boolean isExecutable()`

See Also:

`com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isExecutable()`

getName

`public java.lang.String getName()`

See Also:

`com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getName()`

getFileSize

`public long getFileSize()`

See Also:

`com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getFileSize()`

getFileDate

`public java.lang.String getFileDate()`

See Also:

`com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getFileDate()`

getFileDateMillis

`public long getFileDateMillis()`

See Also:

`com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getFileDateMillis()`

getGroupID

`public java.lang.String getGroupID()`

Returns:

Returns the groupID.

getOwnerID

```
public java.lang.String getOwnerID()
```

Returns:

Returns the ownerID.

toString

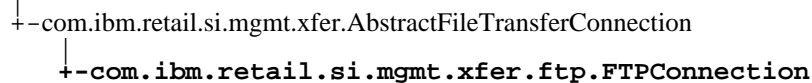
```
public java.lang.String toString()
```

Package

com.ibm.retail.si.mgmt.xfer.ftp

com.ibm.retail.si.mgmt.xfer.ftp Class **FTPConnection**

java.lang.Object



All Implemented interfaces:

FTPReplyListener, FileTransferConnection

Direct Known Subclasses:

FTPSCConnection

public class **FTPConnection**
 extends AbstractFileTransferConnection
 implements FileTransferConnection, FTPReplyListener

This class provides a set of FTP client functions as specified in RFC 959.

Field Summary

boolean	busy
static java.lang.String	CONFIG_IMPL_NAME
static java.lang.String	CONFIG_PROP_HOSTNAME
static java.lang.String	CONFIG_PROP_PASSWORD
static java.lang.String	CONFIG_PROP_PORT
static java.lang.String	CONFIG_PROP_USERNAME
static java.lang.String	COPYRIGHT
java.net.Socket	ctrlSocket
java.util.ArrayList	directoryContents
int	ftpControlTO
int	ftpDataBufSize
int	ftpDataConnAcceptTO
int	ftpDataMaxReadTOs

int	ftpDataReadTO
int	ftpIdleXferTO
int	ftpPort
int	ftpReplyBufSize
int	ftpReplyTO
java.lang.String	host
java.io.InputStream	in_stream
boolean	inGoodState
com.ibm.retail.si.mgmt.xfer.ftp.FTPReply	lastCmdReply
java.lang.String	localFileName
boolean	loggedIn
java.io.DataOutputStream	out_stream
java.lang.String	remoteFileName
java.lang.Thread	replyProcThread
java.util.List	replyQueue
com.ibm.retail.si.mgmt.xfer.ftp.FTPReplyProc	rp
java.lang.String	systString
int	transferType

Fields inherited from : class com.ibm.retail.si.mgmt.xfer.AbstractFileTransferConnection

connectionID, COPYRIGHT, fileTransferStatusListeners, lastAccessTime, maxIdleTime

Constructor Summary

FTPConnection()

Method Summary

boolean	appendFile(java.lang.String fileName,byte[] fileName) Not implemented, returns true
boolean	ascii() This method is used to set transfer type on the FTP server to ascii.
boolean	binary() This method is used to set transfer type on the FTP server to binary.
boolean	calculateFileTransferProgressAndSendNotification(int blockCounter,double blockCounter,int blockCounter,int blockCounter,java.lang.String blockCounter) This method calculates file transfer percentage and notifies FileTransferNotificationListeners based upon supplied notification interval.
boolean	cdup() Changes the current working directory up one level
boolean	changeDir(java.lang.String d) This method is used to change a directory on the FTP server.
void	checkReplyQueue() Checks the reply queue for FTP replies from the control channel, setting the lastCmdReply variable
void	closeConnection() Method to stop the reply processing thread and close the control connection ctrlSocket.
void	closeDataChannelSocket(java.net.Socket dataSocket) Makes an attempt to close the data channel socket
boolean	connect(java.util.Properties props)
boolean	delete(java.lang.String f) This method is used to delete a file on the FTP server.
java.util.ArrayLis t	dir() This method is used to get all directory contents from the FTP server over a data connection.
java.util.ArrayLis t	dir(java.lang.String f) This method is used to get filtered directory contents from the FTP server over a data connection.
void	ftpReply(FTPReply reply) This method is the implementation of the FTPSReplyListener.
boolean	get(java.lang.String localFile,java.lang.String localFile) This method is used to get a file from the FTP server over a data connection.
boolean	get(java.lang.String localFile,java.lang.String localFile,int localFile,boolean localFile,long localFile) Method that retrieves the supplied remote file from the server, storing it in the supplied local file name.

void	getAsync(java.lang.String localFile, java.lang.String localFile)
void	getAsync(java.lang.String localFile, java.lang.String localFile, int localFile, long localFile)
java.lang.String	getCommandFailedString(java.lang.String command, int command)
java.io.InputStream	getCtrlSocketInputStream()
java.io.OutputStream	getCtrlSocketOutputStream()
java.io.InputStream	getDataChannelInputStream(java.net.Socket dataSocket)
java.io.OutputStream	getDataChannelOutputStream(java.net.Socket dataSocket)
java.util.List	getFileRoots() Not implemented, returns an empty List
int	getLastCmdReplyCode() Method to return the command code of a command to the user.
java.lang.String	getLastCmdReplyString() Method to return the command reply string as passed up by the server.
boolean	getLastCmdSuccess() Method to return the command success/failure of a command to the user.
int	getTransferType() This method is used to get transfer type on the FTP server.
boolean	isBusy()
boolean	isConnected() Returns the connectivity state of the control channel socket
java.util.ArrayList	list()
java.util.ArrayList	list(java.lang.String filter)
boolean	login(java.lang.String u, java.lang.String u) This method is used to login to the FTP server.
boolean	logout() This method is used to logout from the FTP server.
void	makeCtrlChannelConnection() Makes a connection on the control channel
boolean	mkdir(java.lang.String d) This method is used to make a directory on the FTP server.

boolean	mkdirFull(java.lang.String dirPath)
boolean	put(java.lang.String localFile, java.lang.String localFile) This method is used to put a file to the FTP server over a data connection.
boolean	put(java.lang.String localFile, java.lang.String localFile, int localFile, boolean localFile)
void	putAsync(java.lang.String localFile, java.lang.String localFile)
void	putAsync(java.lang.String localFile, java.lang.String localFile, int localFile)
java.lang.String	pwd() This method returns the current working FTP directory
int	readFile(java.lang.String fileName, byte[] fileName, long fileName, int fileName) Not implemented, returns 0
boolean	renameFile(java.lang.String src, java.lang.String src) Not implemented, returns false
boolean	rmdir(java.lang.String d) This method is used to remove a directory on the FTP server.
boolean	rmdirFull(java.lang.String dir)
void	sendCommand(java.lang.String command) Sends a FTP or FTPS Command over the control channel output stream and waits for a reply (either good or bad).
java.lang.String	sendPassiveCommand()
void	setBusy()
boolean	setTransferType(int type) This method is used to set transfer type on the FTP server to ascii or binary.
boolean	startFile(java.lang.String fileName) Not implemented, returns true
java.lang.String	syst()
void	unsetBusy()

Methods inherited from : class com.ibm.retail.si.mgmt.xfer.AbstractFileTransferConnection

addFileTransferStatusListener, getConnectionID, getMaxIdleTime, isActive, notifyFileTransferListeners, removeFileTransferStatusListener, sendCompletion, setConnectionID, setMaxIdleTime, updateLastAccessTime

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

host

protected java.lang.String **host**

ctrlSocket

protected java.net.Socket **ctrlSocket**

lastCmdReply

protected com.ibm.retail.si.mgmt.xfer.ftp.FTPReply **lastCmdReply**

replyQueue

protected java.util.List **replyQueue**

rp

protected com.ibm.retail.si.mgmt.xfer.ftp.FTPReplyProc **rp**

replyProcThread

protected java.lang.Thread **replyProcThread**

in_stream

protected java.io.InputStream **in_stream**

out_stream

protected java.io.DataOutputStream **out_stream**

directoryContents

protected java.util.ArrayList **directoryContents**

inGoodState

protected boolean **inGoodState**

systString

protected java.lang.String **systString**

ftpPort

protected int **ftpPort**

ftpControlTO

protected int **ftpControlTO**

ftpReplyTO

protected int **ftpReplyTO**

ftpDataConnAcceptTO

protected int **ftpDataConnAcceptTO**

ftpIdleXferTO

protected int **ftpIdleXferTO**

ftpDataReadTO

protected int **ftpDataReadTO**

ftpDataMaxReadTOs

protected int **ftpDataMaxReadTOs**

(continued from last page)

ftpReplyBufSizeprotected int **ftpReplyBufSize**

ftpDataBufSizeprotected int **ftpDataBufSize**

localFileNameprotected java.lang.String **localFileName**

remoteFileNameprotected java.lang.String **remoteFileName**

transferTypeprotected int **transferType**

CONFIG_PROP_USERNAMEpublic static final java.lang.String **CONFIG_PROP_USERNAME**

CONFIG_PROP_PASSWORDpublic static final java.lang.String **CONFIG_PROP_PASSWORD**

CONFIG_PROP_HOSTNAMEpublic static final java.lang.String **CONFIG_PROP_HOSTNAME**

CONFIG_PROP_PORTpublic static final java.lang.String **CONFIG_PROP_PORT**

CONFIG_IMPL_NAMEpublic static final java.lang.String **CONFIG_IMPL_NAME**

loggedInprotected boolean **loggedIn**

busy

protected boolean **busy**

Constructors

FTPConnection

public **FTPConnection**()

Methods

connect

public boolean **connect**(java.util.Properties props)
throws **FileTransferException**

Returns:

boolean The success or failure of the logon procedure

Exceptions:

FileTransferException -
An error occurred making the control channel connection

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#connect(java.util.Properties)

makeCtrlChannelConnection

protected void **makeCtrlChannelConnection**()
throws **FileTransferException**

Makes a connection on the control channel

Exceptions:

FileTransferException -
Unable to make connection

checkReplyQueue

protected void **checkReplyQueue**()
Checks the reply queue for FTP replies from the control channel, setting the lastCmdReply variable

isBusy

public boolean **isBusy**()

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#isBusy()

setBusy

```
protected void setBusy()
```

unsetBusy

```
protected void unsetBusy()
```

sendCommand

```
protected void sendCommand(java.lang.String command)  
    throws FileTransferException
```

Sends a FTP or FTPS Command over the control channel output stream and waits for a reply (either good or bad). The reply will be stored in the lastCmdReply instance variable

Parameters:

command -
Command to send

Exceptions:

FileTransferException -
Error writing to the output stream, interrupted waiting for command response, or no reply was received within the timeout period

getCommandFailedString

```
protected java.lang.String getCommandFailedString(java.lang.String command,  
    int expectedRc)
```

getCtrlSocketOutputStream

```
protected java.io.DataOutputStream getCtrlSocketOutputStream()
```

getCtrlSocketInputStream

```
protected java.io.InputStream getCtrlSocketInputStream()
```

login

```
public boolean login(java.lang.String u,  
    java.lang.String p)  
    throws FileTransferException
```

This method is used to login to the FTP server.

Parameters:

u -
is the userid to use to login.
p -
is the password for the userid.

Returns:

(continued from last page)

true if the login completed successfully.

sys

```
public java.lang.String sys()  
    throws FileNotFoundException
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#sys()

pwd

```
public java.lang.String pwd()  
    throws FileNotFoundException
```

This method returns the current working FTP directory

Returns:

The current working directory

Exceptions:

FileNotFoundException -
IO Error occurred sending commands

cdup

```
public boolean cdup()  
    throws FileNotFoundException
```

Changes the current working directory up one level

Returns:

true if the command was successful, false otherwise

Exceptions:

FileNotFoundException -
IO Error occurred sending commands

changeDir

```
public boolean changeDir(java.lang.String d)  
    throws FileNotFoundException
```

This method is used to change a directory on the FTP server.

Parameters:

d -
is the directory to change to.

Returns:

true if the change dir completed successfully, false otherwise

Exceptions:

FileNotFoundException -
IO Error occurred sending commands

(continued from last page)

logout

```
public boolean logout()  
    throws FileTransferException
```

This method is used to logout from the FTP server.

Returns:

true if the logout completed successfully.

delete

```
public boolean delete(java.lang.String f)  
    throws FileTransferException
```

This method is used to delete a file on the FTP server.

Parameters:

`f` -
is the file to delete.

Returns:

true if the delete completed successfully, false otherwise

Exceptions:

`FileTransferException` -
IO Error occurred sending commands

rmdir

```
public boolean rmdir(java.lang.String d)  
    throws FileTransferException
```

This method is used to remove a directory on the FTP server.

Parameters:

`d` -
is the directory to remove.

Returns:

true if the rmdir completed successfully, false otherwise

Exceptions:

`FileTransferException` -
IO Error occurred sending commands

mkdir

```
public boolean mkdir(java.lang.String d)  
    throws FileTransferException
```

This method is used to make a directory on the FTP server.

Parameters:

`d` -
is the directory to create.

Returns:

true if the mkdir completed successfully, false otherwise

(continued from last page)

Exceptions:

FileTransferException -
IO Error occurred sending commands

mkdirFull

```
public boolean mkdirFull(java.lang.String dirPath)  
    throws FileTransferException
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#mkdirFull(java.lang.String)

ascii

```
public boolean ascii()  
    throws FileTransferException
```

This method is used to set transfer type on the FTP server to ascii.

Returns:

true if the connection is not busy and get completed successfully, false otherwise

Exceptions:

FileTransferException -
IO Error occurred sending commands

binary

```
public boolean binary()  
    throws FileTransferException
```

This method is used to set transfer type on the FTP server to binary.

Returns:

true if the get completed successfully, false otherwise

Exceptions:

FileTransferException -
IO Error occurred sending commands

dir

```
public java.util.ArrayList dir()  
    throws FileTransferException
```

This method is used to get all directory contents from the FTP server over a data connection. The results of the command can get retrieved with the `getLastCmdReplyCode()` method.

Returns:

true if the dir completed successfully, false otherwise

Exceptions:

FileTransferException -
IO Error occurred sending commands

(continued from last page)

dir

```
public java.util.ArrayList dir(java.lang.String f)
    throws FileTransferException
```

This method is used to get filtered directory contents from the FTP server over a data connection.

Parameters:

f -
the filter to apply to the dir command.

Returns:

true if the dir completed successfully, false otherwise

Exceptions:

FileTransferException -
IO Error occurred sending commands

list

```
public java.util.ArrayList list()
    throws FileTransferException
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#list()

list

```
public java.util.ArrayList list(java.lang.String filter)
    throws FileTransferException
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#list(java.lang.String)

rmdirFull

```
public boolean rmdirFull(java.lang.String dir)
    throws FileTransferException
```

get

```
public boolean get(java.lang.String localFile,
    java.lang.String remoteFile)
    throws FileTransferException
```

This method is used to get a file from the FTP server over a data connection.

Parameters:

localFile -
the name of the file on the local system.
remoteFile -
the name of the file to get.

Returns:

true if the get completed successfully, false otherwise

(continued from last page)

Exceptions:

FileTransferException -
IO Error occurred sending commands

get

```
public boolean get(java.lang.String localFile,  
                  java.lang.String remoteFile,  
                  int percentageInterval,  
                  boolean isAsync,  
                  long fileSize)  
    throws FileTransferException
```

Method that retrieves the supplied remote file from the server, storing it in the supplied local file name. Optionally, the transfer can be performed asynchronously or with progress updates.

Parameters:

localFile -
The fully qualified path to the local file
remoteFile -
The FTP path to the remote file
percentageInterval -
The percentage increment at which a FileTransferStatusListener will be called
isAsync -
Whether or not the transfer is asynchronous, or non-blocking
fileSize -
The size of the file, in bytes, for calculating the interval percentage

Returns:

true
if the file was transferred successfully, false otherwise

Exceptions:

FileTransferException -
If there is an error transferring the file

put

```
public boolean put(java.lang.String localFile,  
                  java.lang.String remoteFile)  
    throws FileTransferException
```

This method is used to put a file to the FTP server over a data connection.

Parameters:

localFile -
the name of the file on the local system.
remoteFile -
the name of the file put on the remote system.

Returns:

true if the put completed successfully.

Exceptions:

FileTransferException -
IO Error occurred sending commands

(continued from last page)

put

```
public boolean put(java.lang.String localFile,  
                  java.lang.String remoteFile,  
                  int percentageInterval,  
                  boolean isAsync)  
    throws FileTransferException
```

Parameters:

localFile -
The fully qualified path to the local file
remoteFile -
The FTP path to the remote file
percentageInterval -
The percentage increment at which a FileTransferStatusListener will be called
isAsync -
Whether or not the transfer is asynchronous, or non-blocking

Returns:

true
if the file was transferred successfully, false otherwise

Exceptions:

FileTransferException -
If there was an error transferring the file

isConnected

```
public boolean isConnected()  
    Returns the connectivity state of the control channel socket
```

Returns:

true if connected on the control channel, false otherwise

sendPassiveCommand

```
protected java.lang.String sendPassiveCommand()  
    throws FileTransferException
```

ftpReply

```
public void ftpReply(FTPReply reply)
```

This method is the implementation of the FTPReplyListener. It records the reply values and signals that it has processed the replys.

Parameters:

reply -
The FTPReply from the FTPReplyProc

getLastCmdSuccess

```
public boolean getLastCmdSuccess()  
    Method to return the command success/failure of a command to the user.
```

Returns:

true if the FTP command was successful.

getLastCmdReplyCode

```
public int getLastCmdReplyCode()
```

Method to return the command code of a command to the user.

Returns:

reply code from the FTP command.

getLastCmdReplyString

```
public java.lang.String getLastCmdReplyString()
```

Method to return the command reply string as passed up by the server.

Returns:

text of reply message from the FTP command.

closeConnection

```
public void closeConnection()
```

Method to stop the reply processing thread and close the control connection ctrlSocket.

putAsync

```
public void putAsync(java.lang.String localFile,  
                    java.lang.String remoteFile)
```

See Also:

[com.ibm.retail.si.mgmt.xfer.FileTransferConnection#putAsync\(java.lang.String, java.lang.String\)](#)

putAsync

```
public void putAsync(java.lang.String localFile,  
                    java.lang.String remoteFile,  
                    int progressInterval)
```

See Also:

[com.ibm.retail.si.mgmt.xfer.FileTransferConnection#putAsync\(java.lang.String, java.lang.String, int\)](#)

calculateFileTransferProgressAndSendNotification

```
protected boolean calculateFileTransferProgressAndSendNotification(int blockCounter,  
                                                                    double blocks,  
                                                                    int  
percentageInterval,                                                                    int  
notificationCounter,                                                                    java.lang.String  
requestType)
```

This method calculates file transfer percentage and notifies FileTransferNotificationListeners based upon supplied notification interval.

(continued from last page)

Parameters:

`blockCounter` -
Number of blocks transferred
`blocks` -
Total number of blocks in the file
`percentageInterval` -
Percentage at which a notification should be sent
`notificationCounter` -
The number of notifications sent
`requestType` -
The type of transfer, either PUT or GET

Returns:

true if a notification was sent, false otherwise

getAsync

```
public void getAsync(java.lang.String localFile,  
                    java.lang.String remoteFile)
```

See Also:

[com.ibm.retail.si.mgmt.xfer.FileTransferConnection#getAsync\(java.lang.String, java.lang.String\)](#)

getAsync

```
public void getAsync(java.lang.String localFile,  
                    java.lang.String remoteFile,  
                    int percentageInterval,  
                    long fileSize)
```

See Also:

[com.ibm.retail.si.mgmt.xfer.FileTransferConnection#getAsync\(java.lang.String, java.lang.String, int, long\)](#)

setTransferType

```
public boolean setTransferType(int type)  
    throws FileTransferException
```

This method is used to set transfer type on the FTP server to ascii or binary.

Returns:

true if the transfer type was set successfully.

getTransferType

```
public int getTransferType()  
    throws FileTransferException
```

This method is used to get transfer type on the FTP server.

