



# Overview

## SupportPac IAMA -- WebSphere Message Broker Support for TIBCO Rendezvous

Cat 1 SupportPac

# **IAMA Description**

IAMA Components

IAMA Message Exchange Patterns

IAMA Features and Functions

IAMA TibRv Nodes

IAMA Administration/Operations

IAMA Installation/Configuration

IAMA Samples

**Asset: *SupportPac IAMA***  
***IBM WebSphere Message Broker***  
***Support for TIBCO Rendezvous***

- IAMA is a Category 1 SupportPac
- IAMA is an IBM Services Asset for WebSphere Software. To obtain an evaluation copy and documentation for trial purposes only, please contact Sandra Raleigh (sraleigh@us.ibm.com) or Sree Ratnasinghe (Sreer@us.ibm.com). A production ready copy is available as a services-based asset through IBM Software Services for WebSphere.
- Provide WMB connectivity for TIBCO Rendezvous® (TibRv)
- Provides two new WMB plugin nodes for TIBCO Rendezvous connectivity utilizing WMB v8.0.0.1 Java Connector API
  - Connector API provides necessary features/functions lacking in prior WMB TIBCO Rendezvous nodes, excellent performance and robust WMB integration

IAMA Description

## **IAMA Components**

IAMA Features and Functions

IAMA Message Exchange Patterns

IAMA TibRv Nodes

IAMA Administration/Operations

IAMA Installation/Configuration

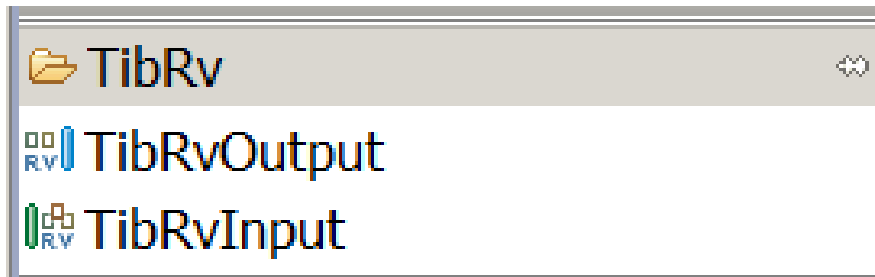
IAMA Samples

# IAMA -- Components

## WMB Components That Comprise the IAMA SupportPac

- IAMA Eclipse Plug-in nodes (JAR File)
  - TibRvInput Node - Receive Rendezvous Messages
  - TibRvOutput Node - Send Rendezvous Messages
- IAMA Runtime implementation (JAR File)
- IAMA Utilities
  - ExecIAMAAdminCommands (JAR File) - Utility for executing Rendezvous administration commands on deployed/running TibRvInput/TibRvOutput nodes
  - rv.xsd - XML Schema that models the TibrvMsg structure
  - SupportPac Samples - Project Interchange containing flows and other artifacts that demonstrate the IAMA node
  - Users Guide - System requirements, installation/deinstallation instructions, supportpac features/functions, node description/usage/best-practices.

# IAMA – TibRv Nodes



TibRvInput



TibRvOutput

- **TibRvInput Node –**

- Receive Tibrv Messages using Reliable, Certified or Distributed Queue Delivery
- Out, Failure and Catch Terminals

- **TibRvOutput Node –**

- Send/Publish Tibrv Messages using Reliable or Certified Message Delivery
- In, Out and Failure Terminals

- **TibRv Nodes are in the TibRv Node Category in the Message Flow Editor**

IAMA Description

IAMA Components

**IAMA Features and Functions**

IAMA Message Exchange Patterns

IAMA TibRv Nodes

IAMA Administration/Operations

IAMA Installation/Configuration

IAMA Samples

# IAMA – Features and Functions

- **Data Exchange Patterns**
  - Any message content can be passed via a Tibrv Message
  - Any Tibrv Message Structure can be described by the RVXML schema
- **Administration Commands**
  - IAMA provides a Java utility – ExecIAMAAdminCommands.jar -- to easily execute these node administration commands
- **TibRv Node Status**
  - The TibRvInput and TibRvOutput node status can be displayed using the mqsireportproperties command
- **Rendezvous Advisory Message Logging**
  - The TibRvInput and TibRvOutput nodes are configurable to subscribe to Rendezvous Advisory Messages for their underlying Rendezvous transport. The Advisory Messages that are received are written to the TIBRV resource manager Activity Log
- **Certified Message Confirmation**
  - The TibRvInput Node provides three confirmation modes when using certified messaging
    - AUTO, ONSUCCESS, ONSUCCESSANDFAILURE
- **Receiving Previously Sent, Unconfirmed Messages**
  - Request Old Messages



# IAMA – Features and Functions...

## ■ Preregister Listeners

- When using certified messaging, the TibRvOutput node can specify a list of anticipated Listeners to add to its ledger file. All matching publications are saved in the ledger even though the Listener may not be active

## ■ File or Memory Based Ledger

- The TibRvInput and TibRvOutput nodes use a “ledger” when Certified Message Delivery is enabled. The node’s “ledger” can be file-based or memory-based. A “file-based” ledger can be reused if the message flow restarts, while a “memory-base” ledger cannot survive a message flow restart

## ■ TibRvOutput LocalEnvironment

- The TibRvOutput Node supports override properties in the LocalEnvironment tree
- The TibRvOutput Node provides written destination information for successfully published TibrvMsg

## ■ TibRvInput LocalEnvironment

- The TibRvInput node provides information, in the LocalEnvironment tree regarding the inbound reliable or certified TibrvMsg

## ■ Service and User Trace

- The TibRvInput and TibRvOutput nodes send trace information to an Execution Group Service trace and normal User trace. Use mqsichangetrace and mqsireadlog/mqsiformatlog commands to capture TibRvInput and TibRvOutput trace information.

