BEA WebLogic Integration™

Email Plug-in User Guide

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BEA WebLogic Integration Email Plug-in User Guide

Part Number	Date	Software Version
N/A	Released: June 2003 Revised: April 2004	7.1

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About this Document

This document explains how to deploy and use the BEA WebLogic Integration Email Plug-in. It is organized as follows:

- Chapter 1, "Introducing the BEA WebLogic Integration Email Plug-in," introduces the BEA WebLogic Email Plug-in and provides a brief description of the Email Plug-in.
- Chapter 2, "Deploying the Email Plug-in," contains instructions for deploying the plug-in with WebLogic Integration 2.1 Service Pack 2 (SP2) and WebLogic Integration 7.0 SP2.

  Note: The plug-in is included with WebLogic Integration 7.0 SP5. If you have installed that release, the plug-in is automatically deployed on server startup.
- Chapter 3, "Using the Email Plug-in," describes how to use the Email Plug-in features and describes the workflow process in detail.
- Chapter 4, "Configuring the Email Plug-in for a Migrated Domain," provides details on configuring the Email Plug-in for a migrated domain.
- Chapter 5, "Email Plug-in Example," provides a step-by-step example of sending an e-mail.

What You Need to Know

This document is intended for workflow designers and system integrators who develop client interfaces between e-mail systems and other applications.

The information provided in this document requires you to have in-depth knowledge of Workflow Design and Workflow Templates, and WebLogic Integration Studio. Additionally, it is assumed that you know Web technologies and have a general understanding of Microsoft Windows and UNIX systems.

If you do not have the required knowledge of workflows or the WebLogic Integration Studio, see the following documents:

- *Using the WebLogic Integration Studio* at http://edocs.bea.com/wli/docs70/studio/index.htm
- *Learning to Use BPM with WebLogic Integration* at http://edocs.bea.com/wli/docs70/bpmtutor/index.htm

e-docs Web Site

BEA Product Documentation is available on the BEA corporate Web site. From the BEA Home page, click on Product Documentation or go directly to the "e-docs" Product Documentation page at http://edocs.bea.com.

How to Print the Document

You can print a copy of this document from a Web browser, one file at a time, by using the File→Print option on your Web browser.

A PDF version of this document is available on the WebLogic Integration documentation Home page on the e-docs Web site (and also on the documentation CD). You can open the PDF in Adobe Acrobat Reader and print the entire document (or a portion of it) in book format. To access the PDFs, open the WebLogic Integration documentation Home page, click the PDF files button, and select the document you want to print.

If you do not have the Adobe Acrobat Reader, you can get it for free from the Adobe Web site at http://www.adobe.com.

Related Information

The following BEA WebLogic Integration documents contain information that is relevant to using this product.

- *Using the WebLogic Integration Studio* at http://edocs.bea.com/wli/docs70/studio/index.htm
- *Learning to Use BPM with WebLogic Integration* at http://edocs.bea.com/wli/docs70/bpmtutor/index.htm

Contact Us!

Your feedback on the BEA WebLogic Integration documentation is important to us. Send us e-mail at docsupport@beasys.com if you have questions or comments. Your comments will be reviewed directly by the BEA professionals who create and update the WebLogic Integration documentation.

In your e-mail message, please indicate that you are using the documentation for the BEA WebLogic Integration Email Plug-in 7.1 release.

If you have any questions about this version of Email Plug-in, or if you have problems installing and running the product, contact BEA Customer Support through BEA WebSupport at www.bea.com. You can also contact Customer Support by using the contact information provided on the Customer Support Card, which is included in the product package.

When contacting Customer Support, be prepared to provide the following information:

- Your name, e-mail address, phone number, and fax number
- Your company name and company address
- Your machine type and authorization codes
- The name and version of the product you are using
- A description of the problem and the content of pertinent error messages

Documentation Conventions

The following documentation conventions are used throughout this document.

Convention	Item
boldface text	Indicates terms defined in the glossary.
Ctrl+Tab	Indicates that you must press two or more keys simultaneously.
italics	Indicates emphasis or book titles.

`monospace text`	Indicates code samples, commands and their options, data structures and their members, data types, directories, and filenames and their extensions.
	Examples:
	`#include <iostream.h> void main ( ) the pointer psz`
	`chmod u+w *`
	`\tux\data\ap`
	`.doc`
	`tux.doc`
	`BITMAP`
	`float`

`monospace boldface text`	Identifies significant words in code. *Example*: `void` **`commit`** `( )`
`monospace italic text`	Identifies variables in code. *Example*: `String` *`expr`*
UPPERCASE TEXT	Indicates device names, environment variables, and logical operators. *Examples*: LPT1 SIGNON OR
`{}`	Indicates a set of choices in a syntax line. The braces themselves should never be typed.

Convention	Item

`[]`	Indicates optional items in a syntax line. The brackets themselves should never be typed.
	Example:
	`buildobjclient [-v] [-o name] [-f file-list]...`
	`[-l file-list]...`

`|`	Separates mutually exclusive choices in a syntax line. The symbol itself should never be typed.

`...`	Indicates one of the following in a command line:
	■ That an argument can be repeated several times in a command line
	■ That the statement omits additional optional arguments
	■ That you can enter additional parameters, values, or other information
	The ellipsis itself should never be typed.
	Example:
	`buildobjclient [-v] [-o name] [-f file-list]...`
	`[-l file-list]...`

. . .	Indicates the omission of items from a code example or from a syntax line. The vertical ellipsis itself should never be typed.

CHAPTER

1 Introducing the BEA WebLogic Integration Email Plug-in

This section introduces the BEA WebLogic Integration Email Plug-in and describes how the Email Plug-in functions in a Business Process Management (BPM) workflow. It includes the following topics:

About the Email Plug-in

The BEA WebLogic Integration Email Plug-in extends the functionality of the BEA WebLogic Integration BPM Studio. It facilitates tasks such as sending e-mails to a local mail system and receiving e-mails from a local mailing system. The applicable data formats include `ASCII`, `XML`, and `Binary`.

For more information, see *Programming BPM Plug-ins for WebLogic Integration* at http://edocs.bea.com/wli/docs70/devplug/index.htm.

What the Email Plug-in Does

The Email Plug-in has the following functionality:

- Send an e-mail with an attachment
- Send an e-mail without an attachment
- Start a workflow when an e-mail arrives in a specified account in the mail system

  When the mail system receives a new e-mail, it processes the body content and attachments (if any), and either archives the e-mail into a specific directory or deletes it from the account. You can filter the e-mails based on subject masks. Using the read limit parameter, you can set the number of e-mails to be read at a time. If you do not specify the read limit parameter, the system reads all the e-mails in the account.You can also set the time interval for the system to look for new e-mails arriving in a specified account.

What You Need to Know

This document is written for workflow designers and system integrators who develop client interfaces between file systems and other applications. The information provided in this document requires that you are have in-depth knowledge of workflow design and workflow templates and BEA WebLogic Integration Studio. Additionally, it is assumed that you know Web technologies and have a general understanding of Microsoft Windows and UNIX systems.

If you do not have the required knowledge of workflows or the BEA WebLogic Integration Studio, see the following documents:

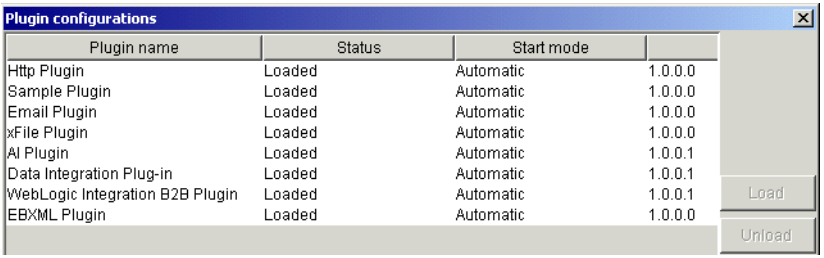
- *Using the WebLogic Integration Studio* at http://edocs.bea.com/wli/docs70/studio/index.htm.
- *Learning to Use BPM with WebLogic Integration* at http://edocs.bea.com/wli/docs70/bpmtutor/index.htm.

Email Plug-in and the Plug-in Framework

Like other plug-ins that extend BPM functionality, the Email Plug-in adheres to the BPM Plug-in specification. For more information, see *Programming BPM Plug-ins for WebLogic Integration* at http://edocs.bea.com/wli/docs70/devplug/index.htm. The Plug-in Configurations window displays the plug-ins and their status, as shown in the following figure.

For details on how to see the Plug-in Configurations window, see "Verifying Deployment," in Chapter 2, "Deploying the Email Plug-in."

Figure 1-1 Plug-in Configurations Window



2 Deploying the Email Plug-in

If you have installed WebLogic Integration 7.0 Service Pack 5, the plug-in is included in your installation and is deployed on server start up. See "Verifying Deployment" on page 2-12 to verify deployment.

If you have an earlier release of WebLogic Integration installed and do not wish to upgrade the latest WebLogic Integration 7.0 Service Pack, you can install the plug-in as described in the following sections:

- Understanding the Representation of Paths
- Deploying on WebLogic Integration 7.0 SP2
- Deploying on WebLogic Integration 2.1 SP2
- Updating the BEA License
- Verifying Deployment

Note: The procedures provided in "Deploying on WebLogic Integration 7.0 SP2" and "Deploying on WebLogic Integration 2.1 SP2" assume that you are using an already existing database.

