BEA WebLogic Application Integration

A Component of BEA WebLogic Integration

Installation and Configuration Guide

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BEA WebLogic Application Integration

Document Edition	Part Number	Date	Software Version
2.0	880-001002-001	July 2001	2.0

Contents

About This Document

The *BEA WebLogic Application Integration Installation and Configuration Guide* is organized as follows:

- "Installation Overview" lists the contents of the BEA WebLogic Application Integration product, summarizes the installation steps, and explains how to install the software license.

- "Installing BEA WebLogic Application Integration" explains how to install BEA WebLogic Application Integration on Windows NT and UNIX systems.

- "Creating New Server Environments" describes how to run setup and configure different server environments.

What You Need to Know

This document is intended for two primary users:

- **EIS Specialists**–responsible for installing the BEA WebLogic Application Integration on the various platforms.

- **Technical Analysts**– responsible for configuring integration solutions and administering a WebLogic Integration environment including application server, application integration, business process modeling, and B2B integration. This guide assumes that the technical analyst has knowledge of the entire system end-to-end.

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://e-docs.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 BEA WebLogic Application 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 BEA WebLogic Application 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 resources are also available:

- BEA WebLogic Server documentation (`http://www.edocs.com`)

- BEA WebLogic Process Integrator documentation (`http://www.edocs.com`)

- XML Schema Specification (`http://www.w3.org/TR/xmlschema-l/`)

- The Sun Microsystems, Inc. J2EE Connector Architecture Specification (`http://java.sun.com/j2ee/connector/`)

■ The Sun Microsystems, Inc. Java site (`http://www.javasoft.com/`)

Contact Us!

Your feedback on the BEA WebLogic Application 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 BEA WebLogic Application Integration documentation.

In your e-mail message, please indicate that you are using the documentation for the BEA WebLogic Application Integration 2.0 release.

If you have any questions about this version of BEA WebLogic Application Integration, or if you have problems installing and running BEA WebLogic Application Integration, contact BEA Customer Support through BEA WebSupport at www.beasys.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 Application Integration 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 file names and their extensions. Monospace text also indicates text that you must enter from the keyboard. *Examples*:
	`chmod u+w *`
	`c:\startSever`
	`.doc`
	`wls.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. *Example*s: LPT1 SIGNON OR

Convention	Item
...	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 *Example*: `import com.sap.rfc.exception . . .*;`
. . .	Indicates the omission of items from a code example or from a syntax line. The vertical ellipsis itself should never be typed.

1 Installation Overview

The BEA WebLogic Application Integration installation utility guides you through a quick installation of BEA WebLogic Application Integration.

This section provides information on the following subjects:

- Installed Components
  - Understanding Domains
  - Out-of-the-Box Demonstration Environment
  - Customized Environment
- Platform Support
- Installation Prerequisites
  - For Windows
  - For UNIX
- Roadmap for Installing and Configuring BEA WebLogic Application Integration
- Directory Structure

Installed Components

When you complete this initial installation process as described in "Installing BEA WebLogic Application Integration,", the following components will be installed:

- Integration Framework - This component provides a systematic, standards-based architecture for hosting business-oriented interfaces to enterprise applications.

For more information about the Integration Framework component, see "Integration Framework" in the *BEA WebLogic Application Integration Product Overview.*

■ Adapter Development Kit - This component is a tool kit that facilitates the construction of adapters that will run in any J2EE-compliant environment. For more information about the Adapter Development Kit, see "Adapter Development Kit (ADK)" in the *BEA WebLogic Application Integration Product Overview.*

■ DBMS sample adapter - The DBMS adapter is a J2EE-compliant adapter built with the BEA WebLogic Application Integration Adapter Development Kit. It provides a concrete example for adapter providers of how one might use the ADK to construct an adapter. For more information about the DBMS sample adapter, see "The DBMS Sample Adapter" in the *BEA WebLogic Application Integration Adapter Development Guide*.

■ eMail sample adapter - The eMail adapter is a J2EE-compliant adapter built with BEA WebLogic Application Integration Adapter Development Kit. The purpose of the eMail adapter is to provide a way for any application to send notice in case of system failure or process completion. For more information about the eMail sample adapter, see "The eMail Sample Adapter" in the *BEA WebLogic Application Integration Adapter Development Guide*.

■ The BEA WebLogic Application Integration plug-in for WebLogic Process Integrator - WebLogic Process Integrator provides a GUI-based environment for designing business process workflows. The plug-in provides a way to use application views created with BEA WebLogic Application Integration in Process Integrator workflows. For more information about the using BEA WebLogic Application Integration plug-in for WebLogic Process, see "Using Application Views in WebLogic Process Integrator" in the *BEA WebLogic Application Integration User Guide*.

Note: The installer configures the plug-in BEA WebLogic Application Integration's `mydomain` if BEA WebLogic Process Integrator is already installed.

■ WebLogic Server configuration which you may use to confirm your new installation or use it as a template for your own WebLogic Server domains.

After this initial installation, you will have BEA WebLogic Application Integration installed in a default, demonstration environment. For information about the demonstration environment, see "Out-of-the-Box Demonstration Environment."

You may then wish to rerun the BEA WebLogic Application Integration setup script to customize your environment. For more information about a customized environment, see "Customized Environment."

For an overview of the entire installation process, see "Roadmap for Installing and Configuring BEA WebLogic Application Integration."

Understanding Domains

The BEA WebLogic Application Integration installer creates two domains under `<WLAI_HOME>/config`, where `<WLAI_HOME>` is the location of the BEA WebLogic Application Integration-specific files.

■ `mydomain`

■ `samples`

mydomain

The `mydomain` domain is intended for advanced BEA WebLogic Integration users who are interested in using WebLogic Process Integrator (Process Integrator), BEA WebLogic Application Integration, and the BEA WebLogic Application Integration plug-in for Process Integrator in the same WebLogic server.

This domain is intended for users that use Oracle or MSSQL, and it requires some manual configuration by the user to get EndToEndTest working. Specifically, you will need to manually create the tables for the DBMS sample adapter by submitting the following DDL scripts to the database:

`<WLAI_HOME>/dev/dbms/src/sql/Create<db>EventTables.sql`

`<WLAI_HOME>/dev/dbms/src/sql/Create<db>CustomerTable.sql`

If Process Integrator has already been installed before running the BEA WebLogic Application Integration installer, `mydomain` will be configured to run Process Integrator and the BEA WebLogic Application Integration plug-in for Process Integrator in `mydomain`. If Process Integrator has not been installed, the installer will not configure Process Integrator.

See "Creating a New Domain" and "Changing Database Information" for information about creating database tables, configuring a new database and creating a new domain.

samples

The `samples` domain is the out-of-the-box domain that uses the Cloudscape database. It allows you to start the `samples` server and run `EndToEndTest` after completing the installation process (i.e. no manual steps required).

You can use `<WLAI_HOME>/engine/config/setup` to configure BEA WebLogic Application Integration into any existing WebLogic domain. Or, it can also clone an existing domain. The Setup utility will also configure the Process Integrator plug-in the chosen domain if Process Integrator has already been installed. setup does not over-write startWebLogic, rather, it creates a script named `startWLAI`. For detailed information about using the Setut utility, see "Creating New Server Environments."

Note: If you are configuring the plug-in with the setup utility, it creates called `startWLPIwithWLAI`. For information about running the setup utility to configure the plug-in, see "Creating New Server Environments."

Passwords for the mydomain and samples Domains

The `mydomain` and `samples` domains use the following passwords:

system/system

admin/security

The *admin* password gets added to the adapter group. You must login to the BEA WebLogic Application Integration Application View Management Page using admin/security.

You can change the system to the adapter group and then log in as *system*. You can change the system password from system to whatever they want using the WebLogic console.

Out-of-the-Box Demonstration Environment

In addition to the installed product components, you will find a sample WebLogic Server configuration domain which you may use to confirm your new installation or use it as a template for your own WebLogic Server domains.

The `samples` domain is a bootable WebLogic Server domain in which BEA WebLogic Application Integration and the DBMS sample adapter, have been deployed for you. This "out-of-the-box" demonstration environment means that your environment is configured with the following:

■   `samples` domain - The `samples` domain is a WebLogic Server Domain in which the BEA WebLogic Application Integration and the DBMS sample adapter are initially deployed.

■   Repository database - This is the Cloudscape database that is packaged with BEA WebLogic Integration.

■   One sample adapter (DBMS adapter) - BEA WebLogic Application Integration provides two sample adapters: The DBMS and the eMail sample adapters. Only the DBMS sample adapter is deployed for the Cloudscape database with this initial installation.

Follow the instructions in "Installing BEA WebLogic Application Integration" to complete the initial installation. When you have completed this initial installation, you may wish to customize your server environment.

Customized Environment

When you have completed the initial installation, you may need to customize your environment for to use a different domain, to use Oracle or MSSQL, or to configure the plug-in. Use the instructions in "Creating New Server Environments" to help you customize your environment.

Platform Support

BEA WebLogic Application Integration is available on the following platforms.

Platform	Version	Database
Microsoft Windows NT	4.0 with Service Pack 6	Oracle 8.1.6 Cloudscape 3.51 SQL Server 7 SP3 SQL Server 2000
Microsoft Windows 2000	Professional	Oracle 8.1.6 Cloudscape 3.51 SQL Server 7 SP3 SQL Server 2000
Sun Solaris	2.7	Oracle 8.1.6 Cloudscape 3.51 SQL Server 7 SP3 SQL Server 2000
Hewlett-Packard HP-UX	11.0	Oracle 8.1.6 Cloudscape 3.51 SQL Server 7 SP3 SQL Server 2000

Installation Prerequisites

Before you install the BEA WebLogic Application Integration software, make sure you have the following software and hardware configuration for your machine:

For Windows

- Hardware requirements and recommendations:
  - Intel Pentium II processor or later
  - 400 MHz recommended
  - 256 MB RAM recommended (512 MB preferable)

- 100 MB free disk space

- Temp space available (you may need to set your temp directory to another drive before installing Application Integration)

■ A Microsoft Windows operating system:

- Microsoft Windows NT 4.0 with Service Pack 5 or higher

- Microsoft Windows 2000

■ Java 2 SDK, Standard Edition, v1.3

   Java 2 SDK, v1.3 is installed with BEA WebLogic Server 6.0. You can find the SDK at `<BEAHOME>/JKD130`.

■ The Java 2 SDK v1.3 software must be installed to run the BEA WebLogic Application Integration sample applications, including the installation verification example. To avoid Java errors, modify `PATH` so that `%JAVA_HOME%\bin` is first in your `PATH`:

   `prompt> set PATH=%JAVA_HOME%\bin;%PATH%`

■ BEA WebLogic Server 6.0 with Service Pack 2

   You must install WebLogic Server 6.0, Service Pack 2 with the `samples` or Application Integration will not function properly.

   You must create a domain named `mydomain` under the WebLogic Server 6.0, Service Pack 2 directory.

