



## Table of Contents

What this sample provides .....	8
Software requirements.....	9
Introduction .....	10
Part 1: Creating a module containing the JDBC adapter and mediation flow .....	12
Part 2: Generating a monitor model from SCA and Mediation.....	49
Part 3: Deploying the Adapter and Mediation Application .....	75
Part 4: Deploying the monitor model .....	94
Part 5: Processing events to exercise the model .....	120
Part 6: Creating a dashboard .....	122
What you accomplished in this exercise .....	140
Appendix A. Import the J2EE application solution into WebSphere Integration Developer .....	141
Appendix B. Workaround for Step 5: Manage the DB2 Alphablox® cube.....	142

## Table of Figures

Figure 1. Business-level diagram of the MonitorAdapter module.....	10
Figure 2. JDBCInboundInterface and MediationFilter.....	10
Figure 3. Filter determines gold customer.....	10
Figure 4. Add metrics to monitor the data.....	11
Figure 5. Business Integration – IBM WebSphere Integration Developer.....	12
Figure 6. Preferences.....	13
Figure 7. New ► Mediation Module.....	14
Figure 8. New Mediation Module.....	15
Figure 9. The Monitor Adapter Module.....	16
Figure 10. Import and select RAR file.....	17
Figure 11. Finish import and select RAR file.....	18
Figure 12. Switch to the J2EE perspective.....	18
Figure 13. See the CWYBC_JDBC project.....	19
Figure 14. Copy db2jcc.jar and db2jcc_license_cu.jar files.....	20
Figure 15. Right-click CWYBC_JDBC and click Refresh.....	21
Figure 16. Click the Java Build Path directory and switch to the Libraries tab.....	22
Figure 17. Select db2jcc.jar and db2jcc_license_cu.jar.....	23
Figure 18. New ► Enterprise Service Discovery.....	25
Figure 19. JDBC EMD Adapter selection.....	26
Figure 20. Configure Settings for Discovery Agent.....	27
Figure 21. DB2ADMIN ► Tables ► CUSTOMER selection.....	28
Figure 22. The value for Service Type is Inbound.....	29
Figure 23. The Generate Artifacts window.....	30
Figure 24. The Database Vendor field.....	31
Figure 25. Double-click Assembly Diagram.....	32
Figure 26. Rename Mediation1 to MediationFilter.....	33
Figure 27. Link JDBCInboundInterface to MediationFilter.....	34
Figure 28. Select Generate Implementation.....	34
Figure 29. MonitorAdapter selected as the folder.....	35
Figure 30. Click createDb2adminCustomer.....	36
Figure 31. Click in the white space to add the EventEmitter primitive into the flow.....	37
Figure 32. Click EventEmitter1, then access the Properties view.....	38
Figure 33. Adding the Message Filter primitive to the flow.....	39
Figure 34. Add Output Terminal selection.....	40
Figure 35. Change the new terminal name to Gold.....	41
Figure 36. Click Details and then click Add.....	42
Figure 37. Click Custom XPath.....	43
Figure 38. Click OK, then click Finish.....	44
Figure 39. Root is set as /body.....	45
Figure 40. The Gold customer will pass through the filter.....	46

Figure 41. Click MediationFilter and in the Properties view select Details .....	47
Figure 42. In response, click OK.....	48
Figure 43. Select MonitorAdapterApp as EAR project.....	48
Figure 44. Select Monitor Tools ► Generate Event Definitions .....	49
Figure 45. Select Monitor Tools ► Generate Event Definitions .....	50
Figure 46. Select Monitor Tools ► Generate Monitor Model.....	51
Figure 47. Type the name of the new business monitoring project .....	52
Figure 48. Type the monitor model name .....	52
Figure 49. Switch to switch to the Business Monitoring perspective .....	53
Figure 50. Generate a seed monitor model.....	53
Figure 51. Select New ► Inbound Event .....	54
Figure 52. Type EM BeforeFilter Data in the Name field .....	55
Figure 53. Select MonitorAdapter_MediationFilter_Req_Before.....	55
Figure 54. The inbound event will now represent the Common Base Event .....	56
Figure 55. Set the Correlation Expression .....	57
Figure 56. Setting the Correlation Expression .....	58
Figure 57. Select New ► Trigger .....	59
Figure 58. Type JDBCInbound Entry Trigger .....	60
Figure 59. On the right panel, click Add.....	60
Figure 60. Select the Terminate monitoring context check box .....	61
Figure 61. Select New ► Metric.....	62
Figure 62. For Name, type FName Metric.....	62
Figure 63. Select JDBCInbound Entry Trigger.....	63
Figure 64. Press Ctrl+Spacebar to use the content assist function.....	64
Figure 65. The FName Metric will be assigned the fname value .....	65
Figure 66. Add Is Gold Customer Metric.....	66
Figure 67. Switch to the Data Mart Model.....	67
Figure 68. Click Add Dimension... .....	68
Figure 69. CCode Metric selection .....	68
Figure 70. Select Count from the Aggregation Function menu .....	69
Figure 71. Generate Monitor EAR selection.....	70
Figure 72. Accept the default setting and click Finish.....	71
Figure 73. Right-click the EJB project MonitorAdapterMMEJB.....	72
Figure 74. Select Export... ► EAR file .....	73
Figure 75. Set the destination file name .....	74
Figure 76. Click Security ► Global Security .....	75
Figure 77. Authentication ► JAAS Configuration ► J2C Authentication Data .....	76
Figure 78. General Properties .....	76
Figure 79. Click Save when you receive this message.....	77
Figure 80. Click Save when you receive this message.....	77
Figure 81. Verify that the list includes the new entry .....	78
Figure 82. Click Applications ► Enterprise Applications.....	79
Figure 83. Browse to the MonitorAdapterApp.ear file.....	80
Figure 84. The subsequent screen appears .....	81
Figure 85. Click Step 9 Summary to install the new application .....	82
Figure 86. Click Finish .....	83

Figure 87. Save to Master Configuration .....	84
Figure 88. Click Save .....	85
Figure 89. See MonitorAdapterApp application .....	86
Figure 90. Select the MonitorAdapterApp check box .....	87
Figure 91. Select Applications ► Enterprise Applications .....	88
Figure 92. Click databaseURL .....	89
Figure 93. Click Integration Application ► Common Base Event Browser .....	90
Figure 94. Click All Events .....	91
Figure 95. Click Get Events .....	92
Figure 96. Click All Events, again .....	93
Figure 97. Select Applications ► Monitor Models .....	94
Figure 98. Browse to MonitorAdapterMM.ear .....	95
Figure 99. Click Next on this screen .....	96
Figure 100. Click Continue on this screen .....	97
Figure 101. Click Step 11 Summary .....	98
Figure 102. Click Finish .....	99
Figure 103. Click Save to Master Configuration .....	100
Figure 104. Click Save .....	100
Figure 105. Click the timestamp value .....	101
Figure 106. Click Setup Wizard .....	102
Figure 107. Enter the name of the output directory .....	103
Figure 108. Click Next when this screen appears .....	104
Figure 109. Run Step 2 and Step 3 .....	105
Figure 110. Browse to C:\MonitorAdapter\schemagen\ <timestamp&gt; .....<="" td=""> <td>106</td> </timestamp&gt;>	106
Figure 111. Extract the DS_DMS_setup.zip file .....	107
Figure 112. Status of the scripts as they are run .....	108
Figure 113. Status of the scripts as they are run .....	109
Figure 114. Click Confirm when this window appears .....	110
Figure 115. Run Step 4 .....	111
Figure 116. The DB2 command window .....	111
Figure 117. Sample error when cubes are being imported .....	112
Figure 118. Click Confirm in the administrative console .....	113
Figure 119. Click Step 5: Manage Alphablox Cube .....	114
Figure 120. Search for RMI Connector .....	115
Figure 121. Enter your RMI port value .....	115
Figure 122. Error message indicating a connection problem .....	116
Figure 123. Run Step 6 of the model life cycle .....	117
Figure 124. Run Step 7 of the model life cycle .....	118
Figure 125. The Startable column for the model with red indicator .....	119
Figure 126. The Startable column for the model with green indicator .....	119
Figure 127. CTX_MONITORADAPTERMM_MC table In the MONITOR database .....	120
Figure 128. FCT_MONITORADAPTERMM_MC table In the MONITOR database .....	121
Figure 129. Log in, then enter your Portal administrative user ID and password .....	122
Figure 130. Click Portlet Management ► Portlets .....	123
Figure 131. Enter MonitorAdapter_Dimensional as the new name .....	124
Figure 132. Enter MonitorAdapter_Instances as the new name .....	125

Figure 133. Click Portal User Interface ► Manage Pages .....	126
Figure 134. Click the leftmost radio button to select one-column layout .....	127
Figure 135. See the new page in the list .....	128
Figure 136. Click the Edit Page Layout icon .....	129
Figure 137. Navigate to the last page of the list to select both porlets .....	130
Figure 138. Confirm that the views have been added .....	131
Figure 139. Confirm that there is now a tab .....	132
Figure 140. The window should look like this example .....	133
Figure 141. Select Member Filter .....	134
Figure 142. Select FName Count Measure as in this example .....	135
Figure 143. Select Drill Down .....	136
Figure 144. The window should look like this example .....	137
Figure 145. Click Next, then Next, then Next again, then Finish .....	138
Figure 146. The window should look like this example .....	139
Figure 147. Import the project interchange file .....	141
Figure 148. Confirm that the cube model is listed .....	142
Figure 149. Select the text in the Name field .....	143
Figure 150. Select Allow Blocked Content to continue .....	144
Figure 151. The window should look like this example .....	145
Figure 152. The window should look like this example .....	146
Figure 153. The window should look like this example .....	147
Figure 154. Confirm that it has been added .....	148
Figure 155. Click Runtime Management ► DB2 Alphablox Cubes .....	149
Figure 156. The status of the cube should be running as shown .....	150
Figure 157. The ModelID value in this example is MonitorAdapterMM .....	151
Figure 158. The versionDate value in this example is 1170240826 .....	152
Figure 159. The window now indicates that step 5 complete .....	153

### What this sample provides

To help you understand how to monitor data issued from an adapter, this sample provides a monitor model that is generated from a Service Component Architecture (SCA) interface operation and mediation flow, and is then completed in the Monitor Model Editor. The sample showcases both an SCA entry event and a mediation flow event-emitter's event with payload coming from a source adapter.

For this sample, an inbound interface operation and mediation flow for a Java Database Connectivity (JDBC) adapter were created in IBM® WebSphere® Integration Developer v6.0.2 and were used to generate event definitions within WebSphere Integration Developer.

A monitor model was also generated from this operation and mediation flow. This monitor model was augmented to process the generated events and to calculate metrics, and then was deployed. The module used in this sample is the MonitorAdapter module. All project interchange (PI) files are available in a .zip file called MonitorAdapter.zip.

You can import the MonitorAdapter.zip file into WebSphere Integration Developer and review the module, the generated events, and the augmented monitor model. You can then deploy the supplied Enterprise Archive (EAR) files, and test the monitor model using db2 commands.

### Software requirements

You must have the following software to run this sample:

- WebSphere Integration Developer v6.0.2 GM Build and the Monitor Model Editor plug-in
- WebSphere Business Monitor v6.0.2 GM Build – Basic Installation including the Dashboard Server and Monitor Server

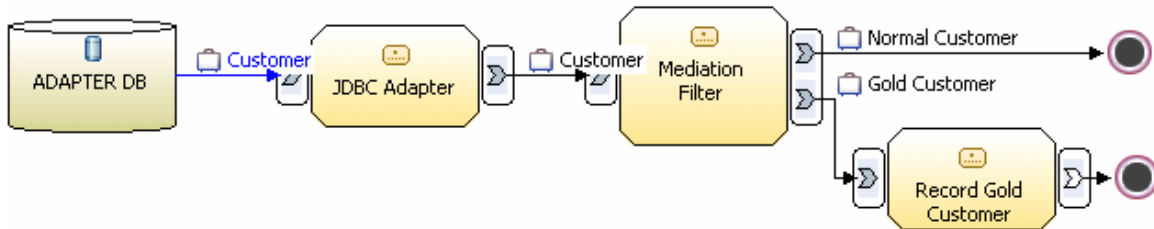
**Note:** If the WebSphere Integration Developer version is not consistent with WebSphere Business Monitor version, the Common Base Event definitions generated from WebSphere Integration Developer might not be consistent with the Common Base Events generated from WebSphere Process Server. That inconsistency will cause monitoring to fail. To avoid this failure, use the golden master (GM) build.



### Introduction

This document explains the major steps required to build the MonitorAdapter module, generate the monitor model, augment the monitor model, deploy the monitor model, and show results on a dashboard. Here is a summary of the scenario used in this sample. When a new customer record is added to the adapter database, a JDBC adapter becomes aware of it and sends customer information to a mediation flow to process. The mediation flow acts as a filter: for a non-gold customer, the mediation flow does nothing; for a gold customer, the mediation flow creates a record for the customer. In the monitor model, you define metrics to monitor the data issued by the JDBC adapter and display that information on a dashboard.

Figure 1. Business-level diagram of the MonitorAdapter module



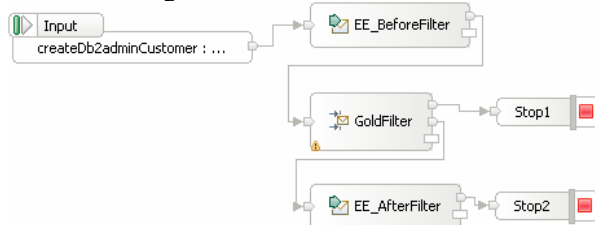
- The MonitorAdapter module has two components: JDBCInboundInterface and MediationFilter. After a customer record is added to the adapter database, the JDBC inbound interface operation is activated to invoke the mediation flow with the payload.

Figure 2. JDBCInboundInterface and MediationFilter



- In the mediation flow, a filter determines whether the record is for a gold customer.

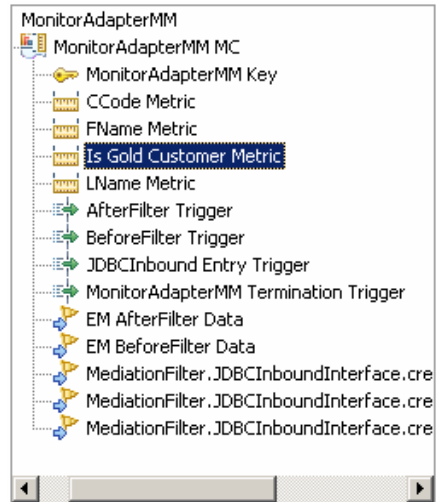
Figure 3. Filter determines gold customer



## 11 Generate MM to monitor data from an adapter

- Based on the SCA operation and mediation flow, a monitor model is generated. In the Monitor Model Editor, you will add metrics to monitor the data from the adapter and mediation flow.

Figure 4. Add metrics to monitor the data

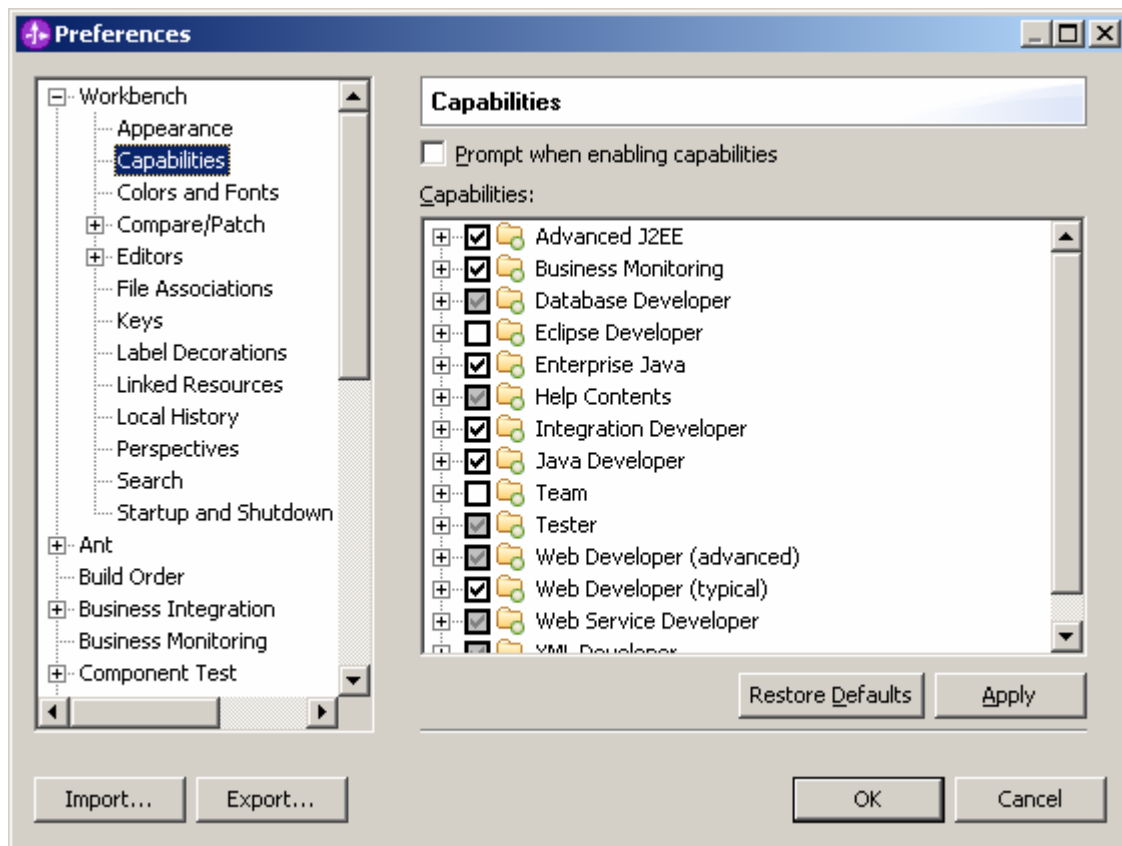


- To see the monitored result, use the Instances view or the Dimensional view.



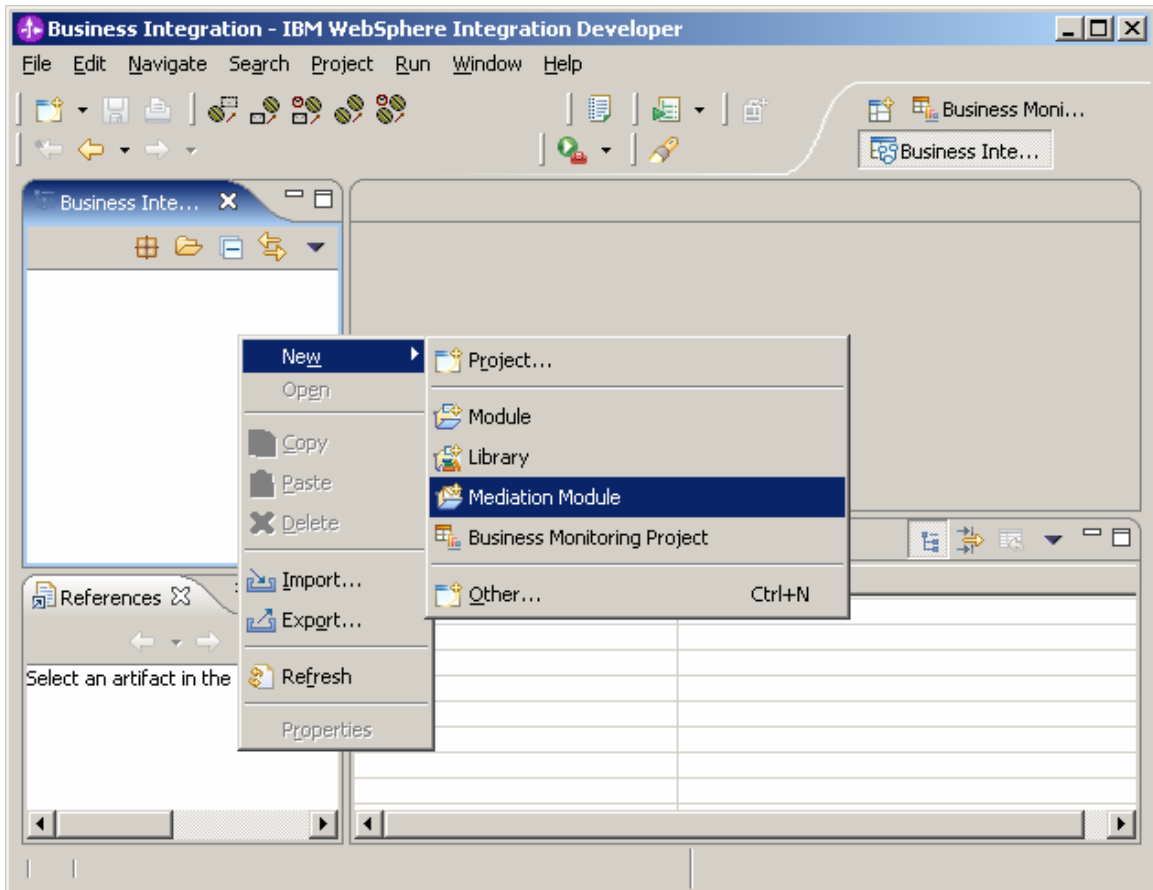
2. Ensure that the **Advanced J2EE** setting is selected in the list of workbench capabilities. Click **Window ► Preferences ► Workbench**.

Figure 6. Preferences



3. Right-click **Business Integration**, then click **New ► Mediation Module**.

Figure 7. New ► Mediation Module



15 Generate MM to monitor data from an adapter

4. Type **MonitorAdapter** as the name for the new mediation module.

Figure 8. New Mediation Module

**New Mediation Module**

**Mediation Module**

Create a new mediation module. A mediation module is a project that is used for development, version management, organizing resources, and deploying to the ESB runtime environment.

Module Name:

Module Location

Use default

Directory:

Target Runtime:

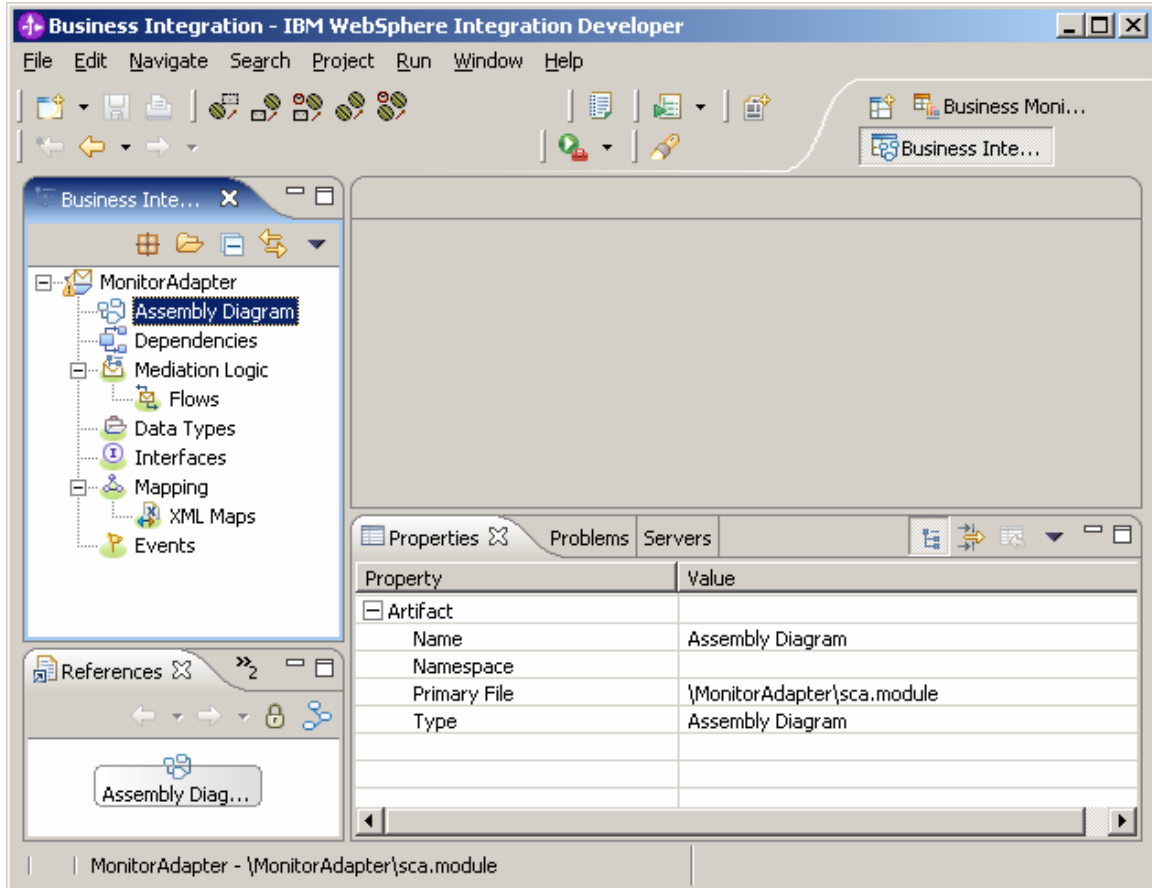
Create mediation flow component

Mediation modules can be deployed and run on WebSphere Enterprise Service Bus or WebSphere Process Server. They contain flows, which link together operations for modifying and routing messages between service consumers and service providers.

< Back   Next >   Finish   Cancel

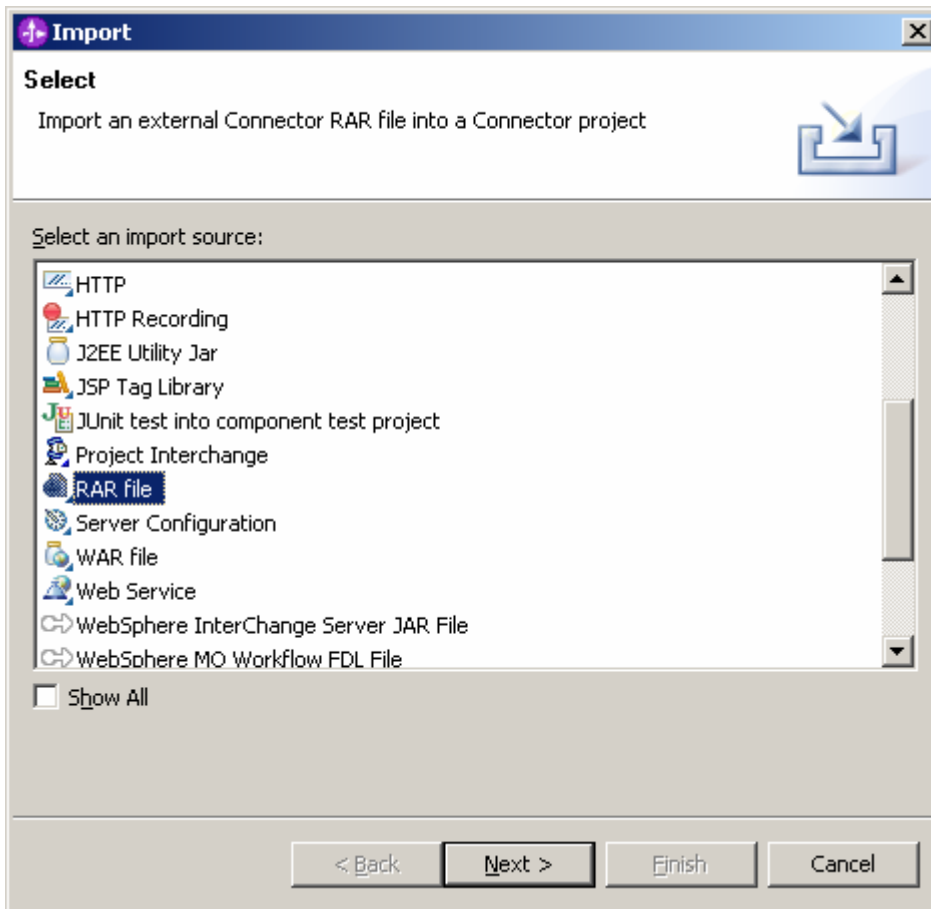
\_\_\_ 5. Click **Finish** to create the new module.

Figure 9. The Monitor Adapter Module



\_\_\_\_ 6. Click **File** ► **Import** and select **RAR** file. Click **Next**.

Figure 10. Import and select RAR file

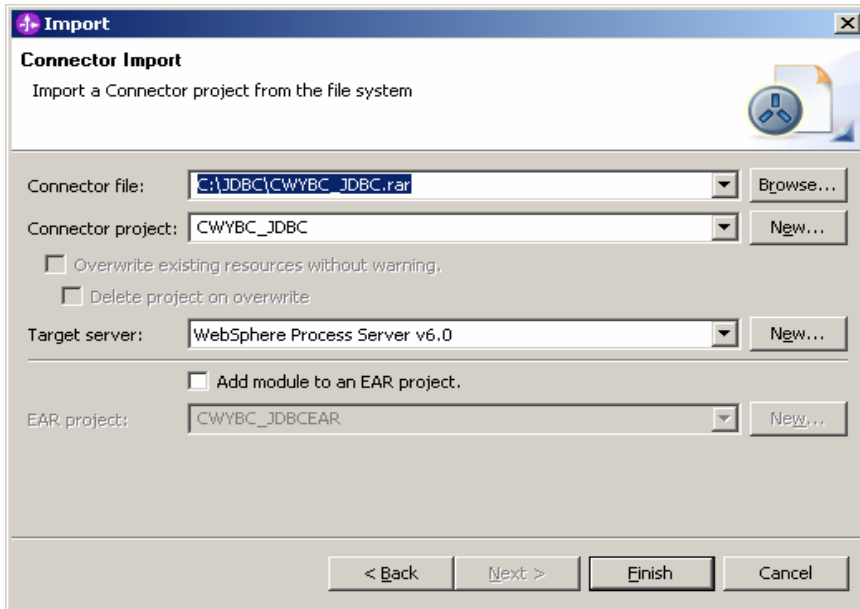




## 18 Generate MM to monitor data from an adapter

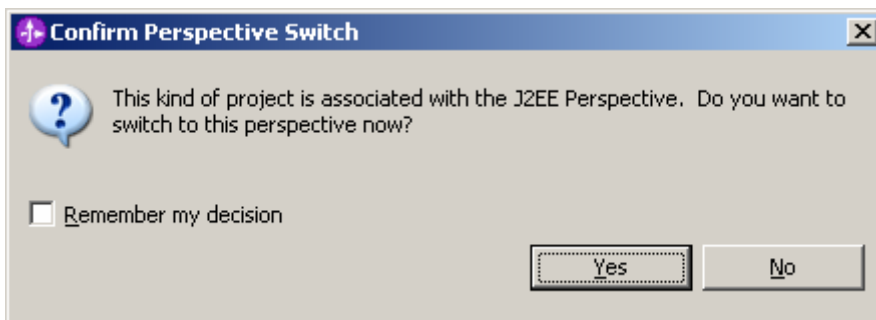
7. Click **Browse** to find your installed JDBC adapter. If a JDBC adapter is not already installed, extract the supplied JDBC adapter build (JDBC.zip) and find the CWYBC\_JDBC.rar in the extracted directory. Then clear the **Add module to an EAR project** check box and click **Finish**.

Figure 11. Finish import and select RAR file



8. In response to the prompt, click **Yes** to switch to the J2EE perspective.

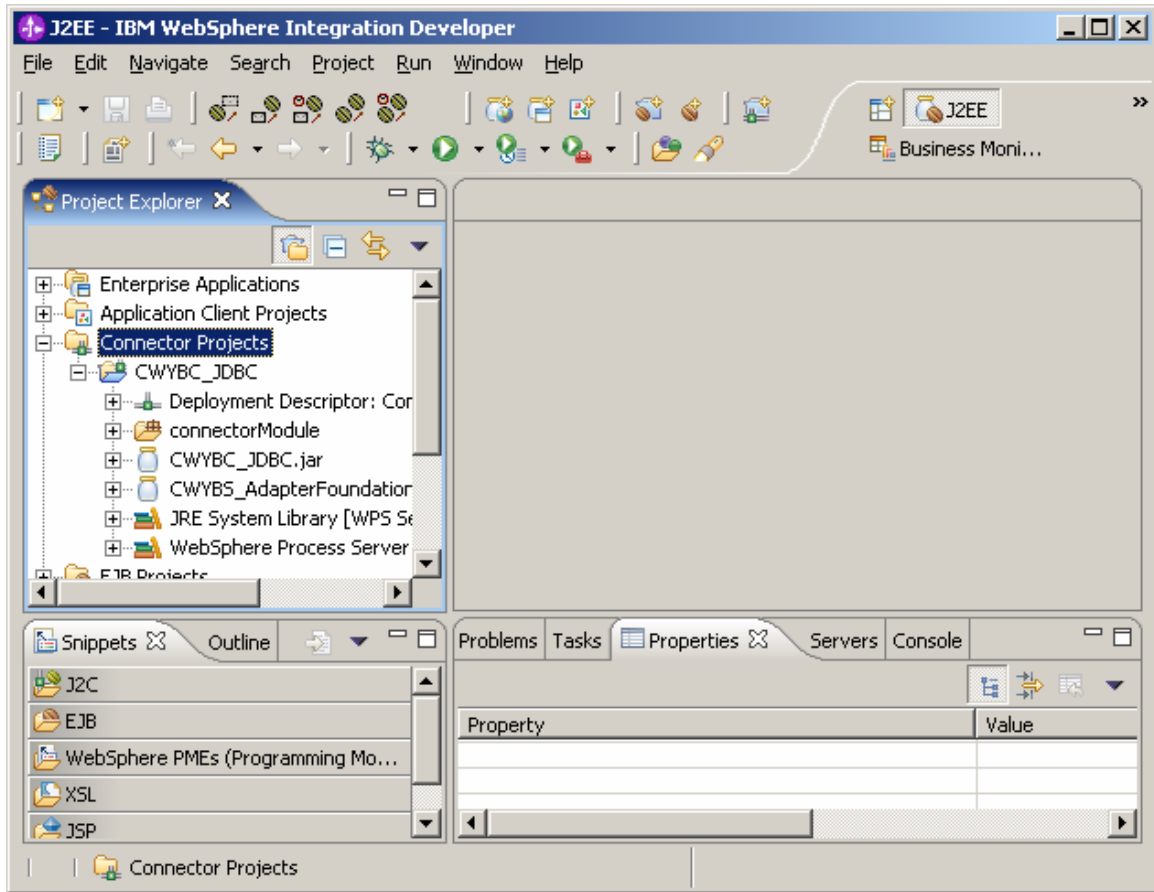
Figure 12. Switch to the J2EE perspective



19 Generate MM to monitor data from an adapter

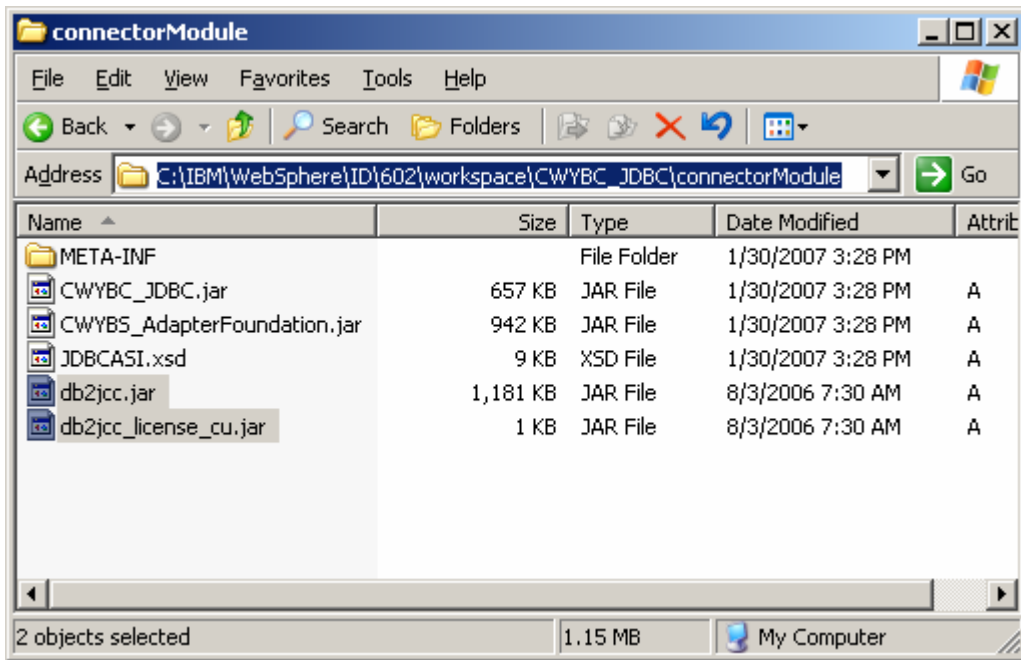
- \_\_\_ 9. Expand Connector Projects to see the **CWYBC\_JDBC** project.

Figure 13. See the CWYBC\_JDBC project



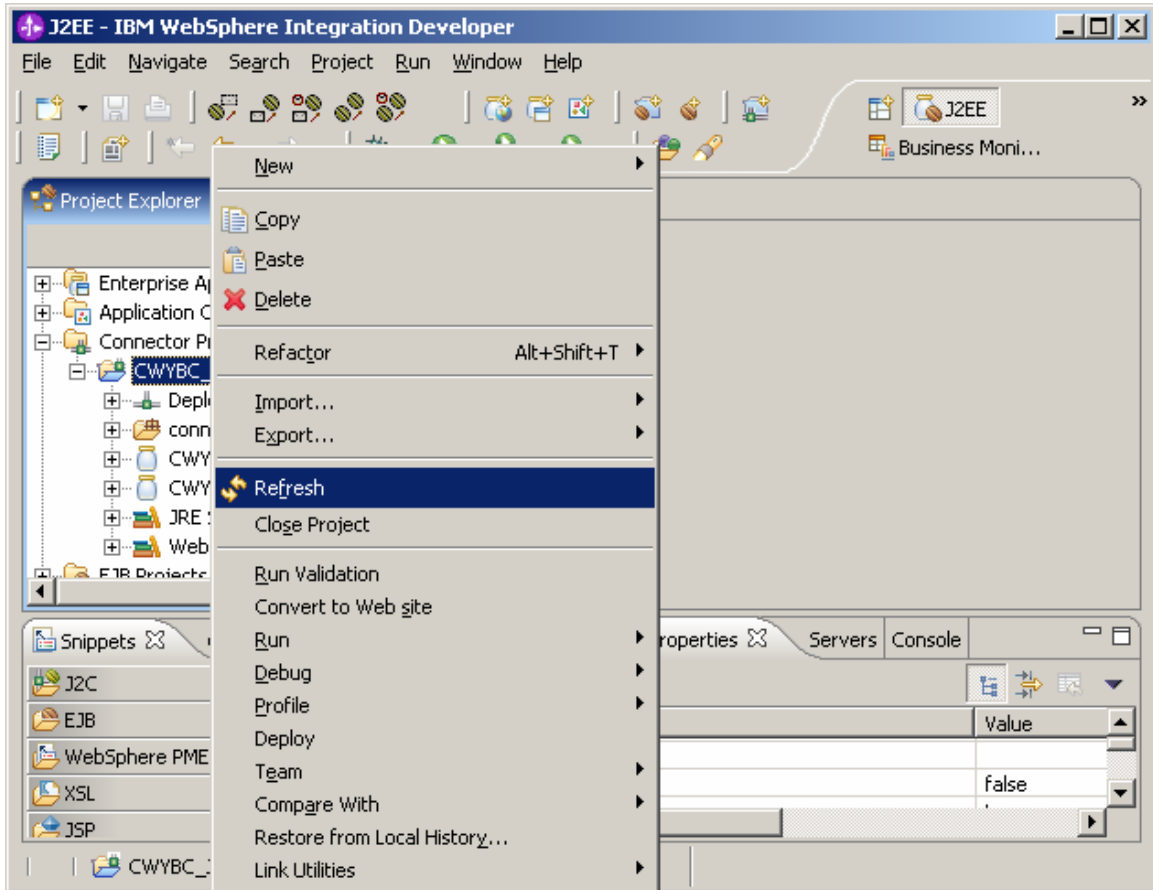
- 10. To install the DB2 driver, copy the db2jcc.jar and db2jcc\_license\_cu.jar files from the <DB2 home directory>\SQLLIB\java\ directory into the connectorModule directory of your CWYBC\_JDBC project.

Figure 14. Copy db2jcc.jar and db2jcc\_license\_cu.jar files



11. Right-click **CWYBC\_JDBC** and click **Refresh** to make project aware of the two JAR files.

Figure 15. Right-click CWYBC\_JDBC and click Refresh



12. Right-click **CWYBC\_JDBC** and click **Properties**. Click the **Java Build Path** directory and switch to the **Libraries** tab. Click the **Add JARs...** button.

Figure 16. Click the Java Build Path directory and switch to the Libraries tab

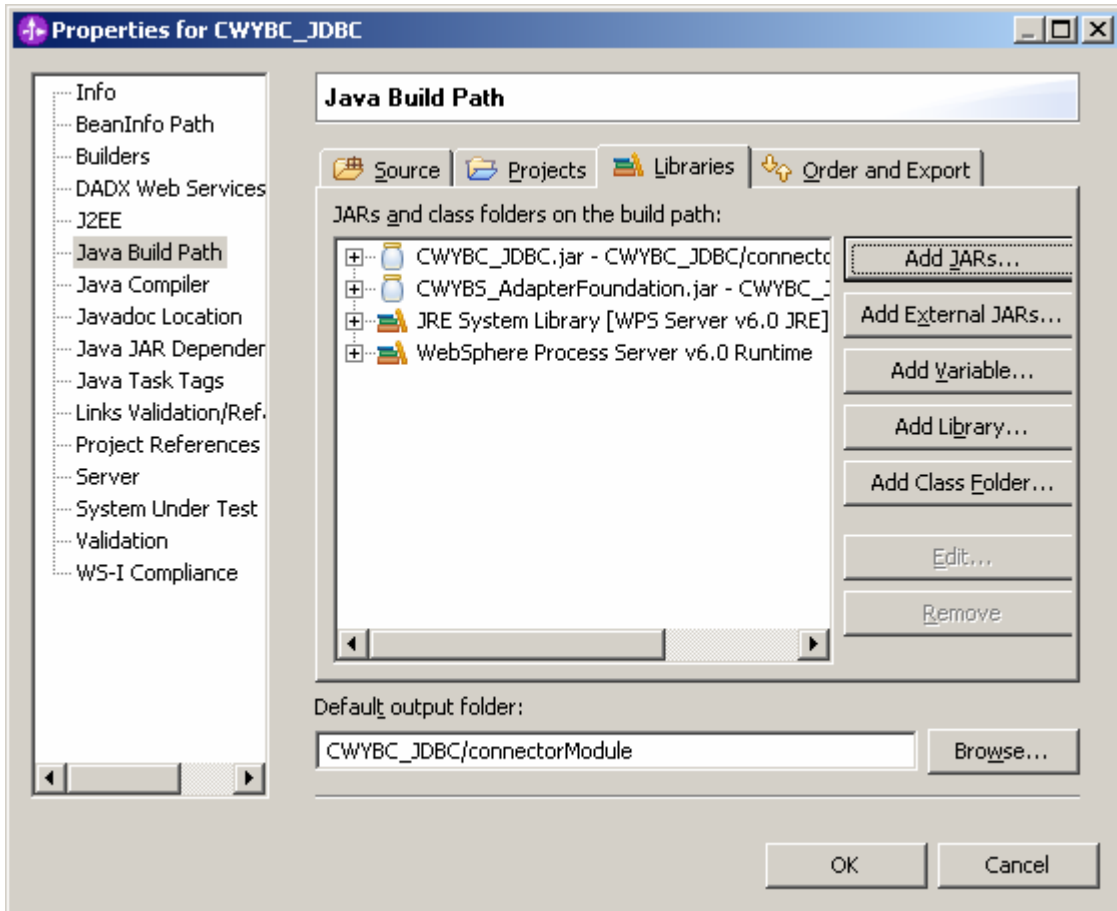
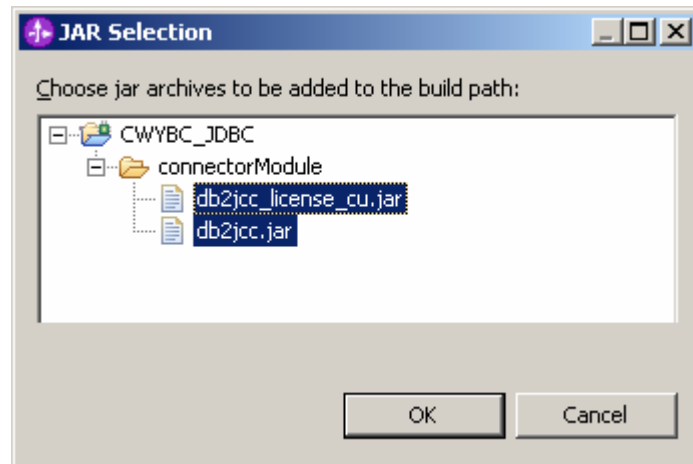


Figure 17. Select db2jcc.jar and db2jcc\_license\_cu.jar

\_\_\_ 13. Select **db2jcc.jar** and **db2jcc\_license\_cu.jar**. Click **OK**.



- \_\_\_ 14. Now that the DB2 driver has been added into JDBC adapter project, you need to install the DB2 artifact that you will use for the sample.
- \_\_\_ a. Using the DB2 wizard, create the **ADAPTER** database in DB2.
  - \_\_\_ b. Open a DB2 command window, then run the following commands:

```
db2 connect to ADAPTER user  
db2admin using <db2 password>
```

```
db2 -tvf MonitorAdapter_db2.sql
```

```
db2 disconnect ADAPTER
```

\_\_\_ c. The MonitorAdapter\_db2.sql file should contain the following information:

```

CREATE TABLE customer
(
    pkey          VARCHAR(10) NOT NULL PRIMARY KEY,
    fname        VARCHAR(20),
    lname        VARCHAR(20),
    ccode        VARCHAR(10)
);

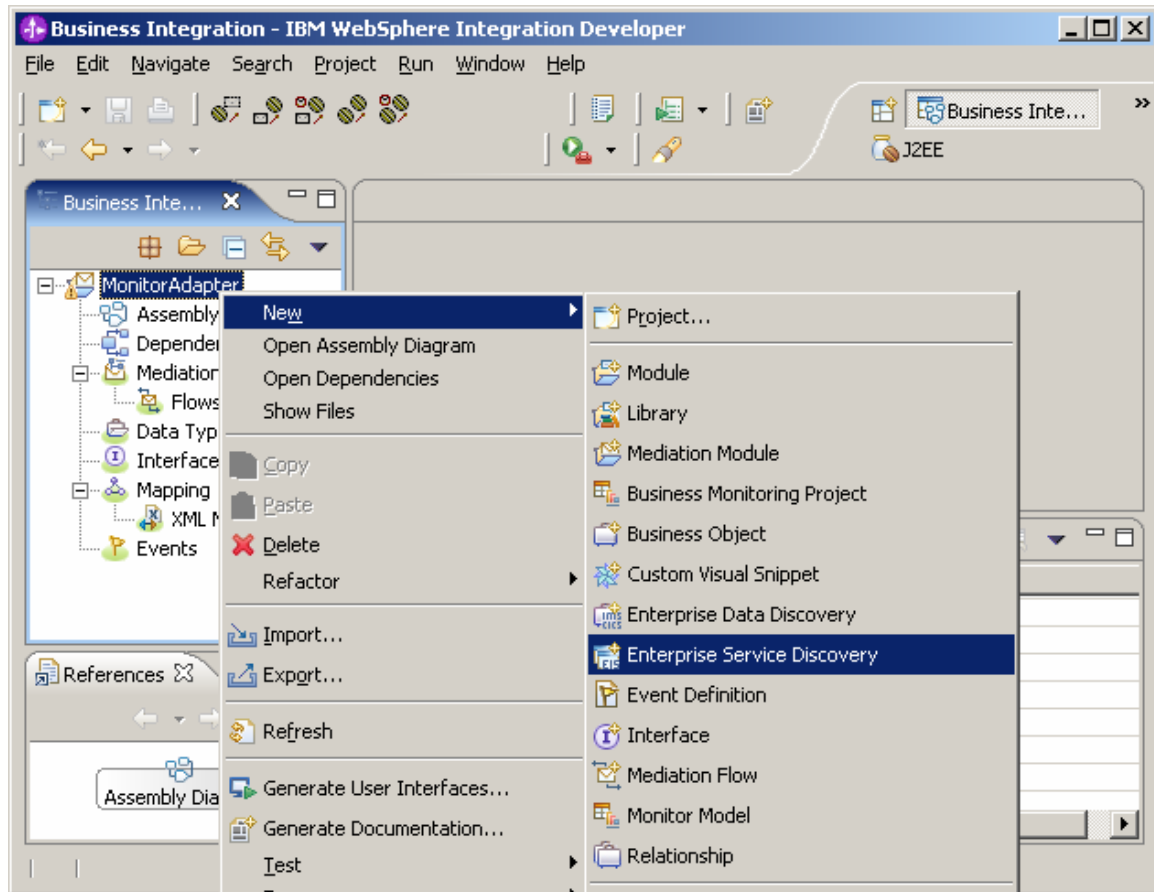
CREATE TABLE WBIA_JDBC_EventStore
(
    event_id      INTEGER NOT NULL
    GENERATED ALWAYS AS IDENTITY (START WITH 1, INCREMENT BY 1, NO CACHE )
    PRIMARY KEY,
    xid           VARCHAR(200),
    object_key    VARCHAR(80)          NOT NULL,
    object_name   VARCHAR(40)         NOT NULL,
    object_function VARCHAR(40)       NOT NULL,
    event_priority INTEGER           NOT NULL,
    event_time    TIMESTAMP          default CURRENT TIMESTAMP
    NOT NULL,
    event_status  INTEGER            NOT NULL,
    event_comment VARCHAR(100)
);

CREATE TRIGGER event_create
AFTER INSERT ON CUSTOMER REFERENCING NEW AS N
FOR EACH ROW MODE DB2SQL
INSERT INTO wbia_jdbc_eventstore (object_key, object_name, object_function, event_priority,
event_status)
VALUES (N.pkey, 'Db2adminCustomerBG', 'Create', 1, 0);

```

- 15. Return to the **Business Integration** perspective. Right-click **MonitorAdapter** and select **New ► Enterprise Service Discovery**.

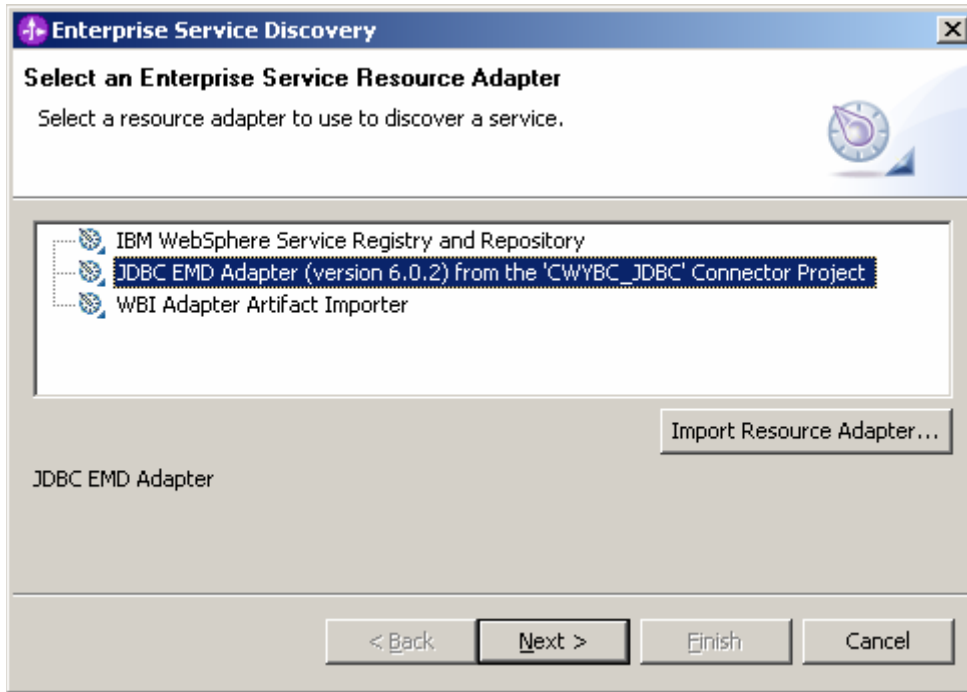
Figure 18. New ► Enterprise Service Discovery





\_\_\_\_ 16. Select **JDBC EMD Adapter...** and click **Next**.

Figure 19. JDBC EMD Adapter selection



\_\_\_\_ 17. Specify the following properties:

- **Username and password:** your DB2 user name and password
- **Database URL:** jdbc:db2://<Machine IP>:50000/ADAPTER
- **Jdbc Driver Class:** com.ibm.db2.jcc.DB2Driver

Figure 20. Configure Settings for Discovery Agent

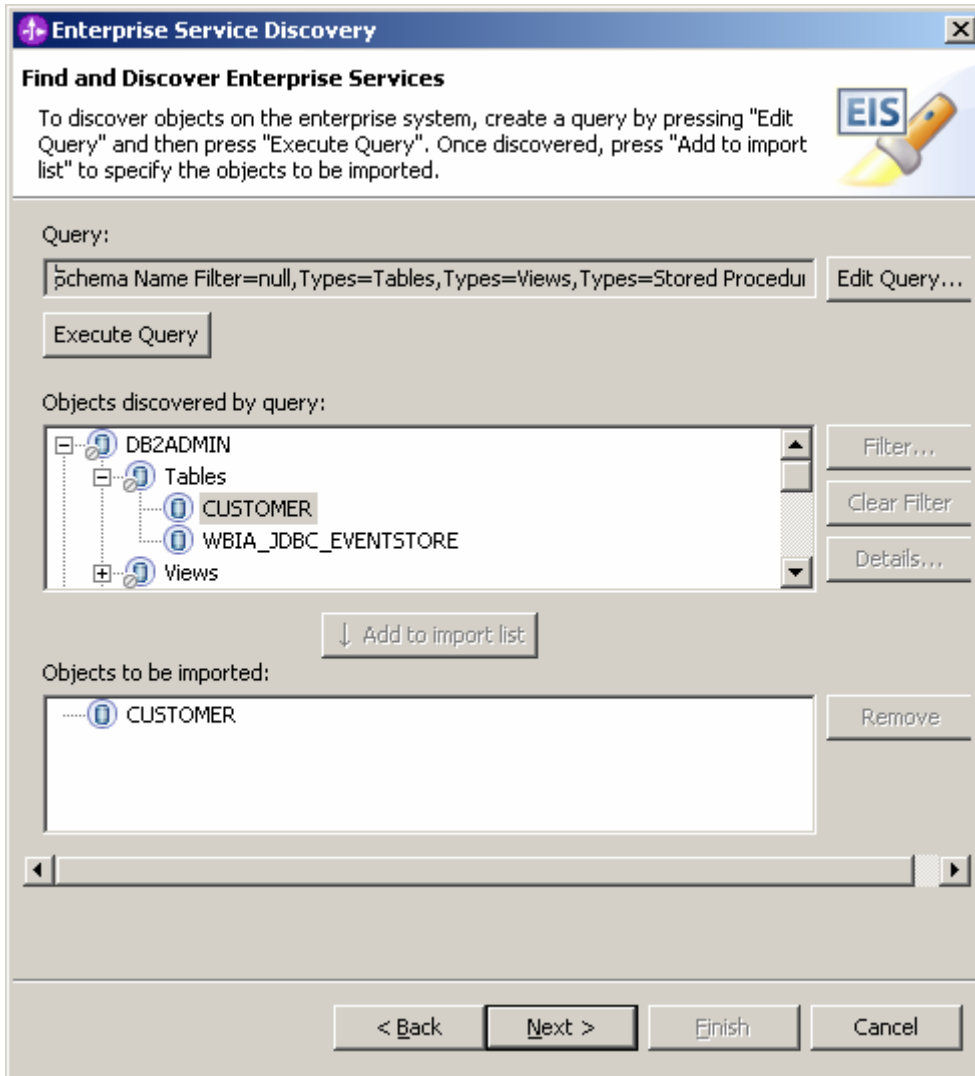
The screenshot shows a Windows-style dialog box titled "Enterprise Service Discovery" with a sub-tab "Configure Settings for Discovery Agent". The dialog contains the following sections and fields:

- Connection Configuration**
  - Miscellaneous: Prefix (empty text box)
- User Credentials**
  - Username: \* db2admin
  - Password: \* \*\*\*\*\*
- Machine Credentials**
  - Database URL: \* jdbc:db2://localhost:50000/ADAPTER
  - Jdbc Driver Class: \* com.ibm.db2.jcc.DB2Driver
- BiDi Properties**
  - Bidi transformation
  - Bidi ordering schema: Implicit (dropdown)
  - Text direction: LTR (dropdown)
  - BiDi Symmetric Swapping
  - Bidi shaping: Nominal (dropdown)
  - Bidi numeric shaping: Nominal (dropdown)

At the bottom of the dialog are four buttons: "< Back", "Next >", "Finish", and "Cancel".