Understanding the Representation of Paths

The location of files in the WebLogic Integration environment depends on options selected during installation and configuration. Therefore, the following conventions are used throughout to represent paths.

- *BEA_HOME* represents the BEA Home directory specified for your WebLogic installation.

  If you install the product in the default location on a Windows system, *BEA_HOME* represents `C:\bea`.

- *WLI_HOME* represents the root of your WebLogic Integration installation.
  - If you install WebLogic Integration 2.1 in the default location on a Windows system, *WLI_HOME* represents `C:\bea\wlintegration2.1`.
  - If you install WebLogic Integration 7.0 in the default location on a Windows system, *WLI_HOME* represents `C:\bea\weblogic700\integration`.

  Note: *WLI_HOME* and *BEA_HOME* also represent the corresponding Windows and UNIX environment variables. For example, the literal interpretation of *WLI_HOME* is `%WLI_HOME%` for Windows and `$WLI_HOME` for UNIX.

- *localhost* represents the IP address of the machine running the WebLogic Server.

Deploying on WebLogic Integration 7.0 SP2

The Email Plug-in is included with WebLogic Integration 7.0 Service Pack 5. If you have WebLogic Integration 7.0 Service Pack 5 installed, skip to "Verifying Deployment" on page 2-12 to verify deployment.

If you do not wish to upgrade to the latest WebLogic Integration 7.0 Service Pack for some reason, you can deploy the Email Plug-in on WebLogic Integration 7.0 Service Pack 2 (SP2) by copying the `.jar` files to your WebLogic installation directory,

editing the `application.xml` and `config.xml` files, copying a `.sql` script file to the appropriate location, and running a command to create the `EMAILPOLL` table in your database.

If you downloaded the Email Plug-in, the following files are all located in the .zip file you downloaded. If you received the Email Plug-in on a CD, they are located on the CD.

- `emailplugin-ejb.jar`
- `plugin-shared.jar`
- `db2\ep_schema.sql`
- `mssql\ep_schema.sql`
- `pointbase\ep_schema.sql`
- `oracle\ep_schema.sql`
- `sybase\ep_schema.sql`
- `cloudscape\ep_schema.sql`
- `emailsetupdb.cmd`
- `emailsetupdb.sh`

To deploy the Email Plug-in in WebLogic Integration 7.0 SP2, do the following:

1. From the source location (the directory where you unzipped the `.zip` file or the product CD), copy the following files into the *`BEA_HOME`*`\weblogic700\integration\lib` directory:
   - `emailplugin-ejb.jar`
   - `plugin-shared.jar`
2. From the *`BEA_HOME`*`\weblogic700\integration\lib\META-INF` directory, open the `application.xml` file and add the lines in bold to the existing configuration, at the location shown here:

```
<application>
.
.
.
   <module>
      <ejb>emailplugin-ejb.jar</ejb>
   </module>
.
.
```

```
.
   <!--BPM Initialization Bean must be deployed
   after BPM plug-ins-->
   <module>
      <ejb>bpm-init-ejb.jar</ejb>
   </module>
</application>
```

3. Save the file and close it.

4. From the *BEA_HOME*\weblogic700\samples\integration\config\samples directory, open the config.xml file and add the lines in bold to the existing configuration, at the location shown here:

   Note: If you have already created a specific domain, open the config.xml file from that domain. The scripts given here assume that the default domain is samples.

```
<Application
   Deployed="true"
   Name="WLI"
   Path="D:\bea\weblogic700\integration\lib"
   TwoPhase="true">
   <EJBComponent
      Name="WLI-BPM Plugin Manager"
      Targets="myserver"
      URI="wlpi-master-ejb.jar"/>
.
.
.
   <EJBComponent
      Name="WLI-BPM Email Plug-in"
      Targets="myserver"
      URI="emailplugin-ejb.jar"/>

.
.
.
</Application>

.
.
.
<JMSServer
   Name= "WLIJMSServer"
   Store="JMSWLIStore"
   Targets="myserver"
   TemporaryTemplate="TemporaryTemplate">
```

```
.
.
.
   <JMSQueue
      JNDIName="com.bea.wli.bpm.EventQueue"
      Name="WLI_BPM_Event"
      Template="WLI_JMSTemplate"/>
   <JMSQueue
      JNDIName="com.bea.wli.bpm.EmailPluginQueue"
      Name="WLI_BPM_EP" Template="WLI_JMSTemplate"/>
.
.
.
</JMSServer>
```

5. Save the file and close it.
6. Copy the `ep_schema.sql` file for your database from the source location (the directory where you unzipped the `.zip` file or product CD) to the location listed in the table that follows:

Table 2-1 Location for ep_schema.sql Files for Various Databases

For This Database	Copy the `ep_schema.sql` File to This Location
DB2	*WLI_HOME*\dbscripts\db2\
MS SQL	*WLI_HOME*\dbscripts\mssql\
Oracle	*WLI_HOME*\dbscripts\oracle\
Pointbase	*WLI_HOME*\dbscripts\pointbase\
Sybase	*WLI_HOME*\dbscripts\sybase\

7. Go the location where you unzipped the Email file and open the file that creates the `EMAILPOLL` database required for the Email Plug-in.
   - If your operating system is Windows, the file is `\scripts\win32\emailsetupdb.cmd`.
   - If your operating system is UNIX, the file is `/scripts/unix/emailsetupdb.sh`.

8. Edit the `.cmd` or `.sh` file to modify the line that starts `- If/I "WLI_HOME" == "" call...\setEnv.cmd`, to set the correct path.
9. Execute the `emailsetupdb.cmd` or `emailsetupdb.sh` command to create the `EMAILPOLL` database.
10. Start the WebLogic Integration Server.

Note: This step assumes that you are using the default domain. If you are using a specific domain, you must run `wliconfig.cmd` and restart the WebLogic Integration Server after you update the relevant schema.

Warning: Running `wliconfig.cmd` for an existing database will drop all the tables and create the tables again, which will lose any saved data.

Deploying on WebLogic Integration 2.1 SP2

To deploy the Email Plug-in, copy the `.jar` files to your WebLogic installation directory, edit the `config.xml` file, copy a `.sql` script file to the appropriate location, and run a command to create the `EMAILPOLL` table in your database.

If you downloaded the Email Plug-in, the following files are all located in the .zip file you downloaded. If you received the Email Plug-in on a CD, they are located on the CD.

- `emailplugin-ejb.jar`
- `plugin-shared.jar`
- `db2\ep_schema.sql`
- `mssql\ep_schema.sql`
- `pointbase\ep_schema.sql`
- `oracle\ep_schema.sql`
- `sybase\ep_schema.sql`
- `cloudscape\ep_schema.sql`
- `emailsetupdb.cmd`
- `emailsetupdb.sh`

To deploy the Email Plug-in in WebLogic Integration 2.1, do the following:

1. From the source location (the directory where you unzipped the `.zip` file or product CD), copy the following files into the *BEA_HOME*`\wlintegration2.1\lib` directory:
   - `emailplugin-ejb.jar`
   - `plugin-shared.jar`
2. From the *BEA_HOME*`\wlintegration2.1\config\samples` directory, open the `config.xml` file and add the lines in bold to the existing configuration, at the location shown here:

   Note: If you have already created a specific domain, open the `config.xml` file from that domain. The scripts given here assume that the default domain is `samples`.

```
<Application
   Deployed="true"
   Name="WLI"
   Path="D:\bea\wlintegration2.1\lib"
   TwoPhase="true">

   <EJBComponent
      Name="WLI-BPM Plugin Manager"
      Targets="myserver"
      URI="wlpi-master-ejb.jar"/>

.
.
.

<EJBComponent
    Name="WLI-BPM Email Plug-in"
    Targets="myserver"
    URI="emailplugin-ejb.jar"/>

.
.
.

</Application>

.
.
.

<JMSServer
    Name= "WLIJMSServer"
    Store="JMSWLIStore"
```

```
    Targets="myserver"
    TemporaryTemplate="TemporaryTemplate">

.
.
.

<JMSQueue
    JNDIName="com.bea.wli.bpm.EventQueue"
    Name="WLI_BPM_Event"
    Template="WLI_JMSTemplate"/>

<JMSQueue
    JNDIName="com.bea.wli.bpm.EmailPluginQueue"
    Name="WLI_BPM_EP"/>

.
.
.

</JMSServer>
```

3. Save the file and close it.
4. Copy the `ep_schema.sql` file for your database from the source location (the directory where you unzipped the `.zip` file or product CD) to the location listed in the table that follows:

Table 2-2 Location for ep_schema.sql Files for Various Databases

For This Database	Copy the `ep_schema.sql` File to This Location
DB2	*WLI_HOME*\dbscripts\db2\
MS SQL	*WLI_HOME*\dbscripts\mssql\
Oracle	*WLI_HOME*\dbscripts\oracle\
Cloudscape	*WLI_HOME*\dbscripts\cloudscape\
Sybase	*WLI_HOME*\sybase\

5. Go the location where you unzipped the Email file and open the file that creates the `EMAILPOLL` database required for the Email Plug-in.
   - If your operating system is Windows, the file is `\scripts\win32\emailsetupdb.cmd`.

