

Oracle® Fusion Middleware Application Adapters

Installation Guide for 12c (12.2.1.2.0)

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Provides information on how to install configure Oracle Application Adapters for Oracle WebLogic Server.

Oracle Fusion Middleware Application Adapters 12c (12.2.1.2.0) Installation Guide for Oracle WebLogic Server, 12c (12.2.1.2.0)

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Preface

Welcome to *Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server*. This document provides information on how to install and configure Oracle Application Adapters for Oracle WebLogic Server.

Audience

This document is intended for system administrators who install and configure ERP application adapters.

Documentation Accessibility

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Related Documents

For more information, see the following documents in the Oracle Enterprise Repository 12c (12.2.1.2.0) documentation set:

- *Oracle Fusion Middleware Application Adapter Best Practices Guide for Oracle WebLogic Server*
- *Oracle Fusion Middleware Application Adapter Upgrade Guide for Oracle WebLogic Server*
- *Oracle Fusion Middleware Application Adapter for SAP R/3 User's Guide for Oracle WebLogic Server*
- *Oracle Fusion Middleware Application Adapter for Siebel User's Guide for Oracle WebLogic Server*
- *Oracle Fusion Middleware Application Adapter for PeopleSoft User's Guide for Oracle WebLogic Server*

- *Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld User's Guide for Oracle WebLogic Server*
- Oracle's Unified Method (OUM)

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For more information about OUM, see the OUM FAQ at

http://my.oracle.com/portal/page/myo/ROOTCORNER/KNOWLEDGEAREAS1/BUSINESS_PRACTICE/Methods/Learn_about_OUM.html

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Introduction

This chapter provides an overview of Oracle Fusion Middleware Application Adapters 12c (12.2.1.0.0) for Oracle WebLogic Server 12c (12.2.1.0.0). It contains the following topics:

- [Section 1.1, "Oracle Fusion Middleware Application Adapter Overview"](#)
- [Section 1.2, "Oracle Fusion Middleware Application Adapter System Requirements"](#)

Note: <ORACLE_HOME> across this document refers to the 12c (12.2.1.0.0) SOA/OSB installed home location.

<ADAPTER_HOME> across this document refers to the following:

For SOA:

<ORACLE_HOME>\soa\soa\thirdparty\ApplicationAdapters

For OSB:

<ORACLE_HOME>\osb\3rdparty\ApplicationAdapters

<ORACLE11g_HOME> across this document refers to the 11g installed home location.

1.1 Oracle Fusion Middleware Application Adapter Overview

The Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server enables you to install packaged application adapters.

Packaged application adapters integrate Oracle WebLogic Server with various packaged applications such as SAP R/3 and Siebel. These adapters include Oracle Fusion Middleware Application Adapter for PeopleSoft, Oracle Fusion Middleware Application Adapter for SAP R/3, Oracle Fusion Middleware Application Adapter for Siebel, and Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld.

[Table 1–1](#) describes the packaged application adapters.

Table 1–1 Oracle Fusion Middleware Application Adapters for Packaged Applications

Adapter	Description
Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld	Provides comprehensive, bidirectional, and standards-based connectivity to J.D. Edwards OneWorld applications.
Oracle Fusion Middleware Application Adapter for PeopleSoft	Provides comprehensive, bidirectional, and standards-based connectivity to PeopleSoft applications.
Oracle Fusion Middleware Application Adapter for Siebel	Connects Oracle WebLogic Server to a Siebel system by providing unique features that minimize the implementation effort.
Oracle Fusion Middleware Application Adapter for SAP R/3	Connects Oracle WebLogic Server to an SAP R/3 system through Oracle Fusion Middleware Application Adapter for SAP R/3 to provide connectivity and integration with an SAP R/3 system.

1.1.1 Types of Installation

Packaged application adapters can be deployed as a:

- J2CA 1.0 resource adapter and test servlet for J2CA deployments
- Web services servlet within Oracle WebLogic Server, which is known as Oracle WebLogic Server Adapter Business Services Engine (BSE)

Oracle WebLogic Server Adapter Application Explorer (Application Explorer) is also provided to configure Oracle WebLogic Server Application Adapters for packaged applications (for J2CA and BSE deployments).