IAMA Description

IAMA Components

IAMA Features and Functions

**IAMA Message Exchange Patterns**

IAMA TibRv Nodes

IAMA Administration/Operations

IAMA Installation/Configuration

IAMA Samples

# IAMA – Data Exchange Patterns

- The TibRvOutput node allows data to be exchanged between the WMB Message Syntax Tree and a TibrvMsg
- The TibRvInput node allows data to be exchanged between a TibrvMsg and the WMB Message Syntax tree
- The Message Exchange patterns provided by IAMA allow any type of message content to be exchanged (fixed-length, tag delimited, XML, CSV....), including TibrvMsg's
- Message Exchange Patterns:
  - **Stream** – Single Field in TibRvMsg contains data stream (bytes or string)
    - Input
      - Use standard “Input Message Parsing” Properties to parse the data stream
      - Use standard “Parser Options” and “Validation” Property Pages
    - Output
      - Standard Serialization – Parser Name, Properties, (Root Tag Name)
  - **RvXML**
    - rv.xsd schema defines the RvXML syntax that can describe any TibrvMsg structure
    - TibRvOutput -- A RvXML syntax tree (built using the XMLNSC parser) is translated to a TibrvMsg structure
    - TibRvInput – A TibrvMsg is translated to an RvXML syntax tree using the XMLNSC parser

# IAMA – Output Message Exchange

## ■ ***BLOBToRVBinary***

- The Message Syntax tree is serialized into a bytestream. A single Field in the outbound TibrvMsg of type TIBRVMSG\_OPAQUE contains the serialized bytestream. Any WMB parser and meta-data can be used to serialize the Message Syntax tree.

## ■ ***BLOBToRVString***

- The Message Syntax tree is serialized into a string. A single Field in the outbound TibrvMsg of type TIBRVMSG\_STRING contains the string. Any WMB parser and meta-data can be used to serialize the Message Syntax tree.

## ■ ***BLOBToRVXML***

- The Message Syntax tree is serialized into a TibrvXml field. A single Field in the outbound TibrvMsg of type TIBRVMSG\_XML contains the XML byte array.

## ■ ***XMLToRVMessage***

- The Message Syntax tree contains a valid RvXML message using XMLNSC parser. The RvXML syntax is a direct mapping to a TibrvMsg, and all TIBRVMSG data types are supported. The Message Syntax tree is not serialized using the XMLNSC parser or meta-data; rather, the TibRvOutput node traverses the simple RvXML format, generating the outbound TibrvMsg in the process. The RvXML syntax is validated by the TibRvOutput node during this process.

# IAMA – Input Message Exchange

## ■ **RVBinaryToBLOB**

- A single Field in the inbound TibrvMsg of type TIBRVMSG\_OPAQUE contains a bytestream that will be parsed according to “Input Message Parsing”, “Parser Options” and “Validation” properties for the node. Any WMB parser and meta-data can be used to parse the bytestream and create the Message Syntax tree.

## ■ **RVStringToBLOB**

- A single Field in the inbound TibrvMsg of type TIBRVMSG\_STRING contains a string that will be parsed according to “Input Message Parsing”, “Parser Options” and “Validation” properties for the node. Any WMB parser and meta-data can be used to parse the string and create the Message Syntax tree.

## ■ **RVXMLToBLOB**

- A single Field in the inbound TibrvMsg of type TIBRVMSG\_XML contains a byte array that will be parsed according to “Input Message Parsing”, “Parser Options” and “Validation” properties for the node. Any WMB XML parser and meta-data can be used to parse the TibrvXml byte array and create the Message Syntax tree

## ■ **RVMessageToXML**

- The inbound TibrvMsg is processed sequentially creating an RvXML message syntax tree using the XMLNSC parser. The Message Syntax tree is not created using the XMLNSC parser nor is an XML byte stream created; rather, the TibRvInput node creates the simple RvXML syntax tree as it sequentially processes each Field in the TibrvMsg

# IAMA – RvXML Examples

```

<Message>
  <Field name="CRec" type="TIBRVMSG_STRING" >C10</Field>
  <Field name="CName" type="TIBRVMSG_STRING">Tom Tinz</Field>
  <Field name="CAge" type="TIBRVMSG_I8">38</Field>
  <Field name="CIId" type="TIBRVMSG_I32">1376549</Field>
  <Field name="CDate" type="TIBRVMSG_DATETIME">2012-06-21T10:09:08</Field>
</Message>

```

```

<Message>
  <Field name="CRec" type="TIBRVMSG_STRING" >C11</Field>
  <Field name="CIIdArray" type="TIBRVMSG_I32ARRAY">
    <Array>
      <Element>12344987</Element>
      <Element>12399874</Element>
      <Element>12388754</Element>
      <Element>12357774</Element>
    </Array>
  </Field>
  <Field name="CNameArray" type="TIBRVMSG_STRINGARRAY">
    <Array>
      <Element>Tom Tinz</Element>
      <Element>Jill Kurtz</Element>
      <Element>Roy Dole</Element>
      <Element>Gill Hoyle</Element>
    </Array>
  </Field>
</Message>

