

## E-mail Inbound Lab

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### What this exercise is about

The objective of this lab is to provide you with an understanding of the WebSphere® Adapter for Email and inbound event processing. In this lab you will install and deploy the WebSphere Adapter for Email and create an SCA application that polls for and processes inbound events from the file system

### Lab Requirements

List of system and software required for the student to complete the lab.

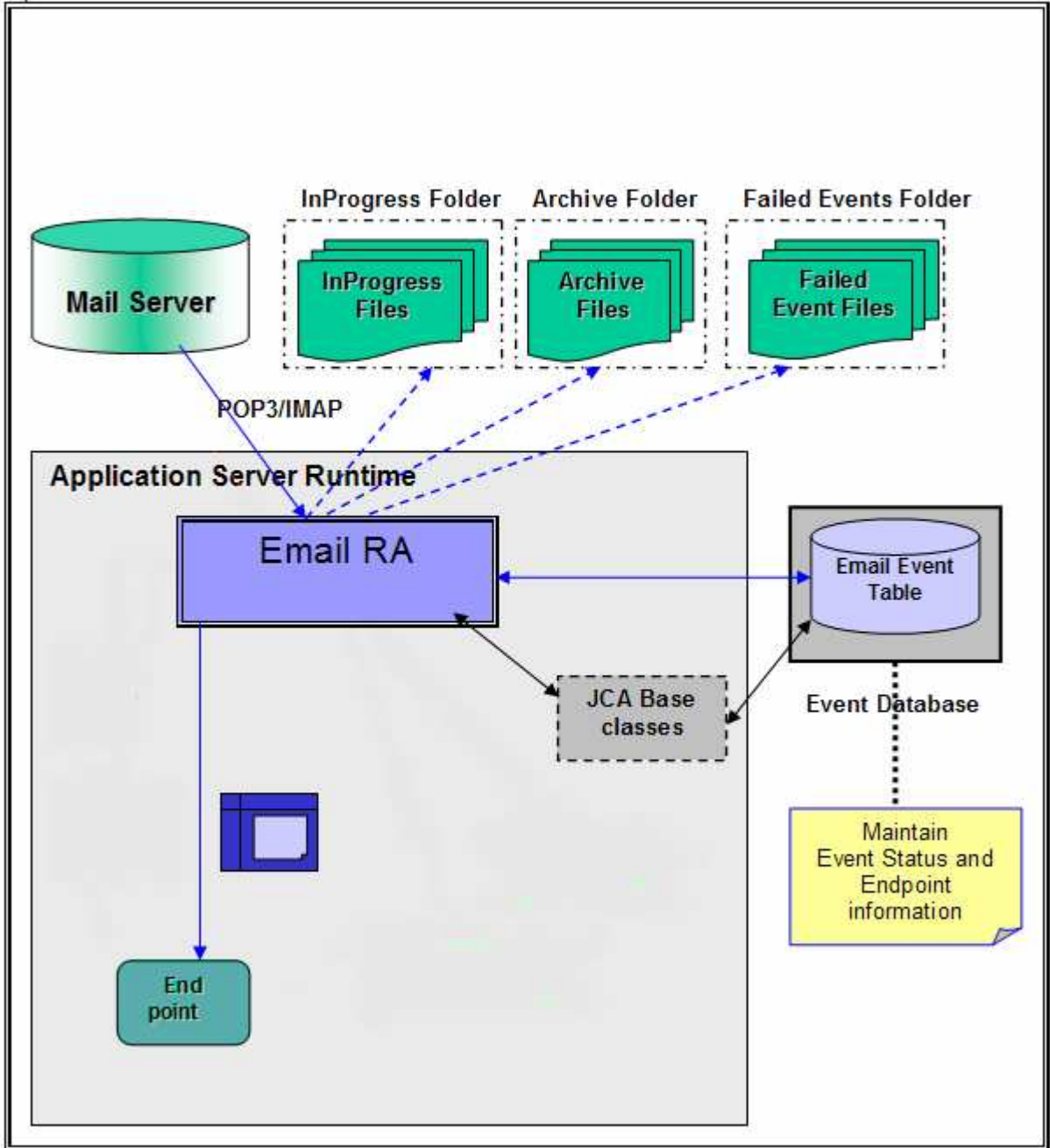
- WebSphere Integration Developer V6.0.2 installed
- WebSphere Process Server V6.0 Test Environment installed
- WebSphere Adapter for Email V6.0.2 installed
- Unzip LabFiles602.zip to your C:\ (your root) drive
- Complete WPIv602\_AdapterInstallEmailServer lab successfully

## What you should be able to do

At the end of this lab you should be able to:

- Import Email adapter RAR file into WebSphere Integration Developer
  - Use WebSphere Process Server administrative console to create required JDBC provider and a Data source under it
  - Use ESD wizard to configure the Activation Spec Properties Resource Adapter Properties to generate Business Objects and other artifacts
  - Deploy the adapter application onto the WebSphere Process Server test environment
  - Test the above deployed application using WebSphere Process Server test environment
  - Restore server configuration
-

## Introduction



The E-mail RA interacts with the mail server using JavaMail™ API that handles the underlying SMTP and IMAP/POP3 protocols. The adapter supplies the necessary parameters required by JavaMail to communicate to the mail server.

The E-mail RA polls on the PollFolders for that user on the specified mail server at regular intervals, and picks up all the unread mails as events. You can specify multiple e-mail folders for a user's mail account within the PollFolders property. The multiple e-mail folders are then polled sequentially in the same poll cycle. Optionally, you can specify search criteria to pick up event mails and when search criteria is specified, all unread mails meeting the search criteria, will be picked up for polling. When no search criteria are specified, all unread mails are picked up by default.

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The E-mail RA writes all the polled mails to the InProgress file -folder, as files saved in the RFC822 format. The name of the RFC822 format file will be the Message\_ID of the polled e-mail. The E-mail RA transforms the mail to an E-mail business object and delivers the same to configured endpoint. The event management framework takes care of delivering the event only once to the endpoint.

The contents of each e-mail will be parsed into an EmailRecord object. The EmailRecord will be routed through the Function Selector to the Email-specific data-binding. The E-mail-specific data-binding will be aware of the structure of the E-mail business object. It will parse the EmailRecord structure, and route the content of the mail and the attachments to the mime-specific data-bindings, according to their mime-types. It would then receive back the parsed structures and combine them back into the E-mail business object, and send it out to the configured endpoint.

The Email Event Database is part of the Event Persistence Framework. The event persistence feature ensures that the event is delivered to the end point once and only once.

Once the mail is read and stored in the InProgress folder, it is deleted from the mail server (per the POP3 specifications). Once a mail is processed, the mail is explicitly marked as deleted on the Mail Server (per the IMAP specifications). The mail will be archived or deleted from the InProgress folder. The archiving is based on the values for the properties ArchiveFolder and the FailedEventsFolder.

If the ArchiveFolder is specified, the successfully processed mails are moved into the ArchiveFolder from the InProgressFolder. If blank, then the successfully processed mails are just deleted from the InProgressFolder.

If the FailedEventsFolder is specified, the mails that failed processing are moved into the FailedEventsFolder from the InProgressFolder. If blank, then the failed mails are just deleted from the InProgressFolder.

If you specify multiple event folders separated by commas in the PollFolders property, the RA will create folders with the same name as the poll folder, under the user-specified ArchiveFolder and the FailedEventsFolders, and archives corresponding event files in these folders.

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## Exercise Instructions

Some instructions in this lab may be Windows® operating-system specific. If you plan on running the lab on an operating-system other than Windows, you will need to run the appropriate commands, and use appropriate files (.sh vs. .bat) for your operating system. The directory locations are specified in the lab instructions using symbolic references, as follows:

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Reference Variable	Windows Location	AIX®/UNIX® Location
<WID_HOME>	C:\Program Files\IBM\ID\6.0	
<WPS_HOME>	<WID_HOME>\runtimes\bi_v6	
<EMAILADAPTER_HOME>	C:\Program Files\IBM\ResourceAdapters\Email\adapter\Email	
<WORKSPACE>	C:\LabFiles602\EmailInbound\workspace	
<LAB_FILES>	C:\Labfiles602	/tmp/Labfiles602
<INPROGRESS>	<LAB_FILES>\EMailInbound\InProgress	
<ARCHIVE>	<LAB_FILES>\EMailInbound\Archive	
<TEMP>	C:\temp	/tmp

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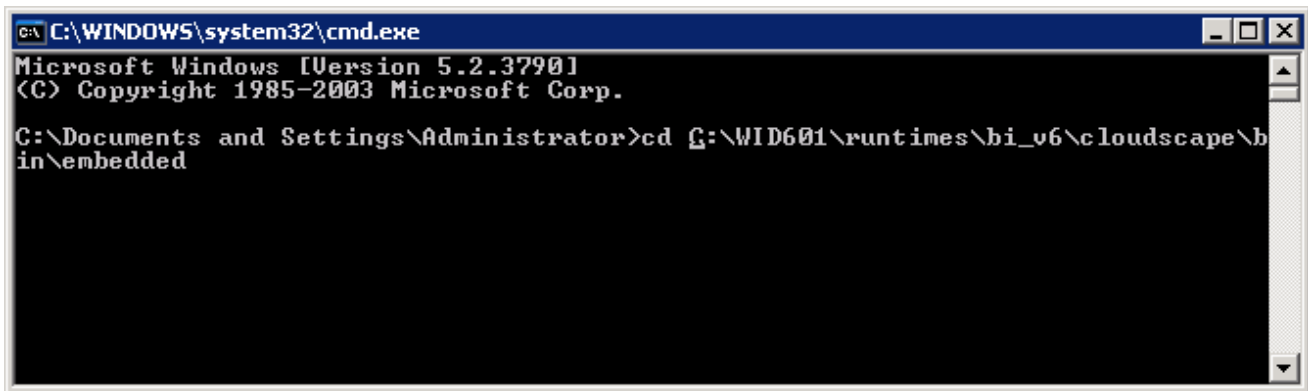
**Windows users note:** When directory locations are passed as parameters to a Java program such as EJBdeploy or wsadmin, it is necessary to replace the backslashes with forward slashes to follow the Java convention. For example, C:\LabFiles60\ would be replaced by C:/LabFiles60/

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## Part 1: Create Database in Cloudscape

This part of the lab, describes the steps for creating the **EMAILDATABASE** database in Cloudscape which will contain the Event Distribution Table, **EMAILTABLE**. The **EMAILTABLE** will be created automatically for you during the install and deployment of the application containing the E-mail adapter to the WebSphere Process Server.