1.2 Oracle Fusion Middleware Application Adapter System Requirements

The following sections describe the system requirements for installing Oracle Fusion Middleware Application Adapters:

- [Section 1.2.1, "Hardware Requirements"](#)
- [Section 1.2.2, "Supported Modes"](#)
- [Section 1.2.3, "Software Requirements"](#)
- [Section 1.2.4, "Supported EIS Systems"](#)

1.2.1 Hardware Requirements

[Table 1–2](#) lists the hardware requirements for the computer where the Oracle Fusion Middleware Application Adapters are installed.

Table 1–2 Hardware Requirements

Hardware	Windows	Linux	Solaris	HPUX	AIX
Disk Space (to install all adapters)	200 MB	200 MB	200 MB	200 MB	200 MB
Memory	1 GB	1 GB	1 GB	1 GB	1 GB

1.2.2 Supported Modes

The following section lists the supported modes for the Oracle Fusion Middleware Application Adapters.

Oracle Service-Oriented Architecture (SOA) and Oracle Business Process Management (BPM)

Supported modes:

- Managed mode

Note: Oracle Fusion Middleware Application Adapters must be deployed to the Managed Server during deployment.

- Integrated Server mode

Note: By default, the Oracle Fusion Middleware Application Adapters are deployed to the Integrated Server during deployment.

Oracle Service Bus (OSB)

Supported modes:

- Managed mode

Note: Oracle Fusion Middleware Application Adapters must be deployed to the Managed Server during deployment.

- Integrated Server mode

Note: By default, the Oracle Fusion Middleware Application Adapters are deployed to the Integrated Server during deployment.

Combined Oracle Service-Oriented Architecture (SOA) and Oracle Service Bus (OSB)

Supported modes:

- Managed mode

Note: ■ Installing Oracle Fusion Middleware Application Adapters to the SOA location (for example, `<ORACLE_HOME>\soa\soa\thirdparty\ApplicationAdapters`) is sufficient to work with SOA and OSB in a combined SOA and OSB environment.

- Oracle Fusion Middleware Application Adapters must be deployed to the Managed Server during deployment.
-
-

1.2.3 Software Requirements

The following section describes the Oracle Fusion Middleware Application Adapters software requirements:

Note: The supported systems and platforms vary for Oracle Fusion Middleware Application Adapters on an individual adapter level.

For more information on supported systems and platforms for Oracle Fusion Middleware Application Adapters, see [Section 1.2.4, "Supported EIS Systems"](#) on page 1-5.

Operating System Requirements

[Table 1–3](#) lists the operating system requirements for the computer where Oracle Fusion Middleware Application Adapters can be installed.

Note: For the Oracle 12c (12.2.1.0.0) release, Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld and Oracle Fusion Middleware Application Adapter for PeopleSoft are certified only with Windows and Oracle Enterprise Linux platforms. If support on any other platforms is required for these adapters, then contact Oracle customer support.

Table 1–3 Operating System Requirements

Platform Type	Platform List 64-bit	JDK Version
Windows	x64 Windows Server 2012	■ SUN 1.8.0_51+ (64-bit)
	x64 Windows Server 2012 with R2	■ SUN 1.8.0_51+ (64-bit)
Solaris	Oracle Solaris 11 on x86-64 (UL2+) (64-bit)	■ SUN 1.8.0_51+ (64-bit)
	Oracle Solaris on SPARC 11 (UL2+) (64-bit)	■ SUN 1.8.0_51+ (64-bit)
HP	HP-UX Itanium 11.31	■ HP JDK 1.8.0.02+ (64-bit)
Linux	x64 Red Hat Enterprise Linux 7 (UL 0+)	■ Sun 1.8.0_51+ (64-bit)
	x64 SLES11 SP3+	■ Sun 1.8.0_51+ (64-bit)
	x64 Red Hat Enterprise Linux 6 (UL 6+)	■ Sun 1.8.0_51+ (64-bit)
	x64 Oracle Enterprise Linux 7.x	■ Sun 1.8.0_51+ (64-bit)
AIX	x64 Oracle Enterprise Linux 6 (UL 6+)	■ Sun 1.8.0_51+ (64-bit)
	IBM Power AIX 7.1 (TL2+)	■ 1.8.0 SR1 FP10+ (64-bit)

Supported Oracle Products

[Table 1–4](#) lists the Oracle products that are supported by the Oracle Fusion Middleware Application Adapters.

Table 1–4 Supported Oracle Products

Product	Components	Version
Oracle SOA Suite	BPEL Process Manager, Mediator	12.2.1.0.0
Oracle BPM	BPMN	12.2.1.0.0
Oracle Service Bus	Business Services, Proxy Services	12.2.1.0.0

Supported Database Repositories

Table 1–5 lists the database repositories that are supported by the Oracle Fusion Middleware Application Adapters.