Returns:

transfer type (ascii or binary)

(continued from last page)

startFile

```
public boolean startFile(java.lang.String fileName)
    throws FileTransferException
```

Not implemented, returns true

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#startFile(java.lang.String)

appendFile

```
public boolean appendFile(java.lang.String fileName,
    byte[] data)
    throws FileTransferException
```

Not implemented, returns true

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#appendFile(java.lang.String, byte[])

readFile

```
public int readFile(java.lang.String fileName,
    byte[] buf,
    long offset,
    int len)
    throws FileTransferException
```

Not implemented, returns 0

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#readFile(java.lang.String, byte[], long, int)

getFileRoots

```
public java.util.List getFileRoots()
    throws FileTransferException
```

Not implemented, returns an empty List

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#getFileRoots()

renameFile

```
public boolean renameFile(java.lang.String src,
    java.lang.String dest)
    throws FileTransferException
```

Not implemented, returns false

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#renameFile(java.lang.String, java.lang.String)

(continued from last page)

getDataChannelInputStream

```
protected java.io.InputStream getDataChannelInputStream(java.net.Socket dataSocket)
                                throws java.io.IOException,
                                        FileTransferException
```

getDataChannelOutputStream

```
protected java.io.OutputStream getDataChannelOutputStream(java.net.Socket dataSocket)
                                throws java.io.IOException,
                                        FileTransferException
```

closeDataChannelSocket

```
protected void closeDataChannelSocket(java.net.Socket dataSocket)
```

Makes an attempt to close the data channel socket

Parameters:

dataSocket -
Data channel socket to close

com.ibm.retail.si.mgmt.xfer.ftp Class FTPSConnection

```

java.lang.Object
  |
  +-com.ibm.retail.si.mgmt.xfer.AbstractFileTransferConnection
      |
      +-com.ibm.retail.si.mgmt.xfer.ftp.FTPConnection
          |
          +-com.ibm.retail.si.mgmt.xfer.ftp.FTPSConnection
  
```

public class **FTPSConnection**
extends FTPConnection

FTP Connection class that provides FTPS functionality (RFC 4217)

Field Summary

static java.lang.String	CONFIG_IMPL_NAME
static java.lang.String	CONFIG_PROP_HOSTNAME
static java.lang.String	CONFIG_PROP_PASSWORD
static java.lang.String	CONFIG_PROP_PORT
static java.lang.String	CONFIG_PROP_USERNAME
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.xfer.ftp.FTPConnection

busy, CONFIG_IMPL_NAME, CONFIG_PROP_HOSTNAME, CONFIG_PROP_PASSWORD, CONFIG_PROP_PORT, CONFIG_PROP_USERNAME, COPYRIGHT, ctrlSocket, directoryContents, ftpControlTO, ftpDataBufSize, ftpDataConnAcceptTO, ftpDataMaxReadTOs, ftpDataReadTO, ftpIdleXferTO, ftpPort, ftpReplyBufSize, ftpReplyTO, host, in_stream, inGoodState, lastCmdReply, localFileName, loggedIn, out_stream, remoteFileName, replyProcThread, replyQueue, rp, systString, transferType

Fields inherited from : class com.ibm.retail.si.mgmt.xfer.AbstractFileTransferConnection

connectionID, COPYRIGHT, fileTransferStatusListeners, lastAccessTime, maxIdleTime

Constructor Summary

FTPSConnection()

Method Summary

void	closeConnection()
void	closeDataChannelSocket(java.net.Socket dataSocket)
boolean	connect(java.util.Properties props)
java.io.InputStream	getCtrlSocketInputStream()
java.io.DataOutputStream	getCtrlSocketOutputStream()
java.io.InputStream	getDataChannelInputStream(java.net.Socket dataSocket)
java.io.OutputStream	getDataChannelOutputStream(java.net.Socket dataSocket)
boolean	login(java.lang.String u, java.lang.String p)

Methods inherited from : class com.ibm.retail.si.mgmt.xfer.ftp.FTPSConnection

appendFile, ascii, binary, calculateFileTransferProgressAndSendNotification, cdup, changeDir, checkReplyQueue, closeConnection, closeDataChannelSocket, connect, delete, dir, dir, ftpReply, get, get, getAsync, getAsync, getCommandFailedString, getCtrlSocketInputStream, getCtrlSocketOutputStream, getDataChannelInputStream, getDataChannelOutputStream, getFileRoots, getLastCmdReplyCode, getLastCmdReplyString, getLastCmdSuccess, getTransferType, isBusy, isConnected, list, list, login, logout, makeCtrlChannelConnection, mkdir, mkdirFull, put, put, putAsync, putAsync, pwd, readFile, renameFile, rmdir, rmdirFull, sendCommand, sendPassiveCommand, setBusy, setTransferType, startFile, syst, unsetBusy

Methods inherited from : class com.ibm.retail.si.mgmt.xfer.AbstractFileTransferConnection

addFileTransferStatusListener, getConnectionID, getMaxIdleTime, isActive, notifyFileTransferListeners, removeFileTransferStatusListener, sendCompletion, setConnectionID, setMaxIdleTime, updateLastAccessTime

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

CONFIG_PROP_USERNAME

public static final java.lang.String **CONFIG_PROP_USERNAME**

CONFIG_PROP_PASSWORD

```
public static final java.lang.String CONFIG_PROP_PASSWORD
```

CONFIG_PROP_HOSTNAME

```
public static final java.lang.String CONFIG_PROP_HOSTNAME
```

CONFIG_PROP_PORT

```
public static final java.lang.String CONFIG_PROP_PORT
```

CONFIG_IMPL_NAME

```
public static final java.lang.String CONFIG_IMPL_NAME
```

Constructors

FTPSCConnection

```
public FTPSCConnection()
```

Methods

connect

```
public boolean connect(java.util.Properties props)
    throws FileTransferException
```

See Also:

[com.ibm.retail.si.mgmt.xfer.FileTransferConnection#connect\(java.util.Properties\)](#)

login

```
public boolean login(java.lang.String u,
    java.lang.String p)
    throws FileTransferException
```

See Also:

[com.ibm.retail.si.mgmt.xfer.ftp.FTPSCConnection#login\(java.lang.String, java.lang.String\)](#)

getCtrlSocketOutputStream

```
protected java.io.DataOutputStream getCtrlSocketOutputStream()
```

(continued from last page)

See Also:`com.ibm.retail.si.mgmt.xfer.ftp.FTPConnection#getCtrlSocketOutputStream()`

getCtrlSocketInputStream`protected java.io.InputStream getCtrlSocketInputStream()`**See Also:**`com.ibm.retail.si.mgmt.xfer.ftp.FTPConnection#getCtrlSocketInputStream()`

closeConnection`public void closeConnection()`**See Also:**`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#closeConnection()`

getDataChannelInputStream`protected java.io.InputStream getDataChannelInputStream(java.net.Socket dataSocket)
throws java.io.IOException,
FileTransferException`**See Also:**`com.ibm.retail.si.mgmt.xfer.ftp.FTPConnection#getDataChannelInputStream(java.net.Socket)`

getDataChannelOutputStream`protected java.io.OutputStream getDataChannelOutputStream(java.net.Socket dataSocket)
throws java.io.IOException,
FileTransferException`**See Also:**`com.ibm.retail.si.mgmt.xfer.ftp.FTPConnection#getDataChannelOutputStream(java.net.Socket)`

closeDataChannelSocket`protected void closeDataChannelSocket(java.net.Socket dataSocket)`**See Also:**`com.ibm.retail.si.mgmt.xfer.ftp.FTPConnection#closeDataChannelSocket(java.net.Socket)`

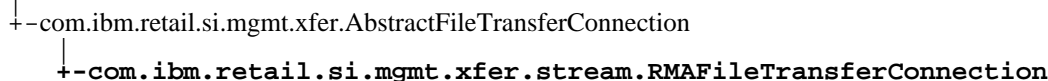
Package

com.ibm.retail.si.mgmt.xfer.stream

com.ibm.retail.si.mgmt.xfer.stream

Class RMAFileTransferConnection

java.lang.Object

public class **RMAFileTransferConnection**

extends AbstractFileTransferConnection

Client connection class for RMA RMAFile Streaming connections.

Field Summary

static java.lang.String	CONFIG_CREDENTIALS
static java.lang.String	CONFIG_IMPL_NAME
static java.lang.String	CONFIG_PROP_HOSTNAME
static java.lang.String	CONFIG_PROP_PORT
static java.lang.String	COPYRIGHT

Fields inherited from : class com.ibm.retail.si.mgmt.xfer.AbstractFileTransferConnection

connectionID, COPYRIGHT, fileTransferStatusListeners, lastAccessTime, maxIdleTime

Constructor Summary

RMAFileTransferConnection()
RMAFileTransferConnection(java.rmi.server.RMIClientSocketFactory socketFactory) Creates a connection with the supplied client socket factory

Method Summary

boolean	appendFile(java.lang.String fileName,byte[] fileName)
boolean	ascii() Not implemented, always returns true
boolean	binary() Not implemented, always returns true

double	<p>calculateFileTransferProgressAndSendNotification(java.lang.String localFileName, java.lang.String localFileName, long localFileName, long localFileName, int localFileName, double localFileName, java.lang.String localFileName)</p> <p>This method calculates file transfer percentage and notifies FileTransferNotificationListeners based upon supplied notification interval.</p>
boolean	<p>cdup()</p> <p>Not implemented, returns true</p>
boolean	<p>changeDir(java.lang.String d)</p> <p>Not implemented, returns true</p>
void	closeConnection()
boolean	connect(java.util.Properties props)
boolean	delete(java.lang.String f)
java.util.ArrayList	dir()
java.util.ArrayList	dir(java.lang.String f)
void	finalize()
boolean	get(java.lang.String localFile, java.lang.String localFile)
boolean	<p>get(java.lang.String localFile, java.lang.String localFile, int localFile, boolean localFile, long localFile)</p> <p>The fileSize argument is ignored since it can be obtained from the RMA RMAFile Transfer Server and used for calculations</p>
void	getAsync(java.lang.String localFile, java.lang.String localFile)
void	getAsync(java.lang.String localFile, java.lang.String localFile, int localFile, long localFile)
java.util.List	getFileRoots()
int	getLastCmdReplyCode()
java.lang.String	getLastCmdReplyString()
boolean	getLastCmdSuccess()
int	<p>getTransferType()</p> <p>This method will always return 0</p>
boolean	isBusy()
boolean	isConnected()

java.util.ArrayLis t	list()
java.util.ArrayLis t	list(java.lang.String filter)
boolean	logout()
boolean	mkdir(java.lang.String d)
boolean	mkdirFull(java.lang.String dirPath)
boolean	put(java.lang.String localFile,java.lang.String localFile)
boolean	put(java.lang.String localFile,java.lang.String localFile,int localFile,boolean localFile)
void	putAsync(java.lang.String localFile,java.lang.String localFile)
void	putAsync(java.lang.String localFile,java.lang.String localFile,int localFile)
java.lang.String	pwd() Not implemented, returns an empty string
int	readFile(java.lang.String fileName,byte[] fileName,long fileName,int fileName)
boolean	renameFile(java.lang.String src,java.lang.String src)
boolean	rmdir(java.lang.String d)
boolean	rmdirFull(java.lang.String dir)
void	setBusy() Sets the busy flag for this connection
boolean	setTransferType(int type) This method will always return true
boolean	startFile(java.lang.String fileName)
java.lang.String	syst() Not implemented, returns an empty string
void	unsetBusy() Resets the busy flag for this connection

Methods inherited from : class com.ibm.retail.si.mgmt.xfer.AbstractFileTransferConnection

addFileTransferStatusListener, getConnectionID, getMaxIdleTime, isActive, notifyFileTransferListeners, removeFileTransferStatusListener, sendCompletion, setConnectionID, setMaxIdleTime, updateLastAccessTime

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields**COPYRIGHT**

```
public static final java.lang.String COPYRIGHT
```

CONFIG_PROP_HOSTNAME

```
public static final java.lang.String CONFIG_PROP_HOSTNAME
```

CONFIG_PROP_PORT

```
public static final java.lang.String CONFIG_PROP_PORT
```

CONFIG_IMPL_NAME

```
public static final java.lang.String CONFIG_IMPL_NAME
```

CONFIG_CREDENTIALS

```
public static final java.lang.String CONFIG_CREDENTIALS
```

Constructors**RMAFileTransferConnection**

```
public RMAFileTransferConnection()
```

RMAFileTransferConnection

```
public RMAFileTransferConnection(java.rmi.server.RMIClientSocketFactory socketFactory)
```

Creates a connection with the supplied client socket factory

Parameters:

socketFactory -
Socket factory instance for creating client sockets

Methods

(continued from last page)

connect

```
public boolean connect(java.util.Properties props)
    throws FileTransferException
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#connect(java.util.Properties)

finalize

```
protected void finalize()
    throws java.lang.Throwable
```

See Also:

java.lang.Object#finalize()

closeConnection

```
public void closeConnection()
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#closeConnection()

logout

```
public boolean logout()
    throws FileTransferException
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#logout()

delete

```
public boolean delete(java.lang.String f)
    throws FileTransferException
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#delete(java.lang.String)

rmdir

```
public boolean rmdir(java.lang.String d)
    throws FileTransferException
```

See Also:

(continued from last page)

`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#rmdir(java.lang.String)`

rmdirFull

```
public boolean rmdirFull(java.lang.String dir)
    throws FileTransferException
```

See Also:

`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#rmdirFull(java.lang.String)`

mkdir

```
public boolean mkdir(java.lang.String d)
    throws FileTransferException
```

See Also:

`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#mkdir(java.lang.String)`

mkdirFull

```
public boolean mkdirFull(java.lang.String dirPath)
    throws FileTransferException
```

See Also:

`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#mkdirFull(java.lang.String)`

dir

```
public java.util.ArrayList dir()
    throws FileTransferException
```

See Also:

`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#dir()`

dir

```
public java.util.ArrayList dir(java.lang.String f)
    throws FileTransferException
```

See Also:

`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#dir(java.lang.String)`

list

```
public java.util.ArrayList list()
    throws FileTransferException
```

(continued from last page)

See Also:`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#list()`

list

```
public java.util.ArrayList list(java.lang.String filter)
    throws FileTransferException
```

See Also:`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#list(java.lang.String)`

get

```
public boolean get(java.lang.String localFile,
    java.lang.String remoteFile)
    throws FileTransferException
```

See Also:`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#get(java.lang.String, java.lang.String)`

get

```
public boolean get(java.lang.String localFile,
    java.lang.String remoteFile,
    int percentageInterval,
    boolean isAsync,
    long fileSize)
    throws FileTransferException
```

The `fileSize` argument is ignored since it can be obtained from the RMA RMAFile Transfer Server and used for calculations

See Also:`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#get(java.lang.String, java.lang.String, int, boolean, long)`

put

```
public boolean put(java.lang.String localFile,
    java.lang.String remoteFile)
    throws FileTransferException
```

See Also:`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#put(java.lang.String, java.lang.String)`

put

```
public boolean put(java.lang.String localFile,
    java.lang.String remoteFile,
    int percentageInterval,
    boolean isAsync)
    throws FileTransferException
```

(continued from last page)

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#put(java.lang.String, java.lang.String, int, boolean)

calculateFileTransferProgressAndSendNotification

```
protected double calculateFileTransferProgressAndSendNotification( java.lang.String
localFileName,
                                                                    java.lang.String
remoteFileName,
                                                                    long amtTransferred,
                                                                    long totalFileSize,
                                                                    int
percentageInterval,
                                                                    double
previousMaxIncrement,
                                                                    java.lang.String
requestType)
```

This method calculates file transfer percentage and notifies FileTransferNotificationListeners based upon supplied notification interval. In addition to the percentage increment and number of bytes transferred, the previous increment must be supplied. Returned from this method will be the same supplied value, or an updated value resulting from a notification being sent.

Parameters:

localFileName -
Name of the local file involved in the transfer
remoteFileName -
Name of the remote file involved in the transfer
amtTransferred -
Number of bytes transferred
totalFileSize -
Total number of bytes in the file
percentageInterval -
Percentage at which a notification should be sent
previousMaxIncrement -
The previous increment at which a notification was sent (0 should be supplied initially)
requestType -
The type of transfer, either PUT or GET

Returns:

The maximum percentage increment sent, which will either the same as that supplied or the new increment from a notification being sent

isConnected

```
public boolean isConnected()
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#isConnected()

getLastCmdSuccess

```
public boolean getLastCmdSuccess()
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#getLastCmdSuccess()

getLastCmdReplyCode

```
public int getLastCmdReplyCode()
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#getLastCmdReplyCode()

getLastCmdReplyString

```
public java.lang.String getLastCmdReplyString()
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#getLastCmdReplyString()

putAsync

```
public void putAsync(java.lang.String localFile,  
                    java.lang.String remoteFile)
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#putAsync(java.lang.String, java.lang.String)

putAsync

```
public void putAsync(java.lang.String localFile,  
                    java.lang.String remoteFile,  
                    int progressInterval)
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#putAsync(java.lang.String, java.lang.String, int)

getAsync

```
public void getAsync(java.lang.String localFile,  
                    java.lang.String remoteFile)
```

See Also:

com.ibm.retail.si.mgmt.xfer.FileTransferConnection#getAsync(java.lang.String, java.lang.String)

getAsync

```
public void getAsync(java.lang.String localFile,  
                    java.lang.String remoteFile,  
                    int percentageInterval,  
                    long fileSize)
```

(continued from last page)

See Also:`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#getAsync(java.lang.String, java.lang.String, int, long)`

startFile

```
public boolean startFile(java.lang.String fileName)
    throws FileTransferException
```

See Also:`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#startFile(java.lang.String)`

appendFile

```
public boolean appendFile(java.lang.String fileName,
    byte[] data)
    throws FileTransferException
```

See Also:`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#appendFile(java.lang.String, byte[])`

readFile

```
public int readFile(java.lang.String fileName,
    byte[] buf,
    long offset,
    int len)
    throws FileTransferException
```

See Also:`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#readFile(java.lang.String, byte[], long, int)`

getFileRoots

```
public java.util.List getFileRoots()
    throws FileTransferException
```

See Also:`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#getFileRoots()`

renameFile

```
public boolean renameFile(java.lang.String src,
    java.lang.String dest)
    throws FileTransferException
```

See Also:`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#renameFile(java.lang.String, java.lang.String)`

isBusy

```
public boolean isBusy()
```

See Also:

```
com.ibm.retail.si.mgmt.xfer.FileTransferConnection#isBusy()
```

setBusy

```
protected void setBusy()
```

Sets the busy flag for this connection

unsetBusy

```
protected void unsetBusy()
```

Resets the busy flag for this connection

syst

```
public java.lang.String syst()  
    throws FileTransferException
```

Not implemented, returns an empty string

See Also:

```
com.ibm.retail.si.mgmt.xfer.FileTransferConnection#syst()
```

pwd

```
public java.lang.String pwd()  
    throws FileTransferException
```

Not implemented, returns an empty string

See Also:

```
com.ibm.retail.si.mgmt.xfer.FileTransferConnection#pwd()
```

cdup

```
public boolean cdup()  
    throws FileTransferException
```

Not implemented, returns true

See Also:

```
com.ibm.retail.si.mgmt.xfer.FileTransferConnection#cdup()
```

changeDir

```
public boolean changeDir(java.lang.String d)  
    throws FileTransferException
```

Not implemented, returns true

See Also:

(continued from last page)

`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#changeDir(java.lang.String)`

ascii

```
public boolean ascii()
    throws FileTransferException
```

Not implemented, always returns true

See Also:

`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#ascii()`

binary

```
public boolean binary()
    throws FileTransferException
```

Not implemented, always returns true

See Also:

`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#binary()`

setTransferType

```
public boolean setTransferType(int type)
    throws FileTransferException
```

This method will always return true

See Also:

`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#setTransferType(int)`

getTransferType

```
public int getTransferType()
    throws FileTransferException
```

This method will always return 0

See Also:

`com.ibm.retail.si.mgmt.xfer.FileTransferConnection#getTransferType()`

com.ibm.retail.si.mgmt.xfer.stream

Class RMAFileTransferConstants

java.lang.Object

└-com.ibm.retail.si.mgmt.xfer.stream.RMAFileTransferConstants

public final class **RMAFileTransferConstants**

extends java.lang.Object

Field Summary

static short	CMD_AUTH
static short	CMD_BNDWDTH_SET
static short	CMD_CLOSE
static short	CMD_DATA
static short	CMD_DEL_FILE
static short	CMD_DIR
static short	CMD_DIR_ENTRY
static short	CMD_FILE_APPEND
static short	CMD_FILE_DONE
static short	CMD_FILE_INFO
static short	CMD_FILE_INFO_REPLY
static short	CMD_FILE_READ
static short	CMD_FILE_RENAME
static short	CMD_FILE_START
static short	CMD_GET
static short	CMD_GET_FILE_ROOTS
static short	CMD_MK_DIR

static short	CMD_NOOP
static short	CMD_NOTOK
static short	CMD_OK
static short	CMD_PUT
static short	CMD_RM_DIR
static java.lang.String	COPYRIGHT
static int	DATA_BLOCK_SIZE The size of the payload in each data message
static int	DEFAULT_SERVER_PORT
static int	ERR_CHKSUM_CREATE
static int	ERR_CHKSUM_MISMATCH
static int	ERR_DEL_FILE_FAIL
static int	ERR_DEL_FILE_NOT_EXIST
static int	ERR_DIR_PATH_NOT_EXIST
static int	ERR_FILE_CREATE
static int	ERR_FILE_NOT_EXIST
static int	ERR_FILE_READ
static int	ERR_FILE_WRITE
static int	ERR_MKDIR_DIR_EXISTS
static int	ERR_MKDIR_FAIL
static int	ERR_MSG_RCV
static int	ERR_MSG_SEND
static int	ERR_MSG_UNEXPECTED
static int	ERR_NOT_AUTHORIZED
static int	ERR_REN_DEST_EXISTS

static int	ERR_REN_FAIL
static int	ERR_REN_SRC_NOT_EXIST
static int	ERR_RMDIR_DIR_NOT_EXIST
static int	ERR_RMDIR_FAIL
static int	ERR_XFER_ABORTED
static short	FILE_ATTR_ISDIR
static short	FILE_ATTR_ISEXEC
static short	FILE_ATTR_ISFILE
static short	FILE_ATTR_ISREAD
static short	FILE_ATTR_ISWRITE
static int	HEADER_SIZE The size of each message header, in bytes
static int	MSG_SIGNATURE
static short	PROT_VER_1
static int	RC_OK
static java.lang.String	SSL_CONFIG_ALIAS

Constructor Summary

RMAFileTransferConstants()

Method Summary

static byte[]	createChecksum(java.lang.String fileName) Creates an MD5 checksum for the supplied file
static byte[]	createChecksum(java.lang.String fileName, RMATransferTaskScheduler scheduler) Creates an MD5 checksum where the I/O operations are broken up using the supplied scheduler
static java.lang.String	mapCommandCodeToStr(short command) Maps file transfer command codes to Strings

<pre>static java.lang.String</pre>	<pre>mapErrorCodeToString(int code)</pre>
------------------------------------	-------------------------------------------

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait
```

Fields**COPYRIGHT**

```
public static final java.lang.String COPYRIGHT
```

DEFAULT_SERVER_PORT

```
public static final int DEFAULT_SERVER_PORT
```

SSL_CONFIG_ALIAS

```
public static final java.lang.String SSL_CONFIG_ALIAS
```

HEADER_SIZE

```
public static final int HEADER_SIZE
```

The size of each message header, in bytes

DATA_BLOCK_SIZE

```
public static final int DATA_BLOCK_SIZE
```

The size of the payload in each data message

CMD_OK