- \_\_\_ 1. Start the Cloudscape Cview Graphical User Interface (GUI) by executing the **cvview.bat** file
  - \_\_\_ a. Open a command prompt window and change directories to  
<WPS\_HOME>\cloudscape\bin\embedded

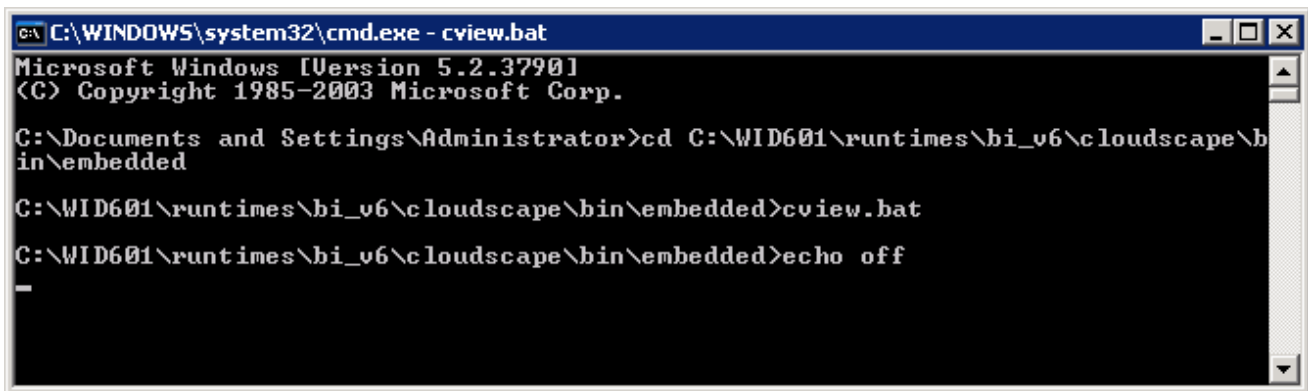


```

C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.

C:\Documents and Settings\Administrator>cd C:\WID601\runtimes\bi_v6\cloudscape\bin\embedded
  
```

- \_\_\_ b. Type **cvview.bat**



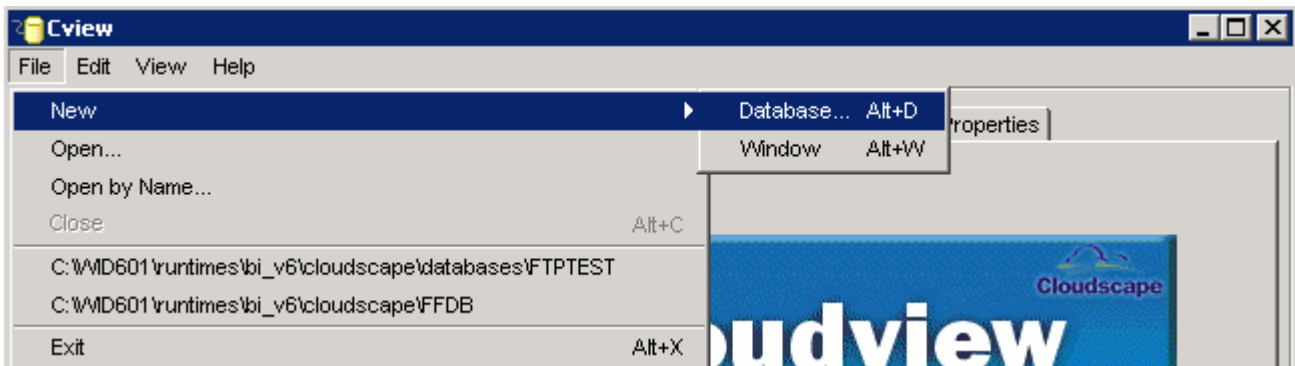
```

C:\WINDOWS\system32\cmd.exe - cvview.bat
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.

C:\Documents and Settings\Administrator>cd C:\WID601\runtimes\bi_v6\cloudscape\bin\embedded

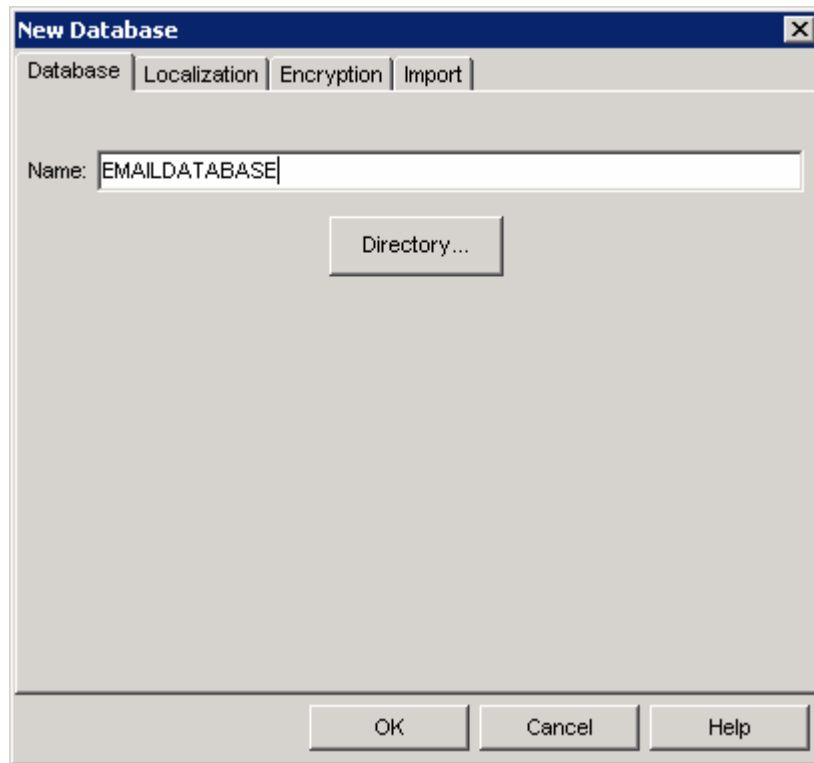
C:\WID601\runtimes\bi_v6\cloudscape\bin\embedded>cvview.bat
C:\WID601\runtimes\bi_v6\cloudscape\bin\embedded>echo off
-
  
```

- \_\_\_ c. The Cview window will be opened. From that window, select **File > New > Database...**

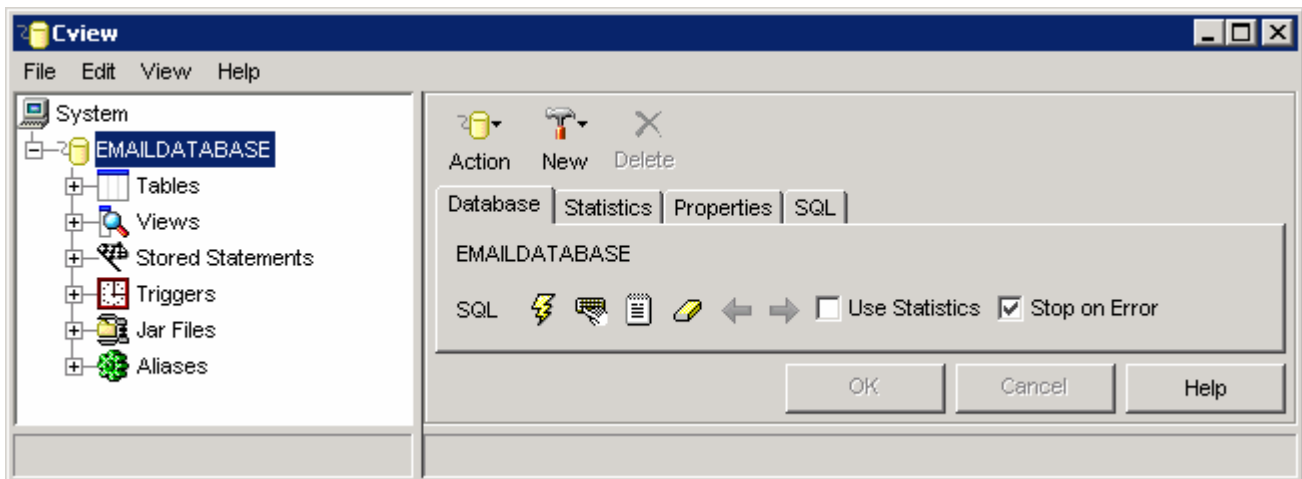


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\_\_\_ d. Enter **EMAILDATABASE** in the Name field and click **OK**.

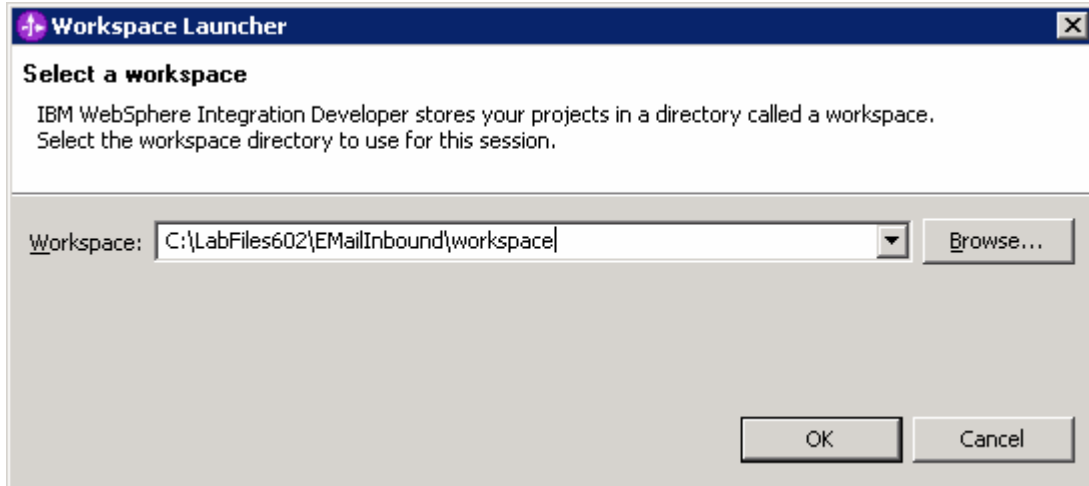



\_\_\_ e. You will see the **EMAILDATABASE** created in the left pane of the Cview window. Now select **File > Exit** to close the Cview GUI

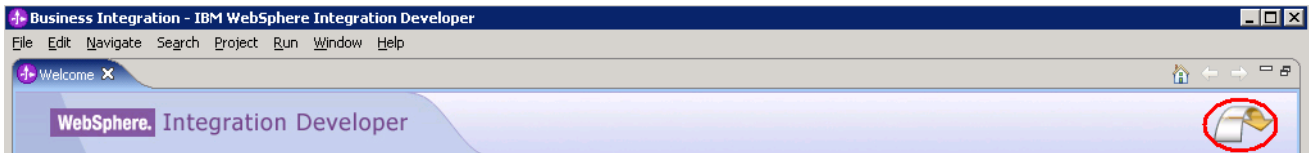


## Part 2: Initialize workspace and Import RAR into WebSphere Integration Developer

- \_\_\_ 1. Start the WebSphere Integration Developer V6.0.2 with a new workspace
  - \_\_\_ a. Select **Start > Programs > IBM WebSphere > Integration Developer V6.0.2 > WebSphere Integration Developer V6.0.2**
  - \_\_\_ b. From the Workspace Launcher window, enter **<WORKSPACE>** for the Workspace field



- \_\_\_ c. Click on the  button on the right hand corner to close the Welcome page and proceed with the workbench