18. Click **Next**, then click **Execute Query** to find the table lists. Select **DB2ADMIN ► Tables ► CUSTOMER** and click **Add to import list**. Click **Next**.

Figure 21. DB2ADMIN ► Tables ► CUSTOMER selection



\_\_\_\_ 19. Ensure that the value for Service Type is Inbound. Click **Next**.

Figure 22. The value for Service Type is Inbound

**Enterprise Service Discovery**

**Configure Objects**

Specify the properties for the objects that will be imported by the discovery agent.

Namespace:

Service Type:

Operations:

Create	Add... Remove
Update	
Delete	

Max Records:

BO Location:

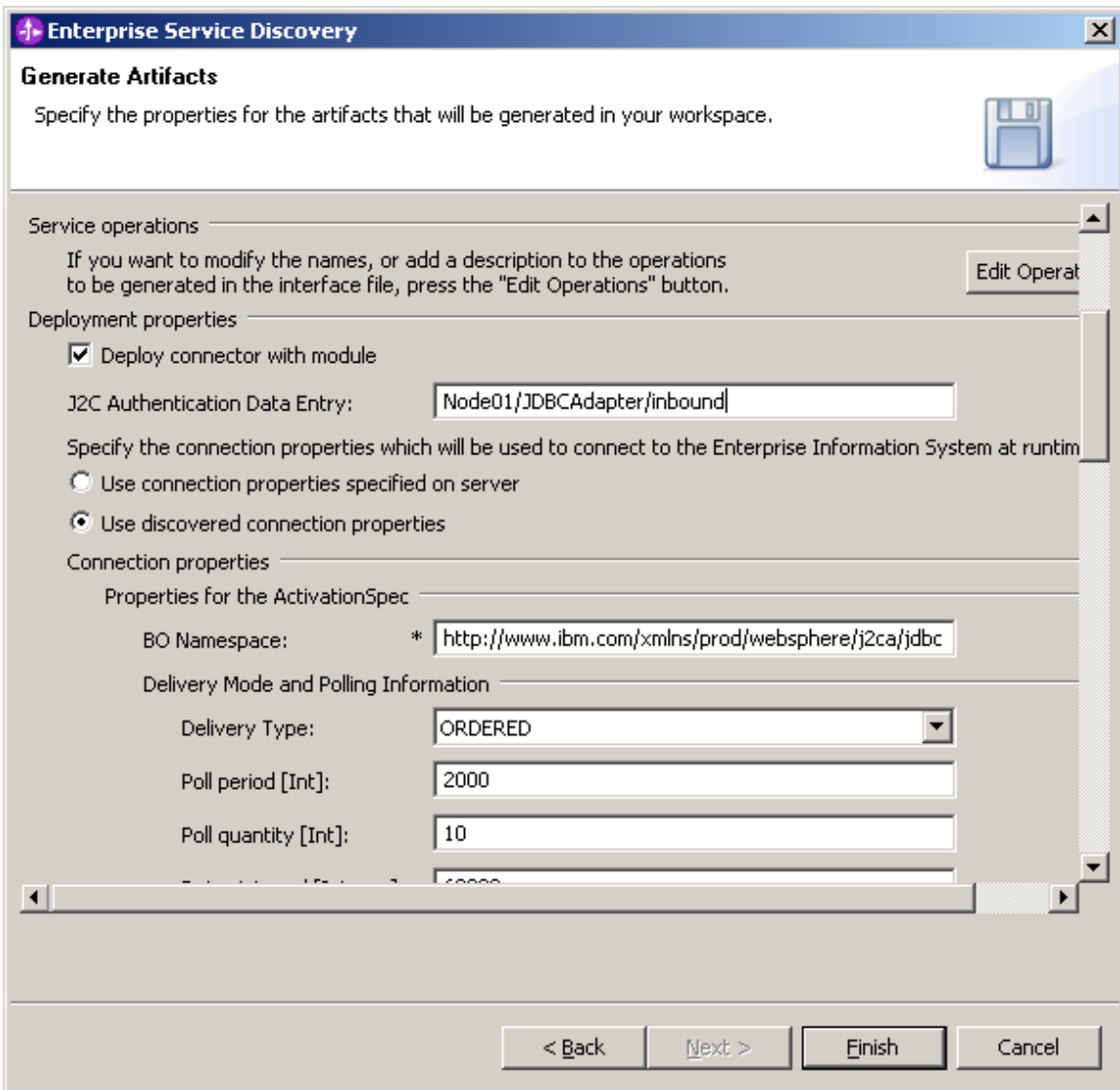
< Back    **Next >**    Finish    Cancel

\_\_\_ 20. In the **Generate Artifacts** window, enter the following values:

- \_\_\_ a. **J2C Authentication Data Entry:**  
NodeName/JDBCAdapter/inbound

... where NodeName is the node name of the WebSphere Application Server server that will run this MonitorAdapter module.

Figure 23. The Generate Artifacts window



\_\_ b. Database Vendor: **DB2**.

Figure 24. The Database Vendor field

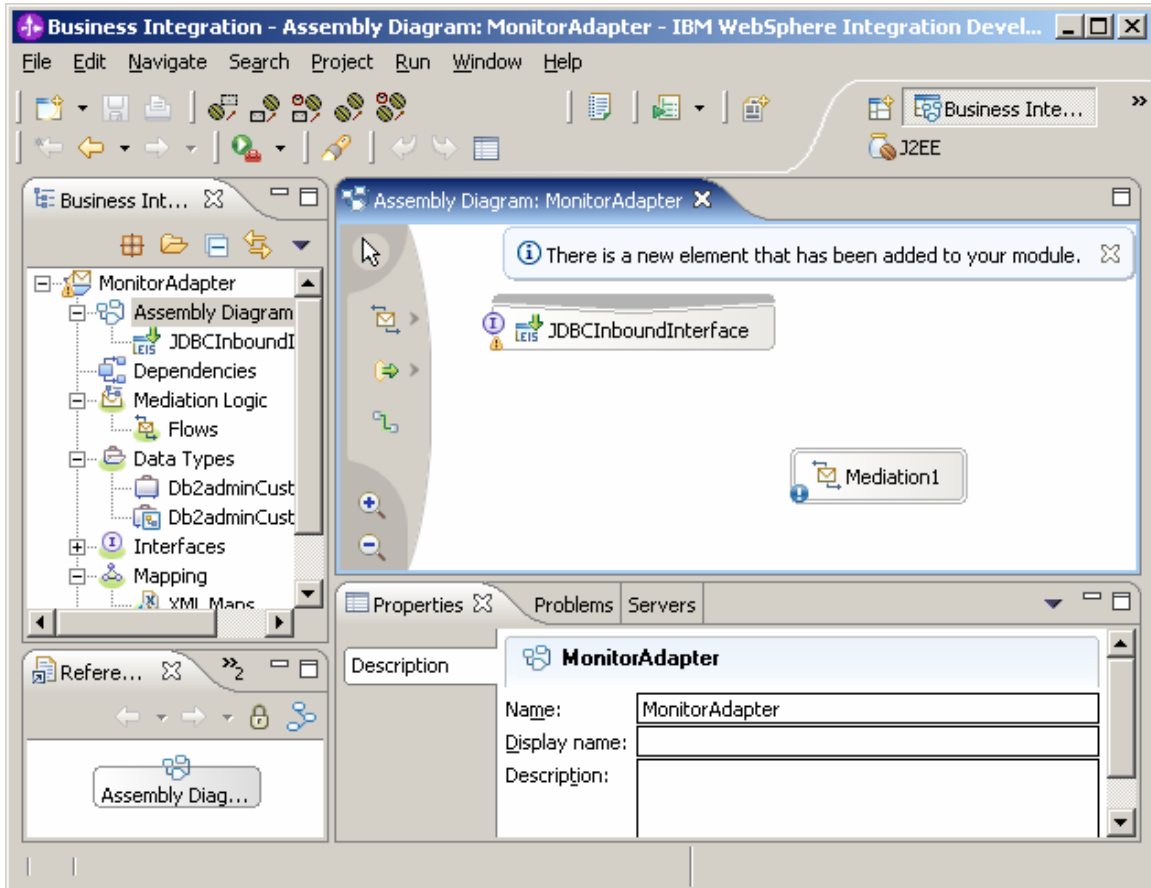
The screenshot shows a dialog box titled "Enterprise Service Discovery" with a sub-section "Generate Artifacts". The instruction reads: "Specify the properties for the artifacts that will be generated in your workspace." The dialog contains several input fields:

- Log Files [Integer]: 1
- Trace file size [Integer]: 0
- Trace file name [String]: (empty)
- Trace files [Integer]: 1
- Miscellaneous section:
  - Ping Query: (empty)
  - Database Vendor: \* DB2 (highlighted)
  - Query Timeout: (empty)
  - Return Dummy BO For SP: false

At the bottom of the dialog are four buttons: "< Back", "Next >", "Finish", and "Cancel".

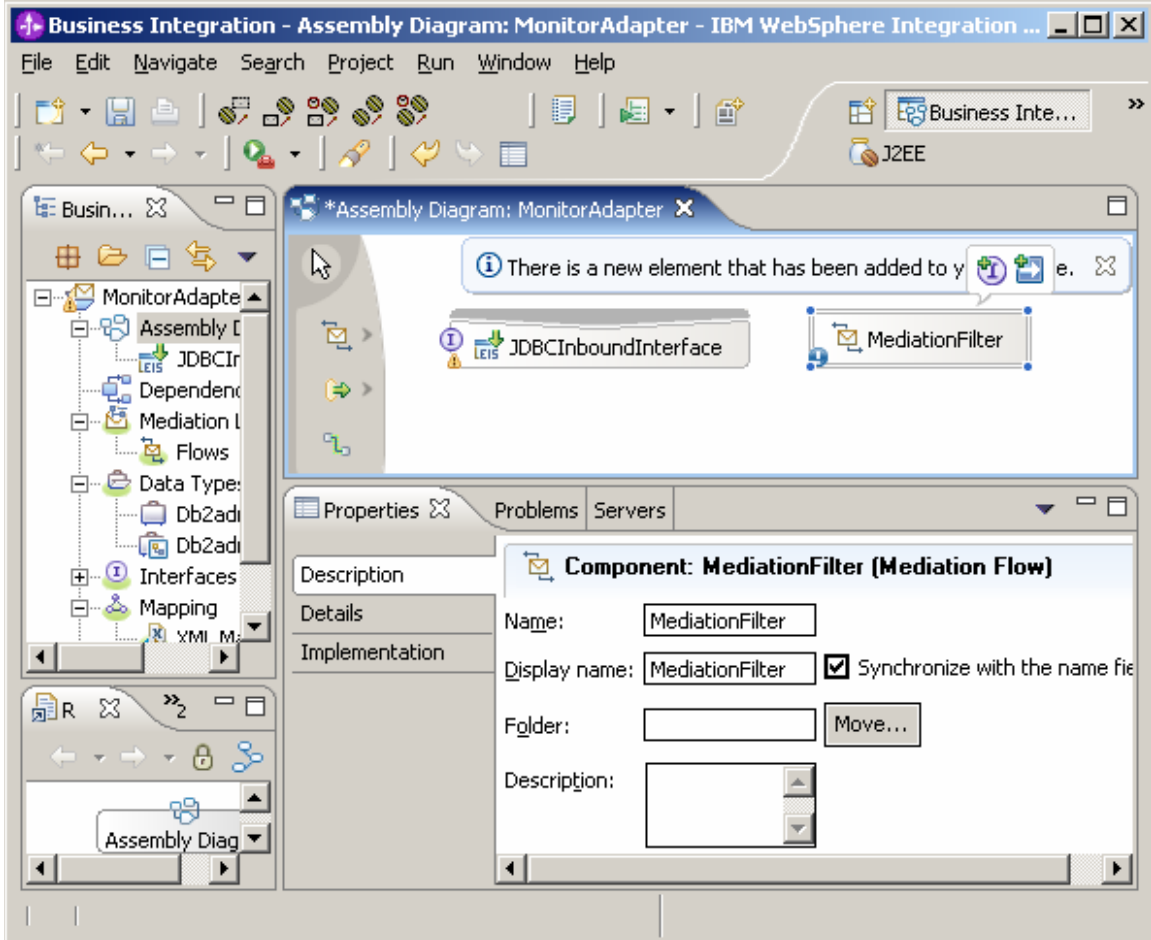
21. Click **Finish**. Double-click **Assembly Diagram**. You will see that there are two elements: **JDBCInboundInterface**, which was created by the preceding steps, and **Mediation1**, which was created when the module was initially created.

Figure 25. Double-click Assembly Diagram



22. For ease of use, rename **Mediation1** to **MediationFilter**.

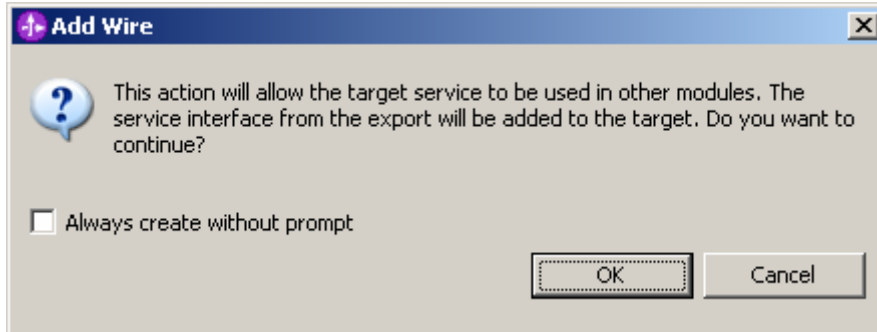
Figure 26. Rename Mediation1 to MediationFilter





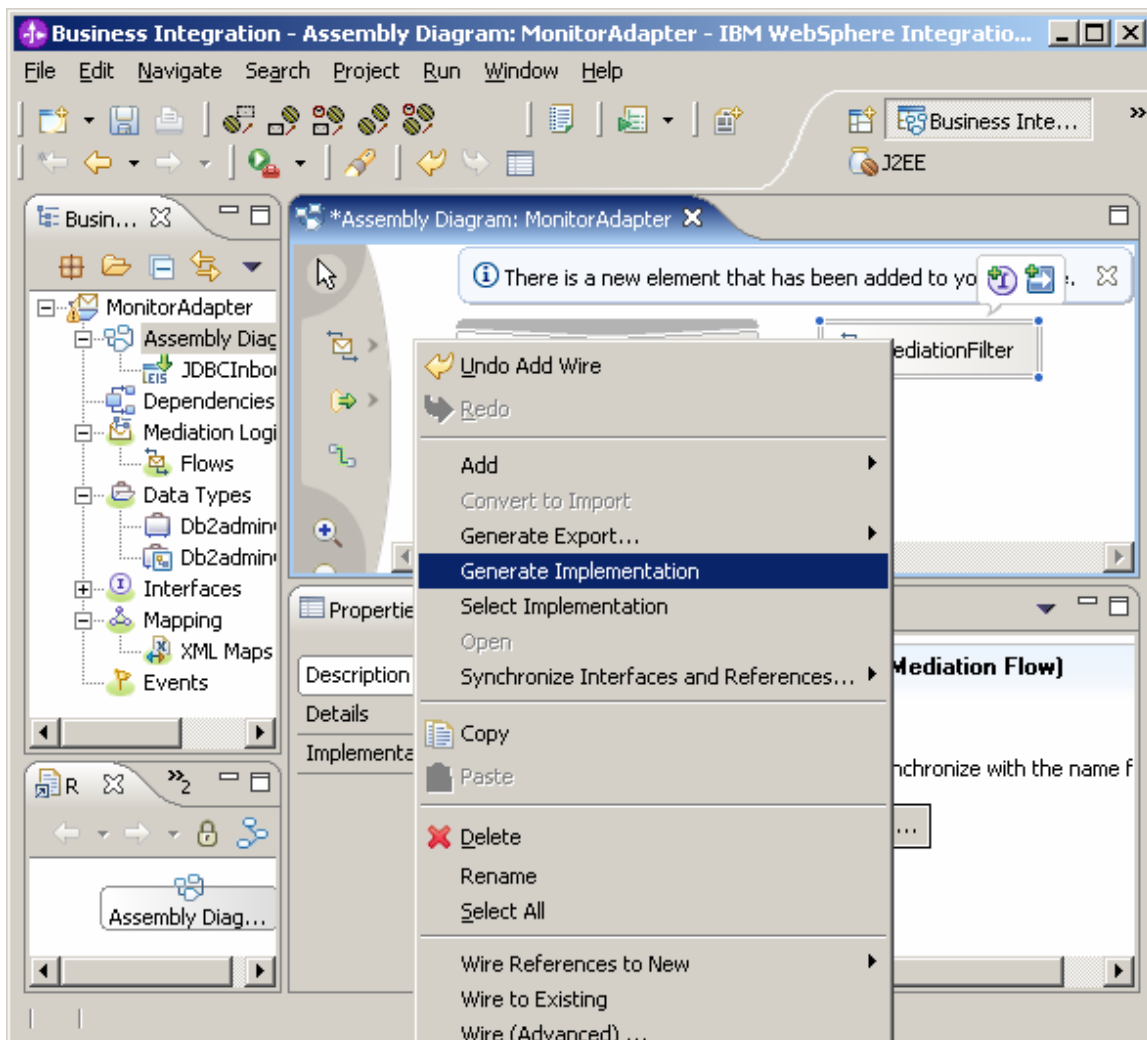
23. In the diagram, link **JDBCInboundInterface** to **MediationFilter**. In response to the prompt, click **OK**.

Figure 27. Link JDBCInboundInterface to MediationFilter



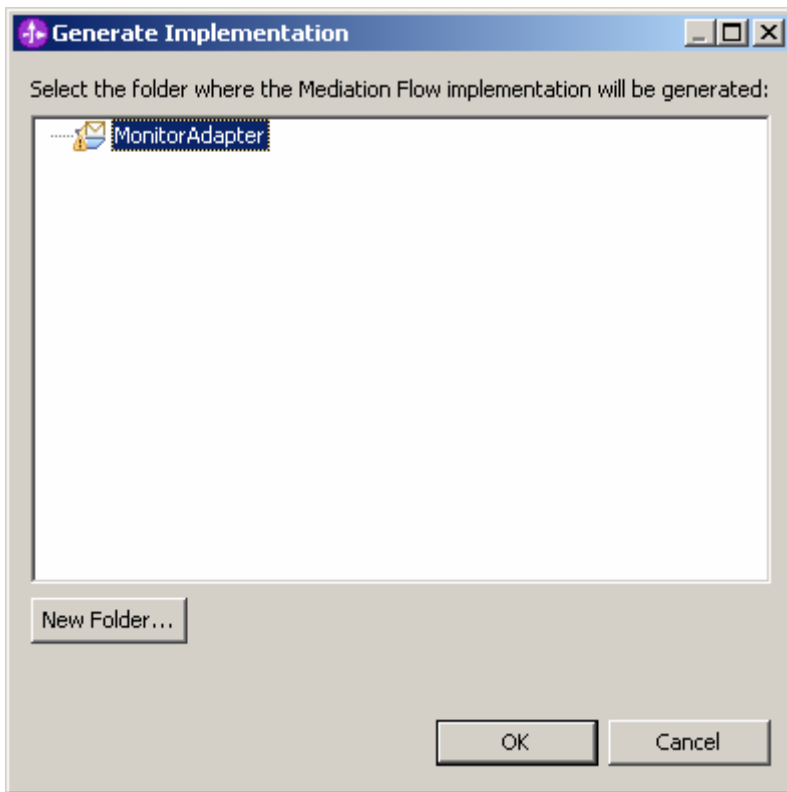
24. Right-click **MediationFilter** and select **Generate Implementation**.

Figure 28. Select Generate Implementation



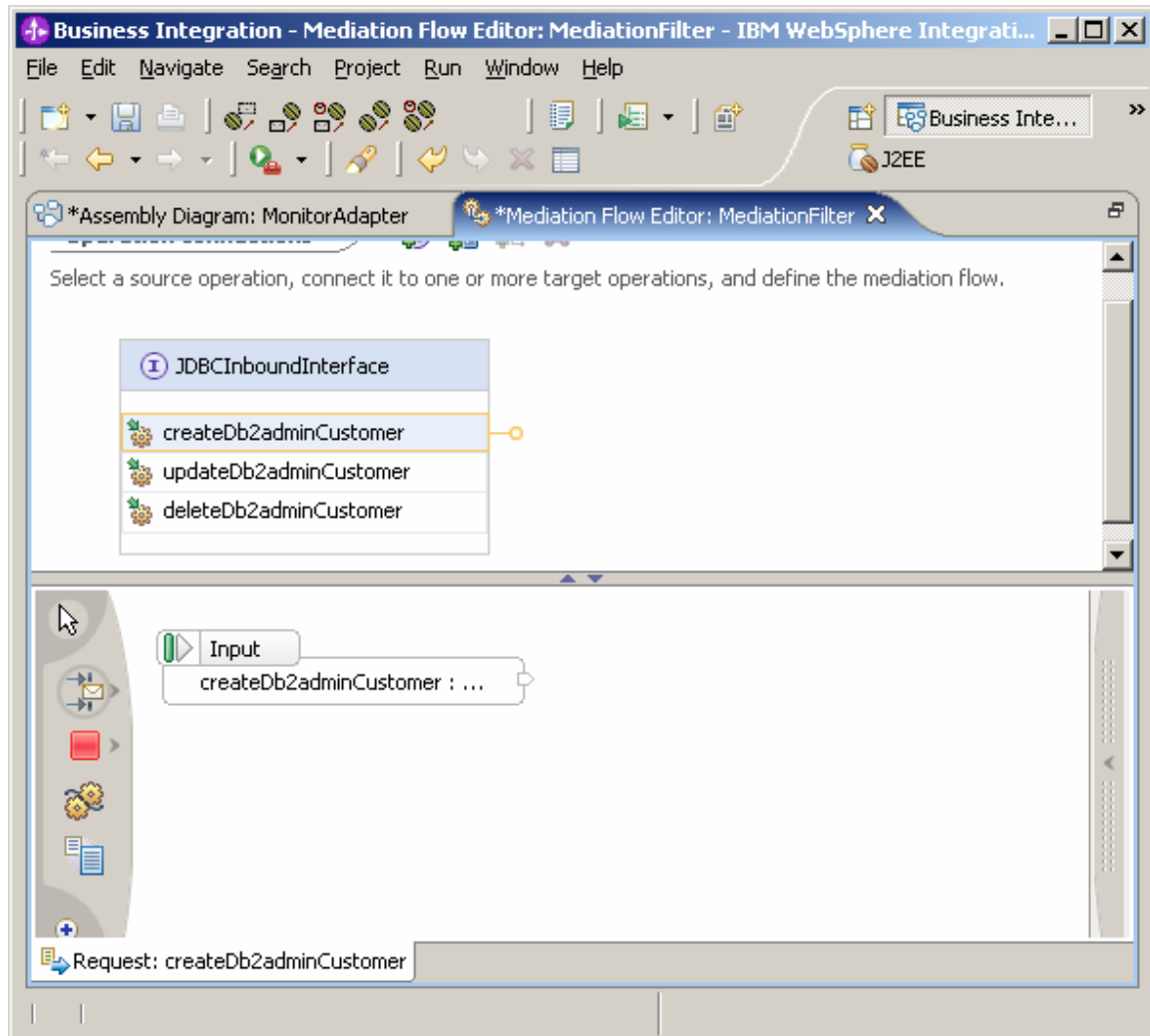
\_\_\_\_ 25. Select **MonitorAdapter** as the folder. Click **OK**.

Figure 29. MonitorAdapter selected as the folder



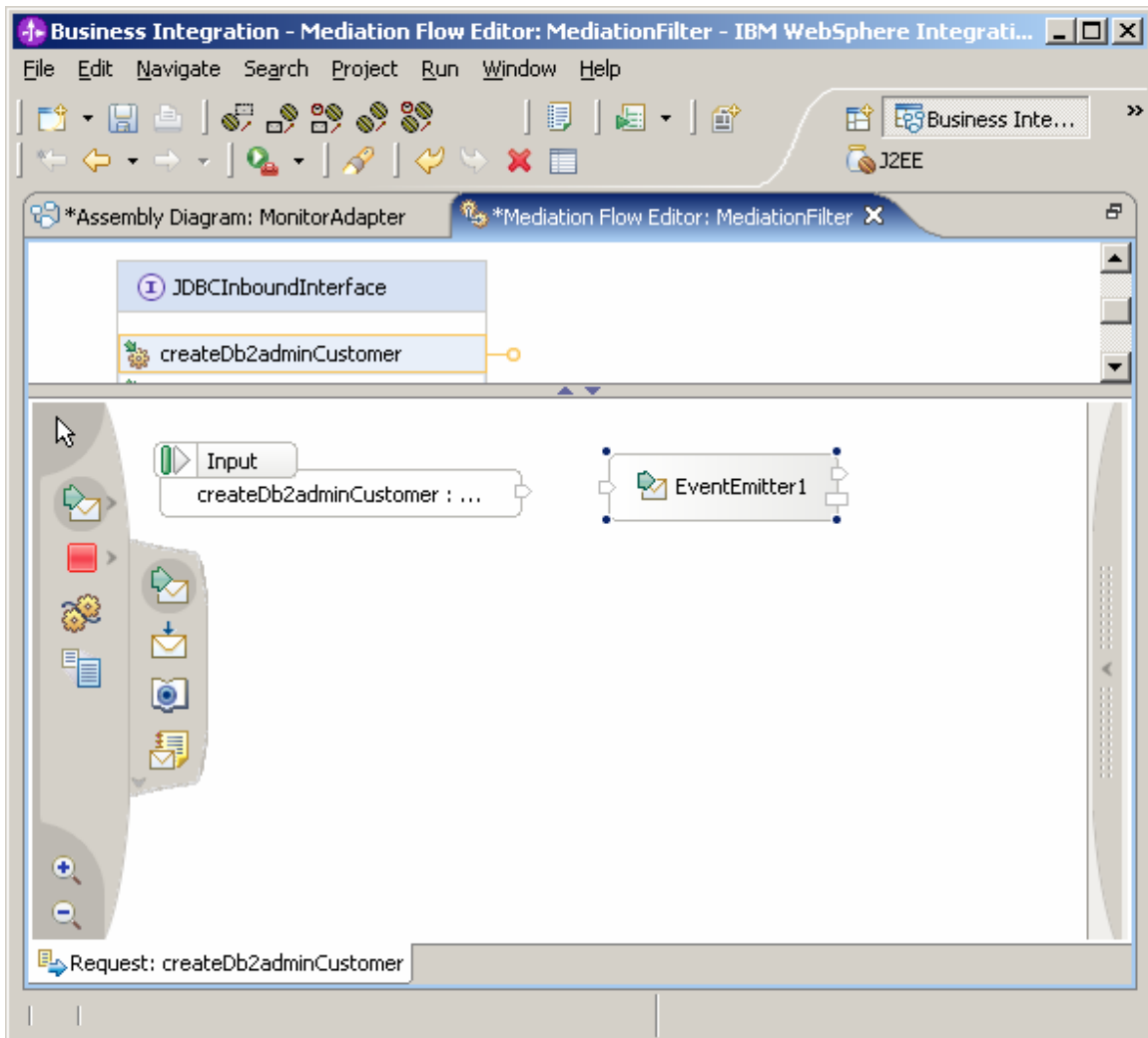
\_\_\_\_ 26. In the **MediationFilter** window, click **createDb2adminCustomer**.

Figure 30. Click createDb2adminCustomer



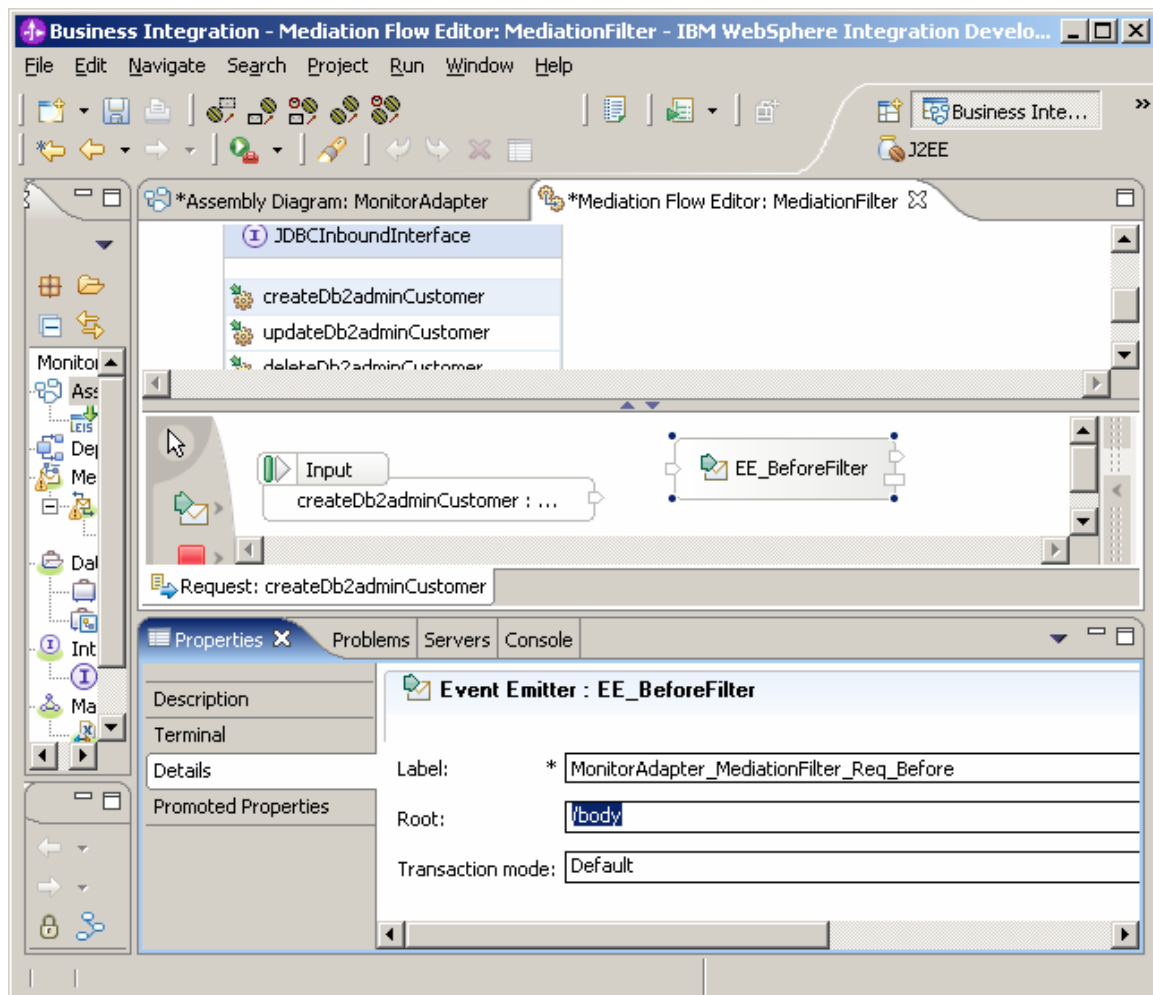
27. Select the **EventEmitter** primitive and click in the white space to add it into the flow. **EventEmitter** sends events to the Common Event Infrastructure.

Figure 31. Click in the white space to add the EventEmitter primitive into the flow



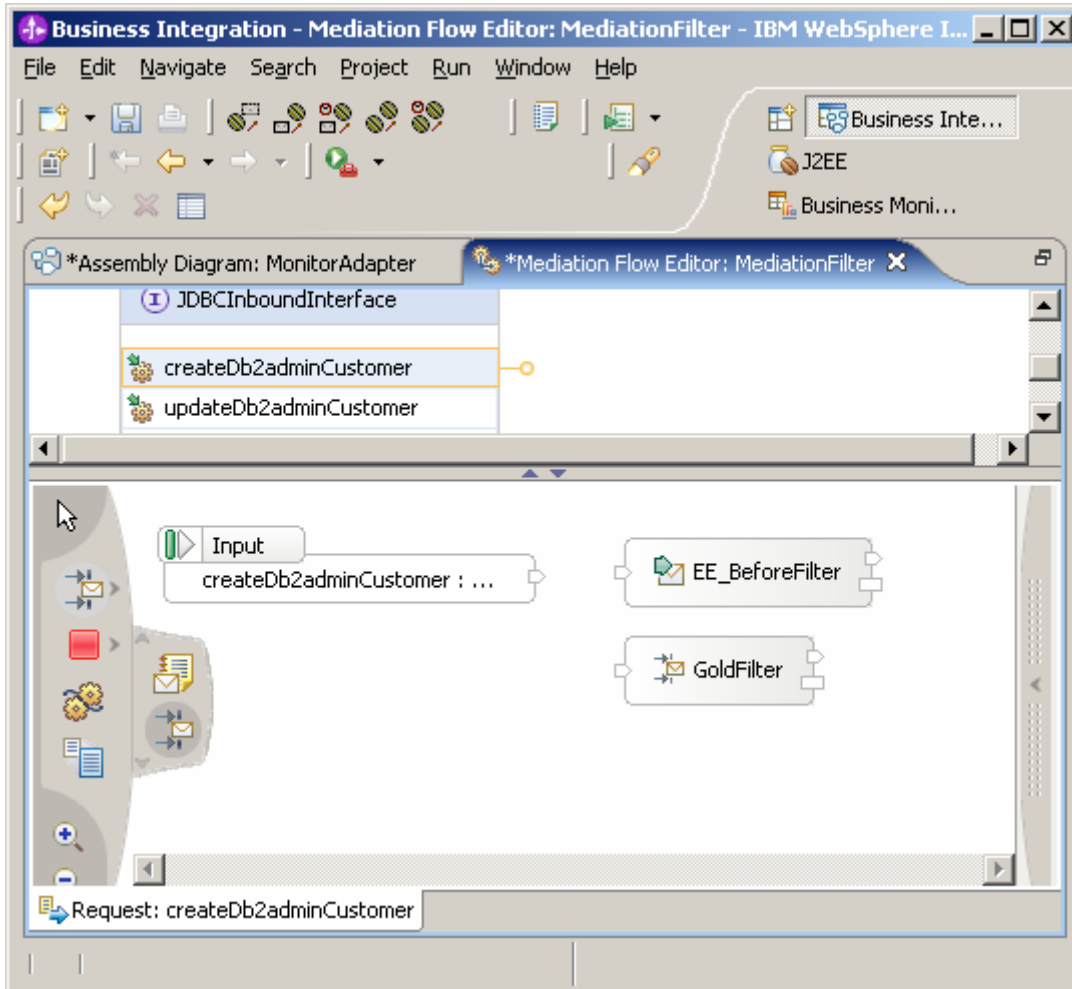
- \_\_\_ 28. To configure **EventEmitter1**, first click **EventEmitter1**, and then access the Properties view and specify the following values:
- \_\_\_ a. Select **Description**, and then change the **Display name** value to **EE\_BeforeFilter**.
  - \_\_\_ b. Select **Details**, and then change the Label value to **MonitorAdapter\_MediationFilter\_Req\_Before**.
  - \_\_\_ c. Set the **Root** value to **/body**.

Figure 32. Click EventEmitter1, then access the Properties view



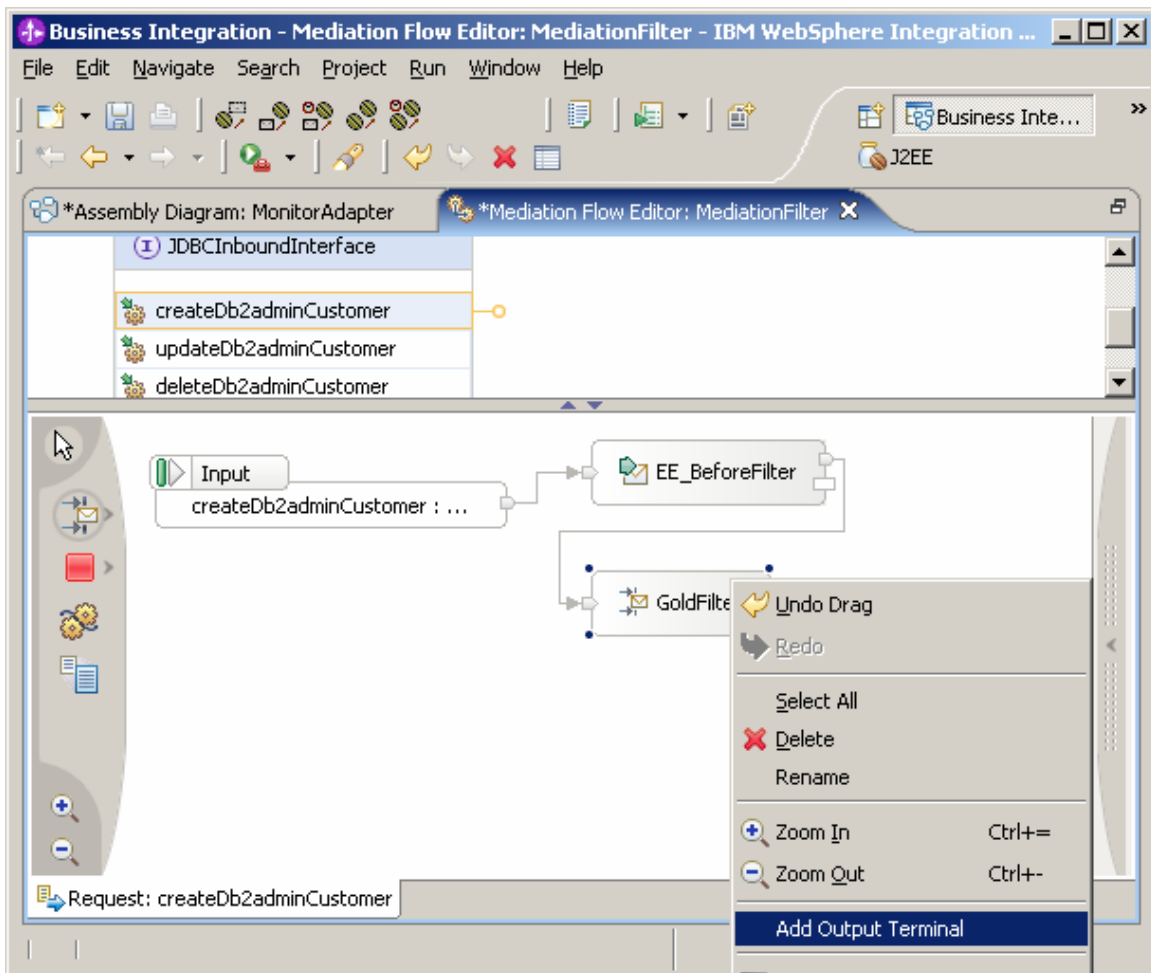
- 29. Add the **Message Filter** primitive to the flow, and then change the **Display name** value to **GoldFilter**.

Figure 33. Adding the Message Filter primitive to the flow

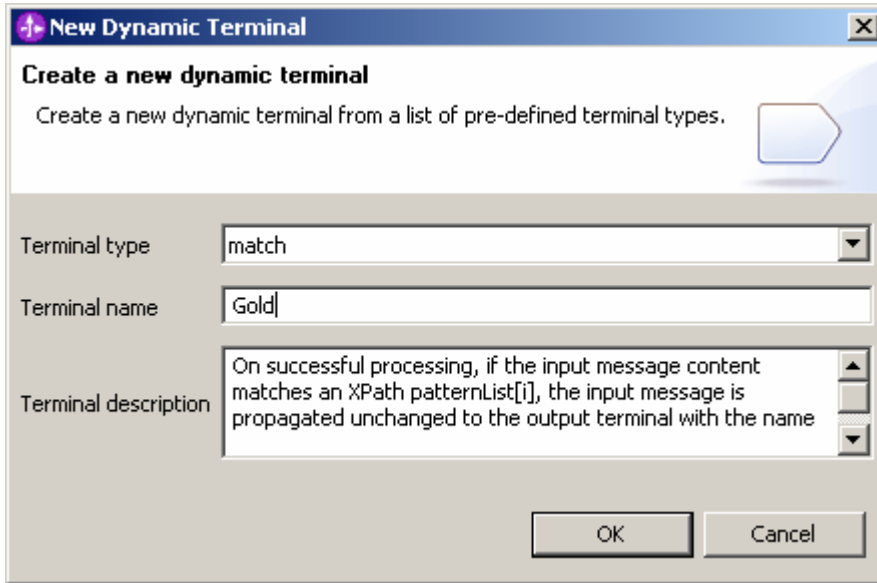


30. Link the **Input** out terminal with **EE\_BeforeFilter** in terminal; link **EE\_BeforeFilter** out terminal with **GoldFilter** in terminal. Right-click **GoldFilter** and select **Add Output Terminal**.

Figure 34. Add Output Terminal selection



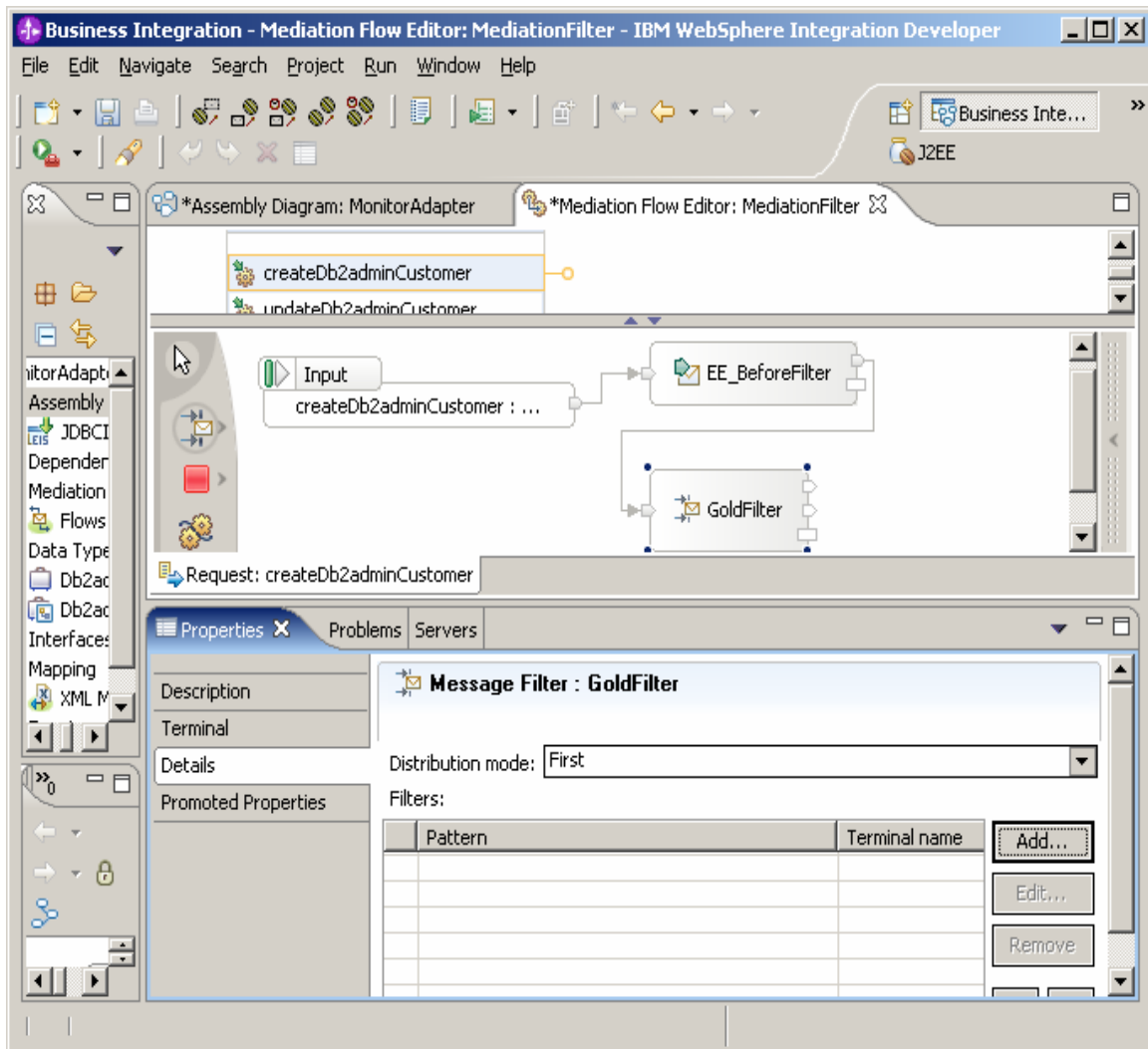
\_\_\_\_ 31. Change the new terminal name to **Gold**. Click **OK**.  
Figure 35. Change the new terminal name to Gold.





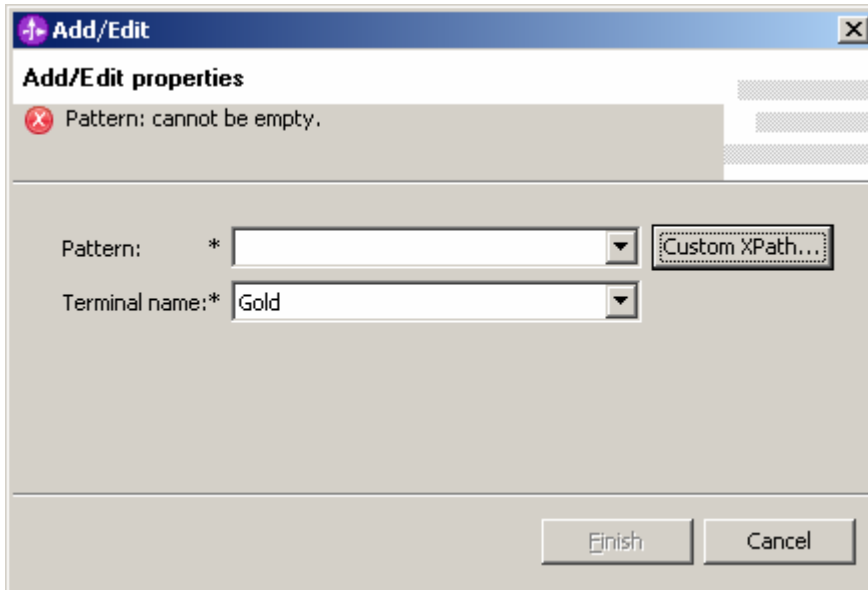
32. Click **GoldFilter**. In the Properties view, click **Details** and then click **Add**.

Figure 36. Click Details and then click Add



\_\_\_ 33. Click **Custom XPath**.

Figure 37. Click Custom XPath

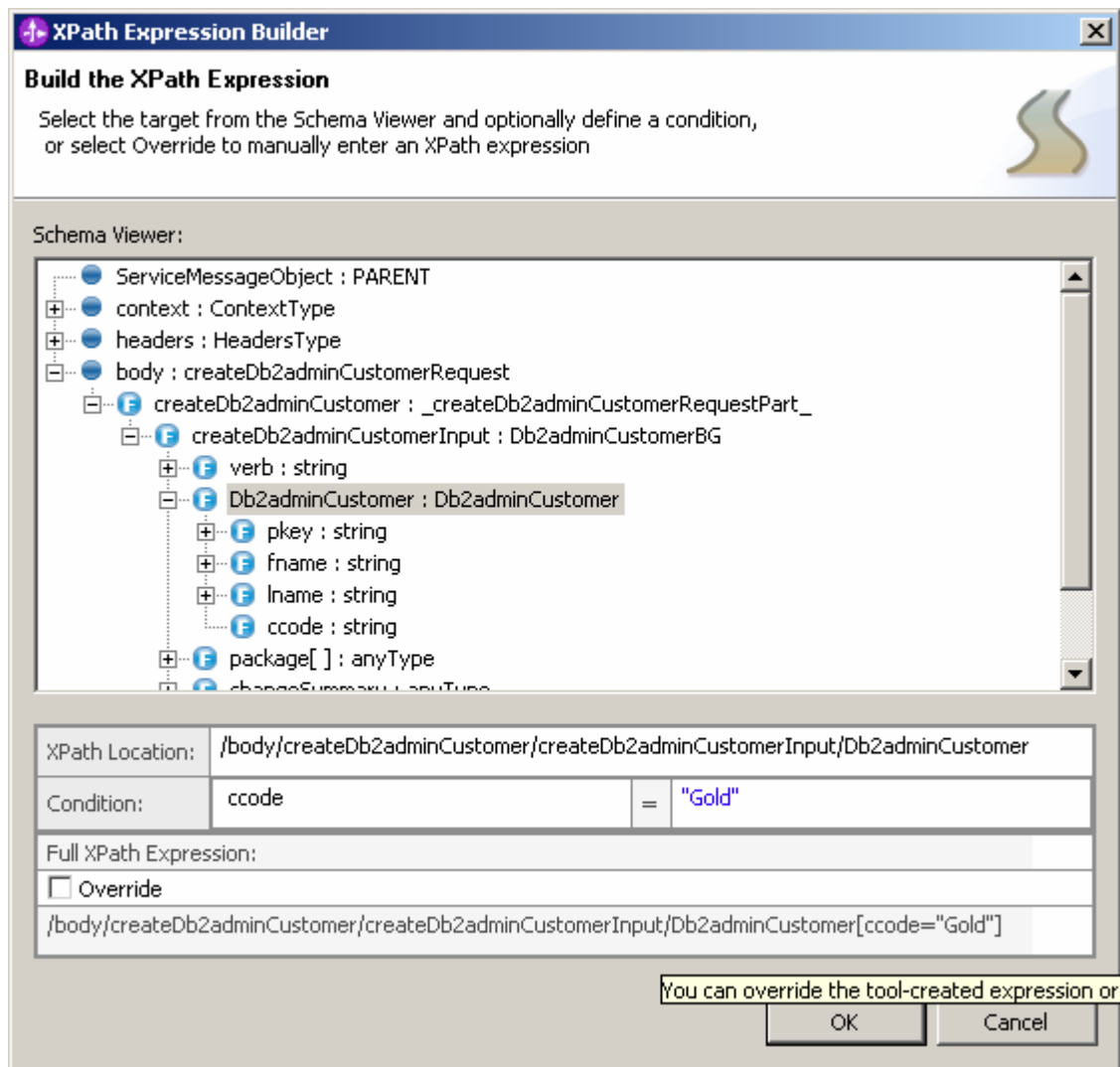


\_\_\_ 34. Set the **XPath** expression as follows:

- \_\_\_ a. In the Schema Viewer, select **body** ►  
**createDb2adminCustomer : ...** ►  
**createDb2adminCustomerInput : ...** ►  
**Db2adminCustomer : ...**
- \_\_\_ b. For the Location value for Condition, click **Location** and select **ccode**.
- \_\_\_ c. For the Condition value, enter **Gold** and make sure to enclose the text in double quotation marks.

\_\_\_ d. Click **OK**, and then click **Finish**.

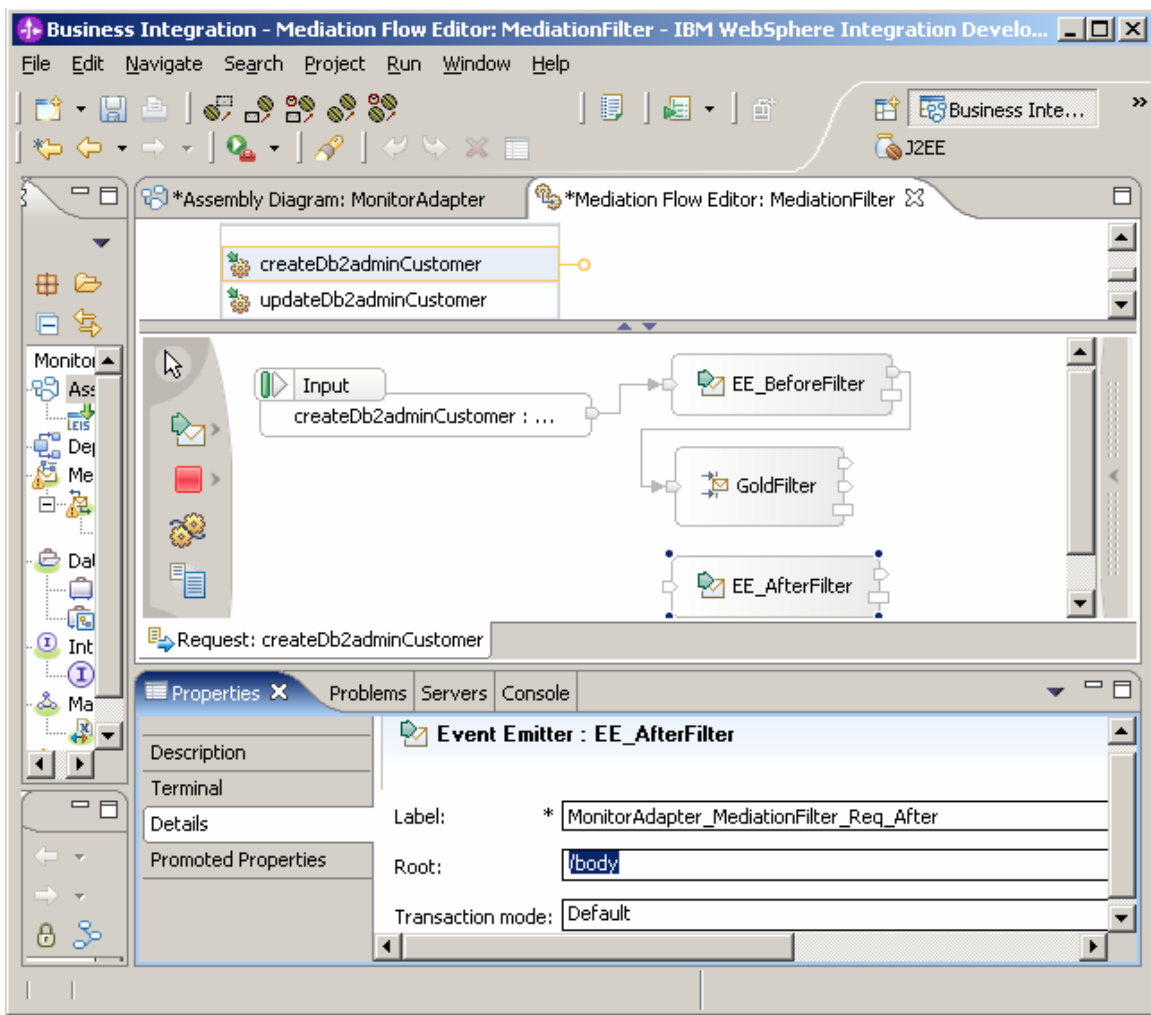
Figure 38. Click OK, then click Finish



- \_\_\_ 35. Add another **Event Emitter** primitive to the flow.
- \_\_\_ a. Change the **Display name** to **EE\_AfterFilter**.
  - \_\_\_ b. Change **Label** to **MonitorAdapter\_MediationFilter\_Req\_After**.

\_\_\_ c. Set **Root** as **/body**.

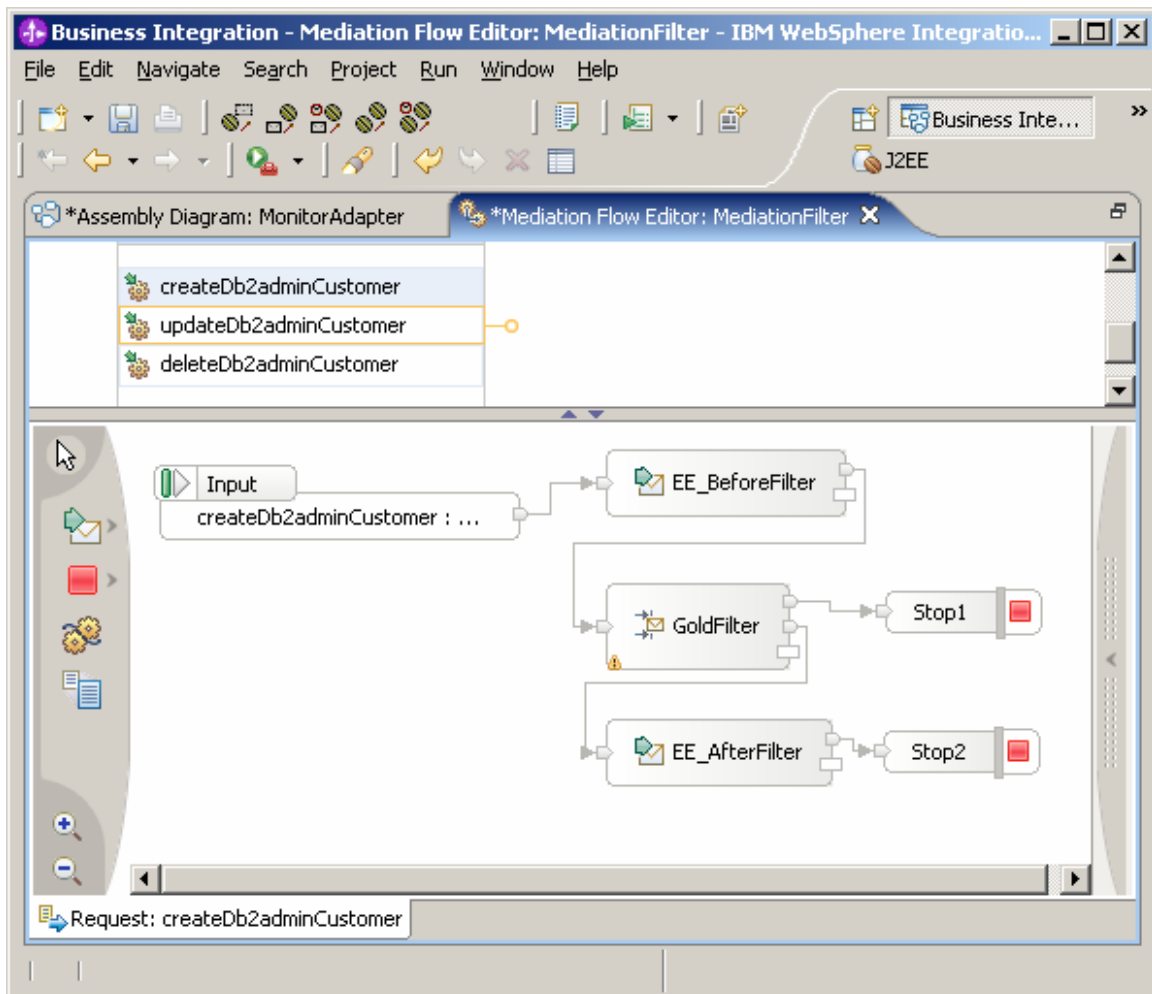
Figure 39. Root is set as /body



\_\_\_ 36. Add two **Stop** primitives to the flow.