- If your operating system is UNIX, the file is `/scripts/unix/emailsetupdb.sh`.

6. Edit the `.cmd` or `.sh` file to modify the line that starts `- If/I "WLI_HOME" == "" call...\setEnv.cmd`, to set the correct path.
7. Execute the `emailsetupdb.cmd` or `emailsetupdb.sh` command to create the `EMAILPOLL` database.
8. From *BEA_HOME*`\wlintegration2.1\config\samples` directory, open the `startWeblogic.cmd` file and `SET SVRCP=%SVRCP%;`*WLI_HOME*`\lib\plugin-shared.jar;`
9. Save the file and close it.
10. Start the WebLogic Integration Server.

Note: This step assumes that you are using the default domain. If you are using a specific domain, you must run `wliconfig.cmd` and restart the WebLogic Integration Server after you update the relevant schema.

Warning: Running `wliconfig.cmd` for an existing database will drop all the tables and crate the tables again, which will lose any saved data.

Precautionary Step to Avoid Errors During Use

The following are steps you could take to avoid exception messages or errors while working with the WebLogic Integration Studio. These steps are, however, not mandatory as part of deployment.

When you open the WebLogic Integration Studio while connected to the WebLogic Server running on either Red Hat Linux 7.2 or Red Hat Enterprise Linux AS 2.1, you may get the following exception message:

```
"ClassNotFoundException"
```

To avoid this, edit the *WLI_HOME*`/bin/studio.cmd` file on the machine running the WebLogic Integration Studio, by adding the following lines in bold, at the location shown below:

- If the machine is on Windows:

```
set CP=WLI_HOME\lib\plugin-shared.jar;
WLI_HOME\lib\wlpi-studio.jar;
%WLICP%

CP=%CP%;
WLI_HOME\lib\ebxml-bpm-plugin.jar;
WLI_HOME\lib\wlc-wlpi-plugin.jar;
WLI_HOME\lib\xfileplugin-ejb.jar;
WLI_HOME\lib\wlai-plugin-ejb.jar;
WLI_HOME\lib\sampleplugin-ejb.jar;
WLI_HOME\lib\wlxtpi.jar;
WLI_HOME\lib\ebxml-bpm-plugin.jar;
WLI_HOME\lib\wlai-plugin-ejb.jar;
WLI_HOME\lib\httpplugin-ejb.jar;
WLI_HOME\lib\emailplugin-ejb.jar;
WLI_HOME\lib\mdb-generator.jar;
WLI_HOME\lib\wliserver.jar;
WLI_HOME\lib\wlpi-aux.jar;
WLI_HOME\lib\wlpi-ejb.jar;
WLI_HOME\lib\wlpi-mdb-ejb.jar;

start %JAVA_HOME%\bin\javaw %COMM_CLIENT_VM% -classpath "%CP%"
"-Dwli.samples=%SAMPLES_HOME%"
"-Dwli.bpm.studio.help=WLI_HOME\docs\help"
"-Durl=http://172.19.138.45:7001"
com.bea.wlpi.client.studio.Studio
```

- If the machine is on UNIX/Red Hat Linux:

```
set CP=WLI_HOME/lib/plugin-shared.jar:
WLI_HOME/lib/wlpi-studio.jar:
$WLICP

CP=$CP:
WLI_HOME/lib/ebxml-bpm-plugin.jar:
WLI_HOME/lib/wlc-wlpi-plugin.jar:
WLI_HOME/lib/wlai-plugin-ejb.jar:
WLI_HOME/lib/sampleplugin-ejb.jar:
WLI_HOME/lib/wlxtpi.jar:
WLI_HOME/lib/ebxml-bpm-plugin.jar:
WLI_HOME/lib/wlai-plugin-ejb.jar:
WLI_HOME/lib/xfileplugin-ejb.jar:
WLI_HOME/lib/httpplugin-ejb.jar:
WLI_HOME/lib/emailplugin-ejb.jar:
WLI_HOME/lib/mdb-generator.jar:WLI_HOME/lib/wliserver.jar:
WLI_HOME/lib/wlpi-aux.jar:
WLI_HOME/lib/wlpi-ejb.jar:
WLI_HOME/lib/wlpi-mdb-ejb.jar

start $JAVA_HOME/bin/javaw $COMM_CLIENT_VM -classpath "$CP"
"-Dwli.samples=$SAMPLES_HOME"
```

```
"-Dwli.bpm.studio.help=WLI_HOME/docs/help"
"-Durl=http://172.19.138.45:7001"
com.bea.wlpi.client.studio.Studio
```

Updating the BEA License

If you have installed WebLogic Integration Service Pack 5, the plug-in is licensed as part of WebLogic Integration. No further action is required.

If you install the plug-in with an earlier release of WebLogic Integration, you must obtain a valid software license and update your `license.bea` file as described in the following procedure. If you downloaded the plug-in for evaluation, you can obtain an evaluation license as described on the plug-in download page. If you have purchased a license for the plug-in, the license file is typically sent to you as an e-mail attachment.

When you have obtained a valid license for the plug-in, update your `license.bea` file by completing the following steps:

1. Save the license file that you obtained with a name other than `license.bea`, in the *`BEA_HOME`* directory. For example, save the file as `email_plugin_license.bea`. Use this file as the *`license_update_file`* in step 4 of this procedure.

   Warning: Do not overwrite or change the name of the existing `license.bea` file.

2. Perform the step appropriate for your platform:

   - On a Windows system, open an MS-DOS session and go to the *`BEA_HOME`* directory.
   - On a UNIX system, go to the *`BEA_HOME`* directory.

3. If it is not already included, add the JDK to your `PATH` variable by executing the command appropriate to your system:

   - On a Windows system:

     ```
     set PATH=BEA_HOME\jdk131_03\bin;%PATH%
     ```

   - On a UNIX system:

     ```
     PATH=BEA_HOME/jdk131_03/bin:$PATH
     export PATH
     ```

4. Merge the license update file into your existing license by executing the command appropriate to your system:
   - On a Windows system:

     `UpdateLicense` *`license_update_file`*
   - On a UNIX system:

     `sh UpdateLicense.sh` *`license_update_file`*

   Here, *`license_update_file`* is the name you gave the license update file in step 1.
5. Save a copy of your updated `license.bea` file in a safe place outside the WebLogic Integration and application installation directories.

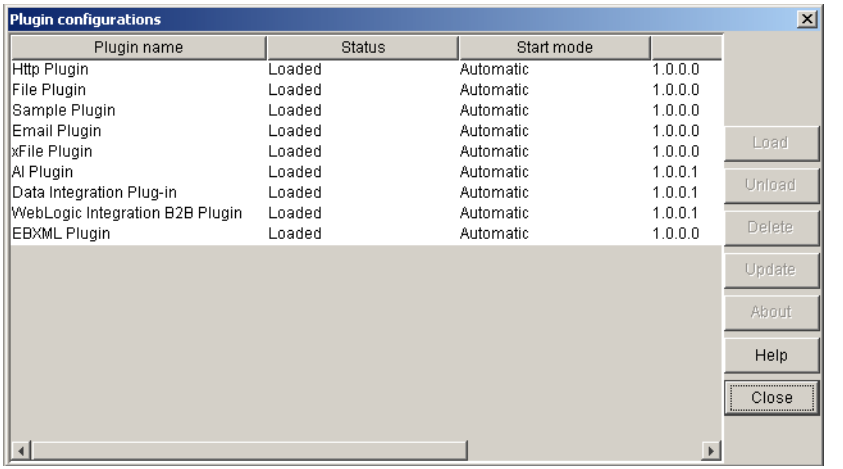
Verifying Deployment

After you have completed the steps for deploying the Email Plug-in, you need to verify whether it has been deployed correctly.

To verify the deployment, do the following:

1. Open WebLogic Integration Studio.
2. Choose Configuration→Plugins. The Plug-in Configurations dialog box is displayed.

Figure 2-1 Plug-in Configurations Dialog Box



3. In the Plug-in Configurations dialog box, under Plug-in names, locate Email Plug-in. Its presence confirms that the Email Plug-in has been deployed correctly.

CHAPTER

3 Using the Email Plug-in

This section provides information on using the Email Plug-in. It contains the following topics:

- Overview
- Sending an E-mail
- Starting a Workflow upon Receiving an Email

These topics contain step-by-step instructions for setting up the Email Plug-in actions. It is assumed that you already know how to design WebLogic Integration Workflows. For an example of using the Email Plug-in to send an e-mail to an account on a mailing system, see Chapter 5, "Email Plug-in Example."