Note: WebLogic Server 6.0 SP2 allows you to install just the server, or the server+samples. BEA WebLogic Application Integration's install assumes that the samples have been installed. The BEA WebLogic Application Integration install and server will not work without the samples being installed. This is because the Cloudscape database itself is installed under samples. As a result, installing the samples with WebLogic Server 6.0 SP2 is a prerequisite to installing BEA WebLogic Application Integration.

■ One of the following databases:

- Cloudscape 3.5.0

   BEA ships the Cloudscape software—a pure-Java relational database management system (RDBMS)—with WebLogic Server. If you installed WebLogic Server before October 1, 2000, you should update your

Cloudscape database with the 3.5.0 version. You can download Cloudscape 3.5.0 from the WebLogic Server 6.0 Service Packs section at the following URL:

```
http://commerce.bea.com/downloads/weblogic_server.jsp#wlssp
```

- Oracle 8i (8.1.6)

  The Oracle 8.1.6 client libraries must be installed on the machine running WebLogic Server 6.0. You must also have access to an Oracle 8.1.6 server. Application Integration uses the WebLogic jDriver for Oracle, which is included with your WebLogic Server software.

  For more information about configuring Oracle with WebLogic Server, see

  ```
  http://www.weblogic.com/docs60/install/install_jdbc.html1
  ```

Note: Oracle environment variables must be defined in order to use an Oracle database with Application Integration.

```
set ORACLE_HOME=directory_where_Oracle_is_installed
```

```
set PATH=%PATH%\%ORACLE_HOME%\bin
```

- Microsoft SQL Server 7.0 and WebLogic jDriver for Microsoft SQL Server (MSSQLServer4 Kit Version 7)

- Microsoft SQL Server 2000

  For more information about configuring Microsoft SQL Server with WebLogic Server, see
  ```
  http://www.weblogic.com/docs60/classdocs/API_jmsq4.html
  ```

For more details about using the JDBC specification for database access, see

```
http://www.weblogic.com/docs51/classdocs/jdbcdrivers.html
```

- To use the BEA WebLogic Application Integration plug-in for BEA WebLogic Process Integrator, make sure Process Integrator is installed prior to installing Application Integration.

- Access to a CD-ROM drive (if you get the BEA WebLogic Application Integration software on a CD-ROM and not from the BEA Web site)

- A network connection

- A Web browser

- Microsoft Internet Explorer 5.5 or above

- Netscape Navigator 4.7 or above

For UNIX

- Sun Solaris

  - Solaris 7.0 operating system

  - UltraSparc 5 or later

  - Sparc 168 MHz or faster

  - Java 2 SDK, Standard Edition, v1.3.0

  - Solaris OS patches for the Java 2 JDK, including the Solaris OpenWindows Motif patches. Refer to the BEA WebLogic Application Integration *Release Notes* for a complete list of OS patches required.

- HP-UX

  - HP-UX 11.0 operating system

  - Java 2 SDK, Standard Edition, v1.3.0 HotSpot VM

- 256 MB RAM recommended (512 MB preferable)

- 100 MB free disk space

- BEA WebLogic Server 6.0 with Service Pack 2

BEA WebLogic Application Integration is supported on platforms that are certified and approved for WebLogic Server 6.0. For details about WebLogic Server 6.0 platforms, refer to

http://www.weblogic.com/platforms/index.html.

- One of the following databases:

  - Cloudscape 3.5.0

    BEA ships the Cloudscape software—a pure-Java relational database management system (RDBMS)—with WebLogic Server. If you installed WebLogic Server before October 1, 2000, you should update your

Cloudscape database with the 3.5.0 version. You can download Cloudscape 3.5.0 from the WebLogic Server 5.1.0 Service Packs section at the following URL:

http://commerce.bea.com/downloads/weblogic_server.jsp#wlssp.

- Oracle 8i (8.1.6)

    The Oracle 8.1.6 client libraries must be installed on the machine running WebLogic Server 6.0. You must also have access to an Oracle 8.1.6 server. BEA WebLogic Application Integration uses the WebLogic jDriver for Oracle, which is included with your WebLogic Server software. For more information about configuring Oracle with WebLogic Server, see

    http://www.weblogic.com/docs60/install/install_jdbc.html.

Note: Oracle environment variables must be defined in order to use an Oracle database with Application Integration.

```
ORACLE_HOME=directory_where_Oracle_is_installed

PATH=$PATH\$ORACLE_HOME\bin

LD_LIBRARY_PATH=$LD_LIBRARY_PATH$:$ORACLE_HOME$\lib
```

For more details about using the JDBC specification for database access, see

http://www.weblogic.com/docs60/classdocs/jdbcdrivers.html.

- Access to a CD-ROM drive (if you get the BEA WebLogic Application Integration software on a CD-ROM and not from the BEA Web site)

- A network connection

- A Web browser

    - Netscape Navigator 4.7 or above

Roadmap for Installing and Configuring BEA WebLogic Application Integration

Installing and configuring BEA WebLogic Application Integration software (hereafter referred to as Application Integration) involves several steps. Refer to Figure 1-1 for a flow of the installation steps.

Figure 1-1 Flow of Installation Steps
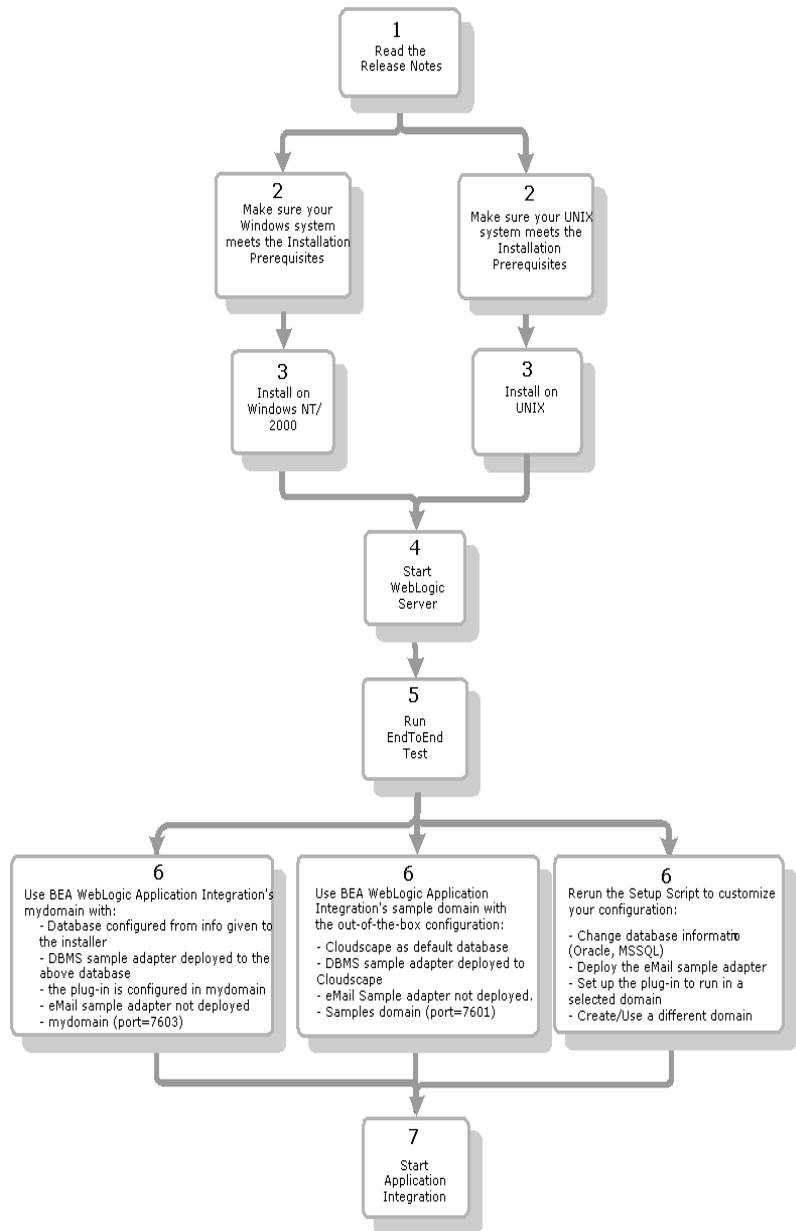
1. Read the Release Notes.

   Before you begin to install Application Integration, it is a good idea to read the *BEA WebLogic Application Integration Release Notes*. The release notes provide you with information about known issues.

2. Make sure your system meets the Installation Prerequisites.

3. Install Application Integration.

   After your system meets the installation prerequisites, install Application Integration. See "Installing BEA WebLogic Application Integration" for instructions for installing BEA WebLogic Application Integration.

4. Start WebLogic Server.

   Before you can begin using Application Integration, you need to start WebLogic Server. See "Step 8: Starting WebLogic Server."

5. Run EndtoEnd Test.

   To verify that Application Integration is installed properly, run EndToEnd test as described in "Step 9: Verifying Your Software Installation."

6. Use BEA WebLogic Application Integration with the out-of-the-box environment configuration.

   Run out of `mydomain`. When you run out of `mydomain`, the database is configured from info given to the installer, the DBMS sample adapter is deployed to the database that is configured from the installer, and the eMail adapter is not deployed. Also, the BEA WebLogic Application Integration plug-in for BEA Weblogic Process Integrator is deployed in `mydomain`.

   > or

   When you run the Application Integration installer, it sets up a demonstration environment. With this out-of-the-box configuration, you get the Cloudscape database, the DBMS sample adapter deployed on Cloudscape, and your system is configured to use the `samples` domain.

   > or

   Rerun the setup script to customize your configuration. You need to run setup to deploy the E-mail adapter, and configure the Application Integration plug-in a domain other than BEA WebLogic Application Integration's `mydomain`. Other variables are set by default when you run setup. If you need to change any of these variables (for example, domain names or database information), you need

to rerun setup according to the procedures in "Creating New Server Environments."

7. Start Application Integration.

   After you have completed installing and configuring Application Integration, start the application as described in "Step 10: Starting Application Integration."

Directory Structure

When you install the BEA WebLogic Integration Suite, a specific domain structure is created. You need to be aware of how this is set up so when you install BEA WebLogic Application Integration, you will know exactly where the components are being installed. Table 1-1 lists the directories for the BEA WebLogic Integration Suite.

Table 1-1 BEA WebLogic Integration Directory Structure

Directory Names				
repository				The top level repository directory is the common repository, formerly known as, ECI repository.
	cloudscape			
		db		
			log	
			seg0	
			temp	
	lib			
	mssql			
	oracle			
applinteg				
	config			
		mydomain		

Table 1-1 BEA WebLogic Integration Directory Structure

Directory Names			
wlai			
	deploy		
samples			
wlai			
	deploy		
dev			

Directory Structure for BEA WebLogic ADK

The ADK files and directories shownin Table 1-2 are installed under `<WLAI_HOME>`:

Table 1-2 ADK Directory Structure

Directory Names and Descriptions				
dev	The dev directory contains the BEA WebLogic Integration Adapter Development Kit (ADK).			
	adk			
		src		
			war	All files under this directory should be included in the Web application archive (WAR) file for a resource adapter. This directory contains JSP files, HTML files, images, etc.