```
public static final short CMD_OK
```

CMD_NOTOK

```
public static final short CMD_NOTOK
```

CMD_CLOSE

```
public static final short CMD_CLOSE
```

(continued from last page)

CMD_PUTpublic static final short **CMD_PUT**

CMD_GETpublic static final short **CMD_GET**

CMD_DATApublic static final short **CMD_DATA**

CMD_FILE_DONEpublic static final short **CMD_FILE_DONE**

CMD_FILE_INFOpublic static final short **CMD_FILE_INFO**

CMD_FILE_INFO_REPLYpublic static final short **CMD_FILE_INFO_REPLY**

CMD_DEL_FILEpublic static final short **CMD_DEL_FILE**

CMD_RM_DIRpublic static final short **CMD_RM_DIR**

CMD_MK_DIRpublic static final short **CMD_MK_DIR**

CMD_DIRpublic static final short **CMD_DIR**

CMD_DIR_ENTRYpublic static final short **CMD_DIR_ENTRY**

CMD_BNDWIDTH_SET

public static final short **CMD_BNDWIDTH_SET**

CMD_FILE_START

public static final short **CMD_FILE_START**

CMD_FILE_APPEND

public static final short **CMD_FILE_APPEND**

CMD_FILE_READ

public static final short **CMD_FILE_READ**

CMD_FILE_RENAME

public static final short **CMD_FILE_RENAME**

CMD_GET_FILE_ROOTS

public static final short **CMD_GET_FILE_ROOTS**

CMD_NOOP

public static final short **CMD_NOOP**

CMD_AUTH

public static final short **CMD_AUTH**

RC_OK

public static final int **RC_OK**

ERR_CHKSUM_CREATE

public static final int **ERR_CHKSUM_CREATE**

(continued from last page)

ERR_CHKSUM_MISMATCHpublic static final int **ERR_CHKSUM_MISMATCH**

ERR_FILE_CREATEpublic static final int **ERR_FILE_CREATE**

ERR_DEL_FILE_NOT_EXISTpublic static final int **ERR_DEL_FILE_NOT_EXIST**

ERR_DEL_FILE_FAILpublic static final int **ERR_DEL_FILE_FAIL**

ERR_RMDIR_DIR_NOT_EXISTpublic static final int **ERR_RMDIR_DIR_NOT_EXIST**

ERR_RMDIR_FAILpublic static final int **ERR_RMDIR_FAIL**

ERR_MKDIR_DIR_EXISTSpublic static final int **ERR_MKDIR_DIR_EXISTS**

ERR_MKDIR_FAILpublic static final int **ERR_MKDIR_FAIL**

ERR_DIR_PATH_NOT_EXISTpublic static final int **ERR_DIR_PATH_NOT_EXIST**

ERR_MSG_UNEXPECTEDpublic static final int **ERR_MSG_UNEXPECTED**

ERR_FILE_READpublic static final int **ERR_FILE_READ**

ERR_MSG_SEND

public static final int **ERR_MSG_SEND**

ERR_MSG_RCV

public static final int **ERR_MSG_RCV**

ERR_FILE_NOT_EXIST

public static final int **ERR_FILE_NOT_EXIST**

ERR_NOT_AUTHORIZED

public static final int **ERR_NOT_AUTHORIZED**

ERR_XFER_ABORTED

public static final int **ERR_XFER_ABORTED**

ERR_FILE_WRITE

public static final int **ERR_FILE_WRITE**

ERR_REN_SRC_NOT_EXIST

public static final int **ERR_REN_SRC_NOT_EXIST**

ERR_REN_DEST_EXISTS

public static final int **ERR_REN_DEST_EXISTS**

ERR_REN_FAIL

public static final int **ERR_REN_FAIL**

FILE_ATTR_ISFILE

public static final short **FILE_ATTR_ISFILE**

(continued from last page)

FILE_ATTR_ISDIR

```
public static final short FILE_ATTR_ISDIR
```

FILE_ATTR_ISREAD

```
public static final short FILE_ATTR_ISREAD
```

FILE_ATTR_ISWRITE

```
public static final short FILE_ATTR_ISWRITE
```

FILE_ATTR_ISEXEC

```
public static final short FILE_ATTR_ISEXEC
```

MSG_SIGNATURE

```
public static final int MSG_SIGNATURE
```

PROT_VER_1

```
public static final short PROT_VER_1
```

Constructors

RMAFileTransferConstants

```
public RMAFileTransferConstants()
```

Methods

mapCommandCodeToStr

```
public static java.lang.String mapCommandCodeToStr(short command)
```

Maps file transfer command codes to Strings

Parameters:

command -
Command code

Returns:

String mapping, or UNKNOWN:<COMMAND> if not recognized

(continued from last page)

mapErrorCodeToString

```
public static java.lang.String mapErrorCodeToString(int code)
```

createChecksum

```
public static byte[] createChecksum(java.lang.String fileName,  
                                     RMATransferTaskScheduler scheduler)  
    throws java.lang.Exception
```

Creates an MD5 checksum where the I/O operations are broken up using the supplied scheduler

Parameters:

fileName -
File to create a checksum for
scheduler -
Task scheduler instance

Returns:

Checksum data

Exceptions:

Exception -
Error creating checksum, or the operation was interrupted

createChecksum

```
public static byte[] createChecksum(java.lang.String fileName)  
    throws java.lang.Exception
```

Creates an MD5 checksum for the supplied file

Parameters:

fileName -
File to create a checksum for

Returns:

Checksum data

Exceptions:

Exception -
Error creating checksum

com.ibm.retail.si.mgmt.xfer.stream

Class RMAFileTransferDirectoryEntry

java.lang.Object

└-com.ibm.retail.si.mgmt.xfer.stream.RMAFileTransferDirectoryEntry

All Implemented interfaces:

java.io.Serializable, DirectoryEntry

```
public class RMAFileTransferDirectoryEntry
extends java.lang.Object
implements DirectoryEntry, java.io.Serializable
```

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

RMAFileTransferDirectoryEntry(java.lang.String name,long name,long name,boolean name,boolean name,boolean name,boolean name)

Method Summary

boolean	equals(java.lang.Object o)
java.lang.String	getFileDate()
long	getFileDateMillis()
long	getFileSize()
java.lang.String	getName()
int	hashCode()
boolean	isDirectory()
boolean	isExecutable()
boolean	isReadable()
boolean	isWritable()
java.lang.String	toString()

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait
```

Fields**COPYRIGHT**

```
public static final java.lang.String COPYRIGHT
```

Constructors**RMAFileTransferDirectoryEntry**

```
public RMAFileTransferDirectoryEntry(java.lang.String name,
                                     long size,
                                     long date,
                                     boolean isDir,
                                     boolean isReadable,
                                     boolean isWritable,
                                     boolean isExecutable)
```

Methods**isDirectory**

```
public boolean isDirectory()
```

See Also:

```
com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isDirectory()
```

isReadable

```
public boolean isReadable()
```

See Also:

```
com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isReadable()
```

isWritable

```
public boolean isWritable()
```

See Also:

```
com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isWritable()
```

isExecutable

```
public boolean isExecutable()
```

See Also:

```
com.ibm.retail.si.mgmt.xfer.DirectoryEntry#isExecutable()
```

getName

```
public java.lang.String getName()
```

See Also:

```
com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getName()
```

getFileSize

```
public long getFileSize()
```

See Also:

```
com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getFileSize()
```

getFileDate

```
public java.lang.String getFileDate()
```

See Also:

```
com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getFileDate()
```

getFileDateMillis

```
public long getFileDateMillis()
```

See Also:

```
com.ibm.retail.si.mgmt.xfer.DirectoryEntry#getFileDateMillis()
```

equals

```
public boolean equals(java.lang.Object o)
```

See Also:

```
java.lang.Object#equals(java.lang.Object)
```

(continued from last page)

hashCode

```
public int hashCode()
```

See Also:

[java.lang.Object#hashCode\(\)](#)

toString

```
public java.lang.String toString()
```

See Also:

[java.lang.Object#toString\(\)](#)

com.ibm.retail.si.mgmt.xfer.stream

Interface RMAFileTransferServerMBeanpublic interface **RMAFileTransferServerMBean****Field Summary**

static java.lang.String	COPYRIGHT
static java.lang.String	OBJECT_NAME_BASE
static java.lang.String	OBJECT_NAME_ID

Method Summary

boolean	isActive() Indicates whether or not the server is running
void	start() Activates the transfer server, if it is not active
void	stop() Deactivates the connector server, if it is active

Fields**COPYRIGHT**public static final java.lang.String **COPYRIGHT****OBJECT_NAME_ID**public static final java.lang.String **OBJECT_NAME_ID****OBJECT_NAME_BASE**public static final java.lang.String **OBJECT_NAME_BASE****Methods**

(continued from last page)

isActive

```
public boolean isActive()
```

Indicates whether or not the server is running

Returns:

true if the server is running false otherwise

start

```
public void start()  
    throws java.io.IOException
```

Activates the transfer server, if it is not active

Exceptions:

IOException -
Error creating server socket
IllegalStateException -
Server is already started

stop

```
public void stop()  
    throws java.io.IOException
```

Deactivates the connector server, if it is active

Package

javax.wbem.cim

javax.wbem.cim

Class CIMArgument

java.lang.Object

└- javax.wbem.cim.CIMElement

└- **javax.wbem.cim.CIMArgument****All Implemented interfaces:**

java.lang.Cloneable, java.io.Serializable, java.io.Serializable

public class **CIMArgument**

extends CIMElement

implements java.io.Serializable, java.io.Serializable, java.lang.Cloneable

This class represents instances of parameters that are passed into an extrinsic method when it is invoked. The argument has a name, value and may have qualifiers.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class javax.wbem.cim.CIMElement

COPYRIGHT

Constructor Summary

CIMArgument()

Instantiates a CIM argument

CIMArgument(java.lang.String name)

Creates a CIMArgument of the appropriate name.

CIMArgument(java.lang.String name, CIMValue name)

Creates a CIMArgument of the appropriate name and value.

Method Summary

CIMQualifier	getQualifier(java.lang.String name) Gets a qualifier by name
--------------	-----------------------------------------------------------------

CIMQualifier[]	getQualifiers()
----------------	-----------------

CIMDataType	getType() Returns the data type of this parameter
-------------	------------------------------------------------------

CIMValue	getValue() Gets the value for this argument
----------	------------------------------------------------

void	<pre>setQualifiers(CIMQualifier[] qualifierList)</pre> <p>Sets the list of qualifiers for this element to the specified list of qualifiers</p>
void	<pre>setType(CIMDataType type)</pre> <p>Sets the data type of this parameter to the specified CIM data type.</p>
void	<pre>setValue(CIMValue value)</pre> <p>Sets the value for this argument</p>
java.lang.String	<pre>toString()</pre>

Methods inherited from : class javax.wbem.cim.CIMElement

equals, getName, setName

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

CIMArgument

```
public CIMArgument()
```

Instantiates a CIM argument

CIMArgument

```
public CIMArgument(java.lang.String name)
```

Creates a CIMArgument of the appropriate name. When used with method invocations, the argument names correspond to the parameters defined for the method being invoked.

Parameters:

name -
The name of the CIM argument

CIMArgument

```
public CIMArgument(java.lang.String name,
                  CIMValue value)
```

Creates a CIMArgument of the appropriate name and value. When used with method invocations, the argument names corresponds to the parameters defined for the method being invoked.

Parameters:

(continued from last page)

name -
The name of the CIM argument
value -
The value for this argument. If the value is non-null, this argument's type is updated with the value's type.

Methods

getQualifiers

```
public CIMQualifier[] getQualifiers()
```

Returns:

The list of qualifiers for this method

getQualifier

```
public CIMQualifier getQualifier(java.lang.String name)
```

Gets a qualifier by name

Parameters:

name -
The name of the qualifier to get

Returns:

Null if the qualifier does not exist, otherwise returns the reference to the qualifier

setQualifiers

```
public void setQualifiers(CIMQualifier[] qualifierList)
```

Sets the list of qualifiers for this element to the specified list of qualifiers

Parameters:

qualifierList -
List of qualifiers to be assigned to the element

getType

```
public CIMDataType getType()
```

Returns the data type of this parameter

Returns:

The CIM data type of this parameter

getValue

```
public CIMValue getValue()
```

Gets the value for this argument

Returns:

The CIM value for this argument

(continued from last page)

setType

```
public void setType(CIMDataType type)
```

Sets the data type of this parameter to the specified CIM data type. If a value is set, the type will be overridden with that supplied

Parameters:

type -
The CIM data type assigned to the argument

setValue

```
public void setValue(CIMValue value)
```

Sets the value for this argument

Parameters:

value -
The value for this argument

toString

```
public java.lang.String toString()
```

See Also:

[java.lang.Object#toString\(\)](#)

javax.wbem.cim

Class CIMClass

java.lang.Object

```

  |
  +-- javax.wbem.cim.CIMElement

```

```

  |
  +-- javax.wbem.cim.CIMClass

```

All Implemented interfaces:

java.io.Serializable, java.io.Serializable

public class **CIMClass**

extends CIMElement

implements java.io.Serializable, java.io.Serializable

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class javax.wbem.cim.CIMElement

COPYRIGHT

Constructor Summary

CIMClass()

Creates and instantiates a Java object representing a CIM class.

CIMClass(java.lang.String name)

Creates and instantiates a Java object representing a CIM Class with the specified name.

Method Summary

void	addMethod(CIMMethod method) Adds the specified CIM method to this CIM class.
void	addProperty(CIMProperty property) Adds the specified property to the CIM properties in this CIM class.
java.util.Vector	getAllMethods() Gets the CIM methods in this CIM class, including overridden ones.
java.util.Vector	getAllProperties() Gets the CIM methods in this CIM class, including overridden ones.
java.util.Vector	getKeys() Returns a list of key properties in this CIMClass.

CIMMethod	getMethod(java.lang.String name) Returns the specified CIM method in this CIM class.
CIMMethod	getMethod(java.lang.String name, java.lang.String name) Returns the CIM method specified by its name and optionally, its origin class.
java.util.Vector	getMethods() Gets the CIM methods in this CIM class.
java.util.Vector	getProperties() Gets the CIM properties in this CIM class.
CIMProperty	getProperty(java.lang.String name) Gets the values of the specified property
CIMProperty	getProperty(java.lang.String name, java.lang.String name) Returns a CIM property, a name/value pair that describes a unit of data for a class.
java.lang.String	getSuperClass()
boolean	isAssociation()
boolean	isKeyed()
CIMInstance	newInstance() Returns a new CIM instance initialized with the default CIM properties, qualifiers, and name of this CIM class.
int	numberProperties() Returns the number of properties in this class.
void	setIsAssociation(boolean b)
void	setIsKeyed(boolean b)
void	setMethods(java.util.Vector mList) Replaces the existing methods in this class with the specified methods
void	setProperty(CIMProperty[] props)
void	setProperty(java.util.Vector props) Replaces the existing CIM properties in this class with the specified CIM properties
void	setSuperClass(java.lang.String string)
java.lang.String	toString()

Methods inherited from : class javax.wbem.cim.CIMElement

equals, getName, setName

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

CIMClass

```
public CIMClass()
```

Creates and instantiates a Java object representing a CIM class. To declare the most basic CIM class, you need only specify the class name. If you use this constructor to create the CIM Class, use the setName method to assign a name to the CIM class.

CIMClass

```
public CIMClass(java.lang.String name)
```

Creates and instantiates a Java object representing a CIM Class with the specified name.

Parameters:

name -
- Name of the CIM class

Methods

addMethod

```
public void addMethod(CIMMethod method)
```

Adds the specified CIM method to this CIM class.

Parameters:

method -
- The CIMMethod object to add to this CIM class

getMethods

```
public java.util.Vector getMethods()
```

Gets the CIM methods in this CIM class.

Returns:

Vector of CIMMethod objects in this CIM class

getAllMethods

```
public java.util.Vector getAllMethods()
```

Gets the CIM methods in this CIM class, including overridden ones.

(continued from last page)

Returns:

Vector of CIMMethod objects in this CIM class

setMethods

```
public void setMethods(java.util.Vector mList)
```

Replaces the existing methods in this class with the specified methods

Parameters:

mList

getMethod

```
public CIMMethod getMethod(java.lang.String name)
```

Returns the specified CIM method in this CIM class.

Parameters:

name -

- The string name of the method to get. The name can also be in the form "originClass.methodName"

Returns:

CIMMethod Null if the method does not exist, otherwise returns the CIM method

getMethod

```
public CIMMethod getMethod(java.lang.String name,  
                             java.lang.String originClass)
```

Returns the CIM method specified by its name and optionally, its origin class. The origin class is the class in which the method is defined.

Parameters:

name -

- The string name of the method to get.

originClass -

- (Optional) The class in which the method was defined.

Returns:

CIMMethod Null if the method does not exist, otherwise returns the CIM method.

addProperty

```
public void addProperty(CIMProperty property)
```

Adds the specified property to the CIM properties in this CIM class. p - The property to add to this CIM class

getProperties

```
public java.util.Vector getProperties()
```

Gets the CIM properties in this CIM class.

Returns:

Vector CIMProperty objects in this CIM class.

(continued from last page)

getAllProperties

```
public java.util.Vector getAllProperties()
```

Gets the CIM methods in this CIM class, including overridden ones.

Returns:

Vector CIMMethod objects in this CIM class.

getProperty

```
public CIMProperty getProperty(java.lang.String name)
```

Gets the values of the specified property

Parameters:

name -
- The text string for the name of the property

Returns:

CIMProperty Values for the specified property. Returns Null if the property table is empty

getProperty

```
public CIMProperty getProperty(java.lang.String name,  
                                java.lang.String originClass)
```

Returns a CIM property, a name/value pair that describes a unit of data for a class. Property values must have a valid Managed Object Format (MOF) data type.

Parameters:

name -
- The name of the property to get.
originClass -
- The class in which the property was defined.

Returns:

CIMProperty Null if the property does not exist, otherwise returns the reference to the property

setProperties

```
public void setProperties(java.util.Vector props)
```

Replaces the existing CIM properties in this class with the specified CIM properties

setProperties

```
public void setProperties(CIMProperty[] props)
```

numberProperties

```
public int numberProperties()
```

Returns the number of properties in this class.

Returns:

int Number of properties.

getKeys

```
public java.util.Vector getKeys()
```

Returns a list of key properties in this CIMClass.

Returns:

Vector The list of key properties in this CIM class.

newInstance

```
public CIMInstance newInstance()
```

Returns a new CIM instance initialized with the default CIM properties, qualifiers, and name of this CIM class.

Returns:

CIMInstance CIM instance of this CIM class.

isAssociation

```
public boolean isAssociation()
```

Returns:

boolean

isKeyed

```
public boolean isKeyed()
```

Returns:

boolean

getSuperClass

```
public java.lang.String getSuperClass()
```

Returns:

String

setIsAssociation

```
public void setIsAssociation(boolean b)
```

Parameters:

b

(continued from last page)

setIsKeyed

```
public void setIsKeyed(boolean b)
```

Parameters:b

setSuperClass

```
public void setSuperClass(java.lang.String string)
```

Parameters:string

toString

```
public java.lang.String toString()
```

javax.wbem.cim

Class CIMDataType

java.lang.Object

└- javax.wbem.cim.CIMDataType

All Implemented interfaces:

java.io.Serializable

public class **CIMDataType**

extends java.lang.Object

implements java.io.Serializable

Field Summary

static int	BOOLEAN
static int	BOOLEAN_ARRAY
static int	CHAR16
static int	CHAR16_ARRAY
static java.lang.String	COPYRIGHT
static int	DATETIME
static int	DATETIME_ARRAY
static int	INVALID
static int	NULL
static int	OBJECT
static int	REAL32
static int	REAL32_ARRAY
static int	REAL64
static int	REAL64_ARRAY
static int	REFERENCE
static int	SINT16

static int	SINT16_ARRAY
static int	SINT32
static int	SINT32_ARRAY
static int	SINT64
static int	SINT64_ARRAY
static int	SINT8
static int	SINT8_ARRAY
static int	SIZE_SINGLE
static int	SIZE_UNLIMITED
static int	STRING
static int	STRING_ARRAY
static int	UINT16
static int	UINT16_ARRAY
static int	UINT32
static int	UINT32_ARRAY
static int	UINT64
static int	UINT64_ARRAY
static int	UINT8
static int	UINT8_ARRAY

Constructor Summary

`CIMDataType(int type)`

Constructor creates a new CIM data type object with the specified type (does not take INVALID, NULL types).

`CIMDataType(int type,int type)`

Constructor creates a new CIM array data type with the specified size.