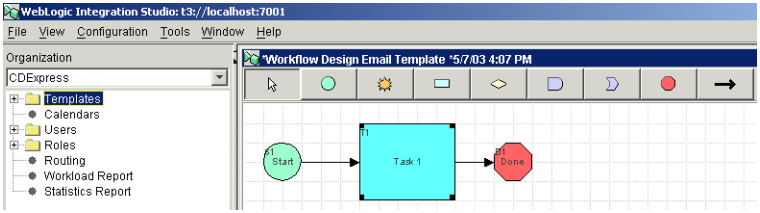
Overview

This topic provides information you need to know before using the Email Plug-in. It contains the following sub-topics:

- Defining Workflow Variables
- Setting Task Properties
- Workflow Expressions

You can set up the Email Plug-in using the Workflow Design window in the WebLogic Integration Studio, as shown in the following figure.

Figure 3-1 WebLogic Integration Studio - Workflow Design Window



In the Workflow Design window, you can construct workflows and set properties that define workflows. You must set the variable properties and task properties.

Defining Workflow Variables

The Email Plug-in uses workflow variables to exchange information with other workflow tasks. You can pass the Body Content of an e-mail from one task to another through an appropriate workflow variable. You must define workflow variables before defining the workflow's task properties so that you can then bind the content of the e-mail to a workflow variable.

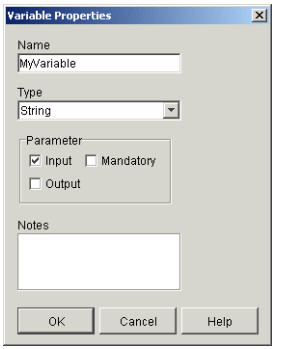
Note: For more information on variables, see the "Working with Variables" section of "Defining Workflow Templates" in *Using the WebLogic Integration Studio* at http://edocs.bea.com/wli/docs70/studio/ch5.htm.

To define the variables used by the workflow actions:

1. In the left pane of the WebLogic Integration Studio, double-click the Templates folder, right-click the Variables node, and select Create Variable. The Variable Properties dialog box is displayed.

   Note: You can create variables only for existing templates. To know how to create templates and template definitions, see "Setting Up the Workflow."

Figure 3-2 Variable Properties Dialog Box



2. Set the following properties:

Table 3-1 Variable Properties

Field Name	Description	Example
Name	Enter the name of the variable.	`MyVariable`
Type	Select the type of variable from the drop-down list.	`String`
Parameter	Select the relevant check box(es), depending upon the purpose: ■ Input - To create an input variable ■ Output - To create an output variable ■ Mandatory - To make the variable mandatory	

3. Click OK. The Variable Properties dialog box closes.

For more information on variables, see the "Working with Variables" section of "Defining Workflow Templates" in *Using the WebLogic Integration Studio* at http://edocs.bea.com/wli/docs70/studio/ch5.htm.

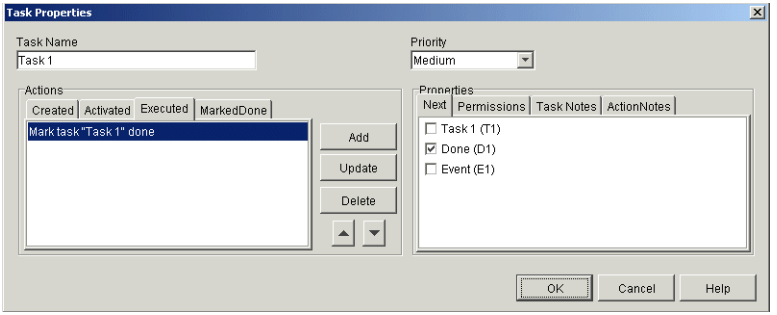
Setting Task Properties

You set the Task Properties on the Task node in the Workflow Design window.

To set the workflow properties for a task:

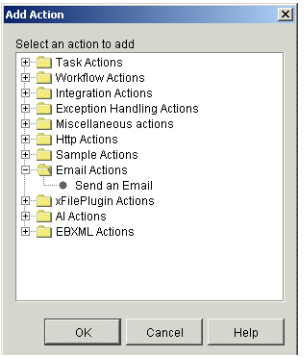
1. In the Workflow Design window, right-click a Task node, and select Properties. The Task Properties dialog box is displayed.
2. Select the Executed tab, as shown in the following figure.

Figure 3-3 Task Properties Dialog box



3. To add the Email Plug-in action, click Add. The Add Action dialog box is displayed.

Figure 3-4 Add Action Dialog Box



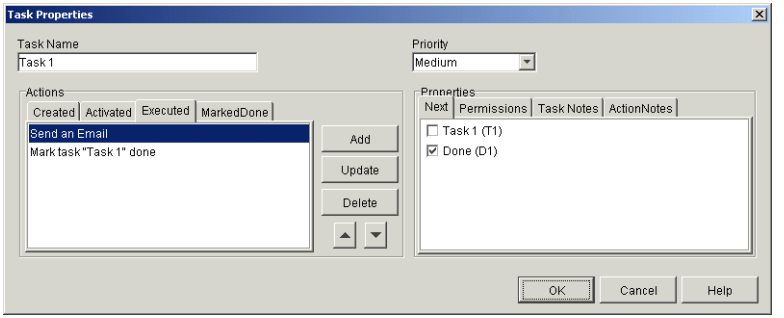
4. Double-click the Email Plug-in Actions folder, select Send an Email and click OK. The Send an Email dialog box, where you need to define the properties of the action, is displayed.

Note: For details on defining the properties for Send an Email Plug-in action, see Sending an E-mail.

5. After defining the properties, click OK. The Task Properties dialog box is displayed, with the Plug-in action displayed on the Executed tab.

6. To make the displayed action the first to be executed, select the action, and click the Up arrow. The action moves to the top position, as shown in the following figure.

Figure 3-5 Task Properties Dialog Box with Selected Action



Note: Use the Up and Down arrows to move selected tasks higher or lower in the list, depending upon the workflow requirements. You will need to use this option if there are multiple tasks that require a sequence for their execution.

7. Click OK. The Task Properties dialog box closes.

Workflow Expressions

A workflow expression is an algebraic expression that defines a calculation that the system performs at run time, and is made up of literals, such as strings, integers and other constants, workflow variables, operators, and workflow functions. Workflow expression syntax allows you to manipulate strings, test for relationships and conditions, perform arithmetic calculations, use functions that obtain run-time information from workflows or XML messages, and so on.

The result of an expression may be a string, integer, double, date/time value, or either of the Boolean (logical) values true and false. Expressions that yield a Boolean result are referred to as conditional expressions or conditions.

Wherever you see the Expression button 

next to a field in a Studio dialog box, the field requires that an entry be formulated in the workflow expression language. You can either type an expression within quotes in the field, or click the Expression button to formulate the expression.

In the Email Plug-in Actions, the following properties require expressions:

- To
- CC
- BCC
- Reply To
- Subject
- File Name

You can obtain values for these properties from the Expression Builder and XPath Wizard, which returns a string value. The following values are available:

- Constant strings, such as `"d:\\read\\read.xml"`
- Workflow variables in String type, such as `$file_name`
- Complex expressions that return string values, such as `$a+$b+$c+"a.txt"`

Notes: The string value for the file or directory name must contain the full path to the file or directory. Two formats for the path are available:

- DOS, such as `"d:\\read\\read.xml"`
- UNIX, such as `"/home/workflow/input.txt"`

For more information about expressions, see "Using Workflow Expressions" in *Using the WebLogic Integration Studio* at http://edocs.bea.com/wli/docs70/studio/index.htm.

Sending an E-mail

Using the Send an Email service, you can send an e-mail through the locally accessible SMTP Email Server to a specific account on another mail system. You can send an e-mail to multiple addresses using any of these body formats: `ASCII`, `xml`, or `binary`. You can also attach a file to an e-mail using any of the same three file formats. The attachment can be from an `XML` tag or from a file.

Topics in this section include:

Sending an E-mail Without an Attachment

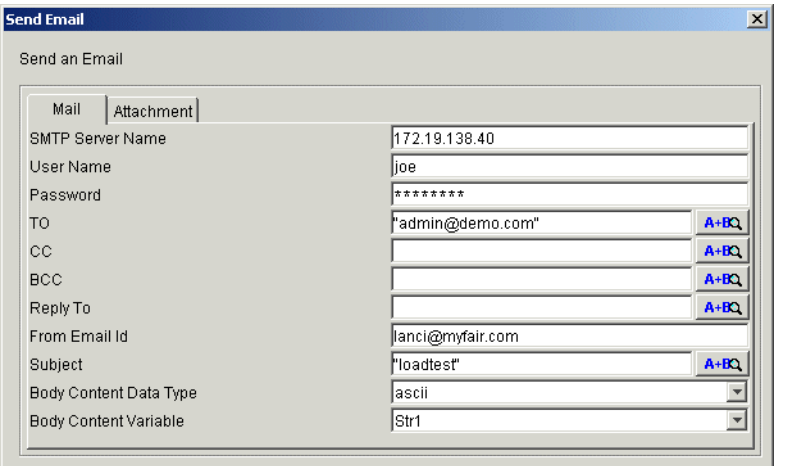
You can send an e-mail to multiple addresses using any of these body formats: `ASCII`, `xml`, or `binary`.

Note: Before you configure the Email Plug-in, you must first create the appropriate variable with a data type of mail body so that you can assign the contents of the mail body to the variable.

