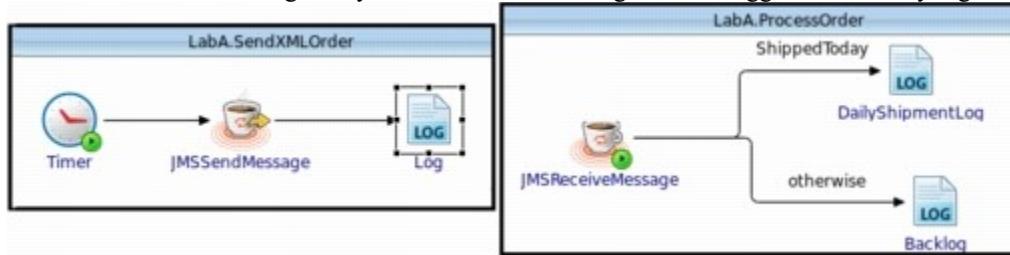


Lab A - Exercise 2: Process XML Content in JMS Message

Overview

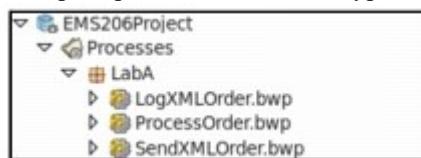
In this exercise, you develop a new process to receive the order as an XML message. This allows the date of the order from the message body to control if the message will be logged in the Daily log or the Backlog



Steps

1. Create a new version of LogXMLOrder to receive the message as an XML text message.

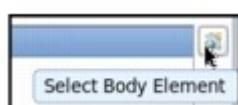
- Switch to **Design** perspective
- In Project Explorer, double-click *EMS206Project/LabA*
- Make a copy of the process *LogXMLOrder*
 - ◆ Right-click *LogXMLOrder* and select **Copy**
 - ◆ Right-click again and select **PasteBW**
 - ◆ When prompted for a new name, type: **ProcessOrder**



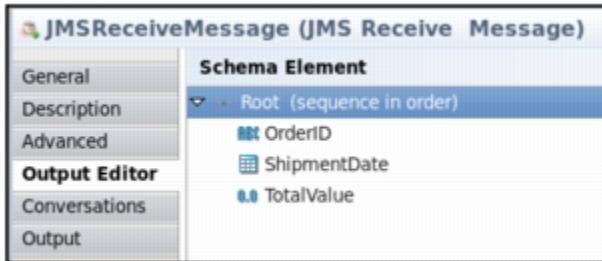
- Change the message type on the queue receiver
 - ◆ Open *ProcessOrder* and select **JMSReceiveMessage**
 - ◆ In *Properties > General*, modify
 - Message Type: **XML Text** (select from dropdown)
 - ◆ Save

2. Define the structure of the inbound XML message.

- For the **JMSReceiveMessage** activity, select the *Output Editor* tab
 - ◆ Click the "Select Body Element" icon on the right corner



- ◆ Observe that the schema created in Exercise 1 is available
EMS206Project > Schemas > JMSBodyElementSchema.xsd
 - Select *EMS206Project > Schemas > JMSBodyElementSchema.xsd > Root*
 - Click **OK**



- Save the project

3. Add a second activity to the process.

- Add a new **Log** activity to the process
 - ◆ Name: **DailyShipmentLog**
 - ◆ Save
- Rename the old **Log** activity
 - ◆ In the *General* tab
 - ◆ Name: **Backlog**
- Create a new transition:
 - ◆ From **JMSReceiveMessage** to **Daily Shipment Log**
 - ◆ Save

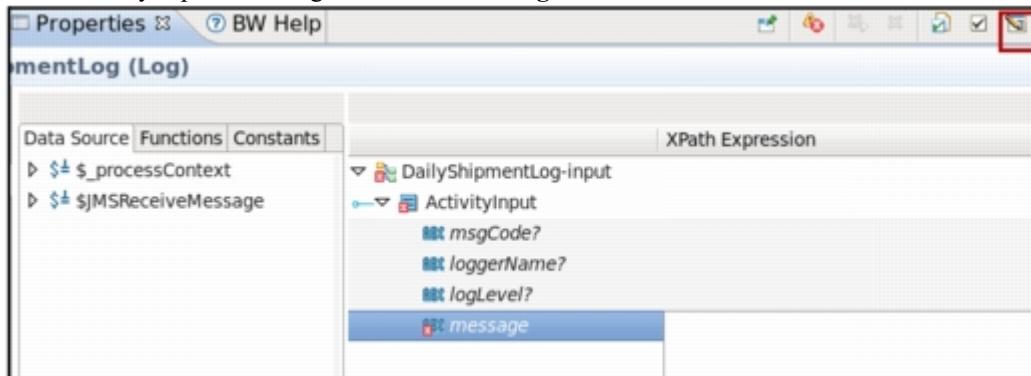
4. Configure conditional processing based on the content of the message body.