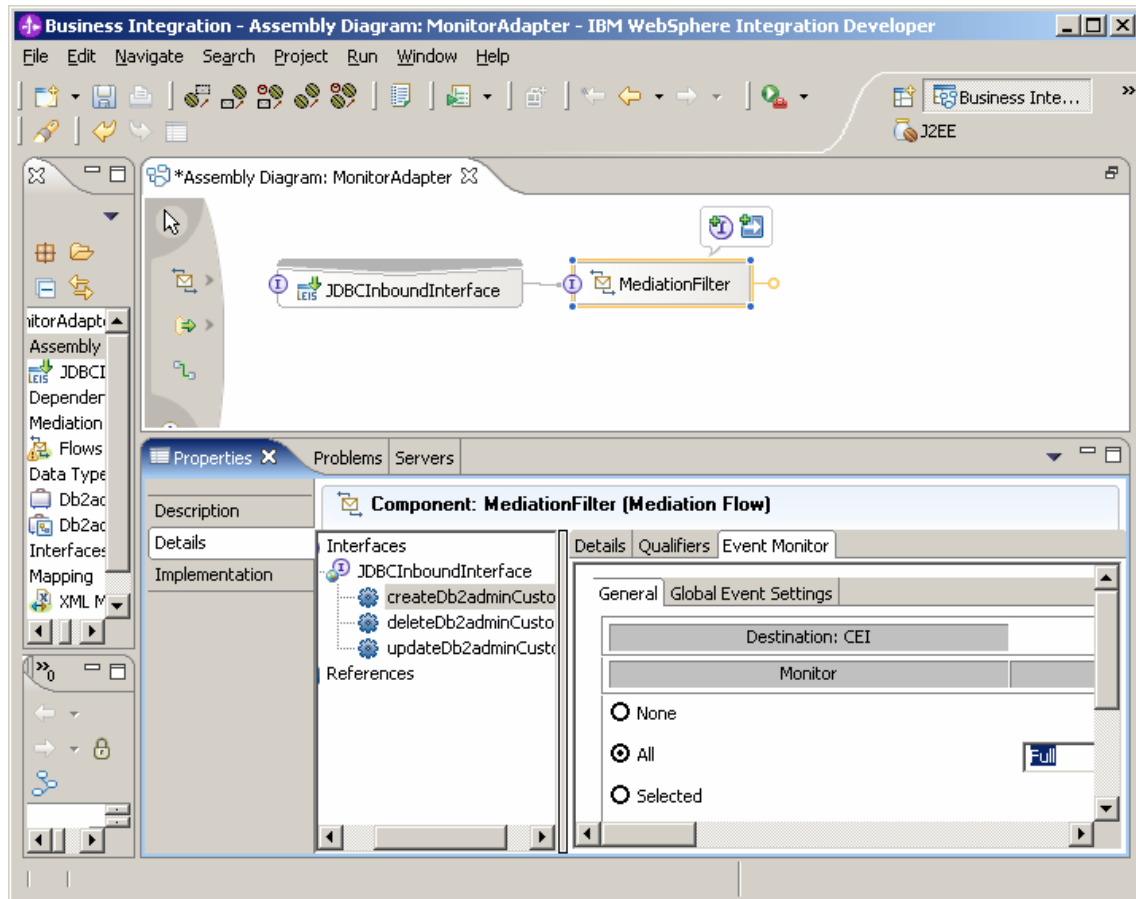
- \_\_\_\_\_ 37. Link the **GoldFilter** default terminal with **Stop1**, link the **GoldFilter** Gold terminal with **EE\_AfterFilter**, and link **EE\_AfterFilter** out terminal with **Stop2**. As a result, the Gold customer will pass through the filter and be sent as another Common Base Event; the other customer will stop at filter.

Figure 40. The Gold customer will pass through the filter



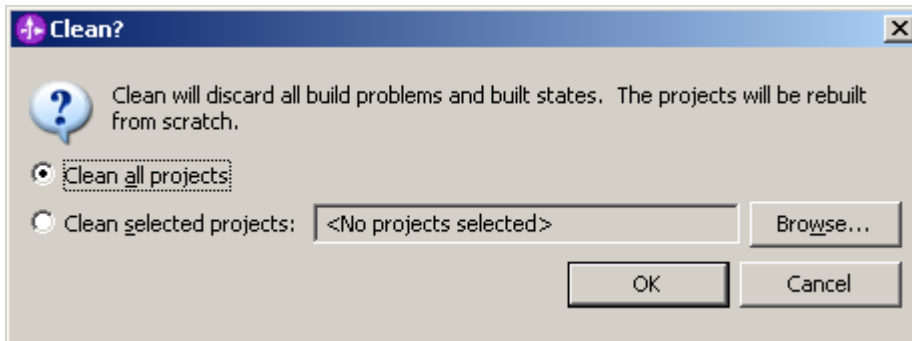
- \_\_\_ 38. Save the Mediation and then click **Assembly Diagram: MonitorAdapter**.
- \_\_\_ 39. Click **MediationFilter** and in the **Properties** view select **Details**. Go to **Interfaces** ► **JDBCInboundInterface** ► **createDb2adminCustomer** ► **Event Monitor**, select **All** for **Monitor** and select **Full** for **EventContent**.

Figure 41. Click MediationFilter and in the Properties view select Details



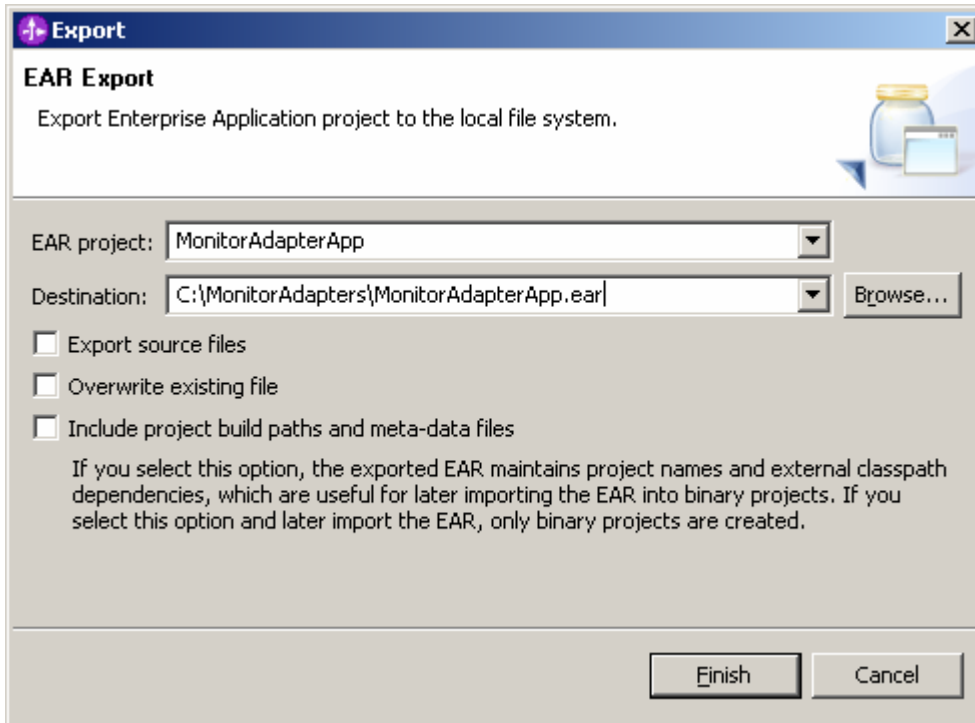
- \_\_\_\_\_ 40. Save the assembly diagram.
- \_\_\_\_\_ 41. In the menu bar, click **Project ► Clean....** In response to the prompt, click **OK**.

Figure 42. In response, click OK



- \_\_\_\_\_ 42. In the menu bar, click **File ► Export....**
- \_\_\_\_\_ 43. Select **EAR file** as the export destination.
- \_\_\_\_\_ 44. In the **EAR Export** window, select **MonitorAdapterApp** as **EAR project** and set the destination for the EAR file. Click **Finish**.

Figure 43. Select MonitorAdapterApp as EAR project



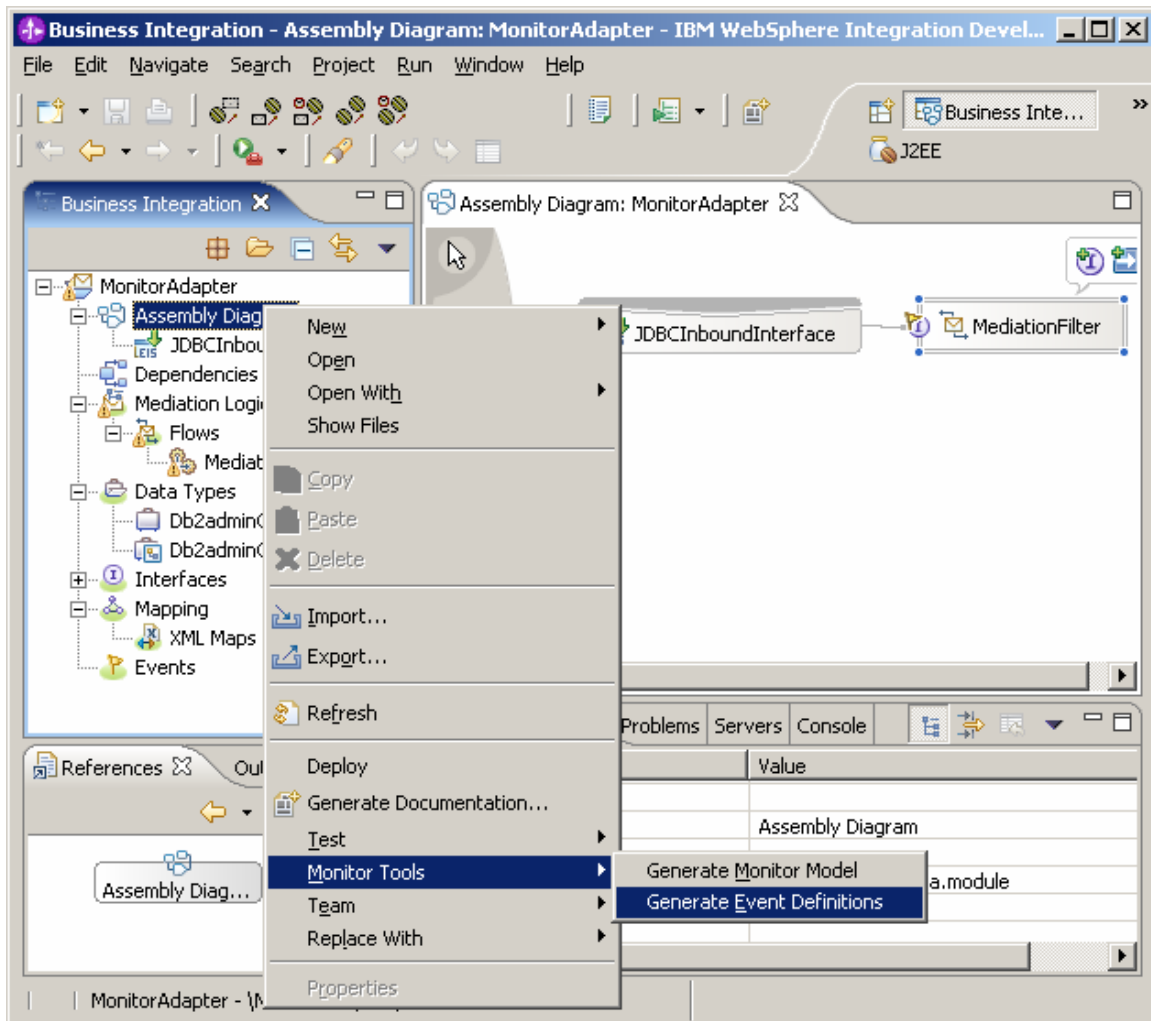
- \_\_\_\_\_ 45. You have now finished the task of creating the EAR file for future deployment into WebSphere Process Server.

## Part 2: Generating a monitor model from SCA and Mediation

You will use the Monitor Model Editor in WebSphere Integration Developer to create a monitor model.

1. Right-click **Assembly Diagram** and select **Monitor Tools** ► **Generate Event Definitions**.

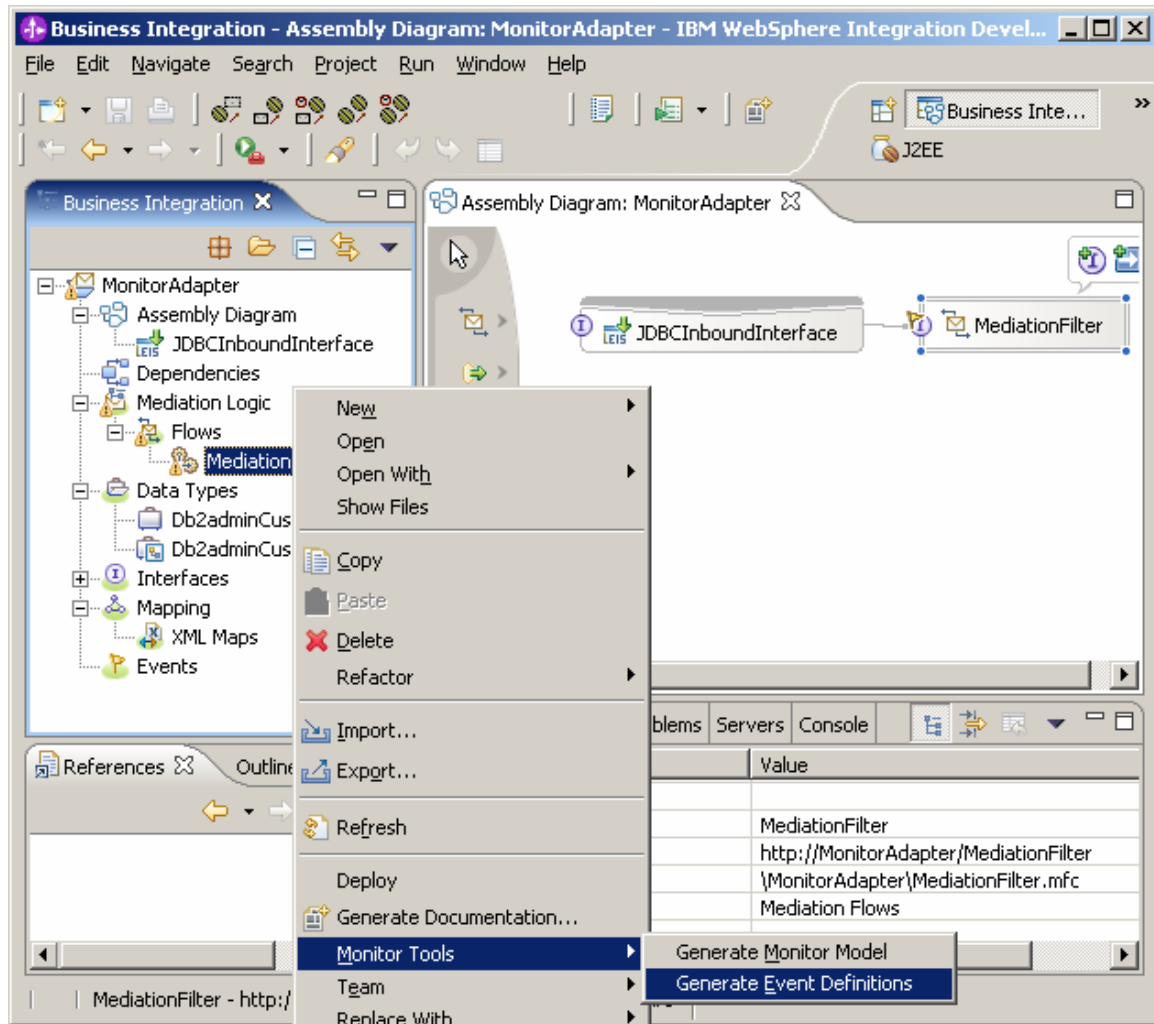
Figure 44. Select Monitor Tools ► Generate Event Definitions





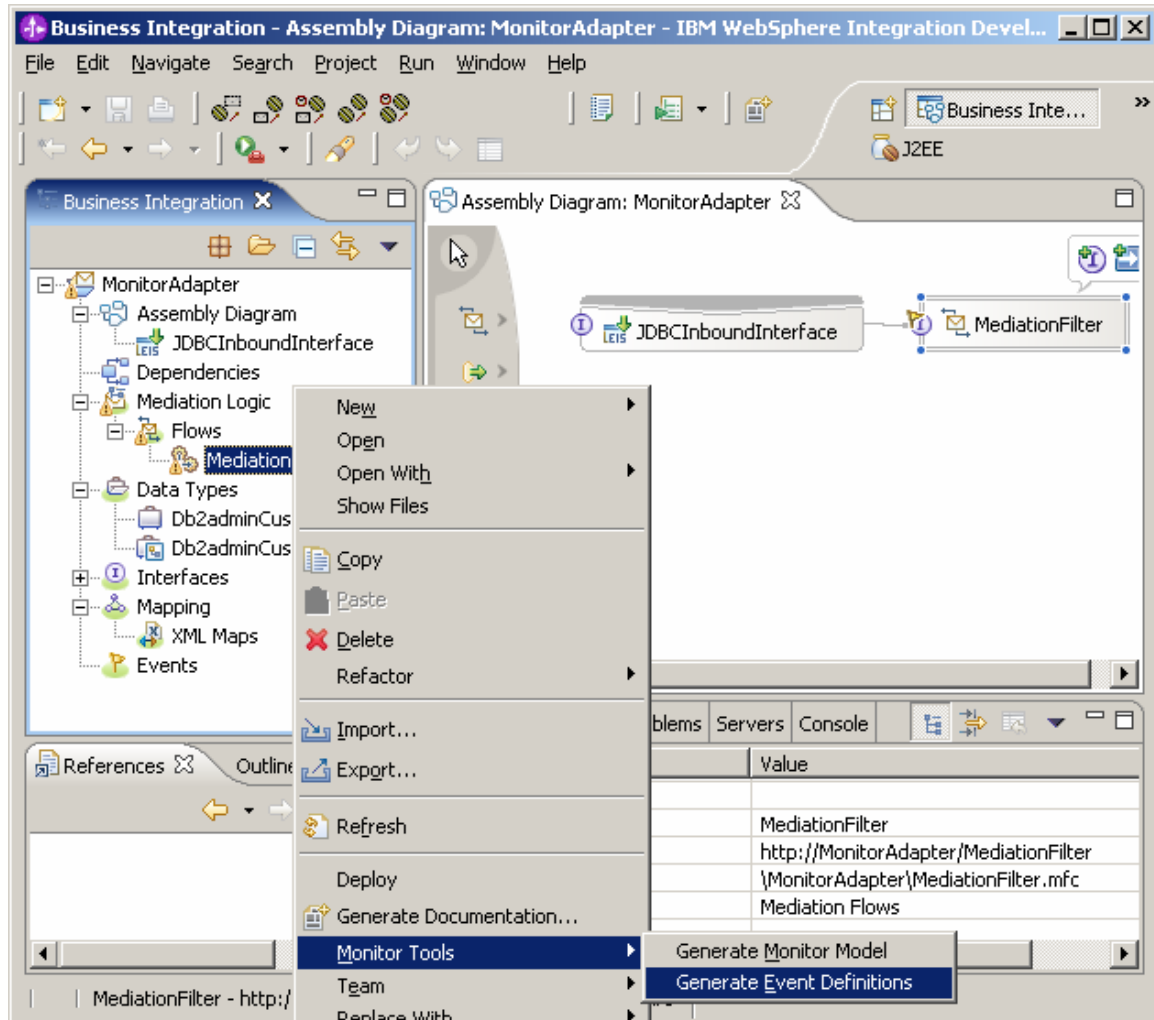
2. Right-click **MediationFilter** and select **Monitor Tools ► Generate Event Definitions**.

Figure 45. Select Monitor Tools ► Generate Event Definitions



- \_\_\_ 3. Right-click **Assembly Diagram** and select **Monitor Tools**  
► **Generate Monitor Model**.

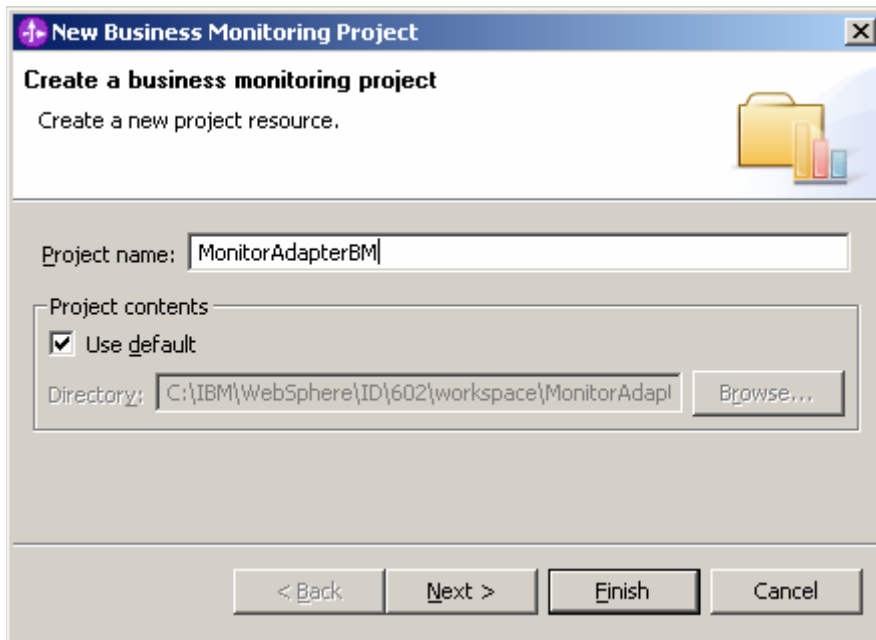
Figure 46. Select Monitor Tools ► Generate Monitor Model



- \_\_\_ 4. In the pop-up menu, click **New project**.

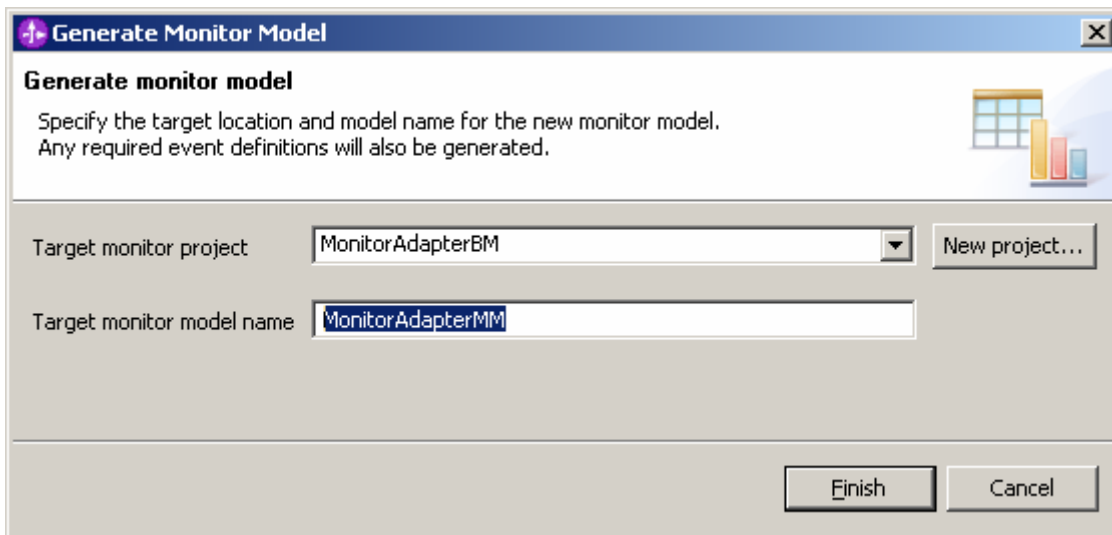
5. For the name of the new business monitoring project, type **MonitorAdapterBM**. Click **Finish**.

Figure 47. Type the name of the new business monitoring project



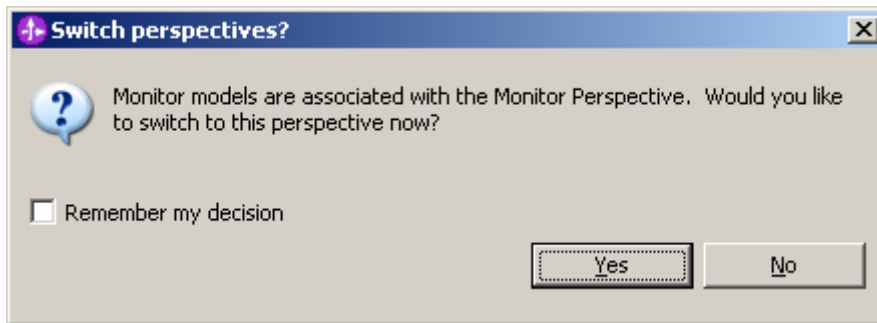
6. For the name of the monitor model name, type **MonitorAdapterMM**. Click **Finish**.

Figure 48. Type the monitor model name



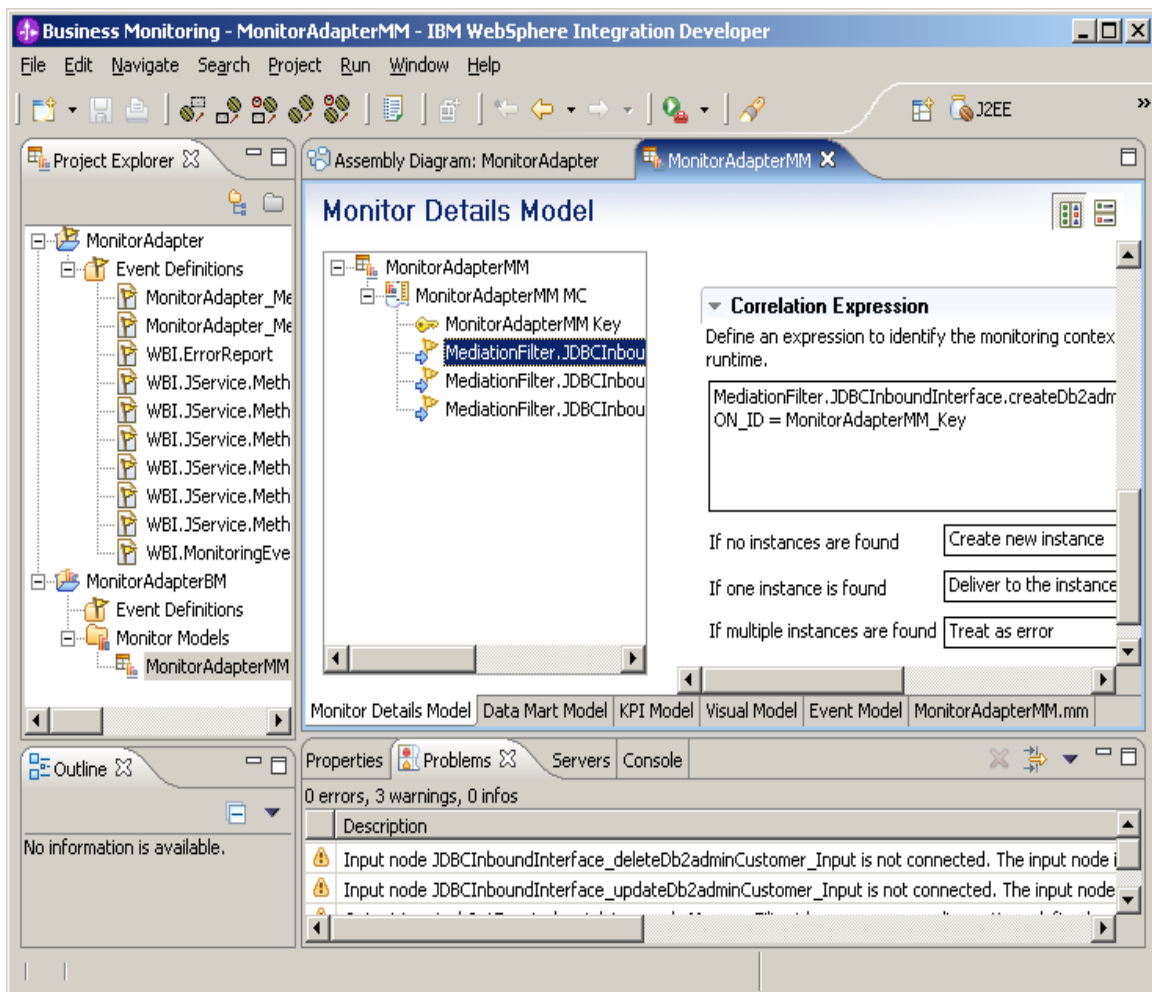
- \_\_\_\_ 7. In response to the prompt, click **Yes** to switch to switch to the **Business Monitoring** perspective.

Figure 49. Switch to switch to the Business Monitoring perspective



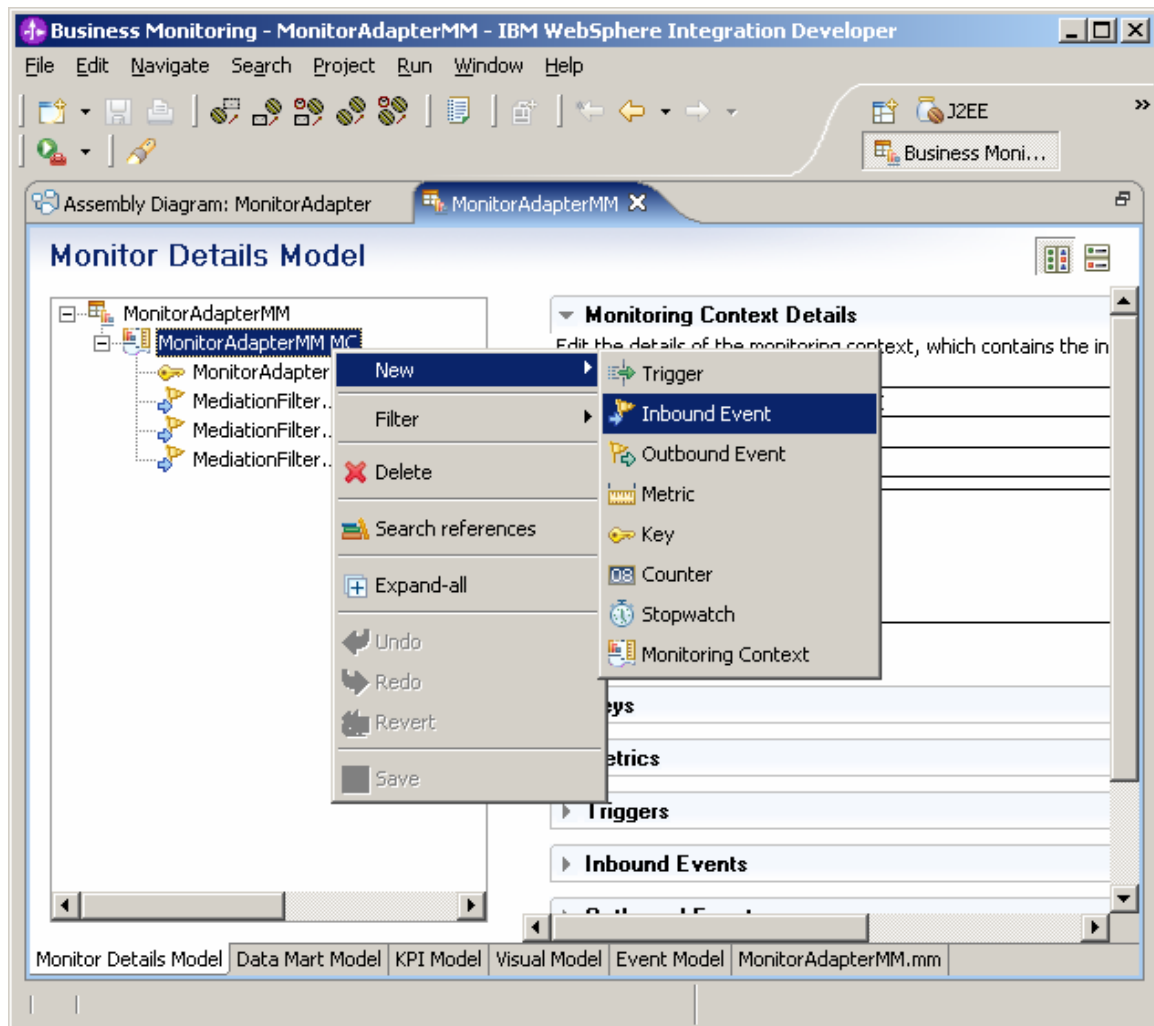
- \_\_\_\_ 8. A seed monitor model is generated, and will be augmented in the following steps.

Figure 50. Generate a seed monitor model



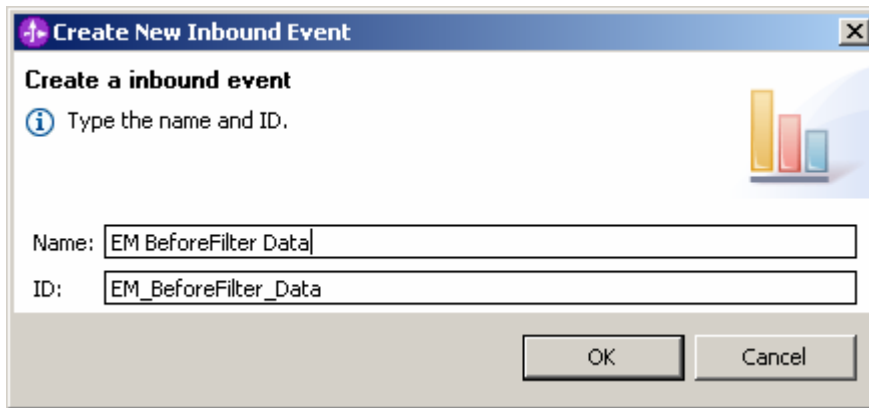
9. Right-click **MonitorAdapterMM MC** and select **New ► Inbound Event**.

Figure 51. Select New ► Inbound Event



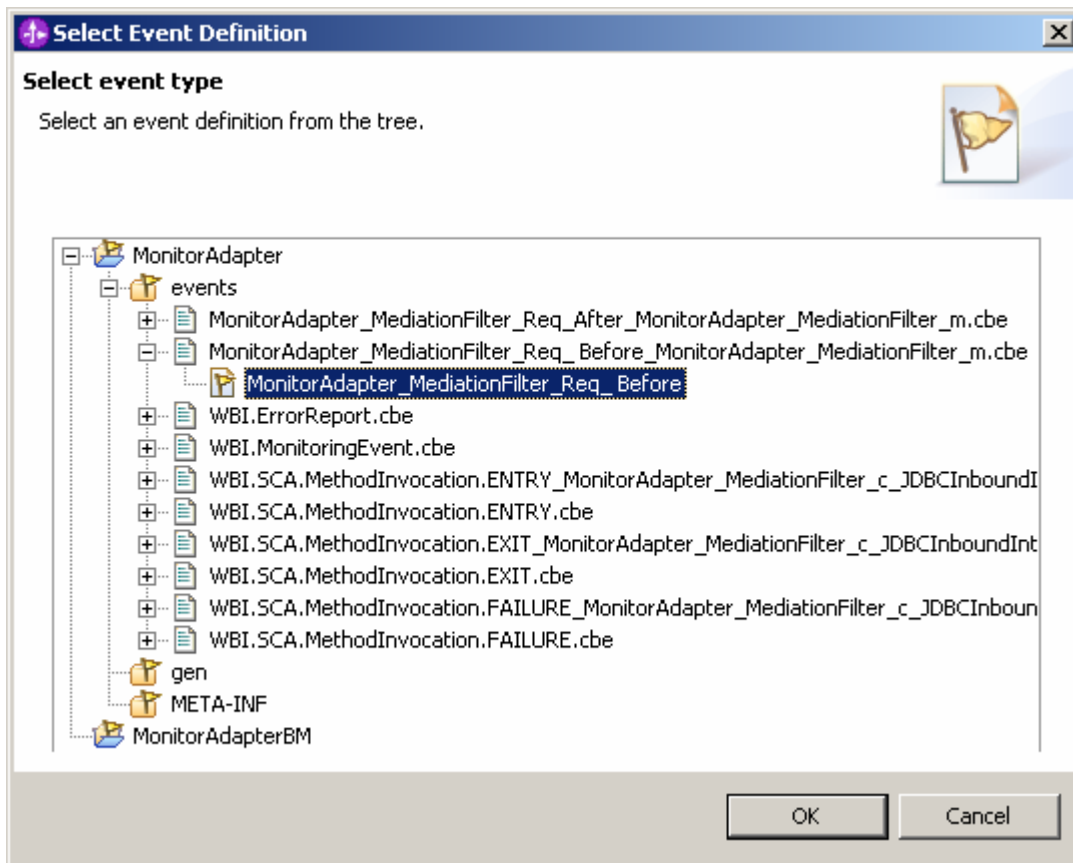
10. In the **Name** field, type **EM BeforeFilter Data**. Click **OK**.

Figure 52. Type EM BeforeFilter Data in the Name field



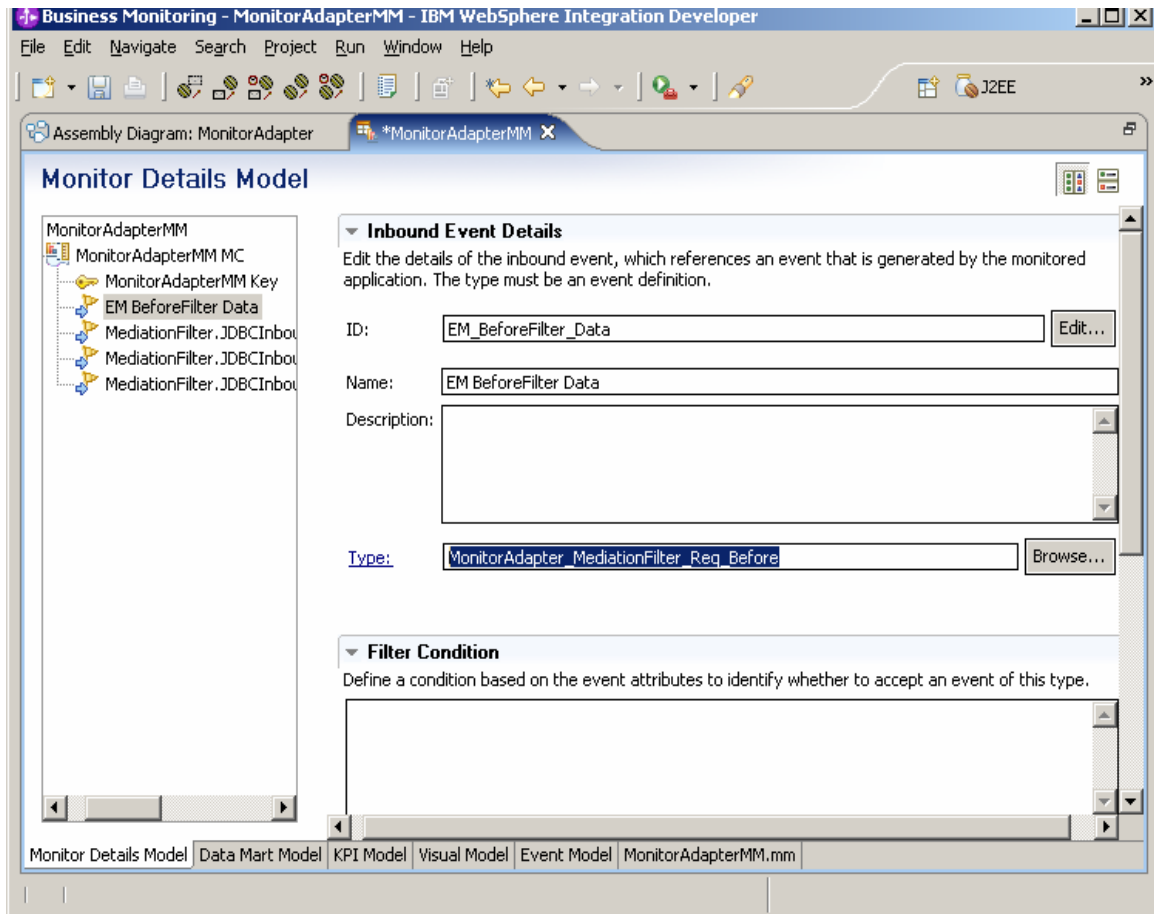
- 11. On the right panel, click **Inbound Event Details**, and then click **Browse...** to select a value for the **Type** property.
- 12. Select **MonitorAdapter ► events ► MonitorAdapter\_MediationFilter\_Req\_Before Mon... ► MonitorAdapter\_MediationFilter\_Req\_Before**. Click **OK**.

Figure 53. Select MonitorAdapter\_MediationFilter\_Req\_Before



- 13. The **EM BeforeFilter Data** inbound event will now represent the Common Base Event before the filter in mediation flow.

Figure 54. The inbound event will now represent the Common Base Event

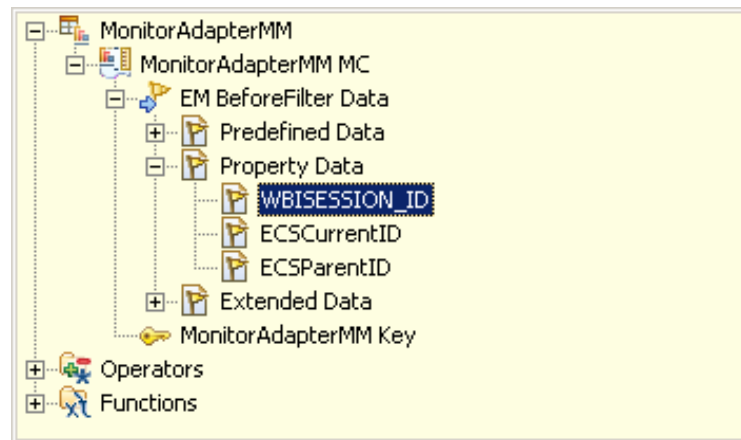


- \_\_\_ 14. Continue working with the **EM BeforeFilter Data** event.
  - \_\_\_ a. Scroll down the right panel.
  - \_\_\_ b. Set **Correlation Expression** using one of the following methods:
    - i. Enter the following expression directly:

```
EM_BeforeFilter_Data/property  
Data/WBISESSION_ID =  
MonitorAdapterMM_Key
```

- ii. Press **Ctrl+Spacebar** to use the content assist function.

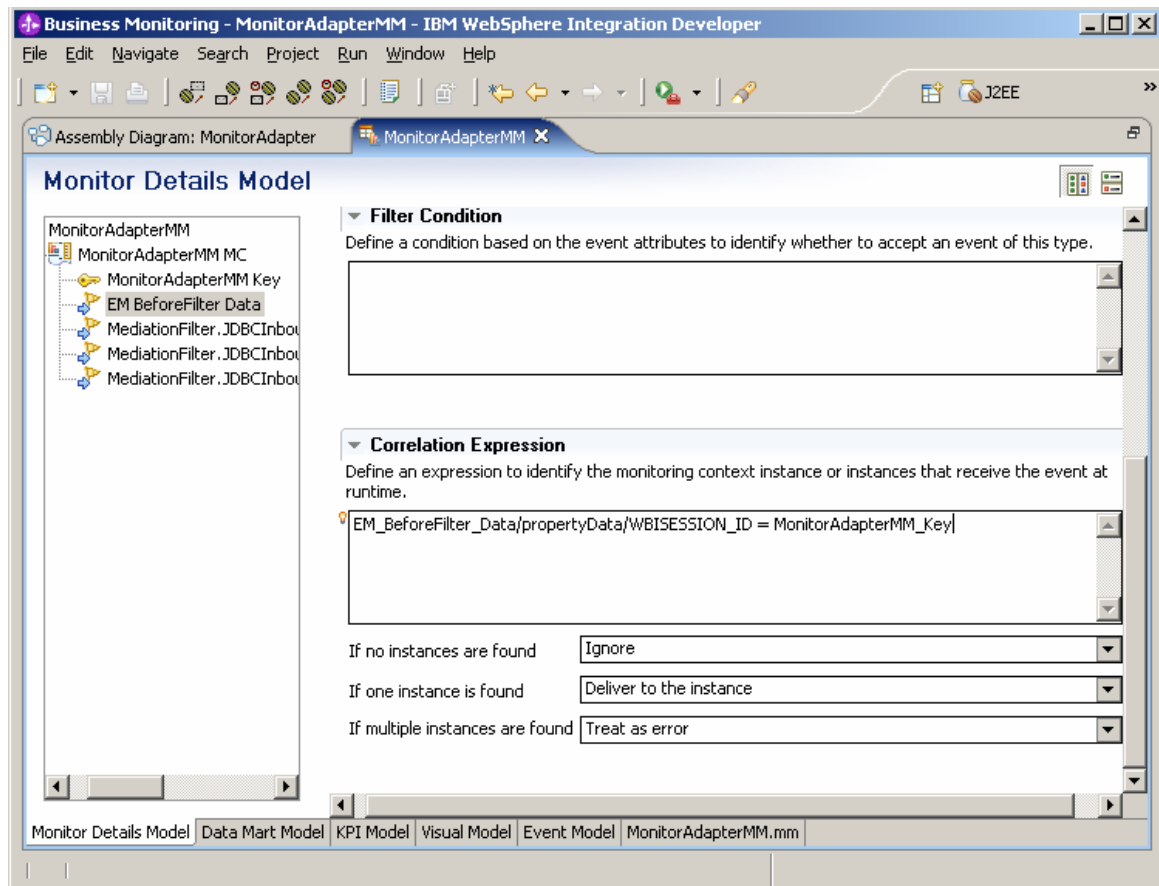
Figure 55. Set the Correlation Expression





- \_\_\_ c. For **If one instance is found**, select **Deliver to the instance**.
- \_\_\_ d. For **If multiple instances are found**, select **Treat as error**.

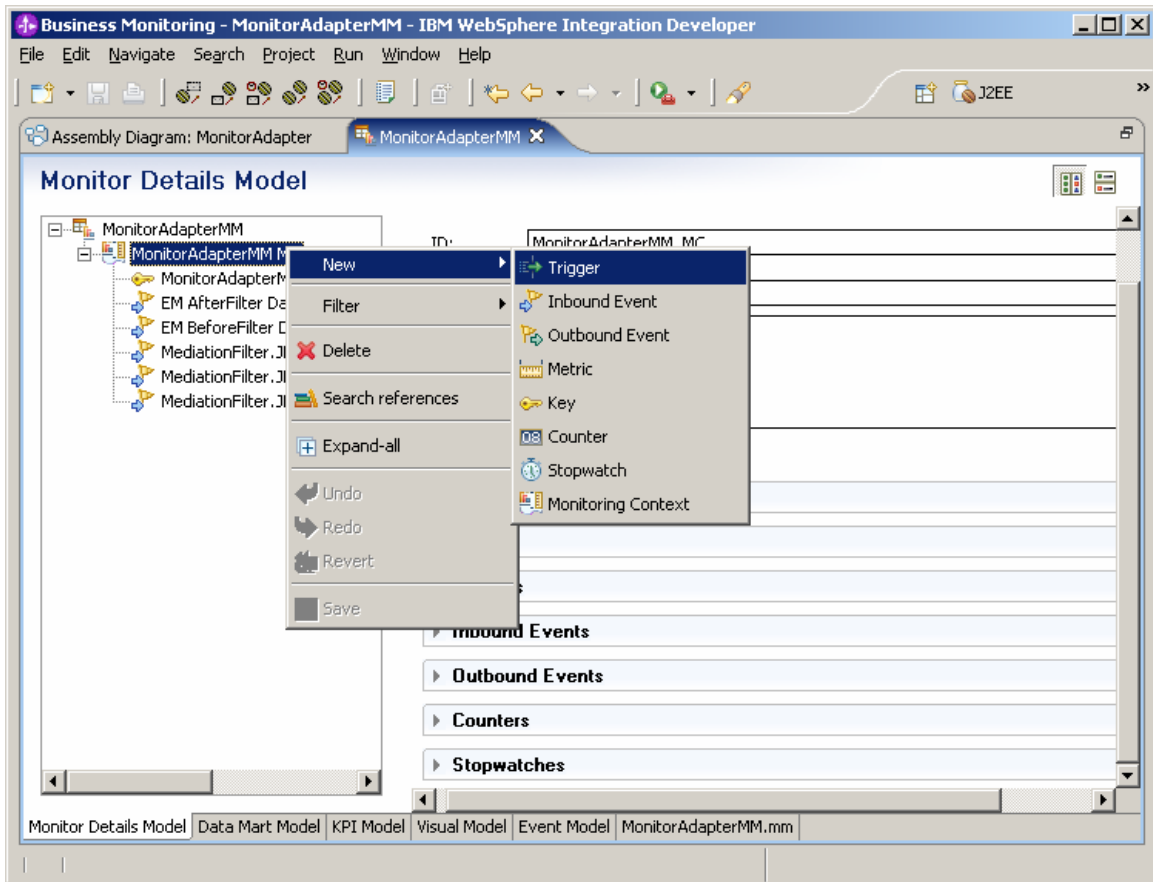
Figure 56. Setting the Correlation Expression



- \_\_\_ 15. Similarly, add an **EM AfterFilter Data** inbound event to represent the Common Base Event after the filter in the mediation flow.
  - \_\_\_ a. Right-click **MonitorAdapterMM MC** and select **New ► Inbound Event**.
  - \_\_\_ b. For **Name**, type **EM AfterFilter Data**.
  - \_\_\_ c. Select **MonitorAdapter ► events ► MonitorAdapter\_MediationFilter\_Req\_After\_Mon... ► MonitorAdapter\_MediationFilter\_Req\_After** as event type.
  - \_\_\_ d. For **Correlation Expression** enter this value: **EM\_AfterFilter\_Data/propertyData/WBSESSION\_ID = MonitorAdapterMM\_Key**
  - \_\_\_ e. For **If one instance is found**, select **Deliver to the instance**.
  - \_\_\_ f. For **If multiple instances are found**, select **Treat as error**.

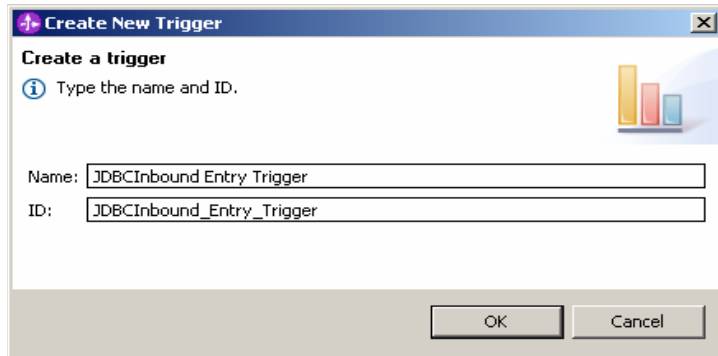
16. Right-click **MonitorAdapterMM MC** and select **New ► Trigger**.

Figure 57. Select **New ► Trigger**



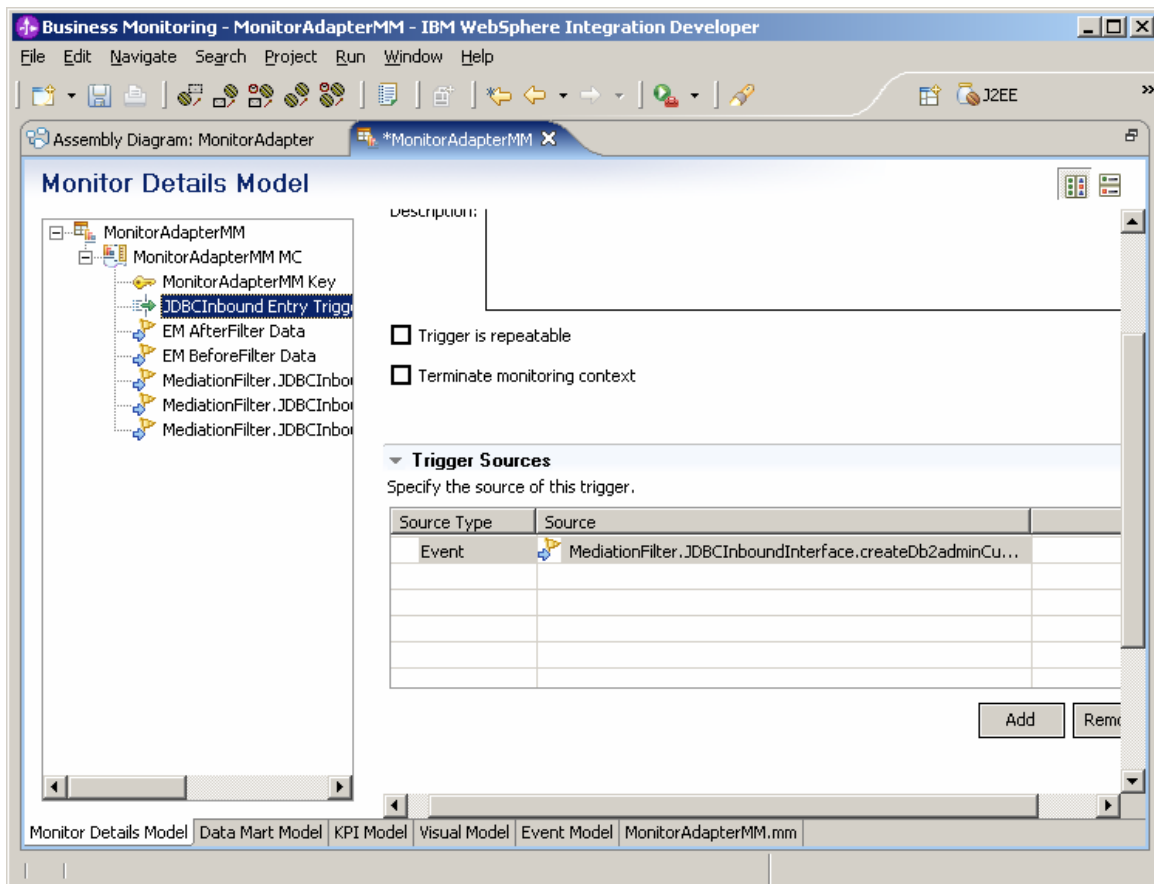
17. For Name, type **JDBCInbound Entry Trigger**.

Figure 58. Type JDBCInbound Entry Trigger



18. On the right panel, click **Add** to select **MediationFilter.JDBCInboundInterface.createDb2adminCustomer ENTRY** as the source event of trigger.

