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WebSphere® Message Broker Toolkit V6.0.2

Toolkit scenario part 4: Filter node



@business on demand.

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This fourth module of the scenario continues the solution by adding a Filter node to the message flow.

Scenario: Check the inventory

- Add a Filter node to the generated message flow
- Set data source to the SAMPLEDB data base
- Write ESQL code to check the data base for available inventory for requested part



The first node to be added to the generated PurchaseOrderFlow message flow is a Filter node that will access the connected SAMPLEDB data base. The ESQL code will check the data base for available inventory for the part requested in the input message.

Scenario: Examine Node Palette

The screenshot shows the Node Palette in IBM Business Process Manager. The palette is organized into categories such as Selection, Connection, Favorites, WebSphere MQ, JMS, HTTP, Routing, Filter, Label, RouteToLabel, Publication, AggregateControl, AggregateReply, AggregateRequest, Transformation, Construction, Database, Validation, Timer, and Additional Protocols. The Filter node is highlighted, and a tooltip is displayed over it. The tooltip text reads: "Filter node routes a message according to message content. You define the route by coding a filter expression in ESQL. See also JavaCompute node". Two yellow callout boxes highlight new features: "New: categories for the palette!" and "New: tooltip text for the nodes. Also a Details view". The background shows a message flow diagram with nodes like ws_OrderService, ws_OrderService_DeEnvelopeMsgBody, and ws_OrderService_EnvelopeMsgRespBodyws_OrderService_Reply.

Look for a filter node on the node palette that can route the message appropriately depending on inventory status. The Palette in V6.0.2 has been organized into node categories. There is also a text box associated with each node that briefly explains the usage of that node.

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Scenario: Filter node

can now edit the name in place

new: can now double click to open editor

new: properties view versus modal dialogs

Set Data source to "SAMPLEDB"

Append "_checkInventoryStatus" to expression property

Routing
 Filter
 Label
 RouteToLabel
 Publication
 AggregateControl
 AggregateReply
 AggregateRequest
 Transformation
 Construction
 Database
 Validation
 Timer
 Additional Protocols

Graph User Defined Properties

Problems Properties

Filter Node Properties - CheckInventory

Description
 Basic

Data source: SAMPLEDB

Transaction: Automatic

Filter expression: PurchaseOrderFlow_checkInventoryStatus

Treat warnings as errors:

Throw exception on database error:

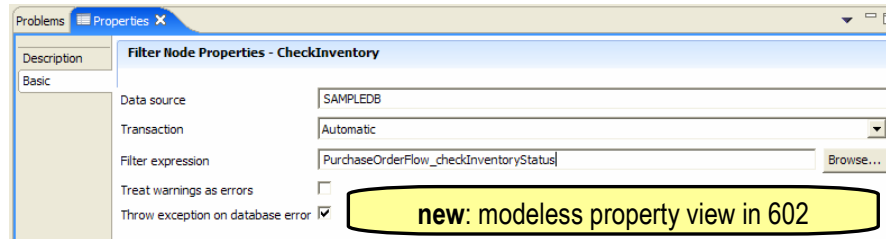
ws__OrderService_EnvelopeMsgRespBodyws__OrderService_Reply

4

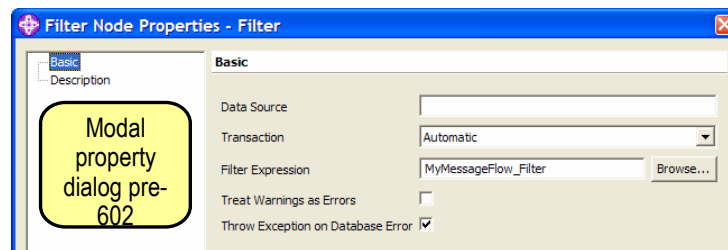
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Drag and drop a Filter node to the Purchase Order message flow previously generated and name the node in place. In the Properties view specify the database, SAMPLEDB, as the Data source and set the Filter expression to checkInventoryStatus.