To send an e-mail, do the following:

1. In the Add Action dialog box, double-click the Email Actions folder, and select Send an Email. The Send Email dialog box is displayed.

Figure 3-6 Send Email Dialog Box



2. Set the following properties:

Table 3-2 Sending an Email Properties

Field Name	Description	Example
SMTP Server Name	Enter the name or protocol address of the server.	`172.19.144.125`
User Name	Enter the name of the user.	susan
Password	Enter the password to connect to the server.	
To, CC, BCC	Enter the e-mail address of the person to whom you want to send, copy, or blind copy the e-mail, or click A+B to select an expression. You can enter more than one e-mail address, separated by commas. For details, see Workflow Expressions.	susan@bea.com user@yahoo.com, user@rediff.com
Reply To	Enter the e-mail address where you want to receive the replies, or click A+B to select an expression. You can enter more than one e-mail address, separated by commas.	susan@bea.com user@yahoo.com, user@rediff.com
From Email ID	Enter the sender's e-mail address.	home@icom.net
Subject	Enter the subject of the e-mail or click A+B to select an expression.	

Body Content Data Type	Select the format of the e-mail's body content from the drop-down list.	`ASCII`
		`XML`
		`Binary`

Body Content Variable	Select the variable to hold the body content from the drop-down list.	`Str1`

3. To send the file without an attachment, click OK. The Send Email dialog box closes, and the Task Properties dialog box is displayed.

Sending an E-mail With an Attachment

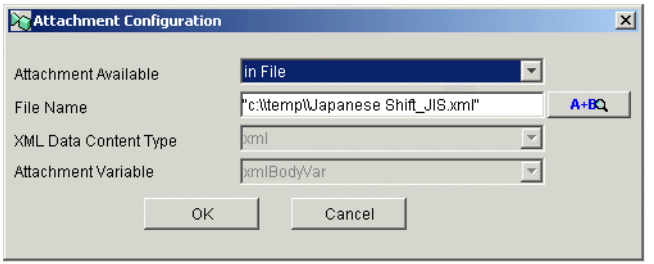
When you send an e-mail to a specific account on another mail system, you can also attach a file in any of these formats: `ASCII`, `xml`, or `binary`. The attachment can be from an `XML` tag or from a file.

Note: Before you can send an attachment from an `xml` tag, you must first create the appropriate variable with a data type of attachment so that you can assign the contents of the attachment to the variable.

To send an e-mail with an attachment, do the following:

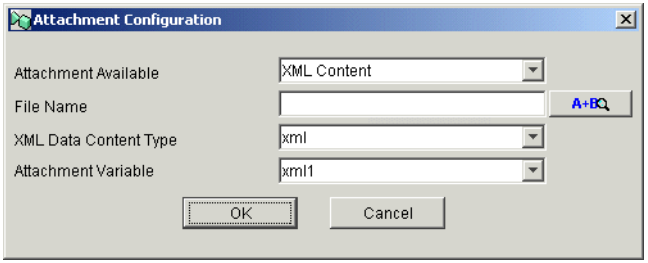
1. Follow steps 1 and 2 in Sending an E-mail Without an Attachment to set properties for the e-mail.
2. To add an attachment, select the Attachment tab, and click Add. The Attachment Configuration dialog box is displayed.
3. Select how the file is to be attached: from a file or from `xml` content.
4. Do one of the following:
   - If the Attachment Available is set to `in File`, enter the path and name of the file, or click A+B to select an expression (see Workflow Expressions).

Figure 3-7 Attachment Configuration Dialog Box—in File



   - If the Attachment Available is set to `XML` Content, select the type of `xml` data content from the drop-down list. Select the variable from the drop-down list that holds the `XML` data.

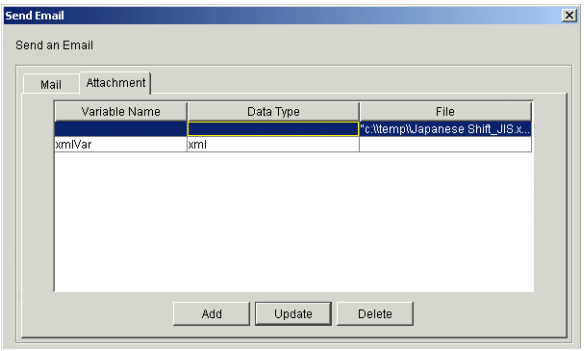
Figure 3-8 Attachment Configuration Dialog Box—xml Content



Note: The XML Data Content Type of the XML tag must match the Workflow Variable containing the attachment.

5. Click OK. The Attachment Configuration dialog box closes.
6. To add more attachments, click Add in the Send Email dialog box and set properties for the additional attachments.

Figure 3-9 Attachment Configuration Dialog Box—XML Content



7. In the Send Email dialog box, click OK. The Send Email dialog box closes and the Task Properties dialog box is displayed.

Starting a Workflow upon Receiving an Email

You can start a workflow instance whenever an e-mail arrives in a specific account in a mail system, either through POP3 or IMAP Incoming Mail Host. Once the system reads an e-mail, it deletes the message, archives it, or leaves it alone, depending on the workflow settings. If you specify POP3 as the Incoming Mail Host, the e-mail is read and automatically deleted from the server. If you specify IMAP, you can configure the settings to either retain the e-mail in the server, archive it, or delete it from the server (using the Delete Message from Email Server check box). Additionally, if you specify IMAP, you must configure INBOX as the receiving folder to receive e-mails in the email client. If you want to save all the attachments in a particular folder, you can specify the folder name and path during design-time.

At any given point of time, many e-mails may arrive in the account, triggering multiple workflow instances. To manage this, you can configure the workflow design at the Start node to limit the number of events that can be triggered for each polling interval.

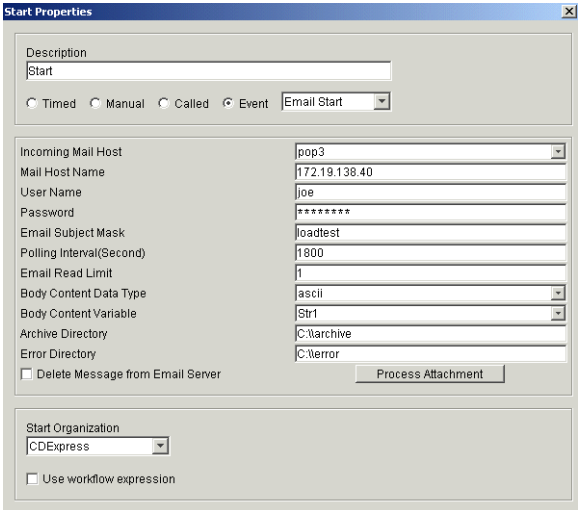
Notes:

- You must define a workflow variable before defining the workflow's Start properties, because the e-mail content is bound to a workflow variable.
- One e-mail can start only one workflow instance.

To define the properties of the Start node, do the following:

1. In the Workflow Design window, right-click the Start node, and select Properties. The Start Properties dialog box is displayed.
2. Click the Event option button, and from the Event drop-down list, select Email Start. The fields pertaining to the Email Start Properties appear. The dialog box where you can set the properties for the Start node is shown in the following figure.

Figure 3-10 Start Properties Dialog Box



3. Set the following properties:

Table 3-3 Start Properties

Field Name	Description	Example
Incoming Mail Host	Select the mail host from which the mail arrives, from the drop-down list.	`POP3/IMAP`
Mail Host Name	Enter the name or the protocol ID of the mail host.	`172.19.140.158`
User Name	Enter your user name.	susan
Password	Enter the password.	(specific to user)
Email Subject Mask	Enter the subject mask of the e-mail being received (* or?).	subject masks - “`a*`” “`?my`” or “`*`”
Poll Interval (second)	Enter the time interval for the system to poll for e-mails.	60
Email Read Limit	Enter the number of e-mails to be read. If you do not specify a limit, the system will read all the mails.	10

Table 3-3 Start Properties (Continued)

Field Name	Description	Example

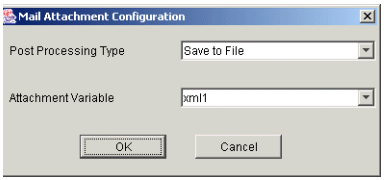
Body Content Data Type	Select the data type of the body content, from the drop-down list.	`ASCII`
		`XML`
		`Binary`

Body Content Variable	Select the variable of the body content from drop-down list.	`Str1`
Archive Directory	Enter the path and name of the archive directory. Enter this information only if you want to archive the e-mail after it is read. **Note:** You must specify the Archive Directory when the Post Processing type is Save to File.	`D:\\archive\\`
Error Directory	Enter the path and name of the directory where you want to save the e-mail if there is an error in reading the e-mail.	`C:\\error\\`
Delete Message from Email Server	Select the check box if you want to delete the e-mails from the server after they are read.	

Note: It is recommended that you specify different 'Archive' and 'Error' directories.

4. From the Start Organization list, select the relevant organization.
5. If you do not wish to detach the attachment, click OK. The Start Properties dialog box closes.
6. To detach the attachment files, do the following:
   a. Click Process Attachment. The Mail Attachment Configuration dialog box is displayed.