Table 1-2 ADK Directory Structure

Directory Names and Descriptions			
	bin	This directory contains a file used by the make process to timestamp JAR files.	
	dbms	This directory contains a sample JCA-compliant adapter built with the ADK.	
	email	This directory contains a sample JCA-compliant adapter built with the ADK.	
	doc	This directory should contain the user guide, release notes, and installation guide for a resource adapter.	
		api	This directory contains Javadoc for a resource adapter, the ADK, and related classes.
	project	This directory contains files needed by adapter developers to use Apache's Ant build process for building adapters.	
	sample	This directory contains a sample adapter that adapter developers can use to start developing their own adapter.	
engine			
	config		
		setup.cmd	This file launches the setup program used to configure a WebLogic domain and target server to host the BEA WebLogic Application Integration environment, for Windows.
		setup.sh	This file launches the setup program used to configure a WebLogic domain and target server to host the BEA WebLogic Application Integration environment, for UNIX.

Table 1-2 ADK Directory Structure

Directory Names and Descriptions			
		worklist_wlai. cmd	This file launches the BEA WebLogic Process Integrator Worklist with the plug-in.
		setwlpiserverenv _wlai.cmd/.sh	This file is used to set the environment for running a WebLogic Server instance with BEA WebLogic Application Integration and BEA WebLogic Process Integrator.
		setwlpiclientenv_ wlai.cmd/.sh	The file is used to set the environment for running WebLogic Process Integrator Studio and Worklist with the plug-in.
		chkwlpiserveren v_wlai.cmd/.sh	This file is used to verify the correct environment for running a WebLogic Server instance with BEA WebLogic Process Integrator or BEA WebLogic Application Integration.
		chkwlpiclientenv _wlai.cmd/.sh	This file is used for verifying the correct env for running the Process Integrator client applications.
		startwlpiwithwlai .cmd/.sh	This file is used to start a WebLogic Server instance with BEA WebLogic Application Integration and BEA WebLogic Process Integrator.
lib	This directory contains ADK and related JAR files needed by a resource adapter. It also contains the JAR files needed by the Application Integration Plug-in for WebLogic Process Integrator.		
resources	This directory contains JAR files required by Application Integration, such as the connector architecture JAR (`connector.jar`).		
uninstaller	This directory contains the files built by Install Anywhere, which are required for uninstalling Application Integration.		

2 Installing BEA WebLogic Application Integration

This section provides information you need to run the BEA WebLogic Application Integration installation program on a Windows or UNIX system. It includes the following topics:

- About the BEA WebLogic Application Integration Installation Program

- Step 1: Starting the Installation Program

- Step 2: Reviewing the License Agreement

- Step 3: Specifying the BEA Home Directory

- Step 4: Specifying the Product Directory

- Step 5: Selecting the Database for the Custom Domain

- Step 6: Completing the Installation

- Step 7: Installing Your Software License

- Step 8: Starting WebLogic Server

- Step 9: Verifying Your Software Installation

- Step 10: Starting Application Integration

- Installing Your Software License

- Uninstalling BEA WebLogic Application Integration

- Troubleshooting Your Software Installation

About the BEA WebLogic Application Integration Installation Program

The BEA WebLogic Application Integration installation program guides you through the process of installing Application Integration.

The installation detects whether WebLogic Server 6.0 is installed and prompts you to specify an installation location and other information required to perform basic Application Integration configuration. It then unpacks and installs the software. The installation program requires a graphics (windowing) terminal or workstation. Refer to "Using the Console-Mode to Install Application Integration on UNIX Systems" for procedures on using a console-mode installation.

The Application Integration installation procedure installs the following components:

- BEA WebLogic Integration Framework

- Adapter Development Kit, including sample applications and Javadoc API descriptions

To install the Application Integration software, complete the following steps:

Step 1: Starting the Installation Program

Step 2: Reviewing the License Agreement

Step 3: Specifying the BEA Home Directory

Step 4: Specifying the Product Directory

Step 5: Selecting the Database for the Custom Domain

Step 6: Completing the Installation

Step 7: Installing Your Software License

Step 8: Starting WebLogic Server

Step 9: Verifying Your Software Installation

Step 10: Starting Application Integration

Step 1: Starting the Installation Program

You can install Application Integration from the WebLogic Integration CD-ROM included in the product package, or you can download the software from the BEA Web site `http://www.bea.com`.

The following section provides instructions for Windows platforms. If you are installing Application Integration on a UNIX system, see "Starting the Installation Program on a UNIX System.".

Starting the Installation Program on a Windows System

To start the Application Integration installation program on a Windows system:

1. Uninstall previous versions of Application Integration before proceeding with a new installation. Refer to "Uninstalling BEA WebLogic Application Integration."

2. Complete one of the following:

   - If you are installing from the CD, insert the WebLogic Integration CD in the CD tray.

   - If you downloaded the `install.exe` file from the BEA Web site, go to the next step.

3. Choose Start—>Run—>Type in the path to `install.exe`.

   - If you are installing from the CD, click on the CD drive, navigate to the `wlai` folder, then double-click the `install.exe` program to run the Install Anywhere installer for Application Integration.

- If you downloaded `install.exe` from the BEA Web site, navigate to the folder in which you saved the file, then double-click the `install.exe` program to run the Install Anywhere installer for Application Integration.

The Application Integration splash screen briefly displays followed by the Introduction dialog box.

4. Click Next. The License Agreement dialog box displays.

5. Go to "Step 2: Reviewing the License Agreement."

Starting the Installation Program on a UNIX System

To start the Application Integration installation program on a UNIX system:

1. Complete one of the following:

   - If you are installing from the CD, insert the WebLogic Integration CD in the CD tray.

   - If you downloaded the `install.bin` file from the BEA Web site, go to the next step.

2. Complete one of the following:

- If you are installing from the CD, go to the CD mount point and enter the following to go to the `wlai` directory on the CD.

  Consult your UNIX documentation for information about mounting and unmounting CDs. If you download the distribution from the web, make sure that you have execute permission on the distribution file (`chmod 755 install.bin`).

  `cd wlai`

- If you downloaded the `install.bin` file from the BEA Web site, go to the directory to which you saved the file.

For the GUI-basd installation, enter `install.bin` at the prompt. For the Console-mode installation, enter `./install.bin_-i console` at the prompt. For the GUI-based installation the Application Integration Splash screen briefly displays followed by the Introduction dialog box. For the Console-mode installation, see "Using the Console-Mode to Install Application Integration on UNIX Systems."

3. Click Next. The License Agreement dialog box displays.

4. Go to "Step 2: Reviewing the License Agreement."

Using the Console-Mode to Install Application Integration on UNIX Systems

After you have started the Application Integration installation as described in "Step 1: Starting the Installation Program," refer to Table 2-1 for steps to guide you through the installation.

Table 2-1 Text-Based Installation Steps

Prompt	Action
Information about the installation	Press Enter.
License text	Press Enter to continue, then Y if you agree.
Choose Install set	Enter appropriate number (for example, 1 for Full Installation) or Enter for default.
Choose BEA home directory	Enter appropriate number (for example, 2 to Use Existing BEA Home).
Specify BEA home directory	Enter path (for example, /opt/bea).
Choose Product Directory	Enter appropriate number (for example, 2 to Use Current Selection.)
Select a Database	Enter appropriate number (for example, 2 for Cloudscape).
Install Complete	Press Enter to exit installer.

Step 2: Reviewing the License Agreement

After you have clicked Next in the Introduction dialog box, the License Agreement displays as shown in Figure 2-1.
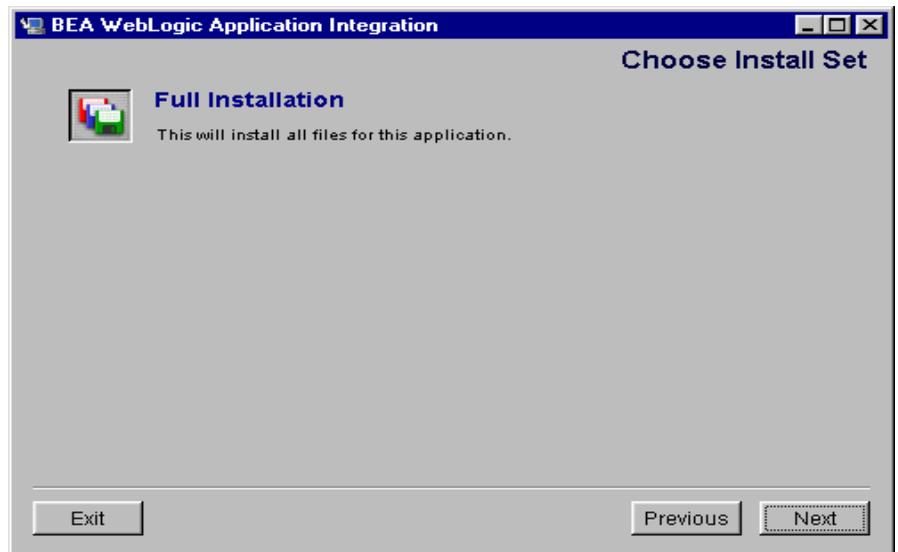
Figure 2-1   License Agreement Dialog Box
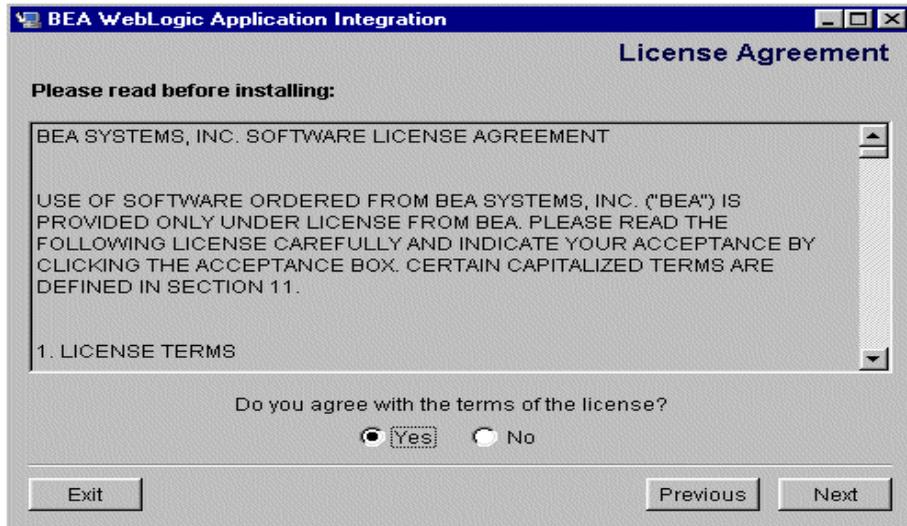
Complete the following procedure:

5. Using the scroll bar to display the text, review the license agreement.

6. Click the Yes option to accept the license agreement.

7. Click Next. The Choose Install Set dialog box displays.

```
┌────────────────────────────────────────────────────────────────┐
│ 🖳 BEA WebLogic Application Integration               _ □ ✕ │
│                                            Choose Install Set    │
│   ┌──────┐   Full Installation                                   │
│   │ 🗐📲 │   This will install all files for this application.  │
│   └──────┘                                                       │
│                                                                  │
│                                                                  │
│                                                                  │
│                                                                  │
│ ─────────────────────────────────────────────────────────────  │
│   ┌────────┐                        ┌──────────┐  ┌──────────┐  │
│   │  Exit  │                        │ Previous │  │   Next   │  │
│   └────────┘                        └──────────┘  └──────────┘  │
└────────────────────────────────────────────────────────────────┘
```

8. Click Full Installation.

9. Click Next.

Step 3: Specifying the BEA Home Directory

After you have clicked Full Installation, the Choose BEA Home Directory dialog box displays as shown in Figure 2-2.