Table 1–5 Supported Database Repositories

Database	Version	Platforms
Oracle Database Enterprise Edition	Release 12.1.0.2.0 Production	Windows, Solaris, HP, Linux, and AIX

1.2.4 Supported EIS Systems

This section indicates which combinations of releases and system platforms are supported for the following EIS systems:

- [SAP R/3 \(Using SAP JCo 3.x\)](#)
- [PeopleSoft](#)
- [Siebel](#)
- [J.D. Edwards OneWorld](#)

1.2.4.1 SAP R/3 (Using SAP JCo 3.x)

The following SAP R/3 platforms are supported by the Oracle Fusion Middleware Application Adapter for SAP R/3 (using SAP JCo 3.x):

- SAP R/3 Enterprise 47x100
- SAP R/3 Enterprise 47x200
- mySAP ERP Central Component (ECC) 5.0, deployed on SAP NetWeaver 2004
- mySAP ERP Central Component (ECC) 6.0, deployed on SAP NetWeaver 2004s
- SAP Java Connector (SAP JCo) Version 3.0.14

The following operating systems are supported by the Oracle Fusion Middleware Application Adapter for SAP R/3 (using SAP JCo 3.x):

- Windows 64-bit (Windows Server 2012 R2)
- Linux (Intel processor only) - (64-bit only)
- HP-UX PA-RISC - (64-bit only)
- HP-UX Itanium - (64-bit only)
- Solaris - (64-bit only)
- AIX - (64-bit only)

For supported JVM information that corresponds to each operating system, see the SAP Note #1077727 in the SAP Service Marketplace.

1.2.4.2 PeopleSoft

The following PeopleSoft platforms are supported by the Oracle Fusion Middleware Application Adapter for PeopleSoft:

Adapter Platform	PeopleSoft Platform	PeopleSoft Release	PeopleTools Release Level
List of platforms in Table 1-3 , "Operating System Requirements"	Windows and Linux	8.1	8.16.03 - 8.22
		8.4	8.40.05 - 8.53

Note: For 12c (12.2.1.0.0), Oracle Fusion Middleware Application Adapter for PeopleSoft is certified only with Windows and Oracle Enterprise Linux platforms. If support on any other platforms is required for this adapter, then contact Oracle customer support.

1.2.4.3 Siebel

The following Siebel platforms are supported by the Oracle Fusion Middleware Application Adapter for Siebel:

Adapter Platform	Siebel Platform	Siebel Release	API
List of platforms in Table 1-3 , "Operating System Requirements"	Windows	6.0.1 - 6.2	COM
	Windows	6.3 - 8.2	Java Data Bean
	Linux	6.3 - 8.2	Java Data Bean
	Solaris	6.3 - 8.2	Java Data Bean
	HP	6.3 - 8.2	Java Data Bean
	AIX	6.3 - 8.2	Java Data Bean

Note: For the supported Siebel release, version 8.2 refers to the Public Sector version.

1.2.4.4 J.D. Edwards OneWorld

The following J.D. Edwards OneWorld platforms are supported by the Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld:

Adapter Platform	J.D. Edwards OneWorld Platform	J.D. Edwards OneWorld Product and Release
List of platforms in Table 1-3, "Operating System Requirements"	Windows and Linux	<ul style="list-style-type: none"> ■ XE (B7333) from SP19 to SP23 ■ ERP 8.0 (B7334) ■ EnterpriseOne B9 (8.9) ■ EnterpriseOne 8.10 (Tools Release 8.93 and 8.94) ■ EnterpriseOne 8.11 (SP1) ■ EnterpriseOne 8.12 (Tools Release 8.96 2.0) ■ EnterpriseOne 9.0 (Tools Release 8.98.1.3) ■ EnterpriseOne 9.1 (Tools Release 9.1.02) ■ EnterpriseOne 9.1 (Tools Release 9.1.5.2)

Note: For 12c (12.2.1.0.0), Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld is certified only with Windows and Oracle Enterprise Linux platforms. If support on any other platforms is required for this adapter, then contact Oracle customer support.