Notes: Properties view

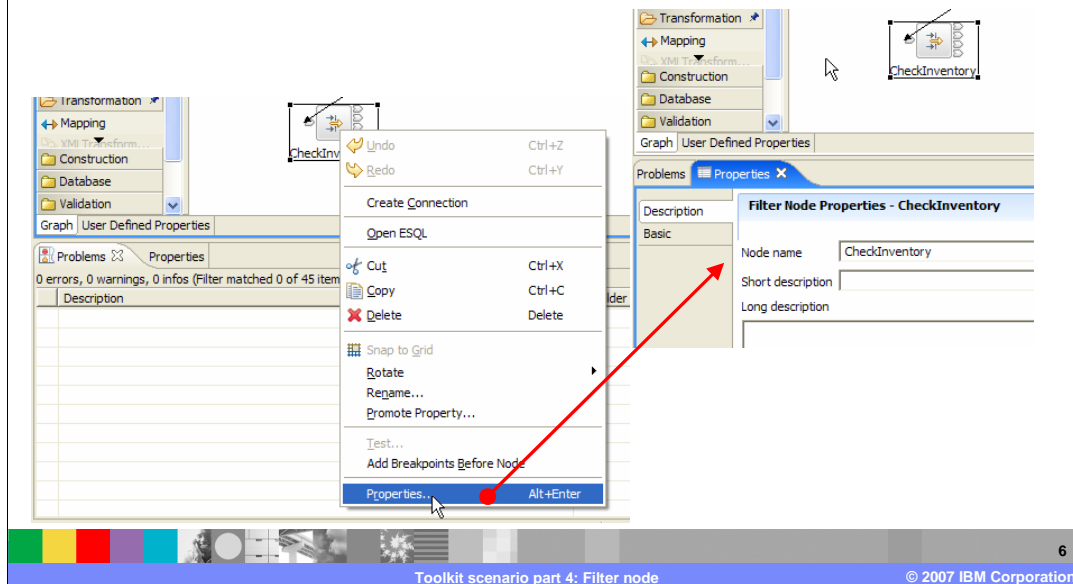


versus



In WebSphere Message Broker Toolkit V6.0.2, the Property view for a node is displayed below the Message flow editor by default. In V6.0.0, the property categories for a node are displayed by selecting Properties from a menu produced by a right-click on the node.

Notes: Launching properties view



In V6.0.2 using the right-click of the node and selecting Properties action just gives Properties view focus.