```

IAMA Description

IAMA Components

IAMA Features and Functions

IAMA Message Exchange Patterns

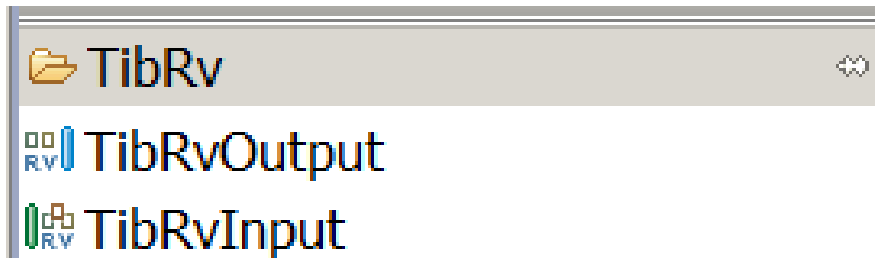
**IAMA TibRv Nodes**

IAMA Administration/Operations

IAMA Installation/Configuration

IAMA Samples

# IAMA – TibRv Nodes



TibRvInput



TibRvOutput

- **TibRvInput Node –**

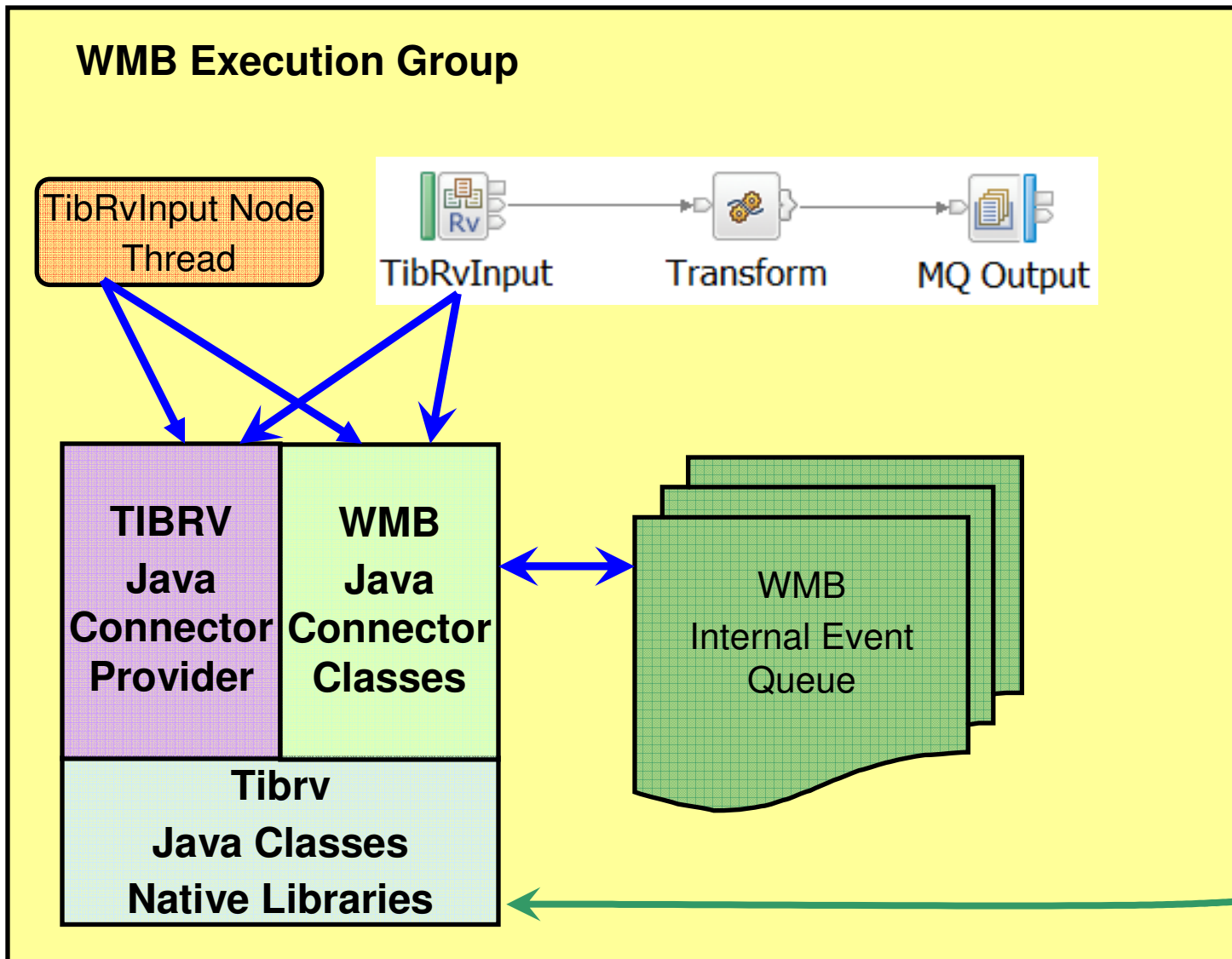
- Receive Tibrv Messages using Reliable, Certified or Distributed Queue Delivery
- Out, Failure and Catch Terminals

- **TibRvOutput Node –**

- Send/Publish Tibrv Messages using Reliable or Certified Message Delivery
- In, Out and Failure Terminals