Installation and Configuration

This chapter describes how to install and configure Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server 12c (12.2.1.0.0). It contains the following topics:

- [Section 2.1, "Required Oracle Patches"](#)
- [Section 2.2, "Installation Overview"](#)
- [Section 2.3, "Installing Oracle Fusion Middleware Application Adapters"](#)
- [Section 2.4, "Configuring Oracle WebLogic Server Adapter Application Explorer"](#)
- [Section 2.5, "Configuring and Deploying J2CA"](#)
- [Section 2.6, "Configuring and Deploying Business Services Engine"](#)
- [Section 2.7, "Using Utility Scripts to Deploy, Undeploy, and Update Adapters"](#)
- [Section 2.8, "Post Installation Tasks"](#)
- [Section 2.9, "Uninstalling Oracle Fusion Middleware Application Adapters"](#)

2.1 Required Oracle Patches

This section describes the Oracle patches that are required for customers on different releases. Customers must apply the appropriate patch depending on their specific release.

For customers on Oracle 12c (12.2.1.0.0), Patch 22026475 is required to ensure that Oracle Fusion Middleware Application Adapters for JDeveloper work as designed.

For customers on Oracle 12c (12.2.1.1.0), Patch 24364695 is required to ensure that Oracle Fusion Middleware Application Adapters for Service-Oriented Architecture (SOA) work as designed.

For customers on Oracle 12c (12.2.1.2.0), Patch 25088788 is required to ensure that Oracle Fusion Middleware Application Adapters for JDeveloper work as designed.

This section contains the following topics:

- [Section 2.1.1, "Mandatory Patch \(22026475\) for Customers Using JDeveloper 12c \(12.2.1.0.0\)"](#)
- [Section 2.1.2, "Mandatory Patch \(24364695\) for Customers Using Service-Oriented Architecture 12c \(12.2.1.1.0\)"](#)
- [Section 2.1.3, "Mandatory Patch \(25088788\) for Customers Using JDeveloper 12c \(12.2.1.2.0\)"](#)

2.1.1 Mandatory Patch (22026475) for Customers Using JDeveloper 12c (12.2.1.0.0)

This patch is required if you are planning to use Oracle Fusion Middleware Application Adapters with JDeveloper in 12c (12.2.1.0.0).

Patch 22026475 is available for download from the Oracle Support website:

<http://support.oracle.com>

For more information, contact Oracle Customer Support.

Note: This patch is not applicable for users on 12c (12.2.1.1.0) and 12c (12.2.1.2.0) as the fix is available in the build.

2.1.2 Mandatory Patch (24364695) for Customers Using Service-Oriented Architecture 12c (12.2.1.1.0)

This patch is required if you are planning to use Oracle Fusion Middleware Application Adapters with Service-Oriented Architecture (SOA) in 12c (12.2.1.1.0).

Patch 24364695 is available for download from the Oracle Support website:

<http://support.oracle.com>

For more information, contact Oracle Customer Support.

Note: This patch is not applicable for users on 12c (12.2.1.0.0) and 12c (12.2.1.2.0) as the fix is available in the build.

2.1.3 Mandatory Patch (25088788) for Customers Using JDeveloper 12c (12.2.1.2.0)

This patch is required if you are planning to use Oracle Fusion Middleware Application Adapters with JDeveloper in 12c (12.2.1.2.0).

Patch 25088788 is available for download from the Oracle Support website:

<http://support.oracle.com>

For more information, contact Oracle Customer Support.

Note: This patch is not applicable for users on 12c (12.2.1.0.0) and 12c (12.2.1.1.0) as the fix is available in the build.

2.2 Installation Overview

The Application Adapter installer for 12c (12.2.1.0.0) is applicable for the Oracle Service-Oriented Architecture (SOA) Suite and Oracle Service Bus (OSB). The Application Adapters that are installed can be used with Business Process Execution Language (BPEL), Mediator, Business Process Management (BPM), and Oracle Service Bus (OSB) components.

The 12c (12.2.1.0.0) installer provides an upgrade option that is supported for Oracle Fusion Middleware Application Adapters. You can upgrade the adapters using the following options:

- PS6 to 12c (12.2.1.0.0)

- 12c (12.1.3.0.0) to 12c (12.2.1.0.0)
- 12c Cumulative-1 (12.1.3.0.0) to 12c (12.2.1.0.0).

In addition, a silent installer option is also available.

Oracle Fusion Middleware Application Adapter for SAP R/3 Installation

The Application Adapter installer 12c (12.2.1.0.0) installs only the Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x).