Figure 2-2   Choose BEA Home Directory Dialog Box
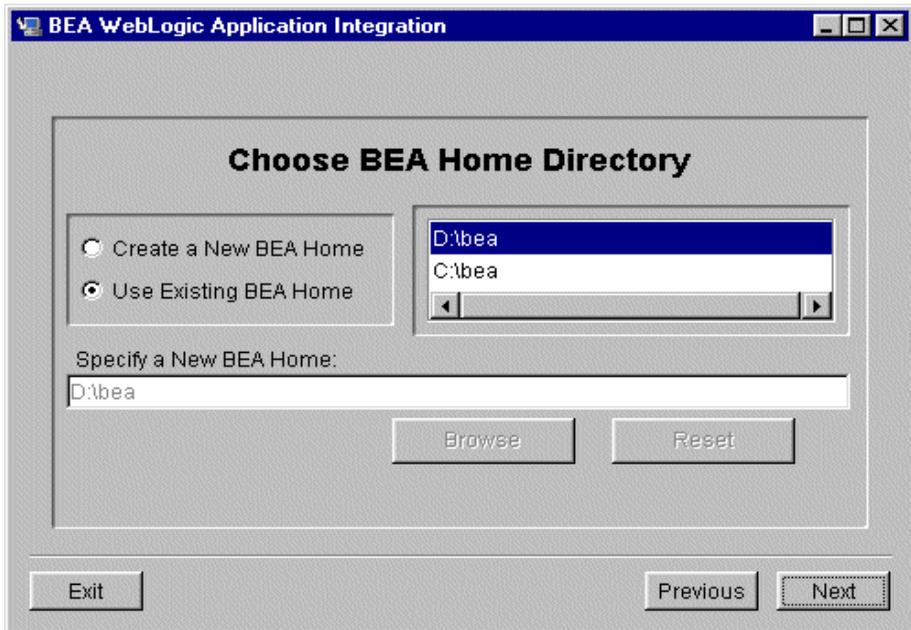
The BEA Home directory serves as a central support directory for all the BEA products installed on your system. Although it is possible to create more than one BEA Home directory, we recommend that you avoid doing so. In almost all situations, a single BEA Home directory is sufficient.

To specify the BEA Home directory and installation location:

1. Select an existing directory by selecting Use Existing BEA Home or specify a new directory.

Note: This is the same directory that should be used for all WebLogic Integration components. It is recommended that you choose an existing BEA Home directory.

2. Click Next. The Choose Product Directory dialog box displays.

Step 4: Specifying the Product Directory

After you have selected the BEA Home directory, the Choose Product Directory dialog box displays as shown in Figure 2-3.

Figure 2-3   Choose Product Directory Dialog Box
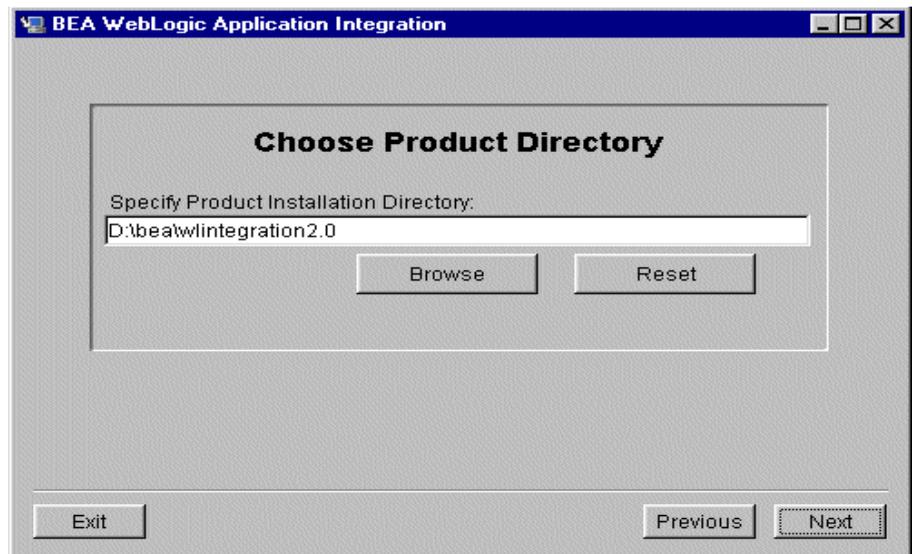
1. Specify Product Installation Directory by selecting Browse or accept the default.

2. Click Install. The Database Selection dialog box displays.

Step 5: Selecting the Database for the Custom Domain

After you have selected the Product directory, the Database Selection dialog box displays as shown in Figure 2-4. With this initial installation, BEA WebLogic Application Integration components are installed and deployed in the default `samples` domain. The `samples` domain uses the Cloudscape database by default. The system uses these two default parameters no matter what you select on the Database Selection window. For information about this initial installation and out-of-the-box demonstration environment, see "Installed Components" in the "Installing BEA WebLogic Application Integration" section.

The database that you select in the Database Selection window and connection parameters that you choose in the Database Configuration window will be saved and used when you rerun the setup program to customize your environment. These parameters are also used by the installer to set up `mydomain`. For information about customizing your environment after this initial installation, see "Creating New Server Environments."

This step has two parts:

- Step 5a: Selecting a Database
- Step 5b: Configuring the Custom Domain for a Selected Database

Step 5a: Selecting a Database

Because a common database is used by all WebLogic Integration components, you should specify the same database and provide the same access information that you provided for any previously installed component. For example, if you plan to use the BEA WebLogic Application Integration plug-in for Process Integrator, you must provide the same database information here as you did when you installed Process Integrator.

Figure 2-4 Database Selection Dialog Box
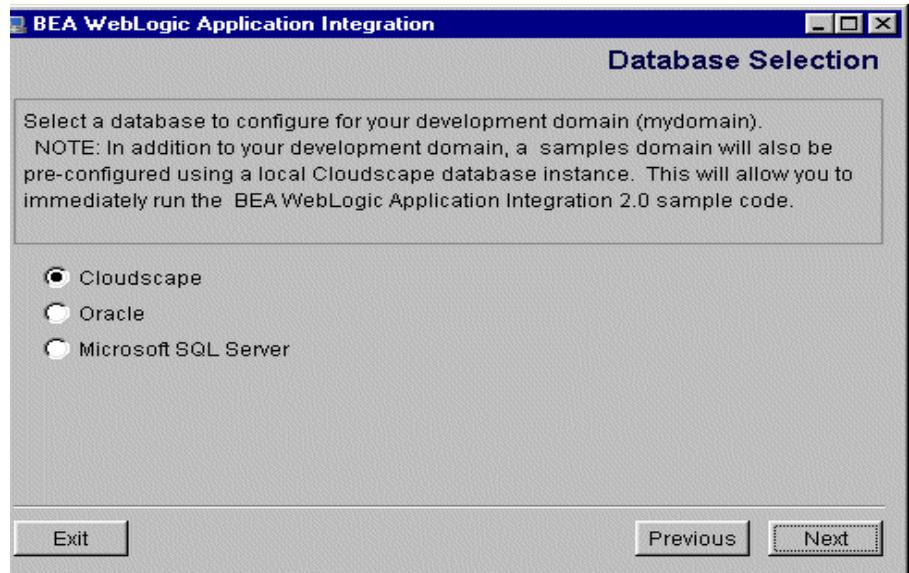
1. Choose the database type to configure for your development domain, and click Next.

Step 5b: Configuring the Custom Domain for a Selected Database

If you select Oracle or Microsoft SQL Server for your custom domain, you will be prompted for the information required to establish access to your database. Scripts are provided for your use to create the tables required by BEA WebLogic Application Integration on your database server.

The sections that follow provide the information you need to configure a database or custom domain. Refer to the section appropriate to your configuration:

- Configuring the Custom Domain to Use Cloudscape

- Configuring the Custom Domain to Use Oracle

- Configuring the Custom Domain to Use Microsoft SQL Server

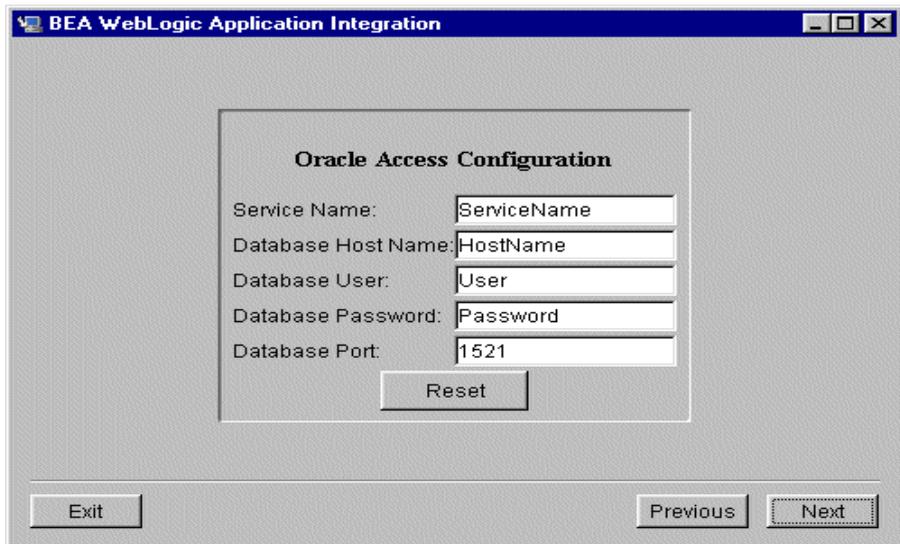## Configuring the Custom Domain to Use Cloudscape

To configure the custom domain to use Cloudscape:

1. If it is not already selected, select Cloudscape in the Database Selection dialog box.

2. Click Next.

3. Go to "Step 6: Completing the Installation."

Configuring the Custom Domain to Use Oracle

To configure the custom domain to use Oracle:

1. If not already selected, select Oracle in the Database Selection dialog box.

2. Click Next. The Oracle Access Configuration dialog box displays.

3. In the Service Name field, enter the database name. This is the name of the Oracle database.

4. In the Database Host Name field, enter the DNS host name. This is the name of the host machine where the database is installed.