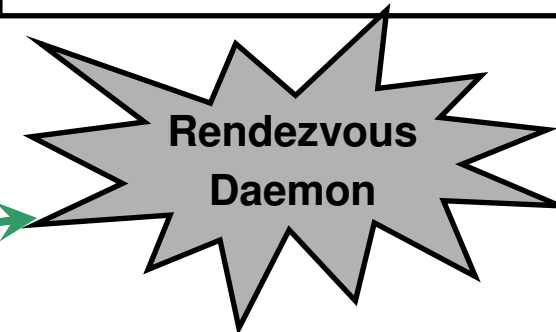


# IAMA – TibRvInput Node Runtime Connector Architecture



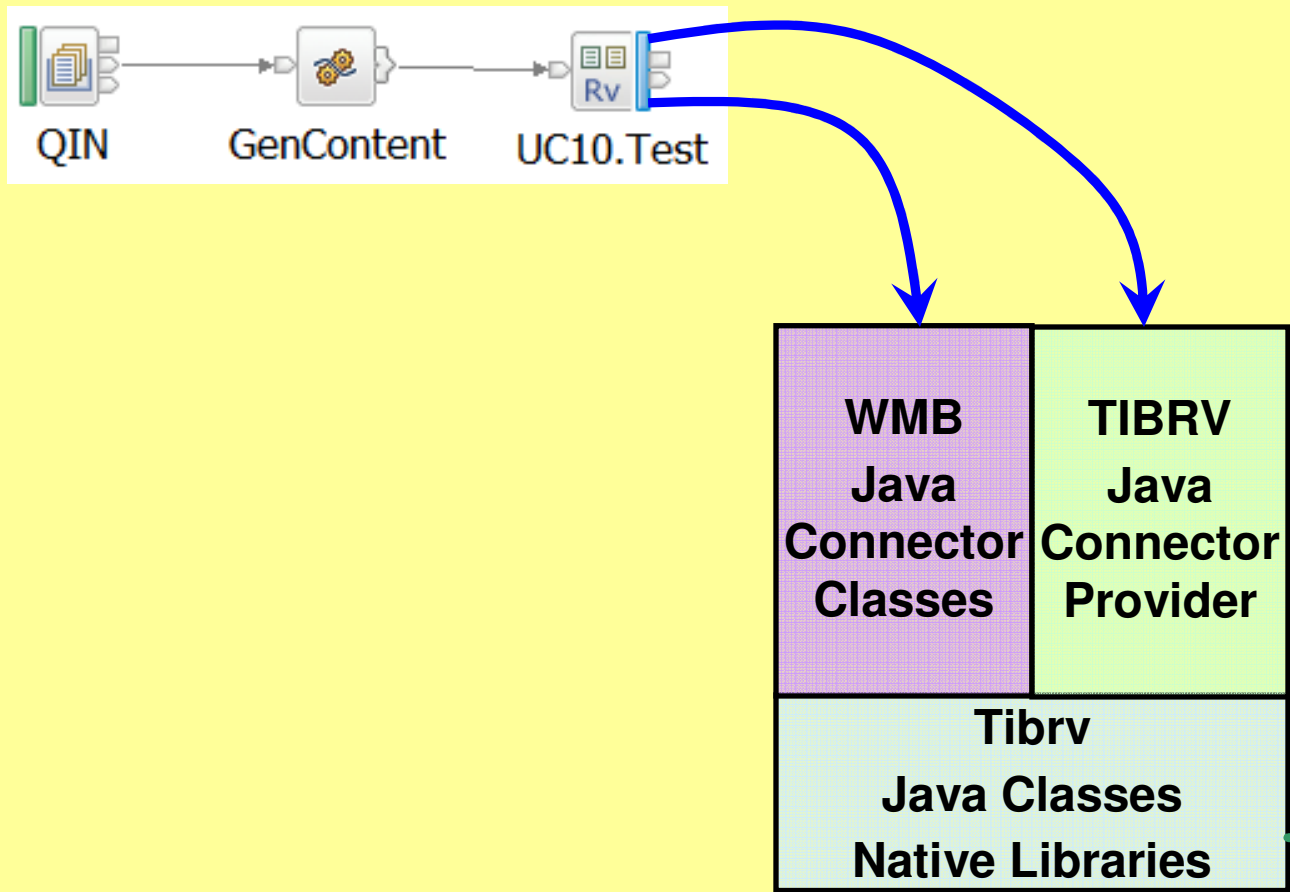
- Each TibRvInput Node Creates a Dedicated Thread, Separate from the Message Flow Thread to Receive TibRv Messages

- TibRv Messages Received by the TibRvInput Node Thread are Placed in the WMB Internal Event Queue
- The TibRvInput Node runs in Message Flow Thread and Processes Events from the WMB Internal Event Queue



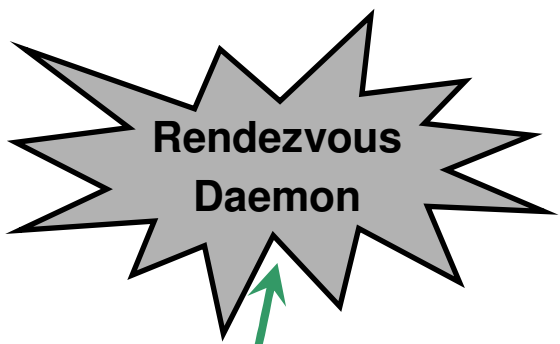
# IAMA – TibRvOutput Node Runtime Connector Architecture

## WMB Execution Group



- Each Execution Group with IAMA Nodes Deployed Loads the Tibrv Java Classes/Native Libraries and TIBRV Provider Classes

- TibRvOutput node Executes in Message Flow Thread



# IAMA – TibRvInput Node Property Pages

| TibRvInput Node Properties - TibRvInput |                       |                            |
|---|-----------------------|----------------------------|
| Description                             |                       |                            |
| <b>Basic</b>                            | Subject*              | SubjectName                |
| TibRvMessage                            | Service Port*         | 7500                       |
| TibRvCM                                 | Network               |                            |
| TibRvAdvisory                           | Daemon Port*          | tcp:7500                   |
| TibRvDistributedQueue                   | Message Delivery Type | Reliable Delivery          |
| Input Message Parsing                   |                       | Reliable Delivery          |
| Parser Options                          |                       | Certified Delivery         |
| Validation                              |                       | Distributed Queue Delivery |
| Monitoring                              |                       |                            |

Basic Property Page

| TibRvInput Node Properties - TibRvInput |   |                               |
|---|---|-------------------------------|
| Description                             |   |                               |
| Basic                                   | Certified Messaging Correspondent Name* | CMName                        |
| TibRvMessage                            | Use Memory-based Ledger                 | <input type="checkbox"/>      |
| <b>TibRvCM</b>                          | Ledger File*                            | /Ledgers/CMNameLedgerFile.lgr |
| TibRvAdvisory                           | Request Old                             | <input type="checkbox"/>      |
| TibRvDistributedQueue                   | Certified Message Confirmation          | Auto                          |
| Input Message Parsing                   |   | Auto                          |
| Parser Options                          |   | ConfirmOnSuccess              |
| Validation                              |   | ConfirmOnSuccessAndFailure    |
| Monitoring                              |   |                               |

TibRvCM Property Page

| TibRvInput Node Properties - TibRvInput |                        |                |
|---|------------------------|----------------|
| Description                             |                        |                |
| Basic                                   | Message Exchange Type  | RVStringToBLOB |
| <b>TibRvMessage</b>                     | TibRv Message Field*   | RVStringToBLOB |
| TibRvCM                                 | Datetime Format        | RVBinaryToBLOB |
| TibRvAdvisory                           | Coded Character Set ID | RVXMLToBLOB    |
| TibRvDistributedQueue                   | Encoding               | RVMessageToXML |
| Input Message Parsing                   |                        |                |
| Parser Options                          |                        |                |
| Validation                              |                        |                |
| Monitoring                              |                        |                |