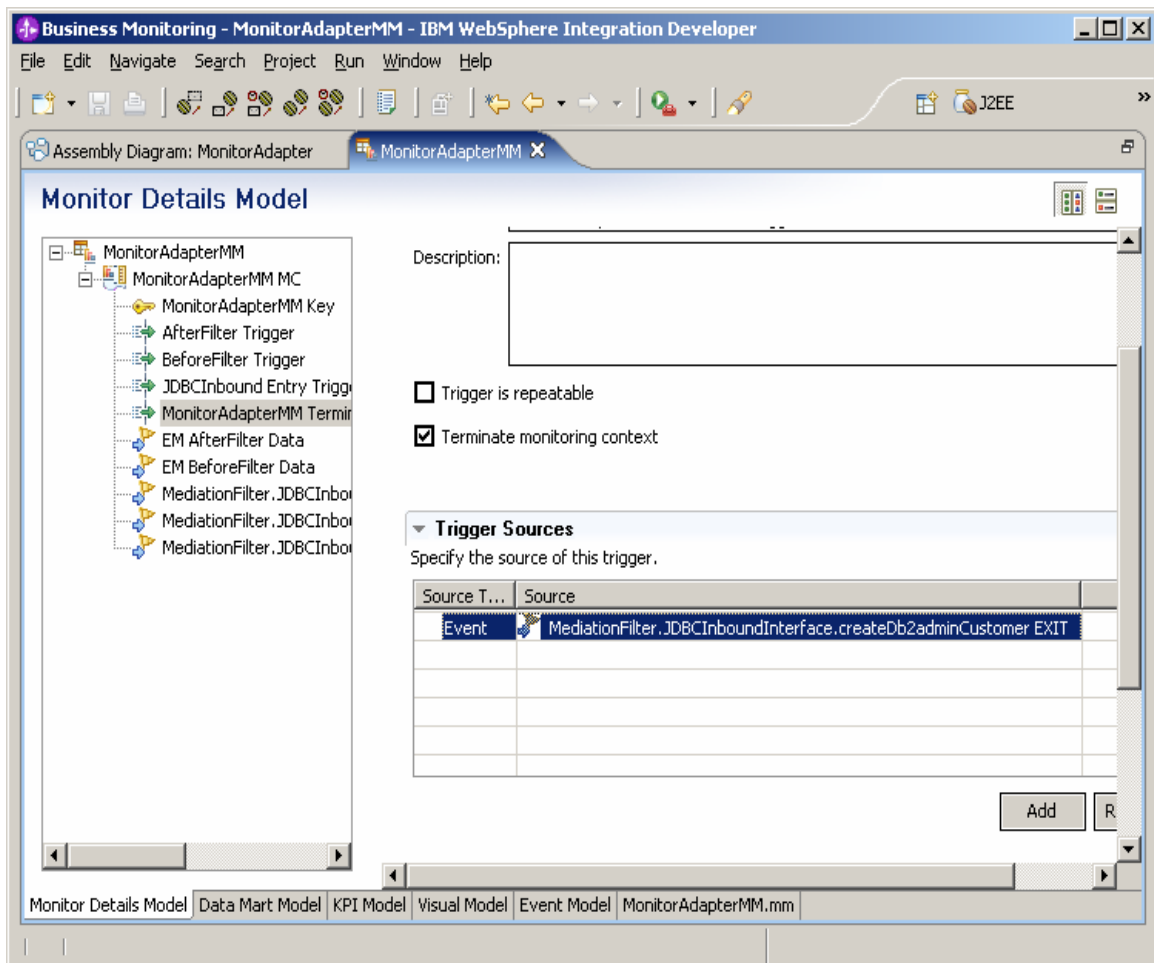
Figure 59. On the right panel, click Add



- \_\_\_\_ 19. Similarly, add trigger **BeforeFilter Trigger** with source event **EM BeforeFilter Data**.
- \_\_\_\_ 20. Add trigger **AfterFilter Trigger** with source event **EM AfterFilter Data**.
- \_\_\_\_ 21. Add trigger **MonitorAdapterMM Termination Trigger** with source event **MediationFilter.JDBCInboundInterface.createDb2adminCustomer EXIT**.

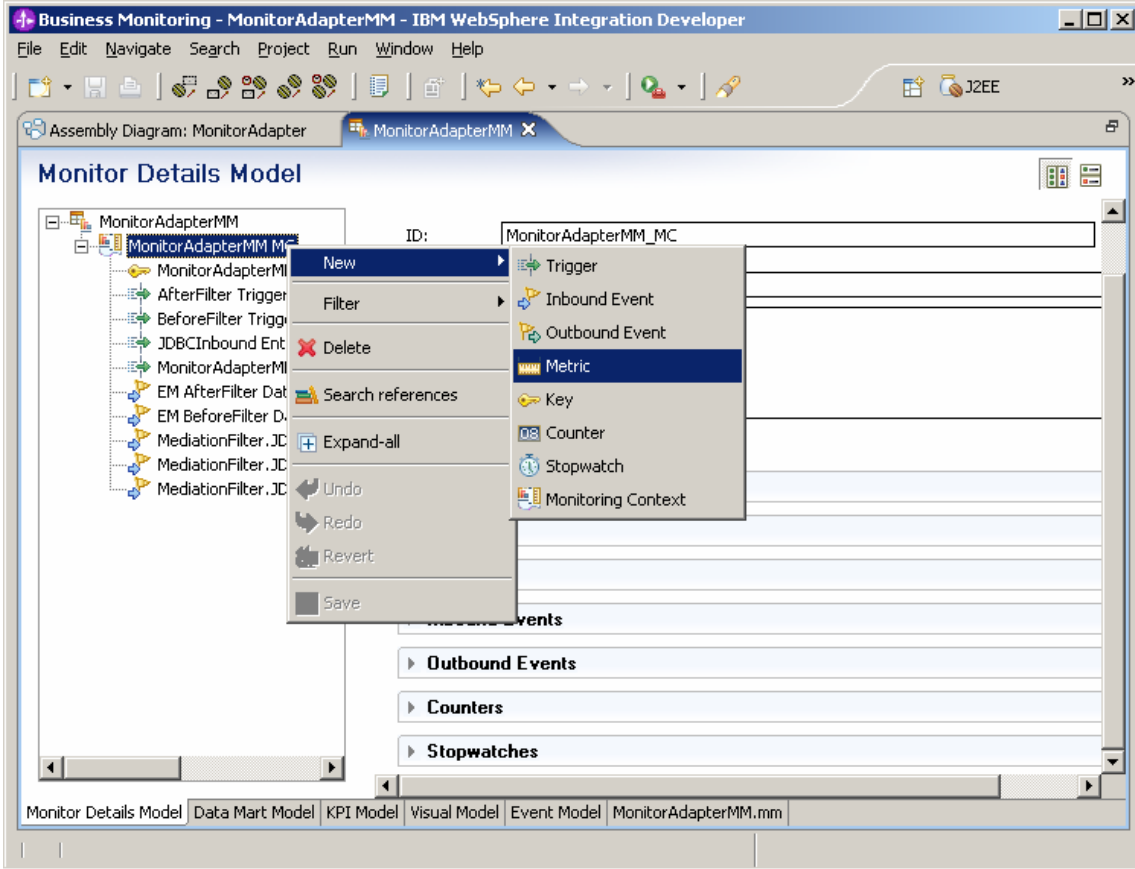
**Note:** Select the **Terminate monitoring context** check box. This will cause the current monitor context instance to be terminated when the EXIT event occurs.

Figure 60. Select the Terminate monitoring context check box



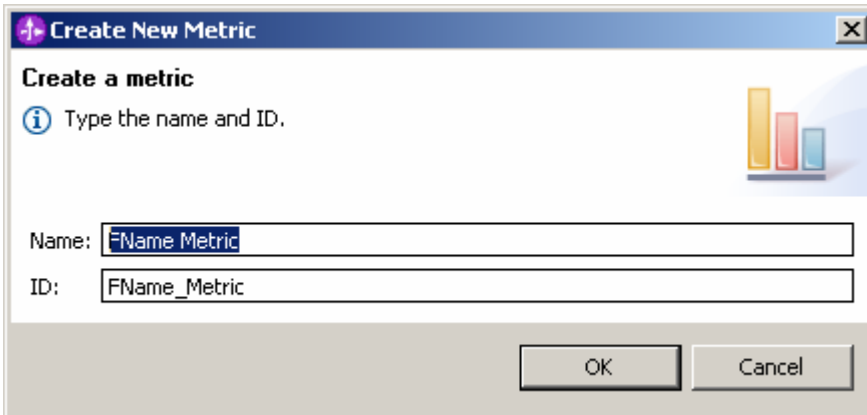
22. Right-click **MonitorAdapterMM MC** and select **New Metric**.

Figure 61. Select **New Metric**



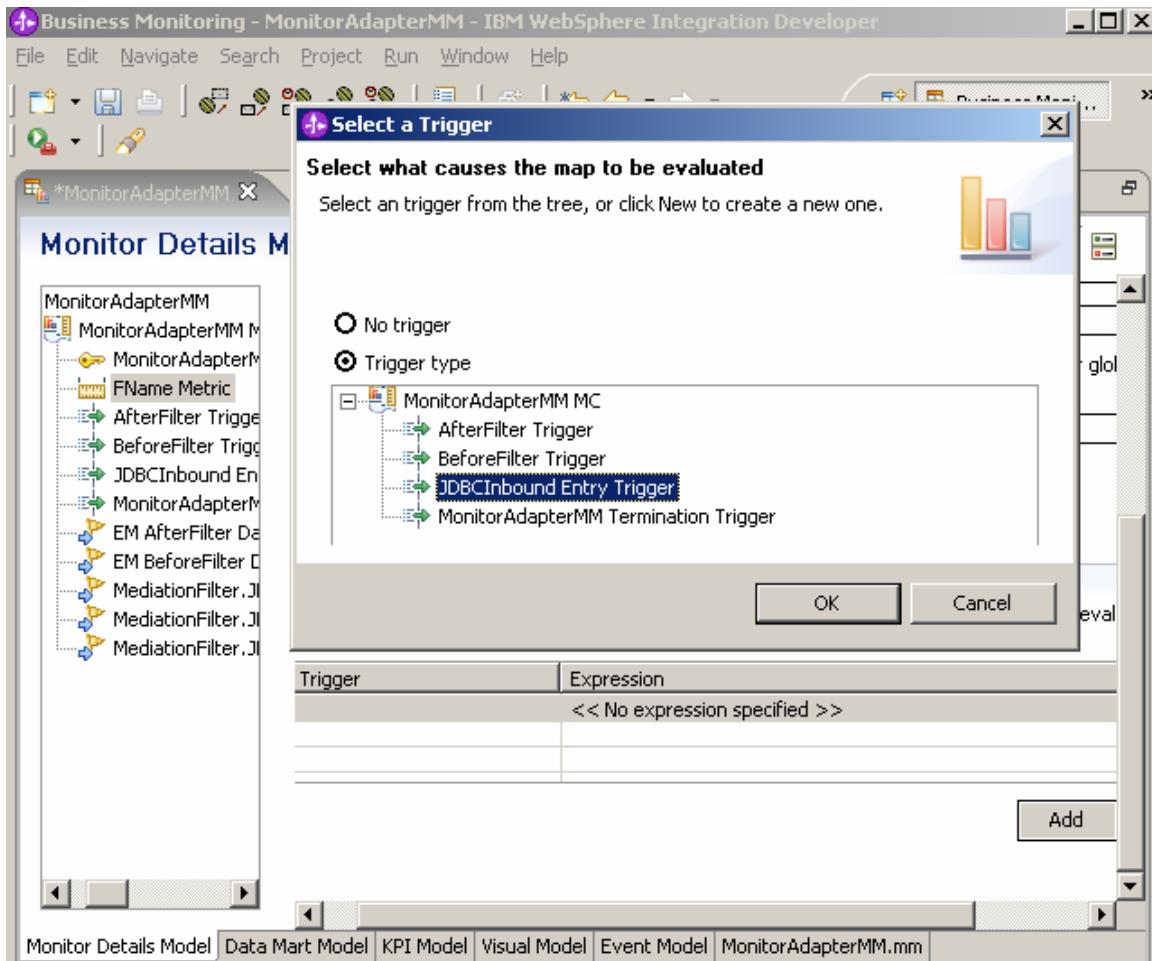
23. For **Name**, type **FName Metric**. Click **OK**.

Figure 62. For **Name**, type **FName Metric**



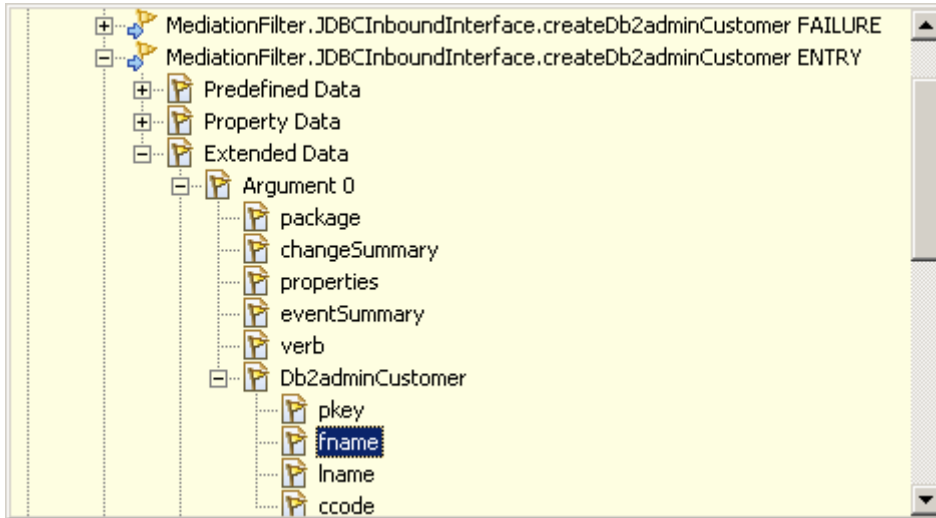
- \_\_\_\_\_ 24. On the right panel, click **Add** under **Metric Value Maps**.
- \_\_\_\_\_ 25. Click in the space under **Trigger**. Click the button that is displayed and select **JDBCInbound Entry Trigger**. Then click **OK**.

Figure 63. Select JDBCInbound Entry Trigger



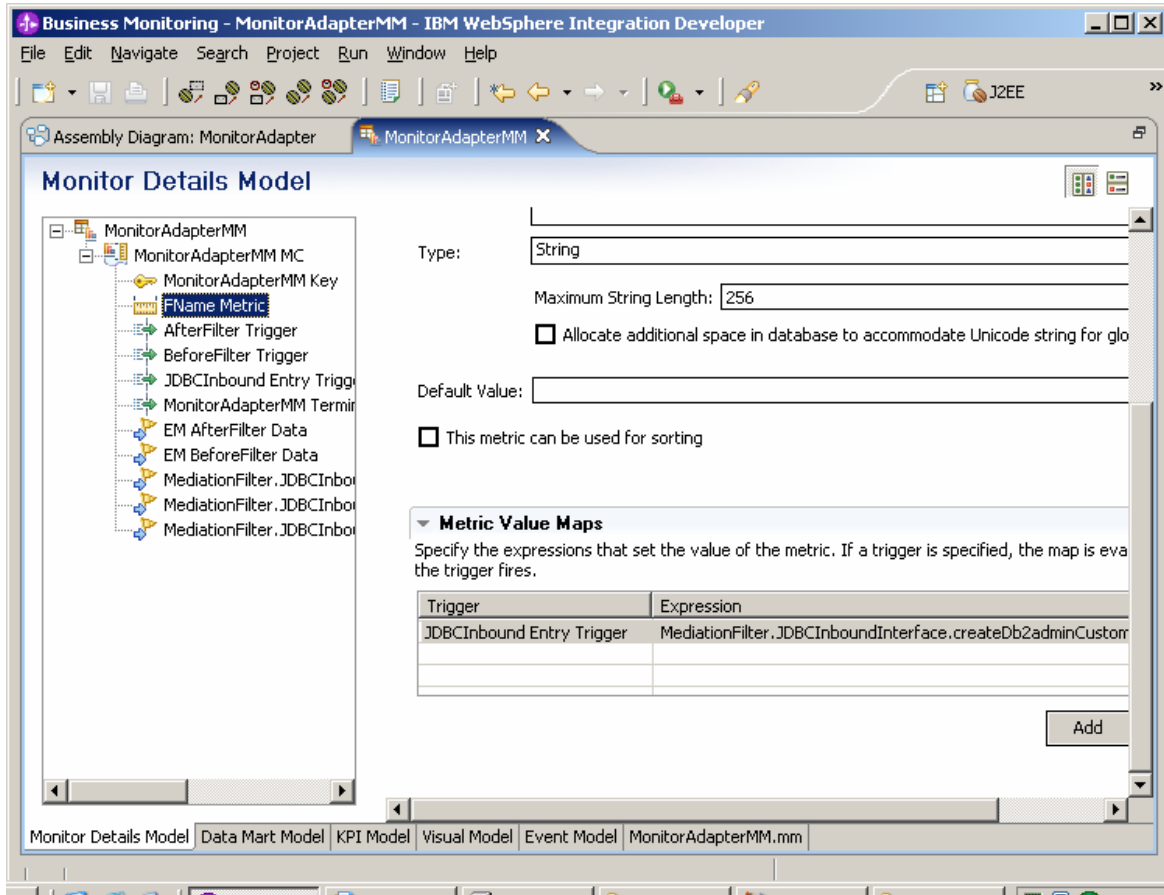
- \_\_\_\_\_ 26. Click in the space under **Expression**. Click the button that is displayed. In the Expression window, press **Ctrl+Spacebar** to use the content assist function to select **MonitorAdapterMM ► MonitorAdapterMM MC ► MediationFilter.JDBCInboundInterface.createDb2adminCustomer ENTRY ► Extended Data ► Argument 0 ► Db2adminCustomer ► fname**.

Figure 64. Press Ctrl+Spacebar to use the content assist function



\_\_\_\_ 27. Click **OK**. The **FName Metric** is finished and will be assigned the **fname** value.

Figure 65. The FName Metric will be assigned the fname value





28. Similarly, add **LName Metric** with **JDBCInbound Entry Trigger** and expression :

```
MediationFilter.JDBCInboundInterface.created
b2adminCustomer_ENTRY/extendedData/ 'Argument
0' /Db2adminCustomer/lname.
```

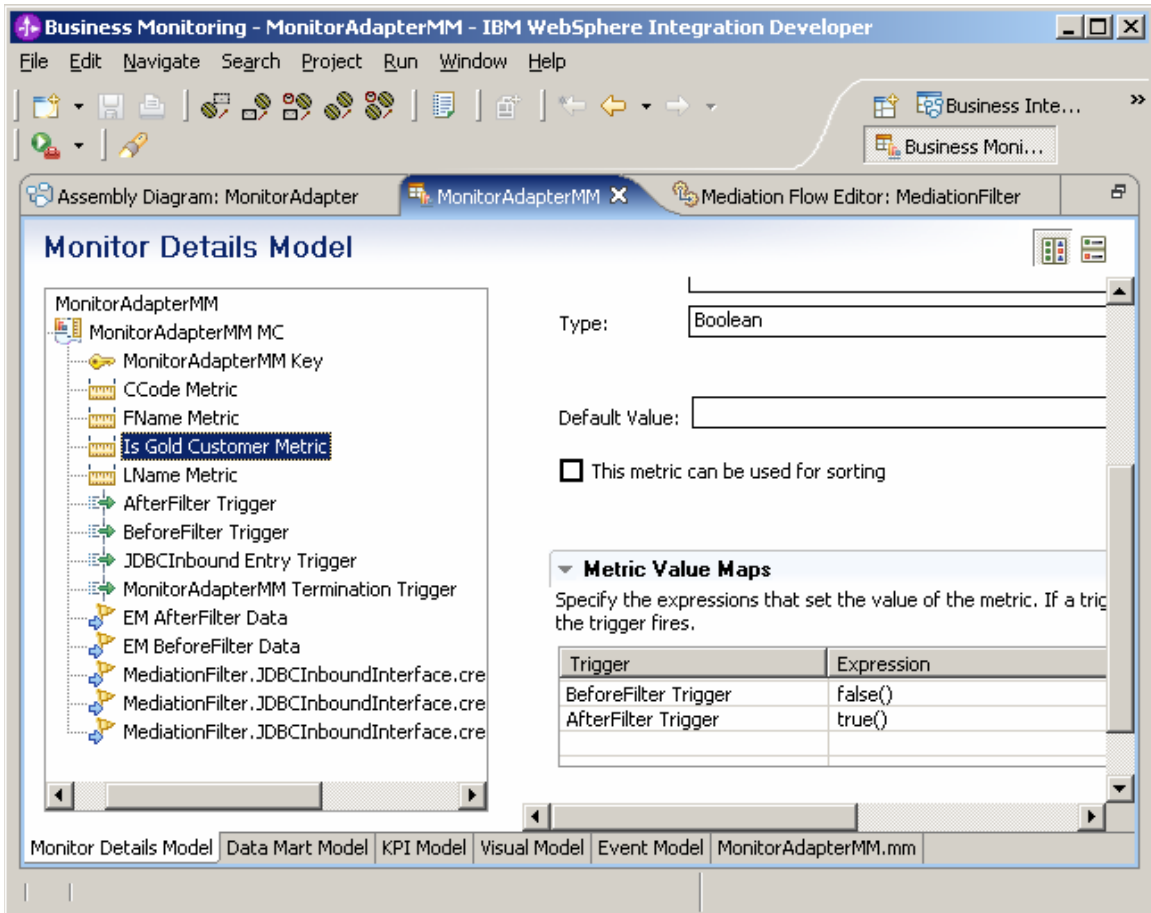
29. Add **CCode Metric** with **JDBCInbound Entry Trigger** and expression:

```
MediationFilter.JDBCInboundInterface.created
b2adminCustomer_ENTRY/extendedData/ 'Argument
0' /Db2adminCustomer/ccode.
```

30. Add **Is Gold Customer Metric**.

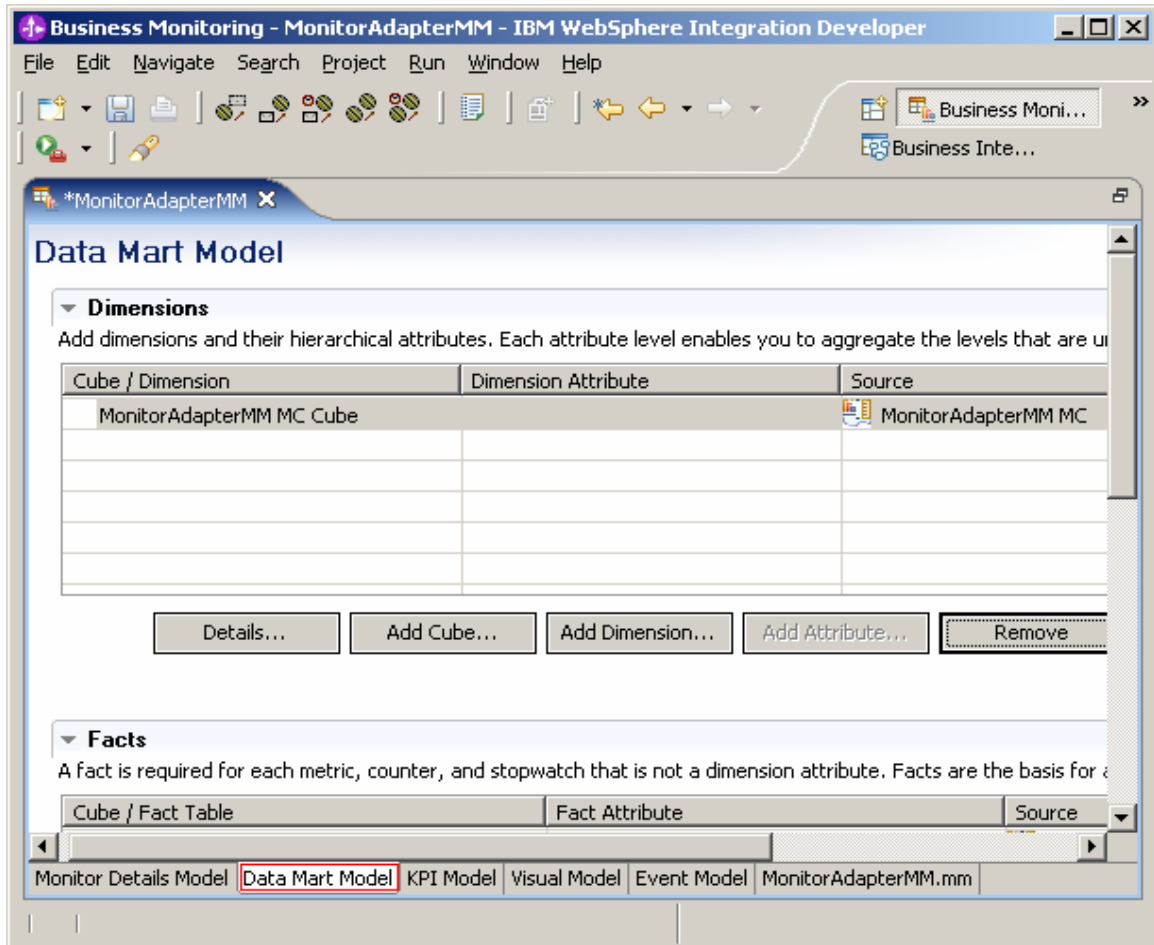
- a. On the right panel, change **Type** to **Boolean**.
- b. Add the following triggers:
  - **BeforeFilter Trigger** with Expression set to `false()`
  - **AfterFilter Trigger** with Expression set to `true()`

Figure 66. Add Is Gold Customer Metric



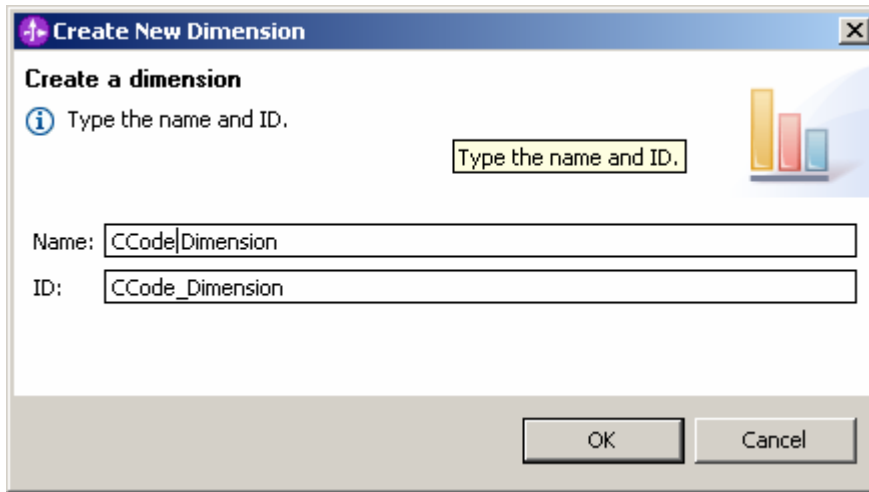
31. Switch to the **Data Mart Model** panel by clicking **Data Mart Model** in the bottom of **MonitorAdapterMM** view.

Figure 67. Switch to the Data Mart Model



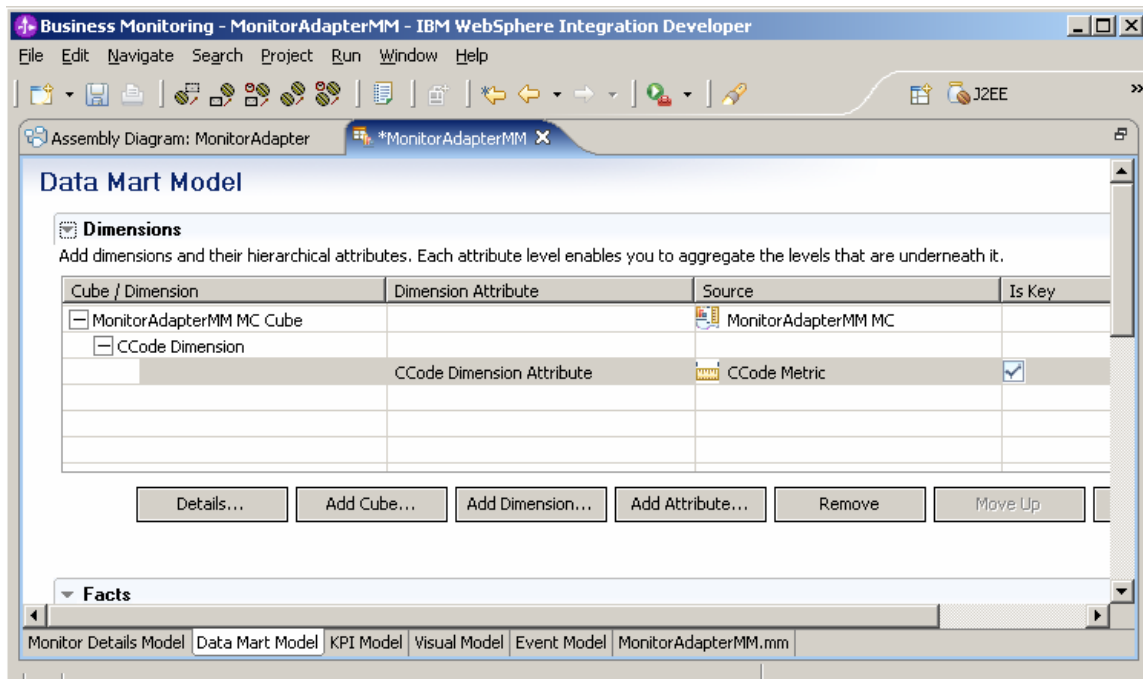
- \_\_\_ 32. Select **MonitorAdapterMM MC Cube** in the Dimensions view. Click **Add Dimension...** and type **CCode Dimension** as the name. Click **OK**.

Figure 68. Click Add Dimension...



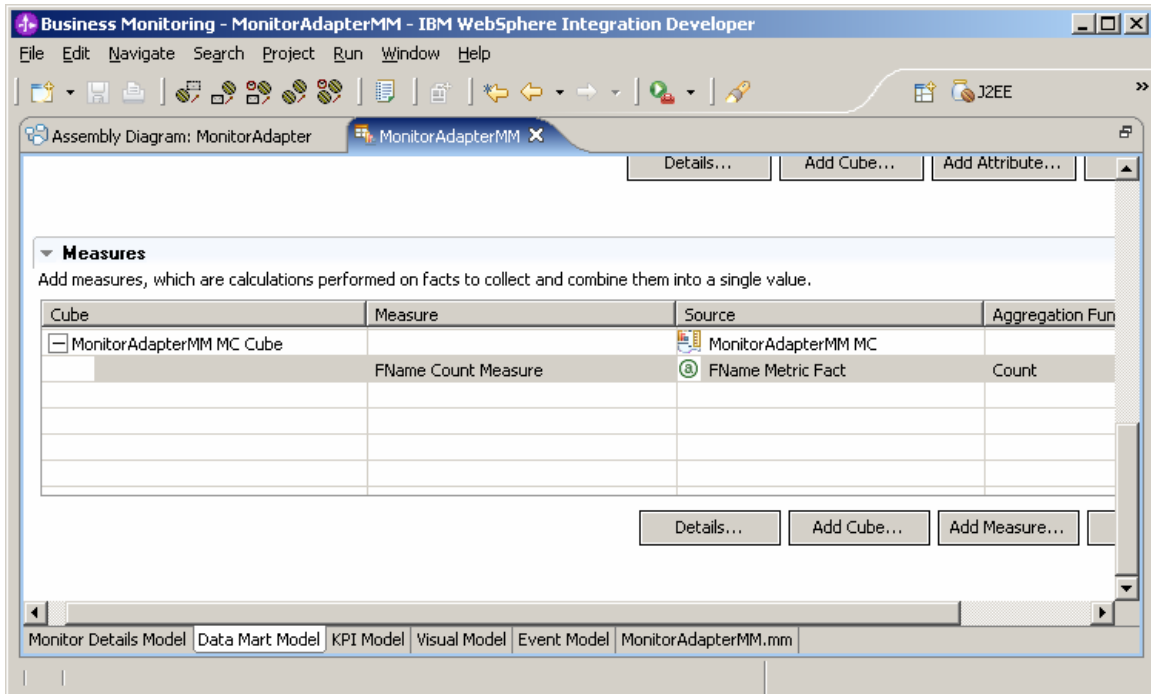
- \_\_\_ 33. Click **Add Attribute...** button and type **CCode Dimension Attribute** as the name.
- \_\_\_ 34. Click in the space on the right of **CCode Dimension Attribute**. Click the button that is displayed and select **CCode Metric**. Click **OK**.

Figure 69. CCode Metric selection



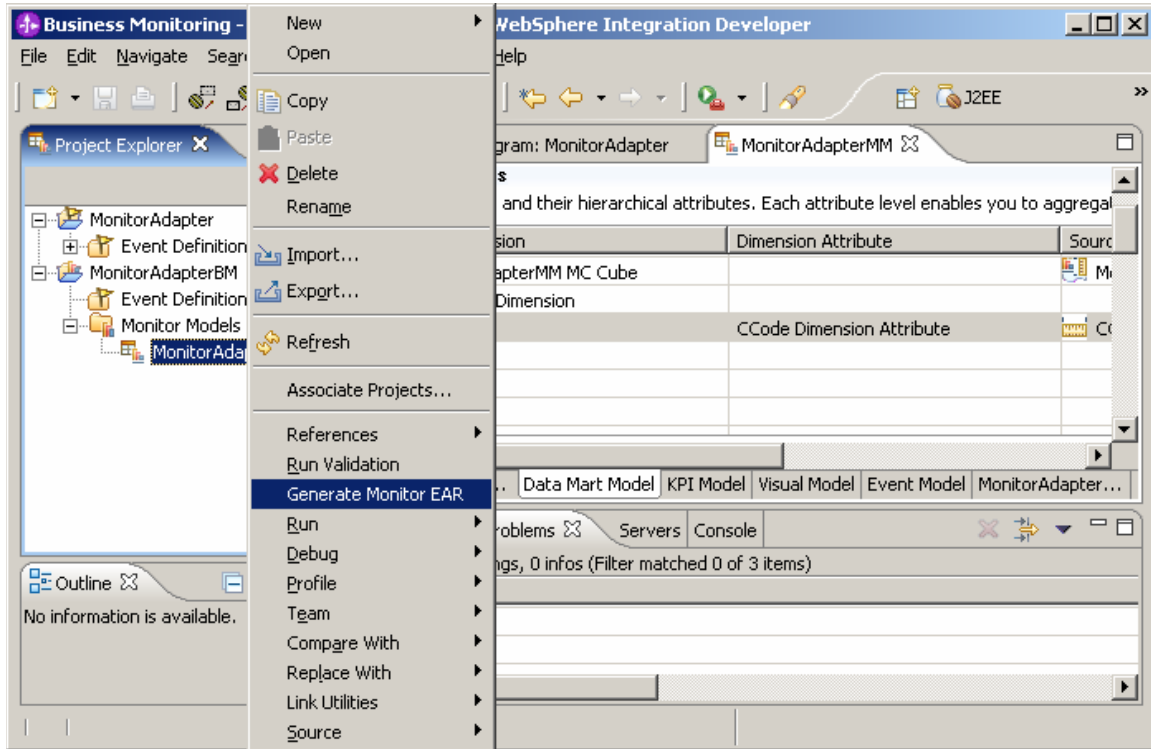
- \_\_\_ 35. Scroll down to the **Measures**.
  - \_\_\_ a. Click **MonitorAdapterMM MC Cube**
  - \_\_\_ b. Click **Add Measure...**
  - \_\_\_ c. Set **FName Count Measure** as name.
  - \_\_\_ d. Click in the space on the right of **FName Count Measure**. Click the button that is displayed and select **FName Metric Fact**.
  - \_\_\_ e. From the **Aggregation Function** menu, select **Count**.

Figure 70. Select Count from the Aggregation Function menu



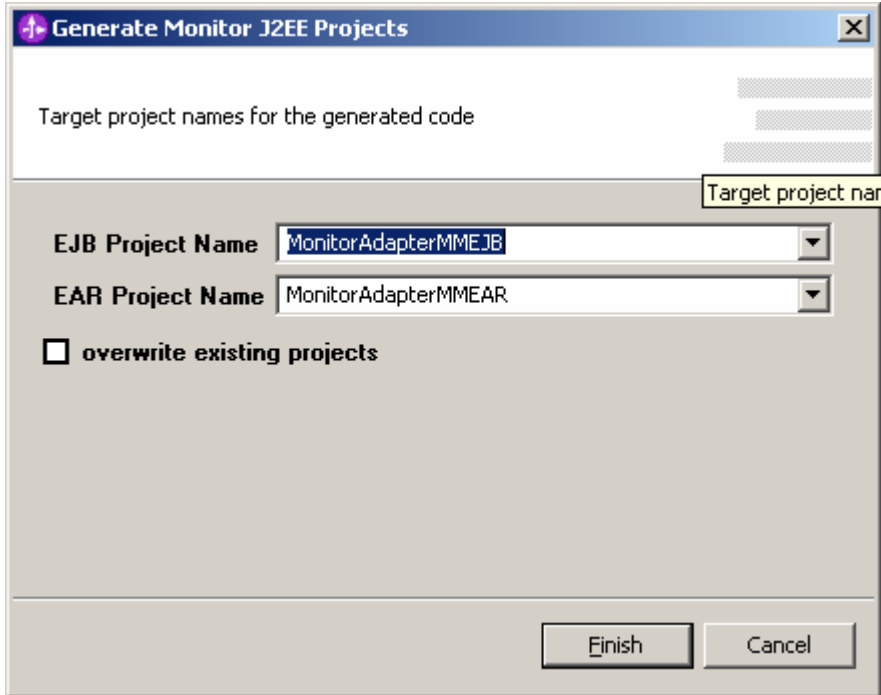
- \_\_\_\_\_ 36. Press **Ctrl+S** to save the monitor model.
- \_\_\_\_\_ 37. Right-click **MonitorAdapterMM** and select **Generate Monitor EAR**.

Figure 71. Generate Monitor EAR selection



\_\_\_\_ 38. In the window that is displayed, accept the default setting and click **Finish**.

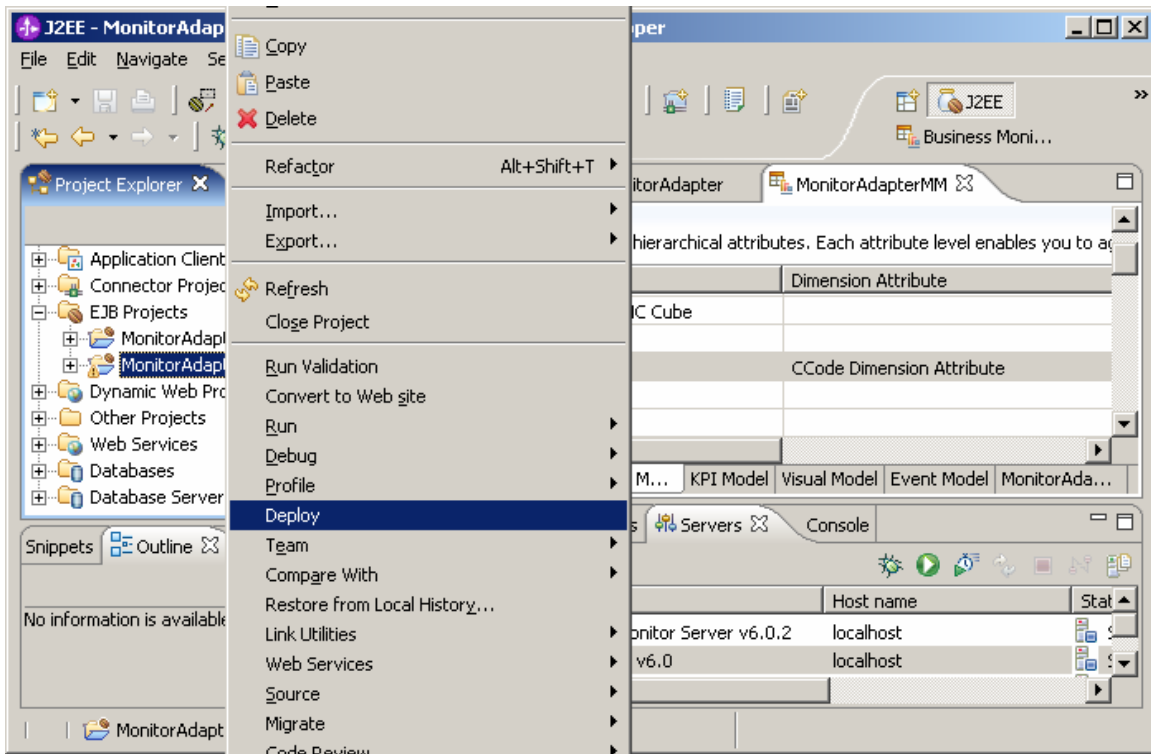
Figure 72. Accept the default setting and click Finish



## 72 Generate MM to monitor data from an adapter

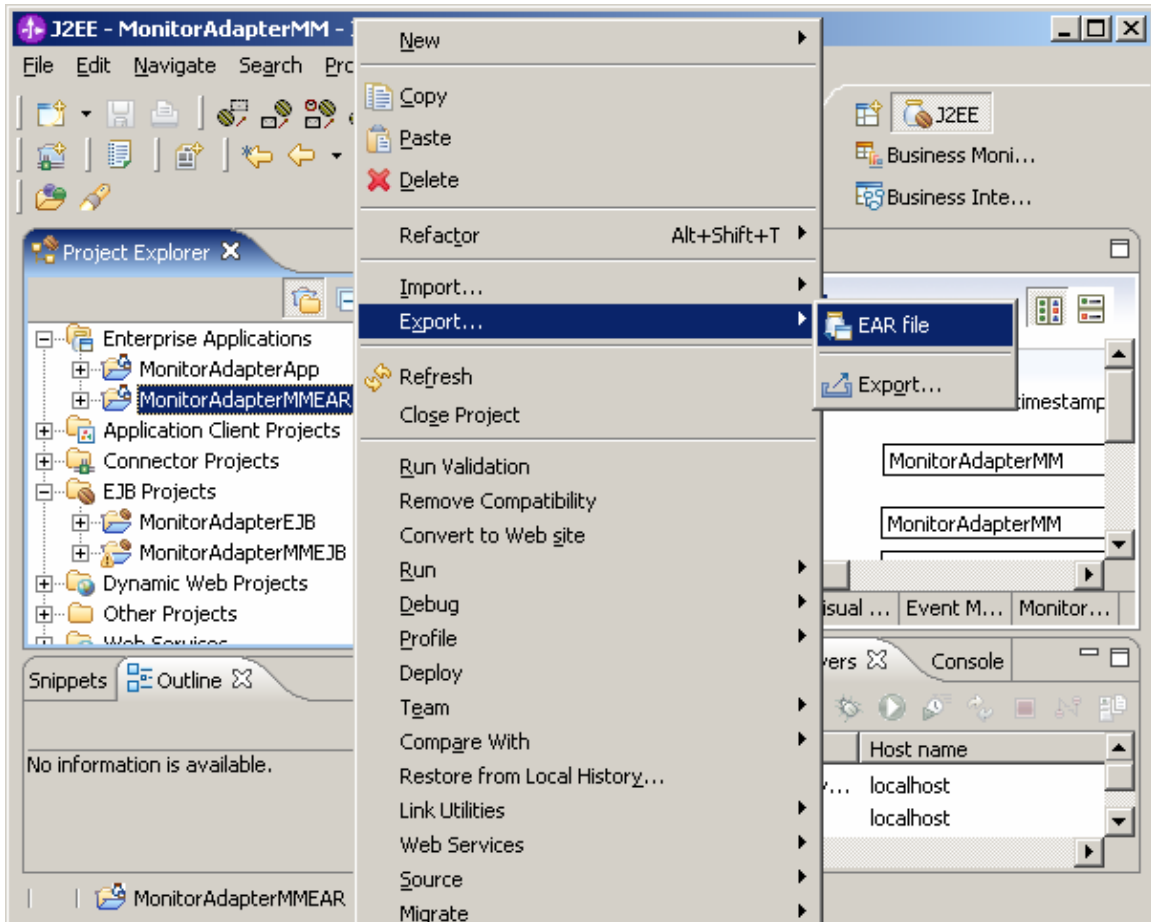
- \_\_\_\_\_ 39. Go to the **J2EE** perspective.
- \_\_\_\_\_ 40. If **Build Automatically** is turned off, select and build the EJB project – MonitorAdapterMMEJB.
- \_\_\_\_\_ 41. Right-click the EJB project **MonitorAdapterMMEJB** and select **Deploy**.

Figure 73. Right-click the EJB project MonitorAdapterMMEJB



- \_\_\_\_\_ 42. If **Build Automatically** is turned off, select and build the EAR project – MonitorAdapterMMEAR.
- \_\_\_\_\_ 43. Right-click **Enterprise Applications** ► **MonitorAdapterMMEAR** and select **Export...** ► **EAR file**.

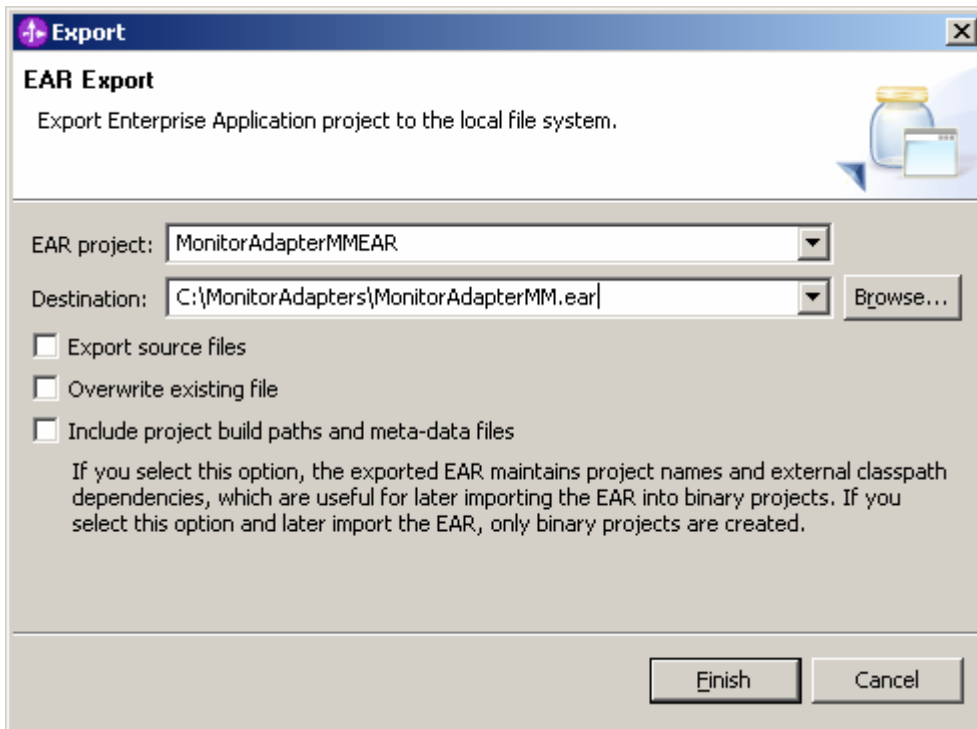
Figure 74. Select Export... ► EAR file





\_\_\_\_ 44. Set the destination file name. Click **Finish**.

Figure 75. Set the destination file name



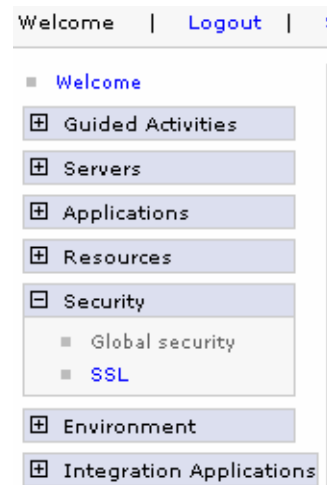
\_\_\_\_ 45. You now have a monitor model EAR file, which will be deployed in monitor server later.

### Part 3: Deploying the Adapter and Mediation Application

In this section you will use the WebSphere Process Server administrative console to install the EAR file that was created in Part 1. To deploy this EAR file, you will use the same WebSphere Process Server that the WebSphere Business Monitor server resides in.

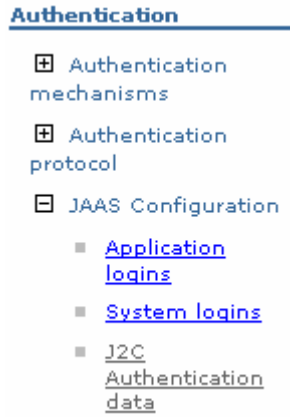
- \_\_\_ 1. Start the Monitor server, and then bring up the administrative console.
  - \_\_\_ a. In Windows, click **Start ► All Programs ► IBM WebSphere ► Process Server 6.0 ► Profiles ► wbmonitor ► Start the server.**
  - \_\_\_ b. In Windows, click **Start ► All Programs ► IBM WebSphere ► Process Server 6.0 ► Profiles ► wbmonitor ► Administrative console.**
- \_\_\_ 2. Click **Log in** to login.
- \_\_\_ 3. From the left menu, click **Security ► Global Security.**

Figure 76. Click Security ► Global Security



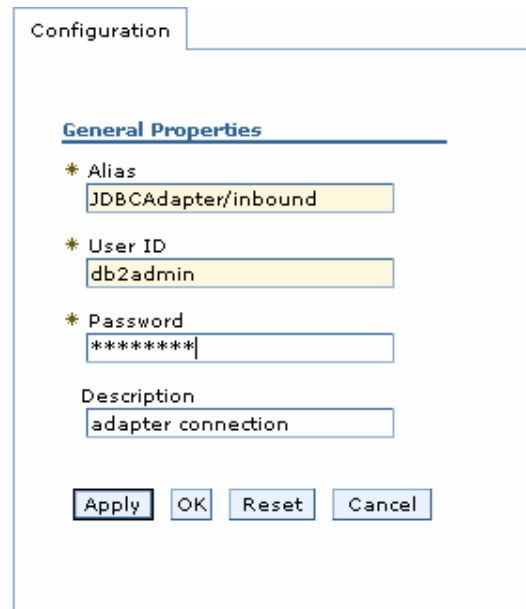
- \_\_\_ 4. Click **Authentication ► JAAS Configuration ► J2C Authentication Data**.

Figure 77. Authentication ► JAAS Configuration ► J2C Authentication Data



- \_\_\_ 5. Click **New** and enter the following information:
  - \_\_\_ a. **Alias:** JDBCAdapter/inbound (This should be consistent with the value set in Part 1: Creating a module containing the JDBC adapter and mediation flow and must not contain the node name.)
  - \_\_\_ b. **User ID:** db2admin
  - \_\_\_ c. **Password:** the password for db2admin

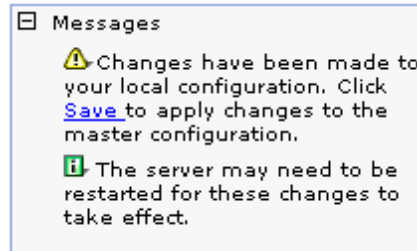
Figure 78. General Properties



- \_\_\_ 6. Click **Apply**.

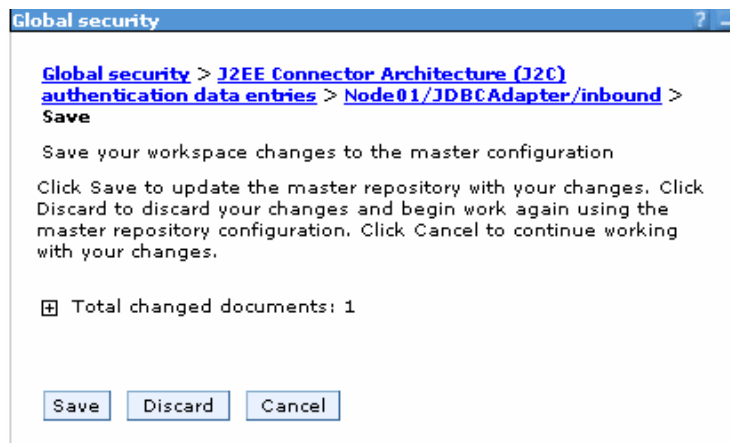
\_\_\_\_ 7. When you see the following message, click **Save**.

Figure 79. Click Save when you receive this message









\_\_\_\_ 8. When the next window is displayed, click **Save** again.

Figure 80. Click Save when you receive this message



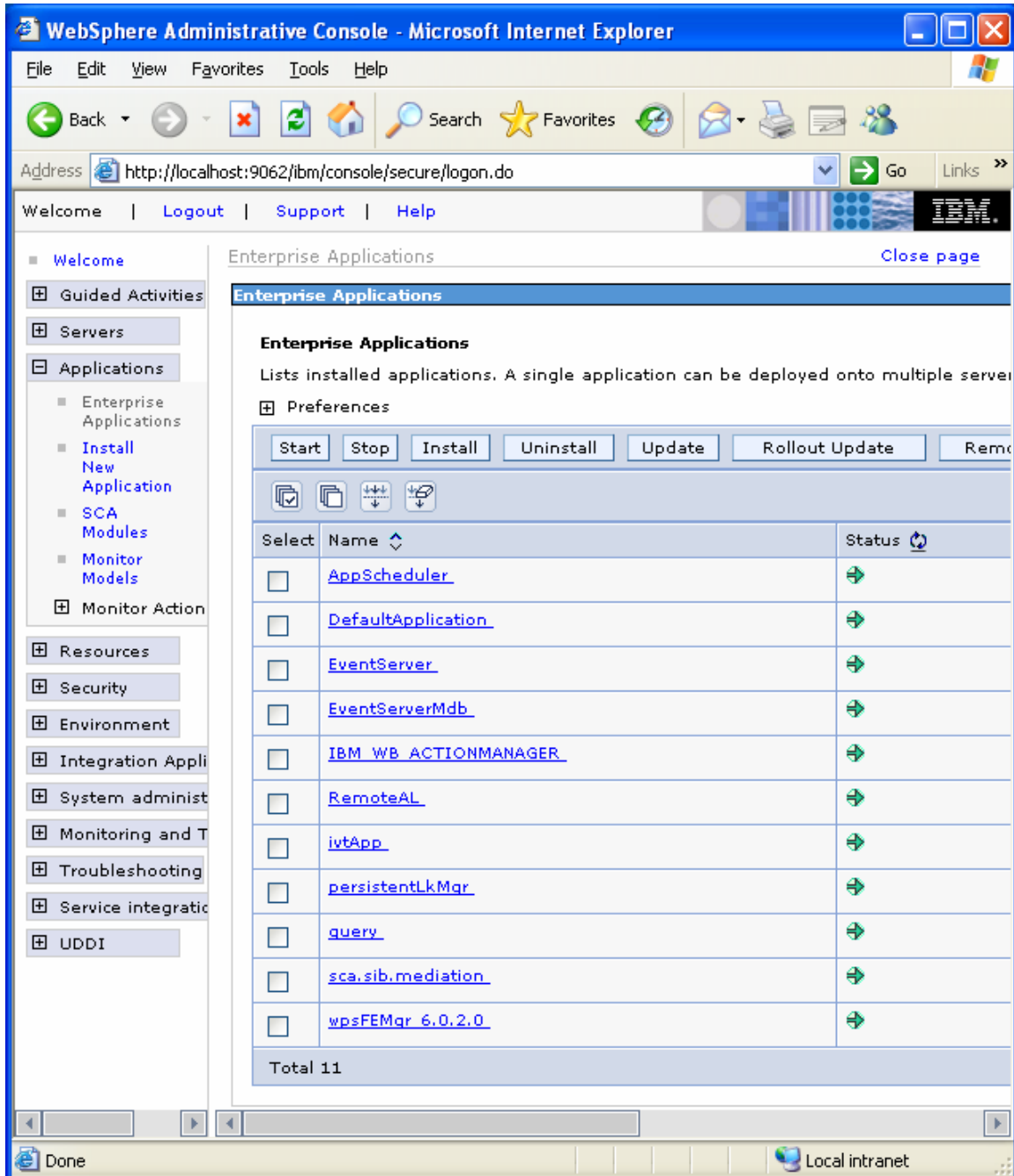
9. Verify that the list includes the new entry. The alias name for the entry starts with the node name followed by a forward slash (such as Node01/), and the complete alias name matches the value set in Part 1: Creating a module containing the JDBC adapter and mediation flow.