5. In the Database User field and the Database User's Password field, enter the database user name and password.

6. In the Database Port field, enter the port for the server that will be listening for connections to the database, then click Next. This will create all necessary configuration data to run the server JSP GUIs and will install verification tests. This step may take a few moments.

Note: Clicking Reset resets the database configuration values to the previous values (before you made any changes).

7. Go to "Step 6: Completing the Installation."

Configuring the Custom Domain to Use Microsoft SQL Server

To configure the custom domain to use Microsoft SQL Server:

1. If not already selected, select Microsoft SQL Server in the Database Selection dialog box.

2. Click Next. The SQL Access Configuration dialog box displays.

3. In the Database Host Name field, enter the DNS host name. This is the name of the host machine where the database is installed.

4. In the Database User field and the Database User's Password field, enter the database user name and password.

5. In the Database Port field, enter the port for the server that will be listening for connections to the database, then click Next. This will create all necessary configuration data to run the server JSP GUIs and will install verification tests. This step may take a few moments. The default is 1433.
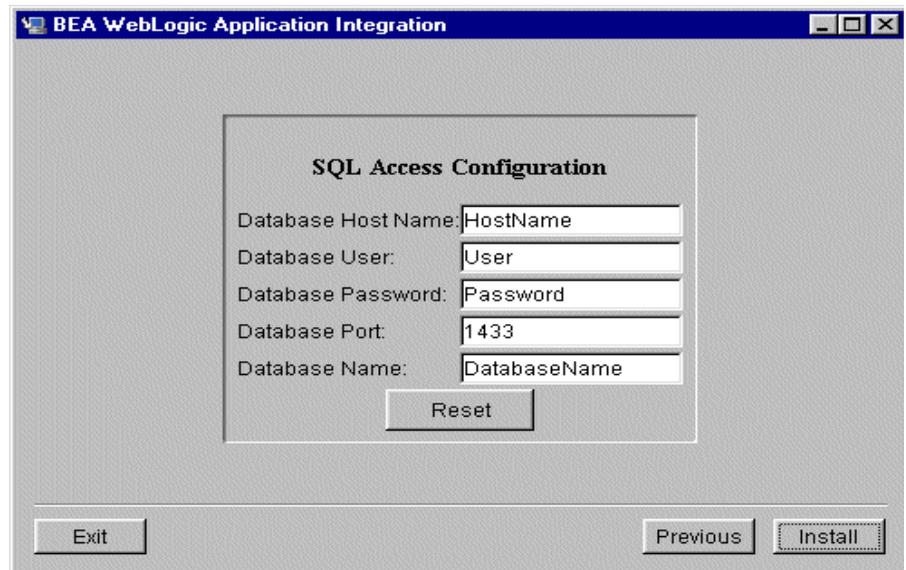
Note: Clicking Reset clears all of the fields.

Clicking Exit exits the installation program.

6. Go to "Step 6: Completing the Installation."

Step 6: Completing the Installation

After you have provided the information required to configure the database for the custom domain, the installation proceeds. When the installation program has completed copying the required files, the Install Complete dialog box displays as shown in Figure 2-5.

Figure 2-5 Install Complete Dialog Box
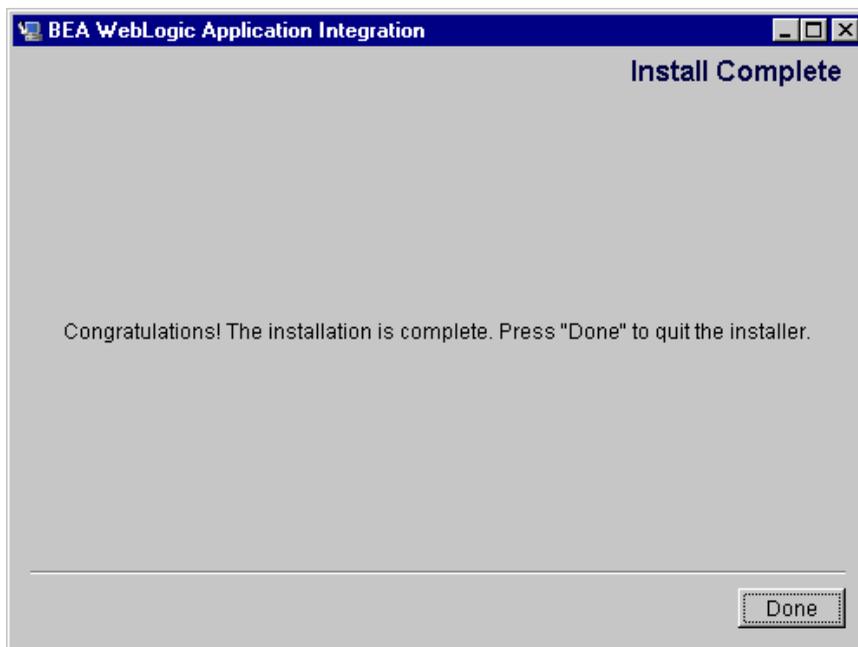
1. Click Done to exit the installation program.

Note: If errors occur during installation, an error message appears, and a log file will be created in `<BEA_HOME>/logs`.

2. Go to "Step 7: Installing Your Software License."

Step 7: Installing Your Software License

The components of WebLogic Integration cannot be used without a valid software license. If you purchased the software on CD-ROM, the WebLogic Integration license is provided on a diskette in the product box. If you purchased a license for an evaluation version of the product downloaded from the BEA Web site, you receive the license as an e-mail attachment. If you have already installed the WebLogic Integration license for a previously installed WebLogic Integration component, you may skip the following procedure and go to "Step 8: Starting WebLogic Server."

To install the WebLogic Integration software license:

1. Save the license file from the appropriate diskette or e-mail attachment with a name other than `license.bea`, in the BEA Home directory. For example, save the file as `wli_license.bea`. Use this file as the *license_update_file* in step 4.

Warning: Do not overwrite the existing `license.bea` file.

2. Complete one of the following:

   - On a Windows system, open an MS-DOS session then go to the BEA Home directory. (For example, `cd d:\bea`)

   - On a UNIX system, open a shell and go to the BEA Home directory. (For example, `/opt/bea`)

3. Add the JDK to your `PATH` variable by entering one of the following commands:

   - On a Windows system:

     `set PATH=.\jdk130\bin:%PATH%`

   - On a UNIX system:

     `export PATH=./jdk130/bin:$PATH`

4. Enter one of the following commands:

   - On a Windows system:

     `UpdateLicense` *license_update_file*

   - On a UNIX system:

     `sh UpdateLicense.sh` *license_update_file*

5. Save a copy of your updated `license.bea` file in a safe place outside the WebLogic Server and application installation directories.

Although no one else can use your license file, you should save this information in a place protected from either malicious or innocent tampering by others.

Step 8: Starting WebLogic Server

Before you can begin verifying the BEA WebLogic Application Integration installation, you must start WebLogic Server.

To start WebLogic Server, follow one of these procedures:

1. In Windows, choose Start—>Programs—>BEA WebLogic E-Business Platform—>WebLogic Integration 2.0—>Start Samples Server

OR

1. Open a command prompt window or an Xterm window.

   - Change directory to the Application Integration `samples` domain in `<BEA_HOME>/wlintegration2.0/wlai/config/samples` directory.

   - Execute the `startWebLogic` script.

Notes: The server will start and indicate that it is listening on its HTTP port (`7601`).

The server may take several minutes to start the first time. Subsequent starts will be considerably faster.

The samples server will use the demonstration Cloudscape database even if you chose Oracle or MS SQL Server during the installation.

Step 9: Verifying Your Software Installation

After the installation is complete, it is recommended that you test the installation.

To test the installation, follow one of these procedures:

1. Choose Start—>Programs—>BEA WebLogic E-Business Platform—>WebLogic Integration 2.0—>Run EndtoEnd Test

OR

1. Open a command prompt/shell and go to
   `<WLAI_HOME>/config/samples/EndToEndTest`

Note: `<WLAI_HOME>` is the directory where you installed Application Integration. This is normally located in `<BEA_HOME>/wlintegration2.0/wlai`.

2. Enter `runEndToEndTest`.

Notes: This will run the EndToEndTest to verify your install of Application Integration.

If the test does not report that it has succeeded, proceed to the "Uninstalling BEA WebLogic Application Integration" for Windows or UNIX, depending on your system.

3. Check the results of the end-to-end test in `output.txt` and `verdict.txt`. You can find these files at the following location:

   `<WLAI_HOME>\config\samples`

Step 10: Starting Application Integration

Once you have verified the installation of Application Integration, you need to start the application. To start Application Integration, complete the following:

1. Open a browser.

2. In the Location or Address field, enter `http://localhost:7601/wlai`. The Application Integration login screen displays.

3. Enter the username: `admin`

4. Enter the password: `security`

Note: The username and password are automatically set when you install WebLogic Integration components. The adapter group, which is used for the samples domain, is also automatically added during the installation.

If the username and password are changed, you may have problems accessing Application Integration. If you need to change the username or password, refer to WebLogic Server documentation at http://edocs.bea.com.

5. Click Login.

Uninstalling BEA WebLogic Application Integration

To uninstall BEA WebLogic Application Integration on Windows, follow one of these procedures:

1. Choose Start—> Programs—>BEA WebLogic E-Business Platform—>WebLogic Integration 2.0—>Application Integration—>Uninstall Application.

OR

1. Locate the Uninstaller directory under the <WLAI_HOME>/Uninstaller directory.

2. Run Uninstall.exe.

Note: Another way to uninstall Application Integration is to use the "Add/Remove Programs" utility located in the Control Panel in Windows or
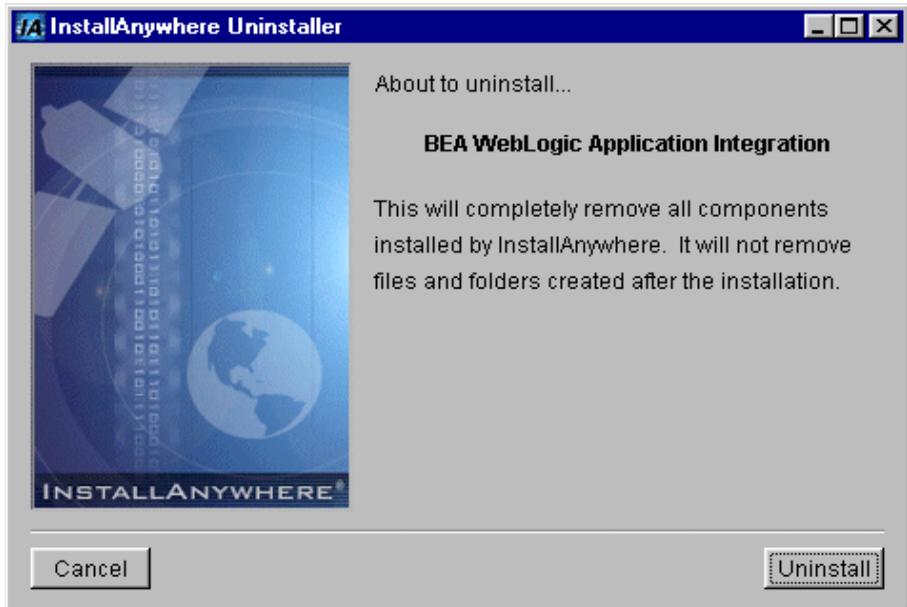
3. Click Unistall. The Remove Files screen displays.