TibRvMessage Property Page

# IAMA – TibRvInput Node Property Pages...

**TibRvInput Node Properties - TibRvInput**

|                       |                        |
|-----------------------|------------------------|
| Description           |                        |
| Basic                 | Advisory Message Types |
| TibRvMessage          | Advisory Trace Level   |
| TibRvCM               |                        |
| <b>TibRvAdvisory</b>  |                        |
| TibRvDistributedQueue |                        |
| Input Message Parsing |                        |
| Parser Options        |                        |
| Validation            |                        |
| Monitoring            |                        |

|             |
|-------------|
| NONE        |
| <b>NONE</b> |
| SYSTEM      |
| CM          |
| ALL         |

**TibRvInput Node Properties - TibRvInput**

|                       |                        |
|-----------------------|------------------------|
| Description           |                        |
| Basic                 | Advisory Message Types |
| TibRvMessage          | Advisory Trace Level   |
| TibRvCM               |                        |
| <b>TibRvAdvisory</b>  |                        |
| TibRvDistributedQueue |                        |
| Input Message Parsing |                        |
| Parser Options        |                        |
| Validation            |                        |
| Monitoring            |                        |

|              |
|--------------|
| SYSTEM       |
| ERROR        |
| <b>ERROR</b> |
| WARN         |
| INFO         |
| ALL          |

TibRvAdvisory Property Pages

**TibRvInput Node Properties - TibRvInput**

|                              |  |
|------------------------------|--|
| Description                  |  |
| Basic                        | Distributed Queue Group Member Name*   |
| TibRvMessage                 | Worker Weight                          |
| TibRvCM                      | Worker Tasks                           |
| TibRvAdvisory                | Scheduler Weight                       |
| <b>TibRvDistributedQueue</b> | Scheduler Heartbeat                    |
| Input Message Parsing        | Scheduler Activation                   |
| Parser Options               |  |
| Validation                   | Distributed Queue Message Confirmation |
| Monitoring                   |  |

|                            |
|----------------------------|
| QUEUEGRPNAME               |
| 1                          |
| 1                          |
| 1                          |
| 1.0                        |
| 3.5                        |
| Auto                       |
| <b>Auto</b>                |
| ConfirmOnSuccess           |
| ConfirmOnSuccessAndFailure |

TibRvDistributedQueue Property Page

**TibRvInput Node Properties - TibRvInput**

|                              |                         |
|------------------------------|-------------------------|
| Description                  |                         |
| Basic                        | Message Domain Property |
| TibRvMessage                 | Message Set Property    |
| TibRvCM                      | Message Type Property   |
| TibRvAdvisory                | Message Format Property |
| TibRvDistributedQueue        |                         |
| <b>Input Message Parsing</b> |                         |
| Parser Options               |                         |
| Validation                   |                         |
| Monitoring                   |                         |

|   |
|---|
|   |
| DFDL : For binary or text messages with a Data Format Description Language schema model |
| XMLNSC : For XML messages (namespace aware, validation, low memory use)                 |
| DataObject : For data from WebSphere Adapters, CORBA and Database records               |
| JSON : For JavaScript Object Notation messages  |
| BLOB : For messages with an unspecified format  |
| MIME : For MIME wrapped data including multipart  |
| MRM : For binary or text messages that are modeled in a message set                     |
| JMSMap : For JMS MapMessage messages (XML)  |
| JMSStream : For JMS StreamMessage messages (XML)  |
| XMLNS : For XML messages (namespace aware)  |

Standard Input Message Parsing Property Page

# IAMA – TibRvOutput Node Property Pages

| TibRvOutput Node Properties - TibRvOutput |                       |                   |
|---|-----------------------|-------------------|
| Description                               |                       |                   |
| <b>Basic</b>                              | Subject*              | SubjectName       |
| TibRvMessage                              | Service Port*         | 7500              |
| TibRvCM                                   | Network               |                   |
| TibRvAdvisory                             | Daemon Port*          | tcp:7500          |
| Validation                                | Message Delivery Type | ReliableDelivery  |
| Monitoring                                |                       | ReliableDelivery  |
|   |                       | CertifiedDelivery |

Basic Property Page

| TibRvOutput Node Properties - TibRvOutput |   |                                     |
|---|---|-------------------------------------|
| Description                               |   |                                     |
| Basic                                     | Certified Messaging Correspondent Name* | CMName                              |
| TibRvMessage                              | Use Memory-based Ledger                 | <input checked="" type="checkbox"/> |
| <b>TibRvCM</b>                            | Ledger File                             |                                     |
| TibRvAdvisory                             | Add Listeners                           |                                     |
| Validation                                | Disallow Listeners                      |                                     |
| Monitoring                                | Message Time Limit*                     | 0                                   |

TibRvCM Property Page

| TibRvOutput Node Properties - TibRvOutput |                       |                |
|---|-----------------------|----------------|
| Description                               |                       |                |
| Basic                                     | Message Exchange Type | BLOBToRVXML    |
| <b>TibRvMessage</b>                       | TibRv Message Field*  | BLOBToRVString |
| TibRvCM                                   |                       | BLOBToRVBinary |
| TibRvAdvisory                             |                       | BLOBToRVXML    |
| Validation                                |                       | XMLToRVMessage |
| Monitoring                                |                       |                |

TibRvMessage Property Page

IAMA Description

IAMA Components

IAMA Message Exchange Patterns

IAMA Features and Functions

IAMA TibRv Nodes

**IAMA Administration/Operations**

IAMA Installation/Configuration

IAMA Samples

# IAMA – Administration/Operations

- **TibRv Node Status Reported via standard WMB command:**
  - **mqsireportpropeties** – reports Rendezvous Connectivity, messages sent/received/confirmed, Advisory Message configuration, certified correspondent information
  - Display status for all TibRv Nodes, Output only, Input only or specific node
  
- **IAMA Administration Commands**
  - Perform Ledger File Administration for Deployed TibRvOutput nodes
  - Start/Stop/Modify Advisory Message Collection for Deployed TibRvInput/TibRvOutput nodes
  - SupportPac provided utility that uses new CMP API for ConnectorProviders
  