`CIMDataType(java.lang.String refClassName)`

Creates a new CIM REFERENCE data type object with the specified class reference

Method Summary

boolean	<code>equals(java.lang.Object o)</code>
static int	<code>findArrayType(int simpleType)</code> Takes a CIM data type and returns the CIM array type.
static int	<code>findType(java.lang.Object o)</code> Returns the CIM data type for the specified object
static int	<code>findType(java.util.Vector v)</code> Returns the CIM data type for the specified list of objects.
static java.lang.Class	<code>getObjectArrayType(CIMDataType type)</code> For the supplied array type, returns a Class object for its corresponding primitive wrapper.
static CIMDataType	<code>getPredefinedType(int type)</code>
java.lang.String	<code>getRefClassName()</code>
int	<code>getSize()</code>
int	<code>getType()</code>
int	<code>hashCode()</code>
boolean	<code>isArrayType()</code>
boolean	<code>isReferenceType()</code>
void	<code>setRefClassName(java.lang.String className)</code>
java.lang.String	<code>toString()</code>

Methods inherited from : class java.lang.Object

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields

COPYRIGHT

`public static final java.lang.String COPYRIGHT`

(continued from last page)

SIZE_SINGLE

```
public static final int SIZE_SINGLE
```

SIZE_UNLIMITED

```
public static final int SIZE_UNLIMITED
```

INVALID

```
public static final int INVALID
```

UINT8

```
public static final int UINT8
```

SINT8

```
public static final int SINT8
```

UINT16

```
public static final int UINT16
```

SINT16

```
public static final int SINT16
```

UINT32

```
public static final int UINT32
```

SINT32

```
public static final int SINT32
```

UINT64

```
public static final int UINT64
```

SINT64

```
public static final int SINT64
```

STRING

```
public static final int STRING
```

BOOLEAN

```
public static final int BOOLEAN
```

REAL32

```
public static final int REAL32
```

REAL64

```
public static final int REAL64
```

DATETIME

```
public static final int DATETIME
```

CHAR16

```
public static final int CHAR16
```

UINT8_ARRAY

```
public static final int UINT8_ARRAY
```

SINT8_ARRAY

```
public static final int SINT8_ARRAY
```

UINT16_ARRAY

```
public static final int UINT16_ARRAY
```

SINT16_ARRAY

```
public static final int SINT16_ARRAY
```

(continued from last page)

UINT32_ARRAY

```
public static final int UINT32_ARRAY
```

SINT32_ARRAY

```
public static final int SINT32_ARRAY
```

UINT64_ARRAY

```
public static final int UINT64_ARRAY
```

SINT64_ARRAY

```
public static final int SINT64_ARRAY
```

STRING_ARRAY

```
public static final int STRING_ARRAY
```

BOOLEAN_ARRAY

```
public static final int BOOLEAN_ARRAY
```

REAL32_ARRAY

```
public static final int REAL32_ARRAY
```

REAL64_ARRAY

```
public static final int REAL64_ARRAY
```

DATETIME_ARRAY

```
public static final int DATETIME_ARRAY
```

CHAR16_ARRAY

```
public static final int CHAR16_ARRAY
```

REFERENCE

```
public static final int REFERENCE
```

OBJECT

```
public static final int OBJECT
```

NULL

```
public static final int NULL
```

Constructors

CIMDataType

```
public CIMDataType(int type)
```

Constructor creates a new CIM data type object with the specified type (does not take INVALID, NULL types). For array types, the size is initialized to SIZE_UNLIMITED by default, and for single valued types, the size is initialized to SIZE_SINGLE.

Parameters:

type -
- the CIM data type

CIMDataType

```
public CIMDataType(int type,  
int size)
```

Constructor creates a new CIM array data type with the specified size.

Parameters:

type -
- the CIM data type
size -
- the CIM array size

CIMDataType

```
public CIMDataType(java.lang.String refClassName)
```

Creates a new CIM REFERENCE data type object with the specified class reference

Parameters:

refClassName -
Name of the class for the CIM_REFERENCE type

Methods

getPredefinedType

```
public static CIMDataType getPredefinedType(int type)
```

findType

```
public static int findType(java.lang.Object o)
```

Returns the CIM data type for the specified object

(continued from last page)

Parameters:

- -
- the object for which the data type is to be checked. It can either be a Java representation of a primitive type, like Integer, String, UnsignedInt16 or a Vector of these.

Returns:

int the integer representing the CIM data type of the specified object. INVALID if the o is invalid and NULL if o is null.

findType

```
public static int findType(java.util.Vector v)
```

Returns the CIM data type for the specified list of objects.

Parameters:

- v -
- the list of objects for which the data type is to be checked

Returns:

int the integer for the CIM array data type of the specified list of objects. Returns INVALID if the list is empty. Returns NULL if an object is null.

findArrayType

```
public static int findArrayType(int simpleType)
```

Takes a CIM data type and returns the CIM array type. Returns INVALID if there is no reference array type.

Parameters:

- simpleType -
- the integer for the CIM data type of this object

Returns:

int the integer for CIM array type. Otherwise, INVALID if there is no reference array type.

getObjectArrayType

```
public static java.lang.Class getObjectArrayType(CIMDataType type)
```

For the supplied array type, returns a Class object for its corresponding primitive wrapper. For example, supplying a SINT16_ARRAY data type returns Short.class. The only exception is DATETIME_ARRAY, which returns CIMDateTime.class.

Parameters:

- type -
CIM Array type

Returns:

The Class object for the primitive wrapper, or null otherwise

getSize

```
public int getSize()
```

(continued from last page)

getType

```
public int getType()
```

isArrayType

```
public boolean isArrayType()
```

isReferenceType

```
public boolean isReferenceType()
```

getRefClassName

```
public java.lang.String getRefClassName()
```

setRefClassName

```
public void setRefClassName(java.lang.String className)
```

equals

```
public boolean equals(java.lang.Object o)
```

toString

```
public java.lang.String toString()
```

hashCode

```
public int hashCode()
```

See Also:

[java.lang.Object#hashCode\(\)](#)

javax.wbem.cim

Class CIMDateTime

java.lang.Object

```

  |
  +-- javax.wbem.cim.CIMDateTime

```

All Implemented interfaces:

java.io.Serializable

public class **CIMDateTime**

extends java.lang.Object

implements java.io.Serializable

The CIMDateTime class represents the CIM datetime data type as a Java class. A CIM datetime may contain a date or an interval. CIMDateTime is an intrinsic CIM data type that represents the time as a string with a **fixed** length.

A date has the following form: yyyyymmddhhmmss.mmmmmmsutc Where yyyy = year (1-9999) mm = month (1-12) dd = day (1-31) hh = hour (0-23) mm = minute (0-59) ss = second (0-59) mmmmmm = microseconds s = '+' or '-' to represent the Coordinated Universal Time (UTC) sign utc = offset from Coordinated Universal Time (UTC) (same as Greenwich Mean Time(GMT) offset)
 An interval has the following form: dddddddhhmmss.mmmmmm:000 Where ddddddd = days hh = hours (0-23) mm = minutes (0-59) ss = seconds (0-59) mmmmmm = microseconds Note: Intervals always end in ":000". This distinguishes intervals from dates.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

CIMDateTime() Create a CIMDateTime object using the current Time/Date of the system
CIMDateTime(java.util.Calendar c) Creates a CIMDateTime object using a Calendar
CIMDateTime(java.util.Date d) Creates a CIMDateTime object using a Date
CIMDateTime(java.lang.String dt) Creates a CIMDateTime object using a string

Method Summary

boolean	after(CIMDateTime when) Compares the CIMDateTime with this one
boolean	before(CIMDateTime when) Compares the CIMDateTime with this one

boolean	equals(java.lang.Object obj) Compares the CIMDateTime with this one
java.util.Calendar	getCalendar()
boolean	isInterval() Tests if this is an interval
java.lang.String	toString()
static CIMDateTime	valueOf(java.lang.String s)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Constructors

CIMDateTime

public **CIMDateTime**()

Create a CIMDateTime object using the current Time/Date of the system

CIMDateTime

public **CIMDateTime**(java.util.Calendar c)

Creates a CIMDateTime object using a Calendar

Parameters:

c -
Source Calendarobject

CIMDateTime

public **CIMDateTime**(java.util.Date d)

Creates a CIMDateTime object using a Date

Parameters:

d -
Source Dateobject

(continued from last page)

CIMDateTime

```
public CIMDateTime(java.lang.String dt)
```

Creates a CIMDateTime object using a string

Parameters:

dt -
- A string in the correct format

Exceptions:

java.lang.IllegalArgumentException -
- if string is not in the correct format

Methods

after

```
public boolean after(CIMDateTime when)
```

Compares the CIMDateTime with this one

Parameters:

when -
- The CIMDateTime to be compared with this object

Returns:

boolean true if the current CIMDateTime is after the CIMDateTime of when; false otherwise If comparing interval values, returns true if current interval is greater then when, false otherwise

Exceptions:

java.lang.IllegalArgumentException -
- if one object refers to an interval and the other does not.

before

```
public boolean before(CIMDateTime when)
```

Compares the CIMDateTime with this one

Parameters:

when -
- The CIMDateTime to be compared with this object

Returns:

boolean true if the current CIMDateTime is before the CIMDateTime of when; false otherwise If comparing interval values, returns true if current interval is less then when, false otherwise

Exceptions:

java.lang.IllegalArgumentException -
- if one object refers to an interval and the other does not.

equals

```
public boolean equals(java.lang.Object obj)
```

Compares the CIMDateTime with this one

Parameters:

obj -
- The CIMDateTime to be compared with this one

(continued from last page)

Returns:

boolean true if the objects are the same; false otherwise

Exceptions:

java.lang.IllegalArgumentException -
- if one object refers to an interval and the other does not.

getCalendar

```
public java.util.Calendar getCalendar()
```

Returns:

Calendar object for the date/time.

Exceptions:

java.lang.IllegalArgumentException -
- if this object refers to an interval instead of a date/time

isInterval

```
public boolean isInterval()
```

Tests if this is an interval

Returns:

true
if this date represents an interval, false otherwise

toString

```
public java.lang.String toString()
```

valueOf

```
public static CIMDateTime valueOf(java.lang.String s)
```

javax.wbem.cim

Class CIMElement

java.lang.Object

```

  |
  |-- javax.wbem.cim.CIMElement

```

All Implemented interfaces:

java.io.Serializable

Direct Known Subclasses:

CIMQualifier, CIMProperty, CIMParameter, CIMMethod, CIMInstance, CIMClass, CIMArgument

public class **CIMElement**

extends java.lang.Object

implements java.io.Serializable

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

CIMElement()
CIMElement(CIMElement element)
CIMElement(java.lang.String elementName)

Method Summary

boolean	equals(java.lang.Object o)
java.lang.String	getName()
void	setName(java.lang.String string)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

CIMElement

```
public CIMElement()
```

CIMElement

```
public CIMElement(CIMElement element)
```

CIMElement

```
public CIMElement(java.lang.String elementName)
```

Methods

getName

```
public java.lang.String getName()
```

equals

```
public boolean equals(java.lang.Object o)
```

setName

```
public void setName(java.lang.String string)
```

Parameters:

string -
New name for this element

javax.wbem.cim

Class CIMException

```

java.lang.Object
  |
  +- java.lang.Throwable
      |
      +- java.lang.Exception
          |
          +- javax.wbem.cim.CIMException
  
```

Direct Known Subclasses:

CIMInstanceNotFoundException

```

public class CIMException
extends java.lang.Exception
  
```

Field Summary

static java.lang.String	COPYRIGHT
int	errorCode

Constructor Summary

CIMException(java.lang.String s)
CIMException(java.lang.String s,int s)

Method Summary

int	getErrorCode()
java.lang.String	getID()

Methods inherited from : class java.lang.Throwable

fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

(continued from last page)

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

errorCode

```
protected int errorCode
```

Constructors

CIMException

```
public CIMException(java.lang.String s)
```

CIMException

```
public CIMException(java.lang.String s,  
                    int errorCode)
```

Methods

getErrorCode

```
public int getErrorCode()
```

Returns:

int

getID

```
public java.lang.String getID()
```


javax.wbem.cim

Class CIMInstance

java.lang.Object

```

  |
  +-- javax.wbem.cim.CIMElement

```

```

  |
  +-- javax.wbem.cim.CIMInstance

```

All Implemented interfaces:

java.io.Serializable, java.io.Serializable

public class **CIMInstance**

extends CIMElement

implements java.io.Serializable, java.io.Serializable

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class javax.wbem.cim.CIMElement

COPYRIGHT

Constructor Summary

CIMInstance()

Method Summary

CIMInstance	filterProperties(java.lang.String[] propertyList, boolean propertyList, boolean propertyList) This method returns a new CIMInstance with properties filtered according to the input parameters.
java.lang.String	getAlias()
java.lang.String	getClassName()
java.util.Vector	getKeyValuePairPairs() Returns a dynamic list of key-value pairs for this CIM instance, not the actual name.
java.lang.String	getName() Deprecated. <i><i>instances don't have names</i></i>
CIMObjectPath	getObjectPath()

java.util.Vector	getProperties() Gets the list of properties for this CIM instance
CIMProperty	getProperty(java.lang.String name) Gets the values of the specified property
CIMProperty	getProperty(java.lang.String name, java.lang.String name) Returns a CIM property, a name/value pair that describes a unit of data for a class.
java.util.Vector	getQualifiers()
CIMInstance	localElements()
CIMInstance	localElements(java.util.List l)
void	setAlias(java.lang.String string)
void	setClassName(java.lang.String string)
void	setObjectPath(CIMObjectPath path)
void	setProperty(java.util.Vector props)
void	setProperty(CIMProperty prop)
void	setProperty(java.lang.String name, CIMValue name)
void	setQualifiers(java.util.Vector vector)
void	updatePropertyValue(CIMProperty pe)
void	updatePropertyValues(java.util.Vector v) Updates the property values for this CIM instance with the specified list of property values

Methods inherited from : class javax.wbem.cim.CIMElement

equals, getName, setName

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields**COPYRIGHT**public static final java.lang.String **COPYRIGHT**

Constructors

CIMInstance

```
public CIMInstance()
```

Methods

getObjectPath

```
public CIMObjectPath getObjectPath()
```

getProperties

```
public java.util.Vector getProperties()
```

Gets the list of properties for this CIM instance

Returns:

Vector The list of properties for this CIM instance

getProperty

```
public CIMProperty getProperty(java.lang.String name)
```

Gets the values of the specified property

Parameters:

name -
- The text string for the name of the property

Returns:

CIMProperty Values for the specified property. Returns Null if the property table is empty

getProperty

```
public CIMProperty getProperty(java.lang.String name,  
                               java.lang.String originClass)
```

Returns a CIM property, a name/value pair that describes a unit of data for a class. Property values must have a valid Managed Object Format (MOF) data type.

Parameters:

name -
- The name of the property to get.
originClass -
- The class in which the property was defined.

Returns:

CIMProperty Null if the property does not exist, otherwise returns the reference to the property

(continued from last page)

setProperty

```
public void setProperty(java.lang.String name,  
                        CIMValue value)
```

setProperty

```
public void setProperty(CIMProperty prop)
```

getName

```
public java.lang.String getName()  
Deprecated. <i>instances don't have names</i>
```

See Also:

```
javax.wbem.cim.CIMElement#getName()
```

getAlias

```
public java.lang.String getAlias()
```

Returns:

```
String
```

getClassName

```
public java.lang.String getClassName()
```

Returns:

```
String
```

getQualifiers

```
public java.util.Vector getQualifiers()
```

Returns:

```
Vector
```

setAlias

```
public void setAlias(java.lang.String string)
```

Parameters:

```
string
```

setClassName

```
public void setClassName(java.lang.String string)
```

Parameters:
string

setProperty

```
public void setProperty(java.util.Vector props)
```

Parameters:
props

setQualifiers

```
public void setQualifiers(java.util.Vector vector)
```

Parameters:
vector

filterProperties

```
public CIMInstance filterProperties(java.lang.String[] propertyList,  
                                     boolean includeQualifier,  
                                     boolean includeClassOrigin)
```

This method returns a new CIMInstance with properties filtered according to the input parameters. Inclusion of class origin and qualifiers can also be controlled.

Parameters:

propertyList -
- If the PropertyList input parameter is not NULL, the members of the array define one or more Property names. The returned Instance does not include elements for any Properties missing from this list. If the PropertyList input parameter is an empty array this signifies that no Properties are included in each returned class. If the PropertyList input parameter is NULL this specifies that all Properties are included in each returned class. If the PropertyList contains duplicate elements or invalid property names, they are ignored.
includeQualifier -
- qualifiers are only included if true.
includeClassOrigin -
- classOrigins are only included if true.

Returns:

CIMInstance matching the input filter.

getKeyValuePairs

```
public java.util.Vector getKeyValuePairs()
```

Returns a dynamic list of key-value pairs for this CIM instance, not the actual name. This method is useful in cases where, programmatically, you want to have a new name. For example, when updating the name of a key, a program can display all the keys available to be updated. You can then look through the list to see which names are already being used and then assign a name to the key, knowing that you have not selected a name that was already used.

Returns:

(continued from last page)

Vector the list of CIM properties and values for this CIM instance

updatePropertyValues

```
public void updatePropertyValues(java.util.Vector v)
    throws CIMException
```

Updates the property values for this CIM instance with the specified list of property values

Parameters:

v -
- the list of CIM properties and values for this CIM instance

Exceptions:

CIMException -
- Throws this exception if a property in the vector doesn't exist in the instance

updatePropertyValue

```
public void updatePropertyValue(CIMProperty pe)
    throws CIMException
```

localElements

```
public CIMInstance localElements()
```

localElements

```
public CIMInstance localElements(java.util.List l)
```

setObjectPath

```
public void setObjectPath(CIMObjectPath path)
```

Parameters:

path

javax.wbem.cim

Class CIMMethod

java.lang.Object

└- javax.wbem.cim.CIMElement

└- **javax.wbem.cim.CIMMethod****All Implemented interfaces:**

java.lang.Cloneable, java.io.Serializable, java.io.Serializable

public class **CIMMethod**

extends CIMElement

implements java.io.Serializable, java.io.Serializable, java.lang.Cloneable

Creates and instantiates a CIM method.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class javax.wbem.cim.CIMElement

COPYRIGHT

Constructor Summary

CIMMethod()

Creates and instantiates a CIM method.

CIMMethod(java.lang.String name)

Creates and instantiates a CIM method with the specified name

Method Summary

java.lang.String	getOriginClass() Returns the class in which this method was defined.
------------------	-------------------------------------------------------------------------

java.lang.String	getOverridingMethod() Gets the name of the overriding method for this method.
------------------	----------------------------------------------------------------------------------

java.util.Vector	getParameters() Returns the list of CIMParameters for this method
------------------	----------------------------------------------------------------------

CIMQualifier	getQualifier(java.lang.String name) Gets a qualifier by name
--------------	-----------------------------------------------------------------

java.util.Vector	getQualifiers() Returns the list of qualifiers for this method
------------------	-------------------------------------------------------------------

int	getSize() Returns the size of this method's return value
CIMDataType	getType() Returns the data type of this method's return value
void	setOriginClass(java.lang.String string) Sets the class in which this method was defined.
void	setOverridingMethod(java.lang.String string) Sets the name of the overriding method for this method
void	setParameters(java.util.Vector vector) Sets the list of CIMParameters for this method to the specified list of parameters
void	setQualifiers(java.util.Vector qualifierList) Sets the list of qualifiers for this element to the specified list of qualifiers
void	setSize(int i) Sets the size of this method's return type to the specified size
void	setType(CIMDataType type) Sets the data type of this method's return value to the specified CIM data type
java.lang.String	toString()

Methods inherited from : class javax.wbem.cim.CIMElement

equals, getName, setName

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields**COPYRIGHT**public static final java.lang.String **COPYRIGHT****Constructors****CIMMethod**public **CIMMethod**()

Creates and instantiates a CIM method.

(continued from last page)

CIMMethod

```
public CIMMethod(java.lang.String name)
```

Creates and instantiates a CIM method with the specified name

Parameters:

name -
Name of an existing CIM method

Methods

getParameters

```
public java.util.Vector getParameters()
```

Returns the list of CIMParameters for this method

Returns:

Vector list of this method's CIMParameters

getOriginClass

```
public java.lang.String getOriginClass()
```

Returns the class in which this method was defined.

Returns:

Name of class where this method was defined

getOverridingMethod

```
public java.lang.String getOverridingMethod()
```

Gets the name of the overriding method for this method.

Returns:

The name of the overriding method for this method

getSize

```
public int getSize()
```

Returns the size of this method's return value

Returns:

the integer value of the size of the method's return value

getType

```
public CIMDataType getType()
```

Returns the data type of this method's return value

Returns:

the CIM data type of this method's return value

setOriginClass

```
public void setOriginClass(java.lang.String string)
```

Sets the class in which this method was defined.

Parameters:

string -
The name of the class in which this property is defined

setOverridingMethod

```
public void setOverridingMethod(java.lang.String string)
```

Sets the name of the overriding method for this method

Parameters:

string -
The string name of the overriding method for this method

setSize

```
public void setSize(int i)
```

Sets the size of this method's return type to the specified size

Parameters:

i -
the integer size assigned to this method's return value

setType

```
public void setType(CIMDataType type)
```

Sets the data type of this method's return value to the specified CIM data type

Parameters:

type -
the CIM data type assigned to the method's return value.

setParameters

```
public void setParameters(java.util.Vector vector)
```

Sets the list of CIMParameters for this method to the specified list of parameters

Parameters:

vector -
list of parameters to be assigned to this method

getQualifiers

```
public java.util.Vector getQualifiers()
```

Returns the list of qualifiers for this method

Returns:

Vector list of qualifiers for this method

getQualifier

```
public CIMQualifier getQualifier(java.lang.String name)
```

(continued from last page)

Gets a qualifier by name

Parameters:

name -
The name of the qualifier to get

Returns:

Null if the qualifier does not exist, otherwise returns the reference to the qualifier

setQualifiers

```
public void setQualifiers(java.util.Vector qualifierList)
```

Sets the list of qualifiers for this element to the specified list of qualifiers

Parameters:

qualifierList -
list of qualifiers to be assigned to the element

toString

```
public java.lang.String toString()
```

javax.wbem.cim

Class CIMNameSpace

java.lang.Object

```

  |
  +-- javax.wbem.cim.CIMNameSpace

```

All Implemented interfaces:

java.io.Serializable

```

public class CIMNameSpace
extends java.lang.Object
implements java.io.Serializable

```

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

CIMNameSpace()	Constructor creates and instantiates a default CIM namespace name.
CIMNameSpace(java.lang.String uriStr)	Constructor for a CIM namespace, pointing to a specified host or URI.
CIMNameSpace(java.lang.String host, java.lang.String host)	Constructor creates and instantiates a CIM namespace with the the specified host and CIM namespace name.

Method Summary

java.lang.String	getHost() Gets the host name of this CIM namespace
java.lang.String	getNameSpace() Gets the name of this CIM namespace
java.lang.String	getPort()
java.lang.String	getScheme()
java.net.URI	getURI()
void	setNameSpace(java.lang.String ns) Sets the name of this CIM namespace to the specified string
java.lang.String	toString()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields**COPYRIGHT**

```
public static final java.lang.String COPYRIGHT
```

Constructors**CIMNameSpace**

```
public CIMNameSpace()
```

Constructor creates and instantiates a default CIM namespace name. The default CIM namespace name is "../root/cimv2"

CIMNameSpace

```
public CIMNameSpace(java.lang.String uriStr)
```

Constructor for a CIM namespace, pointing to a specified host or URI. For example, specifying the string "myhost" creates a CIM namespace with host name "myhost" and the default namespace name /root/cimv2 is used. If the path portion of the URI exists it will be used as the namespace.