Figure 81. Verify that the list includes the new entry

<input type="button" value="New"/> <input type="button" value="Delete"/>		
   		
Select	Alias 	User ID 
<input type="checkbox"/>	<a href="#">ActionManaqerAAMCATAuth</a>	db2admin
<input type="checkbox"/>	<a href="#">ActionManaqerBusAuth</a>	admin
<input type="checkbox"/>	<a href="#">DatamartDBalias</a>	db2admin
<input type="checkbox"/>	<a href="#">MonitorAlphabloxAlias</a>	UNSET
<input type="checkbox"/>	<a href="#">MonitorBusAuth</a>	admin
<input type="checkbox"/>	<a href="#">MonitorQueueConnectionFactoryAuth</a>	UNSET
<input type="checkbox"/>	<a href="#">Monitor JDBC Alias</a>	db2admin
<input type="checkbox"/>	<a href="#">Node01/CommonEventInfrastructureJMSAuthAlias</a>	admin
<input type="checkbox"/>	<a href="#">Node01/JDBCAdapter/inbound</a>	db2admin
<input type="checkbox"/>	<a href="#">RepositoryDBalias</a>	db2admin

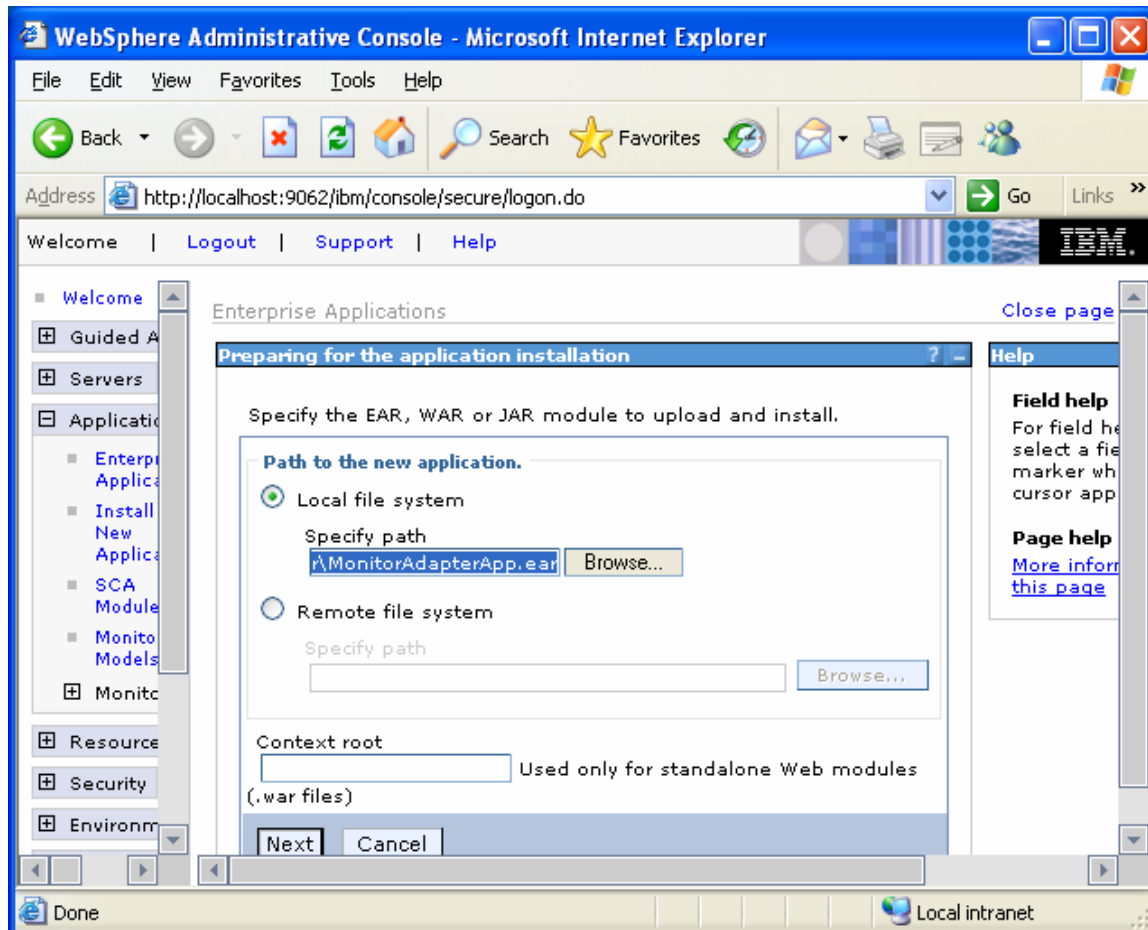
- \_\_\_\_ 10. From the left menu of administrative console, click **Applications ► Enterprise Applications**.

Figure 82. Click Applications ► Enterprise Applications



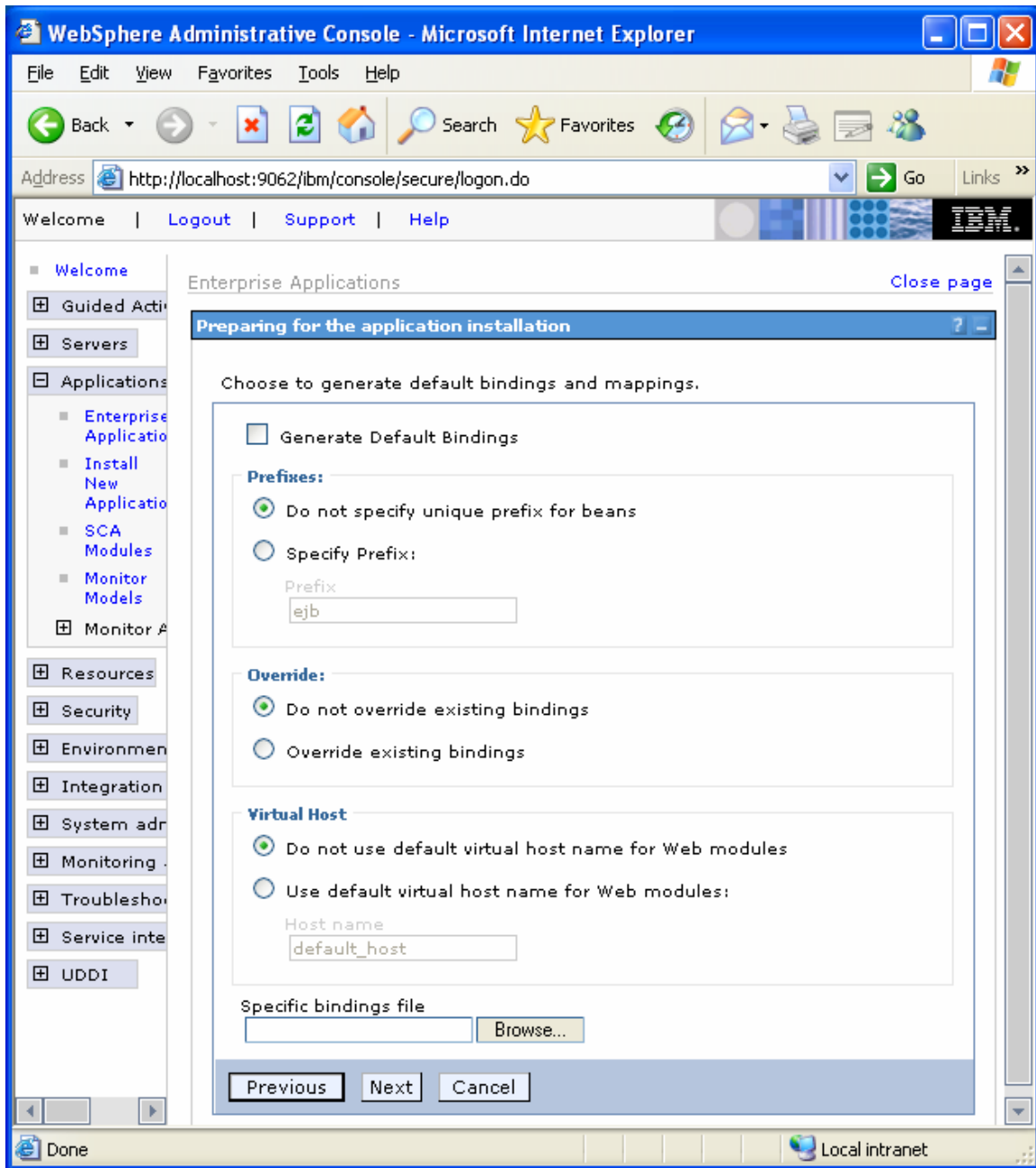
- \_\_\_\_\_ 11. Click **Install** button.
- \_\_\_\_\_ 12. Browse to the MonitorAdapterApp.ear file, which was exported into WebSphere Integration Developer in Part 2: Generating a monitor model from SCA and Mediation, and click **Next**.

Figure 83. Browse to the MonitorAdapterApp.ear file



\_\_\_\_ 13. Click Next.

Figure 84. The subsequent screen appears





\_\_\_\_ 14. To install the new application using the defaults, click **Step 9 Summary**.

Figure 85. Click Step 9 Summary to install the new application

Enterprise Applications

**Install New Application** ? -

Specify options for installing enterprise applications and modules.

→ **Step 1: Select installation options**

Step 2 Map modules to servers

Step 3 Provide listener bindings for message-driven beans

Step 4 Provide JNDI Names for Beans

Step 5 Map JCA resource references to resources

Step 6 Map virtual hosts for Web modules

Step 7 Ensure all unprotected 2.x methods have the correct level of protection

Step 8 Edit module properties

Step 9 Summary

**Select installation options**

Specify the various options that are available to prepare and install your application.

Pre-compile JSP

Directory to install application

Distribute application

Use Binary Configuration

Deploy enterprise beans

Application name

Create MBeans for resources

Enable class reloading

Reload interval in seconds

Deploy Web services

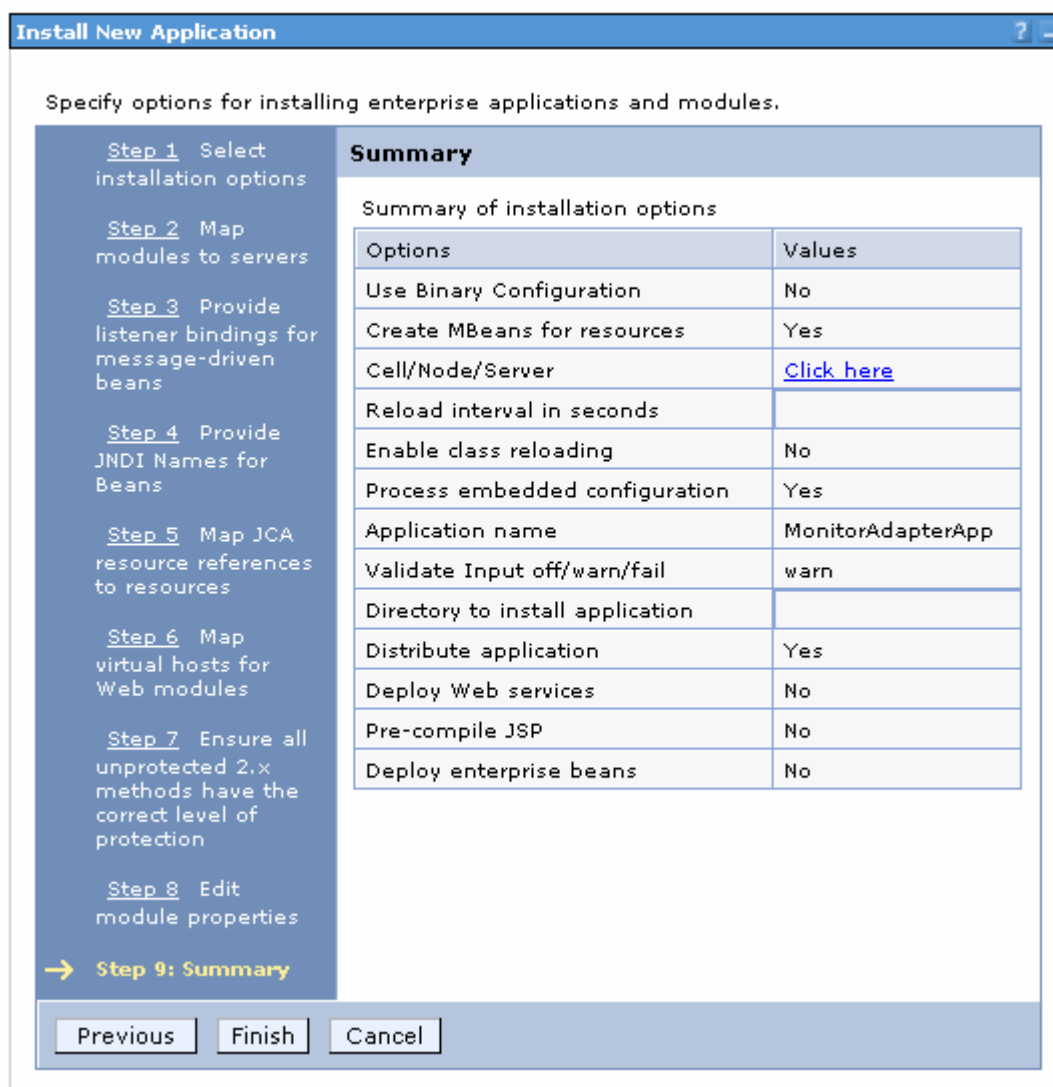
Validate Input off/warn/fail

Process embedded configuration

\_\_\_\_ 15. Click **Finish**.

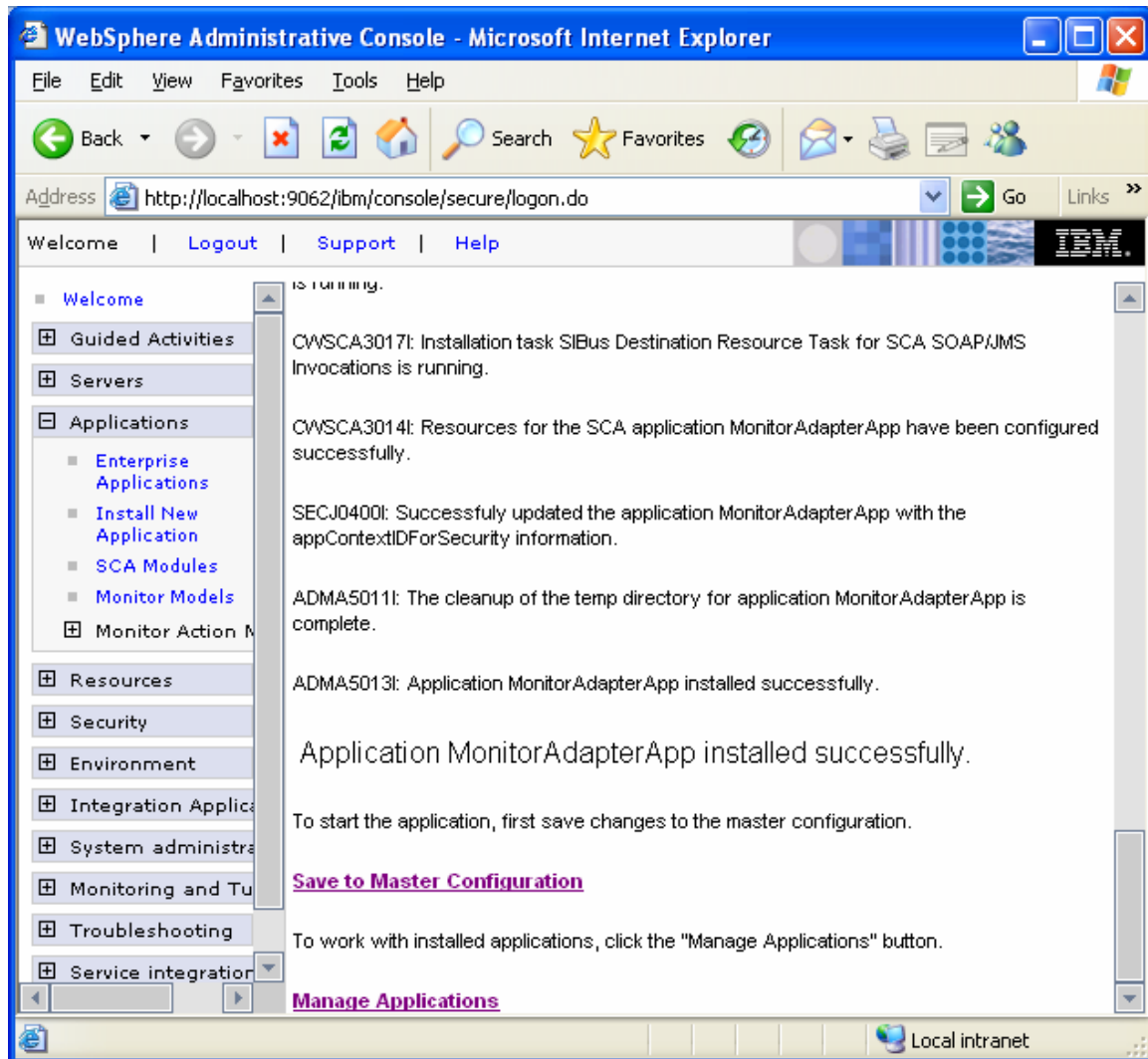
Figure 86. Click Finish

Enterprise Applications



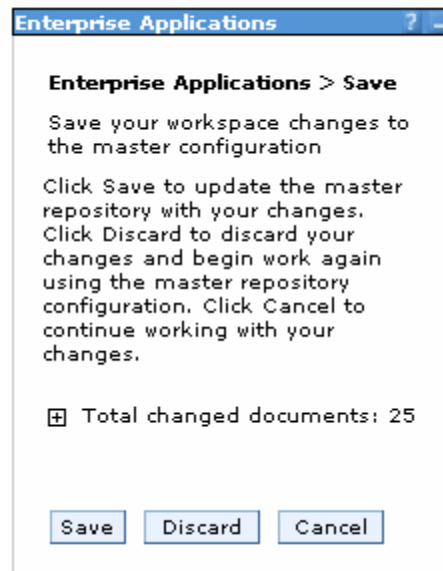
\_\_\_\_ 16. Click **Save to Master Configuration**.

Figure 87. Save to Master Configuration



17. When the following message is displayed, click **Save**.

Figure 88. Click Save



18. From the left menu on the welcome page, click **Applications ► Enterprise Applications**. The list should include the newly installed MonitorAdapterApp application.

Figure 89. See MonitorAdapterApp application

Enterprise Applications Clc

**Enterprise Applications**

Lists installed applications. A single application can be deployed onto multiple servers.

⊞ Preferences

Select	Name	Status
<input type="checkbox"/>	<a href="#">AppScheduler</a>	➔
<input type="checkbox"/>	<a href="#">DefaultApplication</a>	➔
<input type="checkbox"/>	<a href="#">EventServer</a>	➔
<input type="checkbox"/>	<a href="#">EventServerMdb</a>	➔
<input type="checkbox"/>	<a href="#">IBM_WB_ACTIONMANAGER</a>	➔
<input checked="" type="checkbox"/>	<a href="#">MonitorAdapterApp</a>	✖
<input type="checkbox"/>	<a href="#">RemoteAL</a>	➔
<input type="checkbox"/>	<a href="#">ivtApp</a>	➔
<input type="checkbox"/>	<a href="#">persistentLkMqr</a>	➔
<input type="checkbox"/>	<a href="#">query</a>	➔
<input type="checkbox"/>	<a href="#">sca.sib.mediation</a>	➔
<input type="checkbox"/>	<a href="#">wpsFEMqr_6.0.2.0</a>	➔

Total 12

- \_\_\_\_ 19. To start the application, select the **MonitorAdapterApp** check box and click **Start**.

Figure 90. Select the MonitorAdapterApp check box

**Enterprise Applications**

Messages

Application MonitorAdapterApp on server server1 and node Node01 started successfully.

**Enterprise Applications**

Lists installed applications. A single application can be deployed onto multiple servers.

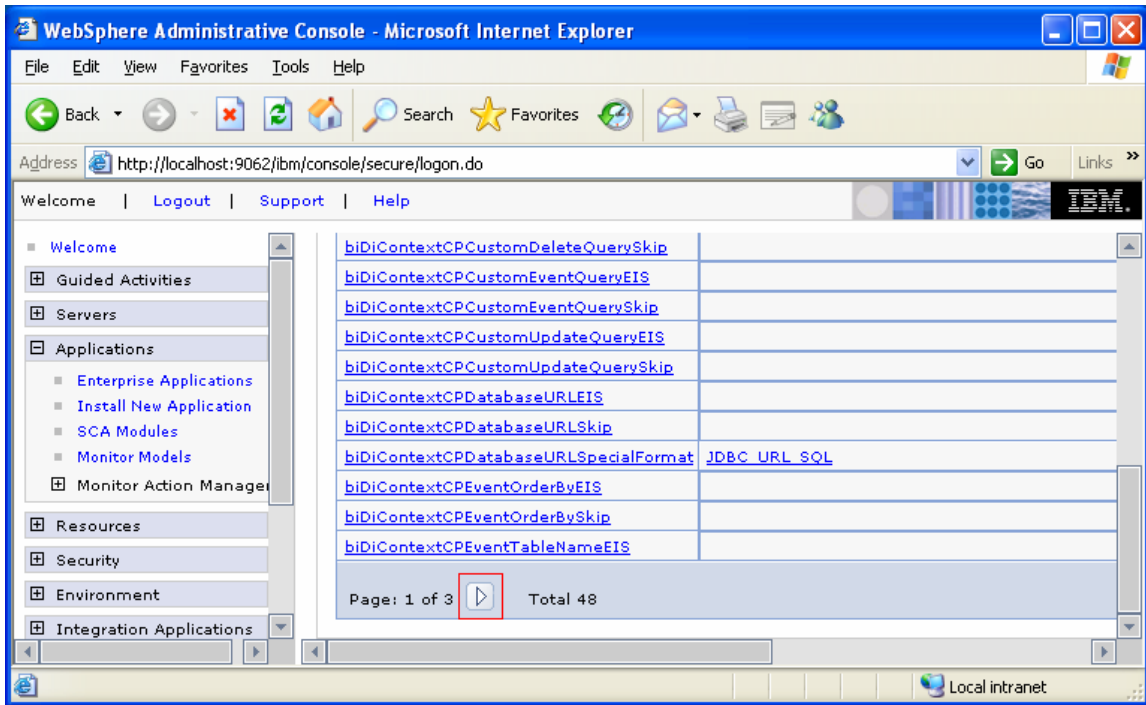
Preferences

Start Stop Install Uninstall Update Rollout Update Remove File Export

Select	Name	Status
<input type="checkbox"/>	<a href="#">AppScheduler</a>	➔
<input type="checkbox"/>	<a href="#">DefaultApplication</a>	➔
<input type="checkbox"/>	<a href="#">EventServer</a>	➔
<input type="checkbox"/>	<a href="#">EventServerMdb</a>	➔
<input type="checkbox"/>	<a href="#">IBM_WB_ACTIONMANAGER</a>	➔
<input type="checkbox"/>	<a href="#">MonitorAdapterApp</a>	➔
<input type="checkbox"/>	<a href="#">RemoteAL</a>	➔
<input type="checkbox"/>	<a href="#">ivtApp</a>	➔
<input type="checkbox"/>	<a href="#">persistentLkMgr</a>	➔
<input type="checkbox"/>	<a href="#">query</a>	➔

- \_\_\_ 20. If the application does not start, check whether the IP address for the server where the database resides was changed. This problem should not occur if you followed the example provided by this document and used localhost, as the IP address for the database. But if your database is remote and requires a different IP address from the one used in Part 1: Creating a module containing the JDBC adapter and mediation flow, follow these steps to configure the IP address:
- \_\_\_ a. In the administrative console, select **Applications** ► **Enterprise Applications** ► **MonitorAdapterApp** ► **Connector Modules** ► **CWYBC\_JDBC.rar** ► **Resource Adapter** ► **J2C Activation specifications** ► **MonitorAdapter.JDBCInboundInterface\_AS** ► **J2C activation specification custom properties**.

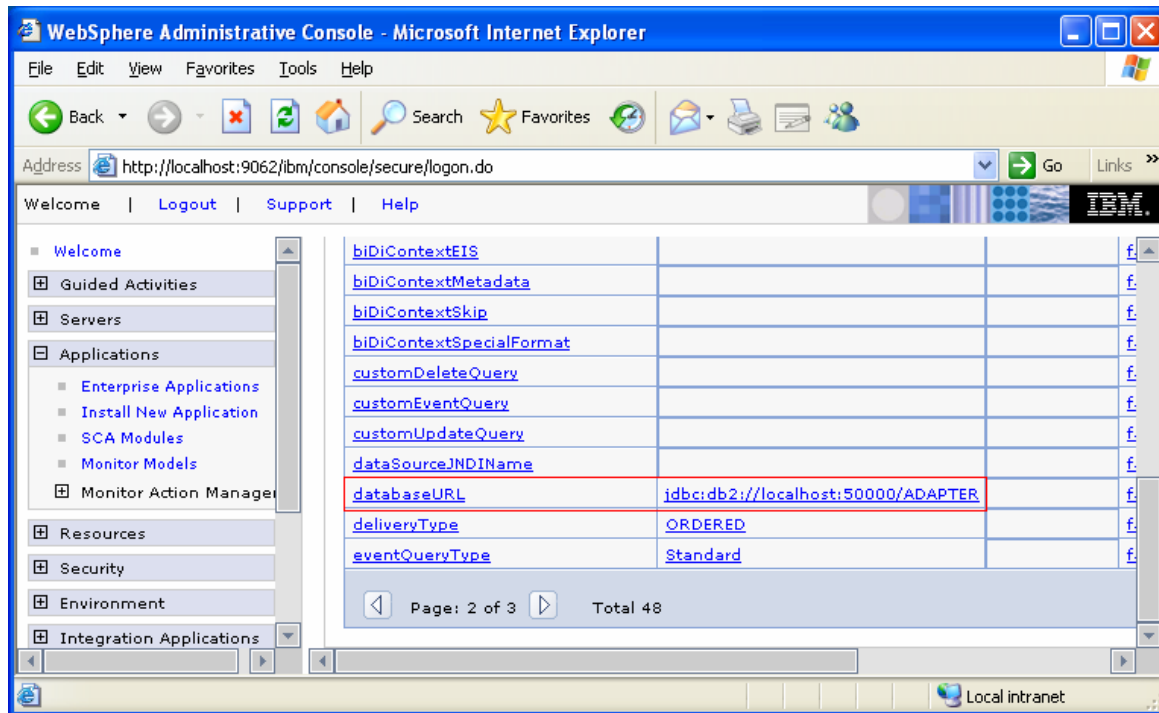
Figure 91. Select Applications ► Enterprise Applications



- \_\_\_ b. Click the arrow to proceed to **Page 2**.

- \_\_\_ c. Click **databaseURL**, and then change the IP address for the database.

Figure 92. Click databaseURL

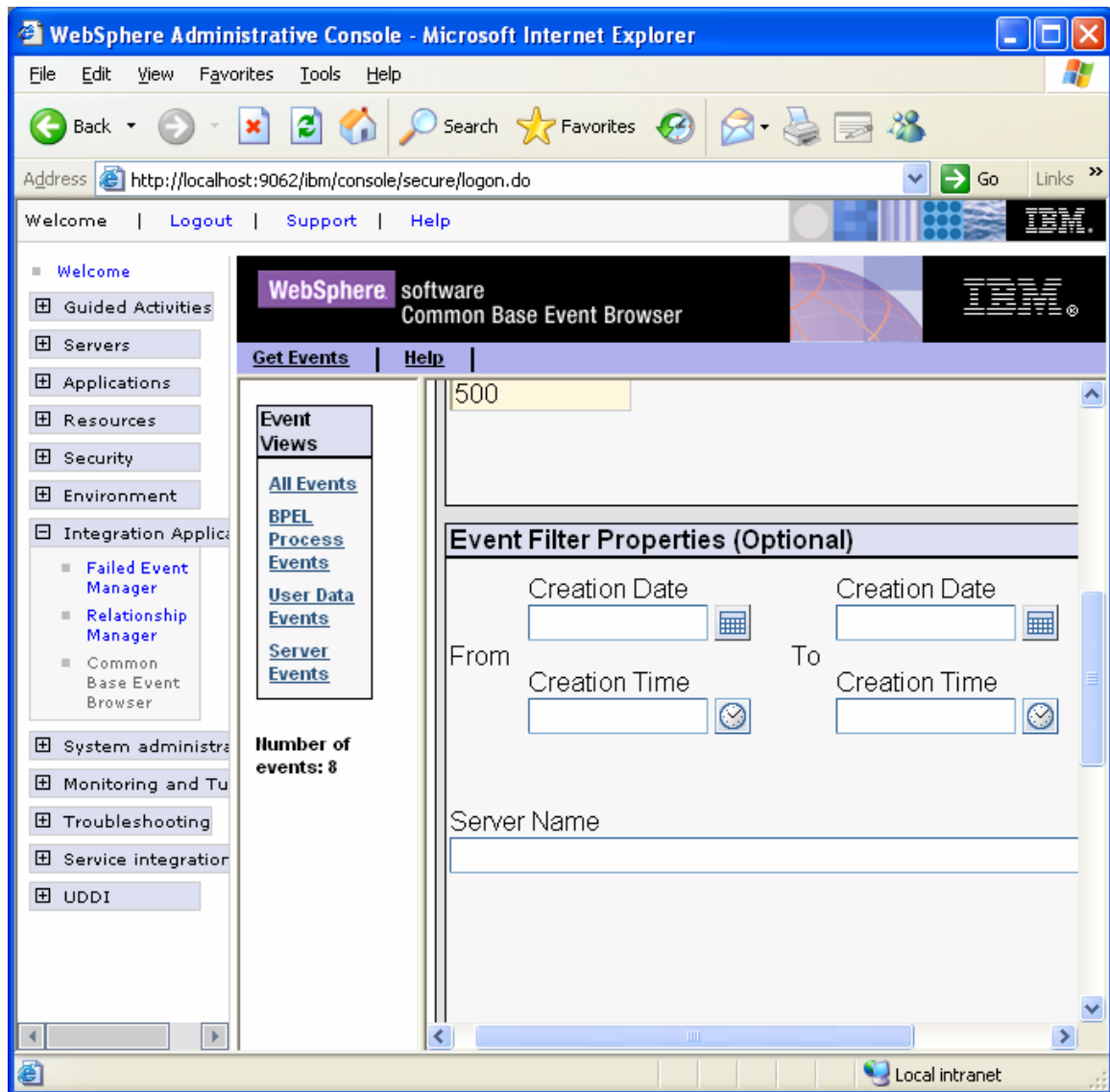


- \_\_\_ d. Then click **OK**, **Save**, and **Save** to finish the configuration.
- \_\_\_ 21. To verify that the application works correctly, open a DB2 command window. Then run the following commands:
- \_\_\_ a. db2 connect to ADAPTER user db2admin using <db2admin password>
  - \_\_\_ b. db2 insert into customer values ('1', 'Yi', 'Che', 'Regular')



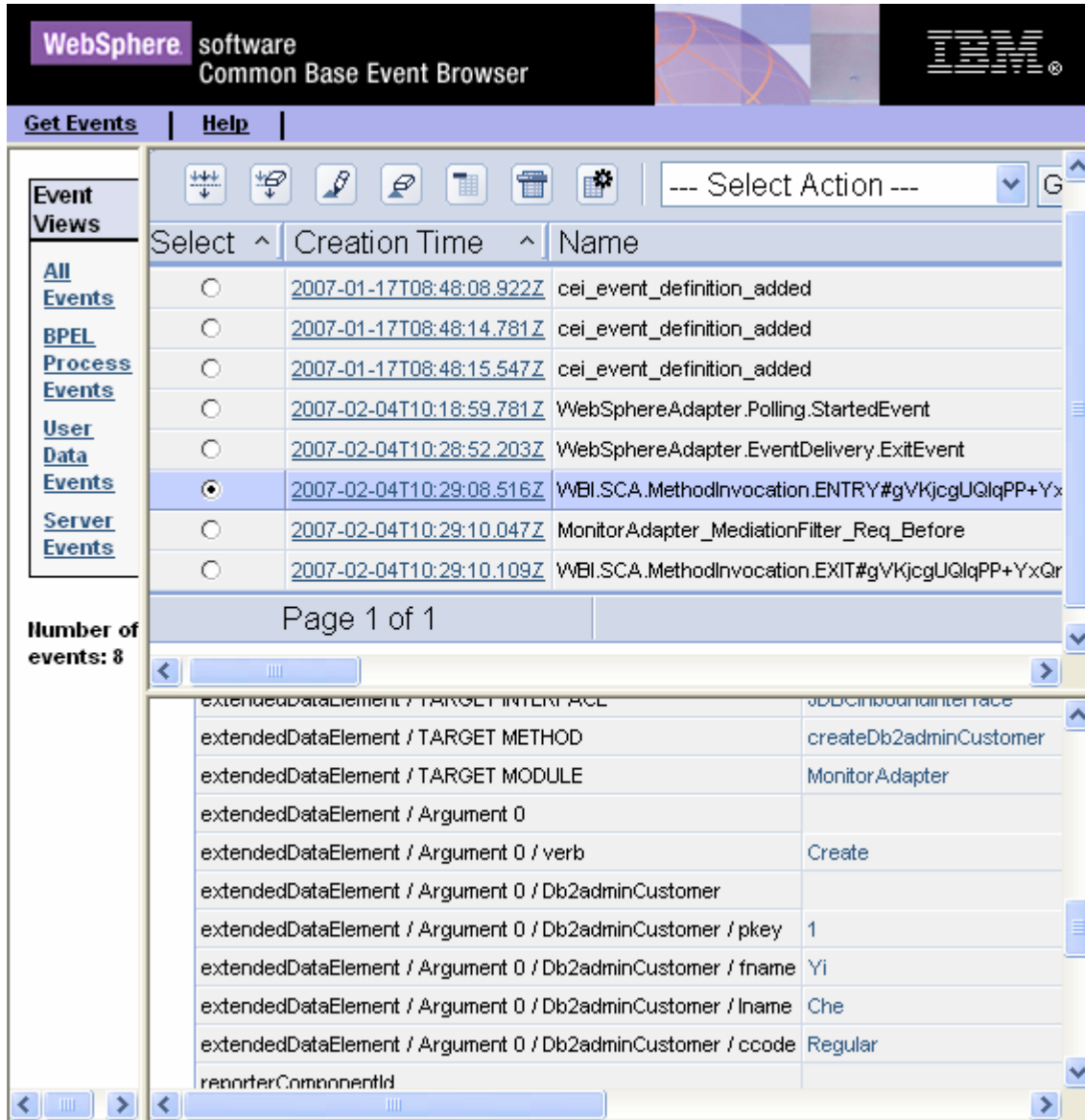
- \_\_\_\_\_ 22. From the left menu of the administrative console, click **Integration Application ► Common Base Event Browser** and wait briefly for the Common Base Event browser to be initialized.

Figure 93. Click Integration Application ► Common Base Event Browser



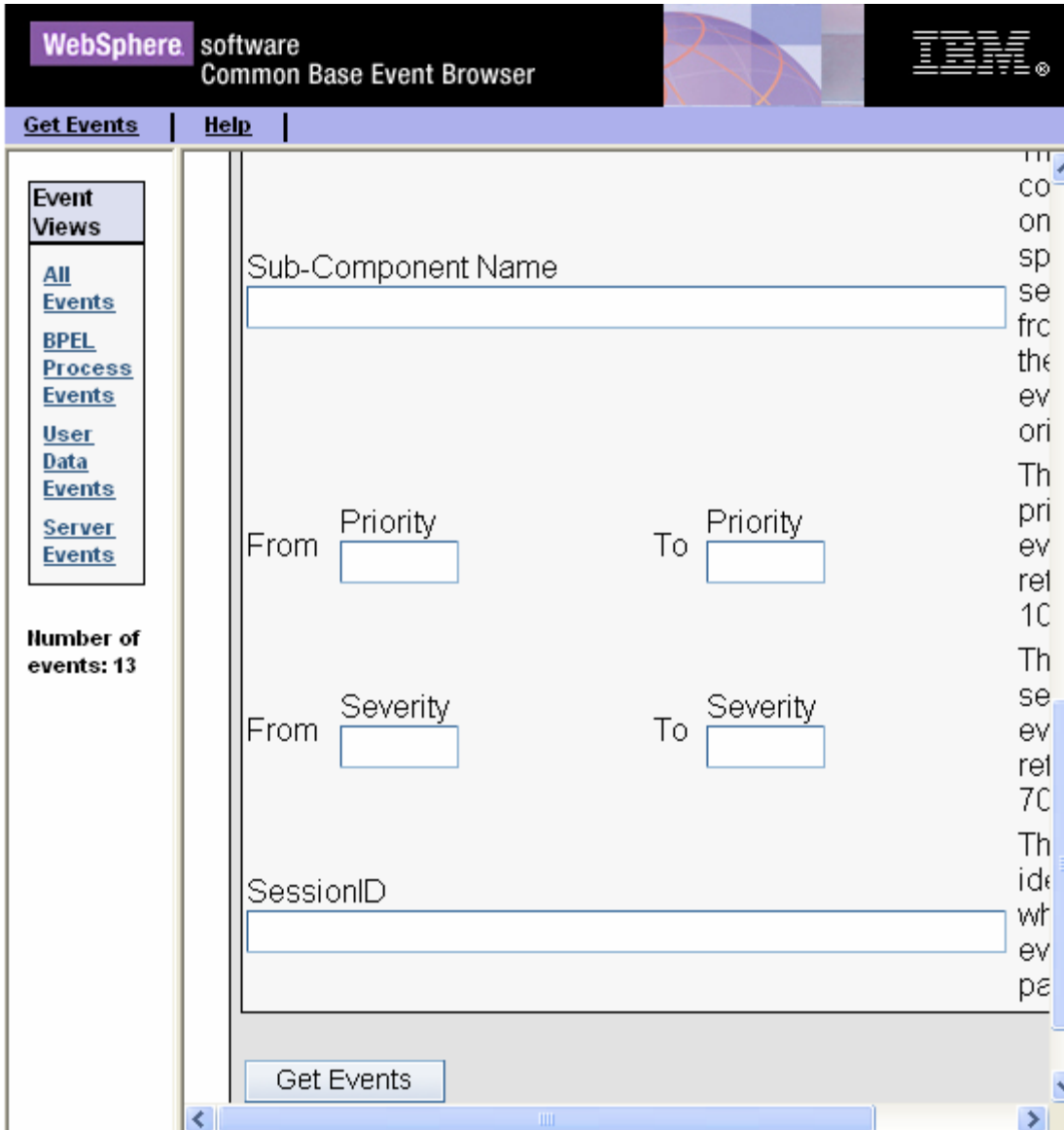
- 23. From the left menu of the Common Base Event browser, click **All Events**. The list should include the events related to the record that you just inserted.

Figure 94. Click All Events



- \_\_\_ 24. To add a Gold customer, open a DB2 command window. Then run the following commands:
  - \_\_\_ a. db2 insert into customer values ('2', 'James', 'Bond', 'Gold')
  - \_\_\_ b. db2 disconnect ADAPTER
- \_\_\_ 25. From the top menu of Common Base Event browser, click **Get Events**. Wait briefly for the browser to be updated.

Figure 95. Click Get Events



- 26. Click **All Events** again. The list should include the **MonitorAdapter\_MediationFilter\_Req\_After** event that demonstrates that the filter works well and recognizes the Gold customer.

Figure 96. Click All Events, again

The screenshot shows the WebSphere software Common Base Event Browser interface. The top navigation bar includes 'Get Events' and 'Help'. On the left, there is a sidebar with 'Event Views' and a list of categories: 'All Events', 'BPEL', 'Process Events', 'User Data Events', and 'Server Events'. The 'All Events' category is selected. The main area displays a table of events with columns for 'Select', 'Creation Time', and 'Name'. The second event is selected, showing a creation time of '2007-02-04T12:02:29.672Z' and the name 'MonitorAdapter\_MediationFilter\_Req\_After'. Below the table, there is a pagination control showing 'Page 2 of 2' and 'Total: 13'. At the bottom, a detailed view of the selected event is shown, including the path '/ createDb2adminCustomerInput' and various attributes like 'pkey', 'fname', 'lname', and 'ccode'.

Select	Creation Time	Name
<input type="radio"/>	2007-02-04T12:02:29.641Z	MonitorAdapter_MediationFilter_Req_Before
<input checked="" type="radio"/>	2007-02-04T12:02:29.672Z	MonitorAdapter_MediationFilter_Req_After
<input type="radio"/>	2007-02-04T12:02:29.688Z	WBI.SCA.MethodInvocation.EXIT#gVKjcgUQlqPP-

Number of events: 13

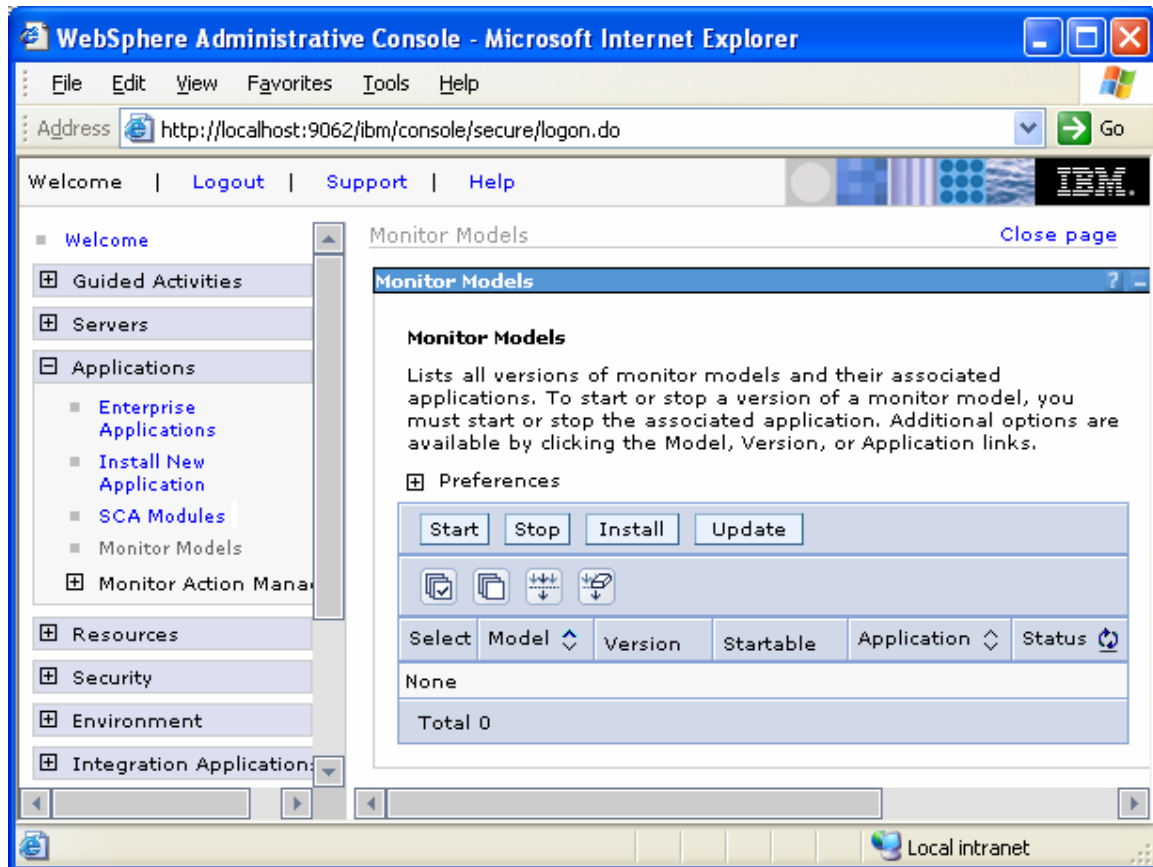
/ createDb2adminCustomerInput	
/ createDb2adminCustomerInput / verb	Create
/ createDb2adminCustomerInput / Db2adminCustomer	
/ createDb2adminCustomerInput / Db2adminCustomer / pkey	2
/ createDb2adminCustomerInput / Db2adminCustomer / fname	James
/ createDb2adminCustomerInput / Db2adminCustomer / lname	Bond
/ createDb2adminCustomerInput / Db2adminCustomer / ccode	Gold

#### Part 4: Deploying the monitor model

In this section you will use the WebSphere Process Server administrative console to perform the life-cycle steps to deploy the monitor model.

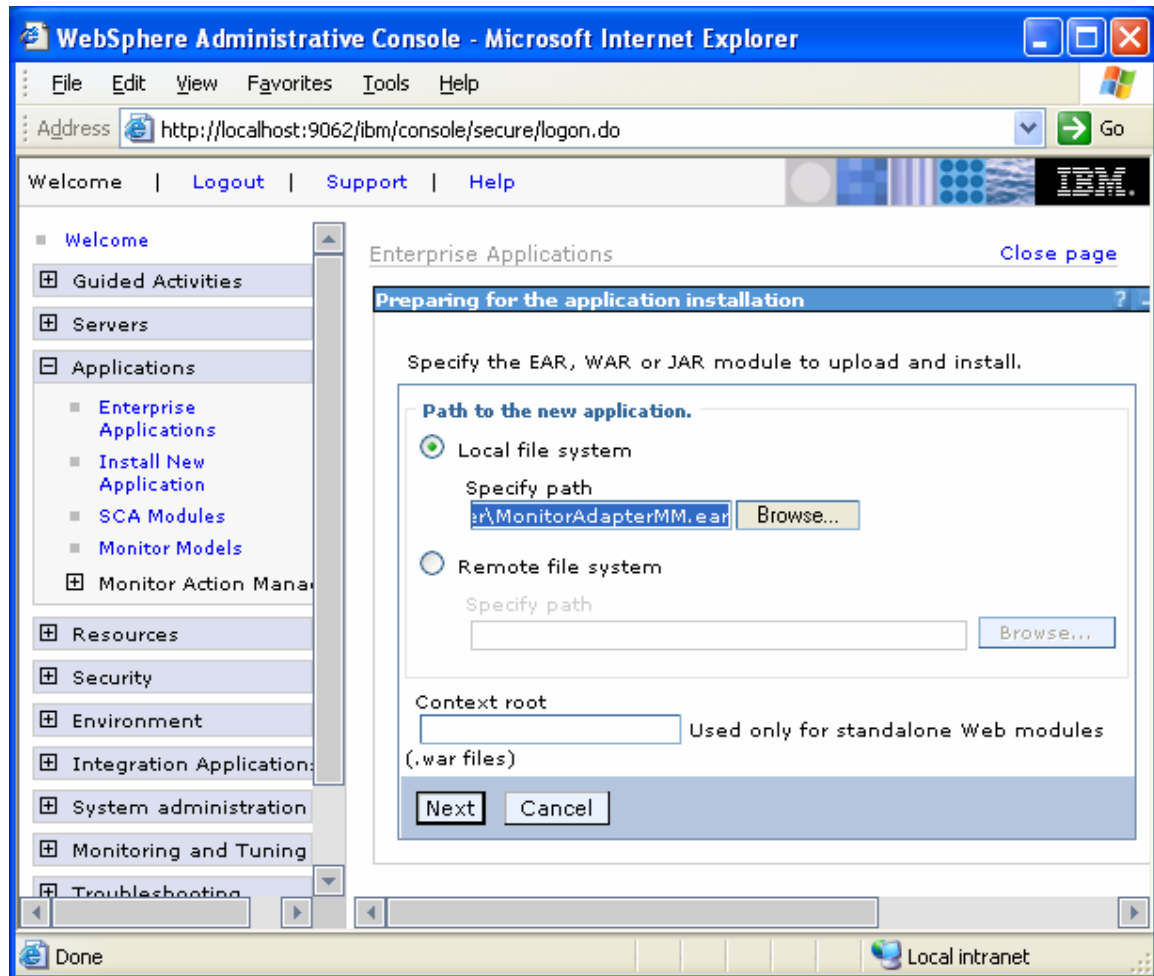
- \_\_\_ 1. Install the monitor model.
  - \_\_\_ a. In the administrative console menu, select **Applications ► Monitor Models**.
  - \_\_\_ b. Click **Install**.

Figure 97. Select Applications ► Monitor Models



- \_\_\_ c. Browse to **MonitorAdapterMM.ear**. This is the EAR file that you created in WebSphere Integration Developer.
- \_\_\_ d. Click **Next**.

Figure 98. Browse to MonitorAdapterMM.ear



\_\_\_ e. Click **Next**.

Figure 99. Click Next on this screen

Choose to generate default bindings and mappings.

Generate Default Bindings

**Prefixes:**  
 Do not specify unique prefix for beans  
 Specify Prefix:  
Prefix

**Override:**  
 Do not override existing bindings  
 Override existing bindings

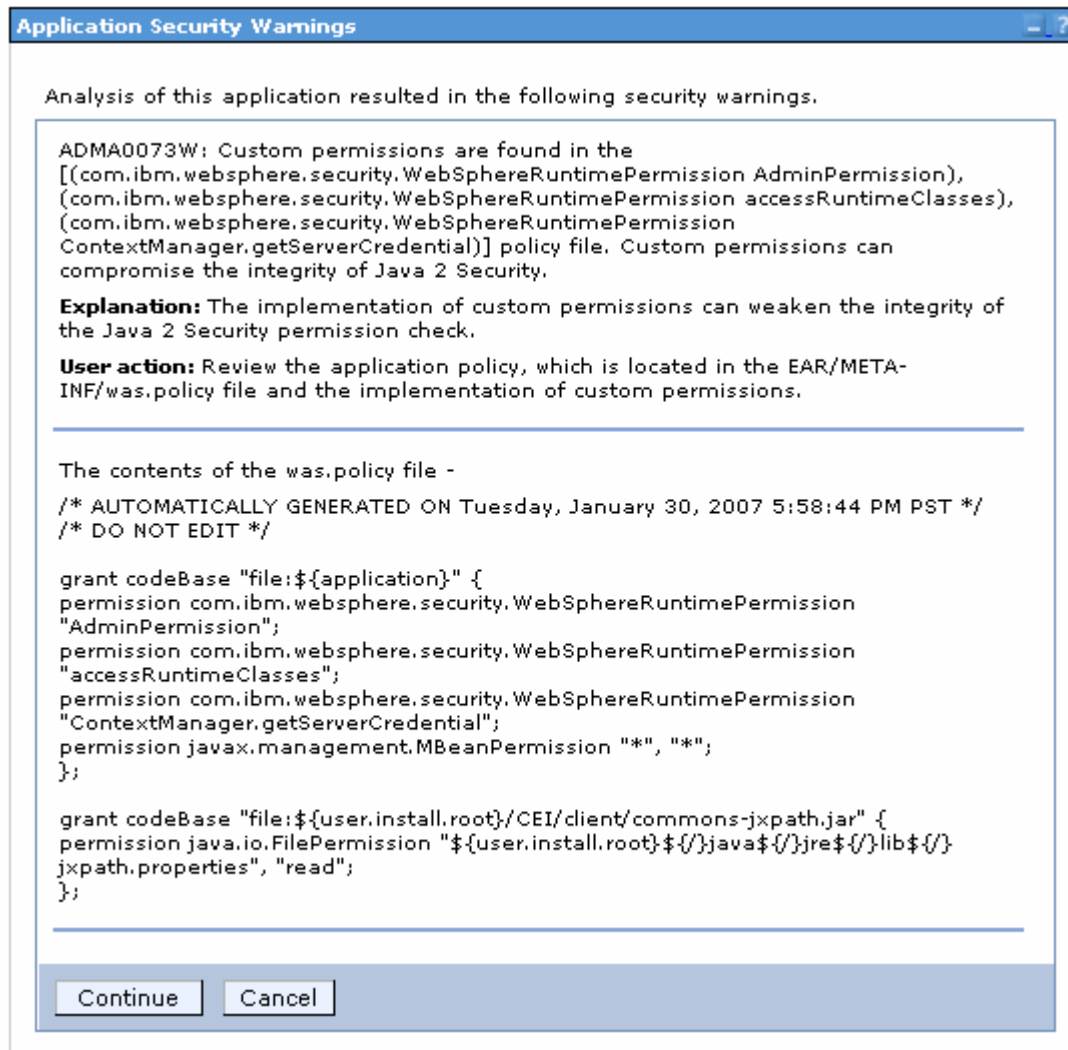
**EJB 1.1 CMP bindings:**  
 Do not default bindings for EJB 1.1 CMPs  
 Default bindings for EJB 1.1 CMPs:  
JNDI name  
  
username  
  
password  
  
verify password

**Connection Factory Bindings**  
 Do not default connection factory bindings  
 Default connection factory bindings:  
JNDI name  
  
Resource authorization:  
 ▾

Specific bindings file

\_\_\_ f. Click **Continue**.

Figure 100. Click Continue on this screen





\_\_\_ g. To install the application using the defaults, click **Step 11: Summary**.

Figure 101. Click Step 11 Summary

The screenshot shows a window titled "Install New Application" with a subtitle "Specify options for installing enterprise applications and modules." The window is divided into two main sections. On the left is a vertical sidebar with a list of steps from Step 1 to Step 11. Step 1, "Select installation options", is highlighted in blue and has a yellow arrow pointing to it. The other steps are listed in a lighter blue background. On the right is the "Select installation options" panel, which contains several configuration options with checkboxes and input fields. At the bottom of the window are two buttons: "Next" and "Cancel".

**Install New Application** ? -

Specify options for installing enterprise applications and modules.

→ **Step 1: Select installation options**

[Step 2](#) Map modules to servers

[Step 3](#) Select current backend ID.

[Step 4](#) Provide JNDI Names for Beans

[Step 5](#) Provide default data source mapping for modules containing 2.x entity beans

[Step 6](#) Map data sources for all 2.x CMP beans

[Step 7](#) Map EJB references to beans

[Step 8](#) Map resource references to resources

[Step 9](#) Map resource env entry references to resources

[Step 10](#) Ensure all unprotected 2.x methods have the correct level of protection

[Step 11](#) Summary

**Select installation options**

Specify the various options that are available to prepare and install your application.

Pre-compile JSP

Directory to install application

Distribute application

Use Binary Configuration

Deploy enterprise beans

Application name

Create MBeans for resources

Enable class reloading

Reload interval in seconds

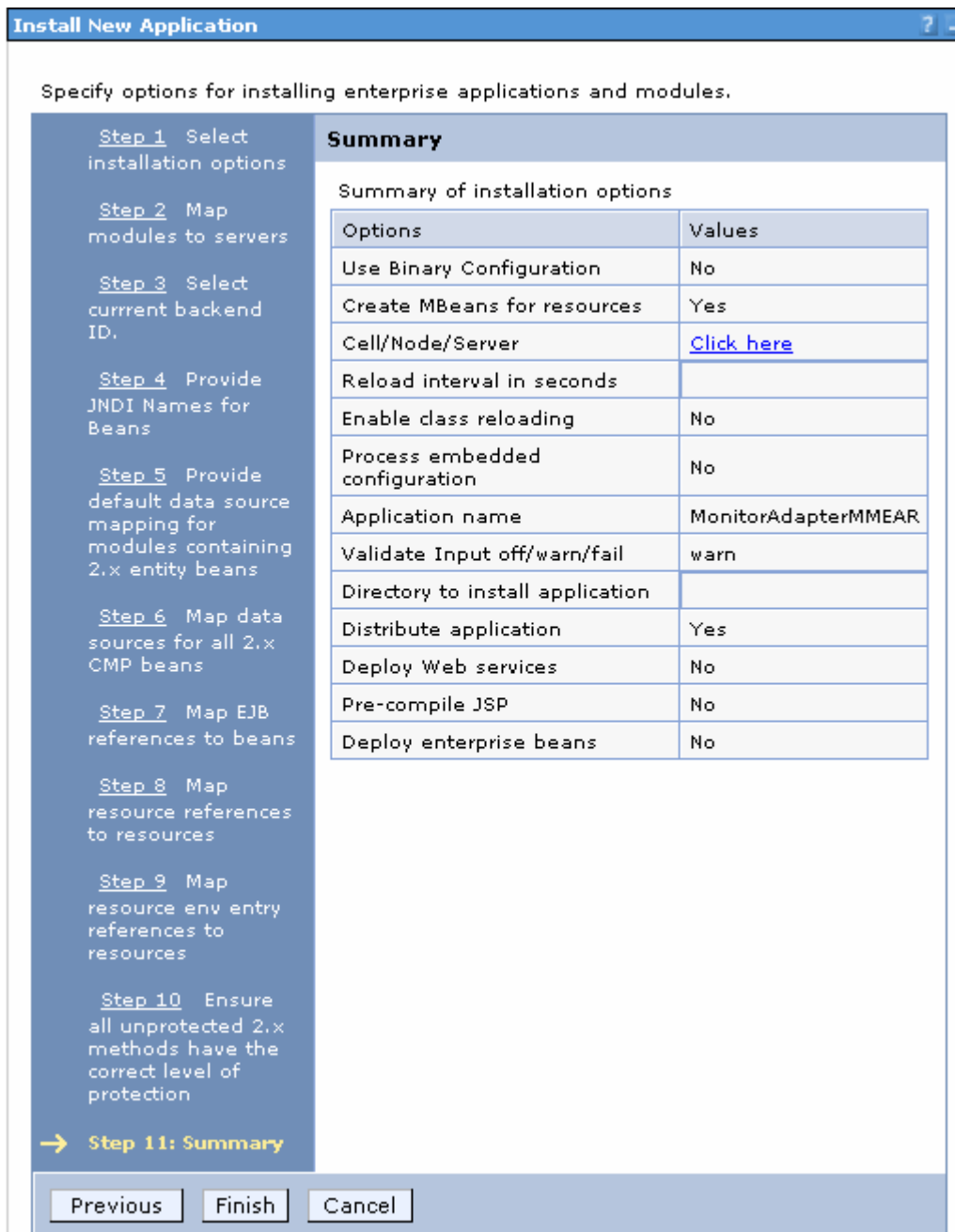
Deploy Web services

Validate Input off/warn/fail  
 ▼

Process embedded configuration

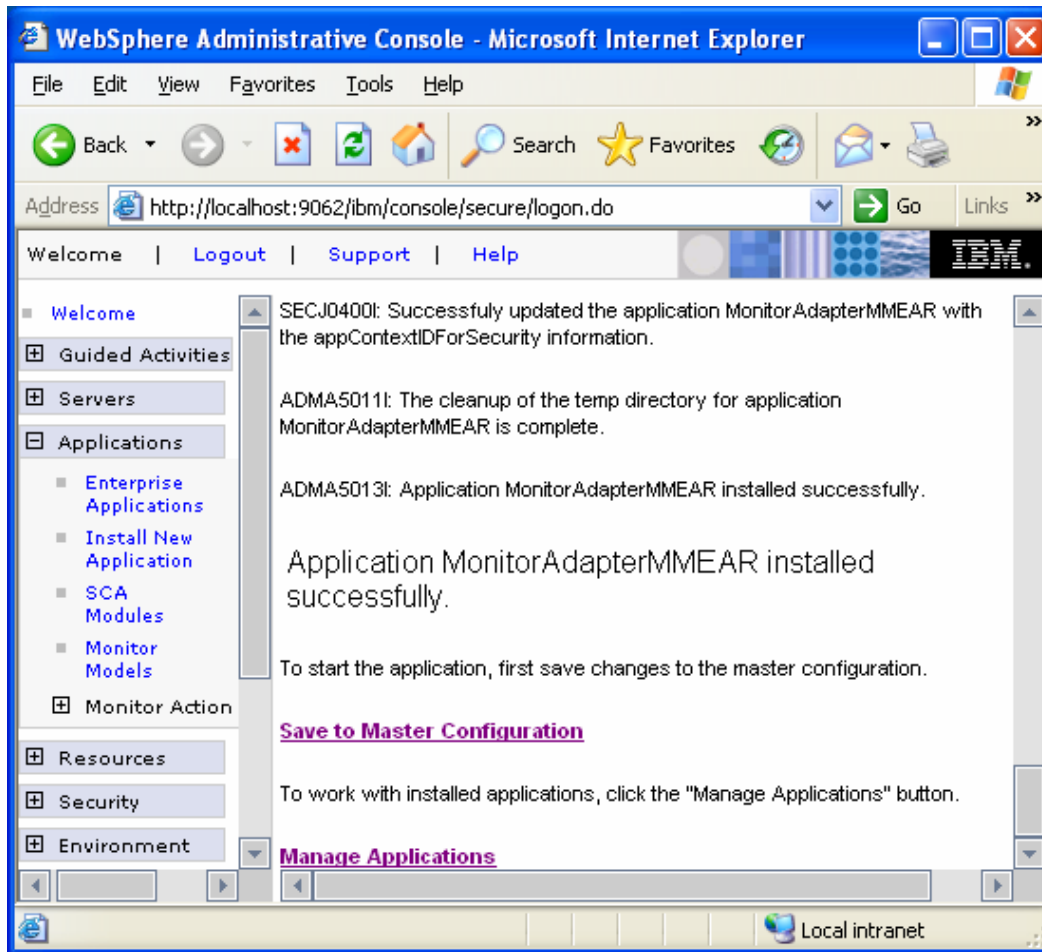
\_\_\_ h. Click **Finish**.