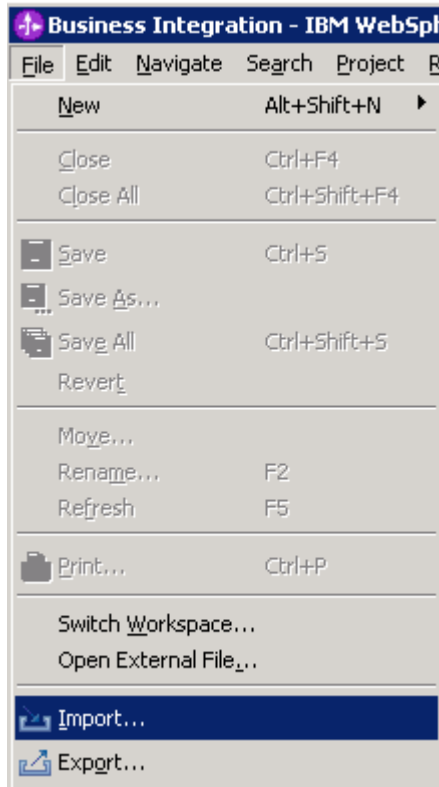




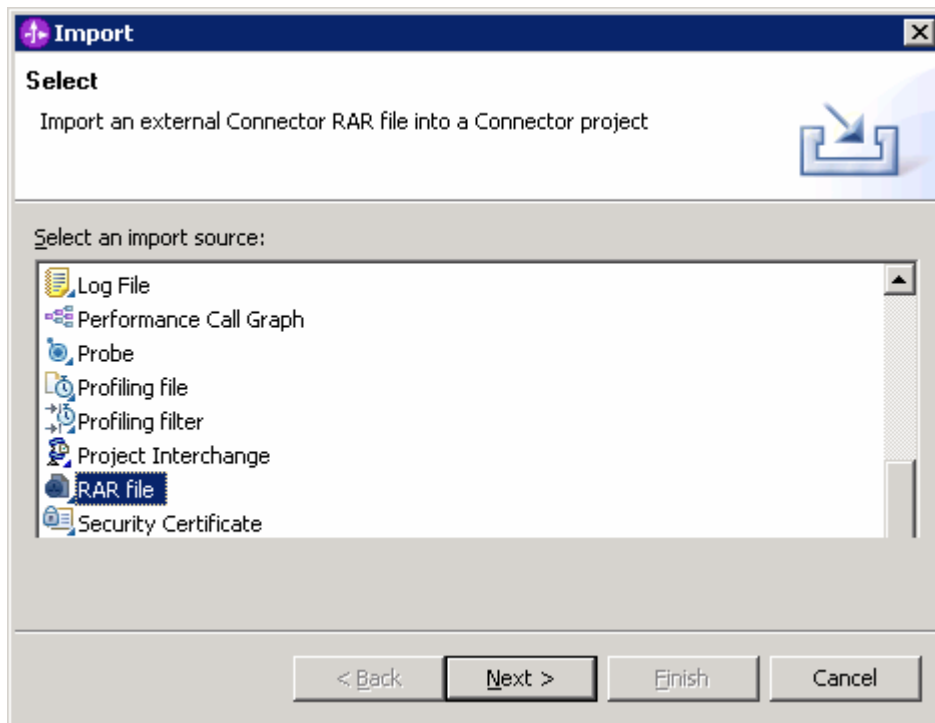
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\_\_\_ 2. Import the E-mail Adapter RAR file

\_\_\_ a. From main menu, select **File > Import...**

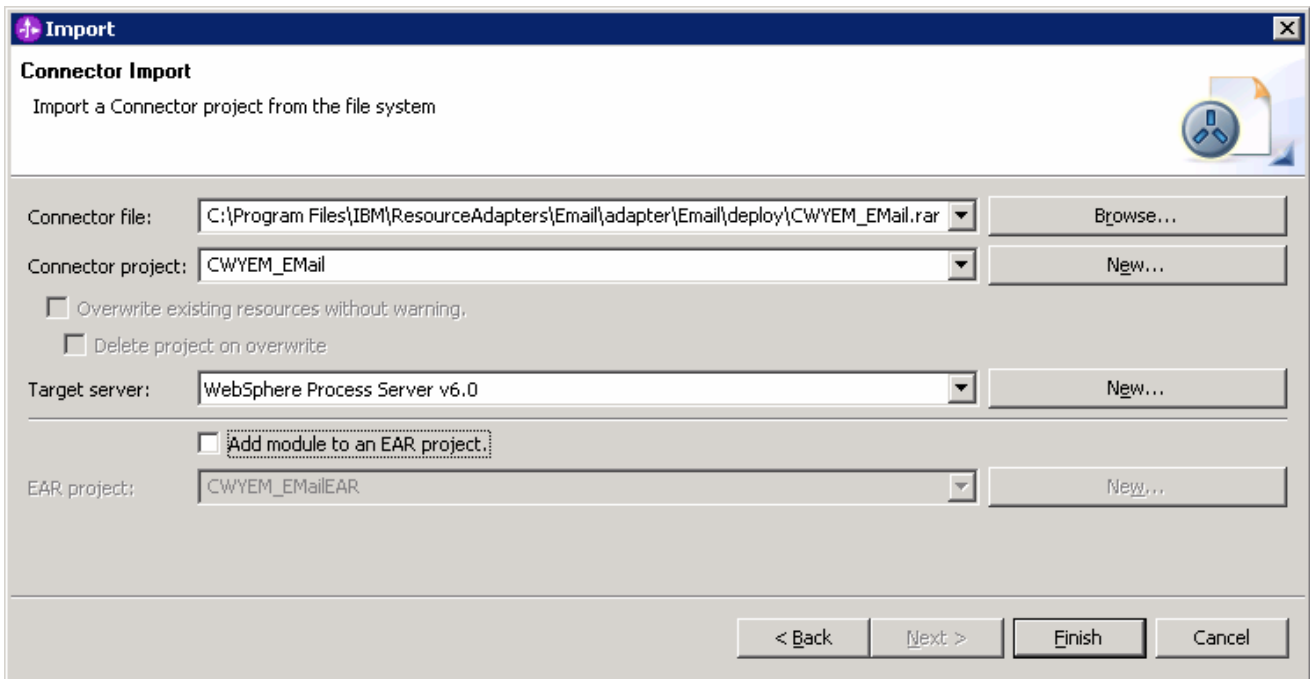


\_\_\_ b. Select **RAR file** from the Import window and then click **Next**

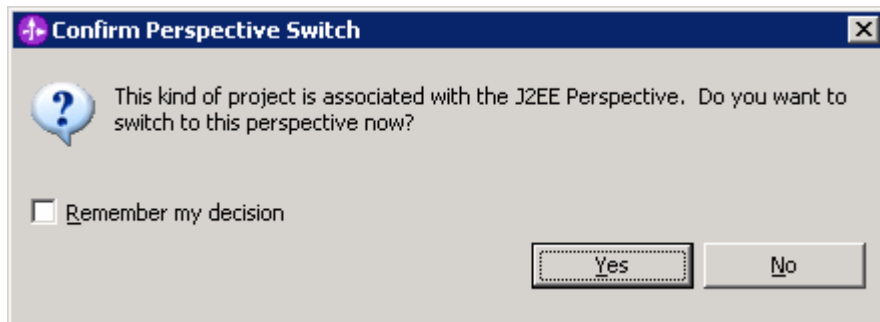


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- \_\_\_ c. Click on the **Browse...** button next to the Connector file field to select **<EMAILADAPTER\_HOME>\deploy\CWYEM\_Email.rar**
- \_\_\_ d. Uncheck the check box next to **Add module to and EAR project** and click **Finish**



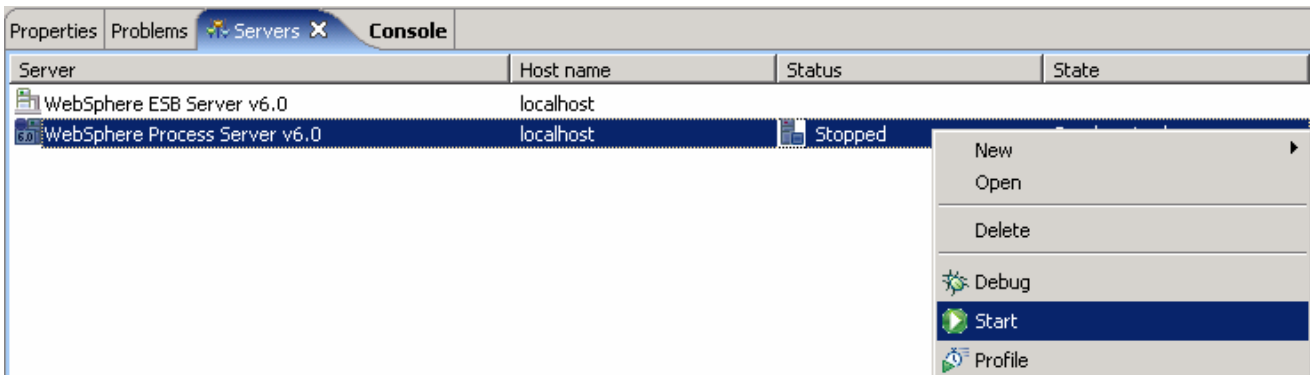
- \_\_\_ e. Click on **No** from Confirm Perspective Switch window to continue with the Business Integration perspective



## Part 3: Use WebSphere Process Server Administrative Console to Configure Data Sources

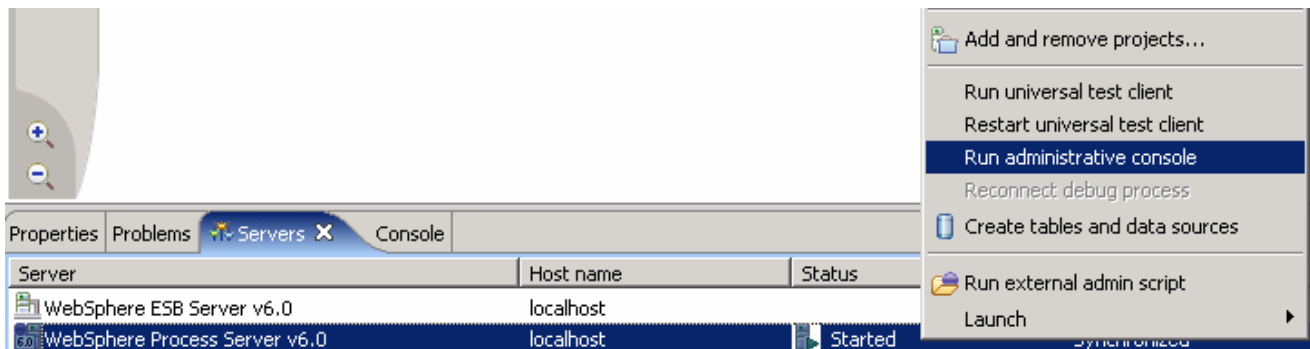
In this part of the lab, you will make use of WebSphere Process Server Administrative Console to create the required JDBC Provider and the Data source that will be used by the Adapter to configure itself to the end point.