Figure 3-11 Mail Attachment Configuration Dialog Box



b. Set the following properties:

Table 3-4 Post Processing Attachment Configuration Properties

Field Name	Description	Example
Post Processing Type	Select the format from the drop-down list, in which you want to save the file.	`Save to File` `Save to BPM XML Tag`
Attachment Variable	Select the variable from the drop-down list, which holds the content of the file. This is a mandatory field. **Note:** You must use different XML variables for an attachment and body content.	`xmlvar`

Note: For more information on the schema structures, attachment properties, post processing properties, and mail types, see Notes later in this chapter.

c. Click OK. The Mail Attachment Configuration dialog box closes.

d. In the Start Properties dialog box, click Close. The Start Properties dialog box closes.

In the Workflow Design window, the Start node indicates the Email action setting, as shown in the following figure.

Figure 3-12 Start Node with Email Action

Notes:

- The schema structures for post processing Save to File and Save to BPM XML tag are different for different file formats. They are shown in the following table:

Table 3-5 Schema Structure

File Format	Save to File	Save to BPM XML Tag
XML	<?xml version="1.0" encoding="UTF-8"?> <EmailStart> <Attachments> <ATTACHMENT DATA_TYP="xml">registry1051666333701.xml</ATTACHMENT></Attachments> </EmailStart>	<?xml version="1.0" encoding="UTF-8"?> <EmailStart> <Attachments> <ATTACHMENT DATA_TYP="xml"><?xml version="1.0" encoding="utf-8"?> < bea-product-information >Try this< /bea-product-information ></ATTACHMENT> </Attachments></EmailStart>
ASCII	xml schema in this case: <?xml version="1.0" encoding="UTF-8"?> <EmailStart> <Attachments> <ATTACHMENT DATA_TYP="ascii">SampleSprockets_PO1051692032177.txt</ATTACHMENT> </Attachments></EmailStart>	<?xml version="1.0" encoding="UTF-8"?> <EmailStart> <Attachments> <ATTACHMENT DATA_TYP="ascii">This is a sample test for attachment</ATTACHMENT> </Attachments></EmailStart>

Table 3-5 Schema Structure (Continued)

File Format	Save to File	Save to BPM XML Tag
Binary	<?xml version="1.0" encoding="UTF-8"?> <EmailStart> <Attachments> <ATTACHMENT DATA_TYP="binary">welcome1051742721494.exe</ATTACHMENT></Attachments></EmailStart>	<?xml version="1.0" encoding="UTF-8"?> <EmailStart> <Attachments> <ATTACHMENT DATA_TYP="binary">TVqQAAMAAAAEAAAA//8AALgAAAAAAAAAQAAAAAAAA +jP0d89H9HfvJPR3LRj0dxA19HczWPR3EBf0d0E09HfBJPR3Rln0d22B9HeRRfR3jlP0dwAAAACA R+l3x4vod9iv6HdBkOl</ATTACHMENT></Attachments></EmailStart>

When there is no attachment, the XML schema is:

```
<?xml version="1.0" encoding="UTF-8"?>
<EmailStart></EmailStart>
```

- If you select Save to File as the Post Processing Type, both the attachment and the e-mail body are archived into the Archive Directory. The file name of the attachment is filename+timestamp, and the file name of the e-mail body is subject of e-mail+timestamp.
- If an error occurs, the e-mail is saved to the Error Directory. The file name for the error e-mail is subject of e-mail+timestamp.
- An attachment's MIME CONTENT TYPE is mapped to DATA TYPE as shown below:

Table 3-6 Mime Content Type and Data Type Properties

Mime Content Type	Data Type
text/xml	XML
text	ASCII
application	Binary

- For a Binary attachment, the Email Plug-in performs a `Base64` encoding before putting the Binary data in the `XML` string. Therefore, to read the `Binary` content, you must perform a `Base64` decoding.
- The Email Plug-in creates a new file for the body and one for the attachment. If the e-mail contains an attachment in the form of a File, the `XML` variable contains the file name in its tag. If the attachment is in the form of `XML` content, the `XML` variable contains the actual data of the attachment.
- Currently, Email Plug-in supports only the MIME types listed in Table 3-6. It does not support Rich Text or HTML.

Run-Time Exceptions

The following exceptions may occur during the workflow process:

- File not found if the attachment mode was `File`
- `Java Mail` Exceptions
- Transaction times out

Take appropriate action, based on the exception message.

CHAPTER

4 Configuring the Email Plug-in for a Migrated Domain

This section describes how to update your database schema and configure the Email Plug-in for a single server domain and a cluster domain. It contains the following topics:

- Updating the Business Process Management Database Table
- Migrating to a Single Server Domain
- Migrating to a Clustered Domain

Updating the Business Process Management Database Table

The Email Plug-in uses a new database table called `EMAILPOLL`. To update the Business Process Management (BPM) database with this table, edit the following file by appending the contents of `ep_schema.sql`:

BEA_HOME\weblogic700\integration\dbscripts\<database_type>\migrate\BPM_70-70SP2.sql

The contents of `ep_schema.sql` will depend on your database.

Migrating to a Single Server Domain

To configure the Email Plug-in for a single server domain, copy the `.jar` file to your WebLogic installation directory and edit the domain's `config.xml` file as shown below.

1. To deploy the `emailplugin-ejb.jar` as one component of WebLogic Integration application, add the following:

```
<EJBComponent
   Name="WLI-BPM Email Plug-in"
   Targets="<Customer_localhost>"
   URI="emailplugin-ejb.jar"/>
```

2. To add the JMS queue for Email Plug-in, add the following:

```
<JMSQueue
   JNDIName="com.bea.wli.bpm.EmailPluginQueue"
   Name="WLI_BPM_EP"
   Template="WLI_JMSTemplate"/>
```

Migrating to a Clustered Domain

To configure the Email Plug-in for a clustered domain, copy the `.jar` file to your WebLogic installation directory and edit the domain's `config.xml` file as shown below.

Note: This example shows a cluster system (`mycluster`) with one manager server (`myserver`) and two managed servers (`c1`, `c2`).

1. To deploy `emailplugin-ejb.jar` on cluster server, add the following:

```
<EJBComponent
   Name="WLI BPM Email Plug-in"
   Targets="mycluster"
   URI="emailplugin-ejb.jar"/>
```

2. To configure the JMS Queue for Email Plug-in, add the following:

```
<JMSDistributedQueue
   Name="WLI_BPM_EP"
   JNDIName="com.bea.wli.bpm.EmailPluginQueue"
   Targets="mycluster">
   <JMSDistributedQueueMember
      Name="WLI_BPM_EP-c1"
      JMSQueue="WLI_BPM_EP-c1"
      Weight="1"/>
   <JMSDistributedQueueMember
      Name="WLI_BPM_EP-c2"
      JMSQueue="WLI_BPM_EP-c2"
      Weight="1"/>
   <JMSTemplate
       Name="WLI_BPM_EP"/>
</JMSDistributedQueue>
```

3. On the CLUSTER NODE C1 JMS SERVER, add the following:

```
<JMSQueue
   Name="WLI_BPM_EP-c1"
   JNDIName="com.bea.wli.bpm.EmailPluginQueue-c1"
   StoreEnabled="true"
   Template="WLI_JMSTemplate-c1"/>
```

4. On the CLUSTER NODE C2 JMS SERVER, add the following:

```
<JMSQueue
   Name="WLI_BPM_EP-c2"
   JNDIName="com.bea.wli.bpm.EmailPluginQueue-c2"
   StoreEnabled="true"
   Template="WLI_JMSTemplate-c2"/>
```

5 Email Plug-in Example

This example illustrates how to use the Email Plug-in to send an e-mail to an account on a mailing system. It contains the following topics:

- Setting Up the Workflow
- Executing the Workflow

The first part of the example tells you how to set up a workflow in the WebLogic Integration Studio that will send an e-mail to the specified destination. The second part of the example tells you how to use the BEA WebLogic Integration Worklist to execute the workflow to send the e-mail.

Note: This example uses the WebLogic Integration Samples Domain. For more information, see the "Configuring and Starting the Samples Domain" section of "Getting Started" in *Starting, Stopping, and Customizing BEA WebLogic Integration* at http://edocs.bea.com/wli/docs70/config/getstart.htm.

Setting Up the Workflow

To set up a workflow in the WebLogic Integration Studio to send an e-mail, do the following:

1. Start the WebLogic Integration Server.
2. To open the WebLogic Integration Studio, do one of the following:
   - On Windows, for WebLogic Integration 7.0, select Start→BEA WebLogic Platform 7.0→WebLogic Integration 7.0→Studio.

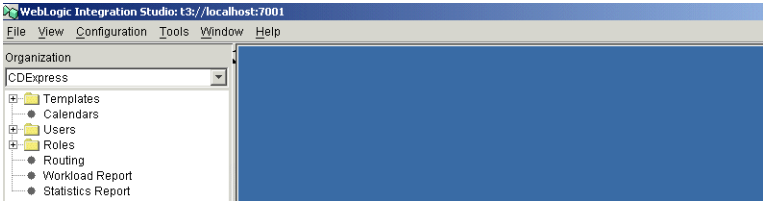
- On Windows, for WebLogic Integration 2.1, select Start→Programs→BEA WebLogic E-Business Platform→BEA WebLogic Integration 2.1→Studio.
- On UNIX, for WebLogic Integration 7.0, run

  BEA_HOME/weblogic700/integration/bin/studio.sh
- On UNIX, for WebLogic Integration 2.1, run
  BEA_HOME/wliintegration2.1/bin/studio.sh

The Logon to WebLogic Integration dialog box is displayed.