Note: Files modified in "Creating New Server Environments" will not be automatically removed. A list of files and folders that cannot be removed will be listed on the Remove Files screen after the Unistall utility completes.

To uninstall BEA WebLogic Application Integration on UNIX, follow these steps:

1. Open a shell and go to the Application Integration directory. If you accepted the default, go to `<WLAI_HOME>/uninstaller`.

2. Enter `uninstall.bin`. The uninstaller will remove the files for Application Integration.

Installing Your Software License

The components of BEA WebLogic Integration cannot be used without a valid software license. A 30-day license file is automatically installed when you install the first WebLogic Integration component. When you purchase the software, a permanent WebLogic Integration license file will be provided to you by BEA. Follow the directions below to update your license file on the target system.

To update the WebLogic software license:

1. Open a Command Prompt window.

2. Change directories to your BEA Home directory.

3. Run the Update License Utility.

Troubleshooting Your Software Installation

If the installation does not correctly install the software, you may want to check the following.

1. Locate `output.txt` in `<WLAI_HOME>/config/samples/EndtoEndTest`.

2. Review the file for failures.

3. Verify that the information in the `runEndtoEndTest.cmd` (`runEndtoEndTest.sh` for UNIX) is correct for your server.

On Windows:

`c:\bea> UpdateLicense [`*`license_file_name`*`]`

On UNIX:

`/usr/bea> sh updatelicense.sh [`*`license_file_name`*`]`

3 Creating New Server Environments

A server environment is a set of configuration parameters and files that can be used to run a WebLogic Server instance. A BEA WebLogic Application Integration (hereafter referred to as Application Integration) server environment is a specific type of server environment that allows you to run an Application Integration server. When you have completed the initial installation of BEA WebLogic Application Integration, you can tailor a server environment to the needs of your existing or future integration solutions, or to a group of users that will be using the server, or both.

For example, after getting familiar with Application Integration by using the demonstration environment setup for you during installation, you may wish to create an environment for the development of your own integration solutions or adapters. You may also want to use a database other than the demonstration Cloudscape database (For example, MS SQL Server or Oracle).

You might also wish to configure the plug-in to run in a selected domain, designate or create a new domain in which Application Integration can run, or deploy the sample adapters to a specific domain. You can create such an environment, or any other environment you choose, by running the setup utility provided in `<WLAI_HOME>/engine/config`.

This section provides information on the following subjects:

- Preparing to Customize Your Server Environment

- Accessing the Setup Utility

- Creating a New Domain

- Changing Database Information

- Step 1: Create Tables for the Database

- Step 2: Run the Setup Utility to Change Database Information

■ Rerunning the Setup Utility to Deploy Adapters

■ Configuring the Plug-In to Run in a Selected Domain

- Running the Setup Utility to Configure the Plug-In in a New Domain

- Verifying the Deployment of BEA WebLogic Application Integration and the Plug-In

- Starting WebLogic Process Integrator with the Application Integration Plug-in

Preparing to Customize Your Server Environment

Before you create a new server environment, you should decide what your requirements are for the environment. For example, what type of database will you use for the Application Integration repository? What adapters do you wish to use in this environment? The worksheet in Table 3-1 is provided for you to record your choices for some of the parameters that will be required when creating a new environment.

Table 3-1 System Environment Setup Worksheet

Parameter Name	Instructions for Changing this Parameter	Your Parameter
Domain	This should be the name of a WebLogic Server domain configuration directory (usually under the WebLogic Server home directory, or the Application Integration home directory). This domain may already exist, or be a non-existent domain. If no domain of the given name exists, the setup utility will create a new domain with the given name using an existing template. You will be asked to choose an existing domain to act as this template. Write down the domain name, and template domain (if any) in the 'Your Choice' column. Refer to "Creating a New Domain."	
Database Type	The type of database to use for the Application Integration repository. You must have installed a JDBC driver for the chosen database type. Make sure you know the JDBC driver's class name, and how to format a JDBC URL for this driver. Write down the database type and JDBC driver's class name in the 'Your Choice' column. See WebLogic JDBC documents or the documents from your database vendor for more information. Refer to "Changing Database Information."	
Database Instance	Pick a database instance to use for the repository and DBMS adapter. Make sure you know how to format a JDBC URL that refers to this database instance. Write down the JDBC URL for your database in the 'Your Choice' column. See WebLogic JDBC documents or the documents from your database vendor for more information. Refer to "Changing Database Information."	

Database User Name and Password	Pick a valid user for the designated database instance. This user should have permission to select, insert, update, and delete against tables making up the WebLogic Integration repository.
	If you will be using the DBMS adapter, it is recommended that this user also have "create" privileges in the designated database instance. Enter the user name and password for the user in the "Your Choice" column.
Database Connection Properties	Enter the JDBC connection properties needed to make JDBC connections to the database instance you designated above.
	In most cases, these include the user name and password you entered above. However, connection properties are specific to the JDBC driver you use, so consult your database documentation for more information.
Adapters to be Deployed	Application Integration comes with DBMS, E-mail, and Sample adapters. The DBMS and E-mail adapters may be installed automatically by the setup utility. You should decide which (if any) of these adapters you wish to have deployed in the new environment. Refer to "Rerunning the Setup Utility to Deploy Adapters."

Accessing the Setup Utility

The setup utility is a command-line interactive utility for configuring a new BEA WebLogic Application Integration server environment or reconfiguring an existing Application Integration server environment. You can run the setup utility repeatedly against the same server environment to make incremental changes to the environment's configuration.

Each time you run the setup utility, your responses are saved for future use. When you run the setup utility, it will check to see if a set of saved responses already exists. If so, it will allow you to reuse your previous responses as the default responses for the current session. This way, you can repeatedly run the setup utility, changing only those responses necessary to achieve incremental configuration changes desired.

Note: Often, you will see the term "server environment" referred to simply as "domain" because the domain directory generally contains all the configuration information for the server environment.

To run the setup utility

1. Open a command prompt window and cd to the directory into which Application Integration was installed (e.g. `d:/bea/wlintegration2.0`). This directory is hereafter referred to as `<WLAI_HOME>`.

2. Copy the `setupEnv.example.cmd` for Windows or `setupEnv.example.sh` for UNIX and rename it to `setupEnv.cmd` for Windows and `setupEnv.sh` for UNIX.

3. Open this script in a text editor such as Notepad (for Windows).

4. Make sure the variables in `setupEnv` are set correctly.

Note: For a complete step-by-step description of the setup utility, see "The Setup Utility."

```
BEA_HOME=@BEA_HOME

WL_HOME=@WL_HOME

WLAI_HOME=@WLAI_HOME
```

5. Save the script and exit back to the command prompt or shell.

Creating a New Domain

You may wish to create a new domain for a special project such as developing an adapter or testing a certain integration solution. The setup utility simplifies the process of creating a new domain. The setup utility supports the following scenarios for creating a new domain:

- Creating a domain that is an exact replica of an existing domain.

- Creating a domain that is an extension/modification of an existing domain.

To create a new domain that is an exact replica of an existing domain (that uses the same database instance for the repository) complete the following steps:

1. Run the setup utility as described in "Accessing the Setup Utility." When "Use previous responses" displays, enter "Y".

2. When prompted for domain name, enter a new domain name. You will be prompted to give the name of an existing domain to "clone". Enter the name of the domain that will act as the source for cloning. This step will copy the entire domain directory, and rename it to the new name.

3. Accept the database type default value.

4. If the database type is Cloudscape, enter "N" when asked if you want to reinitialize the database. This will preserve the existing repository contents.

5. Accept all defaults after this point. These defaults will be the responses you gave in the previous run of the setup utility.

To create a new domain that is an extension/modification of an existing domain, complete the following steps:

1. Run the setup utility as described in "Accessing the Setup Utility." When "Use previous responses" displays, enter "N".

2. When prompted for domain name, enter a new domain name. You will be prompted to enter the name of an existing domain to "clone". Enter the name of the domain that will act as the source for cloning. This step will copy the entire domain directory, and rename it to the new name.

3. From this point on, you may override any default values. Change the responses that affect the configuration you want to change in the new domain. Accept the default responses that affect the configuration you want to keep from the old domain.

4. For more information on changing specific types of setup information, see "Accessing the Setup Utility."

Changing Database Information

If you selected either Oracle or MS SQL Server for your custom domain during the installation process (see, "Step 5: Selecting the Database for the Custom Domain"), you must create the tables required by Application Integration on the database server before starting Application Integration from that domain. Scripts have been provided which automate the table creation process. After you have run the correct database scripts, you must rerun the The setup utility to change database information in an existing domain.

To change database information:

- Step 1: Create Tables for the Database

- Step 2: Run the Setup Utility to Change Database Information

Step 1: Create Tables for the Database

Table 3-2 summarizes the location of the scripts used to create the tables required by Application Integration. Each directory in Table 3-2 contains the following SQL script. The scripts are specific to database type.

```
REPOSITORY_SCHEMA_BASE.SQL
```

This script is used to create the common tables used by all WebLogic Integration components. Because all WebLogic Integration components are configured to use the same database, this script is run only for the first WebLogic Integration component installed. If this script has already been run for another component, there is no need to run it again for Application Integration.

> **Note:** If you selected Cloudscape for the custom domain, the tables required have already been created. The scripts used and the procedure required to manually create the tables in Cloudscape have been documented in Table 3-2 for informational purposes only.

Table 3-2 Table Creation Scripts

To create tables for this database...	Use the files in this directory...
Oracle 8.1.6	`/bea_home/wlintegration2.0/wlai/repository/oracle`
Microsoft SQL Server 7.0	`/bea_home/wlintegration2.0/wlai/repository/mssql`
Cloudscape 3.5.x	`/bea_home/wlintegration2.0/wlai/repository/cloudscape`

Step 2: Run the Setup Utility to Change Database Information

This section describes how to change database information in an existing domain. Database information includes, database type, JDBC driver class name, JDBC URL for designating the database instance, and JDBC DataSource name for managing connections to the database instance.

> **Note:** This section assumes that you are configuring an environment that uses only BEA WebLogic Application Integration. If you are using other BEA WebLogic Integration components, such as BEA WebLogic Process Integrator to run the plug-in, see "Running the Setup Utility to Configure the Plug-In in a New Domain."