- \_\_\_ 1. Start the WebSphere Process Server
  - \_\_\_ a. Select **Servers** view
  - \_\_\_ b. Right-click on the row that contains WebSphere Process Server v6.0 and select **Start** from the context menu



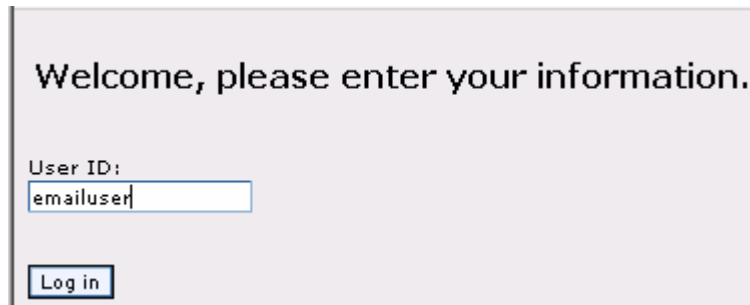
- \_\_\_ c. Wait until the test server status shows **Started**

- \_\_\_ 2. Right-click on the row that contains WebSphere Process Server v6.0 and select **Run administrative console** from the context menu



- \_\_\_ 3. From the Administrative Console, enter any **User ID** and click on **Log In**.

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- \_\_\_ 4. On the left pane expand **Resources** and select **JDBC Providers**



- \_\_\_ 5. Accept the default scope and click on **New**
- \_\_\_ 6. In the next screen, for the General Properties, select the these values from the dropdown list:
- \_\_\_ a. Step 1: **Cloudscape**
  - \_\_\_ b. Step 2: **Cloudscape JDBC Provider**
  - \_\_\_ c. Step 3: **XA data source**
- \_\_\_ 7. Click **Next**

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**JDBC providers**

[JDBC providers](#) > **New**

Choose a type of JDBC provider to create.

Configuration

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**General Properties**

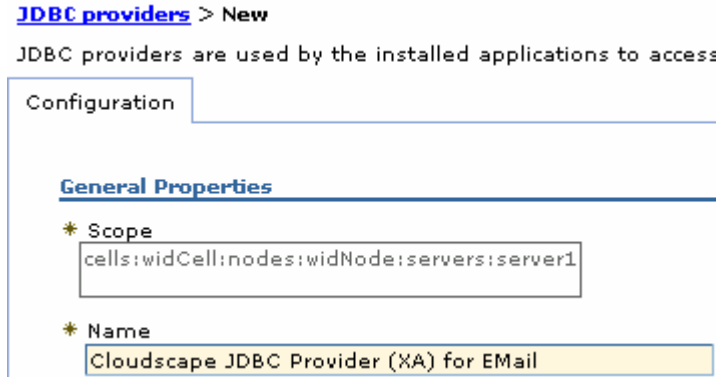
Step 1: Select the database type  
**Cloudscape** ▼

Step 2: Select the provider type  
**Cloudscape JDBC Provider** ▼

Step 3: Select the implementation type  
**XA data source** ▼

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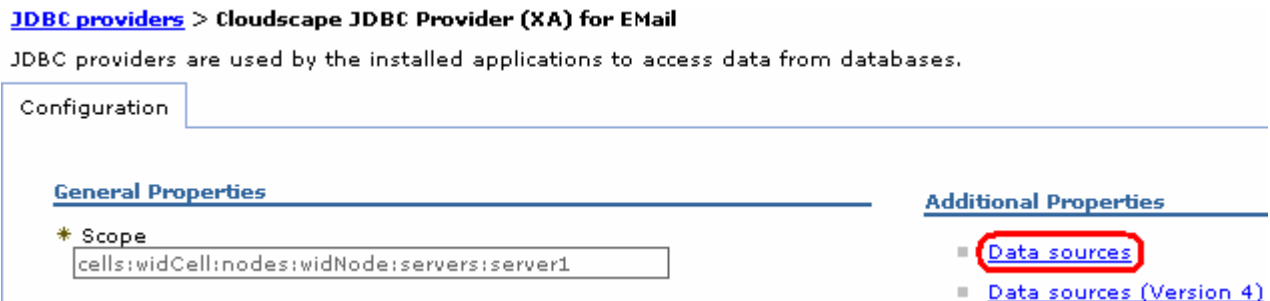
\_\_\_ 8. Enter **Cloudscape JDBC Provider (XA) for EMail** in the **Name** field and then click **OK**



\_\_\_ 9. Click **Save** on the top of the window, and then click on **Save** from the following screen

\_\_\_ 10. Click **Cloudscape JDBC Provider (XA) for EMail** from the following screen

\_\_\_ 11. Select **Data Sources** under **Additional Properties** on the right hand side



\_\_\_ 12. Create the required JNDI Data source

\_\_\_ a. Click **New**

\_\_\_ b. Enter the these values:

- a) Name: **Cloudscape JDBC Driver XA DataSource for EMail**
- b) JNDI Name: **jdbc/Cloudscape JDBC Driver XA DataSource for EMail**
- c) Database name: **EMAILDATABASE**

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\_\_ c. Click **OK**

**\* Name**  
Cloudscape JDBC Driver XA DataSource for EMail

**JNDI name**  
jdbc/Cloudscape JDBC Driver XA DataSource for EMail

Use this Data Source in container managed persistence (CMP)

**Description**  
New JDBC Datasource

**Category**  
[ ]

**Data store helper class name**

Select a data store helper class  
Data store helper classes provided by WebSphere Application Server

Cloudscape data store helper  
(com.ibm.websphere.rsadapter.CloudscapeDataStoreHelper)

Specify a user-defined data store helper  
Enter a package-qualified data store helper class name  
[ ]

**Component-managed authentication alias**  
Component-managed authentication alias  
(none)

**Authentication alias for XA recovery**

Use component-managed authentication alias

Specify:  
[ ]

**Container-managed authentication**

Container-managed authentication alias (deprecated in V6.0, use resource reference authentication settings instead)  
(none)

Mapping-configuration alias (deprecated in V6.0, use resource reference authentication settings instead)  
(none)

**Cloudscape data source properties**

**\* Database name**  
EMAILDATABASE

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- \_\_\_ 13. Click on **Save** and then **Save** from the next screen
- \_\_\_ 14. Test the Data source connection
  - \_\_\_ a. Check the box next to **Cloudscape JDBC Driver XA DataSource for EMail** and click on **Test connection** from the top of the screen

**JDBC providers** > **Cloudscape JDBC Provider (XA) for EMail** > **Data sources**

A data source is used by the application to access data from the database. A data source is created under a JDBC provider, which supplies the specific JDBC driver implementation class.

⊕ Preferences

New Delete **Test connection** Manage state...

Select	Name	JNDI name	Description	Category
<input checked="" type="checkbox"/>	<a href="#">Cloudscape JDBC Driver XA DataSource for EMail</a>	jdbc/Cloudscape JDBC Driver XA DataSource for EMail	New JDBC Datasource	

Total 1

- \_\_\_ b. You should see this success message on the top of the screen:

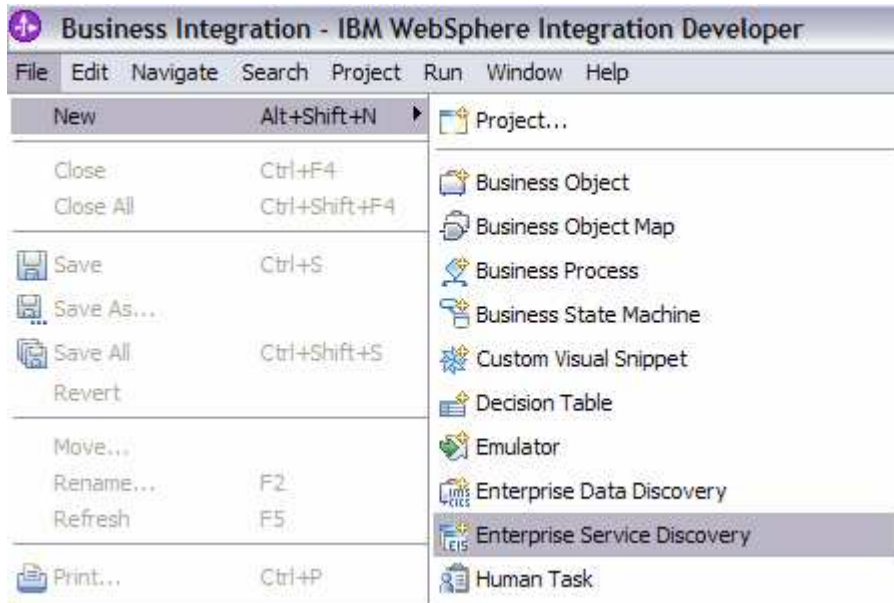
⊖ Messages

**i** Test connection for data source Cloudscape JDBC Driver XA DataSource for EMail on server server1 at node widNode was successful.

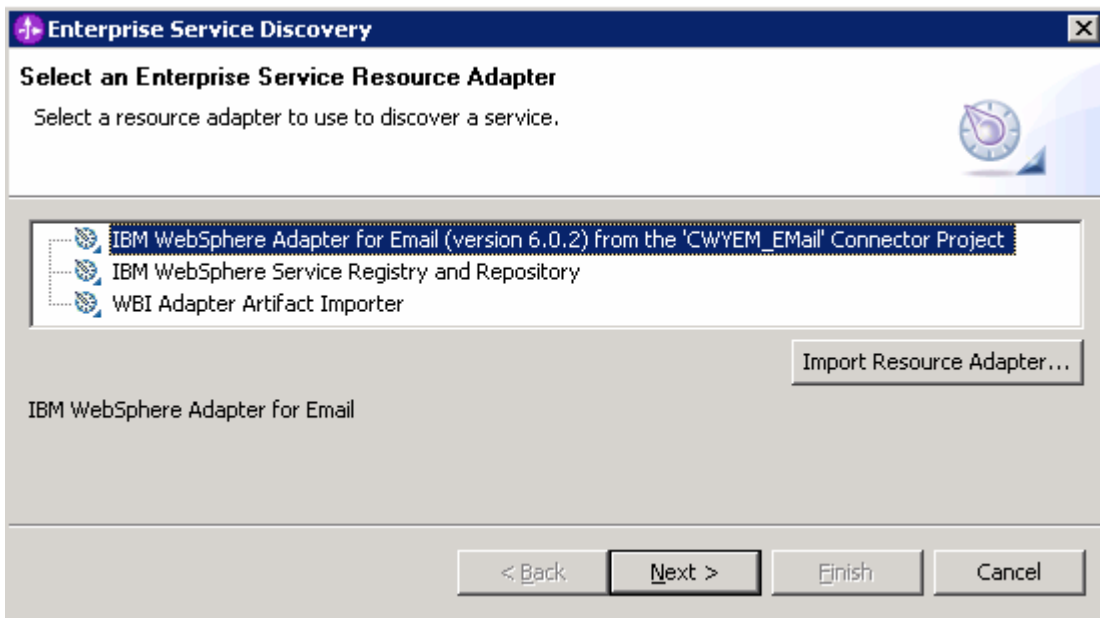


## Part 4: Use Enterprise Service Discovery Wizard to Generate Business Objects and other Artifacts

- \_\_\_ 1. Launch the Enterprise Service Discovery wizard
  - \_\_\_ a. From the top Menu bar, select **File > New > Enterprise Service Discovery**



- \_\_\_ 2. Select **IBM WebSphere Adapter for Email (version 6.0.2)** from the '**CWYFT\_Email**' Connector Project and click **Next**



- \_\_\_ 3. Configure settings for the Discovery agent

You will specify the properties to initialize the Resource Adapter and Enterprise Service Discovery agent.