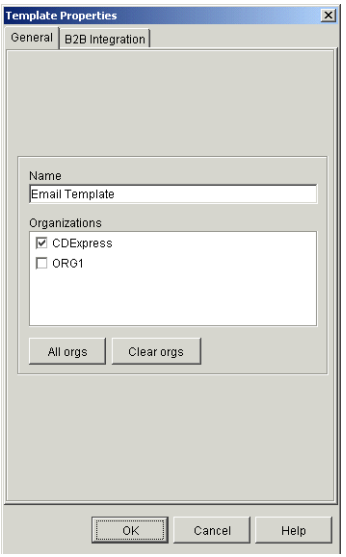
3. Enter the User Name, Password, and Server URL, and click OK. You are connected to the WebLogic Server and the WebLogic Integration Studio is displayed.

Figure 5-1 WebLogic Integration Studio



4. In the left pane of WebLogic Integration Studio, from the Organization drop-down list, select CDExpress.
5. In the left pane, right-click the Templates folder and select Create Template. The Template Properties dialog box is displayed, as shown in the following figure.

Figure 5-2 Template Properties Dialog Box



6. On the General tab, in the Name field, enter a name for the template (example - Email Template) and click OK. The Template Properties dialog box closes, and the new template (Email Template) is added to the Templates folder, on the left pane of the WebLogic Integration Studio.

7. Double-click the Template folder, right-click the newly created Template (Email Template), and select Create Template Definition. The Template Definition Email Template dialog box is displayed, as shown in the following figure.

Figure 5-3 Template Definition Email Template Dialog Box

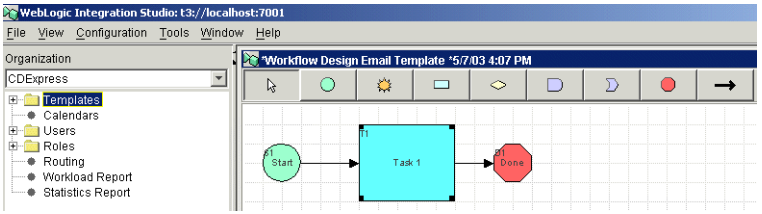
8. Do one of the following:

   - To specify the expiry date for the workflow, select the Expiry check box, and select the desired date from the drop-down calendar. Click OK.
   - To retain the default expiry date, click OK.

   The Template Definition is created inside the newly created Template (Email Template) folder, displaying the creation date and time.

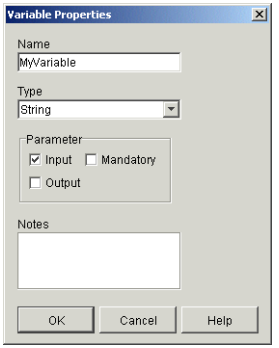
   The Workflow Design window is displayed in the right pane.

Figure 5-4 Workflow Design – Email Template Window



9. In the left pane of WebLogic Integration Studio, double-click the newly created template (Email Template) folder, right-click the Variables node, and select Create Variable. The Variable Properties dialog box is displayed.

Figure 5-5 Variable Properties Dialog Box



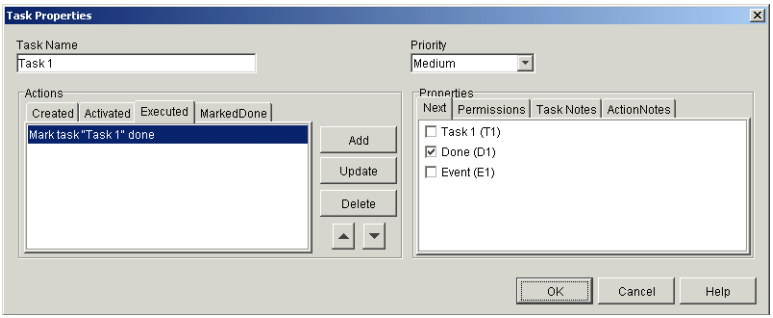
10. Set the following properties:

Table 5-1 Variable Properties

Field	Description	Example
Variable Name	Enter the name of the variable.	`MyVariable`
Type of Variable	Select the type of variable from the drop-down list.	`String`
Parameter	Select the relevant check box(es), depending upon the purpose: ■ Input - To create an input variable ■ Output- To create an output variable ■ Mandatory - To make the variable mandatory	

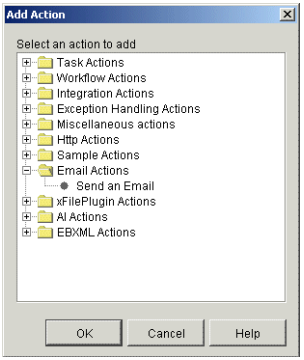
11. Click OK. The Variable Properties dialog box closes.
12. In the Workflow Design window, right-click Task 1 and select Properties. The Task Properties dialog box is displayed.
13. Select the Executed tab, as shown in the following figure.

Figure 5-6 Task Properties Dialog Box



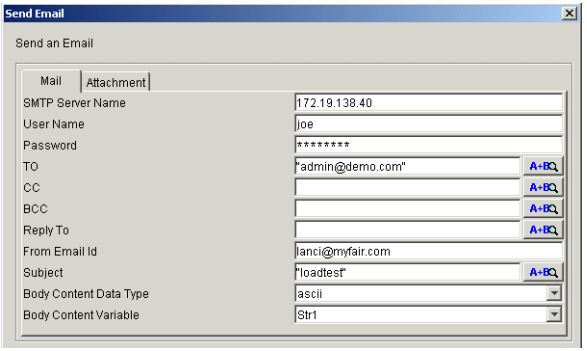
14. Click Add. The Add Action dialog box is displayed.

Figure 5-7 Add Action Dialog Box



15. Double-click the Email Actions folder, select Send an Email and click OK. The Send Email dialog box is displayed.

Figure 5-8 Send Email Dialog Box



16. Set the following properties:

Table 5-2 Sending an Email Properties

Field Name	Description	Example
SMTP Server Name	Enter the name or protocol address of the server.	`172.19.144.125`
User Name	Enter the name of the user.	joe
Password	Enter the password to connect to the server.	(specific to user)
To, CC, BCC	Enter the e-mail address of the person to whom you want to send, copy, or blind the e-mail or click  to select an expression. You can enter more than one e-mail address, each separated by a comma. For details, see Workflow Expressions.	joe@bea.com user@yahoo.com, user@rediff.com
Reply To	Enter the e-mail address at which you would like to receive the replies or click  to select an expression. You can enter more than one e-mail address, each separated by a comma.	joe@bea.com user@yahoo.com, user@rediff.com
From Email ID	Enter the sender's e-mail address.	home@icom.net
Subject	Enter the subject of the e-mail or click  to select an expression.	(specific to user)

Body Content Data Type	Select the type of body content that the e-mail bears, from the drop-down list.	`ASCII`
		`XML`
		`Binary`

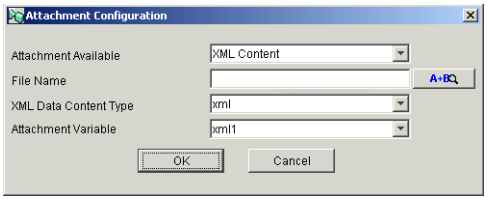
Body Content Variable	Select the variable of the body content from the drop-down list.	`Str1`

17. Do one of the following:

- Click OK. The Send Email dialog box closes, and the Task Properties dialog box is displayed.

- To attach files, select the Attachment tab, and click Add. The Attachment Configuration dialog box is displayed.

Figure 5-9 Attachment Configuration Dialog Box



18. Set the following properties:

Table 5-3 Attachment Configuration Properties

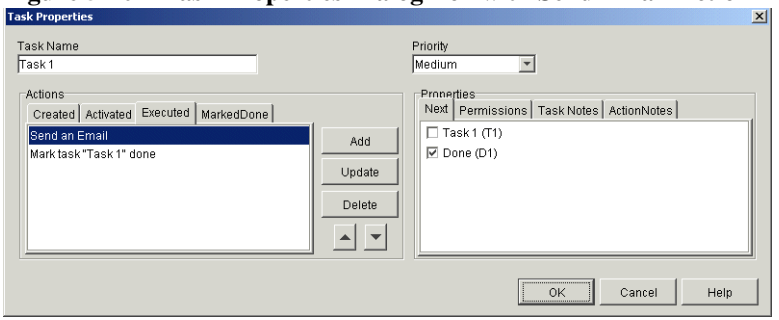
Field Name	Description	Example
Attachment Available	Select the format in which the attachment exists, from the drop-down list.	`in File` `in xml content`
File Name	Enter the path and name of the file that you want to attach or click A+B to select a expression. For details, see Workflow Expressions.	"`C:\\Templates\\file.xml`"

XML Data Content Type	Select the type of data content from the drop-down list.	`ASCII`
		`XML`
		`Binary`

Attachment Variable	Select the variable which holds the data, from the drop-down list.	`XML VarCon`

19. Click OK. The Attachment Configuration dialog box closes.
20. In the Send Email dialog box, click OK. The Send Email dialog box closes, and the Task Properties dialog box is displayed.
21. In the Task Properties dialog box, on the Executed tab, select Send Email, and click the Up arrow. The action Send Email moves to the top position, as shown in the following figure.