Parameters:

uriStr -

- The string for the host name. h can be a host name, ip address, or a URI of the form: "http://myhost:8080/cimom"

Exceptions:

java.lang.IllegalArgumentException -

- If the String can not be used to create a valid URI (e.g. new URI(uri)).

CIMNameSpace

```
public CIMNameSpace(java.lang.String host,
                    java.lang.String ns)
```

Constructor creates and instantiates a CIM namespace with the the specified host and CIM namespace name. For example, specifying host "myhost" and namespace name "westcoast" creates a CIM namespace with the name "../myhost/westcoast".

Parameters:

host -

- the string representing the host name, ip address, or URL.

ns -

- the string representing the name of this CIM namespace

Methods**getNameSpace**

```
public java.lang.String getNameSpace()
```

Gets the name of this CIM namespace

Returns:

(continued from last page)

nameSpace The string representing the name of this CIM namespace

getHost

```
public java.lang.String getHost()
```

Gets the host name of this CIM namespace

Returns:

host The string representing the host name of this CIM namespace

getURI

```
public java.net.URI getURI()
```

getPort

```
public java.lang.String getPort()
```

getScheme

```
public java.lang.String getScheme()
```

setNameSpace

```
public void setNameSpace(java.lang.String ns)
```

Sets the name of this CIM namespace to the specified string

Parameters:

ns -
- the string representing the name of this CIM namespace

toString

```
public java.lang.String toString()
```

javax.wbem.cim

Class CIMObjectPath

java.lang.Object

└─ javax.wbem.cim.CIMObjectPath

All Implemented interfaces:

java.io.Serializable

public class **CIMObjectPath**
 extends java.lang.Object
 implements java.io.Serializable

Path to the specified CIM class or CIM instance or CIM qualifier. The CIM object path is a reference to CIM elements. It is only valid in context of an active connection to a CIM object manager on a host. In order to uniquely identify a given object on a host, it includes the namespace, object name, and keys (if the object is an instance). The namespace is taken to be relative to the namespace that the CIMClient is currently connected to. A key is a property or set of properties used to uniquely identify an instance of a class. Key properties are marked with the KEY qualifier. For example, the object path:

//myserver/root/cimv2:Solaris_ComputerSystem.Name=mycomputer, CreationClassName=Solaris_ComputerSystem has two parts: //myserver/root/cimv2 - The default CIM namespace on host myserver. Solaris_ComputerSystem.Name=mycomputer, CreationClassName=Solaris_ComputerSystem - A specific Solaris Computer System object. This Solaris computer system is uniquely identified by two key property values in the format (key property = value): Name=mycomputer
 CreationClassName=Solaris_ComputerSystem

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

CIMObjectPath()	Constructs a default CIM Object Path with empty namespace, objectName and keys
CIMObjectPath(java.lang.String objectPath)	Constructs a CIM Object Path referencing a CIM element.
CIMObjectPath(java.lang.String elementName, java.lang.String elementName)	Constructs a CIM Object Path referencing a CIM element along with its namespace.
CIMObjectPath(java.lang.String objectPath, java.util.Vector objectPath)	Constructs a CIM Object Path referencing the instance identified by the key values contained in the vector.
CIMObjectPath(java.lang.String scheme, java.lang.String scheme, java.lang.String scheme, java.lang.String scheme, java.lang.String scheme, CIMProperty[] scheme)	

Method Summary

void	addKey(java.lang.String name, CIMValue name) Adds a Key to the object path.
boolean	equals(java.lang.Object o)

java.lang.String	getHost() Gets the host for this CIMObjectPath.
CIMProperty	getKey(java.lang.String name) Gets a key by name.
CIMProperty[]	getKeyProperties()
java.util.Vector	getKeys() Gets the keys for this CIMObjectPath object.
java.lang.String	getNameSpace() Gets the namespace for this CIMObjectPath.
java.lang.String	getObjectName() Gets the object name for this CIMObjectPath.
java.lang.String	getPort() Returns the port for this path, if one exists.
java.lang.String	getScheme() The optional connection scheme (i.
int	hashCode()
void	setHost(java.lang.String hostName) Sets the host for this CIMObjectPath
void	setKeys(CIMProperty[] keys) Sets the keys for this CIMObjectPath.
void	setKeys(java.util.Vector v) Sets the keys for this CIMObjectPath.
void	setNameSpace(java.lang.String ns) Sets the namespace for this CIMObjectPath object.
void	setObjectName(java.lang.String objectName) Sets the Object Name for this CIMObjectPath
void	setPort(java.lang.String port)
void	setScheme(java.lang.String scheme)
java.lang.String	toString()
CIMObjectPath	valueOf(java.lang.String s)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

CIMObjectPath

```
public CIMObjectPath()
```

Constructs a default CIM Object Path with empty namespace, objectName and keys

CIMObjectPath

```
public CIMObjectPath(java.lang.String objectPath)
```

Constructs a CIM Object Path referencing a CIM element. The name can refer to a class name or a qualifier type name, depending on the particular operation being done. In order to refer to instances the keys must be set.

Parameters:

objectPath -
- the String form of an object path for a CIM element that will be parsed and used to initialize the object

CIMObjectPath

```
public CIMObjectPath(java.lang.String elementName,  
                    java.lang.String nameSpace)
```

Constructs a CIM Object Path referencing a CIM element along with its namespace. The name can refer to a class name or a qualifier type name, depending on the particular operation being done. In order to refer to instances the keys must be set.

Parameters:

elementName -
- the name of a CIM element.
nameSpace -
- the namespace relative to the current namespace.

CIMObjectPath

```
public CIMObjectPath(java.lang.String objectPath,  
                    java.util.Vector keys)
```

Constructs a CIM Object Path referencing the instance identified by the key values contained in the vector.

Parameters:

objectPath -
- the name of the class the instance belongs to.
keys -
- vector of CIMProperty. The keys of the instance instantiated with key values.

(continued from last page)

CIMObjectPath

```
public CIMObjectPath(java.lang.String scheme,
                     java.lang.String hostname,
                     java.lang.String port,
                     java.lang.String elementName,
                     java.lang.String nameSpace,
                     CIMProperty[] keys)
```

Methods

addKey

```
public void addKey(java.lang.String name,
                  CIMValue value)
```

Adds a Key to the object path.

Parameters:

name -
- name of the key property
value -
- the CIMValue of the key property

getKey

```
public CIMProperty getKey(java.lang.String name)
```

Gets a key by name.

Parameters:

name -
- the name of the key

Returns:

CIMProperty the CIMProperty with the given name, null if not found.

getKeys

```
public java.util.Vector getKeys()
```

Gets the keys for this CIMObjectPath object.

Returns:

Vector of CIMProperty.

getKeyProperties

```
public CIMProperty[] getKeyProperties()
```

setKeys

```
public void setKeys(java.util.Vector v)
```

Sets the keys for this CIMObjectPath.

Parameters:

(continued from last page)

v -
- vector of CIMProperty

setKeys

```
public void setKeys(CIMProperty[] keys)
```

Sets the keys for this CIMObjectPath.

Parameters:

keys -
Array of CIMProperty instances, one for each key property

getObjectName

```
public java.lang.String getObjectName()
```

Gets the object name for this CIMObjectPath. Depending on the type of reference, this object name can be either a class name or a qualifier type name.

Returns:

String name of this object

setObjectName

```
public void setObjectName(java.lang.String objectName)
```

Sets the Object Name for this CIMObjectPath

Parameters:

objectName -
String object name

See Also:

javax.wbem.cim.CIMObjectPath#getObjectName()

getPort

```
public java.lang.String getPort()
```

Returns the port for this path, if one exists.

Returns:

the port The port, or an empty String

setPort

```
public void setPort(java.lang.String port)
```

Parameters:

port -
the port to set

getScheme

```
public java.lang.String getScheme()
```

The optional connection scheme (i.e. http), for this path

(continued from last page)

Returns:

the scheme The connection scheme, or an empty String

setScheme

```
public void setScheme(java.lang.String scheme)
```

Parameters:

scheme -
the scheme to set

getHost

```
public java.lang.String getHost()
```

Gets the host for this CIMObjectPath.

Returns:

String name of the host

setHost

```
public void setHost(java.lang.String hostName)
```

Sets the host for this CIMObjectPath

Parameters:

hostName -
String host

See Also:

[javax.wbem.cim.CIMObjectPath#getHost\(\)](#)

getNameSpace

```
public java.lang.String getNameSpace()
```

Gets the namespace for this CIMObjectPath.

Returns:

String name of the namespace

setNameSpace

```
public void setNameSpace(java.lang.String ns)
```

Sets the namespace for this CIMObjectPath object.

Parameters:

ns -
- string name of the namespace

toString

```
public java.lang.String toString()
```

valueOf

```
public CIMObjectPath valueOf(java.lang.String s)
```

equals

```
public boolean equals(java.lang.Object o)
```

hashCode

```
public int hashCode()
```

See Also:

[java.lang.Object#hashCode\(\)](#)

javax.wbem.cim

Class CIMParameter

java.lang.Object

└- javax.wbem.cim.CIMElement

└- **javax.wbem.cim.CIMParameter****All Implemented interfaces:**

java.lang.Cloneable, java.io.Serializable, java.io.Serializable

public class **CIMParameter**

extends CIMElement

implements java.io.Serializable, java.io.Serializable, java.lang.Cloneable

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class javax.wbem.cim.CIMElement

COPYRIGHT

Constructor Summary

CIMParameter()

CIMParameter(java.lang.String name)

Method Summary

CIMQualifier	getQualifier(java.lang.String name)
java.util.Vector	getQualifiers()
int	getSize()
CIMDataType	getType()
void	setQualifiers(java.util.Vector qualifierList)
void	setSize(int i)
void	setType(CIMDataType type)

Methods inherited from : class javax.wbem.cim.CIMElement

```
equals, getName, setName
```

Methods inherited from : class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,  
wait
```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

CIMParameter

```
public CIMParameter()
```

CIMParameter

```
public CIMParameter(java.lang.String name)
```

Methods

getType

```
public CIMDataType getType()
```

getQualifiers

```
public java.util.Vector getQualifiers()
```

Returns:

Vector

getQualifier

```
public CIMQualifier getQualifier(java.lang.String name)
```

setQualifiers

```
public void setQualifiers(java.util.Vector qualifierList)
```

(continued from last page)

Parameters:qualifierList

getSizepublic int **getSize**()**Returns:**int

setSizepublic void **setSize**(int i)**Parameters:**i

setTypepublic void **setType**(CIMDataType type)**Parameters:**type

javax.wbem.cim

Class CIMProperty

java.lang.Object

└- javax.wbem.cim.CIMElement

└- **javax.wbem.cim.CIMProperty****All Implemented interfaces:**

java.lang.Cloneable, java.io.Serializable, java.io.Serializable

public class **CIMProperty**

extends CIMElement

implements java.io.Serializable, java.io.Serializable, java.lang.Cloneable

Creates and instantiates a CIM property, a name/value pair used to characterize instances of a class. Use this API to create a new attribute to describe managed objects. The CIMProperty class inherits the property name from its parent class (CIMProperty extends CIMQualifiedElement). A CIM Property is defined by its name and origin class.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class javax.wbem.cim.CIMElement

COPYRIGHT

Constructor Summary

CIMProperty()

Creates a new unnamed CIM property

CIMProperty(java.lang.String name)

Creates a new property with the given name and no value.

CIMProperty(java.lang.String name, CIMValue name)

Creates a new property with the given name and value.

Method Summary

void	addQualifier(CIMQualifier qualifier)
------	--------------------------------------

Adds the specified CIM qualifier to this property.

java.lang.String	getOriginClass()
------------------	------------------

Returns the class or instance in which this property was defined

java.lang.String	getOverridingProperty()
------------------	-------------------------

Gets the overriding property

CIMQualifier	getQualifier(java.lang.String name) Gets a qualifier by name.
java.util.Vector	getQualifiers() Returns the list of qualifiers for this method
int	getSize() Returns the size of this property
CIMDataType	getType() Gets the CIM data type of this property
CIMValue	getValue() Gets the value for this property
boolean	isKey() Convenience method for determining if this property is a Key
boolean	isReadable()
boolean	isReference() Identifies whether or not this CIM Property data type is a reference to an instance (link to another CIM object)
boolean	isWriteable()
void	removeQualifier(java.lang.String name) Removes the specified CIM qualifier from the element.
void	setKey(boolean b) Convenience method for making this property a key
void	setOriginClass(java.lang.String string) Sets the class or instance in which this property was defined.
void	setOverridingProperty(java.lang.String string) Specifies this property as an overriding property
void	setQualifier(CIMQualifier qualifier) Sets the value of a qualifier for this element
void	setQualifiers(java.util.Vector qualifierList) Sets the list of qualifiers for this element to the specified list of qualifiers
void	setReadable(boolean b)
void	setSize(int i) Convenience method for setting this property's size
void	setType(CIMDataType type) Sets the data type of this property to the specified CIM data type

void	setValue(CIMValue value) Sets the value for this property
void	setWriteable(boolean b)
java.lang.String	toString()

Methods inherited from : class javax.wbem.cim.CIMElement

equals, getName, setName

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Constructors

CIMProperty

public **CIMProperty**()

Creates a new unnamed CIM property

CIMProperty

public **CIMProperty**(java.lang.String name)

Creates a new property with the given name and no value.

Parameters:

name -
the name of an existing CIM property

CIMProperty

public **CIMProperty**(java.lang.String name,
CIMValue value)

Creates a new property with the given name and value.

Parameters:

name -
the name of an existing CIM property
value -
CIM value of an existing CIM property

(continued from last page)

Methods

addQualifier

```
public void addQualifier(CIMQualifier qualifier)
```

Adds the specified CIM qualifier to this property.

Parameters:

qualifier -
The qualifier to add

getQualifiers

```
public java.util.Vector getQualifiers()
```

Returns the list of qualifiers for this method

Returns:

Vector list of qualifiers for this method

getQualifier

```
public CIMQualifier getQualifier(java.lang.String name)
```

Gets a qualifier by name.

Parameters:

name -
The name of the qualifier to get

Returns:

Null if the qualifier does not exist, otherwise returns the reference to the qualifier

setQualifiers

```
public void setQualifiers(java.util.Vector qualifierList)
```

Sets the list of qualifiers for this element to the specified list of qualifiers

Parameters:

qualifierList -
list of qualifiers to be assigned to the element

getType

```
public CIMDataType getType()
```

Gets the CIM data type of this property

Returns:

The CIM data type of this property

getValue

```
public CIMValue getValue()
```

Gets the value for this property

Returns:

(continued from last page)

Gets the value for this property

isKey

public boolean **isKey**()

Convenience method for determining if this property is a Key

Returns:

true if this property is a key.

isReference

public boolean **isReference**()

Identifies whether or not this CIM Property data type is a reference to an instance (link to another CIM object)

Returns:

True if this property is a CIM reference. Otherwise, false.

removeQualifier

public void **removeQualifier**(java.lang.String name)

Removes the specified CIM qualifier from the element.

Parameters:

name -
The name of the qualifier to remove

setQualifier

public void **setQualifier**(CIMQualifier qualifier)

Sets the value of a qualifier for this element

Parameters:

qualifier -
The qualifier to set

getOriginClass

public java.lang.String **getOriginClass**()

Returns the class or instance in which this property was defined

Returns:

Name of class where this property was defined

getSize

public int **getSize**()

Returns the size of this property

Returns:

the size of this property

setKey

```
public void setKey(boolean b)
```

Convenience method for making this property a key

Parameters:

b -
New value

setOriginClass

```
public void setOriginClass(java.lang.String string)
```

Sets the class or instance in which this property was defined.

Parameters:

string -
The name of the class in which this property is defined

setSize

```
public void setSize(int i)
```

Convenience method for setting this property's size

Parameters:

i -
New size

setType

```
public void setType(CIMDataType type)
```

Sets the data type of this property to the specified CIM data type

Parameters:

type -
the CIM data type of this property

setValue

```
public void setValue(CIMValue value)
```

Sets the value for this property

Parameters:

value -
the CIM value for this property

getOverridingProperty

```
public java.lang.String getOverridingProperty()
```

Gets the overriding property

Returns:

The name of the overriding property.

(continued from last page)

setOverridingProperty

```
public void setOverridingProperty(java.lang.String string)
```

Specifies this property as an overriding property

Parameters:

string -
the name of the property

isReadable

```
public boolean isReadable()
```

Returns:

Whether or not this property can be read

isWriteable

```
public boolean isWriteable()
```

Returns:

Whether or not this property can be written to

setReadable

```
public void setReadable(boolean b)
```

Parameters:

b -
New value

setWriteable

```
public void setWriteable(boolean b)
```

Parameters:

b -
New value

toString

```
public java.lang.String toString()
```

See Also:

java.lang.Object#toString()

javax.wbem.cim

Class CIMQualifier

java.lang.Object

└- javax.wbem.cim.CIMElement

└- **javax.wbem.cim.CIMQualifier****All Implemented interfaces:**

java.lang.Cloneable, java.io.Serializable, java.io.Serializable

public class **CIMQualifier**

extends CIMElement

implements java.io.Serializable, java.io.Serializable, java.lang.Cloneable

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Fields inherited from : class javax.wbem.cim.CIMElement

COPYRIGHT

Constructor Summary

CIMQualifier()

CIMQualifier(java.lang.String name)

Methods inherited from : class javax.wbem.cim.CIMElement

equals, getName, setName

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHTpublic static final java.lang.String **COPYRIGHT**

(continued from last page)

Constructors

CIMQualifier

```
public CIMQualifier()
```

CIMQualifier

```
public CIMQualifier(java.lang.String name)
```

javax.wbem.cim

Class CIMValue

java.lang.Object

```

  |
  +-- javax.wbem.cim.CIMValue

```

All Implemented interfaces:

java.io.Serializable

public class **CIMValue**

extends java.lang.Object

implements java.io.Serializable

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

CIMValue(java.lang.Object o) Creates a CIMValue which may either be primitive or a CIM array type.
CIMValue(java.lang.Object o,CIMDataType o) Creates a primitive CIMValue.
CIMValue(java.util.Vector v,CIMDataType v) Creates an array CIMValue.

Method Summary

CIMDataType	getType()
java.lang.Object	getValue()
boolean	isEmpty() Returns true if the value and data type of this CIMValue are empty.
boolean	isNull() Returns true if this CIMValue contains a null data type.
void	setArrayValues(java.util.Vector values) Sets the Vector of values for this CIMValue, and makes the data type a valid array CIMDataType
void	setType(CIMDataType newType) Sets the CIMDataType for this CIMValue

void	setValue(java.lang.Object o) Sets the object value for this CIMValue, and maps its type to a valid CIMDataType.
int	size() Returns the size of the data type of this CIMValue.
java.lang.String	toString()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Constructors

CIMValue

```
public CIMValue(java.lang.Object o)
```

Creates a CIMValue which may either be primitive or a CIM array type.

Parameters:

- o -
- Java object used to initialize this CIMValue. It may either be a primitive type like String, Integer, UnsignedInt16, etc or a Vector of primitive types. The data type is automatically determined.

Exceptions:

- java.lang.IllegalArgumentException -
- if o is not a valid primitive type or array type.

CIMValue

```
public CIMValue(java.lang.Object o,  
                CIMDataType dt)
```

Creates a primitive CIMValue.

Parameters:

- o -
- Object used to initialize this CIMValue. This object should be a valid Java representation of a primitive CIM value, like String, Integer, UnsignedInt16, etc.
- dt -
- CIMDataType used to initialize this CIMValue.

Exceptions:

- java.lang.IllegalArgumentException -
- if the type of o does not match dt OR dt is an array

(continued from last page)

CIMValue

```
public CIMValue(java.util.Vector v,  
                CIMDataType dt)
```

Creates an array CIMValue.

Parameters:

- v -
- Vector of primitive data types used to initialize the array CIMValue. These primitive values must be valid Java representations of a primitive CIM value, like String, Integer, UnsignedInt16, etc.
- dt -
- CIMDataType used to initialize this CIMValue.

Methods

getType

```
public CIMDataType getType()
```

getValue

```
public java.lang.Object getValue()
```

size

```
public int size()
```

Returns the size of the data type of this CIMValue.

Returns:

The size of the data type of this CIMValue.

isEmpty

```
public boolean isEmpty()
```

Returns true if the value and data type of this CIMValue are empty. If the data type is null, it has a null value - it is not empty.

Returns:

True if the CIMValue is empty. Otherwise, false.

isNull

```
public boolean isNull()
```

Returns true if this CIMValue contains a null data type.

Returns:

True if this CIMValue contains a null data type. Otherwise, returns false.

setType

```
public void setType(CIMDataType newType)
```

Sets the CIMDataType for this CIMValue

(continued from last page)

Parameters:

newType -
New CIMDataType

setArrayValues

```
public void setArrayValues(java.util.Vector values)  
    throws java.lang.IllegalArgumentException
```

Sets the Vector of values for this CIMValue, and makes the data type a valid array CIMDataType

Parameters:

values -
New Vector of values

setValue

```
public void setValue(java.lang.Object o)  
    throws java.lang.IllegalArgumentException
```

Sets the object value for this CIMValue, and maps its type to a valid CIMDataType. Null is allowed.

Parameters:

o -
New object value

Exceptions:

IllegalArgumentException -
The type of the supplied object does not map to a valid CIMDataType

toString