Notes: Description property tab

See node type at a glance

new: can now change the name using a property

Set and see description right here

versus

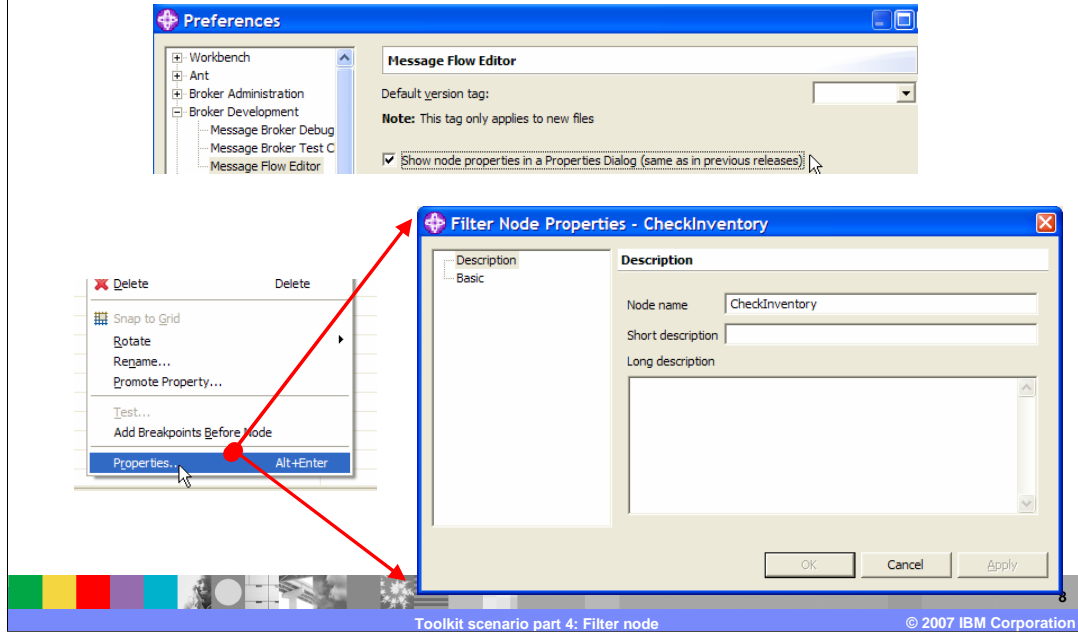
Description property page pre V602

7

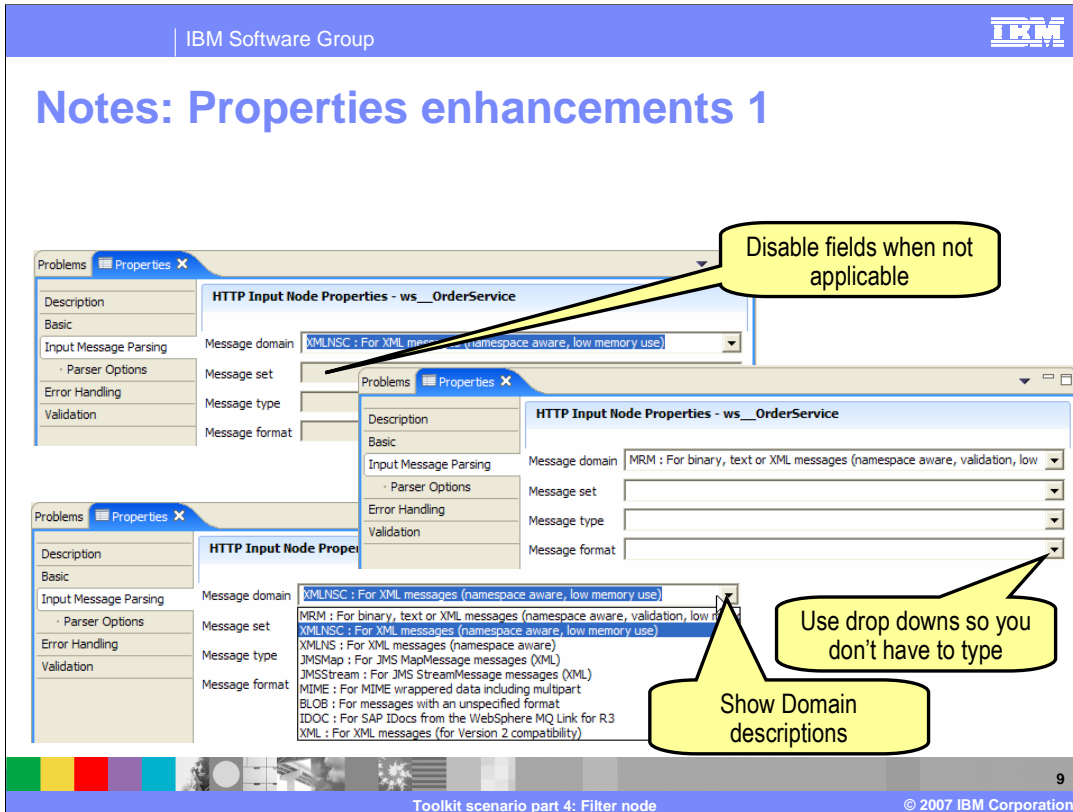
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The node type is displayed at the top of the Properties view, and the name of a node can be changed in the Description property tab.

Notes: Restoring properties dialog

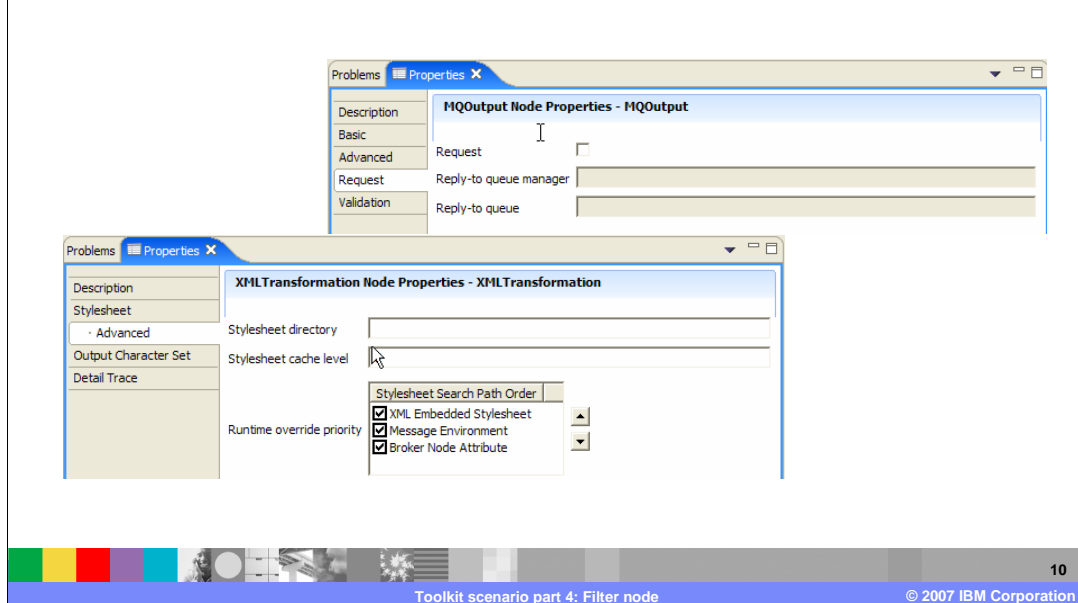


You can change default behavior to launch the Properties dialog if you prefer.