- **WMB Service and User Trace**
  - Troubleshoot IAMA using standard ExecutionGroup Service trace
  - Troubleshoot IAMA using standard User Trace

# IAMA – Displaying Node Status/Properties

```

TIBRV
info='8.0.0'
Input
UC1.SubAllDataTypes_MF_TibRvInput
  Transport
    daemon
      daemon='tcp:7500'
      network=''
      service
        service='7500'
  Queue
    name
      name='UC1.SubAllDataTypes_MF_TibRvInput_InputMsg'
    count
      count='0'
    discardCount
      discardCount='0'
    limitPolicy
      limitPolicy='0'
    priority
      priority='1'
    valid
      valid='true'
  Listener
    type
      type='Reliable'
    subject
      subject='Test'
  Messages
    messagesReceived
      messagesReceived='2'
  Advisory
    type
      type='NONE'
    level
      level='ERROR'

```

- `mqsiereportproperties BKName -e EG -o TIBRV -r`
  - Display all TibRv Nodes in Execution Group
- `mqsiereportproperties BKName -e EG -o TIBRV/Input -r`
  - Display all TibRvInput Nodes in Execution Group
- `mqsiereportproperties BKName -e EG -o TIBRV/Output/MFName_NodeName -r`
  - Display Specific Output Node in Execution Group



# IAMA – Administration Commands

## ■ **TibRvOutput Commands**

- **reviewLedger**
  - Output from this command is written to the TIBRV resource manager's Activity Log and can be view and filtered using MBX. One entry per "subject".
- **removeListener** – remove a listener from the ledger
- **disallowListener** – disallow a listener from re-registering for Certified Delivery
- **allowListener** – allow a listener to re-register
- **expireMessages** – Remove messages based on "subject" and "sequence number"
- **removeSendState** – recover ledger space for an obsolete "subject"
- These admin commands must be executed against a deployed and running TibRvOutput node
- Command Status written to TIBRV Activity Log

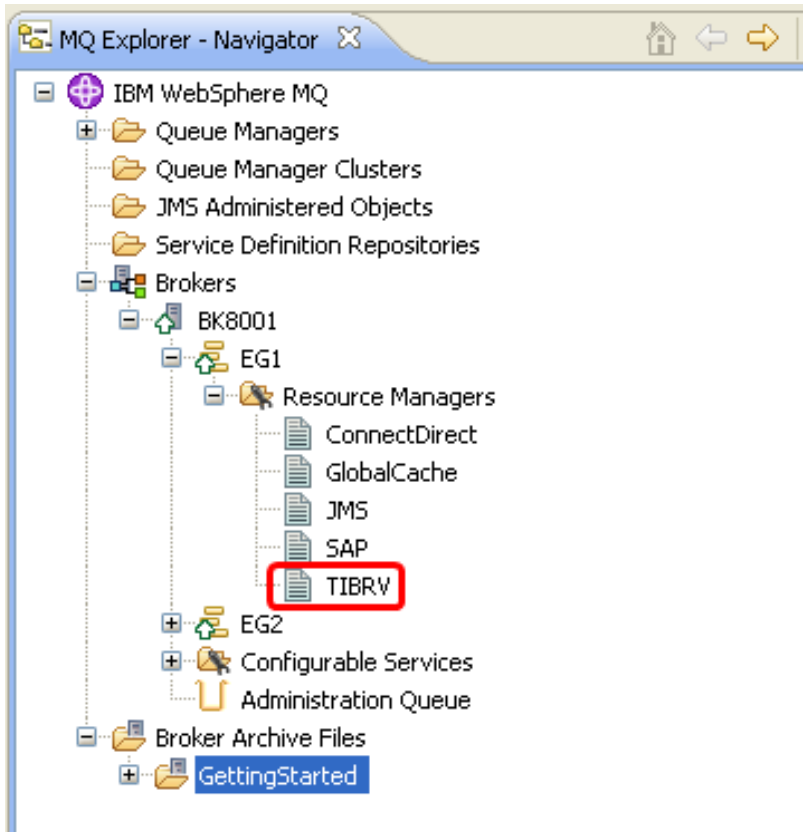
## ■ **TibRvInput and TibRvOutput**

- **advisory**
  - modify the node's Advisory Message Logging behavior
  - Command Status written to TIBRV Activity Log
  - Node "advisory" configuration displayed via mqsiereportproperties

## ■ **Commands Executed IAMAExecAdminCommand Utility**

- Uses the CMP API (Resource Manager)

# IAMA – TIBRV Activity Log



- IAMA Admin Command
  - Command Start and Completion are Logged
  - reviewLedger Output is Logged
  