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- \_\_\_ a. Unzip the **XSDs.zip** file under **<EMAILADAPTER\_HOME>\Samples**. You will now see a XSDs folder under **<EMAILADAPTER\_HOME>\Samples**
  
- \_\_\_ b. Click on the **Browse...** button next to the **Folder Name** field and select the folder **<EMAILADAPTER\_HOME>\Samples\XSDs**, that contains the **Wbiaddress** and **Wbiphone** XSD files

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**Note:** For your convenience, **Wbiaddress** and **Wbiphone** xsd files are placed under **<LAB\_FILES>\EmailFiles**

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- \_\_\_ c. Select **US-ASCII** from the drop down list for the **Character Set** field
  
- \_\_\_ d. Select **text/xml** for the **Content Type** field. Once the content type is selected, the **DataBinding Type** field will be automatically set to **XMLBOSerializerDataBinding**

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- \_\_\_ e. Click the **Show Advanced >>** button to see the Log file location and Logging level options for the discovery log and then click **Next** leaving the default log file location

**Enterprise Service Discovery**

**Configure Settings for Discovery Agent**

Specify the properties to initialize the resource adapter and the enterprise service discovery agent.

**Connection Configuration**

Folder Name: C:\Program Files\IBM\ResourceAdapters\Email\adapter\Email\Samples\XSDs Browse...

Charater Set: US-ASCII

Content Type: text/xml

DataBinding Type: XMLBOSerializerDataBinding

Specify BO Properties

**BiDi Properties**

Bidi transformation

Bidi ordering schema: Implicit

Text direction: LTR

Bidi SymmetricSwapping

Bidi shaping: Nominal

Bidi numeric shaping: Nominal

Hide Advanced <<

**Logging options**

Log file output location:\* C:\Labfiles602\EMailInbound\workspace\,metadata\EmailMetadataDiscovery.log Browse...

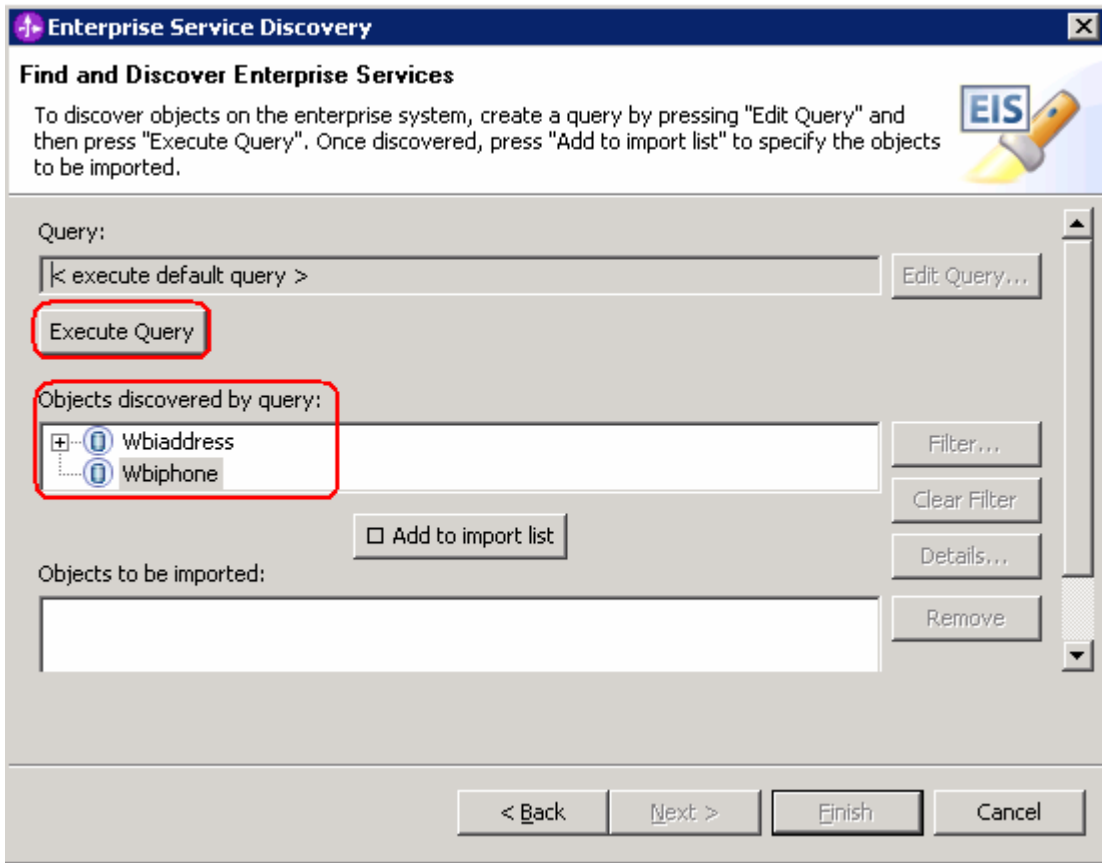
Logging Level: SEVERE

< Back Next > Finish Cancel

- \_\_\_ 4. To Find and Discover the enterprise services, you will select the business objects and services to be used with the adapter

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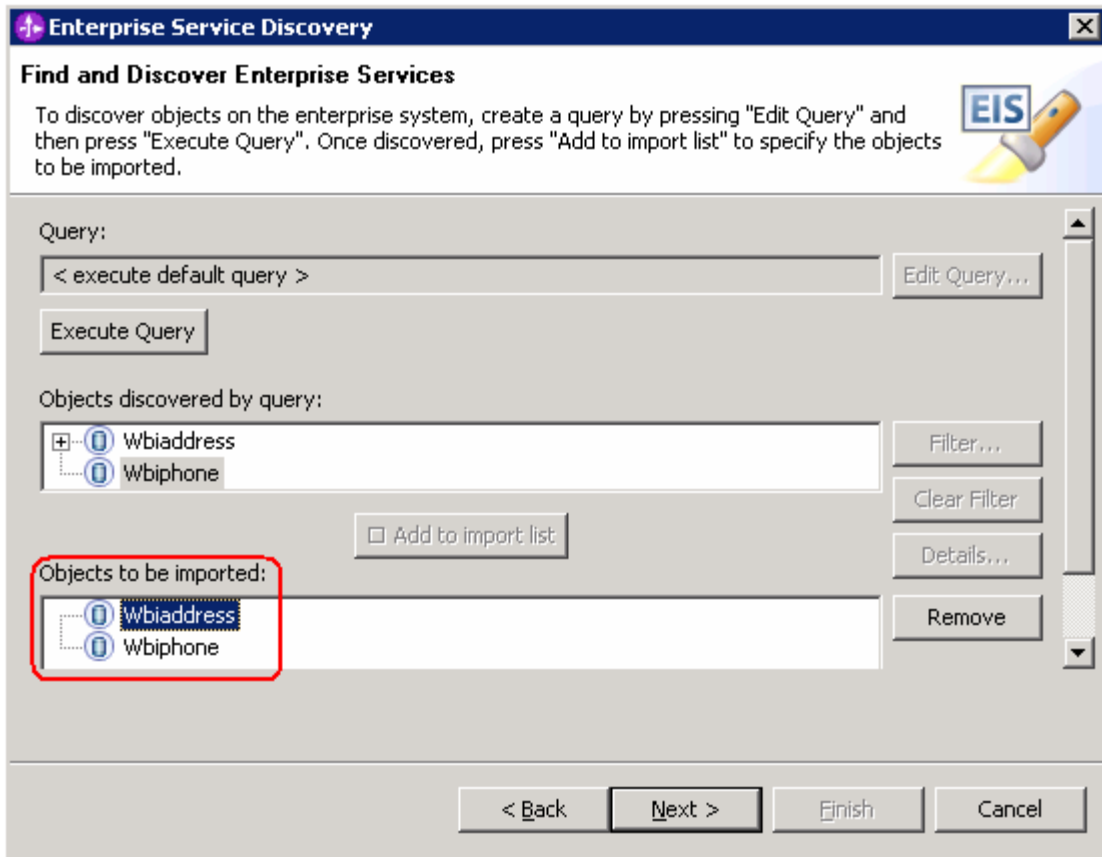
- \_\_\_ a. From the Enterprise Service Discovery window, click on **Run Query** button. You will see a **Wbiaddress** and **Wbiphone** business object under **Objects discovered by query**



- \_\_\_ b. Select **Wbiaddress** business object and click **Add to import list** button. The Wbiaddress business object will now be displayed under the **Objects to be imported**
- \_\_\_ c. Repeat the above step to add **Wbiphone** business object

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\_\_\_ d. You should now see the two business objects – Wbiaddress and Wbiphone under **Objects to be imported** area



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

\_\_\_ 5. Configure the objects that will be imported by the discovery agent

\_\_\_ a. From the Configure objects window, select **Inbound** from the dropdown list for the **Service Type** field. Note the operations available for the selected Service Type

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\_\_ b. Enter the **BO Location** as **EMailInBO** and click **Next**

**Enterprise Service Discovery**

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

ServiceType: Inbound

NameSpace: \* http://www.ibm.com/xmlns/prod/websphere/j2ca/email

Service Functions:  
Create

BO Location: EMailInBO

Function Selector:\* WBIFunctionSelector

< Back   Next >   Finish   Cancel

\_\_\_ 6. Specify the properties for the artifacts that will be generated in your workspace

\_\_ a. Create a new module

- 1) Click on the **New...** button next to the **Module** field
- 2) From the New Integration Project window, ensure that the radio button next to **Create a module project** is selected and click **Next**

**New Integration Project**

**Integration Project**  
Select the type of integration project to create.

Create a module project.

Create a mediation module project.

< Back   Next >   Finish   Cancel

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- 3) Enter **EEmailInboundModule** for the **Module Name** field and click **Finish**

**New Module**

**Module**

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

Module Name: EEmailInboundModule

Module Location

Use default

Directory: C:\LabFiles602\EmailOutbound\workspace\EEmailInbo

Open module assembly diagram

Business integration modules can be deployed and run on WebSphere Process Server. They can contain many types of components, such as business processes, assembled together for the purpose of business integration.

< Back   Next >   Finish   Cancel

- \_\_\_ b. The module which is created above will appear in the **Module** field of the Generate Artifacts window
- \_\_\_ c. From Generate Artifacts window, select the radio button next to **Use discovered connection properties**. This will make the Activation Spec Properties and Resource Adapter Properties visible
- \_\_\_ d. Enter the these values for **Event Persistence Properties** of Activation Spec Properties:
- 1) EPDataSourceJNDIName: **jdbc/Cloudscape JDBC Driver XA DataSource for Email**
  - 2) EPEventTableName: **EMAILTABLE**
  - 3) EPDatabaseSchemaName: **EMAILTABLE**

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Module: **EmailInboundModule** New...