- Click on the transition from **JMSReceiveMessage** to **DailyShipmentLog**
 - ◆ Label: **Shipped today?**
 - ◆ Condition type: **Success with condition** (select from dropdown)
 - ◆ Click on XPath Builder icon  to build the following XPath formula:
- `tib:compare-date($JMSReceiveMessage/Body/tns:Root/ShipmentDate, current-date())=0`
- From the *Functions* tab, select *TIBCO Functions > compare_date* and drag it into XPath formula area on the right
 - From the *Data Source* tab, select **\$JMSReceiveMessage/Body/tns:Root/ShipmentDate** and drag it on top of the first argument `<<date1>>`
 - From the *Functions* tab, select *Date/Time Functions > current-date* and drag it on top of the second argument `<<date2>>`
 - Add "`=0`" at the end of the expression and click **OK** to close the XPath Editor
- ◆ Save
 - Select (click) the transition from **JMSReceiveMessage** to **Backlog**

- ◆ Label: **otherwise**
- ◆ Condition Type: **Success with no matching condition** (select from dropdown)
- ◆ Save

5. Configure the Input tab for the log activities.

- Select the **Daily Shipment Log** activity and open the *Input* tab
- ◆ In the Activity Input on the right side select **message**



- ◆ Create the XPath expression for the text to be written to the log

Tip: You can use the "Show/Hide Edit" button in the top right corner of the Properties view (see the image above) to open a larger area for XPath Expression.

- You may use a combination of functions and data, for example:

```
concat("Shipment processed for orderId",
      $JMSReceiveMessage/Body/tns1:Root/OrderID)
```

- ◆ Save changes
- Select the **Backlog** activity
- ◆ In the *Input* tab, modify the mapping to the *Activity Input > message*
- ◆ Create the XPath expression for the **message**, e.g:

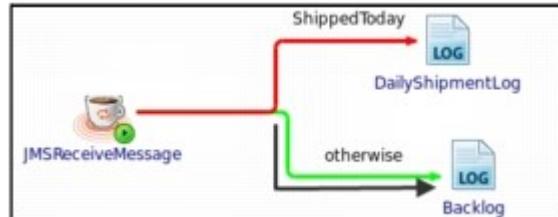
```
concat($JMSReceiveMessage/Body/tns1:Root/OrderId, "Original Shipment Date:
,xsd:string($JMSReceiveMessage/Body/tns1:Root/ShipmentDate))
```

- Save

6. Test conditional processing - backlog execution path.

- Configure the list of components to test
 - ◆ In Project Explorer, double-click *EMS206Project > Module Descriptors > Components*
 - ◆ Delete the component for *LogXMLOrder*
 - ◆ Create process components for the following two processes:
 - *ProcessOrder*
 - *SendXMLOrder*
- Save
- Launch the debugger to test your processes

- ◆ Right-click on the process diagram and choose **Debug BusinessWorks Applications** (this launches the debugger)
- ◆ Notice that the Workbench switched to **Debug** perspective
- ◆ *SendXMLOrder* sends the message to the queue.sample queue
- ◆ An instance of *ProcessOrder* is executed when **JMSReceiveMessage** gets that message
- Observe the details of the *ProcessOrder* execution
 - ◆ Green transitions indicate which conditional path was executed

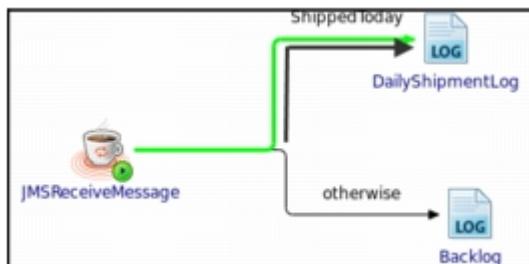


- ◆ Select the *Input Data* tab of the **Backlog** activity to view the message

Variables Breakpoints Job Data		
BackLog		
Input	Name	Value
All	BackLog-input	<tns:ActivityInput xmlns:tns="http://www.tibco.com/bw/beans/activities"><tns:msgCode>XYZ123</tns:msgCode><tns:loggerName>Original Shipment Date</tns:loggerName><tns:logLevel>10</tns:logLevel><tns:message>2015-08-10</tns:message></tns:ActivityInput>
	msgCode	
	loggerName	
	logLevel	
	message	XYZ123 Original Shipment Date:2015-08-10

7. Test conditional processing - Daily Shipment Log execution path.

- Test the process with today's date in the message
 - ◆ Terminate the process
 - ◆ In the *SendXMLOrder* process, select **JMSSendMessage**
 - Click *Properties* > **Input** tab
 - Update the input data for **ShipmentDate** to change the date to today's date
 - Enter the date in the format YYYY-MM-DD
 - ◆ Relaunch the process and verify the execution path and the message printed to the log
 - ◆ Compare the outcome of the two executions of the process with different input date



- ◆ Examine the *Job data* for the **DailyShipmentLog** activity

Variables Breakpoints Job Data		
DailyShipmentLog		
Input	Name	Value
All	DailyShipmentLog-input	<tns:ActivityInput xmlns:tns="http://www.tibco.com/bw/beans/activities"><tns:msgCode>XYZ123</tns:msgCode><tns:loggerName>Original Shipment Date</tns:loggerName><tns:logLevel>10</tns:logLevel><tns:message>2015-08-10</tns:message></tns:ActivityInput>
	msgCode	
	loggerName	
	logLevel	

message

| Shipment processed for orderIdXYZ123

- Terminate the debugger and switch to **Design** perspective