2.3 Installing Oracle Fusion Middleware Application Adapters

This section describes how to install Oracle Fusion Middleware Application Adapters 12c (12.2.1.0.0) for Oracle WebLogic Server 12c (12.2.1.0.0). It contains the following topics:

- [Section 2.3.1, "Performing a New Installation"](#)
- [Section 2.3.2, "Support for Multiple Adapter Installation Instances"](#)
- [Section 2.3.3, "Performing a Silent Installation"](#)
- [Section 2.3.4, "Upgrading the Oracle Fusion Middleware Application Adapters"](#)
- [Section 2.3.5, "Starting Application Explorer"](#)

2.3.1 Performing a New Installation

To install Oracle Fusion Middleware Application Adapters as a new (fresh) installation, perform the following steps:

1. Open a terminal and navigate to the location on your system where the installation file `iwora12c-12.2.1-application_adapters_installer.jar` is located.
2. Use the following command to execute the installer on all platforms:

```
java -jar iwora12c-12.2.1-application_adapters_installer.jar
```

Note: Ensure the recommended Java Development Kit (JDK) is installed and available in the path.

The Introduction screen is displayed.

3. Click **Next**.

The Choose Oracle Home Folder screen is displayed, as shown in [Figure 2-1](#).

Figure 2–1 Choose Oracle Home Folder Screen

4. Choose the appropriate Oracle Home location.

For SOA:

`<ORACLE_HOME>\soa`

For OSB:

`<ORACLE_HOME>\osb`

5. Click **Next**.

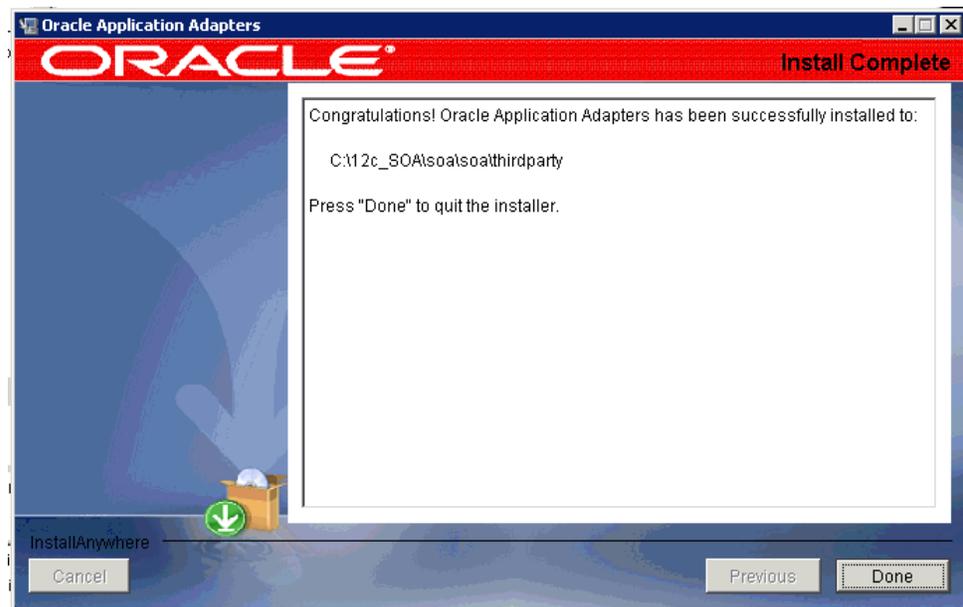
The Pre-Installation Summary screen is displayed.

6. Ensure that all of the information is correct and click **Install**.

The installation process is started.

7. When the installation is complete, verify that the adapter installation location is displayed and click **Done**, as shown in [Figure 2–2](#).

Figure 2-2 Install Complete Screen



8. Once the Oracle Fusion Middleware Application Adapters are installed, ensure that the files are copied to the appropriate SOA or OSB home directories as follows:

- **For SOA:**

```
<ORACLE_HOME>\soa\soa\thirdparty\ApplicationAdapters
```

- **For OSB:**

```
<ORACLE_HOME>\osb\3rdparty\ApplicationAdapters
```

If you want to install the adapters in different locations on the same system (for example, `C:\12c_SOA\soa` and `C:\12c_OSB\osb`), then follow the steps in [Section 2.3.2, "Support for Multiple Adapter Installation Instances"](#) on page 2-5. Otherwise, skip to [Section 2.3.5, "Starting Application Explorer"](#) on page 2-12.

2.3.2 Support for Multiple Adapter Installation Instances

To install multiple instances of the adapter installation on the same system, perform the same steps as described in [Section 2.3.1, "Performing a New Installation"](#) on page 2-3.