- Rendezvous Advisory Message Logging
  
- Viewable/Searchable in MBX

| Msg...     | Timestamp          | RM    | MSGFLOW           | Message Summary  | NODE           | TIBRV Task      | Advisory Source | Advisory Class | Advisory Name          |
|------------|--------------------|-------|-------------------|--|----------------|-----------------|-----------------|----------------|------------------------|
| i BIP43... | 4-Sep-2012 15:3... | TIBRV | UC1.PubAllData... | Java node information: Received TibRv Advisory Message >> {ADV_CLAS... | Pub_CM_Test    | AdvisoryMessage | SYSTEM          | INF            | LISTEN.START._RVCM.... |
| i BIP43... | 4-Sep-2012 15:3... | TIBRV | UC1.PubAllData... | Java node information: Received TibRv Advisory Message >> {ADV_CLAS... | Pub_CM_Test    | AdvisoryMessage | SYSTEM          | INF            | LISTEN.STOP._RVCM.N... |
| i BIP43... | 4-Sep-2012 15:3... | TIBRV | UC1.PubAllData... | Java node information: Received TibRv Advisory Message >> {ADV_CLAS... | Pub_CM_Test    | AdvisoryMessage | SYSTEM          | INF            | LISTEN.START._RVCM.... |
| i BIP43... | 4-Sep-2012 15:3... | TIBRV | UC1.PubAllData... | Java node information: Received TibRv Advisory Message >> {ADV_CLAS... | Pub_CM_Test    | AdvisoryMessage | CM              | INF            | REGISTRATION.MOVE...   |
| i BIP43... | 4-Sep-2012 15:3... | TIBRV | UC1.PubAllData... | Java node information: Received TibRv Advisory Message >> {ADV_CLAS... | Pub_CM_Test    | AdvisoryMessage | SYSTEM          | INF            | LISTEN.START._RVCM.... |
| i BIP43... | 4-Sep-2012 15:3... | TIBRV | UC1.PubAllData... | Java node information: Received TibRv Advisory Message >> {ADV_CLAS... | Pub_CM_Test    | AdvisoryMessage | SYSTEM          | INF            | LISTEN.START.Test      |
| i BIP43... | 4-Sep-2012 15:3... | TIBRV | UC1.PubAllData... | Java node information: Received TibRv Advisory Message >> {ADV_CLAS... | Pub_CM_Test    | AdvisoryMessage | CM              | INF            | REGISTRATION.REQU...   |
| i BIP43... | 4-Sep-2012 15:3... | TIBRV | UC1.SubAllData... | Java node information: Received TibRv Advisory Message >> {ADV_CLAS... | TibRvInput_CM1 | AdvisoryMessage | SYSTEM          | INF            | LISTEN.START.Test      |

IAMA Description

IAMA Components

IAMA Features and Functions

IAMA Message Exchange Patterns

IAMA TibRv Nodes

IAMA Administration/Operations

**IAMA Installation/Configuration**

IAMA Samples

# IAMA – Installation and Configuration

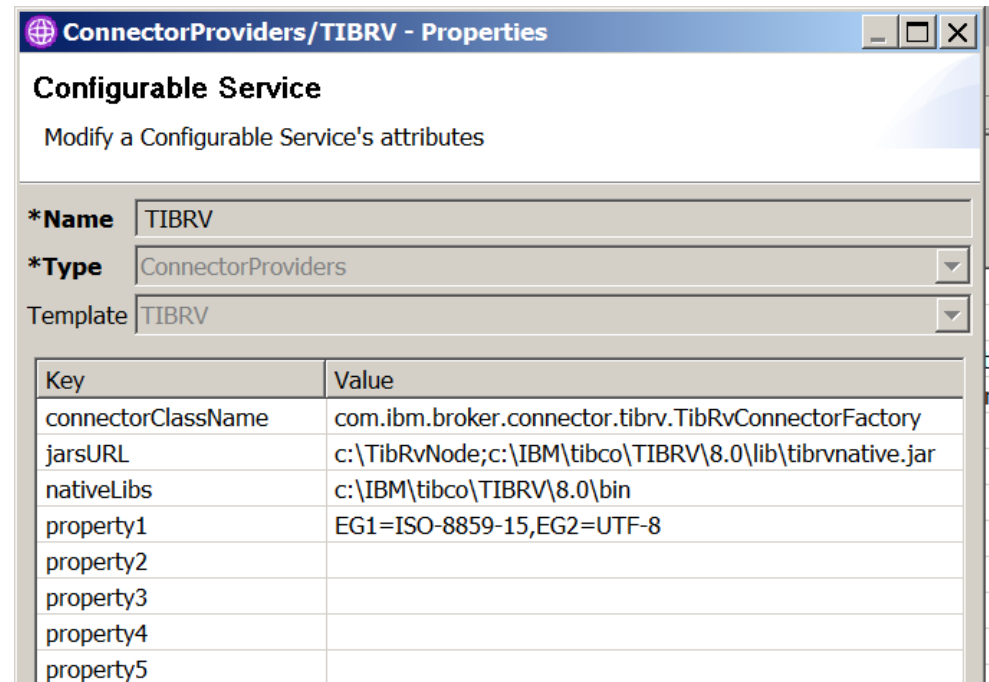
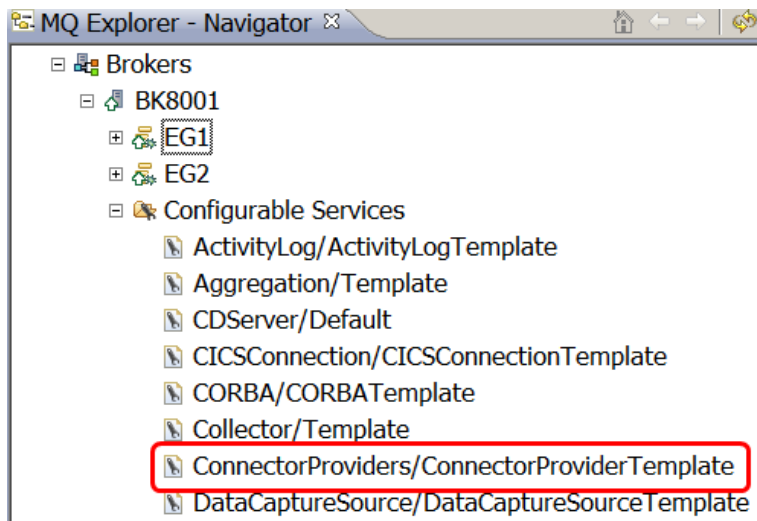
## ■ Runtime

- Install IAMA Runtime JAR file
  - Place JAR file in local file system directory
  - Do not put under WMB installation
- TIBRV Configurable Service
  - Based on ConnectorProvider Template
  - Defines how to load IAMA implementation and TIBCO Rendezvous Classes/Libraries
  - Defines Tibrv String Encoding per Execution Group
- NOTE:
  - System must have local installation of Rendezvous 8.0 or Higher
  - 32 and 64 Bit Rendezvous Installation supported
    - 32 Bit Rendezvous requires 32 Bit Broker
    - 64 Bit Rendezvous requires 64 Bit Broker

## ■ Toolkit

- Install IAMA Toolkit Eclipse Plugin JAR file in Toolkit “plugins” directory
- Recycle Toolkit