```
public java.lang.String toString()
```

javax.wbem.cim

Class UnsignedInt16

java.lang.Object

├- java.lang.Number

└- javax.wbem.cim.UnsignedInt16

public class **UnsignedInt16**

extends java.lang.Number

Field Summary

static java.lang.String	COPYRIGHT
static int	MAX_VALUE The maximum value of this integer
static int	MIN_VALUE The minimum value of this integer

Constructor Summary

UnsignedInt16(int a)	Constructor creates an unsigned 16-bit integer object for the specified int value.
UnsignedInt16(java.lang.String number)	Constructor creates an unsigned 16-bit integer object for the specified string.

Method Summary

byte	byteValue()
double	doubleValue()
boolean	equals(java.lang.Object o)
float	floatValue()
int	hashCode()
int	intValue()
long	longValue()
short	shortValue()

java.lang.String	toString()
static UnsignedInt16	valueOf(java.lang.String s)

Methods inherited from : class java.lang.Number

byteValue, doubleValue, floatValue, intValue, longValue, shortValue

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

MAX_VALUE

```
public static final int MAX_VALUE
    The maximum value of this integer
```

MIN_VALUE

```
public static final int MIN_VALUE
    The minimum value of this integer
```

Constructors

UnsignedInt16

```
public UnsignedInt16(int a)
```

Constructor creates an unsigned 16-bit integer object for the specified int value. Only the bottom 16 bits are considered.

Parameters:

- a -
- the int to be represented as an unsigned 16-bit integer object

UnsignedInt16

```
public UnsignedInt16(java.lang.String number)
```

Constructor creates an unsigned 16-bit integer object for the specified string. Only the bottom 16 bits are considered.

Parameters:

- number -
- the string to be represented as an unsigned 16-bit integer

(continued from last page)

Methods

byteValue

```
public byte byteValue()
```

See Also:

java.lang.Number#byteValue()

shortValue

```
public short shortValue()
```

See Also:

java.lang.Number#shortValue()

intValue

```
public int intValue()
```

See Also:

java.lang.Number#intValue()

longValue

```
public long longValue()
```

See Also:

java.lang.Number#longValue()

floatValue

```
public float floatValue()
```

See Also:

java.lang.Number#floatValue()

doubleValue

```
public double doubleValue()
```

See Also:

java.lang.Number#doubleValue()

equals

```
public boolean equals(java.lang.Object o)
```

hashCode

```
public int hashCode()
```

toString

```
public java.lang.String toString()
```

valueOf

```
public static UnsignedInt16 valueOf(java.lang.String s)
```

javax.wbem.cim

Class UnsignedInt32

java.lang.Object

├- java.lang.Number

└- javax.wbem.cim.UnsignedInt32

public class **UnsignedInt32**

extends java.lang.Number

Field Summary

static java.lang.String	COPYRIGHT
static long	MAX_VALUE The maximum value of this long
static long	MIN_VALUE The minimum value of this long

Constructor Summary

UnsignedInt32(long a)	Constructor creates an unsigned 32-bit integer object for the specified long value.
UnsignedInt32(java.lang.String number)	Constructor creates an unsigned 32-bit integer object from the specified string.

Method Summary

byte	byteValue()
double	doubleValue()
boolean	equals(java.lang.Object o)
float	floatValue()
int	hashCode()
int	intValue()
long	longValue()
short	shortValue()

java.lang.String	toString()
static UnsignedInt32	valueOf(java.lang.String s)

Methods inherited from : class java.lang.Number

byteValue, doubleValue, floatValue, intValue, longValue, shortValue

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

MAX_VALUE

public static final long **MAX_VALUE**

The maximum value of this long

MIN_VALUE

public static final long **MIN_VALUE**

The minimum value of this long

Constructors

UnsignedInt32

public **UnsignedInt32**(long a)

Constructor creates an unsigned 32-bit integer object for the specified long value. Only the bottom 32 bits are considered.

Parameters:

- a -
- the long to be represented as an unsigned 32-bit integer object

UnsignedInt32

public **UnsignedInt32**(java.lang.String number)

Constructor creates an unsigned 32-bit integer object from the specified string. Only the bottom 32 bits are considered.

Parameters:

- number -
- the string to be represented as an unsigned 32-bit integer

(continued from last page)

Methods

byteValue

```
public byte byteValue()
```

See Also:

`java.lang.Number#byteValue()`

shortValue

```
public short shortValue()
```

See Also:

`java.lang.Number#shortValue()`

intValue

```
public int intValue()
```

See Also:

`java.lang.Number#intValue()`

longValue

```
public long longValue()
```

See Also:

`java.lang.Number#longValue()`

floatValue

```
public float floatValue()
```

See Also:

`java.lang.Number#floatValue()`

doubleValue

```
public double doubleValue()
```

See Also:

`java.lang.Number#doubleValue()`

equals

```
public boolean equals(java.lang.Object o)
```

hashCode

```
public int hashCode()
```

toString

```
public java.lang.String toString()
```

valueOf

```
public static UnsignedInt32 valueOf(java.lang.String s)
```

javax.wbem.cim

Class UnsignedInt64

java.lang.Object

├-- java.lang.Number

└-- javax.wbem.cim.UnsignedInt64

public class **UnsignedInt64**

extends java.lang.Number

Field Summary

static java.lang.String	COPYRIGHT
static java.math.BigInteger	MAX_VALUE The maximum value of this long
static java.math.BigInteger	MIN_VALUE The minimum value of this long

Constructor Summary

UnsignedInt64(java.math.BigInteger a)	Constructor creates an unsigned 64-bit integer object for the specified BigInteger value.
UnsignedInt64(byte[] bval)	Constructor creates an unsigned 64-bit integer object from the supplied byte array.
UnsignedInt64(java.lang.String number)	Constructor creates an unsigned 64-bit integer object from the specified string.

Method Summary

java.math.BigInteger	bigIntValue()
byte	byteValue()
int	compareTo(java.lang.Object val) Compares this UnsignedInt64 with the specified UnsignedInt64.
double	doubleValue()
boolean	equals(java.lang.Object o)
float	floatValue()

int	hashCode()
int	intValue()
long	longValue()
short	shortValue()
java.lang.String	toString()
static UnsignedInt64	valueOf(java.lang.String s)

Methods inherited from : class java.lang.Number

byteValue, doubleValue, floatValue, intValue, longValue, shortValue

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

MAX_VALUE

public static final java.math.BigInteger **MAX_VALUE**

The maximum value of this long

MIN_VALUE

public static final java.math.BigInteger **MIN_VALUE**

The minimum value of this long

Constructors

UnsignedInt64

public **UnsignedInt64**(java.math.BigInteger a)

Constructor creates an unsigned 64-bit integer object for the specified BigInteger value. Only the bottom 64 bits are considered.

Parameters:

- a -
- the BigInteger to be represented as an unsigned 64-bit integer object

UnsignedInt64

```
public UnsignedInt64(byte[] bval)
```

Constructor creates an unsigned 64-bit integer object from the supplied byte array. Only the bottom 64 bits are considered.

Parameters:

bval -
- the byte[] to be represented as an unsigned 64-bit integer object

UnsignedInt64

```
public UnsignedInt64(java.lang.String number)
```

Constructor creates an unsigned 64-bit integer object from the specified string. Only the bottom 64 bits are considered.

Parameters:

number -
- the string to be represented as an unsigned 64-bit integer

Methods

bigIntValue

```
public java.math.BigInteger bigIntValue()
```

byteValue

```
public byte byteValue()
```

See Also:

java.lang.Number#byteValue()

compareTo

```
public int compareTo(java.lang.Object val)
```

Compares this UnsignedInt64 with the specified UnsignedInt64. This method is provided in preference to individual methods for each of the six boolean comparison operators (<, ==, >, >=, !=, <=). The suggested idiom for performing these comparisons is: (x.compareTo(y) [op]0), where [op] is one of the six comparison operators.

Parameters:

val -
- Object to which this UnsignedInt64 is to be compared. Throws a ClassCastException if the input object is not an UnsignedInt64.

Returns:

-1, 0 or 1 as this UnsignedInt64 is numerically less than, equal to, or greater than val

shortValue

```
public short shortValue()
```

See Also:

(continued from last page)

java.lang.Number#shortValue()

intValue

public int **intValue**()

See Also:

java.lang.Number#intValue()

longValue

public long **longValue**()

See Also:

java.lang.Number#longValue()

floatValue

public float **floatValue**()

See Also:

java.lang.Number#floatValue()

doubleValue

public double **doubleValue**()

See Also:

java.lang.Number#doubleValue()

equals

public boolean **equals**(java.lang.Object o)

hashCode

public int **hashCode**()

toString

public java.lang.String **toString**()

(continued from last page)

valueOf

```
public static UnsignedInt64 valueOf(java.lang.String s)
```

javax.wbem.cim

Class UnsignedInt8

java.lang.Object

└- java.lang.Number

└- javax.wbem.cim.UnsignedInt8

```
public class UnsignedInt8
extends java.lang.Number
```

Field Summary

static java.lang.String	COPYRIGHT
static short	MAX_VALUE The maximum value of this short
static short	MIN_VALUE The minimum value of this short

Constructor Summary

UnsignedInt8(short a)	Constructor creates an unsigned 8-bit integer object for the specified short value.
UnsignedInt8(java.lang.String number)	Constructor creates an unsigned 8-bit integer object for the specified string.

Method Summary

byte	byteValue()
double	doubleValue()
boolean	equals(java.lang.Object o)
float	floatValue()
int	hashCode()
int	intValue()
long	longValue()
short	shortValue()

java.lang.String	toString()
static UnsignedInt8	valueOf(java.lang.String s)

Methods inherited from : class java.lang.Number

byteValue, doubleValue, floatValue, intValue, longValue, shortValue

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

MAX_VALUE

```
public static final short MAX_VALUE
```

The maximum value of this short

MIN_VALUE

```
public static final short MIN_VALUE
```

The minimum value of this short

Constructors

UnsignedInt8

```
public UnsignedInt8(short a)
```

Constructor creates an unsigned 8-bit integer object for the specified short value. Only the bottom 8 bits are considered.

Parameters:

- a -
- the short to be represented as an unsigned 8-bit integer object

UnsignedInt8

```
public UnsignedInt8(java.lang.String number)
```

Constructor creates an unsigned 8-bit integer object for the specified string. Only the bottom 8 bits are considered.

Parameters:

- number -
- the string to be represented as an unsigned 8-bit integer

Methods

(continued from last page)

byteValue

```
public byte byteValue()
```

See Also:

```
java.lang.Number#byteValue()
```

shortValue

```
public short shortValue()
```

See Also:

```
java.lang.Number#shortValue()
```

intValue

```
public int intValue()
```

See Also:

```
java.lang.Number#intValue()
```

longValue

```
public long longValue()
```

See Also:

```
java.lang.Number#longValue()
```

floatValue

```
public float floatValue()
```

See Also:

```
java.lang.Number#floatValue()
```

doubleValue

```
public double doubleValue()
```

See Also:

```
java.lang.Number#doubleValue()
```

(continued from last page)

equals

```
public boolean equals(java.lang.Object o)
```

hashCode

```
public int hashCode()
```

toString

```
public java.lang.String toString()
```

valueOf

```
public static UnsignedInt8 valueOf(java.lang.String s)
```

Package

javax.wbem.client

javax.wbem.client Class CIMClient

```
java.lang.Object
  |
  +- javax.wbem.client.CIMClient
```

```
public class CIMClient
  extends java.lang.Object
```

Constructs a connection to a CIMOM on the local host. This class invokes the CIM object manager for this client session to perform a WBEM operation, such as, adding, modifying, or deleting a CIM class, CIM instance, and CIM qualifier type in a namespace.

A WBEM client application connects to a CIM Object Manager to establish an initial connection when it needs to perform WBEM operations.

Field Summary

static java.lang.String	COPYRIGHT
static int	DEFAULT_POLLING_INTERVAL

Constructor Summary

```
CIMClient(CIMNameSpace ns, CIMClientUserPrincipal ns, CIMClientPasswordCredential ns)
```

Creates a new client connection to the CIM Object Manager on the local host, using the specified principal and credential to authenticate the client user identity to the CIM Object Manager (If required).

```
CIMClient(CIMClientImpl impl, CIMNameSpace impl)
```

Method Summary

void	addCIMListener(CIMListener listener)
void	addExtrinsicIndicationClass(java.lang.String eventClass, int eventClass) Registers with the CIMOM to receive extrinsic indications of the supplied CIM type
void	addLifecycleIndicationClass(java.lang.String cimClassName) Registers with the CIMOM to receive lifecycle indications for objects of the supplied CIM Class
void	addLifecycleIndicationClass(java.lang.String cimClassName, int cimClassName) Registers with the CIMOM to receive lifecycle indications for objects of the supplied CIM Class
void	close() Closes the client connection to the CIM Object Manager.

void	createInstance(CIMObjectPath path,CIMInstance path)
void	deleteInstance(CIMObjectPath objPath)
java.util.Enumeration	enumerateClassNames(CIMObjectPath objPath,boolean objPath)
java.util.Enumeration	enumerateInstanceNames(CIMObjectPath objPath)
void	finalize()
void	forwardIndication(CIMEvent e)
CIMClass	getClass(CIMObjectPath objPath)
CIMClass	getClass(CIMObjectPath objPath,boolean objPath)
CIMClass	getClass(CIMObjectPath objPath,boolean objPath,boolean objPath)
CIMClass	getClass(CIMObjectPath objPath,boolean objPath,boolean objPath,boolean objPath)
CIMClass	getClass(CIMObjectPath objPath,boolean objPath,boolean objPath,boolean objPath,java.lang.String[] objPath)
static java.lang.String	getImplementationName()
CIMInstance	getInstance(CIMObjectPath objPath)
static java.lang.String	getNativeLibVersion()
java.util.Vector	getProperties(CIMObjectPath path,java.lang.String[] path) Returns a Vector of CIMProperty objects, one for each supplied property name
CIMValue	getProperty(CIMObjectPath path,java.lang.String path)
static java.lang.String	getVersion()
void	invokeMethod(CIMObjectPath path,java.lang.String path,CIMArgument[] path,CIMMethodCallback path)
boolean	isActive() Returns whether or not the underlying native library has been loaded
static boolean	isCIMActive()
boolean	isClosed()
void	removeCIMListener(CIMListener listener)

void	removeIndicationClass(java.lang.String cimClassName) Reports to the native implementation a CIM class name that should no longer emit indications.
void	setProperty(CIMObjectPath path, java.lang.String path, CIMValue path)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

DEFAULT_POLLING_INTERVAL

```
public static final int DEFAULT_POLLING_INTERVAL
```

Constructors

CIMClient

```
public CIMClient(CIMNameSpace ns,
                CIMClientUserPrincipal user,
                CIMClientPasswordCredential pw)
```

Creates a new client connection to the CIM Object Manager on the local host, using the specified principal and credential to authenticate the client user identity to the CIM Object Manager (If required).

Parameters:

- ns -
- The namespace in which operations will be performed.
- user -
- The client user principal identity.
- pw -
- The client user credential for authentication.

Exceptions:

- CIMException -
- If unsuccessful

CIMClient

```
protected CIMClient(CIMClientImpl impl,
                    CIMNameSpace ns)
```

Methods

(continued from last page)

finalize

```
protected void finalize()
```

close

```
public void close()
```

Closes the client connection to the CIM Object Manager. This will enable the CIM object manager to free resources related to the client session. Additionally local indication listeners will be stopped.

isClosed

```
public boolean isClosed()
```

isActive

```
public boolean isActive()
```

Returns whether or not the underlying native library has been loaded

Returns:

true
if the underlying native library has been loaded, false otherwise

getNativeLibVersion

```
public static java.lang.String getNativeLibVersion()
```

getVersion

```
public static java.lang.String getVersion()
```

getImplementationName

```
public static java.lang.String getImplementationName()
```

isCIMActive

```
public static boolean isCIMActive()
```

addCIMListener

```
public void addCIMListener(CIMListener listener)  
    throws CIMException
```

(continued from last page)

removeCIMListener

```
public void removeCIMListener(CIMListener listener)
    throws CIMException
```

createInstance

```
public void createInstance(CIMObjectPath path,
    CIMInstance instance)
    throws CIMException
```

deleteInstance

```
public void deleteInstance(CIMObjectPath objPath)
    throws CIMException,
    CIMInstanceNotFoundException
```

enumerateClassNames

```
public java.util.Enumeration enumerateClassNames(CIMObjectPath objPath,
    boolean deep)
    throws CIMException
```

enumerateInstanceNames

```
public java.util.Enumeration enumerateInstanceNames(CIMObjectPath objPath)
    throws CIMException
```

getInstance

```
public CIMInstance getInstance(CIMObjectPath objPath)
    throws CIMException
```

getClass

```
public CIMClass getClass(CIMObjectPath objPath)
    throws CIMException
```

getClass

```
public CIMClass getClass(CIMObjectPath objPath,
    boolean localOnly)
    throws CIMException
```

(continued from last page)

getClass

```
public CIMClass getClass(CIMObjectPath objPath,  
                          boolean localOnly,  
                          boolean includeQualifiers)  
    throws CIMException
```

getClass

```
public CIMClass getClass(CIMObjectPath objPath,  
                          boolean localOnly,  
                          boolean includeQualifiers,  
                          boolean includeClassOrigin)  
    throws CIMException
```

getClass

```
public CIMClass getClass(CIMObjectPath objPath,  
                          boolean localOnly,  
                          boolean includeQualifiers,  
                          boolean includeClassOrigin,  
                          java.lang.String[] propertyList)  
    throws CIMException
```

getProperty

```
public CIMValue getProperty(CIMObjectPath path,  
                             java.lang.String name)  
    throws CIMException,  
           CIMInstanceNotFoundException
```

getProperties

```
public java.util.Vector getProperties(CIMObjectPath path,  
                                       java.lang.String[] names)  
    throws CIMException,  
           CIMInstanceNotFoundException
```

Returns a Vector of CIMProperty objects, one for each supplied property name

Parameters:

path -
Instance path
names -
Property names

Returns:

Vector containing the properties

Exceptions:

CIMException -
CIMOM error
CIMInstanceNotFoundException -
Instance not found

(continued from last page)

setProperty

```
public void setProperty(CIMObjectPath path,
                        java.lang.String name,
                        CIMValue value)
    throws CIMException,
           CIMInstanceNotFoundException
```

invokeMethod

```
public void invokeMethod(CIMObjectPath path,
                          java.lang.String name,
                          CIMArgument[] inArgs,
                          CIMMethodCallback callback)
    throws CIMException,
           CIMInstanceNotFoundException
```

addLifecycleIndicationClass

```
public void addLifecycleIndicationClass(java.lang.String cimClassName)
    throws CIMException
```

Registers with the CIMOM to receive lifecycle indications for objects of the supplied CIM Class

Parameters:

cimClassName -
CIM Class to receive lifecycle events from

Exceptions:

CIMException -
Client is closed or an error occurred

addLifecycleIndicationClass

```
public void addLifecycleIndicationClass(java.lang.String cimClassName,
                                          int pollingInterval)
    throws CIMException
```

Registers with the CIMOM to receive lifecycle indications for objects of the supplied CIM Class

Parameters:

cimClassName -
CIM Class to receive lifecycle events from
pollingInterval -

If the underlying implementation supports it, the amount of time between polling intervals for new or removed objects

Exceptions:

CIMException -
Client is closed or an error occurred

addExtrinsicIndicationClass

```
public void addExtrinsicIndicationClass(java.lang.String eventClass,
                                          int pollingInterval)
    throws CIMException
```

Registers with the CIMOM to receive extrinsic indications of the supplied CIM type

Parameters:

eventClass -
CIM Class name of the type of events to receive

(continued from last page)

`pollingInterval` -

If the underlying implementation supports it, the amount of time between polling intervals for events

Exceptions:

`CIMException` -

Client is closed or an error occurred

removeIndicationClass

```
public void removeIndicationClass(java.lang.String cimClassName)
    throws CIMException
```

Reports to the native implementation a CIM class name that should no longer emit indications. Used to unregister for lifecycle events or extrinsic events

Parameters:

`cimClassName` -

CIM Class Name to remove

Exceptions:

`CIMException` -

Client is closed or an error occurred

forwardIndication

```
public void forwardIndication(CIMEvent e)
```

javax.wbem.client

Interface CIMClientImpl**All Known Implementing Classes:**

WBEMCIMClientImpl, CIMImpl

public interface **CIMClientImpl**

Interface implemented by all CIMOM client connection implementations

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

boolean	addCIMListener(CIMListener listener) Adds the supplied CIMListener as a listener for indications
int	addExtrinsicIndicationClass(java.lang.String eventClass,int eventClass)
int	addLifecycleIndicationClass(java.lang.String cimClassName,int cimClassName)
int	createInstance(CIMObjectPath retVal,CIMObjectPath retVal,CIMInstance retVal)
int	deleteInstance(CIMObjectPath path)
int	enumerateClassNames(java.util.Vector retVal,CIMObjectPath retVal,boolean retVal)
int	enumerateInstanceNames(java.util.Vector retVal,CIMObjectPath retVal)
void	forwardIndication(CIMEvent event)
int	getClass(CIMClass retVal,CIMObjectPath retVal,boolean retVal,boolean retVal,boolean retVal,java.lang.String[] retVal)
int	getInstance(CIMInstance retVal,CIMObjectPath retVal)
java.lang.String	getLastErrorMessage()
int	getProperties(java.util.Vector retVal,CIMObjectPath retVal,java.lang.String[] retVal)
int	getProperty(CIMValue retVal,CIMObjectPath retVal,java.lang.String retVal)

int	invokeMethod(CIMObjectPath name, java.lang.String name, CIMArgument[] name, CIMMethodCallback name)
boolean	removeCIMListener(CIMListener listener) Removes the supplied CIMListener as a listener for indications
int	removeIndicationClass(java.lang.String cimClassName)
int	setProperty(CIMObjectPath name, java.lang.String name, CIMValue name)
int	tearDown()

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

addCIMListener

public boolean **addCIMListener**(CIMListener listener)

Adds the supplied CIMListener as a listener for indications

Parameters:

listener -
CIMListener to add

Returns:

boolean true if the CIMListener was added successfully, false if if the CIMListener had already been added

removeCIMListener

public boolean **removeCIMListener**(CIMListener listener)

Removes the supplied CIMListener as a listener for indications

Parameters:

listener -
CIMListener to remove

Returns:

boolean true if the CIMListener was removed successfully, false if if the CIMListener had not been registered

enumerateClassNames

public int **enumerateClassNames**(java.util.Vector retVal,
CIMObjectPath path,
boolean deep)

(continued from last page)

See Also:

javax.wbem.client.CIMClient#enumerateClassNames(CIMObjectPath, boolean)

enumerateInstanceNames