Figure 102. Click Finish



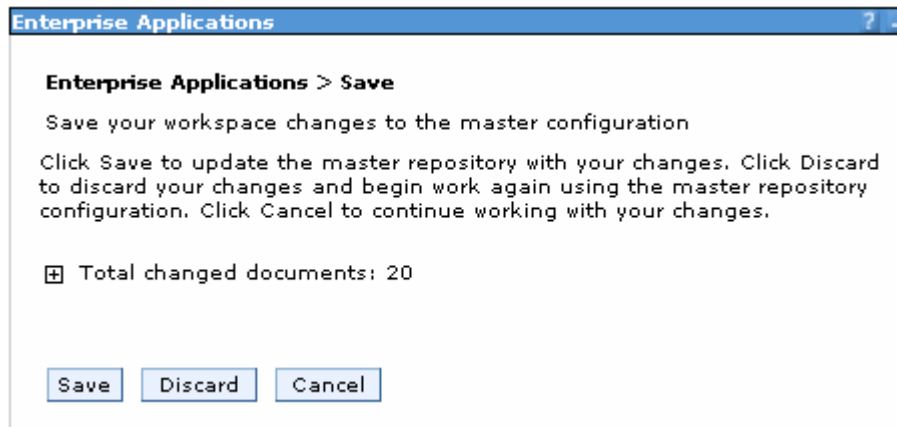
\_\_\_ i. Click **Save to Master Configuration**.

Figure 103. Click Save to Master Configuration



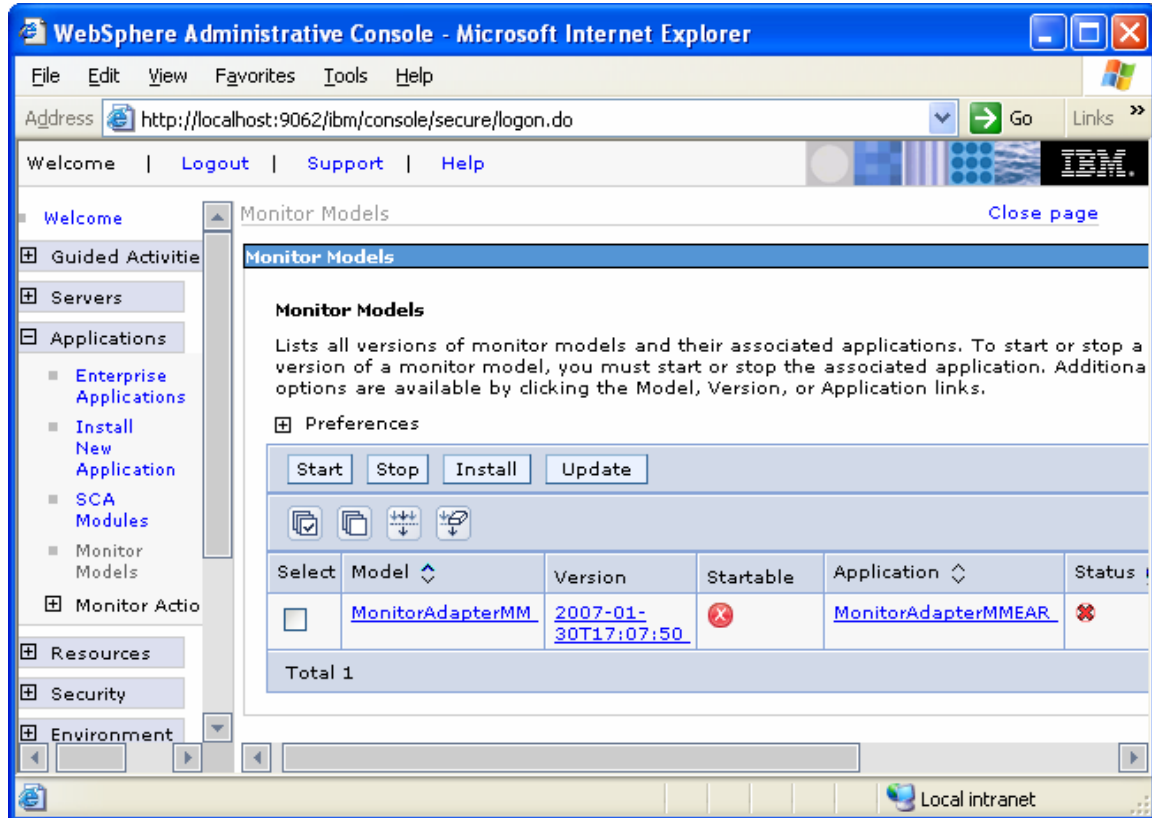
\_\_\_ j. Then, click **Save**.again.

Figure 104. Click Save



- \_\_\_ 2. Run step 1 of the model life cycle.
  - \_\_\_ a. In the administrative console menu, select **Applications ► Monitor Models**.
  - \_\_\_ b. Click the **timestamp** value that is listed in the **Version** column.

Figure 105. Click the timestamp value



\_\_\_ c. Click **Setup Wizard**.

Figure 106. Click Setup Wizard

[Monitor Models](#) > **Version**

Configuration that applies to the selected model version.

General

---

**General Properties**


Model

Version

Application

CEI distribution mode

Active MC instances

 Startable

**Setup Status**

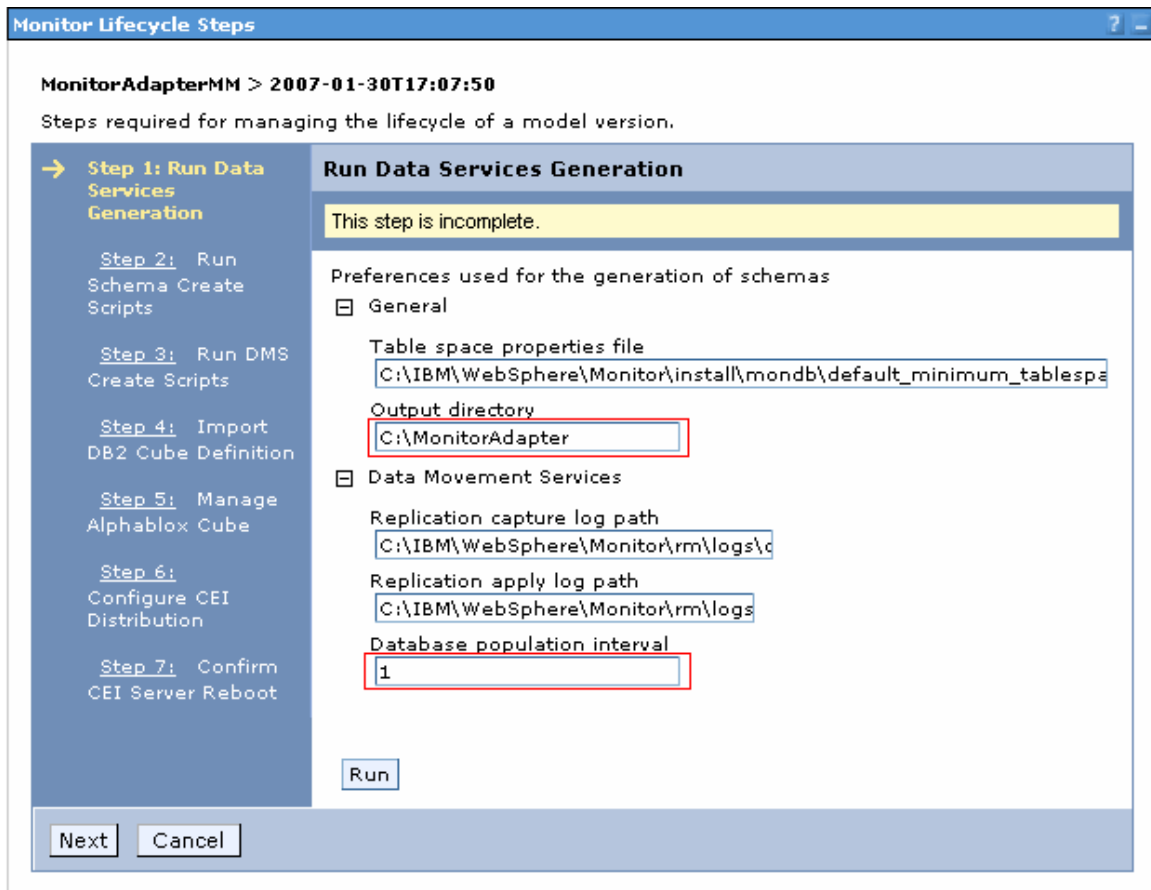
- Run Data Services Generation
- Run Schema Create Scripts
- Run DMS Create Scripts
- Import DB2 Cube Definition
- Manage Alphablox Cube
- Configure CEI Distribution
- Confirm CEI Server Reboot

**Version Properties**

- [Setup Wizard](#)
- [Runtime Configuration](#)
- [View Model](#)

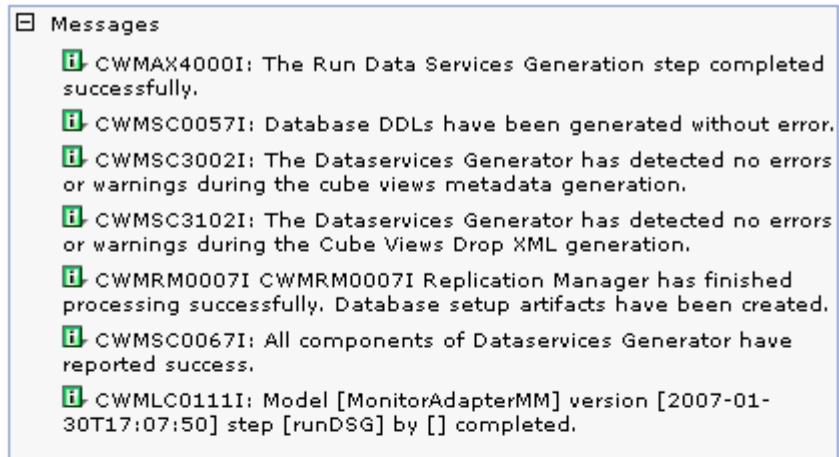
- \_\_\_ d. Enter the name of the output directory, such as **C:\MonitorAdapter**. When you run the data services generation, the schemagen folder will be created in the specified output directory.
- \_\_\_ e. Change the Database population interval value to **1**. For development purposes, replication should run often so that you do not have to wait to see the updates in the DATAMART database.  
**Note:** This interval number represents minutes.
- \_\_\_ f. Click **Run**.

Figure 107. Enter the name of the output directory



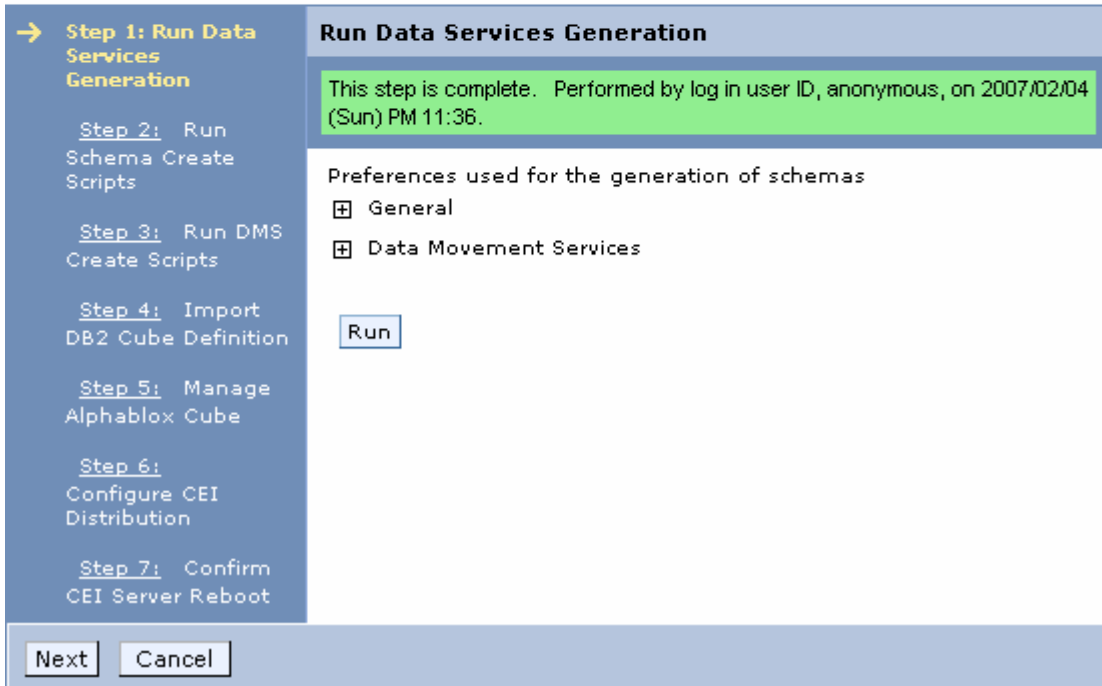
\_\_\_ g. Click Next.

Figure 108. Click Next when this screen appears



**MonitorAdapterMM > 2007-01-30T17:07:50**

Steps required for managing the lifecycle of a model version.



\_\_\_\_\_ 3. Run **Step 2: Run Schema Create Scripts** and **Step 3: Run DMS Create Scripts** of the model life cycle.

Figure 109. Run Step 2 and Step 3

**MonitorAdapterMM > 2007-01-30T17:07:50**

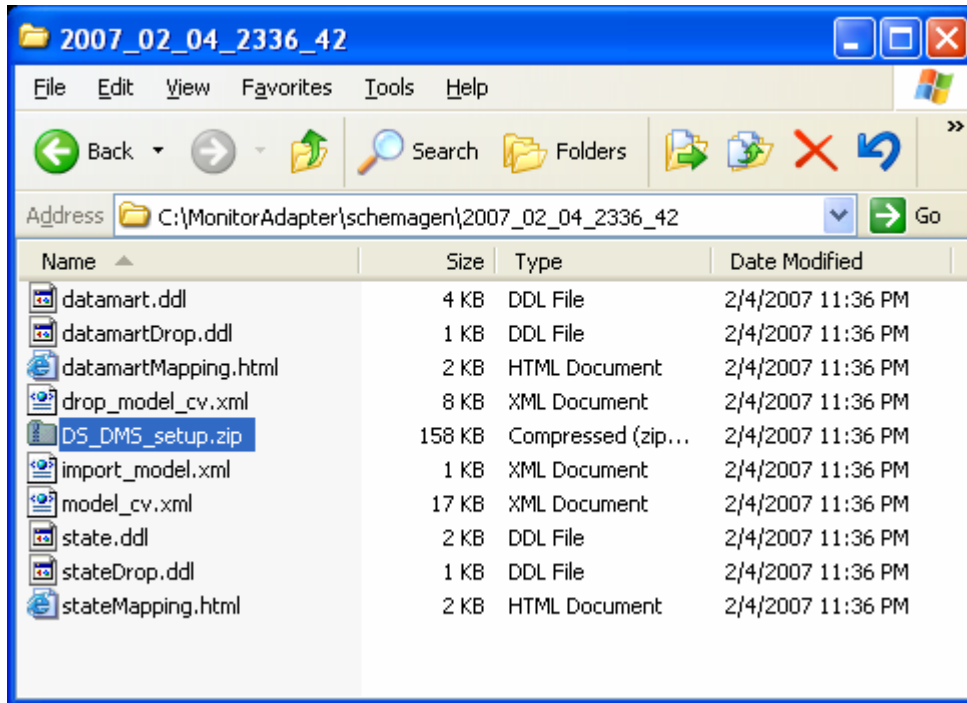
Steps required for managing the lifecycle of a model version.

	Run Schema Create Scripts
<p>✓ <a href="#">Step 1: Run Data Services Generation</a></p>	
<p>→ <b>Step 2: Run Schema Create Scripts</b></p>	<p>This step is incomplete.</p>
<p><a href="#">Step 3: Run DMS Create Scripts</a></p>	<p>The schema create scripts were produced by Step 1 in the <i>Output directory</i>. These scripts must be run outside of the WebSphere Administrative Console as a prerequisite to performing the next step.</p>
<p><a href="#">Step 4: Import DB2 Cube Definition</a></p>	<p>script location: <i>Output directory/schemagen/date of generation</i></p>
<p><a href="#">Step 5: Manage Alphablox Cube</a></p>	<p>To run the scripts, change directory to the <i>script location</i>, open a DB2 command window, and run the following: db2 connect to <i>monitor</i> db2 +c -stvf state.ddl</p>
<p><a href="#">Step 6: Configure CEI Distribution</a></p>	<p>Open a second DB2 command window, and run the following: db2 connect to <i>datamart</i> db2 +c -stvf datamart.ddl</p>
<p><a href="#">Step 7: Confirm CEI Server Reboot</a></p>	<p>If both succeeded, in the first command window, run the following: db2 commit db2 disconnect <i>monitor</i></p>
	<p>in the second command window, run the following: db2 commit db2 disconnect <i>datamart</i></p>
	<p>If one or both failed, in the first command window, run the following: db2 rollback db2 disconnect <i>monitor</i></p>
	<p>in the second command window, run the following: db2 rollback db2 disconnect <i>datamart</i></p>
	<p><input type="button" value="Refresh"/></p>
<p><input type="button" value="Previous"/> <input type="button" value="Next"/> <input type="button" value="Cancel"/></p>	



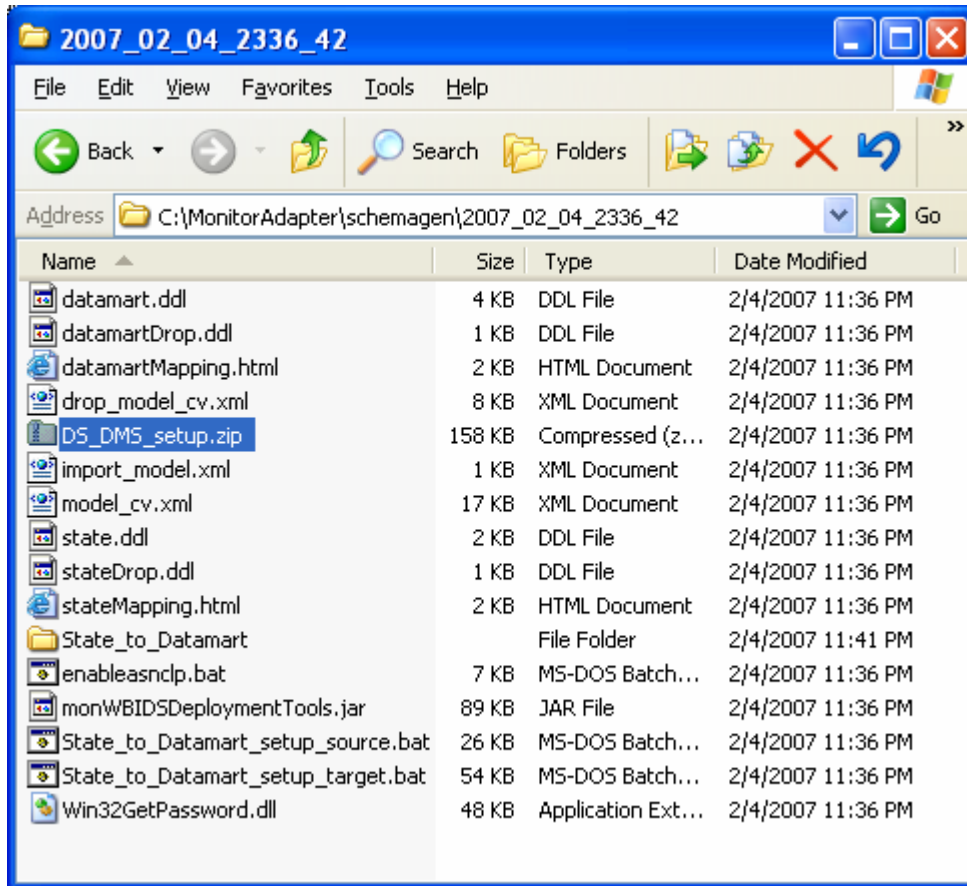
- \_\_\_ a. In Windows File Explorer, browse to **C:\MonitorAdapter\schemagen\<timestamp>**.

Figure 110. Browse to C:\MonitorAdapter\schemagen\&lt;timestamp&gt;



- \_\_\_ b. Extract the **DS\_DMS\_setup.zip** file into this same folder.

Figure 111. Extract the DS\_DMS\_setup.zip file



- \_\_\_ c. Open a DB2 command window:
- (1) Select **Start ► Run**.
  - (2) Enter the db2cmd command.
- \_\_\_ d. To create the tables for the monitor model, enter the following commands in the DB2 command window.  
**Note:** Monitor and state are used interchangeably. The database is defined as MONITOR, but you will see references to state such as state.ddl, state.log, and state\_to\_datamart\_setup\_source.bat, for example.
- (1) cd \MonitorAdapter\schemagen\<<timestamp>
  - (2) db2 connect to MONITOR
  - (3) db2 -tvf state.ddl > state.log
  - (4) db2 disconnect MONITOR
  - (5) db2 connect to DATAMART
  - (6) db2 -tvf datamart.ddl > datamart.log
  - (7) db2 disconnect DATAMART
- \_\_\_ e. Browse the newly created state.log and datamart.log files to verify that they are correct.
- \_\_\_ f. Run the replication setup scripts.
- (1) In the same DB2 command window, you should still be in folder

**\MonitorAdapter\schemagen\<timestamp>**, so type this command:  
**State\_to\_Datamart\_setup\_source.bat**

- (2) Each time that you are prompted to enter a user ID, press **Enter**.
- (3) Browse the newly created **State\_to\_datamart\_setup\_source.log** file to check for errors.
- (4) In the same DB2 command window, you should still be in folder **\MonitorAdapter\schemagen\<timestamp>**, so type this command:  
**State\_to\_Datamart\_setup\_target.bat**
- (5) Each time that you are prompted to enter a user ID, press **Enter**.
- (6) Browse the newly created **State\_to\_datamart\_setup\_target.log** file to check for errors.
- (7) If any errors occurred, run the scripts again. They should succeed after this second attempt.

\_\_\_ g. Start the replication daemons.

- (1) In the same DB2 command window, you should still be in folder **\MonitorAdapter\schemagen\<timestamp>**, so type this command:  
**cd State\_to\_Datamart\source**
- (2) Find all scripts starting with the prefix **StartCapture**, and run them. (For this scenario there will be only one.) For example, type the following command:  
**StartCapture\_5.bat**
- (3) A new window is opened to display the status of the scripts as they are run. Leave this window open. Do not enter any commands in this window.

Figure 112. Status of the scripts as they are run

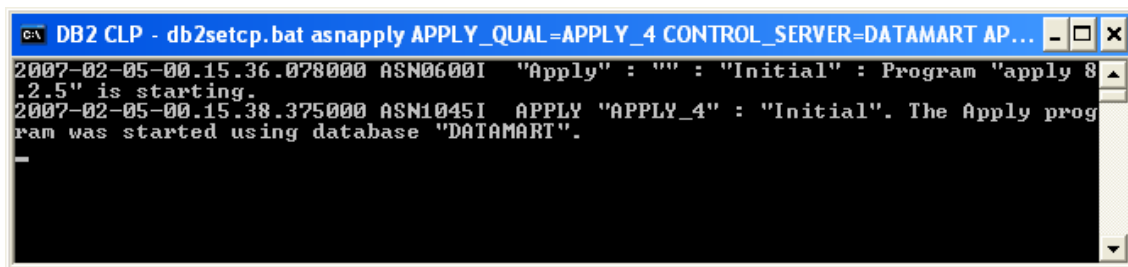
```

c:\> DB2 CLP - db2setcp.bat asncap CAPTURE_SERVER=MONITOR CAPTURE_SCHEMA=CAPTURE_...
2007-02-05-00.14.46.687000 ASN0600I "Capture" : "" : "Initial" : Program "captu
re 8.2.5" is starting.
2007-02-05-00.14.52.218000 ASN0102W CAPTURE "CAPTURE_2" : "WorkerThread". The C
apture program switches to cold start because the warm start information is insu
fficient.
2007-02-05-00.14.52.281000 ASN0100I CAPTURE "CAPTURE_2" : "WorkerThread". The C
apture program initialization is successful.
2007-02-05-00.14.52.296000 ASN0109I CAPTURE "CAPTURE_2" : "WorkerThread". The C
apture program has successfully initialized and is capturing data changes for "0
" registrations. "0" registrations are in a stopped state. "1" registrations are
in an inactive state.

```

- (4) In the DB2 command window, type this command:  
    cd ..\target
- (5) Find all scripts starting with the prefix StartApply, and run them. (For this scenario there will be only one.) For example, type the following command:  
    StartApply\_10.bat
- (6) A new window is opened to display the status of the scripts as they are run. Leave this window open. Do not enter any commands in this window. (Three command windows are now open.)

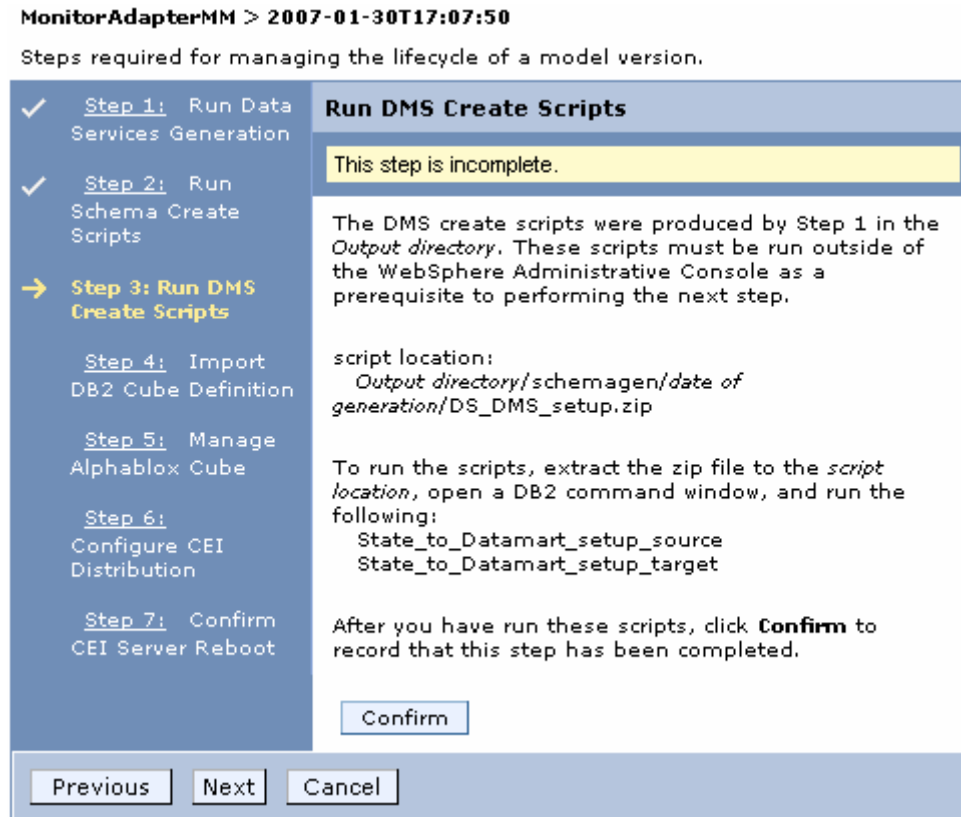
Figure 113. Status of the scripts as they are run



```
DB2 CLP - db2setcp.bat asnapply APPLY_QUAL=APPLY_4 CONTROL_SERVER=DATAMART AP...
2007-02-05-00.15.36.078000 ASN0600I "Apply" : "" : "Initial" : Program "apply 8
.2.5" is starting.
2007-02-05-00.15.38.375000 ASN1045I APPLY "APPLY_4" : "Initial". The Apply prog
ram was started using database "DATAMART".
```

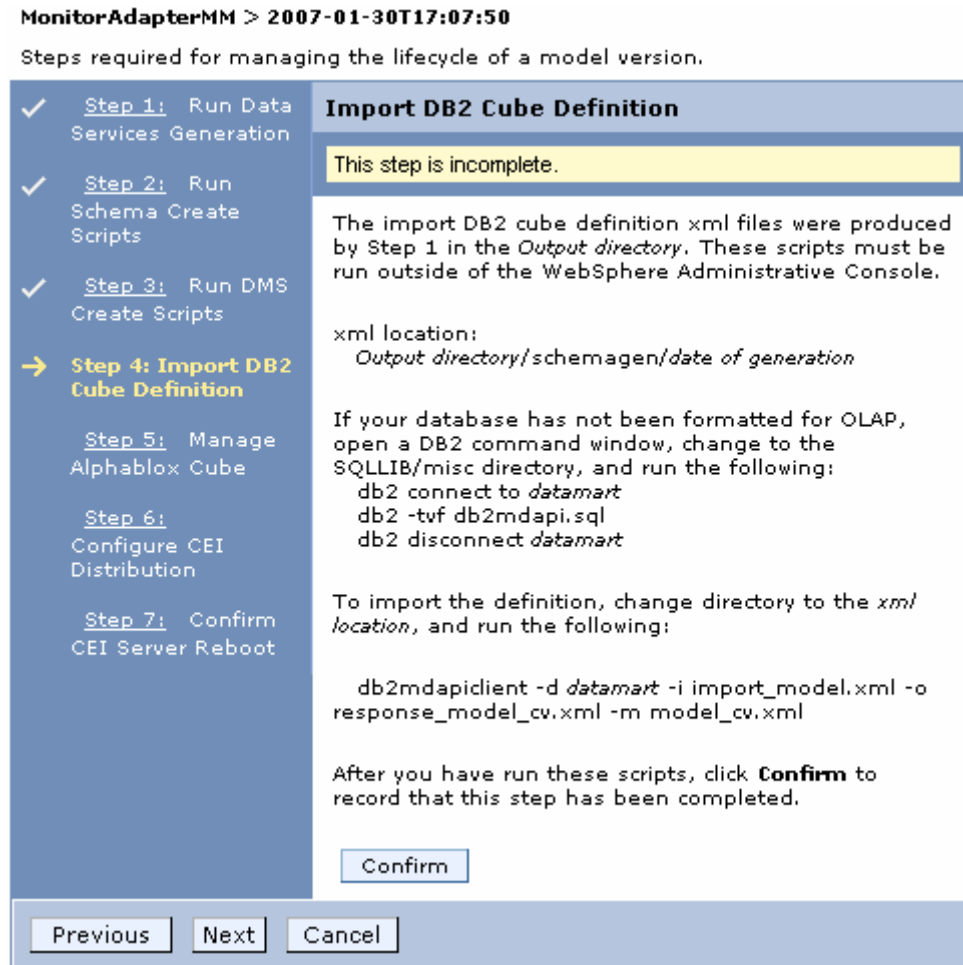
- \_\_\_ h. Close the original DB2 command window where you have been typing the commands.
- \_\_\_ i. In the administrative console, click **Refresh**.
- \_\_\_ j. When the window indicates that step 2 is complete, click **Next** to proceed to step 3.
- \_\_\_ k. Click **Confirm**.

Figure 114. Click Confirm when this window appears



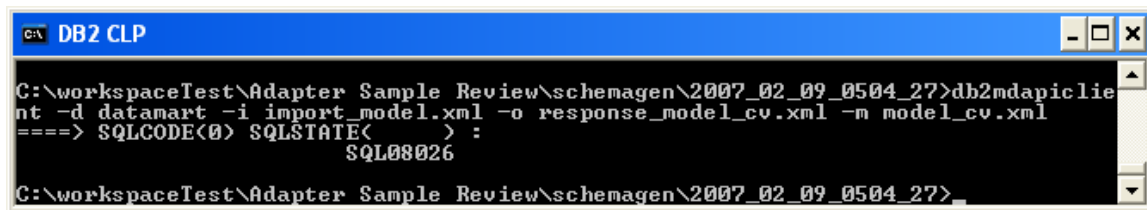
- \_\_\_ 4. Run Step 4 of the model life cycle.
  - \_\_\_ a. Click **Step 4**.

Figure 115. Run Step 4



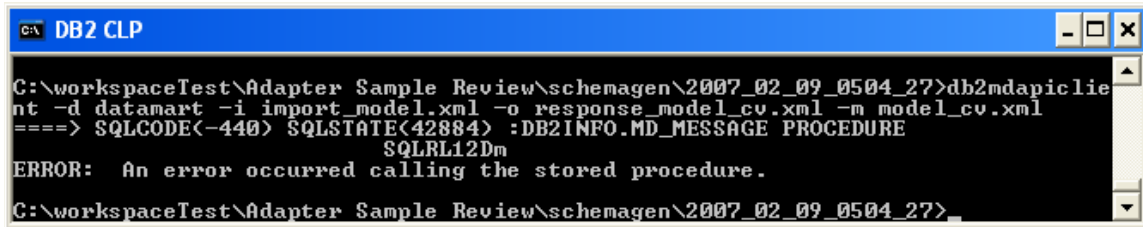
- \_\_\_ b. Open a DB2 command window:
  - (1) Select **Start ► Run**.
  - (2) Enter the db2cmd command.
  - (3) Click **OK**.
- \_\_\_ c. Import the cubes into DB2 OLAP.
  - (1) cd \MonitorAdapter\schemagen\*<timestamp>*
  - (2) db2mdapiclient -d *datamart* -i *import\_model.xml* -o *response\_model\_cv.xml* -m *model\_cv.xml*

Figure 116. The DB2 command window



- \_\_\_ d. If an error occurs when the cubes are being imported, follow these steps to format the database for OLAP. Here is a sample of the error:

Figure 117. Sample error when cubes are being imported



```
C:\workspaceTest\Adapter Sample Review\schemagen\2007_02_09_0504_27>db2mdapiclient -d datamart -i import_model.xml -o response_model_cv.xml -m model_cv.xml
====> SQLCODE<-440> SQLSTATE<42884> :DB2INFO.MD_MESSAGE PROCEDURE
        SQLRL12Dm
ERROR:  An error occurred calling the stored procedure.
C:\workspaceTest\Adapter Sample Review\schemagen\2007_02_09_0504_27>
```

- (1) cd %DB2 Home%\SQLLIB\MISC
  - (2) db2 connect to datamart
  - (3) db2 -tvf db2mdapi.sql
  - (4) db2 disconnect datamart
  - (5) Repeat step c to import the cubes to DB2 OLAP again.
- \_\_\_ e. After the cubes are imported, return to the administrative console and verify that you are in step 4 of the model life cycle.
- \_\_\_ f. Click **Confirm**.

Figure 118. Click Confirm in the administrative console



**MonitorAdapterMM > 2007-01-30T17:07:50**

Steps required for managing the lifecycle of a model version.

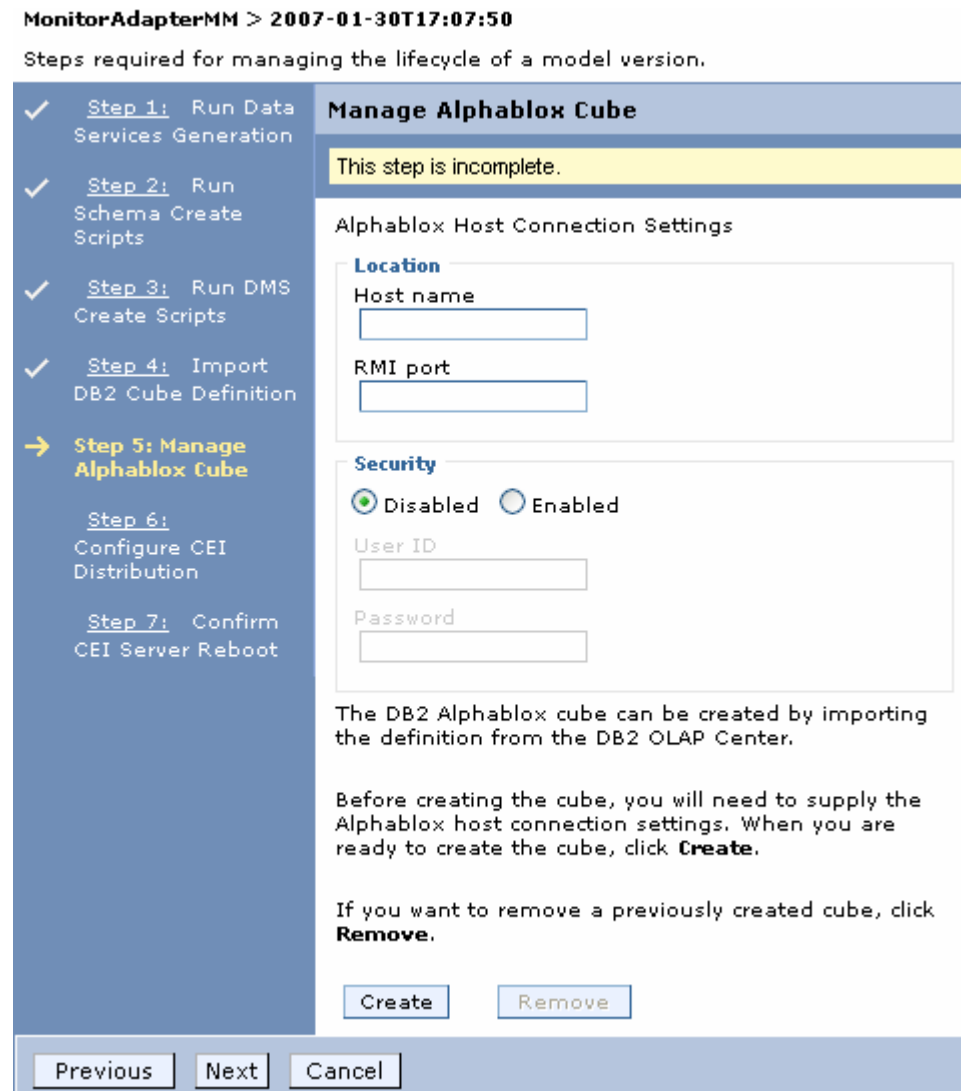
<ul style="list-style-type: none"> <li>✓ <a href="#">Step 1: Run Data Services Generation</a></li> <li>✓ <a href="#">Step 2: Run Schema Create Scripts</a></li> <li>✓ <a href="#">Step 3: Run DMS Create Scripts</a></li> <li>➔ <b>Step 4: Import DB2 Cube Definition</b></li> <li><a href="#">Step 5: Manage Alphablox Cube</a></li> <li><a href="#">Step 6: Configure CEI Distribution</a></li> <li><a href="#">Step 7: Confirm CEI Server Reboot</a></li> </ul>	<h3>Import DB2 Cube Definition</h3> <p style="background-color: #e0ffe0; padding: 5px;">This step is complete. Performed by log in user ID, anonymous, on 2007/02/05(Mon) AM 12:24.</p> <p>The import DB2 cube definition xml files were produced by Step 1 in the <i>Output directory</i>. These scripts must be run outside of the WebSphere Administrative Console.</p> <p>xml location: <i>Output directory/schemagen/date of generation</i></p> <p>If your database has not been formatted for OLAP, open a DB2 command window, change to the SQLLIB/misc directory, and run the following:              db2 connect to <i>datamart</i>              db2 -tvf db2mdapi.sql              db2 disconnect <i>datamart</i></p> <p>To import the definition, change directory to the <i>xml/location</i>, and run the following:              db2mdapiclient -d <i>datamart</i> -i import_model.xml -o response_model_cv.xml -m model_cv.xml</p> <p>After you have run these scripts, click <b>Confirm</b> to record that this step has been completed.</p> <p style="text-align: center;"><input type="button" value="Confirm"/></p>
--	---

- \_\_\_ 5. Run step 5 of the model life cycle.



\_\_\_ a. Click **Step 5: Manage Alphablox Cube**.

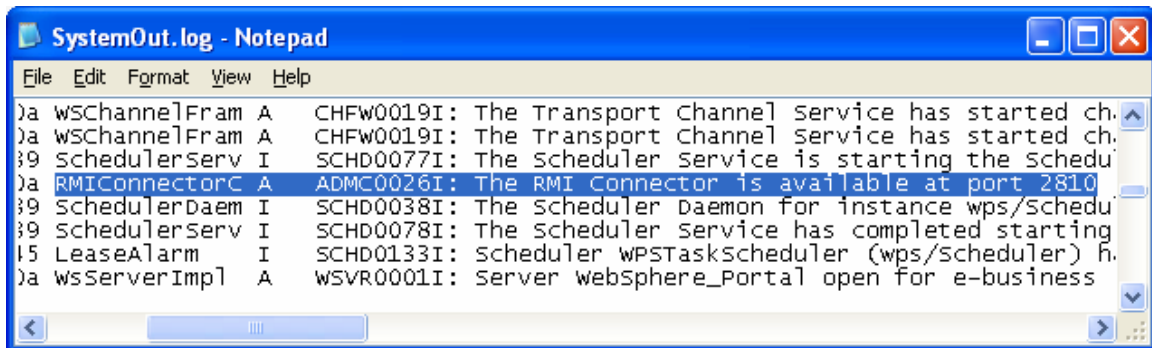
Figure 119. Click Step 5: Manage Alphablox Cube



- \_\_\_ b. Start WebSphere Portal Server.
  - (1) In Windows, select **Start ► All Programs ► IBM WebSphere ► Portal Server v5.1 ► Start the server**.
- \_\_\_ c. Find the Portal RMI port in the Portal log.
  - (1) Browse the Portal log, for example, C:\IBM\PortalServer\log\SystemOut.log.

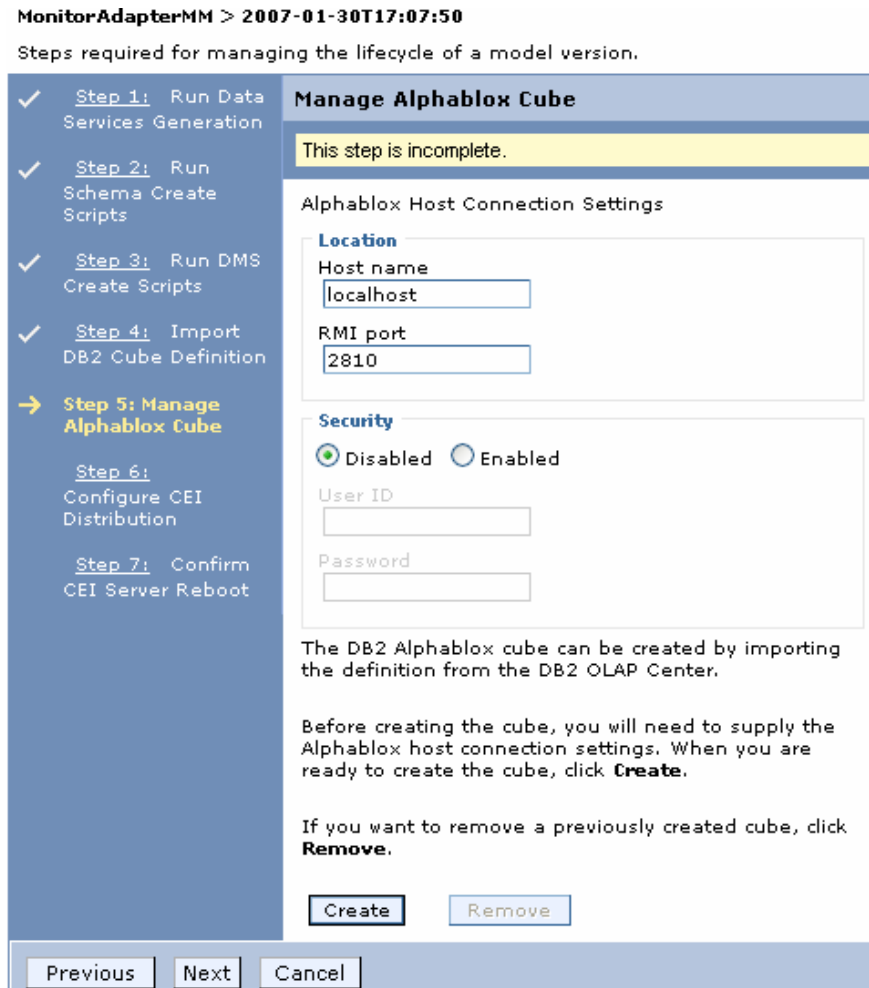
- (2) Search for **RMI Connector**. For example, in the following screen capture you see that Portal RMI is port 2810.

Figure 120. Search for RMI Connector



- \_\_\_ d. In the administrative console, in step 5 of the model life cycle, enter localhost for Host name.
- \_\_\_ e. Enter your RMI port value that you found in the Portal log.
- \_\_\_ f. Click **Create**.

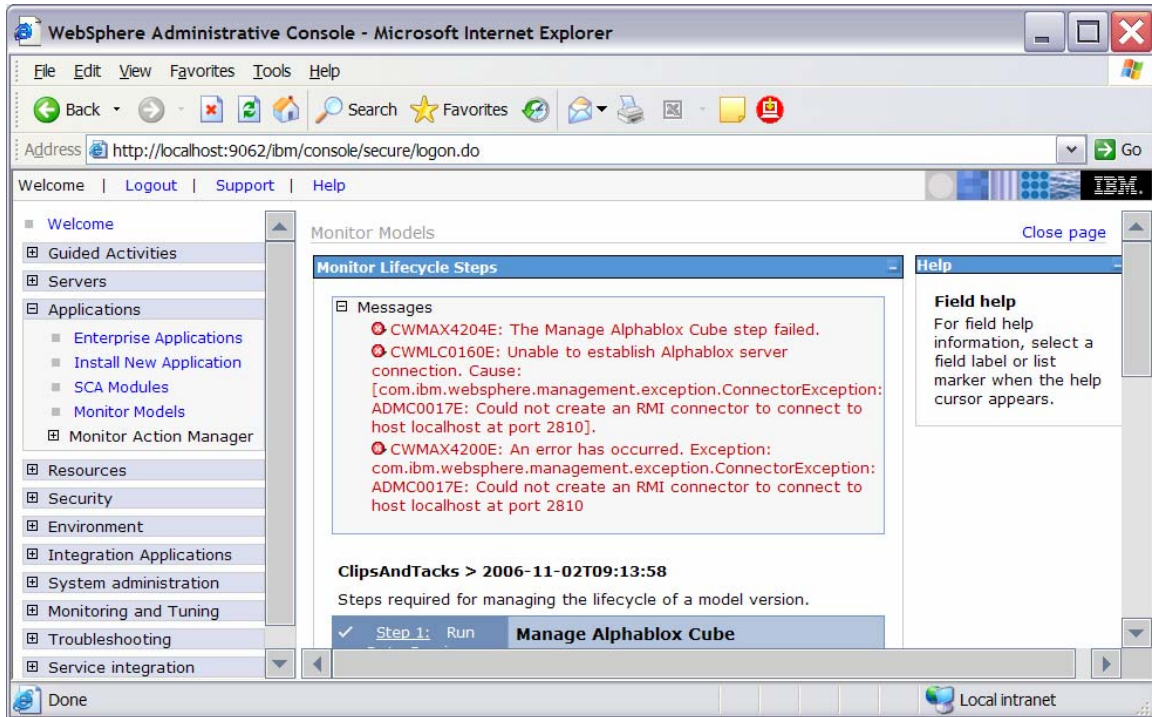
Figure 121. Enter your RMI port value



## 116 Generate MM to monitor data from an adapter

If an error message indicates that there is a connection problem, you might need to correct the Portal configuration. Go to Appendix B. Workaround for Step 5: Manage the DB2 Alphablox® cube now and follow the steps there as a workaround for this problem. After completing the workaround, return here and proceed with the next step. Here is a sample of the error:

Figure 122. Error message indicating a connection problem



- \_\_\_ 6. Run step 6 of the model life cycle.
  - \_\_\_ a. Click **Step 6: Configure CEI Distribution**.

Figure 123. Run Step 6 of the model life cycle

- ✓ [Step 1: Run Data Services Generation](#)
- ✓ [Step 2: Run Schema Create Scripts](#)
- ✓ [Step 3: Run DMS Create Scripts](#)
- ✓ [Step 4: Import DB2 Cube Definition](#)
- ✓ [Step 5: Manage Alphablox Cube](#)
- ➔ **Step 6: Configure CEI Distribution**
- [Step 7: Confirm CEI Server Reboot](#)

### Configure CEI Distribution

This step is incomplete.

Enter the location, security settings, and distribution mode of the CEI server. Ensure that the server is running and click **Apply** to initiate the configuration. The 'Confirm CEI Server Reboot' step may be required to complete the configuration. At the completion of this step, the Dashboards will be enabled.

CEI Server Configuration

Event group profile list name

**Location**

Local  Remote

Host name

RMI port

Cell

Node  
 Browse Nodes

Server  
 Browse Servers

**Security**

Disabled  Enabled

User ID

Password

**Distribution Mode**

Current

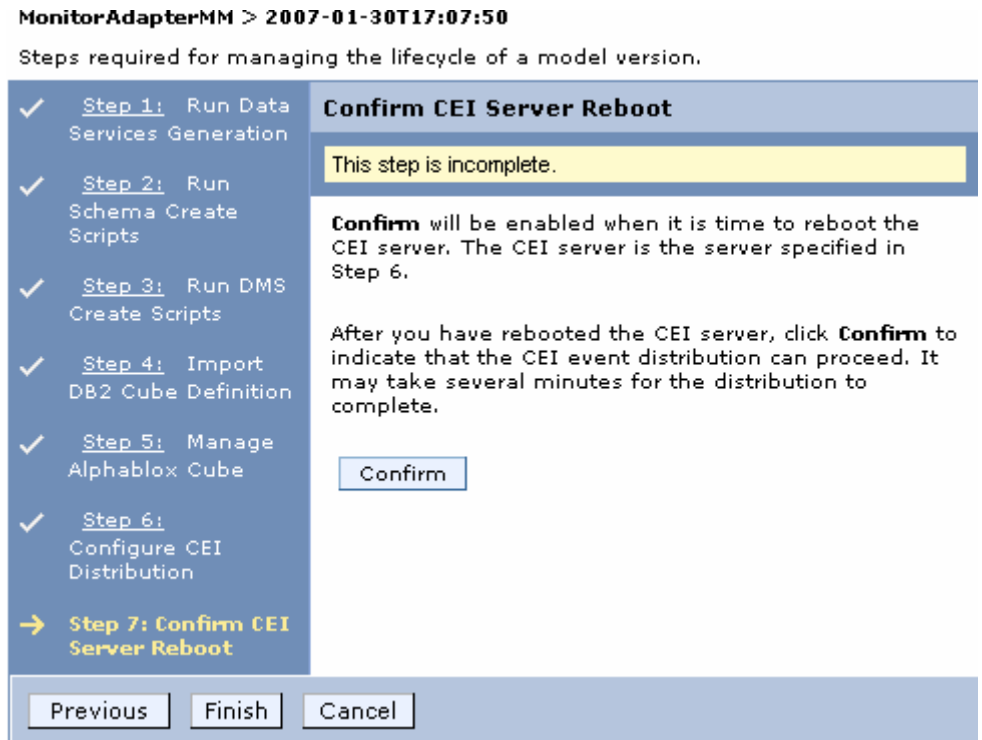
Target  
Active

Apply

- \_\_\_ b. Click **Apply**.
- \_\_\_ 7. Run **Step 7:** of the model life cycle.
  - \_\_\_ a. Click **Step 7: Confirm CEI Server Reboot**.

- \_\_\_ b. Confirm that the Confirm button on the window for step 7 is enabled. If it is not, wait a few minutes, and then refresh the window. When the Confirm button is enabled, continue with the following steps.
- \_\_\_ c. In the navigation pane for the administrative console, select **System administration ► Save Changes to Master Repository**, then click **Save**.
- \_\_\_ d. Recycle WebSphere Process Server.
  - (1) In Windows, select **Start ► All Programs ► IBM WebSphere ► Process Server 6.0 ► Profiles ► wbmonitor ► Stop the server**.
  - (2) In Windows, select **Start ► All Programs ► IBM WebSphere ► Process Server 6.0 ► Profiles ► wbmonitor ► Start the server**.
- \_\_\_ e. Re-open the administrative console for WebSphere Process Server.
- \_\_\_ f. In the administrative console menu, click **Applications ► Monitor Models**.
- \_\_\_ g. Click the **timestamp** value in the Version column.
- \_\_\_ h. Click **Setup Wizard**. The administrative console should detect that Step 6 is complete and automatically move to Step 7 as follows:

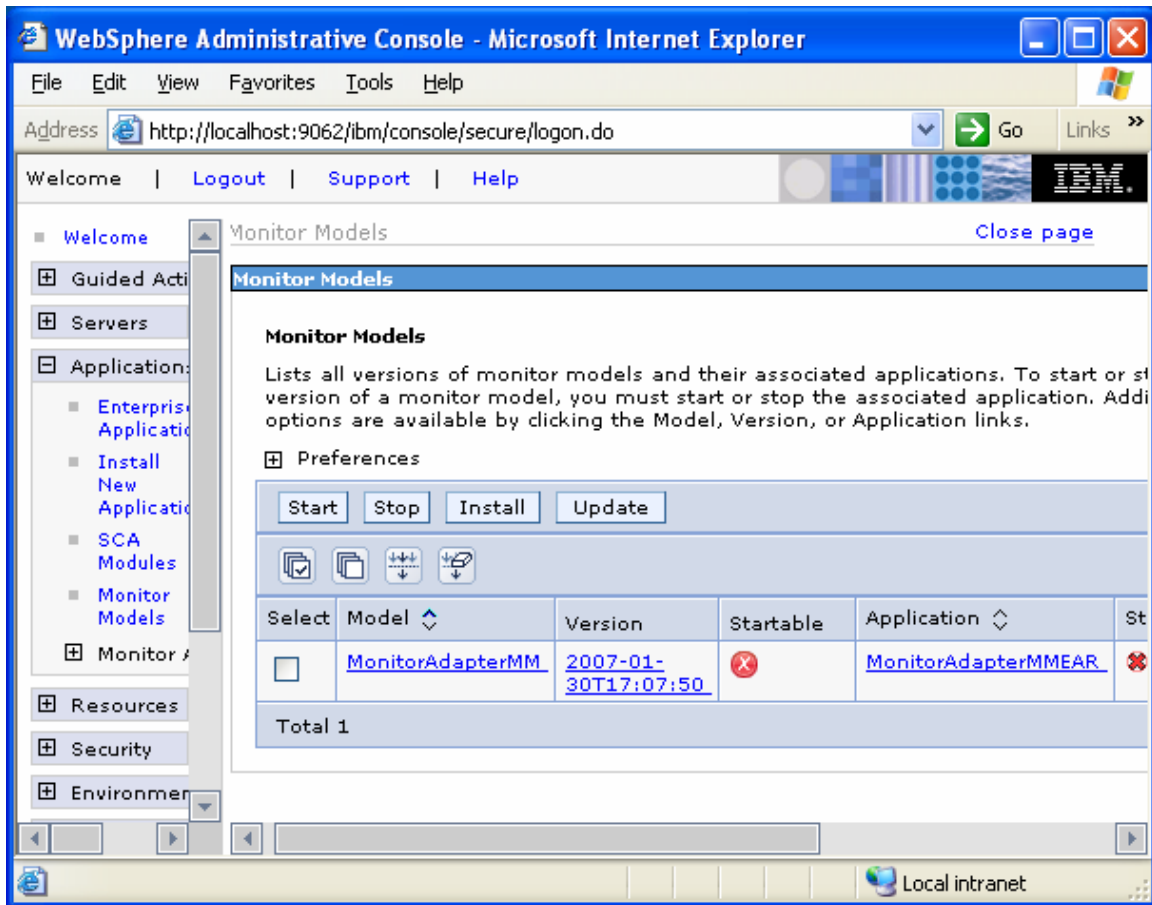
Figure 124. Run Step 7 of the model life cycle



- \_\_\_ i. Click **Confirm**.