Namespace:

Use Default Namespace

Folder:  Browse...

Name: \*

Description:

---

Deploy connector with module

Specify the connection properties which will be used to connect to the Enterprise Information System at runtime:

Use connection properties specified on server

Use discovered connection properties

J2C Authentication Data Entry:

---

Inbound Properties

Properties for Activation Spec

BO Namespace:

Delivery Mode and Polling Info

Delivery Type:

Poll Period: \*

Poll Quantity: \*

Retry Interval:

Retry Limit:

Stop polling on error [Boolean]

Assured Once Delivery

Filter Future Events

Event Type filter [String]:

Event Persistence Properties

EPDataSourceJNDIName:\* **jdbc/Cloudscape JDBC Driver XA DataSource for Email**

EPEventTableName: \* **EMAILTABLE**

EPDatabaseSchemaName: **EMAILTABLE**

EPDatabaseUsername:

EPDatabasePassword:

\_\_\_ e. For Inbound Connection Properties, enter these values:



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**Note:** You will use the configured details of the **WPIv602\_AdapterInstallEmailServer** lab for the following step.

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- 1) HostName: **localhost** (default)
  - 2) PortNumber: **110** (the port number on which your selected protocol, POP3/IMAP, runs)
  - 3) Protocol: **POP3** (from drop down menu)
- 

**Note:** You can select IMAP also from the dropdown menu for the Protocol. For the IMAP selection you can specify multiple PollFolders from where the E-mail RA polls events.

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- 4) UserName: **<user>@<domain\_name>** (Ex: Emailuser1@aimcp3x4.rchland.ibm.com)
  - 5) Password: **<password for the user>** (Ex: password1)
  - 6) PollFolder(s): **Inbox** (Inbox is the default folder from where E-mail RA polls the events, you can also give different folder )
- 

**Note:** If the selected Protocol is IMAP, you can enter multiple number of Poll folders separated by the delimiter “,” (comma).

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- 7) InProgress Folder: **<INPROGRESS>**
- 8) Archive Folder: **<ARCHIVE>**

\_\_ f. For Resource Adapter Properties you can enter these values:

- 1) Log file name [String]: **C:\EMailRAInlog.txt**
- 2) Trace file name[String]: **C:\EMailRAIntrace.txt**

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Inbound Connection Properties	
HostName:	* localhost
PortNumber:	* 110
Protocol:	pop3
UserName:	Emailuser@aimcp2x4.rchland.ibm.com
Password:	password
Poll Folder(s): * Inbox	
InProgress Folder:	* C:\Labfiles602\EMailInbound\InProgress
Archive Folder:	C:\Labfiles602\EMailInbound\Archive
Failed Events Folder:	
Match All Search Criteria:	
Match Some Search Criteria:	
Archive File Naming Pattern:	
Default Object Name:	* http://www.ibm.com/xmlns/prod/websphere/j2ca/email/emailbg/EmailBG
Event Content Type:	
Resource Adapter Properties	
Logging and Tracing	
Adapter ID [String]:	* ResourceAdapter
Log file size [Integer]:	0
Log file name [String]:	C:\EMailRA\Inlog.txt
Log Files [Integer]:	1
Trace file size [Integer]:	0
Trace file name [String]:	C:\EMailRA\Intrace.txt
Trace files [Integer]:	1

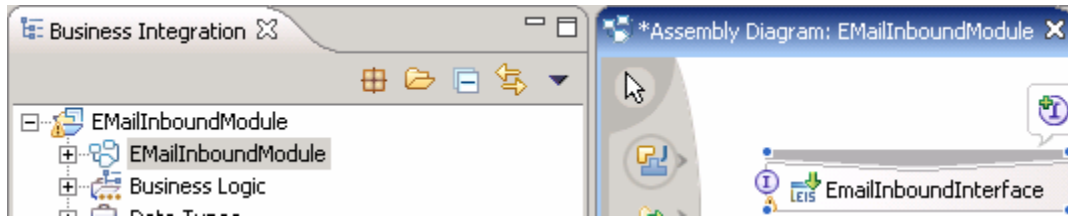
\_\_ g. Click **Finish**

\_\_\_ 7. Create a Java Component and wire it to the **EMailInboundInterface**

\_\_ a. From the Business Integration perspective, expand the **EMailInboundModule** folder

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\_\_ b. Double-click the **EEmailInboundModule** module to open it in Assembly editor

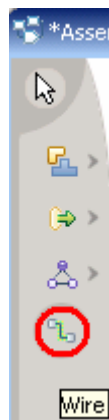


\_\_ c. From the palette, click the **Component (with no implementation type)** icon, and select Java component icon from the popup menu and then click in the Assembly Diagram's empty space to drop it there



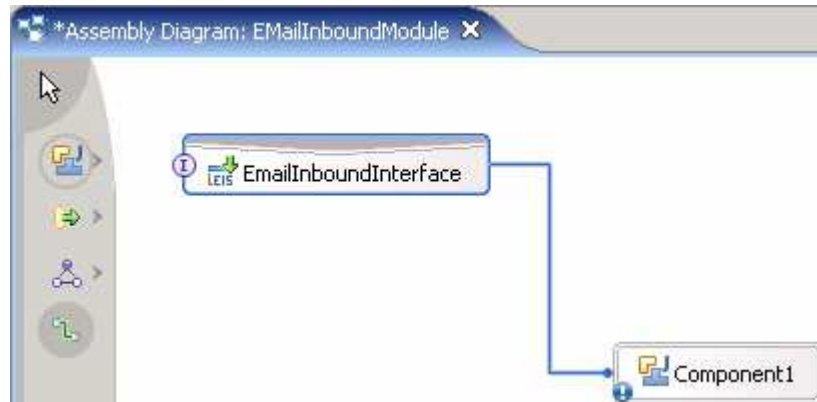
\_\_ d. Wire the EemailInboundInterface to the Java Component.

1) Select the **wire** icon from the palette.

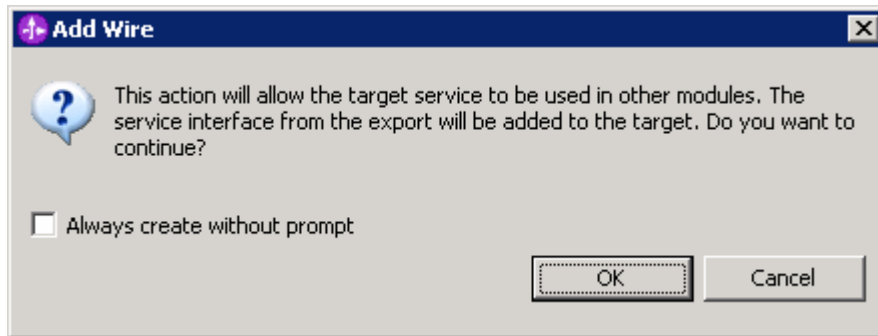


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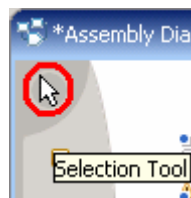
2) Click on **EmailInboundInterface** and then click on **Component1** to wire them together.



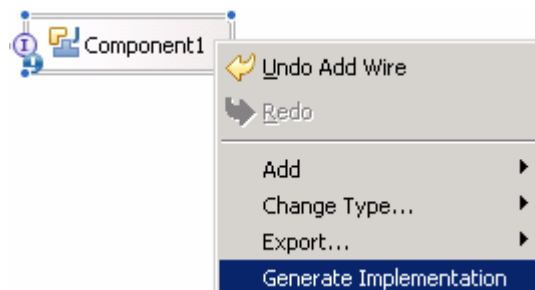
3) Click **OK** on the Add Wire popup window



4) Click on the **Selection Tool** to get back to the normal cursor mode



\_\_\_ e. Right-click on **Component1** and select **Generate Implementation** from the context menu



\_\_\_ f. Select **default package** from the Generate Implementation window and click **OK**

\_\_\_ g. **Component1Impl.java** will be opened in Assembly editor. Scroll down to the method **emitEmail(DataObject emitEmailInput)** method and enter this code:

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```
System.out.println("*** REACHED END POINT***");
```