```
public int enumerateInstanceNames(java.util.Vector retVal,  
                                   CIMObjectPath path)
```

See Also:

javax.wbem.client.CIMClient#enumerateInstanceNames(CIMObjectPath)

getInstance

```
public int getInstance(CIMInstance retVal,  
                       CIMObjectPath path)
```

See Also:

javax.wbem.client.CIMClient#getInstance(CIMObjectPath)

getProperty

```
public int getProperty(CIMValue retVal,  
                       CIMObjectPath name,  
                       java.lang.String prop)
```

See Also:

javax.wbem.client.CIMClient#getProperty(CIMObjectPath, String)

getProperties

```
public int getProperties(java.util.Vector retVal,  
                        CIMObjectPath name,  
                        java.lang.String[] props)
```

See Also:

javax.wbem.client.CIMClient#getProperties(CIMObjectPath, String[])

setProperty

```
public int setProperty(CIMObjectPath name,  
                       java.lang.String prop,  
                       CIMValue value)
```

See Also:

javax.wbem.client.CIMClient#setProperty(CIMObjectPath, String, CIMValue)

(continued from last page)

invokeMethod

```
public int invokeMethod(CIMObjectPath name,  
                        java.lang.String methodName,  
                        CIMArgument[] inArgs,  
                        CIMMethodCallback callback)
```

See Also:

```
javax.wbem.client.CIMClient#invokeMethod(CIMObjectPath, String, CIMArgument[], CIMMethodCallback)
```

createInstance

```
public int createInstance(CIMObjectPath retVal,  
                          CIMObjectPath name,  
                          CIMInstance inst)
```

See Also:

```
javax.wbem.client.CIMClient#createInstance(CIMObjectPath, CIMInstance)
```

getClass

```
public int getClass(CIMClass retVal,  
                   CIMObjectPath name,  
                   boolean localOnly,  
                   boolean incQual,  
                   boolean incClsOrig,  
                   java.lang.String[] props)
```

See Also:

```
javax.wbem.client.CIMClient#getClass(CIMObjectPath, boolean, boolean, boolean, String[])
```

deleteInstance

```
public int deleteInstance(CIMObjectPath path)
```

See Also:

```
javax.wbem.client.CIMClient#deleteInstance(CIMObjectPath)
```

addLifecycleIndicationClass

```
public int addLifecycleIndicationClass(java.lang.String cimClassName,  
                                       int pollingInterval)
```

See Also:

```
javax.wbem.client.CIMClient#addLifecycleIndicationClass(String, int)
```

(continued from last page)

addExtrinsicIndicationClass

```
public int addExtrinsicIndicationClass(java.lang.String eventClass,  
                                       int pollingInterval)
```

See Also:

```
javax.wbem.client.CIMClient#addExtrinsicIndicationClass(String, int)
```

removeIndicationClass

```
public int removeIndicationClass(java.lang.String cimClassName)
```

See Also:

```
javax.wbem.client.CIMClient#removeIndicationClass(String)
```

forwardIndication

```
public void forwardIndication(CIMEvent event)
```

tearDown

```
public int tearDown()
```

getLastErrorMessage

```
public java.lang.String getLastErrorMessage()
```

javax.wbem.client

Class CIMClientPasswordCredential

java.lang.Object

```

  |
  |-- javax.wbem.client.CIMClientPasswordCredential

```

public class **CIMClientPasswordCredential**

extends java.lang.Object

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

CIMClientPasswordCredential(java.lang.String password)

Method Summary

java.lang.String	getUserPassword()
------------------	-------------------

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Constructors

CIMClientPasswordCredential

public **CIMClientPasswordCredential**(java.lang.String password)

Methods

(continued from last page)

getUserPassword

```
public java.lang.String getUserPassword()
```

javax.wbem.client

Class CIMClientUserPrincipal

java.lang.Object

```

  |
  |-- javax.wbem.client.CIMClientUserPrincipal

```

All Implemented interfaces:

java.security.Principal, java.io.Serializable

```

public class CIMClientUserPrincipal
extends java.lang.Object
implements java.io.Serializable, java.security.Principal

```

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

CIMClientUserPrincipal(java.lang.String userId)

Method Summary

java.lang.String	getName()
java.lang.String	getUserName()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHTpublic static final java.lang.String **COPYRIGHT**

Constructors

CIMClientUserPrincipalpublic **CIMClientUserPrincipal**(java.lang.String userId)

(continued from last page)

Methods

getUserName

```
public java.lang.String getUserName()
```

getName

```
public java.lang.String getName()
```

See Also:

[java.security.Principal#getName\(\)](#)

javax.wbem.client

Class CIMErrorConst

java.lang.Object

```

  |
  +-- javax.wbem.client.CIMErrorConst

```

public final class **CIMErrorConst**

extends java.lang.Object

Constants returned to the CIMClient from the CIMImpl's JNI layer.

Field Summary

static int	CIM_CIMCLASS_ERROR
static int	CIM_CIMINSTANCE_ERROR
static int	CIM_COM_ERROR
static int	CIM_E_COM_ACCESS_DENIED
static int	CIM_E_COM_ALREADY_EXISTS
static int	CIM_E_COM_ENUMERATION_INVALIDATED
static int	CIM_E_COM_GENERAL_FAULT
static int	CIM_E_COM_ILLEGAL_NULL
static int	CIM_E_COM_INCOMPLETE_CLASS
static int	CIM_E_COM_INVALID_CLASS
static int	CIM_E_COM_INVALID_METHOD
static int	CIM_E_COM_INVALID_METHOD_PARAMETERS
static int	CIM_E_COM_INVALID_OBJECT
static int	CIM_E_COM_INVALID_OBJECT_PATH
static int	CIM_E_COM_INVALID_OPERATION
static int	CIM_E_COM_INVALID_PARAMETER
static int	CIM_E_COM_INVALID_PROPERTY_TYPE

static int	CIM_E_COM_METHOD_DISABLED
static int	CIM_E_COM_METHOD_NOT_IMPLEMENTED
static int	CIM_E_COM_NOT_FOUND
static int	CIM_E_COM_OUT_OF_MEMORY
static int	CIM_E_COM_PROVIDER_NOT_CAPABLE
static int	CIM_E_COM_RPC_TRANSPORT_FAILURE
static int	CIM_E_COM_TYPE_MISMATCH
static int	CIM_E_COM_WMI_SHUTDOWN
static int	CIM_E_INSUFFICIENT_ARG_SPACE
static int	CIM_E_INVALID_NAMESPACE
static int	CIM_E_METHOD_NOT_FOUND
static int	CIM_E_PEG_ACCESS_DENIED
static int	CIM_E_PEG_ALREADY_EXISTS
static int	CIM_E_PEG_CLASS_HAS_CHILDREN
static int	CIM_E_PEG_CLASS_HAS_INSTANCES
static int	CIM_E_PEG_FAILED
static int	CIM_E_PEG_INVALID_CLASS
static int	CIM_E_PEG_INVALID_NAMESPACE
static int	CIM_E_PEG_INVALID_PARAMETER
static int	CIM_E_PEG_INVALID_QUERY
static int	CIM_E_PEG_INVALID_SUPERCLASS
static int	CIM_E_PEG_METHOD_NOT_AVAILABLE
static int	CIM_E_PEG_METHOD_NOT_FOUND
static int	CIM_E_PEG_NO_SUCH_PROPERTY

static int	CIM_E_PEG_NOT_FOUND
static int	CIM_E_PEG_NOT_SUPPORTED
static int	CIM_E_PEG_QUERY_LANGUAGE_NOT_SUPPORTED
static int	CIM_E_PEG_TYPE_MISMATCH
static int	CIM_ERROR_INVALID_HANDLE
static int	CIM_GENERAL_ERROR
static int	CIM_INVALID_CLASS
static int	CIM_NO_ERROR
static int	CIM_OBJECT_ALLOCATION
static int	CIM_PEGASUS_ERROR
static int	CIM_UNABLE_TO_MAP_CIMOBJECT
static java.lang.String	COPYRIGHT

Constructor Summary

CIMErrorConst()

Method Summary

static
java.lang.String mapErrorCodeToStr(int errCode)

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

(continued from last page)

CIM_NO_ERROR

```
public static final int CIM_NO_ERROR
```

CIM_GENERAL_ERROR

```
public static final int CIM_GENERAL_ERROR
```

CIM_COM_ERROR

```
public static final int CIM_COM_ERROR
```

CIM_PEGASUS_ERROR

```
public static final int CIM_PEGASUS_ERROR
```

CIM_ERROR_INVALID_HANDLE

```
public static final int CIM_ERROR_INVALID_HANDLE
```

CIM_OBJECT_ALLOCATION

```
public static final int CIM_OBJECT_ALLOCATION
```

CIM_INVALID_CLASS

```
public static final int CIM_INVALID_CLASS
```

CIM_E_INVALID_NAMESPACE

```
public static final int CIM_E_INVALID_NAMESPACE
```

CIM_E_INSUFFICIENT_ARG_SPACE

```
public static final int CIM_E_INSUFFICIENT_ARG_SPACE
```

CIM_E_METHOD_NOT_FOUND

```
public static final int CIM_E_METHOD_NOT_FOUND
```

CIM_UNABLE_TO_MAP_CIMOBJECT

```
public static final int CIM_UNABLE_TO_MAP_CIMOBJECT
```

CIM_CIMINSTANCE_ERROR

```
public static final int CIM_CIMINSTANCE_ERROR
```

CIM_CIMCLASS_ERROR

```
public static final int CIM_CIMCLASS_ERROR
```

CIM_E_PEG_FAILED

```
public static final int CIM_E_PEG_FAILED
```

CIM_E_PEG_ACCESS_DENIED

```
public static final int CIM_E_PEG_ACCESS_DENIED
```

CIM_E_PEG_INVALID_NAMESPACE

```
public static final int CIM_E_PEG_INVALID_NAMESPACE
```

CIM_E_PEG_INVALID_PARAMETER

```
public static final int CIM_E_PEG_INVALID_PARAMETER
```

CIM_E_PEG_INVALID_CLASS

```
public static final int CIM_E_PEG_INVALID_CLASS
```

CIM_E_PEG_NOT_FOUND

```
public static final int CIM_E_PEG_NOT_FOUND
```

CIM_E_PEG_NOT_SUPPORTED

```
public static final int CIM_E_PEG_NOT_SUPPORTED
```

CIM_E_PEG_CLASS_HAS_CHILDREN

```
public static final int CIM_E_PEG_CLASS_HAS_CHILDREN
```

(continued from last page)

CIM_E_PEG_CLASS_HAS_INSTANCES

```
public static final int CIM_E_PEG_CLASS_HAS_INSTANCES
```

CIM_E_PEG_INVALID_SUPERCLASS

```
public static final int CIM_E_PEG_INVALID_SUPERCLASS
```

CIM_E_PEG_ALREADY_EXISTS

```
public static final int CIM_E_PEG_ALREADY_EXISTS
```

CIM_E_PEG_NO_SUCH_PROPERTY

```
public static final int CIM_E_PEG_NO_SUCH_PROPERTY
```

CIM_E_PEG_TYPE_MISMATCH

```
public static final int CIM_E_PEG_TYPE_MISMATCH
```

CIM_E_PEG_QUERY_LANGUAGE_NOT_SUPPORTED

```
public static final int CIM_E_PEG_QUERY_LANGUAGE_NOT_SUPPORTED
```

CIM_E_PEG_INVALID_QUERY

```
public static final int CIM_E_PEG_INVALID_QUERY
```

CIM_E_PEG_METHOD_NOT_AVAILABLE

```
public static final int CIM_E_PEG_METHOD_NOT_AVAILABLE
```

CIM_E_PEG_METHOD_NOT_FOUND

```
public static final int CIM_E_PEG_METHOD_NOT_FOUND
```

CIM_E_COM_GENERAL_FAULT

```
public static final int CIM_E_COM_GENERAL_FAULT
```

CIM_E_COM_INVALID_PARAMETER

```
public static final int CIM_E_COM_INVALID_PARAMETER
```

CIM_E_COM_OUT_OF_MEMORY

```
public static final int CIM_E_COM_OUT_OF_MEMORY
```

CIM_E_COM_ENUMERATION_INVALIDATED

```
public static final int CIM_E_COM_ENUMERATION_INVALIDATED
```

CIM_E_COM_RPC_TRANSPORT_FAILURE

```
public static final int CIM_E_COM_RPC_TRANSPORT_FAILURE
```

CIM_E_COM_ACCESS_DENIED

```
public static final int CIM_E_COM_ACCESS_DENIED
```

CIM_E_COM_INVALID_CLASS

```
public static final int CIM_E_COM_INVALID_CLASS
```

CIM_E_COM_WMI_SHUTDOWN

```
public static final int CIM_E_COM_WMI_SHUTDOWN
```

CIM_E_COM_NOT_FOUND

```
public static final int CIM_E_COM_NOT_FOUND
```

CIM_E_COM_INVALID_OBJECT_PATH

```
public static final int CIM_E_COM_INVALID_OBJECT_PATH
```

CIM_E_COM_TYPE_MISMATCH

```
public static final int CIM_E_COM_TYPE_MISMATCH
```

CIM_E_COM_INVALID_PROPERTY_TYPE

```
public static final int CIM_E_COM_INVALID_PROPERTY_TYPE
```

(continued from last page)

CIM_E_COM_INCOMPLETE_CLASS

```
public static final int CIM_E_COM_INCOMPLETE_CLASS
```

CIM_E_COM_METHOD_DISABLED

```
public static final int CIM_E_COM_METHOD_DISABLED
```

CIM_E_COM_METHOD_NOT_IMPLEMENTED

```
public static final int CIM_E_COM_METHOD_NOT_IMPLEMENTED
```

CIM_E_COM_PROVIDER_NOT_CAPABLE

```
public static final int CIM_E_COM_PROVIDER_NOT_CAPABLE
```

CIM_E_COM_INVALID_METHOD

```
public static final int CIM_E_COM_INVALID_METHOD
```

CIM_E_COM_INVALID_METHOD_PARAMETERS

```
public static final int CIM_E_COM_INVALID_METHOD_PARAMETERS
```

CIM_E_COM_INVALID_OBJECT

```
public static final int CIM_E_COM_INVALID_OBJECT
```

CIM_E_COM_ILLEGAL_NULL

```
public static final int CIM_E_COM_ILLEGAL_NULL
```

CIM_E_COM_ALREADY_EXISTS

```
public static final int CIM_E_COM_ALREADY_EXISTS
```

CIM_E_COM_INVALID_OPERATION

```
public static final int CIM_E_COM_INVALID_OPERATION
```

Constructors

(continued from last page)

CIMErrorConst

```
public CIMErrorConst()
```

Methods

mapErrorCodeToStr

```
public static java.lang.String mapErrorCodeToStr(int errCode)
```

javax.wbem.client Class CIMEvent

```

java.lang.Object
  |
  +- java.util.EventObject
      |
      +- javax.wbem.client.CIMEvent
  
```

All Implemented interfaces:

java.io.Serializable, java.io.Serializable

```

public class CIMEvent
extends java.util.EventObject
implements java.io.Serializable, java.io.Serializable
  
```

This class represents the CIM indication that is delivered to the subscriber as a result of client subscriptions.

Field Summary

static java.lang.String	COPYRIGHT
static int	EVENT_INST_CREATE Event type indicating an instance creation
static int	EVENT_INST_EXTRINSIC Event type indicating a non life cycle event
static int	EVENT_INST_MODIFY Event type indicating an instance modification
static int	EVENT_INST_REMOVE Event type indicating an instance deletion

Fields inherited from : class java.util.EventObject

source

Constructor Summary

CIMEvent(CIMInstance indication,int indication)

Constructs a CIMEvent.

Method Summary

int	getEventType() Returns the type of event, based on the constants defined in this class
CIMInstance	getIndication() Returns the embedded indication.

Methods inherited from : class java.util.EventObject

getSource, toString

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

EVENT_INST_CREATE

public static final int **EVENT_INST_CREATE**

Event type indicating an instance creation

EVENT_INST_REMOVE

public static final int **EVENT_INST_REMOVE**

Event type indicating an instance deletion

EVENT_INST_MODIFY

public static final int **EVENT_INST_MODIFY**

Event type indicating an instance modification

EVENT_INST_EXTRINSIC

public static final int **EVENT_INST_EXTRINSIC**

Event type indicating a non life cycle event

Constructors

CIMEvent

public **CIMEvent**(CIMInstance indication,
int eventType)

Constructs a CIMEvent.

Parameters:

indication -

- The actual CIM Indication. This may be a life cycle indication, meta schema indication or process indication as specified by the CIM Events spec. The source property is populated using the source instance from indication, if present.

eventType

(continued from last page)

Methods

getIndication

```
public CIMInstance getIndication()
```

Returns the embedded indication.

Returns:

CIMInstance representing the indication.

getEventType

```
public int getEventType()
```

Returns the type of event, based on the constants defined in this class

Returns:

int Event type for this event

javax.wbem.client

Class CIMImpl

java.lang.Object

```

  |
  +-- javax.wbem.client.CIMImpl

```

All Implemented interfaces:

CIMClientImpl

```

public class CIMImpl
  extends java.lang.Object
  implements CIMClientImpl

```

Native CIM Client implementation. Used on Windows to communicate with WMI.

Field Summary

static java.lang.String	COPYRIGHT
static java.lang.String	IMPL_PEGASUS_IRES
static java.lang.String	IMPL_WMI

Constructor Summary

CIMImpl(CIMNameSpace ns, java.lang.String ns, java.lang.String ns)

Method Summary

boolean	addCIMListener(CIMListener listener) Adds the supplied CIMListener as a listener for indications
int	addExtrinsicIndicationClass(java.lang.String eventClass, int eventClass)
int	addLifecycleIndicationClass(java.lang.String cimClassName, int cimClassName)
int	createInstance(CIMObjectPath retVal, CIMObjectPath retVal, CIMInstance retVal)
int	deleteInstance(CIMObjectPath path)
int	enumerateClassNames(java.util.Vector retVal, CIMObjectPath retVal, boolean retVal)
int	enumerateInstanceNames(java.util.Vector retVal, CIMObjectPath retVal)

void	forwardIndication(CIMEvent event) Callback method for indications
int	getClass(CIMClass retVal,CIMObjectPath retVal,boolean retVal,boolean retVal,boolean retVal,java.lang.String[] retVal)
int	getInstance(CIMInstance retVal,CIMObjectPath retVal)
java.lang.String	getLastErrorMessage()
int	getProperties(java.util.Vector retVal,CIMObjectPath retVal,java.lang.String[] retVal)
int	getProperty(CIMValue retVal,CIMObjectPath retVal,java.lang.String retVal)
int	invokeMethod(CIMObjectPath name,java.lang.String name,CIMArgument[] name,CIMMethodCallback name)
static boolean	isLibLoaded()
static boolean	isNativeTraceEnabled()
boolean	removeCIMListener(CIMListener listener) Removes the supplied CIMListener as a listener for indications
int	removeIndicationClass(java.lang.String cimClassName)
static void	setNativeTraceEnabled(boolean trace)
int	setProperty(CIMObjectPath name,java.lang.String name,CIMValue name)
int	tearDown()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

IMPL_PEGASUS_IRES

public static final java.lang.String **IMPL_PEGASUS_IRES**

IMPL_WMI

```
public static final java.lang.String IMPL_WMI
```

Constructors

CIMImpl

```
public CIMImpl(CIMNameSpace ns,  
               java.lang.String user,  
               java.lang.String pw)
```

Parameters:

```
ns -  
  CIM Namespace to connect to  
user -  
  Optionally supplied user name for authentication  
pw -  
  Optionally supplied password for authentication
```

Methods

isLibLoaded

```
public static boolean isLibLoaded()
```

isNativeTraceEnabled

```
public static boolean isNativeTraceEnabled()
```

setNativeTraceEnabled

```
public static void setNativeTraceEnabled(boolean trace)
```

addCIMListener

```
public boolean addCIMListener(CIMListener listener)
```

Adds the supplied CIMListener as a listener for indications

Parameters:

```
listener -  
  CIMListener to add
```

Returns:

boolean true if the CIMListener was added successfully, false if the CIMListener had already been added

removeCIMListener

```
public boolean removeCIMListener(CIMListener listener)
```

(continued from last page)

Removes the supplied CIMListener as a listener for indications

Parameters:

listener -
CIMListener to remove

Returns:

boolean true if the CIMListener was removed successfully, false if if the CIMListener had not been registered

forwardIndication

```
public void forwardIndication(CIMEvent event)
```

Callback method for indications

Parameters:

event

enumerateClassNames

```
public int enumerateClassNames(java.util.Vector retVal,  
                               CIMObjectPath path,  
                               boolean deep)
```

See Also:

javax.wbem.client.CIMClient#enumerateClassNames(CIMObjectPath, boolean)

enumerateInstanceNames

```
public int enumerateInstanceNames(java.util.Vector retVal,  
                                  CIMObjectPath path)
```

See Also:

javax.wbem.client.CIMClient#enumerateInstanceNames(CIMObjectPath)

getInstance

```
public int getInstance(CIMInstance retVal,  
                       CIMObjectPath path)
```

See Also:

javax.wbem.client.CIMClient#getInstance(CIMObjectPath)

getProperty

```
public int getProperty(CIMValue retVal,  
                       CIMObjectPath name,  
                       java.lang.String prop)
```

See Also:

javax.wbem.client.CIMClient#getProperty(CIMObjectPath, String)

getProperties