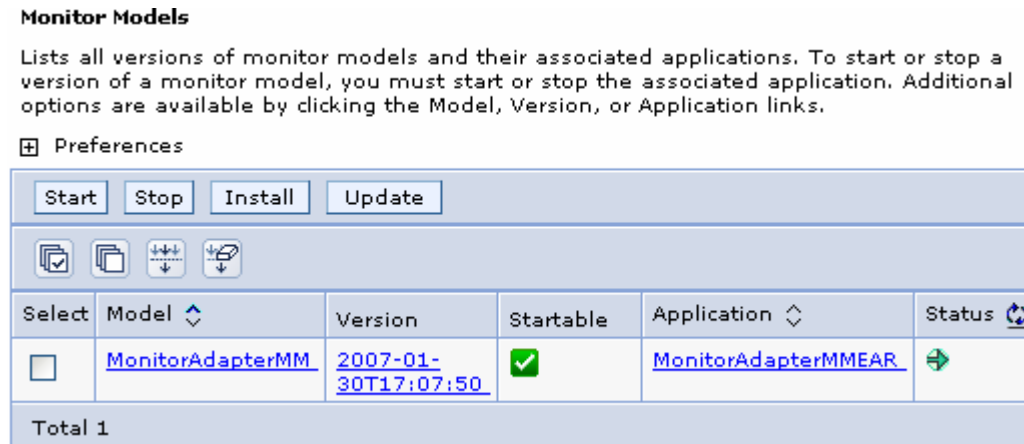
\_\_\_j. Click **Finish** to return to the Monitor Models window.

Figure 125. The Startable column for the model with red indicator



\_\_\_ 8. If the Startable column for the model shows a red circle, it is stopped, Wait a moment, then click **Applications ► Monitor Models**. The Startable column for the model should now show a green check mark. If this column does not show a green check mark, be patient and continue refreshing until it does.

Figure 126. The Startable column for the model with green indicator



**Part 5: Processing events to exercise the model**

As at the end of Part 3, you will now run some events to verify that the monitor model works correctly.

- \_\_\_ 1. Open a DB2 command window. Then run the following commands:
  - \_\_\_ a. db2 connect to ADAPTER user db2admin using <db2admin password>
  - \_\_\_ b. db2 insert into customer values ('3', 'Michael', 'Davis', 'Regular')
  - \_\_\_ c. db2 insert into customer values ('4', 'Paul', 'Smith', 'Silver')
  - \_\_\_ d. db2 insert into customer values ('5', 'Joe', 'Williams', 'Gold')
  - \_\_\_ e. db2 insert into customer values ('6', 'Daniel', 'Johnson', 'Regular')
  - \_\_\_ f. db2 insert into customer values ('7', 'Tim', 'Ross', 'Gold')
  - \_\_\_ g. db2 disconnect ADAPTER
- \_\_\_ 2. Wait briefly so that the monitor model can process the events.
- \_\_\_ 3. To verify that the monitor model is processing these events properly, open the DB2 Control Center. In Windows, select **Start ► All Programs ► IBM DB2 ► General Administrative Tools ► Control Center**.
  - \_\_\_ a. In the MONITOR database, open table CTX\_MONITORADAPTERMM\_MC. You might see records as in this example. Note, however, that the replication daemons are running. As a result, you might not see any records, because they have already been deleted and moved to the DATAMART database. In that case, proceed to the next step to check the DATAMART database.

Figure 127. CTX\_MONITORADAPTERMM\_MC table in the MONITOR database

MCI_MCID	MCI_MCVID	MCI_CREATION_TIME	MCI_TERMINATION_TIME	READY_
0	1170240826	Feb 5, 2007 4:20:38 A...	Feb 5, 2007 4:20:41 AM 1...	
1	1170240826	Feb 5, 2007 4:20:38 A...	Feb 5, 2007 4:20:41 AM 1...	
2	1170240826	Feb 5, 2007 4:22:01 A...	Feb 5, 2007 4:22:01 AM 8...	
3	1170240826	Feb 5, 2007 4:22:09 A...	Feb 5, 2007 4:22:09 AM 7...	
4	1170240826	Feb 5, 2007 4:22:49 A...	Feb 5, 2007 4:22:49 AM 9...	

121 Generate MM to monitor data from an adapter

- \_\_\_ b. In the DATAMART database, open table FCT\_MONITORADAPTERMM\_MC. You should see records as in this example. If you do not see the records, you might have to wait a few minutes for the Replication Manager daemons to run. In that case, wait a few minutes, and then click **View ► Refresh** in the Control Center.

Figure 128. FCT\_MONITORADAPTERMM\_MC table in the MONITOR database

MCI_M...	PARENT_...	MCI_MCVID	M_MONITORADAPTERMM_KEY	SK_CCOI
0		1170240826	192.168.216.146;MonitorAdapter;...	
1		1170240826	192.168.216.146;MonitorAdapter;...	
2		1170240826	192.168.216.146;MonitorAdapter;...	
3		1170240826	192.168.216.146;MonitorAdapter;...	
4		1170240826	192.168.216.146;MonitorAdapter;...	

- \_\_\_ c. Close the DB2 Control Center.



### Part 6: Creating a dashboard

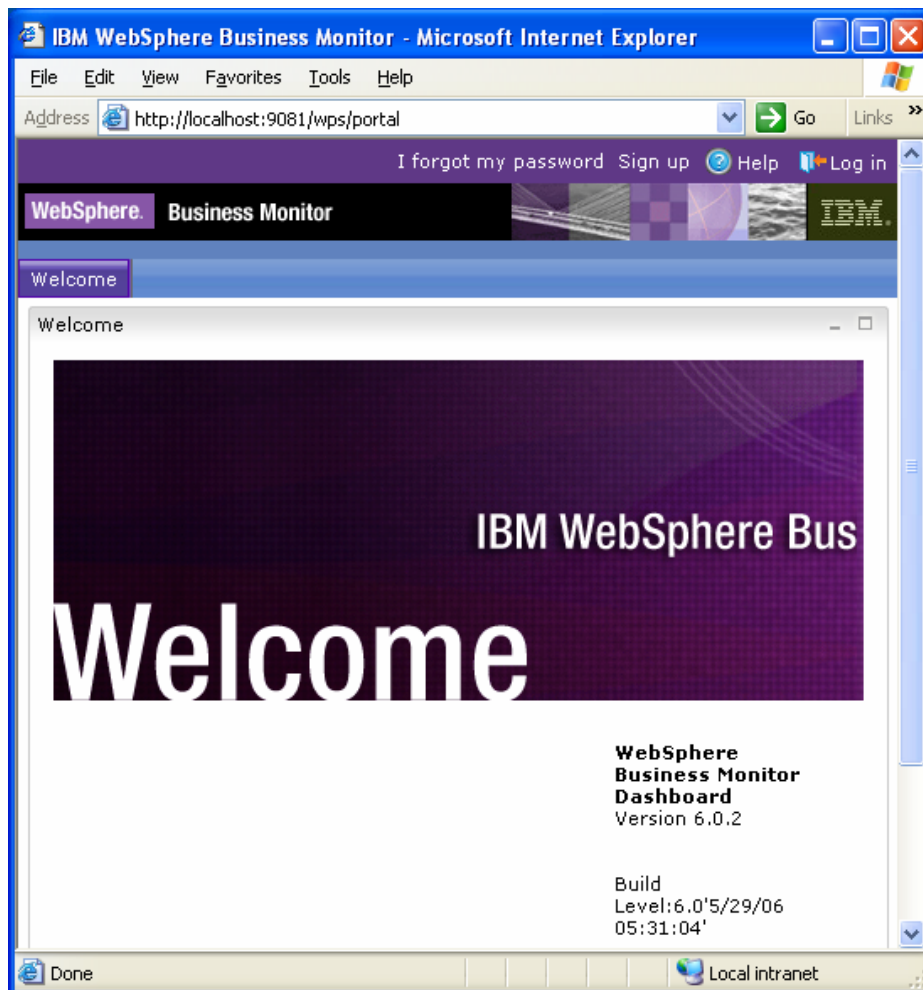
In this section you will build a dashboard in WebSphere Portal Server. You will add portlets to the dashboard and configure them.

1. Make copies of the portlets that you want to use: Instances and Dimensional View.

You should not configure the original portlets, because the configuration cannot be removed after it is applied. So, you will first make copies of the portlets, and then you will configure the copies.

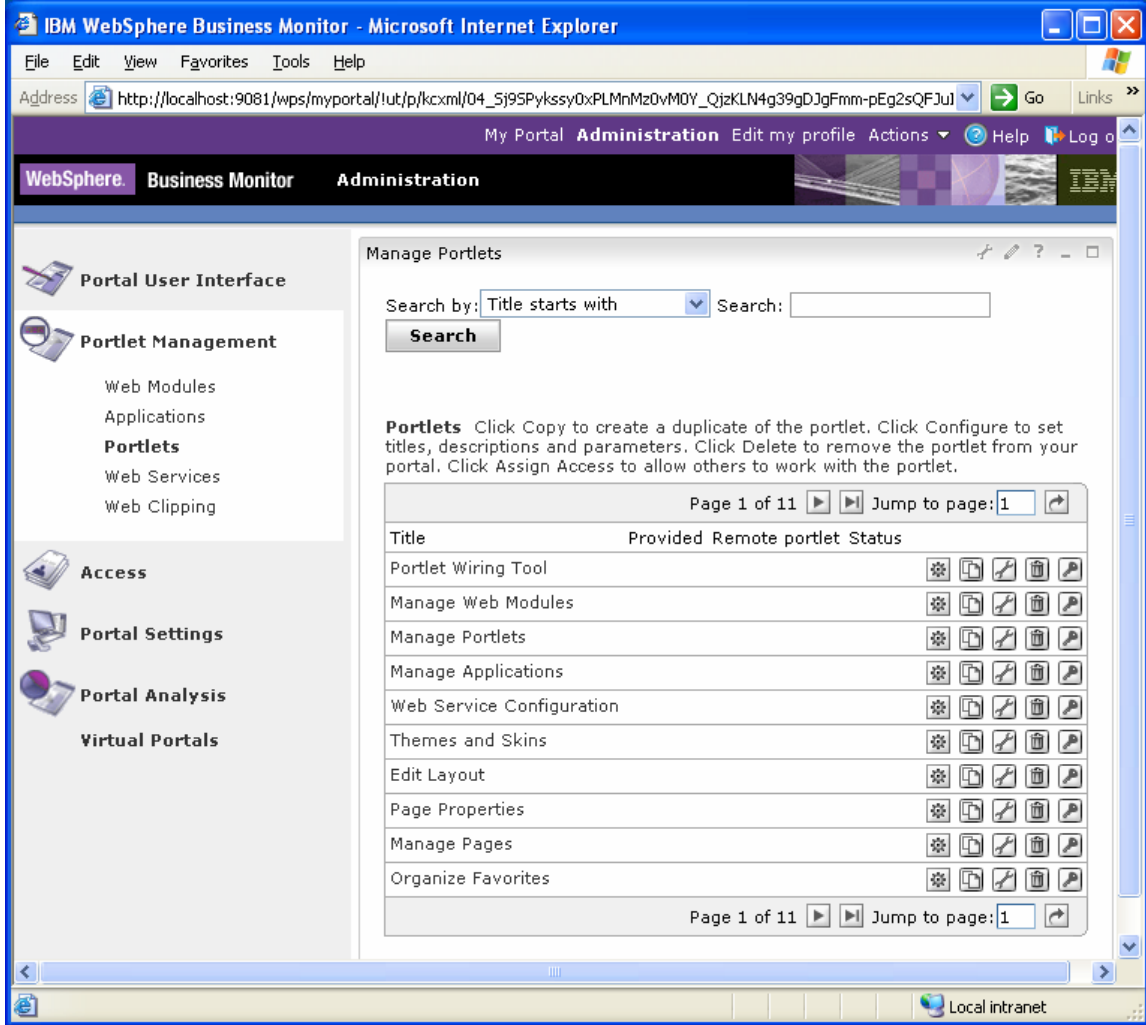
- a. Open the Portal page:  
<http://localhost:9081/wps/portal>.
- b. Click **Log in**, and then enter your Portal administrative user ID and password (commonly wpsadmin and wpsadmin).

Figure 129. Log in, then enter your Portal administrative user ID and password



- \_\_\_\_\_ 2. Create copies of the WebSphere Business Monitor portlets.
  - \_\_\_\_\_ a. Click **Administration** at the top of the page, and then click **Portlet Management ► Portlets**.

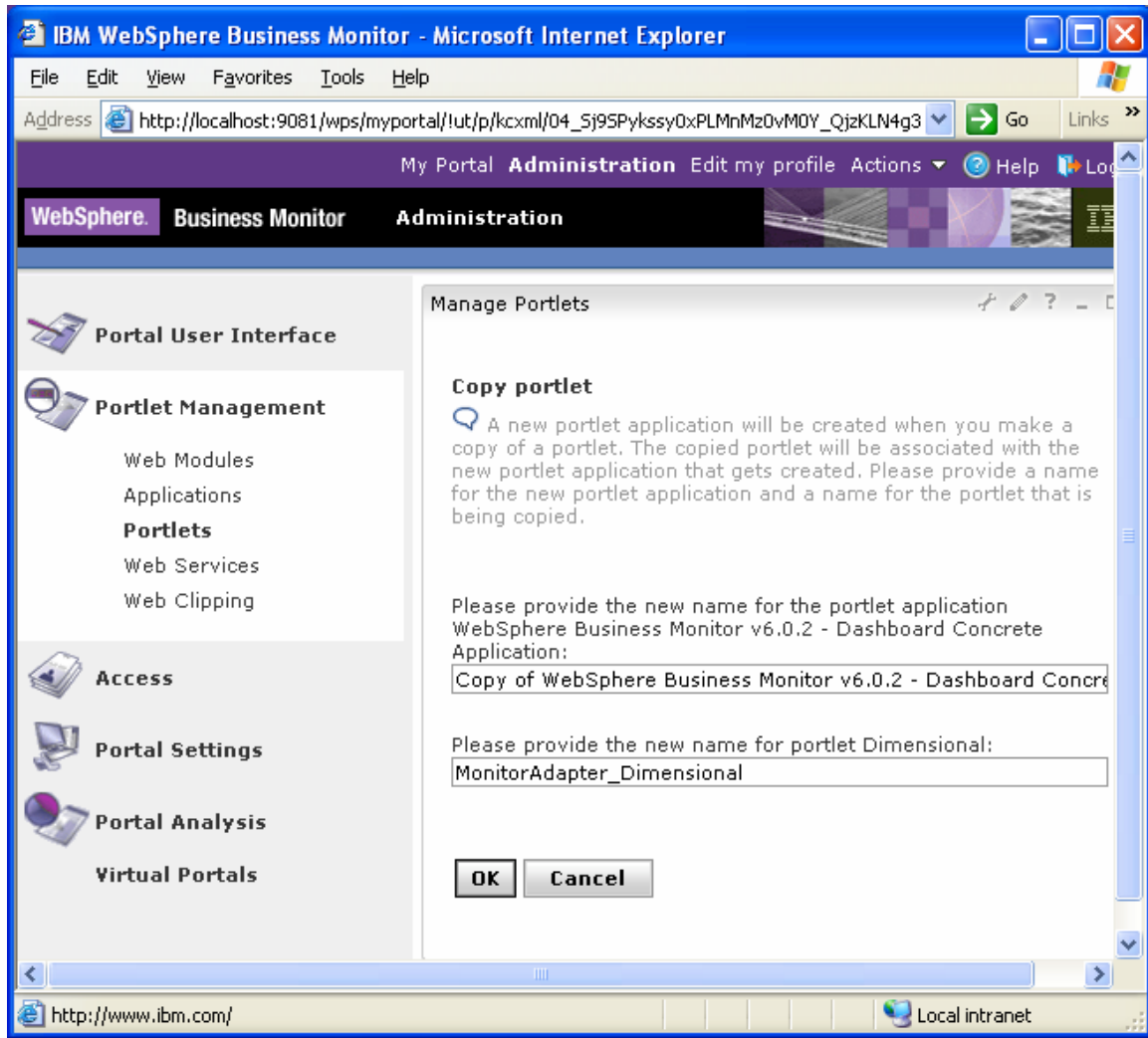
Figure 130. Click Portlet Management ► Portlets



- \_\_\_\_\_ b. Browse to page 10 by clicking the right-arrow icon, or by entering the page number in the 'Jump to page' field and then clicking the arrow icon to its right. This page should show the portlets for Dimensional View and Instances.

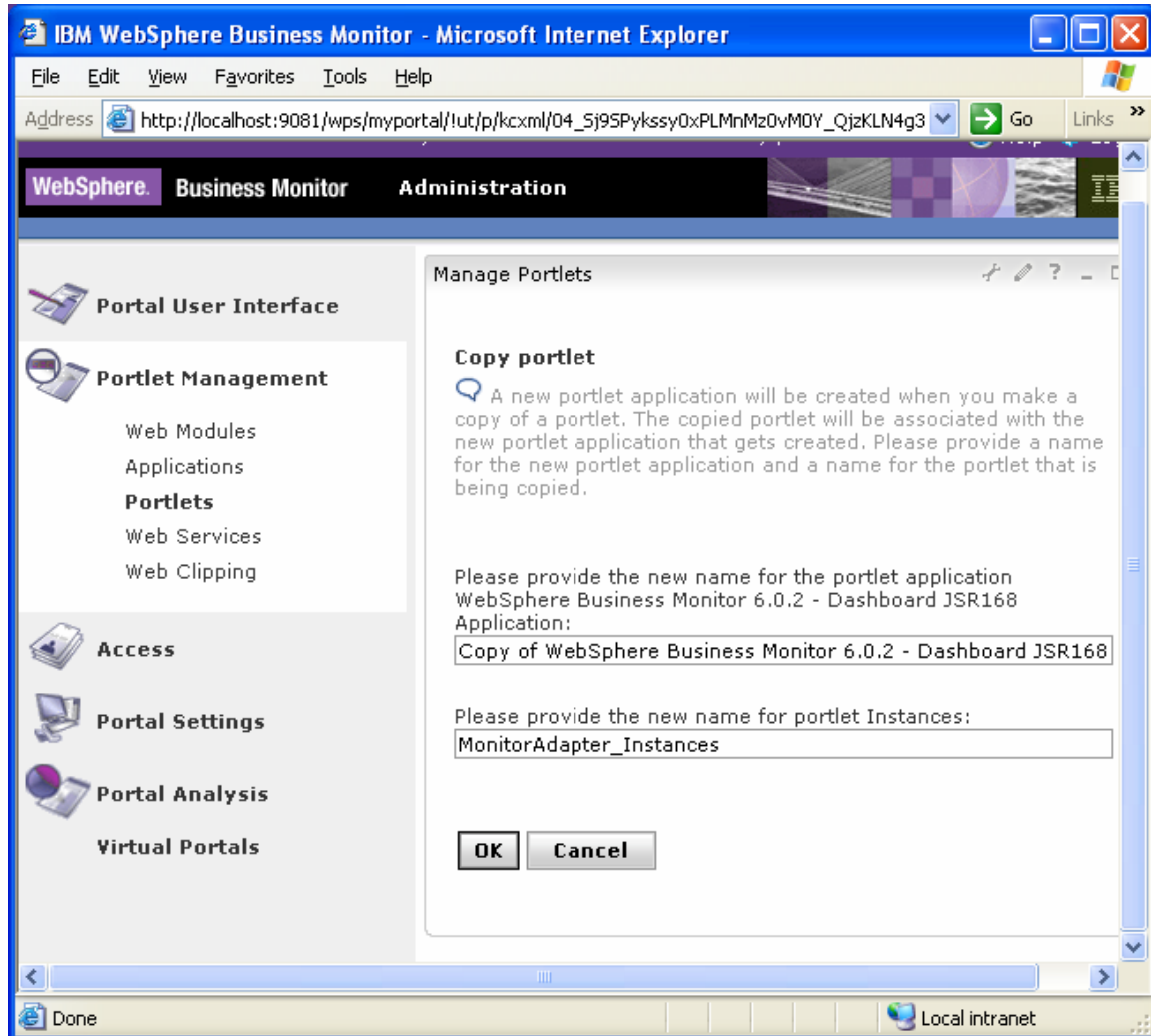
- \_\_\_ c. On the row containing Dimensional View, click the Copy portlet icon. In the next window, enter **MonitorAdapter\_Dimensional** as the new name of the portlet and click **OK**.

Figure 131. Enter MonitorAdapter\_Dimensional as the new name



- \_\_\_ d. Similarly, on the row containing **Instances**, click the Copy portlet icon. In the next window, enter **MonitorAdapter\_Instances** as the new name of the portlet and click **OK**.

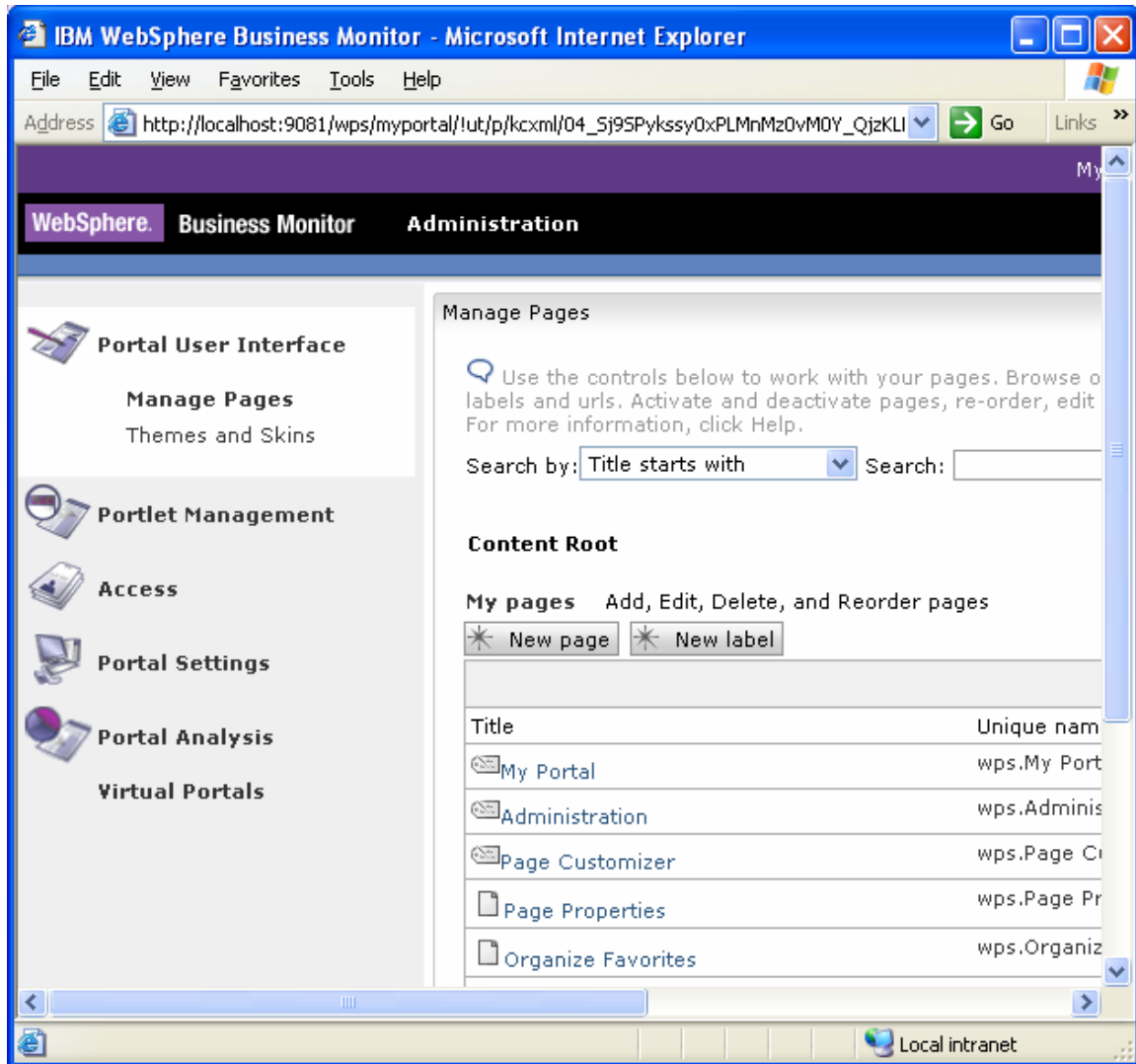
Figure 132. Enter MonitorAdapter\_Instances as the new name



- \_\_\_ e. Now browse to page 11 by clicking the arrow icons. This page should show the portlet KPI View plus the copies of the portlets for Dimensional and Instances.

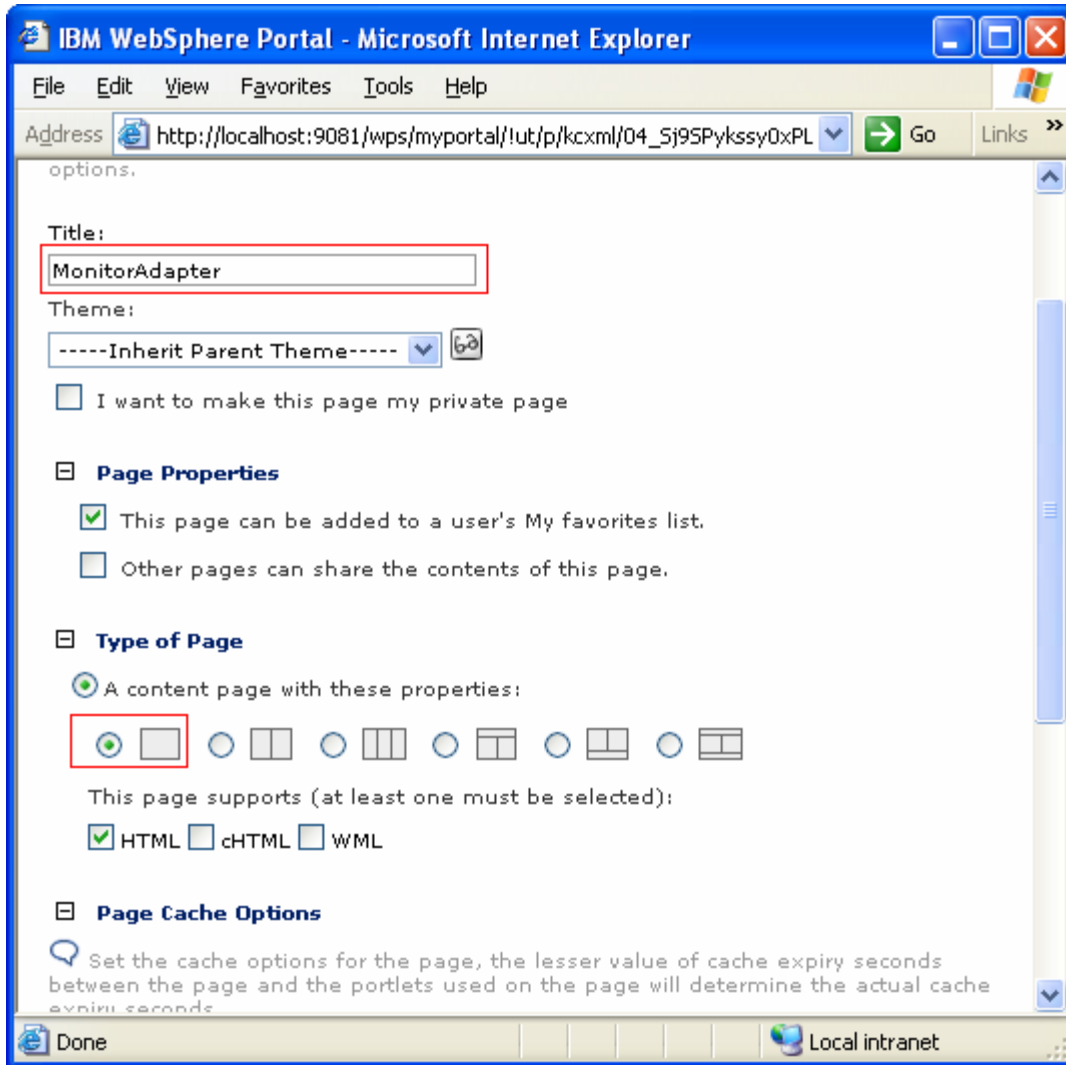
3. Create a page containing the views: Instances and Dimensional
  - a. Click **Administration** at the top of the page, and then click **Portal User Interface** ► **Manage Pages**.

Figure 133. Click Portal User Interface ► Manage Pages



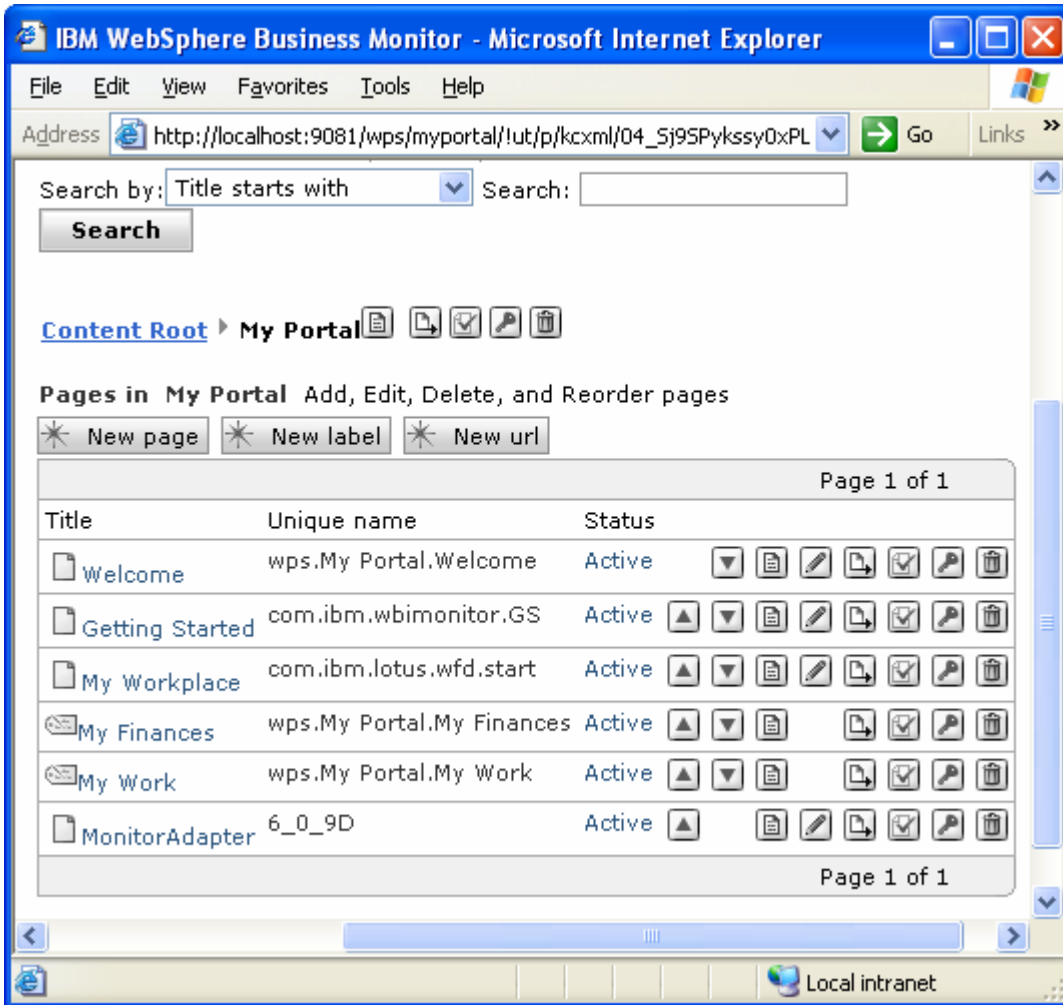
- \_\_\_ b. Click **My Portal**, and then click **New Page**. Enter **MonitorAdapter** as the page title. Under **Type of Page**, click the leftmost radio button on the far left to select one-column layout.

Figure 134. Click the leftmost radio button to select one-column layout



- \_\_\_ c. Click **OK**, and then click **OK** again. Now you should see the new page in the list as follows:

Figure 135. See the new page in the list




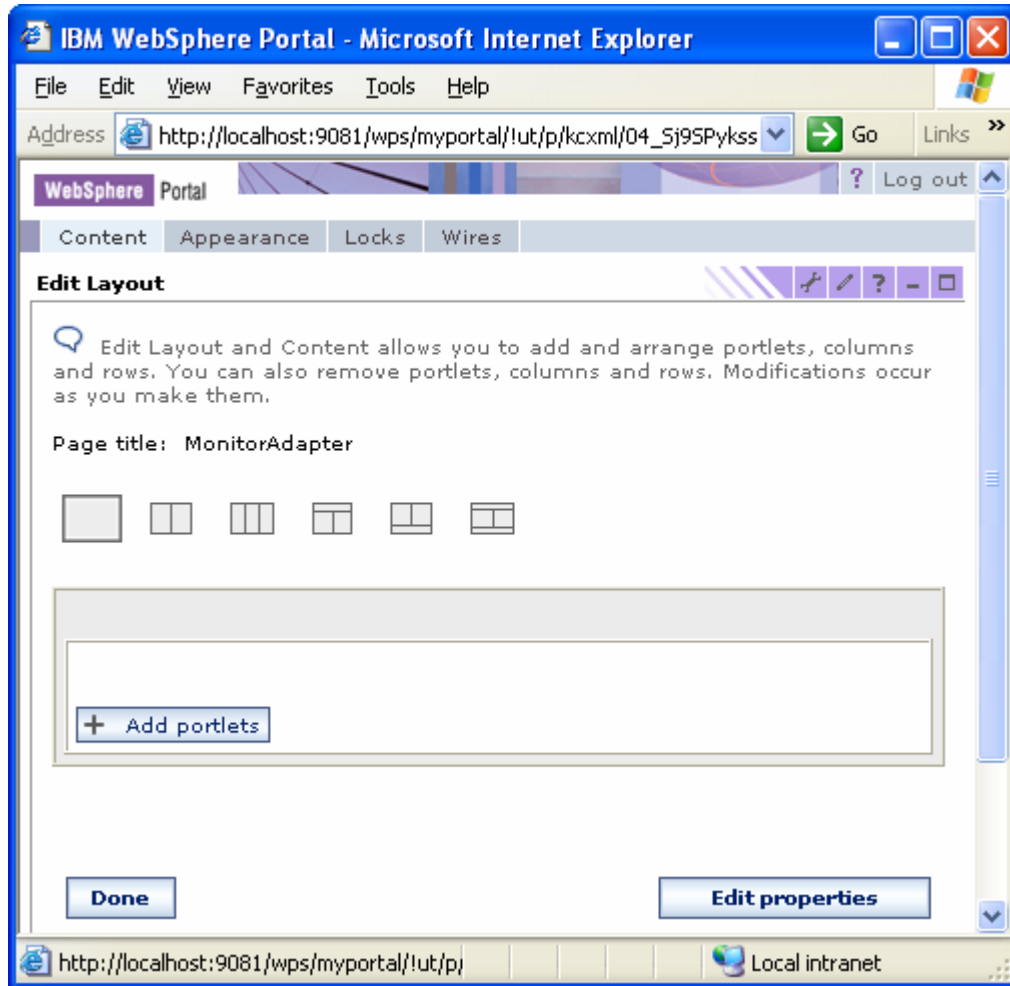
- \_\_\_ d. To edit the Dashboard page, click the **Edit Page Layout** icon  on the right side of the row for Dashboard.

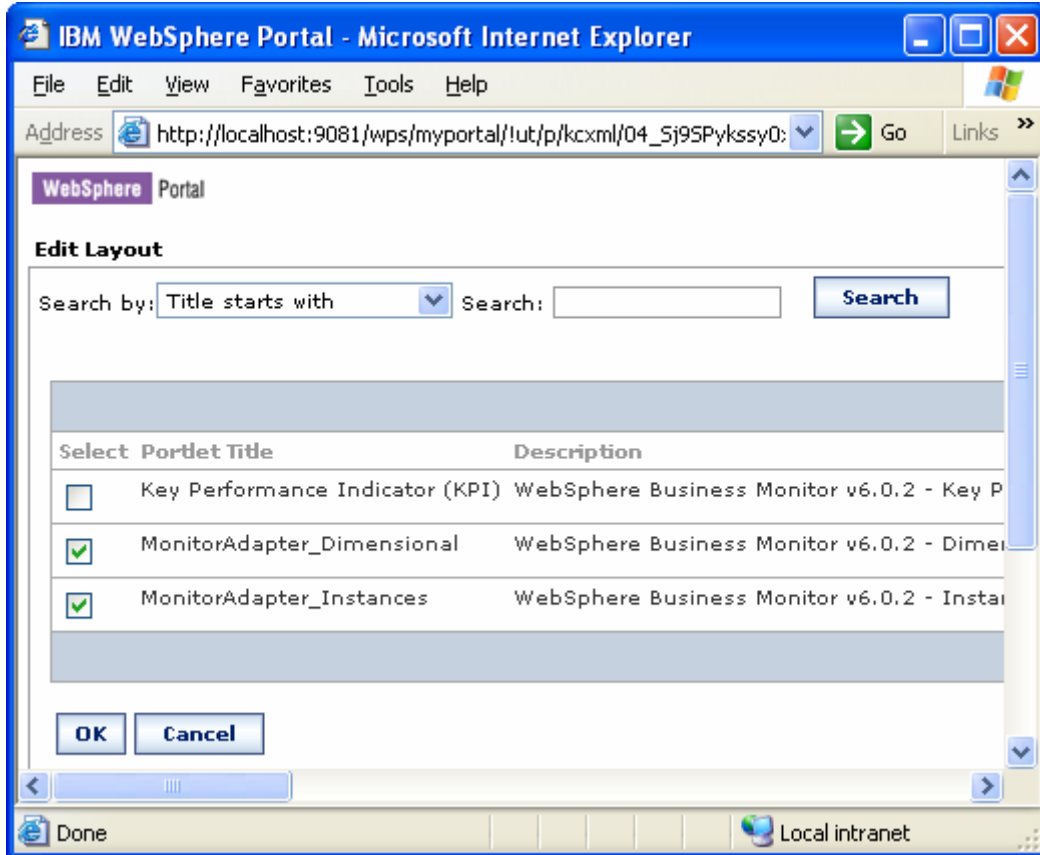
Figure 136. Click the Edit Page Layout icon





- \_\_\_ e. Click **Add portlets**. Navigate to the last page of the list to locate the **MonitorAdapter\_Dimensional** and **MonitorAdapter\_Instances** portlets, and select both of them.

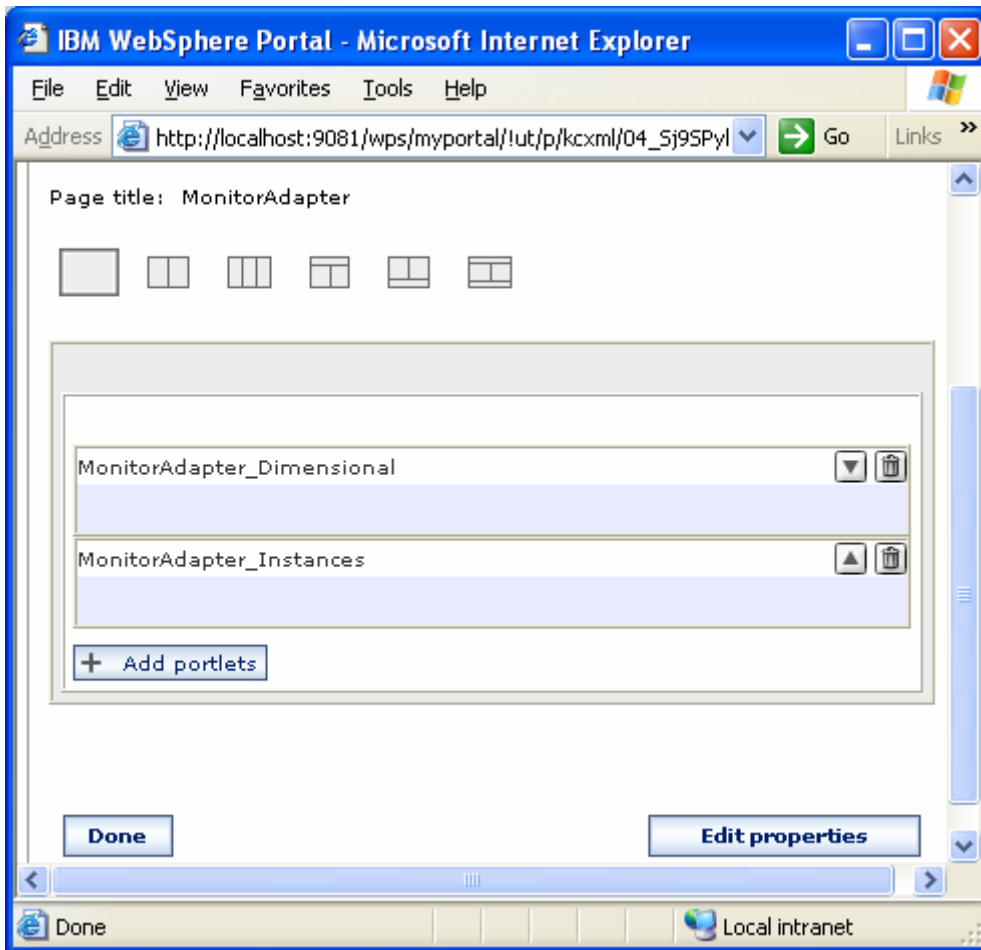
Figure 137. Navigate to the last page of the list to select both portlets



- \_\_\_ f. Click **OK**.

\_\_\_ g. In the next window, confirm that the views have been added to the page.

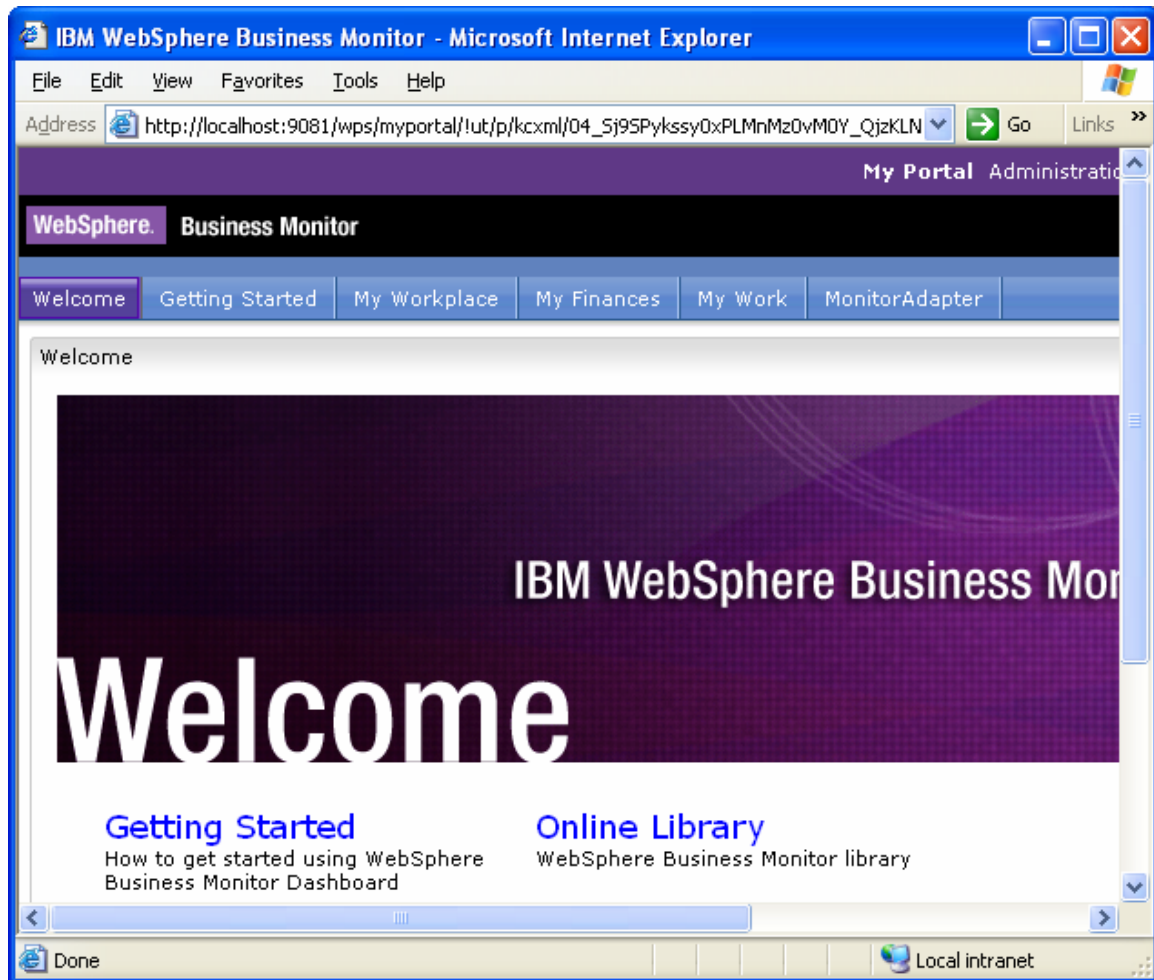
Figure 138.. Confirm that the views have been added



\_\_\_ h. Click **Done**.

- \_\_\_ i. Click **My Portal** at the top of the page. In the new window, confirm that there is now a tab for **MonitorAdapter**.

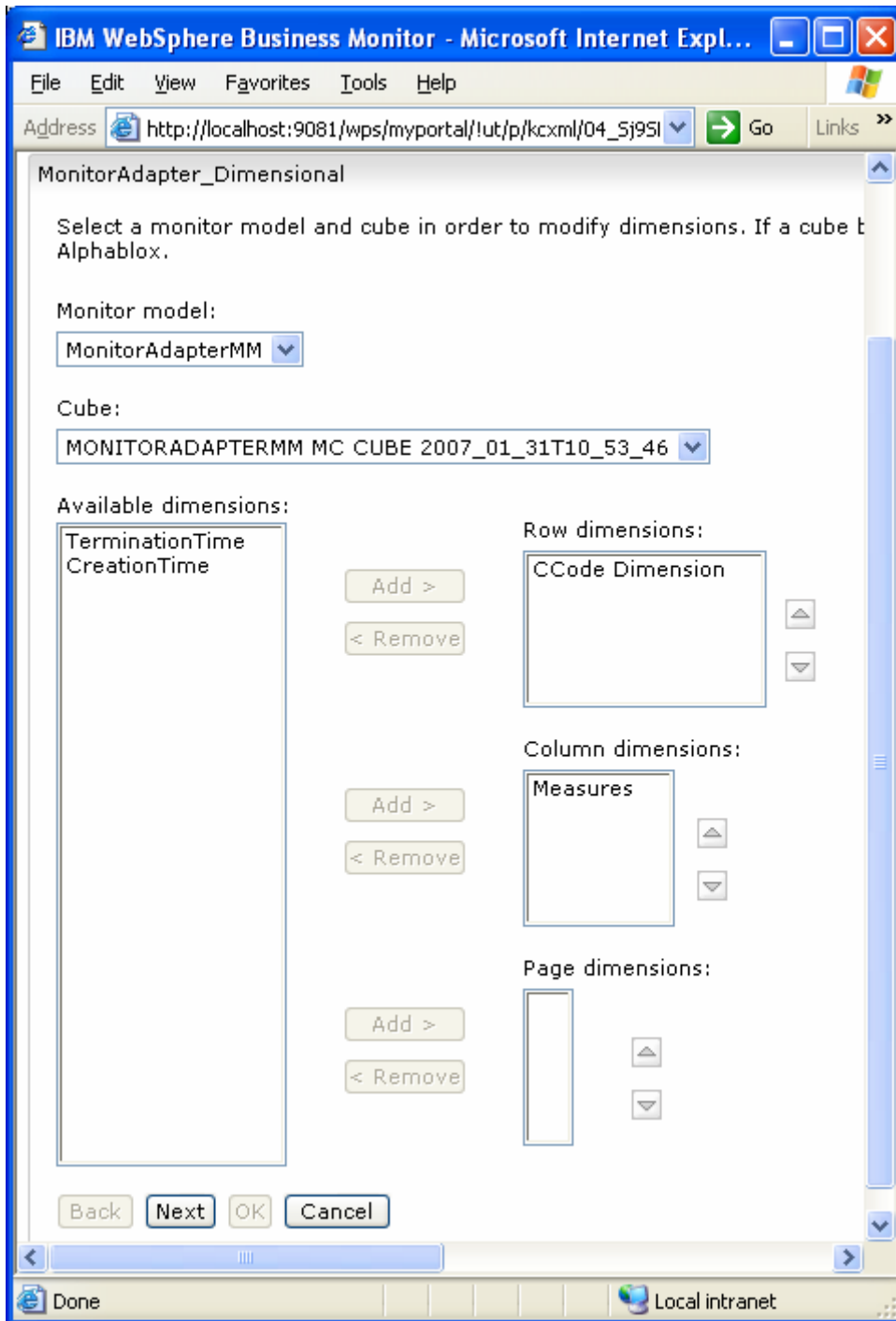
Figure 139. Confirm that there is now a tab



- \_\_\_ 4. Configure the views on your new page.
  - \_\_\_ a. Click the tab for **MonitorAdapter**.
  - \_\_\_ b. Click the configure icon on the MonitorAdapter\_Dimensional view.
  - \_\_\_ c. For Model, select **MonitorAdapterMM**.
  - \_\_\_ d. For Subject area, select **MONITORADAPTERMM MC CUBE <timestamp>**.
  - \_\_\_ e. In Available dimensions, select **Measures**, then next to Column dimensions, click **Add**.

- \_\_\_ f. In Available dimensions, select **CCode Dimension**, then next to Row dimensions, click **Add**.
- \_\_\_ g. Confirm that the window looks like the following example.

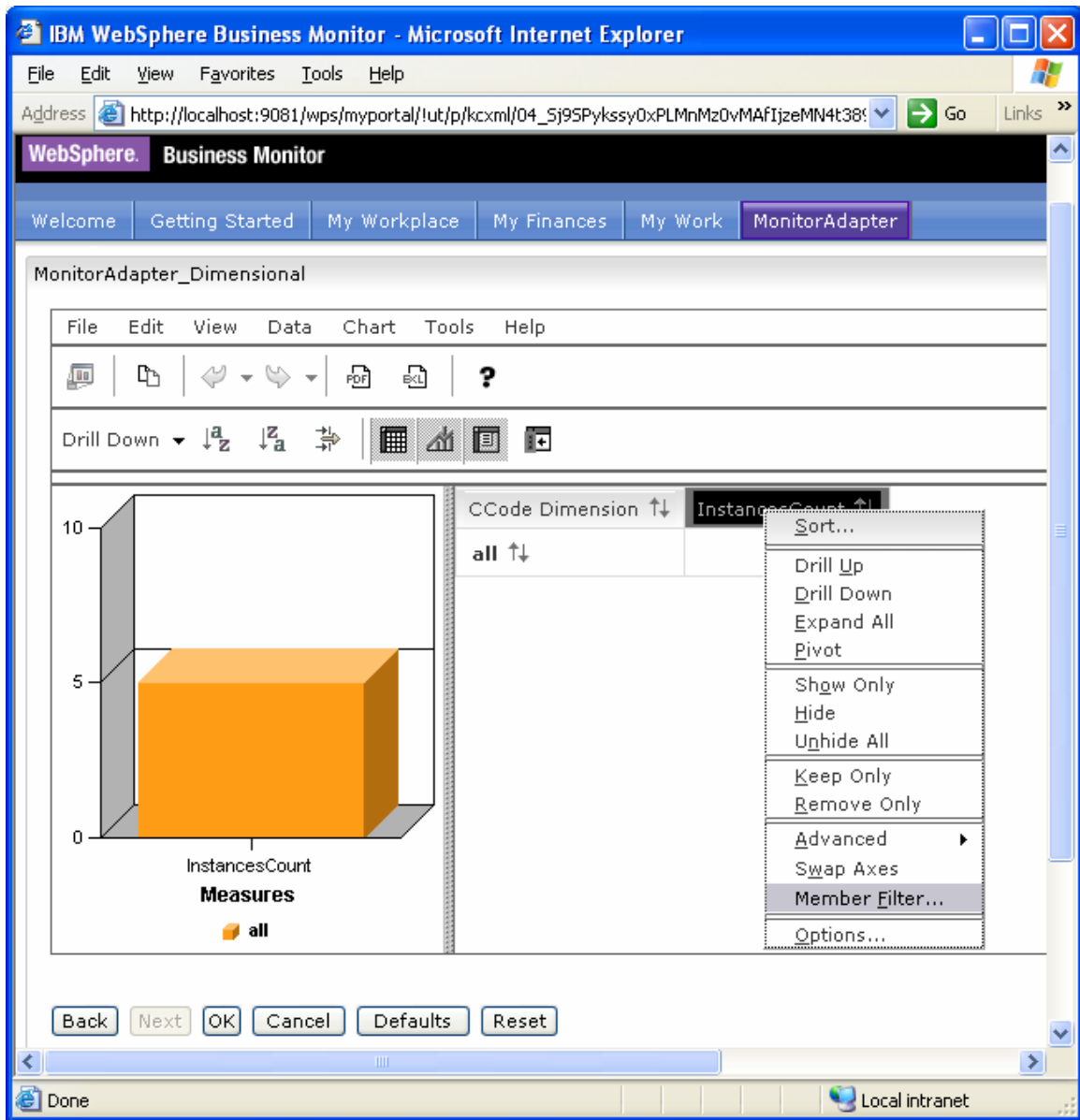
Figure 140. The window should look like this example



- \_\_\_ h. Click Next.

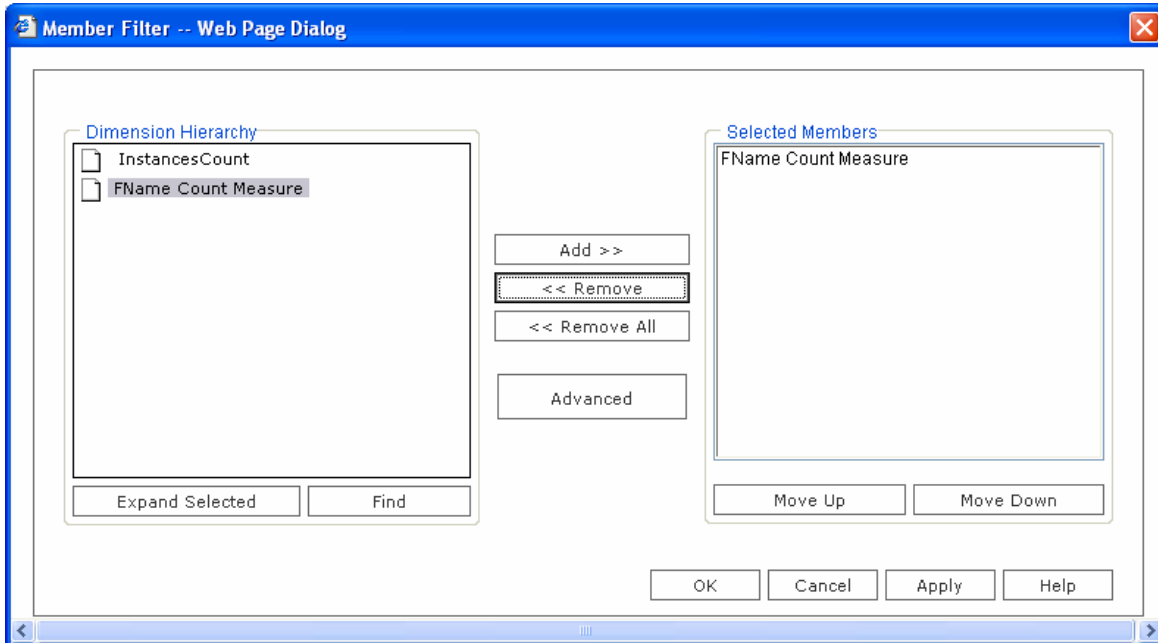
- \_\_\_ i. Right-click **InstancesCount** and select **Member Filter...**

Figure 141. Select Member Filter....