Ease-of-use enhancements have been made to some properties. The “Default” tab has been renamed to “Input Message Parsing” on input nodes. Drop downs are available for selection in the parsing properties, fields that are not applicable to the selected domain are disabled.

Notes: Properties enhancements 2



Properties for the HTTPInput, HTTPRequest, JMSOutput, and XMLTransformation nodes have been re-organized and improved.

Scenario: ESQL editor



```
DECLARE ns NAMESPACE 'http://www.acmeOrders.com/OrderService';

CREATE FILTER MODULE PurchaseOrderFlow_checkInventoryStatus
CREATE FUNCTION Main() RETURNS BOOLEAN
BEGIN

    DECLARE partNo REFERENCE TO Root.XMLNSC.ns:submitPOrequest.partNo;

    DECLARE partQty INTEGER;
    DECLARE partQtyAvailable INTEGER;

    -- extract the cpartNo from message
    SET partQty = Root.XMLNSC.ns:submitPOrequest.partQuantity;

    --if the customerID cannot be found in the message then we return unknown
    IF (partNo IS NULL) THEN
        RETURN UNKNOWN;
    END IF;

    -- search the inventory table for the part No
    SET partQtyAvailable = THE (SELECT ITEM T.QUANTITY FROM Database.SAMPLE.INVENTORY AS T WHERE T.PARTNO = partNo);

    --if part quantity requested is less than part quantity available return true
    IF (partQty >= partQtyAvailable ) THEN
        RETURN FALSE;
    ELSE
        RETURN TRUE;
    END IF;

END;

END MODULE;
```

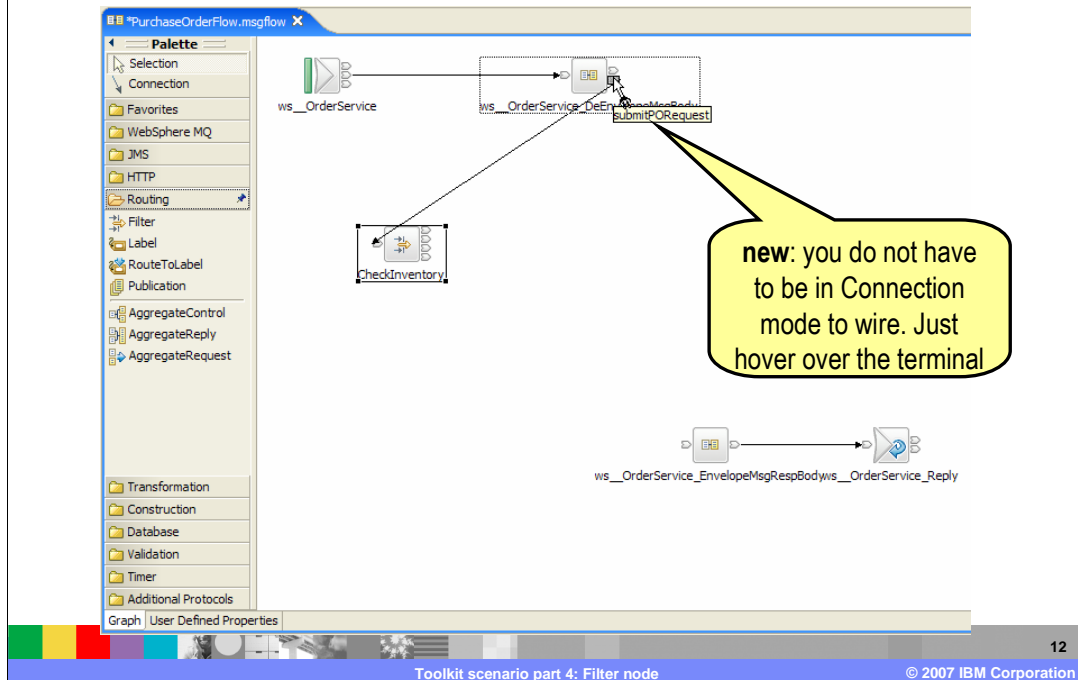
Improved validation and completion for reference fields

11

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Double-click on Filter node to open the ESQL editor. Write ESQL logic to check the inventory database for the requested part, as in previous broker versions.

Scenario: Wire terminal



Wire the submit terminal (submit for request) of the Subflow node to the input of the added Filter node named CheckInventory. New in V6.0.2, you do not have to be in Connection mode to wire, just hover over the terminal. This concludes part 4 of the WebSphere Message Broker V6.0.2 Toolkit scenario.

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