```
public int getProperties(java.util.Vector retVal,  
                        CIMObjectPath name,  
                        java.lang.String[] props)
```

See Also:

```
javax.wbem.client.CIMClient#getProperties(CIMObjectPath, String[])
```

setProperty

```
public int setProperty(CIMObjectPath name,  
                       java.lang.String prop,  
                       CIMValue value)
```

See Also:

```
javax.wbem.client.CIMClient#setProperty(CIMObjectPath, String, CIMValue)
```

invokeMethod

```
public int invokeMethod(CIMObjectPath name,  
                        java.lang.String methodName,  
                        CIMArgument[] inArgs,  
                        CIMMethodCallback callback)
```

See Also:

```
javax.wbem.client.CIMClient#invokeMethod(CIMObjectPath, String, CIMArgument[], CIMMethodCallback)
```

createInstance

```
public int createInstance(CIMObjectPath retVal,  
                          CIMObjectPath name,  
                          CIMInstance inst)
```

See Also:

```
javax.wbem.client.CIMClient#createInstance(CIMObjectPath, CIMInstance)
```

getClass

```
public int getClass(CIMClass retVal,  
                   CIMObjectPath name,  
                   boolean localOnly,  
                   boolean incQual,  
                   boolean incClsOrig,  
                   java.lang.String[] props)
```

See Also:

```
javax.wbem.client.CIMClient#getClass(CIMObjectPath, boolean, boolean, boolean, String[])
```

deleteInstance

```
public int deleteInstance(CIMObjectPath path)
```

See Also:

```
javax.wbem.client.CIMClient#deleteInstance(CIMObjectPath)
```

addLifecycleIndicationClass

```
public int addLifecycleIndicationClass(java.lang.String cimClassName,  
                                        int pollingInterval)
```

See Also:

```
javax.wbem.client.CIMClient#addLifecycleIndicationClass(String, int)
```

addExtrinsicIndicationClass

```
public int addExtrinsicIndicationClass(java.lang.String eventClass,  
                                        int pollingInterval)
```

See Also:

```
javax.wbem.client.CIMClient#addExtrinsicIndicationClass(String, int)
```

removeIndicationClass

```
public int removeIndicationClass(java.lang.String cimClassName)
```

See Also:

```
javax.wbem.client.CIMClient#removeIndicationClass(String)
```

tearDown

```
public int tearDown()
```

getLastErrorMessage

```
public java.lang.String getLastErrorMessage()
```

javax.wbem.client

Class CIMInstanceNotFoundException

```

java.lang.Object
  |-- java.lang.Throwable
    |-- java.lang.Exception
      |-- javax.wbem.cim.CIMException
        |-- javax.wbem.client.CIMInstanceNotFoundException

```

```

public class CIMInstanceNotFoundException
extends CIMException

```

Field Summary

static java.lang.String	COPYRIGHT
javax.wbem.cim.CIMObjectPath	sourceInstance

Fields inherited from : class javax.wbem.cim.CIMException

COPYRIGHT, errorCode

Constructor Summary

```

CIMInstanceNotFoundException(java.lang.String s,int s,CIMObjectPath s)

```

Method Summary

CIMObjectPath	getSourceInstance()
---------------	---------------------

Methods inherited from : class javax.wbem.cim.CIMException

getErrorCode, getID

Methods inherited from : class java.lang.Throwable

```

fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, initCause,
printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

```

Methods inherited from : class java.lang.Object

```

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

```

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

sourceInstance

```
protected javax.wbem.cim.CIMObjectPath sourceInstance
```

Constructors

CIMInstanceNotFoundException

```
public CIMInstanceNotFoundException(java.lang.String s,  
                                     int errorCode,  
                                     CIMObjectPath sourceInstance)
```

Methods

getSourceInstance

```
public CIMObjectPath getSourceInstance()
```

Returns:

CIMObjectPath

javax.wbem.client

Interface CIMListener

public interface **CIMListener**
extends java.util.EventListener

This interface is implemented by client code which wants to receive indications generated by a CIM object manager. Indications are generated as a result of client subscriptions.

Field Summary

<code>static java.lang.String</code>	<code>COPYRIGHT</code>
------------------------------------------	------------------------

Method Summary

<code>void</code>	<code>indicationOccured(CIMEvent e)</code>
-------------------	--------------------------------------------

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Methods

indicationOccured

public void **indicationOccured**(CIMEvent e)

javax.wbem.client

Interface CIMMethodCallback

public interface **CIMMethodCallback**

Callback interface for making CIM Method calls. Objects implementing this interface are passed when making a method call.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Method Summary

CIMMethodReturn	getReturnValue()
boolean	isCallCompleted()
boolean	isNotify()
void	methodCallCompleted(int rc, CIMValue rc, CIMArgument[] rc, java.lang.String rc) Callback method
void	setNotify(boolean doNotify)

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

Methods

methodCallCompleted

```
public void methodCallCompleted(int rc,
                                CIMValue retVal,
                                CIMArgument[] outArgs,
                                java.lang.String errorMsg)
```

Callback method

Parameters:

- rc - Native return code
- retVal - CIMValue return value
- outArgs - Output arguments, if applicable. Should be an empty array if not applicable

(continued from last page)

errorMsg -
Error message from the CIMOM

getReturnValue

```
public CIMMethodReturn getReturnValue()
```

isCallCompleted

```
public boolean isCallCompleted()
```

isNotify

```
public boolean isNotify()
```

Returns:

Whether or not the caller should receive special asynchronous notification when the call completes. This is used for methods that take a long time to complete. A caller might not want to wait for completion.

setNotify

```
public void setNotify(boolean doNotify)
```

javax.wbem.client

Class CIMMethodReturn

java.lang.Object

```

  |
  +-- javax.wbem.client.CIMMethodReturn

```

All Implemented interfaces:

java.io.Serializable

public class **CIMMethodReturn**

extends java.lang.Object

implements java.io.Serializable

Container object for hold information about a CIM Method call.

Field Summary

static java.lang.String	COPYRIGHT
static int	UNCOMPLETED

Constructor Summary

CIMMethodReturn()
CIMMethodReturn(int rc,CIMValue rc,CIMArgument[] rc,java.lang.String rc,boolean rc)

Method Summary

java.lang.String	getErrorMessage()
CIMArgument[]	getOutArguments()
int	getReturnCode()
CIMValue	getReturnValue()
boolean	isCompleted()
void	setCompleted(boolean b)
void	setErrorMessage(java.lang.String string)
void	setOutArguments(CIMArgument[] arguments)
void	setReturnCode(int i)

void	setReturnValue(CIMValue value)
java.lang.String	toString()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

```
public static final java.lang.String COPYRIGHT
```

UNCOMPLETED

```
public static final int UNCOMPLETED
```

Constructors

CIMMethodReturn

```
public CIMMethodReturn()
```

CIMMethodReturn

```
public CIMMethodReturn(int rc,
                       CIMValue retVal,
                       CIMArgument[] outArgs,
                       java.lang.String errorMsg,
                       boolean completed)
```

Parameters:

- rc - Return code from the native call to the CIMOM
- retVal - CIMValue The method's return value
- outArgs - Array of CIMArgument output arguments, if applicable
- errorMsg - The last error message from the CIMOM native call
- completed - boolean True if the call has completed, false otherwise

Methods

(continued from last page)

isCompleted

```
public boolean isCompleted()
```

Returns:

boolean

getErrorMessage

```
public java.lang.String getErrorMessage()
```

Returns:

String

getOutArguments

```
public CIMArgument[] getOutArguments()
```

Returns:

CIMArgument[]

getReturnCode

```
public int getReturnCode()
```

Returns:

int

getReturnValue

```
public CIMValue getReturnValue()
```

Returns:

CIMValue

setCompleted

```
public void setCompleted(boolean b)
```

Parameters:

b

(continued from last page)

setErrorMessagE

```
public void setErrorMessagE(java.lang.String string)
```

Parameters:
string

setOutArguments

```
public void setOutArguments(CIMArgument[] arguments)
```

Parameters:
arguments

setReturnCode

```
public void setReturnCode(int i)
```

Parameters:
i

setReturnValue

```
public void setReturnValue(CIMValue value)
```

Parameters:
value

toString

```
public java.lang.String toString()
```

javax.wbem.client

Class WBEMCIMClientImpl

java.lang.Object

└- javax.wbem.client.WBEMCIMClientImpl

All Implemented interfaces:

CIMClientImpl

public class **WBEMCIMClientImpl**

extends java.lang.Object

implements CIMClientImpl

CIMOM Client implementation that uses the WBEM HTTP/XML interface

Field Summary

static java.lang.String	CIMOM_NAME_OPENWBEM
static java.lang.String	CIMOM_NAME_PEGASUS
static java.lang.String	CIMOM_NAME_SFCB
static java.lang.String	CIMV2_NAMESPACE
static java.lang.String	COPYRIGHT
static java.lang.String	PEGASUS_INTEROP_NAMESPACE
static java.lang.String	protocol
static java.lang.String	SFCB_INTEROP_NAMESPACE

Constructor Summary

WBEMCIMClientImpl(CIMNameSpace namespace, java.lang.String namespace, java.lang.String namespace)

Method Summary

boolean	addCIMListener(CIMListener listener)
int	addExtrinsicIndicationClass(java.lang.String eventClass, int eventClass)
int	addLifecycleIndicationClass(java.lang.String cimClassName, int cimClassName)

void	connect() Connects to the CIMOM on the local machine.
int	createInstance(CIMObjectPath retVal,CIMObjectPath retVal,CIMInstance retVal)
int	deleteInstance(CIMObjectPath path)
int	enumerateClassNames(java.util.Vector retVal,CIMObjectPath retVal,boolean retVal)
int	enumerateInstanceNames(java.util.Vector retVal,CIMObjectPath retVal)
void	forwardIndication(CIMEvent event)
int	getClass(CIMClass retVal,CIMObjectPath retVal,boolean retVal,boolean retVal,boolean retVal,java.lang.String[] retVal)
int	getInstance(CIMInstance retVal,CIMObjectPath retVal)
java.lang.String	getLastErrorMessage()
int	getProperties(java.util.Vector retVal,CIMObjectPath retVal,java.lang.String[] retVal)
int	getProperty(CIMValue retVal,CIMObjectPath retVal,java.lang.String retVal)
int	invokeMethod(CIMObjectPath name,java.lang.String name,CIMArgument[] name,CIMMethodCallback name)
boolean	removeCIMListener(CIMListener listener)
int	removeIndicationClass(java.lang.String cimClassName)
int	setProperty(CIMObjectPath name,java.lang.String name,CIMValue name)
int	tearDown()

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

protocol

```
public static final java.lang.String protocol
```

CIMV2_NAMESPACE

```
public static final java.lang.String CIMV2_NAMESPACE
```

PEGASUS_INTEROP_NAMESPACE

```
public static final java.lang.String PEGASUS_INTEROP_NAMESPACE
```

SFCB_INTEROP_NAMESPACE

```
public static final java.lang.String SFCB_INTEROP_NAMESPACE
```

CIMOM_NAME_PEGASUS

```
public static final java.lang.String CIMOM_NAME_PEGASUS
```

CIMOM_NAME_SFCB

```
public static final java.lang.String CIMOM_NAME_SFCB
```

CIMOM_NAME_OPENWBEM

```
public static final java.lang.String CIMOM_NAME_OPENWBEM
```

Constructors

WBEMCIMClientImpl

```
public WBEMCIMClientImpl(CIMNameSpace namespace,  
                          java.lang.String username,  
                          java.lang.String password)
```

Methods

connect

```
public void connect()  
    throws CIMException
```

Connects to the CIMOM on the local machine. Will automatically determine which CIMOM is installed. This method must be called before any other CIM operations can be invoked.

(continued from last page)

Exceptions:

Exception

addCIMListener

```
public boolean addCIMListener(CIMListener listener)
```

See Also:

```
javax.wbem.client.CIMClientImpl#addCIMListener(javax.wbem.client.CIMListener)
```

addExtrinsicIndicationClass

```
public int addExtrinsicIndicationClass(java.lang.String eventClass,  
                                         int pollingInterval)
```

See Also:

```
javax.wbem.client.CIMClientImpl#addExtrinsicIndicationClass(java.lang.String, int)
```

addLifecycleIndicationClass

```
public int addLifecycleIndicationClass(java.lang.String cimClassName,  
                                         int pollingInterval)
```

See Also:

```
javax.wbem.client.CIMClientImpl#addLifecycleIndicationClass(java.lang.String, int)
```

removeCIMListener

```
public boolean removeCIMListener(CIMListener listener)
```

See Also:

```
javax.wbem.client.CIMClientImpl#removeCIMListener(javax.wbem.client.CIMListener)
```

removeIndicationClass

```
public int removeIndicationClass(java.lang.String cimClassName)
```

See Also:

```
javax.wbem.client.CIMClientImpl#removeIndicationClass(java.lang.String)
```

forwardIndication

```
public void forwardIndication(CIMEvent event)
```

See Also:

(continued from last page)

`javax.wbem.client.CIMClientImpl#forwardIndication(javax.wbem.client.CIMEvent)`

createInstance

```
public int createInstance(CIMObjectPath retVal,  
                           CIMObjectPath className,  
                           CIMInstance inst)
```

See Also:

```
javax.wbem.client.CIMClientImpl#createInstance(javax.wbem.cim.CIMObjectPath, javax.wbem.cim.CIMObjectPath,  
javax.wbem.cim.CIMInstance)
```

deleteInstance

```
public int deleteInstance(CIMObjectPath path)
```

See Also:

```
javax.wbem.client.CIMClientImpl#deleteInstance(javax.wbem.cim.CIMObjectPath)
```

enumerateClassNames

```
public int enumerateClassNames(java.util.Vector retVal,  
                                CIMObjectPath path,  
                                boolean deep)
```

See Also:

```
javax.wbem.client.CIMClientImpl#enumerateClassNames(java.util.Vector, javax.wbem.cim.CIMObjectPath,  
boolean)
```

enumerateInstanceNames

```
public int enumerateInstanceNames(java.util.Vector retVal,  
                                    CIMObjectPath path)
```

See Also:

```
javax.wbem.client.CIMClientImpl#enumerateInstanceNames(java.util.Vector, javax.wbem.cim.CIMObjectPath)
```

getClass

```
public int getClass(CIMClass retVal,  
                   CIMObjectPath name,  
                   boolean localOnly,  
                   boolean incQual,  
                   boolean incClsOrig,  
                   java.lang.String[] props)
```

See Also:

```
javax.wbem.client.CIMClientImpl#getClass(javax.wbem.cim.CIMClass, javax.wbem.cim.CIMObjectPath, boolean,  
boolean, boolean, java.lang.String[])
```

getInstance

```
public int getInstance(CIMInstance retVal,  
                       CIMObjectPath path)
```

See Also:

```
javax.wbem.client.CIMClientImpl#getInstance(javax.wbem.cim.CIMInstance, javax.wbem.cim.CIMObjectPath)
```

getLastErrorMessage

```
public java.lang.String getLastErrorMessage()
```

See Also:

```
javax.wbem.client.CIMClientImpl#getLastErrorMessage()
```

getProperties

```
public int getProperties(java.util.Vector retVal,  
                        CIMObjectPath name,  
                        java.lang.String[] props)
```

See Also:

```
javax.wbem.client.CIMClientImpl#getProperties(java.util.Vector, javax.wbem.cim.CIMObjectPath,  
java.lang.String[])
```

getProperty

```
public int getProperty(CIMValue retVal,  
                       CIMObjectPath name,  
                       java.lang.String prop)
```

See Also:

```
javax.wbem.client.CIMClientImpl#getProperty(javax.wbem.cim.CIMValue, javax.wbem.cim.CIMObjectPath,  
java.lang.String)
```

invokeMethod

```
public int invokeMethod(CIMObjectPath name,  
                        java.lang.String methodName,  
                        CIMArgument[] inArgs,  
                        CIMMethodCallback callback)
```

See Also:

```
javax.wbem.client.CIMClientImpl#invokeMethod(javax.wbem.cim.CIMObjectPath, java.lang.String,  
javax.wbem.cim.CIMArgument[], javax.wbem.client.CIMMethodCallback)
```

(continued from last page)

setProperty

```
public int setProperty(CIMObjectPath name,  
                        java.lang.String prop,  
                        CIMValue value)
```

See Also:

```
javax.wbem.client.CIMClientImpl#setProperty(javax.wbem.cim.CIMObjectPath, java.lang.String,  
javax.wbem.cim.CIMValue)
```

tearDown

```
public int tearDown()
```

See Also:

```
javax.wbem.client.CIMClientImpl#tearDown()
```

javax.wbem.client

Class WBEMClientUtils

java.lang.Object

└-- javax.wbem.client.WBEMClientUtils

public final class **WBEMClientUtils**

extends java.lang.Object

Utility methods for use with the SBLIM implementation for CIM.

Field Summary

static java.lang.String	COPYRIGHT
----------------------------	-----------

Constructor Summary

WBEMClientUtils()

Method Summary

static javax.cim.CIMArgument[]	copyCIMArgumentsToSBLIM(CIMArgument[] inArgs) Copies a CIMArgument[] object from the RMA WBEM API to the SBLIM WBEM API
static javax.cim.CIMObjectPath	copyCIMObjectPathToSBLIM(CIMObjectPath inPath) Copies a CIMObjectPath object from the RMA WBEM API to the SBLIM WBEM API
static CIMProperty	copyCIMPropertyToRMA(javax.cim.CIMProperty property) Copies a CIMProperty object from the SBLIM WBEM API to the RMA WBEM API
static javax.cim.CIMProperty	copyCIMPropertyToSBLIM(CIMProperty property) Copies a CIMProperty object from the RMA WBEM API to the SBLIM WBEM API
static java.lang.Object	copyCIMValueToRMA(java.lang.Object sblimValue) Checks the supplied CIM value from the SBLIM API and maps it to a compatible RMA WBEM value, if applicable
static java.lang.Object	copyCIMValueToSBLIM(java.lang.Object rmaValue) Checks the supplied CIM value from the RMA API and maps it to a compatible SBLIM WBEM value, if applicable
static CIMDataType	copyDataTypeToRMA(javax.cim.CIMDataType dataType) Copies a CIMDataType object from the SBLIM WBEM API to the RMA WBEM API
static javax.cim.CIMDataType	copyDataTypeToSBLIM(CIMDataType dataType) Copies a CIMDataType object from the RMA WBEM API to the SBLIM WBEM API

static CIMMethod	copyMethod(javax.cim.CIMMethod inMethod) Copies a CIMMethod object from he SBLIM WBEM API to the RMA WBEM API
static java.util.Vector	makeVector(java.lang.Object[] o) Convenience method to create a Vector object from an array of Objects.

Methods inherited from : class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

COPYRIGHT

public static final java.lang.String **COPYRIGHT**

Constructors

WBEMClientUtils

public **WBEMClientUtils**()

Methods

copyMethod

public static CIMMethod **copyMethod**(javax.cim.CIMMethod inMethod)

Copies a CIMMethod object from he SBLIM WBEM API to the RMA WBEM API

Parameters:

inParam -
SBLIM CIMMethod

Returns:

RMA CIMMethod

makeVector

public static java.util.Vector **makeVector**(java.lang.Object[] o)

Convenience method to create a Vector object from an array of Objects.

Parameters:

o -
array of objects

Returns:

Vector containing the objects (in the same order as the array)

copyCIMPropertyToRMA

```
public static CIMProperty copyCIMPropertyToRMA(javax.cim.CIMProperty property)
```

Copies a CIMProperty object from the SBLIM WBEM API to the RMA WBEM API

Parameters:

property -
SBLIM WBEM Property

Returns:

RMA Property

copyCIMPropertyToSBLIM

```
public static javax.cim.CIMProperty copyCIMPropertyToSBLIM(CIMProperty property)
```

Copies a CIMProperty object from the RMA WBEM API to the SBLIM WBEM API

Parameters:

property -
RMA WBEM Property

Returns:

SBLIM Property

copyCIMValueToRMA

```
public static java.lang.Object copyCIMValueToRMA(java.lang.Object sblimValue)
```

Checks the supplied CIM value from the SBLIM API and maps it to a compatible RMA WBEM value, if applicable

Parameters:

sblimValue -
Value to check

Returns:

Mapped value, or the originally supplied value

copyCIMValueToSBLIM

```
public static java.lang.Object copyCIMValueToSBLIM(java.lang.Object rmaValue)
```

Checks the supplied CIM value from the RMA API and maps it to a compatible SBLIM WBEM value, if applicable

Parameters:

rmaValue -
Value to check

Returns:

Mapped value, or the originally supplied value

copyDataTypeToRMA

```
public static CIMDataType copyDataTypeToRMA(javax.cim.CIMDataType dataType)
```

Copies a CIMDataType object from the SBLIM WBEM API to the RMA WBEM API

(continued from last page)

Parameters:

`dataType` -
SBLIM WBEM Type

Returns:

Mapped RMA WBEM type, or INVALID type

copyDataTypeToSBLIM

```
public static javax.cim.CIMDataType copyDataTypeToSBLIM(CIMDataType dataType)
```

Copies a CIMDataType object from the RMA WBEM API to the SBLIM WBEM API

Parameters:

`dataType` -
RMA WBEM Type

Returns:

Mapped SBLIM type, or INVALID type

copyCIMObjectPathToSBLIM

```
public static javax.cim.CIMObjectPath copyCIMObjectPathToSBLIM(CIMObjectPath inPath)
```

Copies a CIMObjectPath object from the RMA WBEM API to the SBLIM WBEM API

Parameters:

`inPath` -
RMA WBEM CIMObjectPath

Returns:

Mapped SBLIM object path

copyCIMArgumentsToSBLIM

```
public static javax.cim.CIMArgument[] copyCIMArgumentsToSBLIM(CIMArgument[] inArgs)
```

Copies a CIMArgument[] object from the RMA WBEM API to the SBLIM WBEM API

Parameters:

`inArgs` -
RMA WBEM Type

Returns:

Mapped SBLIM CIMArgument[]

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