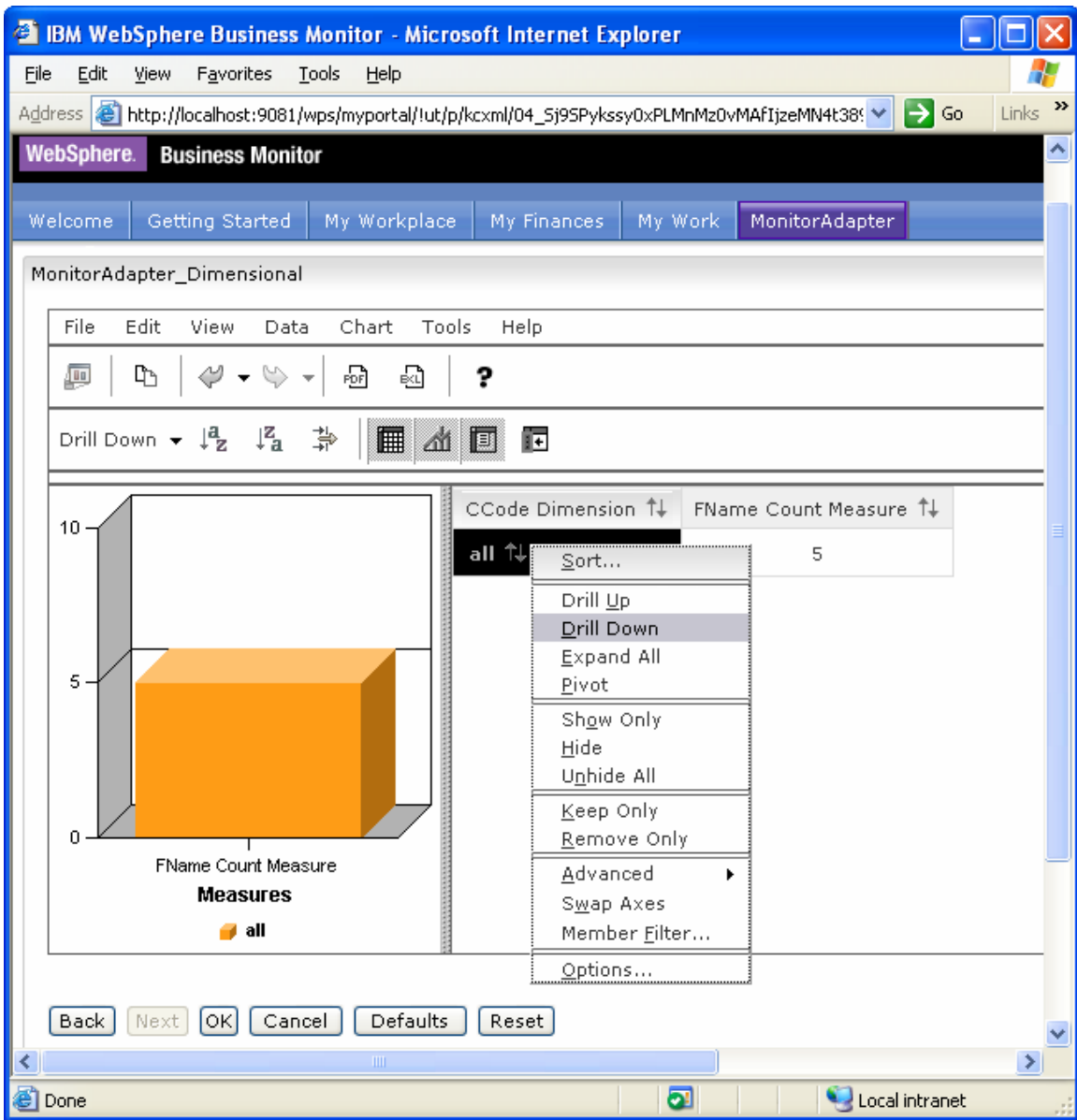
- \_\_\_ j. In the **Member Filter** window, select **FName Count Measure** as in the following example. Then click **OK**.

Figure 142. Select FName Count Measure as in this example



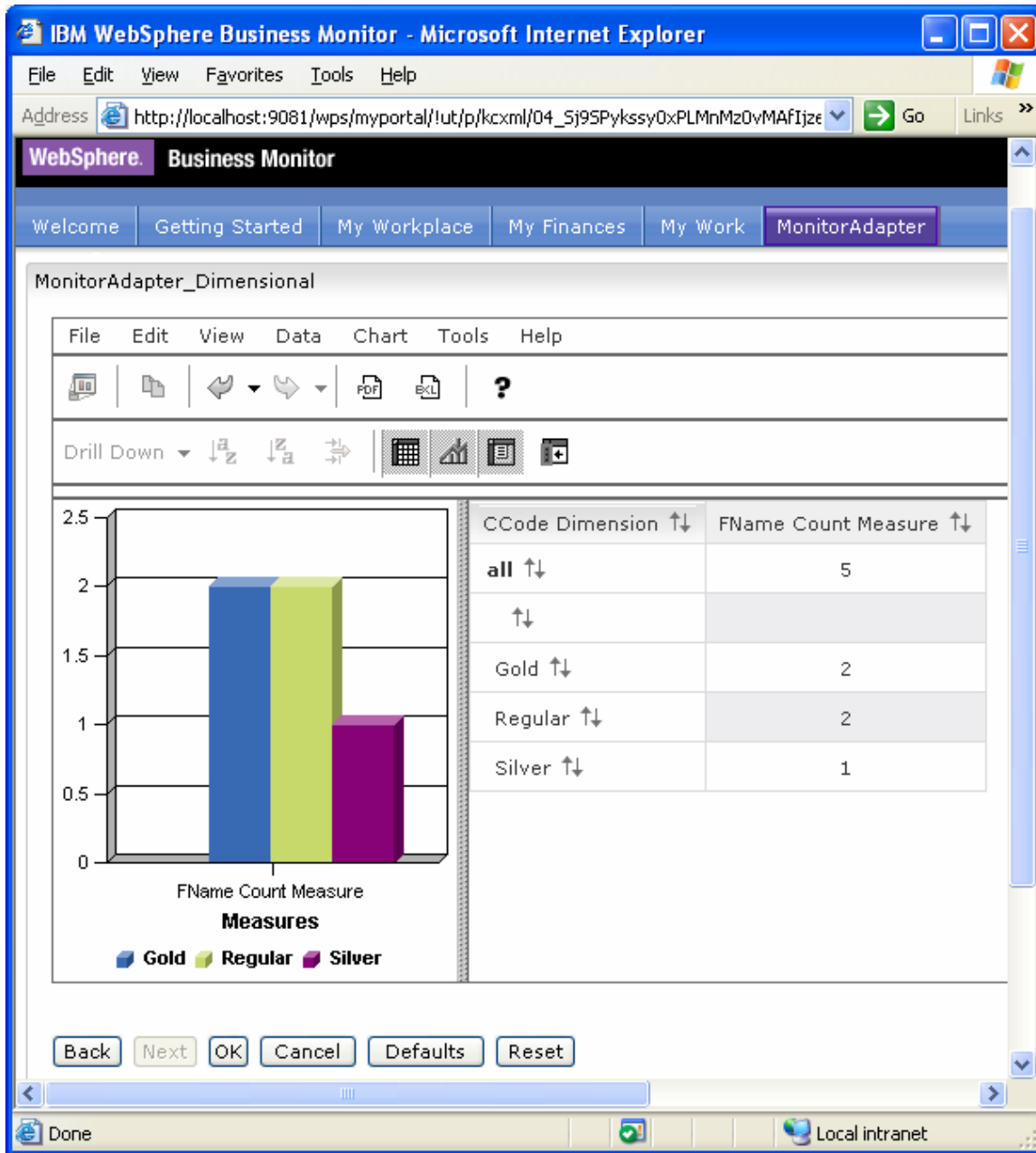
\_\_\_ k. Right-click **all** and select **Drill Down**.

Figure 143. Select Drill Down



- \_\_\_ l. Confirm that the view looks like the following example.

Figure 144. The window should look like this example

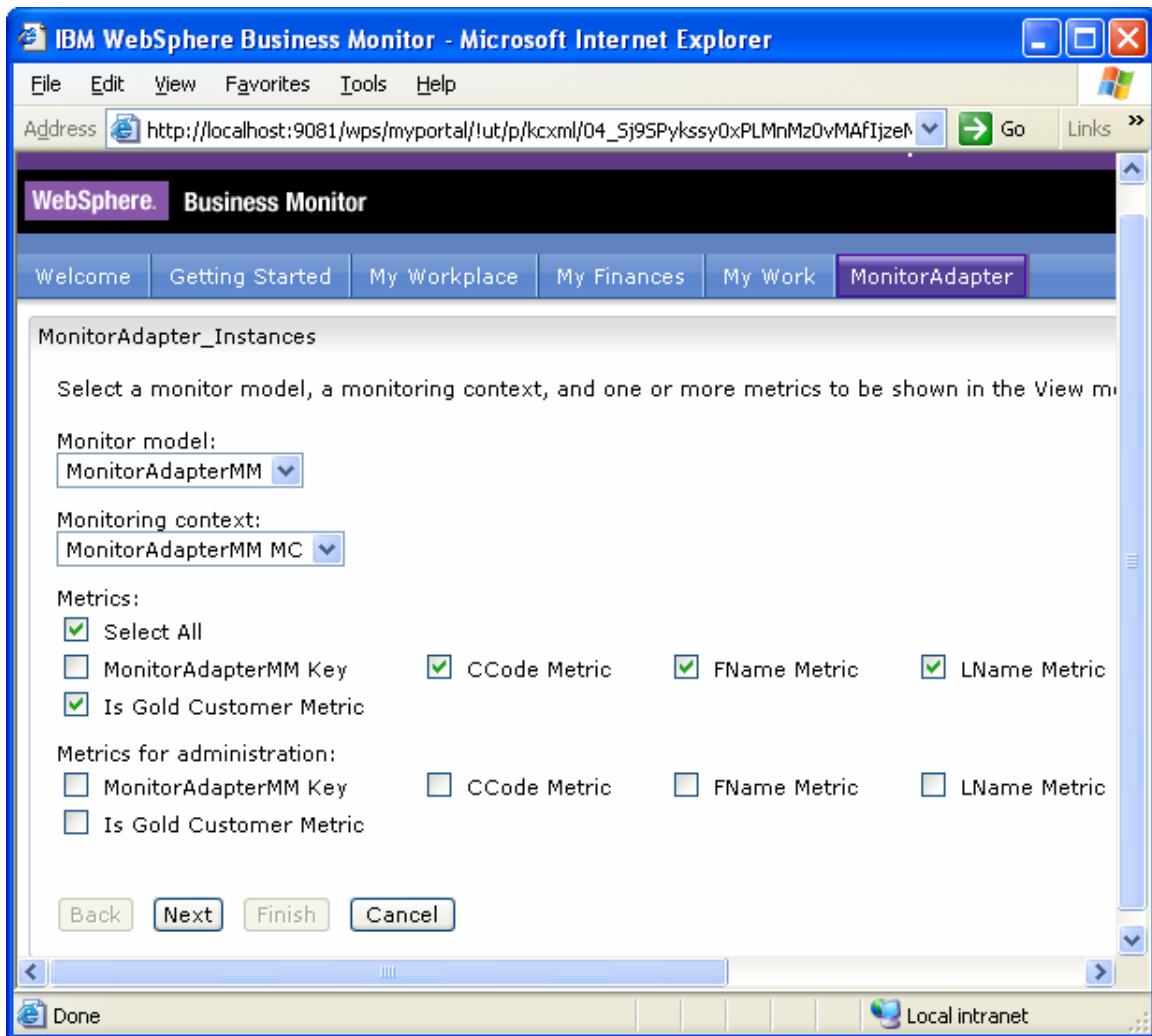


- \_\_\_ m. Click **OK**.
- \_\_\_ n. Click the configure icon for the **MonitorAdapter\_Instances** view.
- \_\_\_ o. For Monitor model, select **MonitorAdapterMM**.
- \_\_\_ p. For Monitoring context, select **MonitorAdapterMM MC**.



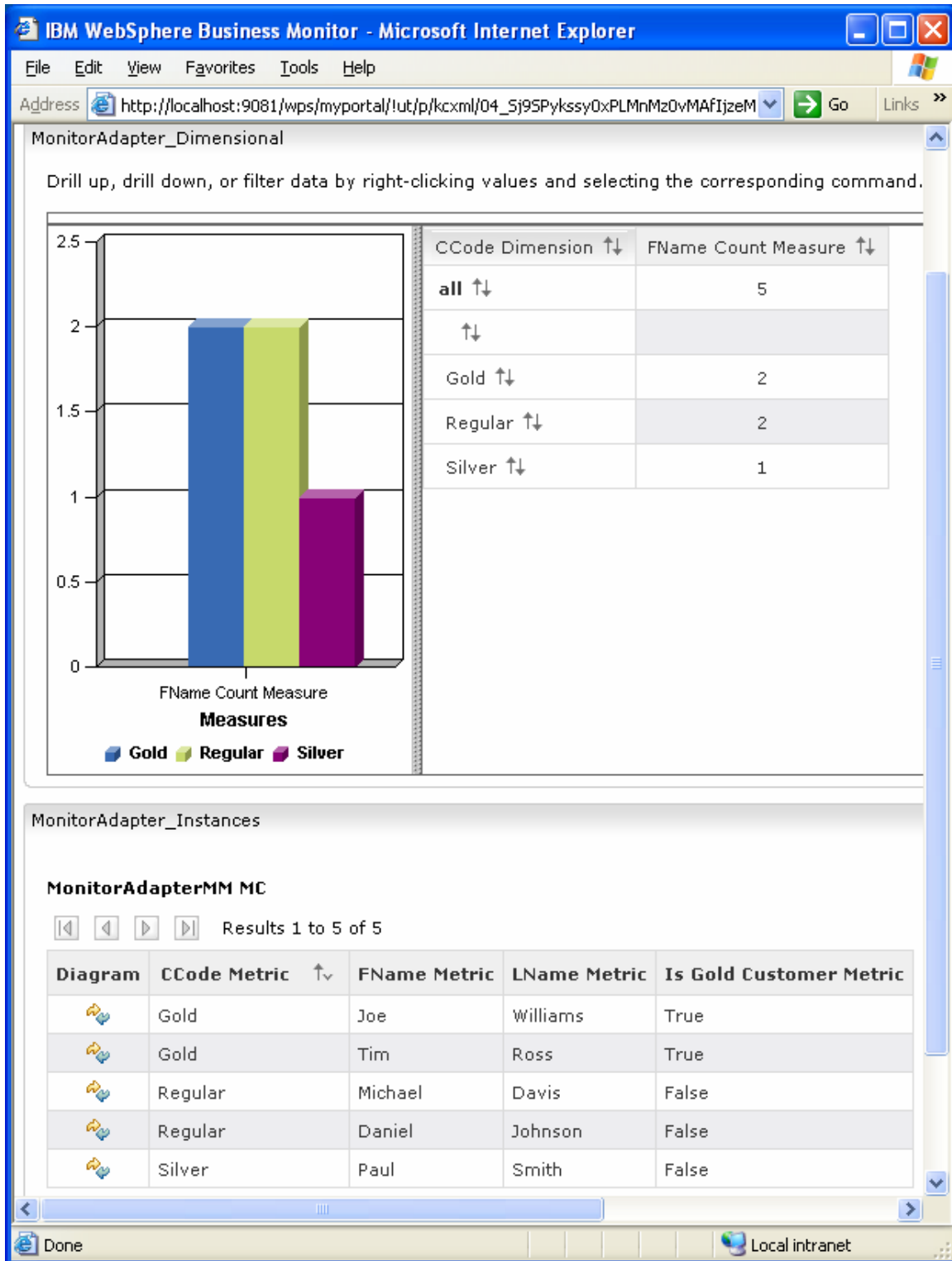
- \_\_\_ q. Under Metrics, select the **Select All** check box, and then clear the **MonitorAdapterMM Key** check box under Metrics for administration.
- \_\_\_ r. Click **Next**, then **Next**, then **Next** again, and then **Finish**.

Figure 145. Click Next, then Next, then Next again, then Finish



\_\_\_ s. Confirm that the final view of MonitorAdapter looks like the following example.

Figure 146. The window should look like this example



### **What you accomplished in this exercise**

In this exercise, you created a J2EE application using WebSphere Integration Developer. In the application, JDBC adapter acts as an event resource to fetch data from a database and then send that data to mediation filter to distinguish gold customers from other customers.

You then created a monitor model using the Monitor Model Editor and defined the metrics to monitor the data issued from JDBC adapter.

You next deployed the application and monitor model to WebSphere Business Monitor.

You used db2 commands to trigger the monitored application to submit events.

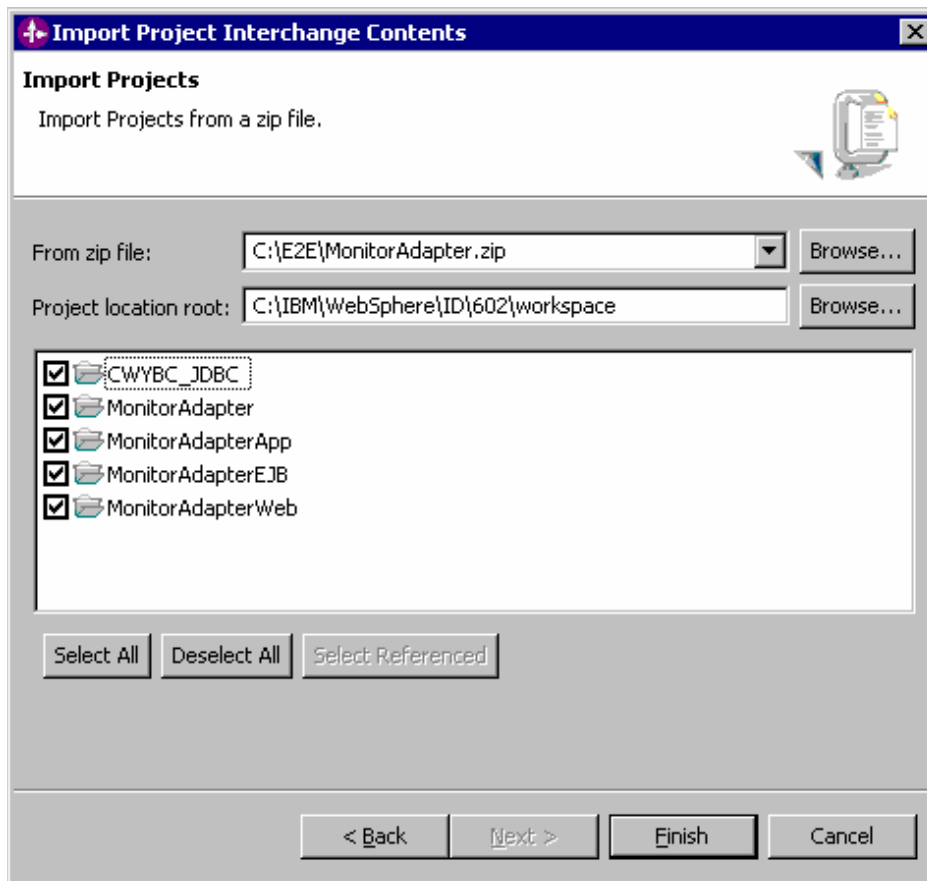
Finally, you configured dashboards and viewed monitored data in several different views.

### Appendix A. Import the J2EE application solution into WebSphere Integration Developer

A solution has been provided so that you do not have to build the J2EE application from scratch. This section shows you how to import the application into WebSphere Integration Developer. After importing, you can proceed to generate the EAR file and deploy it.

- \_\_\_ 1. Start WebSphere Integration Developer and set up the environment.
  - \_\_\_ a. Start WebSphere Integration Developer V 6.0.2, and when prompted, point to a new workspace, such as C:\workspaces\MonitorAdapter.
  - \_\_\_ b. Close the Welcome tab.
  - \_\_\_ c. Select **Window ► Preferences ► Workbench ► Capabilities**. Assure you have selected 'Advanced J2EE'.
- \_\_\_ 2. Import the project interchange file **MonitorAdapter.zip** into WebSphere Integration Developer 6.0.2 as shown below. Wait for the project to be built, which takes a few minutes.

Figure 147. Import the project interchange file

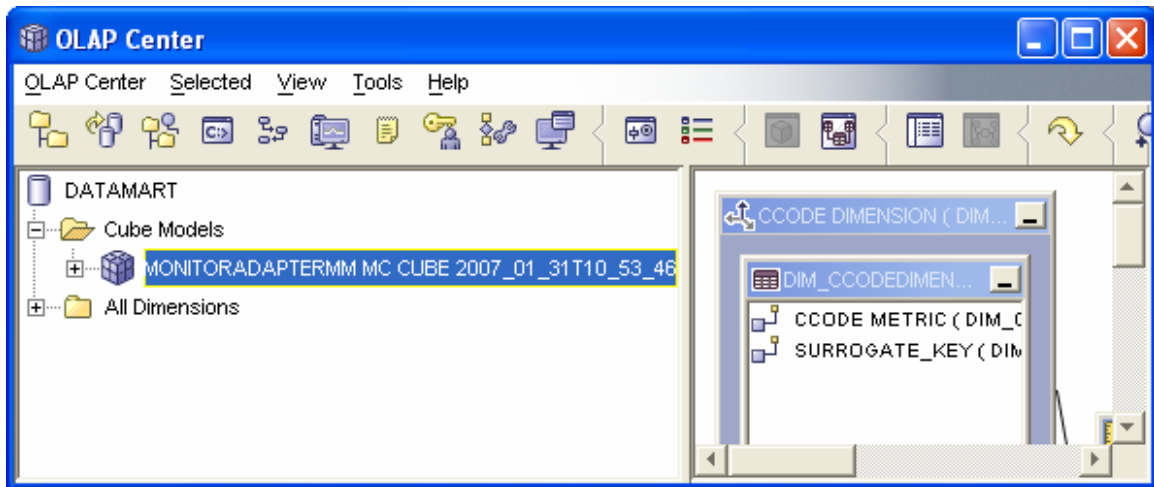


### Appendix B. Workaround for Step 5: Manage the DB2 Alphablox® cube

If you receive a connection error while running step 5 of the life-cycle steps, use this appendix to complete a workaround. In this section you will manually import the cube into DB2 Alphablox, and then you will mark this step complete in the life cycle table.

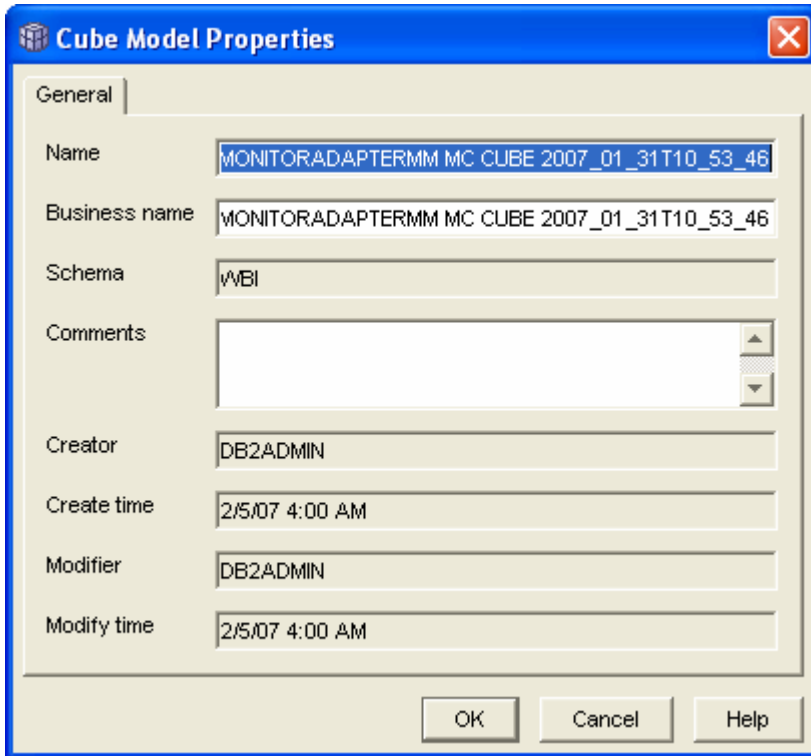
- \_\_\_ 1. Copy the cube name from OLAP Center.
  - \_\_\_ a. In Windows, select **Start ► All Programs ► IBM DB2 ► Business Intelligence Tools ► OLAP Center**.
  - \_\_\_ b. Enter your DB2 user ID and password.
  - \_\_\_ c. Confirm that the cube model is listed as in the following example.

Figure 148. Confirm that the cube model is listed



- \_\_\_ d. Right-click the cube model, then select Properties.
- \_\_\_ e. Using the mouse, select the text in the Name field as shown in the following example.

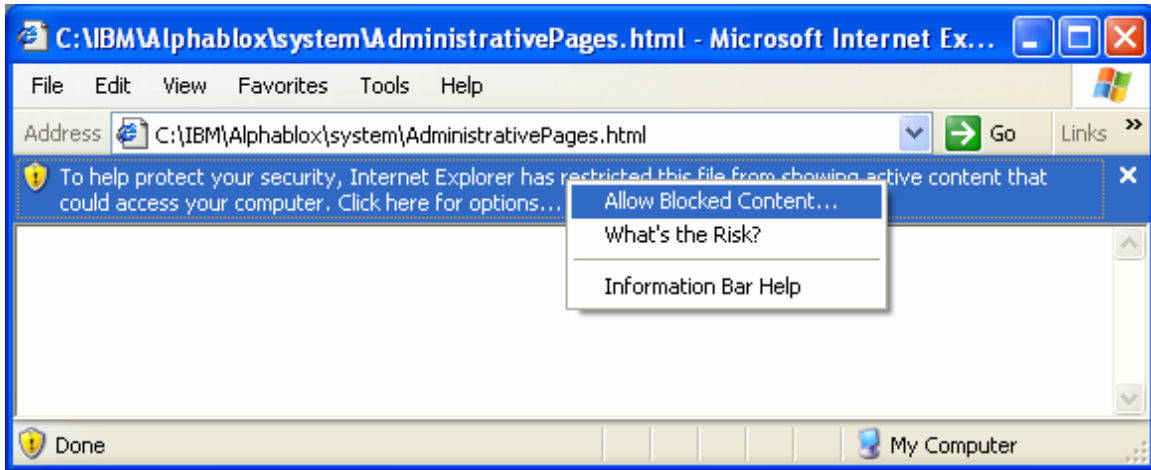
Figure 149. Select the text in the Name field



- \_\_\_ f. Press **Ctrl+C** to copy the text to the clipboard.
  - \_\_\_ g. Click **Cancel**, and then close the OLAP Center.
- \_\_\_ 2. Define the cube to Alphablox.
- \_\_\_ a. If WebSphere Portal Server is not running, start it by clicking **Start ► All Programs ► IBM WebSphere ► WebSphere Portal v5.1 ► Start the Server**.
  - \_\_\_ b. To start Alphablox in a browser, click **Start ► All Programs ► IBM DB2 Alphablox 8.4 ► AlphabloxAnalytics ► DB2 Alphablox Administrative Pages**.

**Note:** If Windows blocks your attempt to access the page, an information bar at the top of the window displays the following message. Click this bar and select Allow Blocked Content to continue.

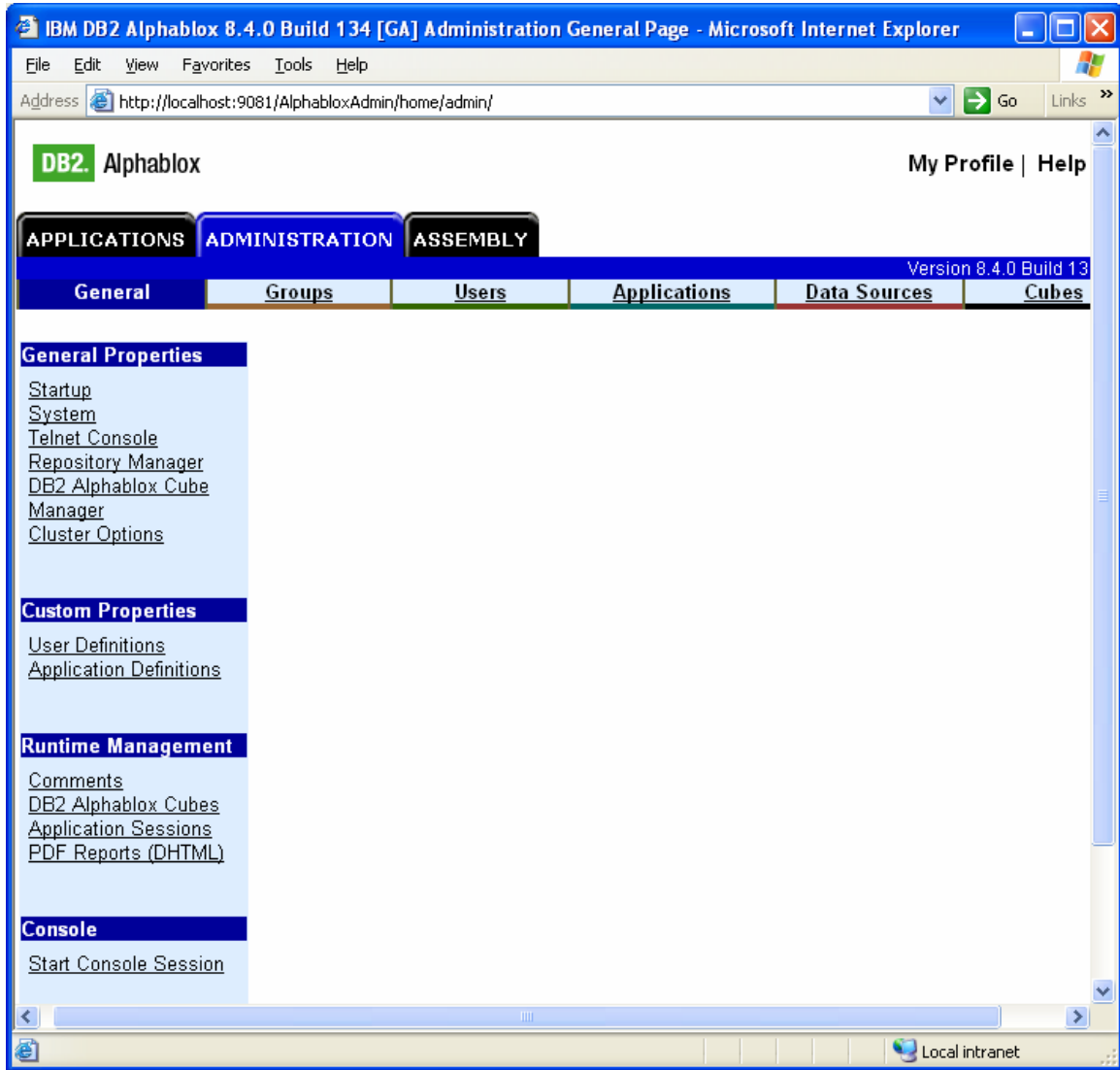
Figure 150. Select Allow Blocked Content to continue



- \_\_\_ c. In response to the prompt, enter admin for the user ID and password for the password.

Confirm that the next window looks like the following example.

Figure 151. The window should look like this example

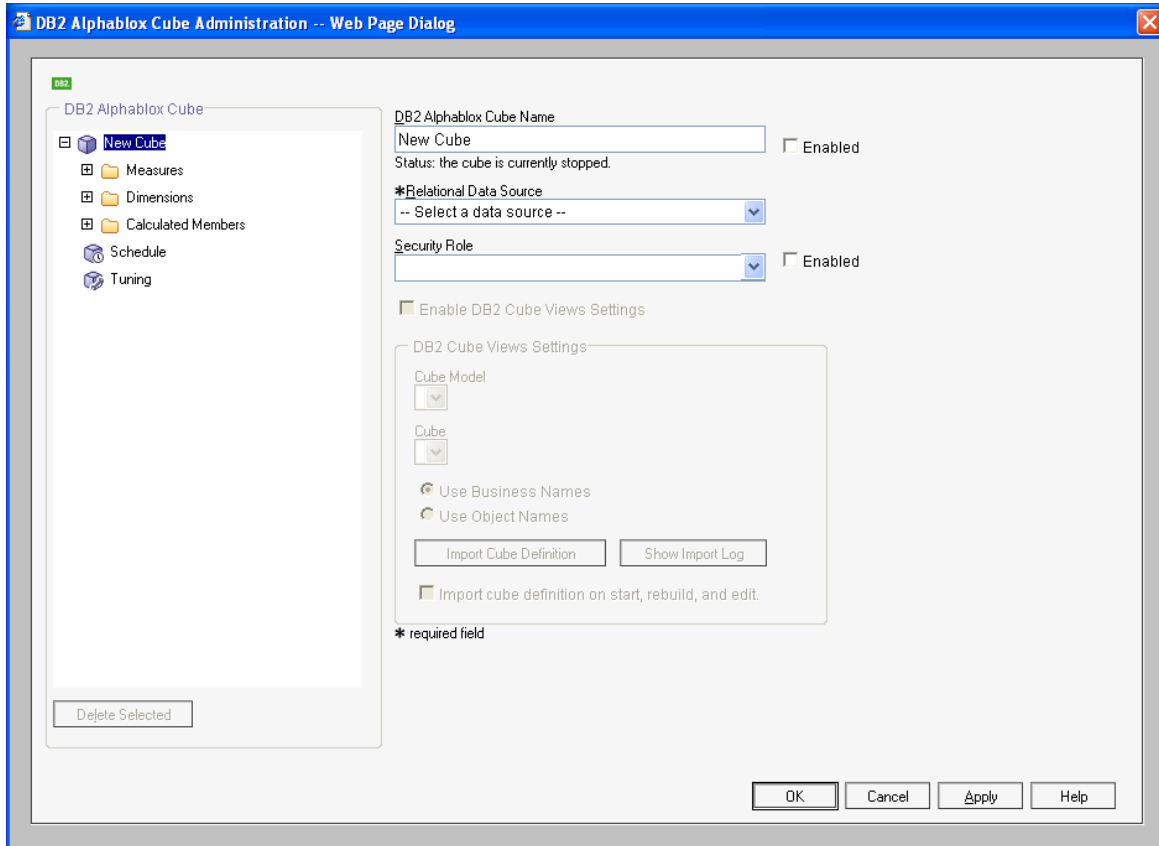


\_\_\_ d. Click the Cubes tab at the top of the Alphablox window. Click **Create**.



You should see a window like this:

Figure 152. The window should look like this example

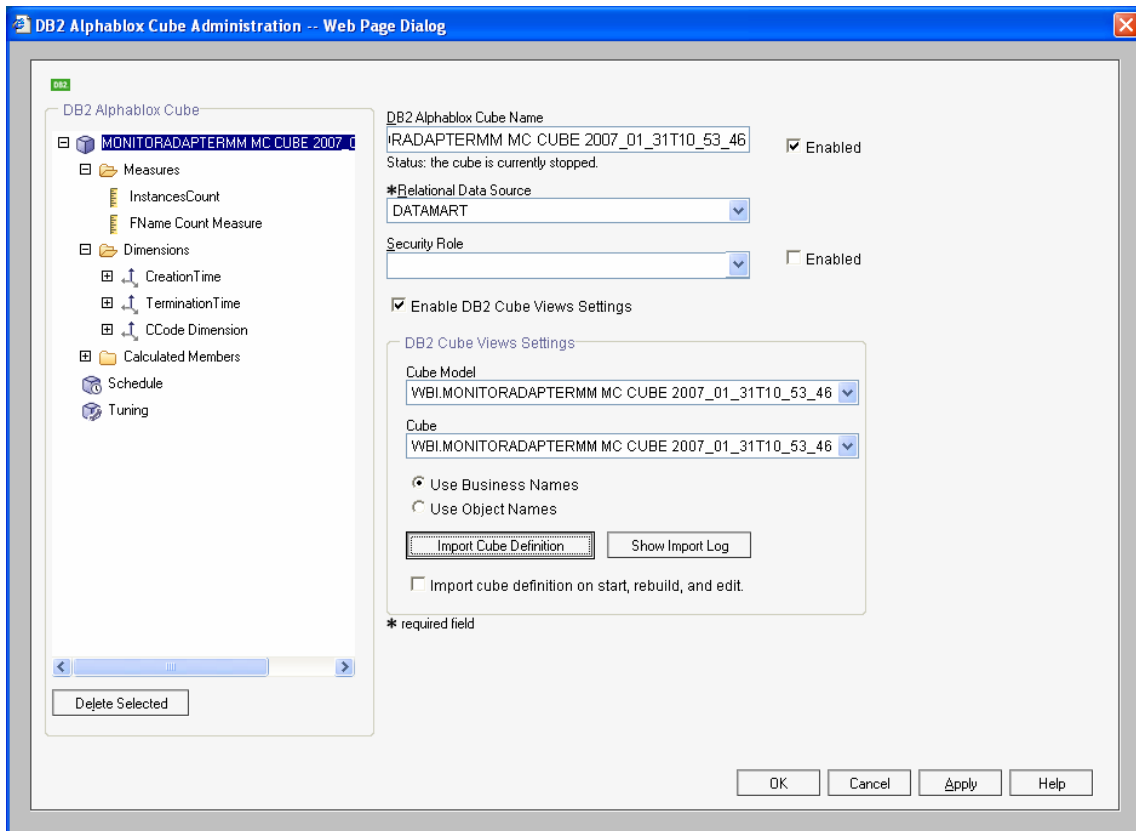


- \_\_\_ e. Next to the **DB2 Alphablox Cube Name** field, select the **Enabled** check box.
- \_\_\_ f. Press **Ctrl+V** to replace New Cube with the correct cube name.
- \_\_\_ g. For Relational Data Source, select **DATAMART**.
- \_\_\_ h. Select the **Enable DB2 Cube Views Settings** check box.
- \_\_\_ i. From the Cube Model list, select the model. Then click **Import Cube Definition**.

147 Generate MM to monitor data from an adapter

- \_\_\_ j. Confirm that the information in the window looks like the following example.

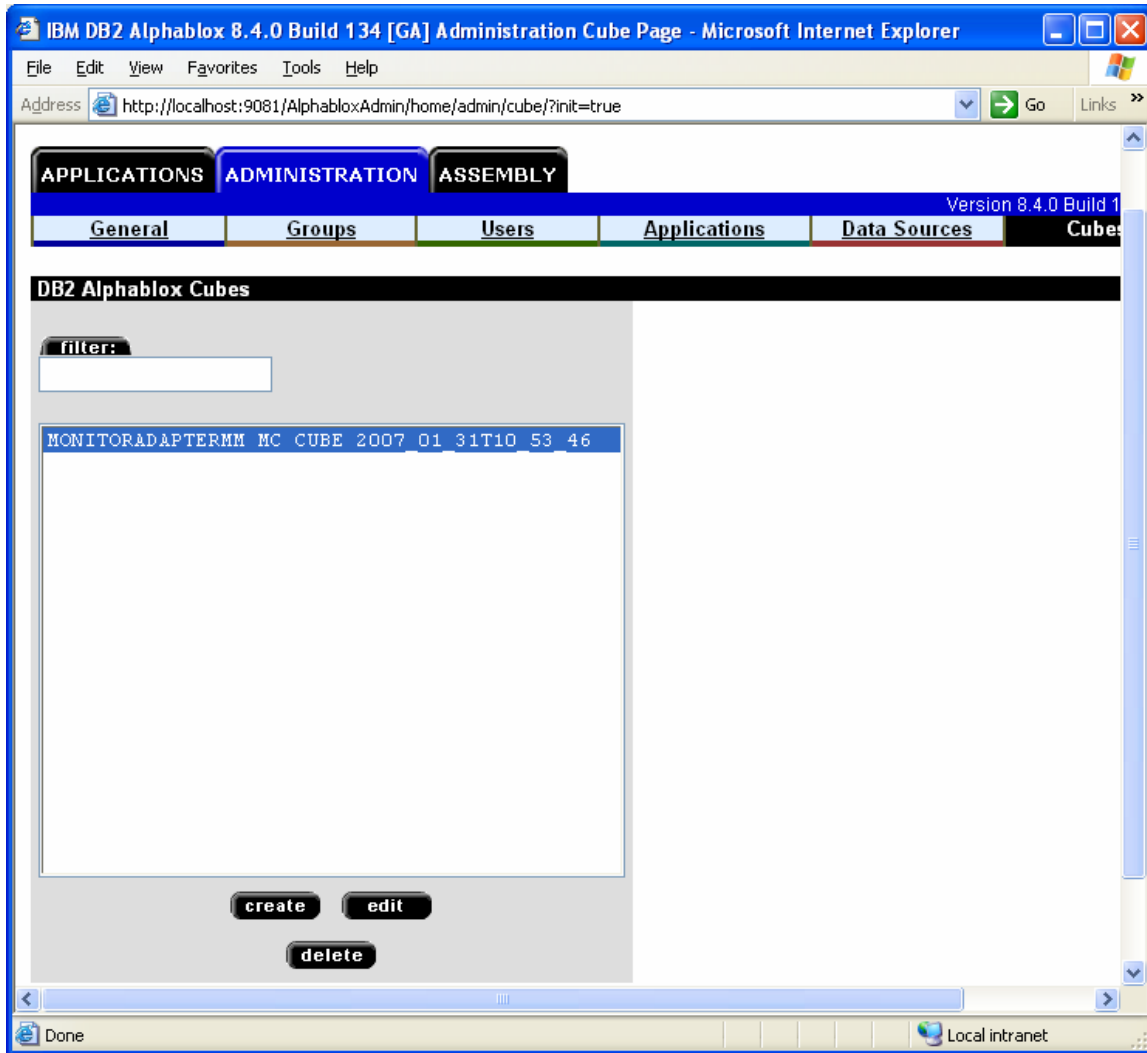
Figure 153. The window should look like this example



- \_\_\_ k. The DB2 Alphablox Cube Name must exactly match the Cube Model name, without the 'WBI.' prefix.
- \_\_\_ l. Click **OK** to save the definition.

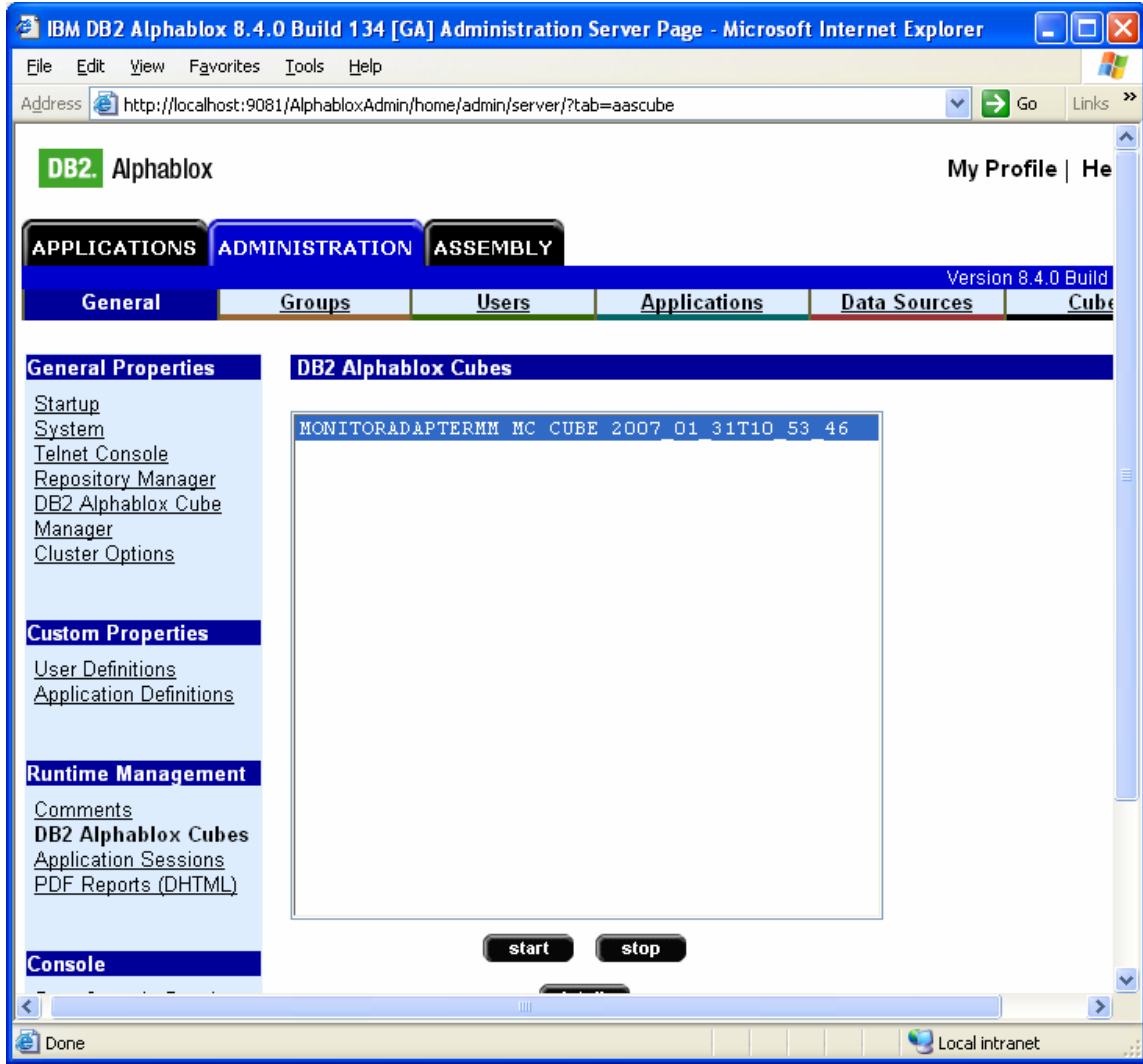
Confirm that it has been added to the list as follows:

Figure 154. Confirm that it has been added



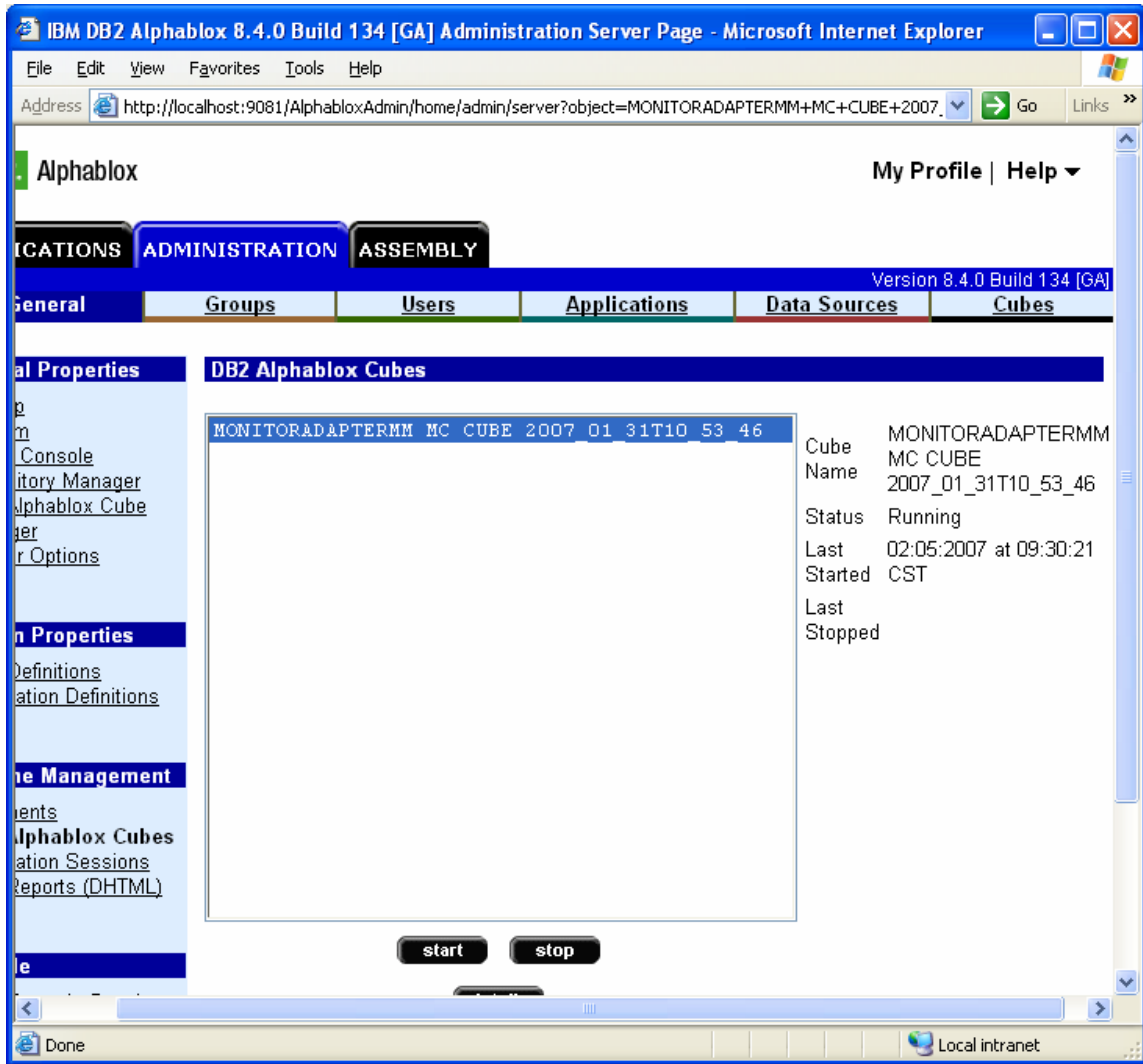
- m. Click the **General** tab at the top of the Alphablox window. Then click **Runtime Management** ► **DB2 Alphablox Cubes**.

Figure 155. Click Runtime Management ► DB2 Alphablox Cubes



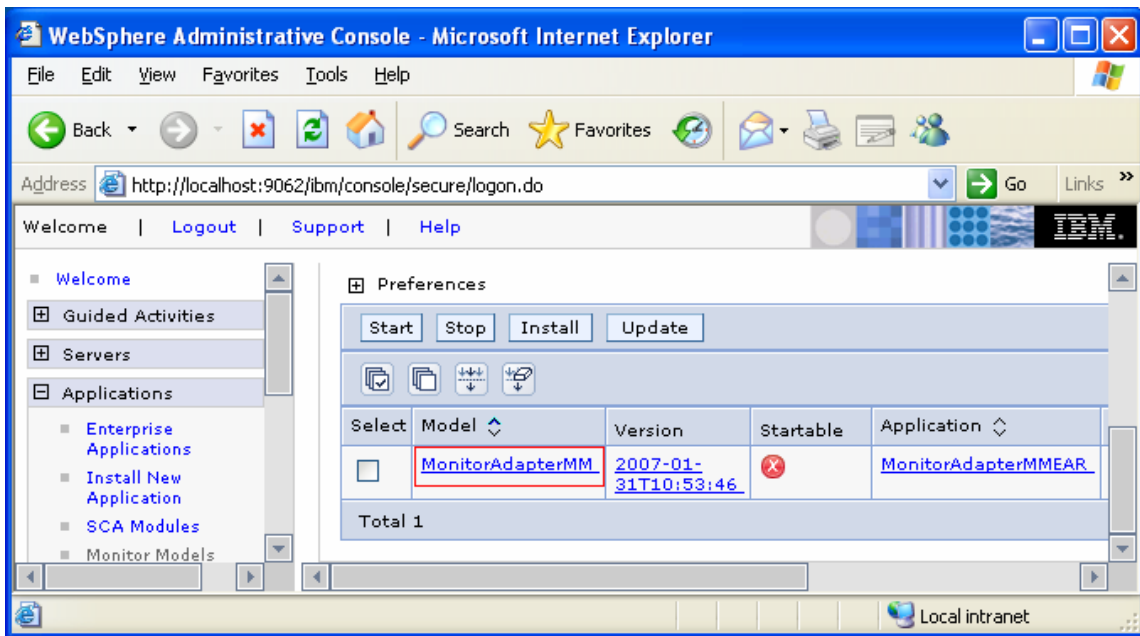
- n. Select the cube in the list, and then click **start**. The status of the cube should be running, as shown in the following example.

Figure 156. The status of the cube should be running as shown



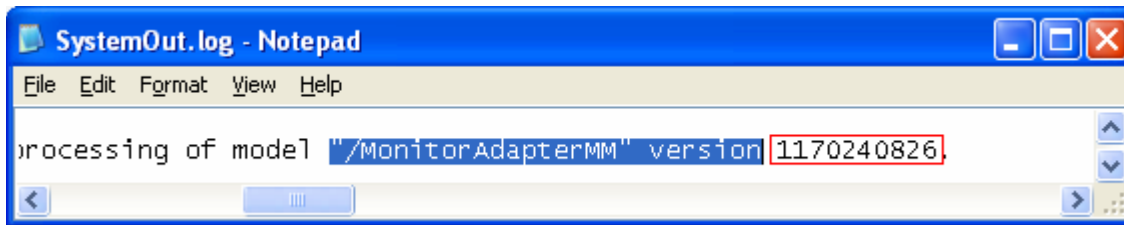
- \_\_\_ 3. Update the life cycle for step 5.
  - \_\_\_ a. Find the ModelID value.
    - 1) In the administrative console, select **Applications ► Monitor Models**.
    - 2) The **Model** column lists the ModelID value.  
For example, in the following screen capture, the ModelID value is MonitorAdapterMM.

Figure 157. The ModelID value in this example is MonitorAdapterMM



- \_\_\_ b. Find the versionDate value.
  - 1) Browse the WebSphere Process Server log, for example,  
C:\wps602\profiles\wbmonitor\logs\server1\SystemOut.log.
  - 2) Search for ' /**ModelID** version '. In this example, you would search for /**MonitorAdapterMM** version. As shown in the following screen capture, the versionDate value is 1170240826.

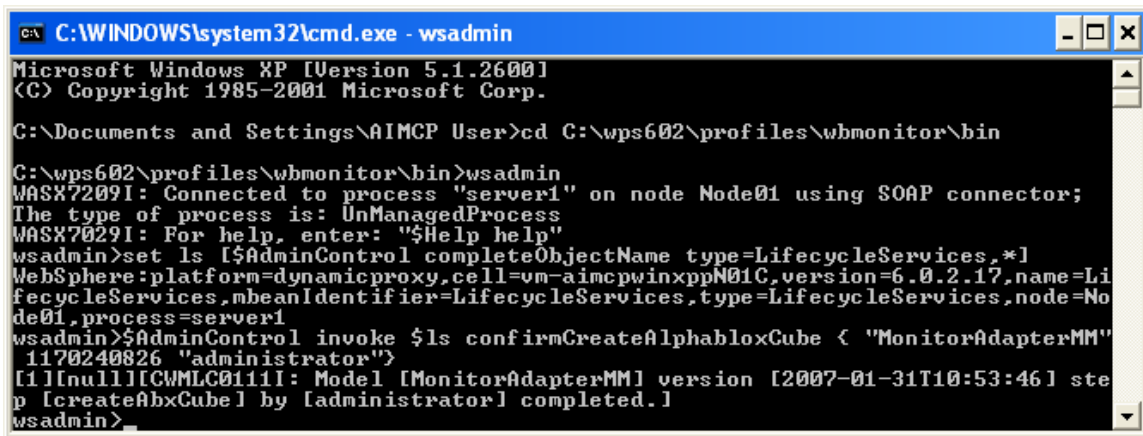
Figure 158. The versionDate value in this example is 1170240826



- \_\_\_ c. Open a command prompt window
  - 1) In Windows, click **Start > Run**.
  - 2) Enter the cmd command.
  - 3) Click **OK**.
- \_\_\_ d. Update the life cycle using an MBean method:
  - 1) cd  
%WAS\_HOME%\profiles\wbmonitor\bin
  - 2) wsadmin
  - 3) set ls [\$AdminControl  
completeObjectName  
type=LifecycleServices,\*]

```
4) $AdminControl invoke $ls
confirmCreateAlphabloxCube {
  "ModelID" versionDate "userID"} For
example, $AdminControl invoke $ls
confirmCreateAlphabloxCube {
  "MonitorAdapterMM" 1170240826
  "administrator"}( using ModelID and
versionDate values that you found
in the previous steps)
```

Figure 159. The window now indicates that step 5 complete



```
C:\WINDOWS\system32\cmd.exe - wsadmin
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\AIMCP User>cd C:\wps602\profiles\wbmonitor\bin

C:\wps602\profiles\wbmonitor\bin>wsadmin
WASX72091: Connected to process "server1" on node Node01 using SOAP connector;
The type of process is: UnManagedProcess
WASX70291: For help, enter: "$Help help"
wsadmin>set ls [$AdminControl completeObjectName type=LifecycleServices,*]
WebSphere:platform=dynamicproxy,cell=vm-aimcpwinxpN01C,version=6.0.2.17,name=Lif
ecycleServices,mbeanIdentifier=LifecycleServices,type=LifecycleServices,node=No
de01,process=server1
wsadmin>$AdminControl invoke $ls confirmCreateAlphabloxCube < "MonitorAdapterMM"
1170240826 "administrator">
[1][null][CWMLC0111]: Model [MonitorAdapterMM] version [2007-01-31T10:53:46] ste
p [createAbxCube] by [administrator] completed.
wsadmin>
```

- \_\_\_ e. If the administrative console still displays step 5 of the life cycle, reload the page in the browser. The window should now indicate that step 5 is complete.
- \_\_\_ f. Return to the instructions for the life-cycle steps, starting at step 6.





©Copyright IBM Corporation 2007

IBM Corporation  
Software Group  
Route 100  
Somers, NY 10589  
U.S.A.

Produced in the United States of America  
06-07

All Rights Reserved

ALPHABLOX is a registered trademark of Alphablox Corporation in the United States, other countries, or both.

(See this URL for details:

<http://www.ibm.com/legal/copytrade.shtml#section-alphablox>)

Cloudscape, DB2, DB2 Universal Database, IBM, the IBM logo and WebSphere are trademarks of International

Business Machines Corporation in the United States, other countries or both.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Microsoft and Windows are trademarks of Microsoft Corporation in the United States, other countries, or both.

Other company, product and service names may be trademarks or service marks of others.