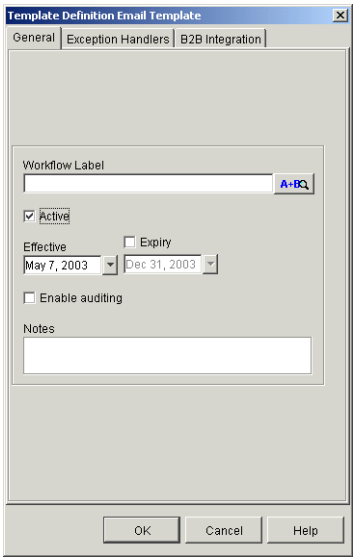
Figure 5-10 Task Properties Dialog Box with Send Email Action



22. Click OK. The Task Properties dialog box closes.

23. In the left pane of the WebLogic Integration Studio, under the Email Template folder, right-click the Template Definition and select Properties. The Template Definition dialog box is displayed.

Figure 5-11 Template Definition Email Template Dialog Box with Active Check Box



24. Select the Active check box, and click OK. The Template Definition dialog box closes.

Caution: To make changes to the template, do the following:

a. Open the Template Definition dialog box, deselect the Active check box and click OK. The Template Definition dialog box closes.

b. Open the Template Definition dialog box again, make changes to the template, select the Active check box, and click OK. The Template Definition dialog box closes.

This procedure is necessary to ensure that there is only one workflow process per active template at any given time.

25. In the left pane of WebLogic Integration Studio, right-click the Template Definition and select Save.

Note: An asterisk before the folder name indicates that the changes to that folder have not been saved.

For more information about using WebLogic Integration Studio, see *Learning to Use BEA WebLogic Integration* at http://edocs.bea.com/wli/docs70/bpmtutor/index.htm.

Executing the Workflow

In this part of the example, the BEA WebLogic Integration Worklist executes the workflow, and sends the e-mail to a local system. This part of the example provides information on the following:

- Executing on WebLogic Integration 7.0
- Executing on WebLogic Integration 2.1

For more information about the Worklist, see *Using the WebLogic Integration JSP Worklist* at http://edocs.bea.com/wli/docs70/jspwlist/index.htm.

Executing on WebLogic Integration 7.0

1. To start the WebLogic Integration Worklist, do one of the following:
   - On a Windows system, select Start→Programs→BEA WebLogic Platform 7.0→WebLogic Integration 7.0→Worklist.

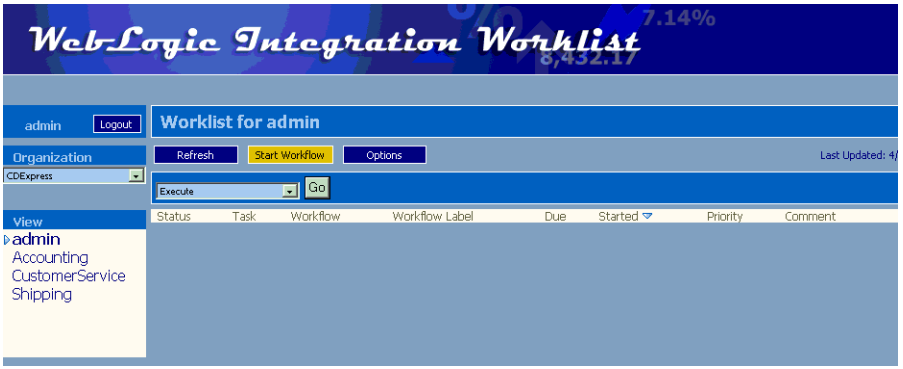
- On a UNIX system, open a browser and enter the following URL:

  `http://<localhost>:<port_number>/worklist`

The Logon to WebLogic Integration dialog box is displayed.

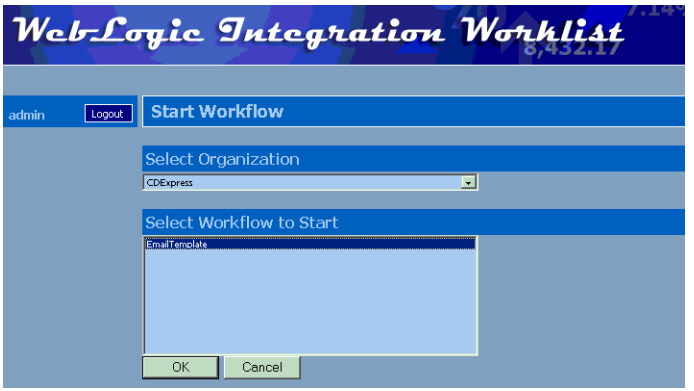
2. Enter your User Name, Password, and Server URL, and click OK. The WebLogic Integration Worklist window is displayed.

Figure 5-12 WebLogic Integration Worklist Window



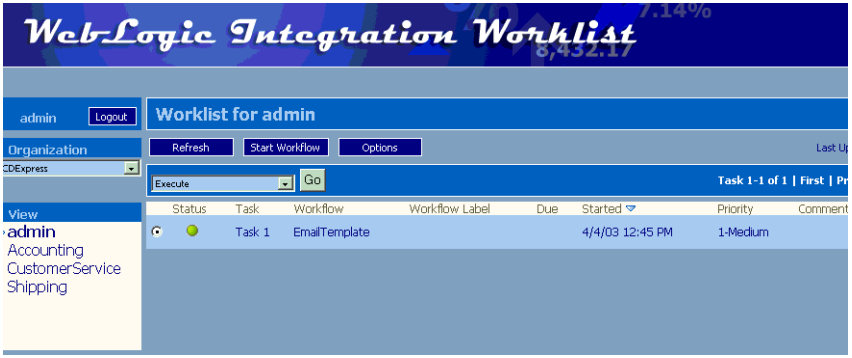
3. From the Organization drop down list, select CDExpress, and click Start Workflow. The WebLogic Integration Worklist - Start Workflow window is displayed.

Figure 5-13 WebLogic Integration Worklist - Start Workflow Window



4. In the Select Workflow to Start list, select Email Template, and click OK. The WebLogic Integration Worklist window is displayed, displaying the task, as shown in the following figure.

Figure 5-14 WebLogic Integration Worklist Window - with Task



5. At the end of the task row, click Execute. The e-mail is sent to its destination.

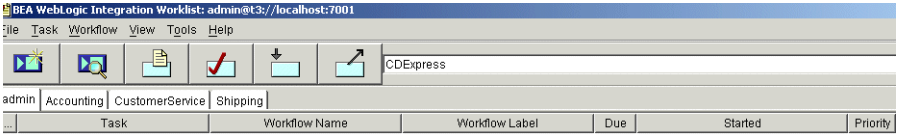
Executing on WebLogic Integration 2.1

1. To start the WebLogic Integration Worklist, do one of the following:
   - On a Windows system, select Start→Programs→BEA WebLogic E-Business Platform→WebLogic Integration 2.1→Worklist
   - On a UNIX system, run
     `BEA_HOME/wlintegration 2.1/bin/worklist`

   The Logon to WebLogic Integration dialog box is displayed.

2. Enter your User Name, Password, and Server URL, and click OK. The WebLogic Integration Worklist window is displayed.

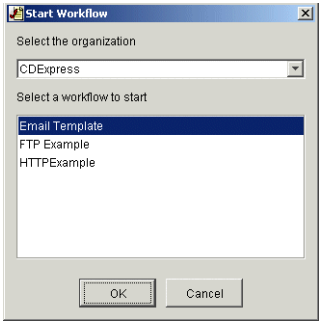
Figure 5-15 WebLogic Integration Worklist Window



3. From the Organization drop down list, select the relevant organization (example - CDExpress).

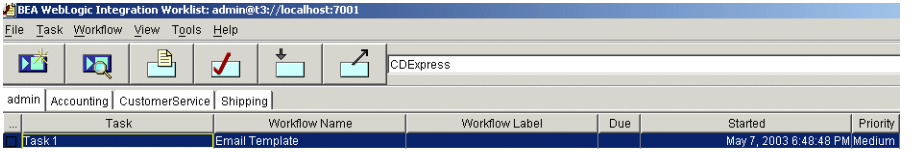
4. Choose Workflow→Start a Workflow. The Start Workflow dialog box is displayed.

Figure 5-16 Start Workflow Dialog Box



5. In the Select a Workflow to Start list, select Email Template, and click OK. The WebLogic Integration Worklist window is displayed, displaying the task, as shown in the following figure.

Figure 5-17 WebLogic Integration Worklist Window with Task



6. Right-click the task and select Execute. The e-mail is sent to its destination.

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