The database may be used for any purpose within your Application Integration server environment. The main purposes for the database are the BEA WebLogic Integration repository and the DBMS sample adapter. For detailed steps for running the setup utility, see "The Setup Utility."

To change just the database information for a domain:

1. Run the setup utility as described in "Accessing the Setup Utility."

2. When "Use previous responses" displays, enter "N".

3. Accept all defaults except where noted.

4. At the "Database Name" prompt, enter the name of the database to use. This is the database instance that contains (or will contain) the WebLogic Integration repository tables. If you are using MS SQL Server, enter the name of the MS SQL Server database. For Oracle, enter the network alias for the Oracle server. For Cloudscape, enter the Cloudscape database name listed under the Cloudscape system home data directory.

Note: Before the Application Integration server can be started, the database designated at this prompt must exist and the repository tables must be installed. If you choose Cloudscape as the database type, the setup utility can create the database and install the repository tables for you. For all other database types, you must create the database and install the repository tables using the SQL DDL scripts that are provided in `<WLAI_HOME>/resources/repository/<db type>` directory.

5. Choose whether or not to use Cloudscape as your database type. If you wish to use Cloudscape for the database, enter "Y". Otherwise, enter "N".

6. If you picked Cloudscape, you will be asked if you wish to install/reinstall the repository into the designated database. Entering "Y" will destroy any existing repository information and leave the repository in a "clean" state. Entering "N" will leave the repository tables untouched. In most cases, you can enter "N" and keep your existing information.

7. At the "Data Source: JDBC Data Source JNDI Name" prompt, enter the name that will be used for a JDBC data source representing the JDBC pool you have just configured. This data source provides convenient access to the pool. In most cases, you can accept the default value.

8. At the "JDBC Pool: Driver Name" prompt, enter the class name of the JDBC driver for your database type. You should have collected this information in the "Server Environment Setup Worksheet". The setup utility gives some examples of JDBC driver class names for various database types. At the "JDBC Pool: URL" prompt, enter the JDBC URL for the database instance you designated above. You should have collected this information in the "Preparing to Customize Your Server Environment." The setup utility gives some examples of JDBC URLs for various database types.

9. At the "JDBC Pool: User Name" prompt, enter the database user name to use when connecting to the database instance you designated above. You should have collected this information in the "Preparing to Customize Your Server Environment."

10. At the "JDBC Pool: Password" prompt, enter the password for the database user name to use when connecting to the database instance you designated above. You should have collected this information in the "Preparing to Customize Your Server Environment."

11. At the "JDBC Pool: Connection Properties" prompt, enter the database connection properties needed to make connections to the database instance you specified above. In most cases, you can accept the default value, which includes the user name and password you entered above. You should have collected this information in "Preparing to Customize Your Server Environment."

12. At the "JDBC Pool: Initial Capacity" prompt, enter the number of connections that should be created when this pool is created. This number also serves as the minimum number of connections to be maintained in the pool.

13. At the "JDBC Pool: Maximum Capacity" prompt, enter the maximum number of connections to be maintained in the pool.

After completing these steps, the domain is configured to use the designated database instance for the WebLogic Integration repository and any other database related work. If you choose to deploy the DBMS adapter, you will need to verify that its event router also points to the proper database instance. See "Rerunning the Setup Utility to Deploy Adapters" for more information.

Rerunning the Setup Utility to Deploy Adapters

The Setup Utility allows you to deploy the DBMS adapter and the E-mail adapter. To deploy either adapter, complete the following steps. For detailed steps for running the setup utility, see "The Setup Utility."

1. Run the setup utility as described in "Accessing the Setup Utility." When "Use previous responses" displays, enter "N".

2. When asked if you want to deploy the given adapter, enter "Y". Adapter specific configuration information is required when deploying an adapter. The setup utility prompts you for any required information.

For custom-developed adapters, see the *BEA WebLogic Application Integration Adapter Development Guide* for information on how to deploy the adapter.

This section provides information on the following subjects:

■ Deploying the DBMS Adapter

■ Deploying the E-mail Adapter

Deploying the DBMS Adapter

For the DBMS adapter event router, you may want to use the same database instance that you configured for the WebLogic Integration repository. This information will be displayed as the default values in the prompts displayed during the DBMS adapter deployment. To choose another database, specify the information for the new database. Use the worksheet in "Preparing to Customize Your Server Environment" as a guide in determining the required information for the database instance you will use with the DBMS adapter.

To deploy the DBMS adapter, complete the following steps.

1. Run the setup utility as described in "Accessing the Setup Utility." When "Use previous responses" displays, enter "N".

2. Accept all defaults except where noted.

3. A "Deploy DBMS Adapter:" prompt displays. For first-time installs, accept the default. This will configure the DBMS Adapter with the information you have provided in previous prompts, and it will deploy the DBMS adapter to the Application Integration domain/server. For subsequent runs of the setup utility, you can bypass this step by entering "N". Any previous deployment of the DBMS adapter is left intact. If you asked to deploy the DBMS Adapter, it is configured and deployed. In order to configure the event router for the DBMS adapter, you are asked to supply some information.

4. A "DBMS Adapter: DB User Name (EventRouter):" prompt displays. The default value is the user name you entered and should be good enough. If the specified user name is not allowed to execute DDL statements in the database, you may wish to enter the name of a user that is allowed to execute DDL.

5. A "DBMS Adapter: DB Password (EventRouter):" prompt displays. The default value is the password you entered above. If you changed the user name in the "DBMS Adapter: DB User Name (EventRouter):" prompt, you must change this password to be the password for the new user name.

6. A "DBMS Adapter: Catalog (EventRouter):" prompt displays. If you chose Cloudscape in the "Database Type" prompt, accept the default for Cloudscape because you must enter the name of the catalog into the "special" event tables for which the DBMS adapter were installed. This value varies by database type, so consult your database documentation. Some suggestions of possible catalog names are displayed.

7. A "DBMS Adapter: Schema (EventRouter):" prompt displays. If you chose Cloudscape at the "Database Type" prompt, accept the default for Cloudscape because you must enter the name of the schema into which the "special" event tables for the DBMS adapter were installed. This value varies by database type, so consult your database documentation. Some suggestions of possible schema names are displayed.

8. A "DBMS Adapter: Ping Table:" prompt displays. If you chose Cloudscape at the "Database Type" prompt, accept the default for Cloudscape because you must enter the fully qualified name of the table that the event router will select against to verify a live connection to the database. The default value given is constructed from your input values, and should be correct in most cases. However, the tables in any given database and their qualified names vary by database type, so consult your database documentation.

9. If you chose Cloudscape at the "Database Type" prompt, the SQL scripts for DBMS adapter-specific resources are executed to set up the proper resources in the Cloudscape database. You will see a large amount of text output as these scripts are executed. As in the main database the setup utility performed earlier, for first time setups, errors may be displayed in the output when "drop" statements are executed. This is normal. If you did not choose Cloudscape as your database type, no SQL scripts are executed.

10. Complete the rest of the setup as described in "Accessing the Setup Utility."

To use the DBMS Adapter, you need to modify the startWebLogic.cmd file.

1. Open Notepad or another text editor.

2. Open `startWebLogic.cmd` located in `<WLAI_HOME>/wlai/engine/config`.

3. Change the port value to the port value you entered during setup (the default is `7001`).

4. Save the file.

Deploying the E-mail Adapter

To deploy the E-mail adapter, complete the following steps.

1. Run the setup utility as described in "Accessing the Setup Utility." When "Use previous responses" displays, enter "`N`".

2. Accept all defaults except where noted.

3. You are asked if you want to deploy the E-mail adapter. Enter "`Y`" to deploy the adapter.

4. An "Email User Name" prompt displays. Enter the name of the email user. The default user name is "`Joe`".

5. An "Email Password" prompt displays. Enter the password for the email account. The default password is "`joepassword`".

6. An "Email Server" prompt displays. Enter the address of the email server. The default is "`joeisp.com`".

7. An "Email Poll Interval" prompt displays. Enter the length of time the router should wait when checking for new email (in milliseconds). The default is "`10000`".

Configuring the Plug-In to Run in a Selected Domain

The initial installation process configures the plug-in in `mydomain` only if BEA WebLogic Process Integrator was installed prior to BEA WebLogic Application Integration. If you want to configure the plug-in in any other domain, or BEA WebLogic Process Integrator was not installed before BEA WebLogic Application Integration, you must run the setup utility to configure the plug-in in the new domain.

Before running the setup utility, you must ensure that BEA WebLogic Process Integrator is configured in the new domain. Typically the new domain will be the domain for either WebLogic Process Integrator and WebLogic Collaborate (`samples` or `mydomain`).

This section provides information on the following subjects:

- Running the Setup Utility to Configure the Plug-In in a New Domain

- Verifying the Deployment of BEA WebLogic Application Integration and the Plug-In

- Starting WebLogic Process Integrator with the Application Integration Plug-in

Running the Setup Utility to Configure the Plug-In in a New Domain

To configure the plug-in in a new domain, complete the following steps. For detailed steps for running the setup utility, see "The Setup Utility."

1. Run the setup utility as described in "Accessing the Setup Utility." When "Use previous responses" displays, enter "N".

2. When prompted for a directory for your domain, enter the directory where the new domain resides.

3. When prompted for domain name, enter the new domain name.

4. When prompted for database name, enter the name of the database for which BEA WebLogic Process Integrator has been configured.

5. If this database is Cloudscape, enter yes if BEA Process Integrator is configured for Cloudscape. Otherwise, enter no.

6. An "Initialize/Reinitialize" prompt displays. Respond yes if you wish to start from scratch with clean BEA WebLogic Application Integration tables and a clean repository.

7. Continue to follow the prompts for Host Name, Port Number, User Name, and Password that are appropriate for the new domain.

8. A"Data Source:" prompt displays. For first time installs, accept the default. Otherwise, enter the JNDI name of the repository data source. This must be a valid JNDI name. In general, the default value is good enough. If this is a subsequent run of the setup utility, you may wish to include the database type in the data source name.

Note: This is NOT the BEA WebLogic Process Integrator data source. It is the data source used by BEA WebLogic Application Integration.

9. Continue through the prompts to deploy the desired adapters.

10. You will be prompted for a directory in which Process Integrator is installed. This script then copies the appropriate configuration scripts into the Process Integration installation directory.

11. An "Update config.xml:" prompt displays. Accept the default response (`yes`). This will update your `config.xml`, preserving any prior information in it but merging the information you provided into it. If you really don't want to update `config.xml`, respond no, and a `config.xml.wlai` file will be written instead. You can manually merge the `config.xml` and `config.xml.wlai` files in this case.