```
public void emitEmail(DataObject emitEmailInput) {
    //TODO Needs to be implemented.
    System.out.println("*** REACHED END POINT ***");
}
```

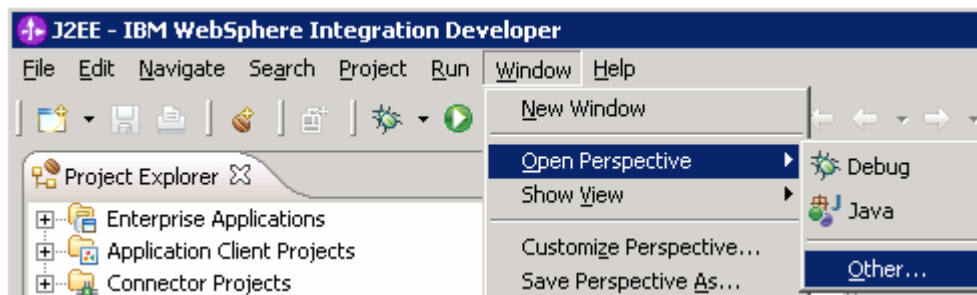
\_\_\_ h. Save (**Ctrl + S**) and close the **Component1Impl.java** window

\_\_\_ i. Save (**Ctrl +S**) and close the Assembly Diagram: **EMailInboundModule**

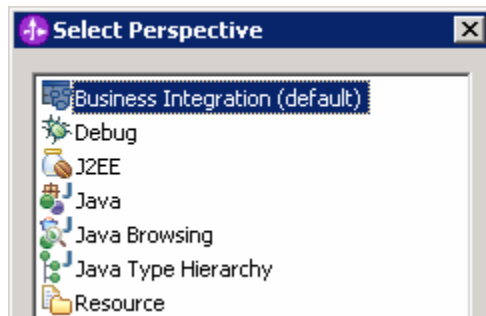
\_\_\_ 8. You can also configure/change the adapter properties using Assembly Editor

\_\_\_ a. Change to Business Integration perspective if you are in a different perspective

1) Select **Window > Open Perspective > Other....**



2) From the Select Perspective window, select **Business Integration (default)** and click **OK**.



\_\_\_ b. Expand **EMailInboundModule** and double-click EMailInboundModule to open it in Assembly Editor

\_\_\_ c. Click on **EMailInboundInterface** from the Assembly Editor and select **Properties** tab from the bottom

\_\_\_ d. Select **Binding** under Properties and select **Endpoint Configuration** under Binding itself and then select the **Connection** tab

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Ensure the radio button next to **Specify properties for pre-configured new J2EE Connector Architecture resource** is selected and then click on **Activation Spec Properties** to expand them. You can change these properties, which you entered using the ESD wizard in the previous steps, and make sure that you save those changes before you deploy the application onto the server

**Export: EmailInboundInterface (EIS Binding)**

**Binding**

- Endpoint configuration
- Method bindings
- Security attributes
- Performance attributes

Select configuration view option:

- Specify JNDI name for pre-configured J2EE Connector Architecture resource
- Specify properties for configuring new J2EE Connector Architecture resource

**Activation Spec Properties**

Activation Spec: com.ibm.j2ca.email.EmailActivationSpec

Activation Spec Properties

Properties for Activation Spec

BO Namespace: http://www.ibm.com/xmlns/prod/websphere/j2ca/email

Delivery Mode and Polling Information

Delivery Type: ORDERED

Poll period [Int]: \* 2000

Poll quantity [Int]: \* 10

Retry interval [Integer]: 60000

Retry limit [Integer]: 0

Stop polling on error [Boolean]

Assured once delivery [Boolean]

Filter future events [Boolean]

Event Type filter [String]:

Event Persistence Properties

EPDataSourceJNDIName: \* jdbc/Cloudscape JDBC Driver XA DataSource for EMail

EPEventTableName: \* EMAILTABLE

EPDatabaseSchemaName: EMAILTABLE

EPDatabaseUsername:

EPDatabasePassword:

EPCreateTable

Inbound Connection Properties

Host Name: \* localhost

Port Number: \* 110

Protocol: pop3

User Name: Emailuser 1@IBM-89D8BF08CF1.austin.ibm.com

Password: password1

Poll Folder(s): \* Inbox

InProgress Folder: \* C:\LabFiles602\EmailInbound\InProgress

Archive Folder: C:\LabFiles602\EmailInbound\Archive

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\_\_\_ e. You can also select **Resource Adapter** tab and review/change those properties

The screenshot displays the configuration interface for the 'Export: EmailInboundInterface (EIS Binding)'. The 'Binding' tab is selected, and the 'Resource Adapter' sub-tab is active. The 'Resource Adapter Name' is 'EMailInboundModuleApp.IBM WebSphere Adapter for Email' and the 'Resource Adapter Class' is 'com.ibm.j2ca.email.EmailResourceAdapter'. Under the 'Logging and Tracing' section, the 'Adapter ID' is 'ResourceAdapter', 'Log file size' is '0', 'Log file name' is 'C:\EMailRA\inlog.txt', 'Log Files' is '1', 'Trace file size' is '0', 'Trace file name' is 'C:\EMailRA\intrace.txt', and 'Trace files' is '1'. Red arrows point to the log and trace file names. The left sidebar shows a tree view with 'Endpoint configuration' selected under the 'Binding' section.

Export: EmailInboundInterface (EIS Binding)	
Connection	Resource Adapter
Resource Adapter Name:	EMailInboundModuleApp.IBM WebSphere Adapter for Email
Resource Adapter Class:	com.ibm.j2ca.email.EmailResourceAdapter
Resource Adapter Bean Properties	
Logging and Tracing	
Adapter ID [String]: *	ResourceAdapter
Log file size [Integer]:	0
Log file name [String]:	C:\EMailRA\inlog.txt
Log Files [Integer]:	1
Trace file size [Integer]:	0
Trace file name [String]:	C:\EMailRA\intrace.txt
Trace files [Integer]:	1

## Part 5: Test the Adapter Application using WebSphere Process Server Test Environment

In this part of the lab, you will use the WebSphere Process Server Test Environment to test the SCA application outbound processing.

\_\_\_ 1. Create events to be polled by the adapter

- \_\_\_ a. Unzip **EmailEventCreator.zip** from <EMAILADAPTER\_HOME>\Samples the same directory. You will see a EmailEventCreator folder, that contains the **createEvents.bat** file along with other sample batch files, under the Samples directory

---

**Note:** For your convenience, **createEvents.bat** file is also placed under <LAB\_FILES>\EmailEventCreator folder.

---

- \_\_\_ b. Edit the **createEvents.bat** file to specify the appropriate parameters and save those changes

**createEvents.bat** file has the following structure:

```
<host> <port> <number of events to be created> <from> <to> <cc> <bcc> <subject>
<content> <path for event filename> <Boolean for passthrough/nonpassthrough>
```

where,

Path for event file name - is the path on the local folder where the event file attachment has been placed.

Boolean for pass-through/non-pass-through – has true or false values. **True** indicates pass-through and **False** indicates non-pass-through.

1) Pass-through mode:

- a) Edit the createEvents.bat file as shown below to create 10 events from the user Emailuser2@aimcp3x4.rchland.ibm.com on the localhost mail server to the inbox of the user Emailuser1@aimcp3x4.rchland.ibm.com with the file Inboundtest.txt as an attachment. You can also add cc, bcc, subject, content as shown below:

```
java -cp .\mail.jar;.\activation.jar EmailEventCreator localhost 25 10
Emailuser2@aimcp3x4.rchland.ibm.com Emailuser1@aimcp3x4.rchland.ibm.com
Emailuser3@aimcp3x4.rchland.ibm.com Emailuser4@aimcp3x4.rchland.ibm.com
"Test mail" "Testing PassThrough Content" "<LABFILES>\Inboundtest.txt" true
```

- b) Save (**Ctrl +S**) and close **createEvents.bat** file

- c) Double-click **createEvents.bat** file to create 10 events in the inbox, with txt file as an attachment

2) Non-pass-through mode:

- a) Edit the createEvents.bat file as shown below to create 10 events from the user Emailuser2@aimcp3x4.rchland.ibm.com on the localhost mail server to the inbox of the user Emailuser1@aimcp3x4.rchland.ibm.com with the file MyAddress.xml as an attachment. You can also add cc, bcc, subject, content as shown below:

```
java -cp .\mail.jar;.\activation.jar EmailEventCreator localhost 25 10
Emailuser2@aimcp3x4.rchland.ibm.com Emailuser1@aimcp3x4.rchland.ibm.com
```



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Emailuser3@aimcp3x4.rchland.ibm.com Emailuser4@aimcp3x4.rchland.ibm.com  
"Test mail" "Testing XML Content" "<LABFILES>\Address.xml" **false**

b) Save (**Ctrl +S**) and close **createEvents.bat** file

c) Double-click **createEvents.bat** file to create 10 more events in the inbox, with xml file as an attachment

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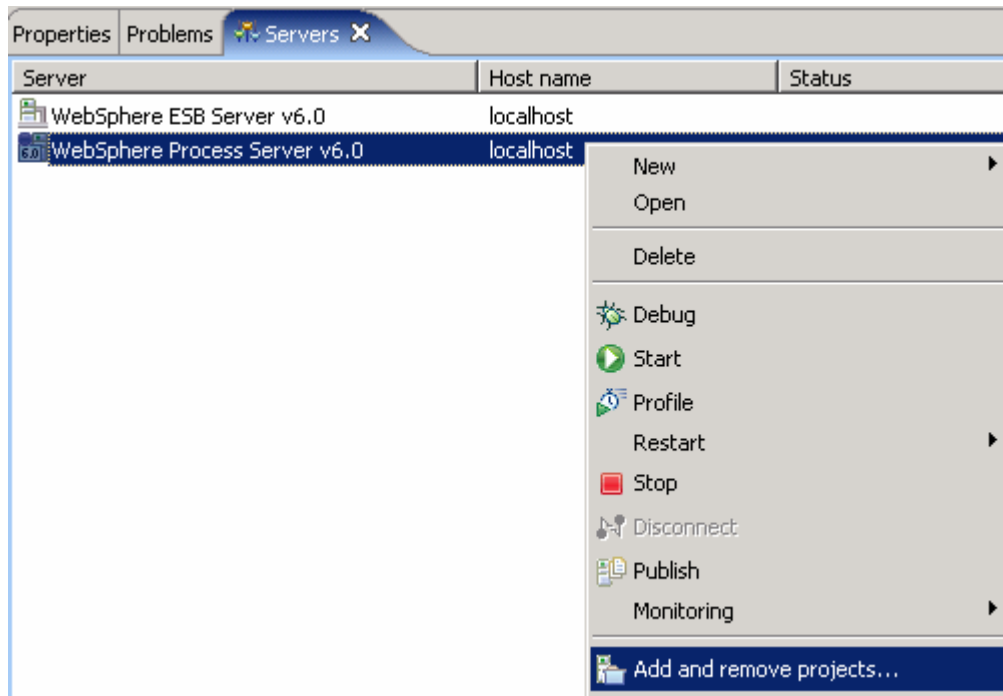
**Note:** For your convenience, **createEvents\_sample\_passthrough** and **createEvents\_sample\_nonpassthrough** batch files are placed at <LAB\_FILES>\EmailEventCreator which creates the above mentioned events.

---

\_\_ c. You can configure your mail client and use it to verify the above created events

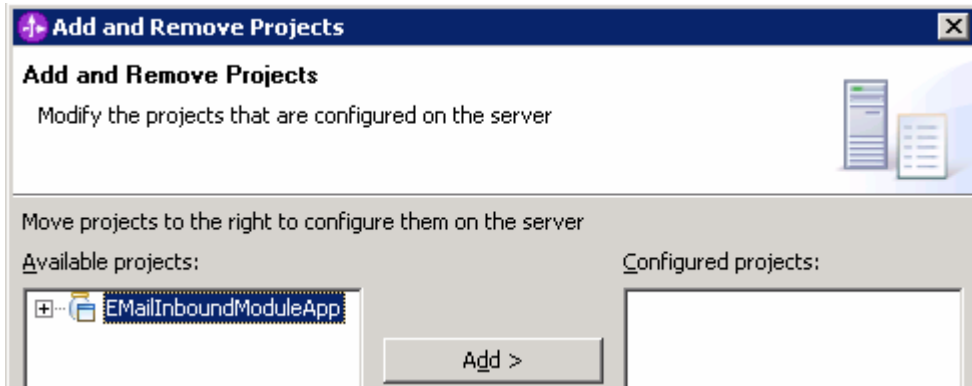
\_\_\_ 2. Add the project to the WebSphere Process Server Test Environment

\_\_ a. Right-click on **WebSphere Process Server v6.0** under the server view and **select Add and remove projects...** from the context menu

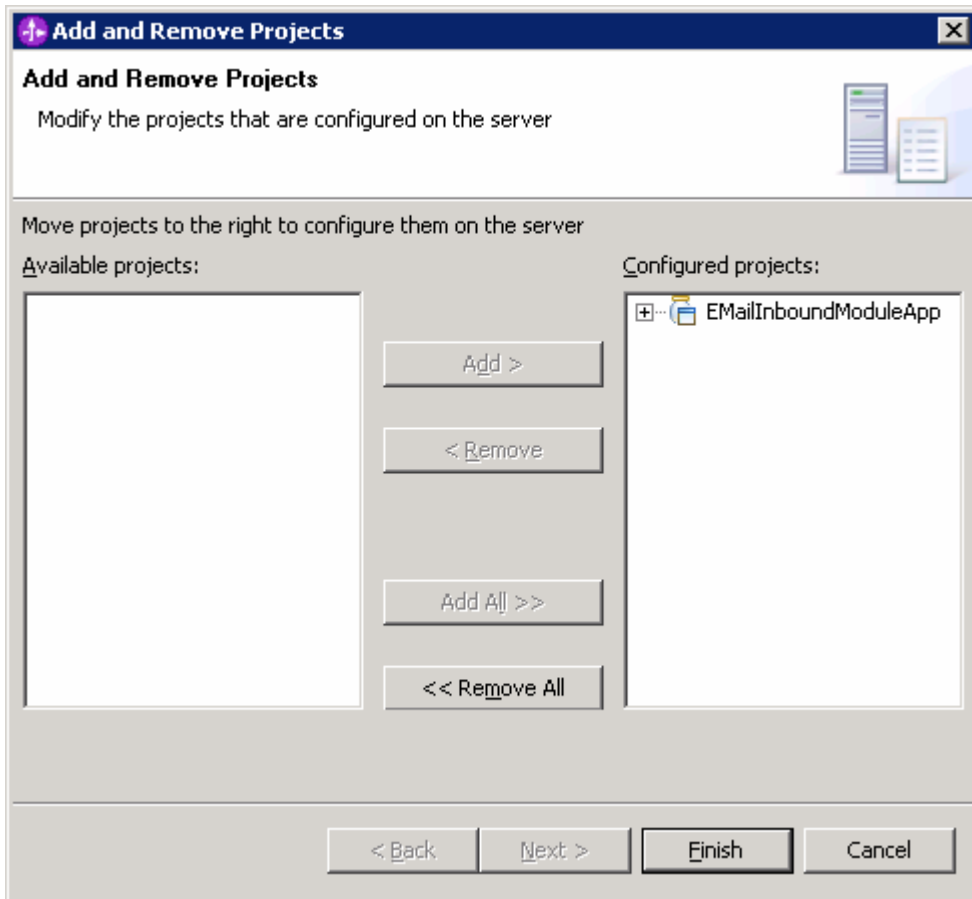


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- \_\_\_ b. From the Add and Remove Projects window, select **EEmailInboundModuleApp** under Available projects panel and click **Add >**



- \_\_\_ c. You will now see the **EEmailInboundModuleApp** added to the **Configured projects**



- \_\_\_ d. Click **Finish**. Wait until the project is being published onto the server. The server will be started in Debug mode if it is not already started before

- \_\_\_ e. The application will be started along and so does the polling

\_\_\_ 3. Verify the results

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- \_\_\_ a. Check the <INPROGRESS> folder as soon as the adapter starts polling. E-mail RA polls the events from the inbox and places them in <INPROGRESS>. Quickly, the files will be moved to <ARCHIVE> folder from there

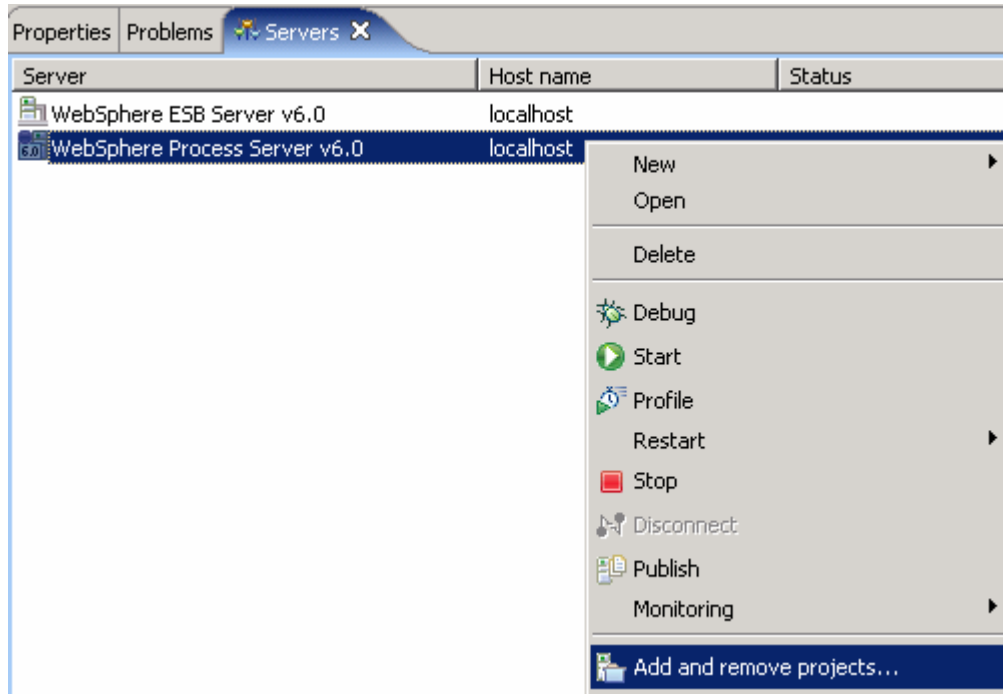
You might not see any events in <INPROGRESS> folder after they are moved to Archive folder

- \_\_\_ b. An INBOX folder will be created under <ARCHIVE> directory that contains the 20 events
- \_\_\_ c. Each file will be the Message\_ID appended with Administrator@localhost

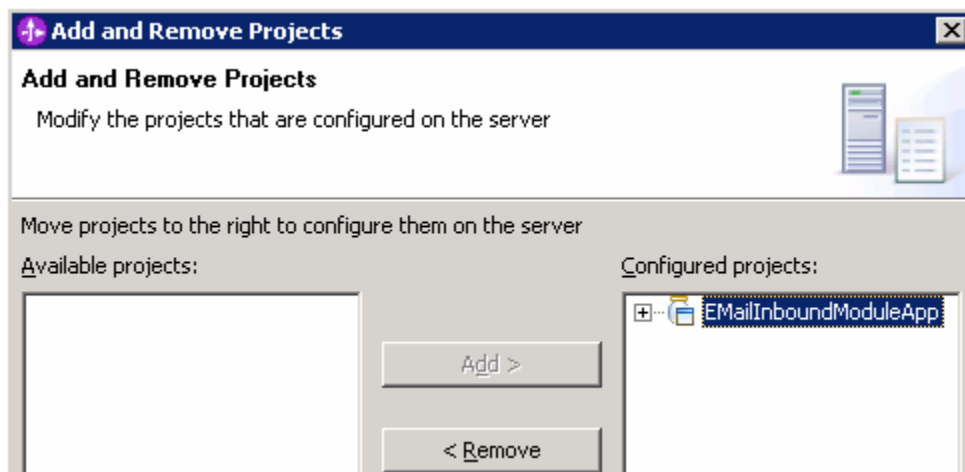
Name	Size	Type	Date Modified	Attributes
269341888.1151439828406.JavaMail.Administrator@localhost	2 KB	ADMINISTRATOR@LOCALHOST File	6/27/2006 3:24 PM	A
546134684.1151438670953.JavaMail.Administrator@localhost	2 KB	ADMINISTRATOR@LOCALHOST File	6/27/2006 3:22 PM	A
576771264.1151439827906.JavaMail.Administrator@localhost	2 KB	ADMINISTRATOR@LOCALHOST File	6/27/2006 3:24 PM	A
617665728.1151439828859.JavaMail.Administrator@localhost	2 KB	ADMINISTRATOR@LOCALHOST File	6/27/2006 3:24 PM	A
650517148.1151438669891.JavaMail.Administrator@localhost	2 KB	ADMINISTRATOR@LOCALHOST File	6/27/2006 3:22 PM	A
686774940.1151438670719.JavaMail.Administrator@localhost	2 KB	ADMINISTRATOR@LOCALHOST File	6/27/2006 3:22 PM	A
695473344.1151439828641.JavaMail.Administrator@localhost	2 KB	ADMINISTRATOR@LOCALHOST File	6/27/2006 3:24 PM	A
864967324.1151438671484.JavaMail.Administrator@localhost	2 KB	ADMINISTRATOR@LOCALHOST File	6/27/2006 3:23 PM	A
976722588.1151438671234.JavaMail.Administrator@localhost	2 KB	ADMINISTRATOR@LOCALHOST File	6/27/2006 3:23 PM	A
1058575552.1151439829188.JavaMail.Administrator@localhost	2 KB	ADMINISTRATOR@LOCALHOST File	6/27/2006 3:24 PM	A

## Part 6: Restore Server Configuration

1. Right-click on **WebSphere Process Server v6.0** under the Servers view and select **Add and remove projects...** from the context menu



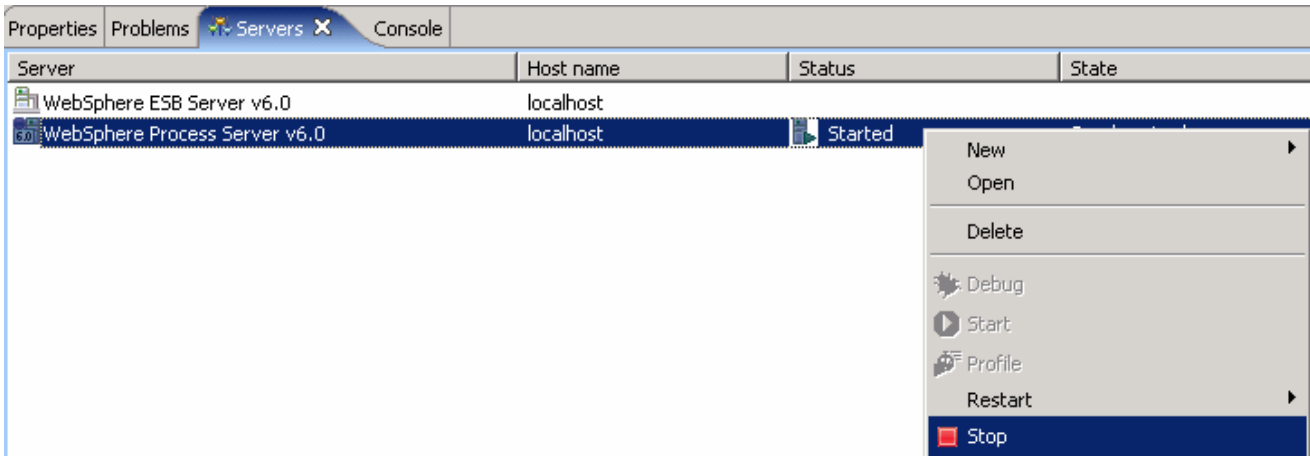
2. Select **EMailInboundModuleApp** under Configured projects and click **< Remove**



3. Click **Finish** after you see the application moved to Available projects. Wait until the application is unpublished

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4. Right-click on **WebSphere Process Server v6.0** from the Servers view and select **Stop** from the context menu



## What you did in this exercise

In this lab, you created the database in Cloudscape required for this lab. You continued with importing the E-mail Adapter RAR file into your WebSphere Integration Developer workspace. Then, used your WebSphere Process Server administrator console and configured it to create the Data source required to complete this lab.

You made use of Enterprise Service Wizard available in WebSphere Integration Developer to specify Activation Spec Properties and Resource Adapter Properties which, after deploying onto the server will generate Business Objects and other artifacts.

In the end you deployed and then tested the adapter application and restored the server configuration.