# IAMA – TIBRV Configurable Service Definition



- Must be named TIBRV
- Based on ConnectorProviders Template
- connectorClassName = com.ibm.broker.tibrv.TibRvConnectorFactory
- jarsURL = Path to directory containing IAMA runtime JAR file and Path to tibrvnative.jar
- nativeLibs = Path to directory containing Rendezvous native binary libraries (.dll on Windows, .so on Unix/Linux)
- property1 = Code Page used for TibRvMsg String types, set per Execution Group

IAMA Description

IAMA Components

IAMA Features and Functions

IAMA Data Exchange Patterns

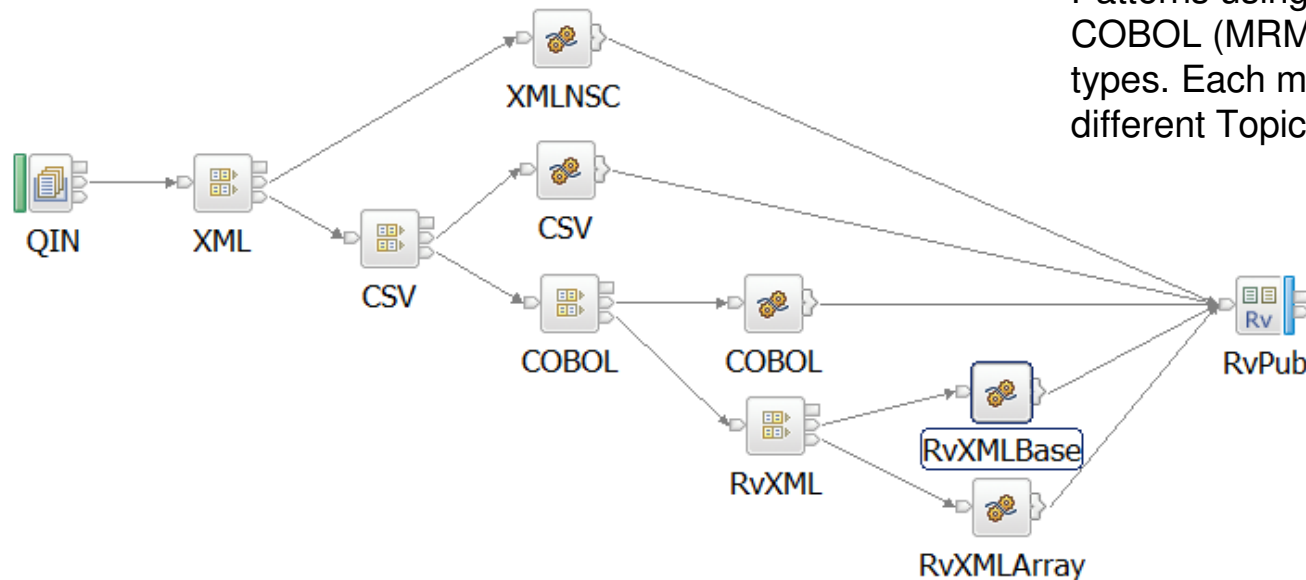
IAMA TibRv Nodes

IAMA Administration/Operations

IAMA Installation/Configuration

**IAMA Samples**

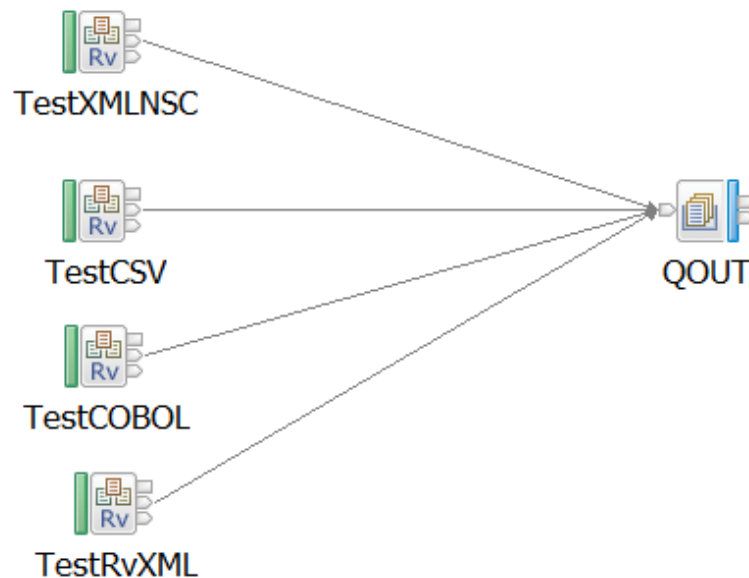
# IAMA – TibRv Node Sample Producer



Demonstrates all Output Data Exchange Patterns using XMLNSC, CVS(DFDL), COBOL (MRM) and all supported RvXML types. Each message type is published on a different Topic.

- **XMLNSC** – XMLNSC, Properties.MessageSet, BLOBToRVXML
- **CSV** – DFDL, Properties.MessageType, BLOBToRVString
- **COBOL** – MRM, Properties.MessageSet/MessageType/MessageFormat, BLOBToRVBinary
- **RvXMLBase** – XMLNSC, No Properties, XMLToRVMessage, All Base Types
- **RvXMLArray** – XMLNSC, No Properties, XMLToRVMessage, All Array Types
- **RvPub** -- Nodes Overrides TivRv Subject/RVMessageType

# IAMA – TibRv Node Sample Subscriber



Demonstrates all Input Data Exchange Patterns using XMLNSC, CVS(DFDL), COBOL (MRM) and all supported RvXML types. Each message type is received on a different Topic.

- **TestXMLNSC**
  - RVXMLToBLOB, TibRv Field, XMLNSC, Message Set
- **TestCSV**
  - RVStringToBLOB, Tibrv Field, DFDL, Message Type
- **TestCOBOL**
  - RVBinaryToBLOB, TibRv Field, MRM, Message Set/Type/Format
- **TestRvXML**
  - RVMessageToXML, No TibRv Field, XMLNSC, No Input Message Parsing Properties