12. The setup utility writes some final configuration files and exits.

Verifying the Deployment of BEA WebLogic Application Integration and the Plug-In

After you have installed BEA WebLogic Application Integration or the BEA WebLogic Application Integration plug-in for BEA WebLogic Process Integrator, you can check to make sure they are correctly deployed:

1. Open a browser.

2. In the Location or Address field, enter `http://localhost:7601/console`. This opens the WebLogic Server console.

3. Choose Deployments —> Web Applications.

4. Verify that the BEA WebLogic Application Integration plug-in for Process Integrator has been deployed.

5. Choose Deployments —> EJB

6. Verify that `wlai-ejb-server` and `wlaiplugin-ejb.jar` have been deployed.

7. Choose Deployments —> Startup&Shutdown.

8. Verify that `TimeProcessor`, `WLAI_StartupClass`, and `WLPIInit` have been deployed.

9. Choose Deployments —> Applications.

10. Verify that WebLogic Process Integrator has been deployed.

Starting WebLogic Process Integrator with the Application Integration Plug-in

To start WebLogic Process Integrator with the Application Integration plug-in follow these steps:

1. Open an MS-DOS prompt session or UNIX shell.

2. Change the working directory to `<WLPI_HOME>\config\<DOMAIN>`.

3. For Windows, enter `startWLPIwithWLAI.cmd`. For UNIX, enter `startWLPIwithWLAI.sh`.

Note: If the plug-in was configured into `mydomain` during installation, you must run `startWebLogic` instead of `startWLPIwithWLAI`.

Note: Remember to use the password appropriate for your domain (for example, `<WLPI_HOME>\config\mydomain`. The password is 'security'. In the `<WLAI_HOME>\config\mydomain`, the password is 'system'.

A The Setup Utility

This appendix provides a step-by-step tour through the setup script. Use this script to customize your server environment after installing BEA WebLogic Application Integration. For scenarios in which which the setup script is used to change environment variables for BEA WebLogic Application Integration, see "Creating New Server Environments."

To run or rerun setup, complete the following steps:

1. Enter `./setup.cmd` for Windows and `./setup.sh` for UNIX. The setup application runs and begins to prompt you for information. You can accept all default values except for where they are noted.

2. When asked if you wish to continue. Press Enter.

3. A Directory:" prompt displays. Enter the directory where the domain exists.

4. A "Domain:" prompt displays. Enter the domain name you want to use. The default is `wlaiDemo`, and we recommend you accept this default. This domain does NOT need to exist. If it does not exist, setup will create it by copying a "template" domain. You will be asked to give the name of the "template" domain in this case. If you want to change the domain from the default after it has been set, you will need to rerun setup and enter the new domain.

Note: The plug-in can be configured in any domain, but it will be functional only if BEA WebLogic Process Integrator is configured in the same domain.

5. A "Domain to Copy:" prompt displays. This appears ONLY when the domain you specified above does not exist. Provide the name of an existing domain. The default is `mydomain`, the "samples" domain under `wlai/config` is also a good choice.

6. If necessary, a new domain with the specified name is created.

7. A "Database Name:" prompt displays. This is asking for the name of the database that will host the Application Integration repository. At this point, setup does not care what type of database it is, it just wants the name of the database. The type will be determined next. The default database name is `wlaiDemo`. It is recommended that you use the default.

8. A "Database Type" prompt displays. For first time installs, it is STRONGLY recommended that you choose the default Cloudscape database. You can go back later, rerun setup, and set up for other databases if you wish. Enter yes for this prompt.

Note: If you choose Cloudscape, setup will automatically create and set up the repository database. If you don't choose Cloudscape, you MUST create/setup your database manually (or have a database administrator do it for you). This setup must include running the repository SQL scripts (for the appropriate database), located in the `<WLAI_HOME>/resources/repository/<db type>` directory. The `<db type>` identifier here refers to either oracle or mssql (MS SQL Server).

9. An "Initialize/Reinitialize" prompt displays. For first time installs enter yes for this prompt. For subsequent runs of setup, respond yes only if you wish to start from scratch with a "clean" database.

10. A "NOTE" prompt displays. This is information about the initialization process that is about to be run. It tells you that some errors may be seen in the text output to follow, but that this is generally OK. Press Enter to continue.

11. The SQL scripts for Cloudscape are executed, and the database is set up. You will see a large amount of text scroll by. This is normal. Wait for the scripts to complete (up to a minute or so).

12. A "Host:" prompt appears. The default value is constructed for your machine, but you may change it if you wish. This value must be a correct value to contact the server running on this machine.

13. A "Port:" prompt displays. The default port number is 7601 and should be accuratefor most Windows NT users. For UNIX users and anyone who does not wish to run on port 7601, enter a port number that you know is not in use by any other application. This value will be entered into `config.xml` so that your server will start on the specified port. The server will use an SSL listen port value that is one greater than the port number you specified. For example, if you enter a port number of 7001, the SSL listen port will be 7002.

14. A "User Name for WLAI:" prompt displays. The default user name is "system", and it is recommended that you use the default. This user name must be a valid WebLogic Server user name. Most Application Integration domains will be based on the basic `mydomain` domain for WebLogic Server, which only includes a few valid users. The system user is guaranteed to be in all domains. If you specify a value other than system, make sure this is a valid user name in the domain you set up yourself, or asked setup to copy for you.

15. A "Password for WLAI:" prompt displays. The default password is "system", but you must specify the password for the user you entered in the "User Name for WLAI:" prompt. Setup then begins setting up your JDBC resources to point to your repository database.

16. A "Data Source:" prompt displays. For first time installs, accept the default. Otherwise, you enter the JNDI name of the repository data source. This must be a valid JNDI name. In general, the default value is good enough. If this is a subsequent run of setup, you may wish to include the database type in the data source name.

17. A "JDBC Pool: Driver Name:" prompt displays. If you chose Cloudscape as the "Database Type" prompt, accept the default for Cloudscape because you must enter the proper JDBC driver class name for your database. If you chose a database other than Cloudscape, consult your database vendor's documentation for this class name. The prompt offers some suggestions for the driver name for a select number of database types.

18. A "JDBC Pool: URL:" prompt displays. If you chose Cloudscape at the "Database Type" prompt, accept the default for Cloudscape because you must enter a proper JDBC URL string that identifies the database instance to use for the repository. The syntax of this URL is database specific, so consult your database vendor's documentation before entering this value for databases other than Cloudscape. The prompt offers some suggestions for the JDBC URL for a limited number of database types.

19. A "JDBC Pool: User Name:" prompt displays. If you chose Cloudscape at the "Database Type" prompt, accept the default for Cloudscape because you must enter a proper user name that is valid in the database you named in the "Database Name' prompt.

20. A "JDBC Pool: Password:" prompt displays. If you chose Cloudscape at the "Database Type" prompt, accept the default for Cloudscape because you must enter the password for the user name you just provided.

21. A "JDBC Pool: Connection Properties:" prompt appears. If you chose Cloudscape at the "Database Type" prompt, accept the default for Cloudscape. For other database types, the connection properties default to include the user name and password you entered. In most cases, this default will be correct. However, you should consult your database documentation to ensure the inclusion of any properties your database type requires to create valid JDBC connection. Usually this string is of the form `user=<user name>;password=<password for user name>`.

22. A "JDBC Pool: InitialCapacity:" prompt displays. Accept the default.

23. A "JDBC Pool: MaxCapacity:" prompt displays. Accept the default.

24. A "JDBC Pool: CapacityIncrement:" prompt displays. Accept the default.

25. A "Deploy DBMS Adapter:" prompt displays. For first-time installs, accept the default. This will configure the DBMS Adapter with the information you have provided in previous prompts, and it will deploy the DBMS adapter to the Application Integration domain/server. For subsequent runs of setup, you can bypass this step by entering "N". Any previous deployment of the DBMS adapter is left intact. If you asked to deploy the DBMS Adapter, it is configured and deployed. In order to configure the event router for the DBMS adapter, you are asked to supply some information.

26. A "DBMS Adapter: DB User Name (EventRouter):" prompt displays. The default value is the user name you entered, so the default should be good enough. If the specified user name is not allowed to execute DDL statements in the database, you may wish to enter the name of a user that is allowed to execute DDL. The ability to execute DDL from the event router will greatly enhance the user experience with the DBMS adapter.

27. A "DBMS Adapter: DB Password (EventRouter):" prompt displays. The default value is the password you entered above. If you changed the user name in the "DBMS Adapter: DB User Name (EventRouter):" prompt, you must change this password to be the password for the new user name.

28. A "DBMS Adapter: Catalog (EventRouter):" prompt displays. If you chose Cloudscape in the "Database Type" prompt, accept the default for Cloudscape because you must enter the name of the catalog into the "special" event tables for which the DBMS adapter were installed. This value varies by database type, so consult your database documentation. Some suggestions of possible catalog names are displayed.

29. A "DBMS Adapter: Schema (EventRouter):" prompt displays. If you chose Cloudscape at the "Database Type" prompt, accept the default for Cloudscape because you must enter the name of the schema into which the "special" event tables for the DBMS adapter were installed. This value varies by database type, so consult your database documentation. Some suggestions of possible schema names are displayed.

30. A "DBMS Adapter: Ping Table:" prompt displays. If you chose Cloudscape at the "Database Type" prompt, accept the default for Cloudscape because you must enter the fully qualified name of the table that the event router will select against to verify a live connection to the database. The default value given is constructed from your input values, and should be correct in most cases. However, the tables in any given database and their qualified names vary by database type, so consult your database documentation.

31. If you chose Cloudscape at the "Database Type" prompt, the SQL scripts for DBMS adapter-specific resources are executed to set up the proper resources in the Cloudscape database. You will see a large amount of text output as these scripts are executed. As in the main database setup performed earlier, for first time setups, errors may be displayed in the output when "drop" statements are executed. This is normal. If you did not choose Cloudscape as your database type, no SQL scripts are executed.

32. You are asked in which directory WebLogic Process Integrator is installed. This is the `<WLPI_HOME>` directory. Setup will update the `config.xml` file with the correct plug-in information as well as copy the scripts you need for running `startWLPIwithWLAI`, `studio_wlai` and `worklist_wlai` to your `<WLPI_HOME>/bin` directory.

33. You are asked if you want to deploy the E-mail adapter. Enter "`Y`" to deploy the adapter.

34. An "Email User Name" prompt displays. Enter the name of the email user. The default user name is "`Joe`".

35. An "Email Password" prompt displays. Enter the password for the email account. The default password is "`joepassword`".

36. An "Email Server" prompt displays. Enter the address of the email server. The default is "`joeisp.com`".

37. An "Email Poll Interval" prompt displays. Enter the length of time the router should wait when checking for new email (in milliseconds). The default is "`10000`".

38. If the setup script detects that BEA WebLogic Process Integrator is configured in your designated domain, you will be prompted for a directory in which Process Integrator is installed. This script then copies the approriate configuration scripts into the Process Integration installation directory.

39. An "Update config.xml:" prompt displays. Accept the default response (`yes`). This will update your `config.xml`, preserving any prior information in it but merging the information you provided into it. If you really don't want to update `config.xml`, respond no, and a `config.xml.wlai` file will be written instead. You can manually merge the `config.xml` and `config.xml.wlai` files in this case.

40. The setup writes some final configuration files and exits.

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