2.3.3 Performing a Silent Installation

This section describes how to perform a silent installation. It contains the following topics:

- [Section 2.3.3.1, "Prerequisites"](#)
- [Section 2.3.3.2, "Using the Silent Installer"](#)

2.3.3.1 Prerequisites

The following list provides prerequisites for the silent installer specific to upgrading adapters. If you are installing the adapters as a fresh installation using the silent installer, then you can skip these prerequisites.

- Stop all servers (Admin and Managed) that are running before you upgrade the Oracle Fusion Middleware Application Adapters. If there are any servers running, then the upgrade will not be completed and a warning message is generated.
- Before you update an instance to 12c (12.2.1.0.0) on the Windows platform, you must manually delete the shortcuts for the instance. The silent installer may not determine where the shortcut links were created and cannot always handle the old shortcuts as a result.
- If you configured iBSE in Managed mode, then you must make a backup of the *ibseconfig.xml* file and save it in a temporary location from the following Stage_Folder:

```
<ORACLE_HOME>\user_projects\domains\<domain_name>\servers\<Managed_Server_Name>\stage\ibse\ibse.war\WEB-INF
```

2.3.3.2 Using the Silent Installer

To install the Oracle Fusion Middleware Application Adapters using the silent installer:

1. For all platforms, create a properties file called *silent_install.properties*.
2. Add the following contents to the *silent_install.properties* file:

```
#-----
#This is a sample silent installation property file. It contains variables that
#were set by Panels, Consoles or Custom Code.
#You can change the values of the properties according to your installation
#environment.
#To run silent installation, you need to pass the property file to the
#installer executable like this:
# >java -jar iwora12c-12.2.1-application_adapters_installer.jar -f silent_
#install.properties
#Indicate silent mode. Do not need to use the command-line switch "-i silent"
#-----
INSTALLER_UI=silent
#Choose Oracle Home Folder
#-----
USER_ORA_HOME=C:\\12c_Home\\soa
CHOSEN_OVERWRITE_DIALOG_BUTTON=1
#-----
```

3. Save the *silent_install.properties* file.
4. Locate the *#Choose Oracle Home Folder* section and provide the destination for the SOA or OSB home directory. For example:

```
#Choose Oracle Home Folder
#-----
USER_ORA_HOME=C:\\12c_HOME\\soa
```

For non-Windows platforms, specify the Oracle Home folder. For example:

```
#Choose Oracle Home Folder
#-----
USER_ORA_HOME=/12c_HOME/soa
```

5. Locate the *CHOSEN_OVERWRITE_DIALOG_BUTTON* parameter and configure a setting based on the following guidelines:
 - The default setting for this parameter is:

```
CHOSEN_OVERWRITE_DIALOG_BUTTON=1
```

If the specified SOA or OSB home directory already contains an installation, then the silent installer exits without modifying the existing installation. This functionality prevents a user from accidentally overwriting an existing installation, since there is no warning message that is displayed.

- To upgrade an existing installation, set this parameter as follows:

```
CHOSEN_OVERWRITE_DIALOG_BUTTON=0
```

Note: If the specified SOA or OSB home directory does not contain an existing installation, then any value that is set for the `CHOSEN_OVERWRITE_DIALOG_BUTTON` parameter is ignored. The silent installer performs a standard installation.

6. Save the `silent_install.properties` file.
7. Ensure the `silent_install.properties` file is available in the folder where the 12c installer is located. If it is not, then you must copy the file to the appropriate location.
8. In a command prompt, navigate to the 12c (12.2.1.0.0) installer directory and enter the following installation command:

```
java -jar iwora12c-12.2.1-application_adapters_installer.jar -f silent_install.properties
```

An upgrade installation is performed based on the value that is set for the `CHOSEN_OVERWRITE_DIALOG_BUTTON` parameter.

If you are upgrading the adapters using the silent installer, then perform the steps in [Section 2.3.4.3, "Using a DB2 Repository on AIX Platforms"](#) on page 2-11.

2.3.4 Upgrading the Oracle Fusion Middleware Application Adapters

As of Oracle 12c (12.2.1.0.0), Oracle Fusion Middleware Application Adapters can be upgraded for the following options, as described in this section:

- PS6 to 12c (12.2.1.0.0)
- 12c (12.1.3.0.0) to 12c (12.2.1.0.0)
- 12c Cumulative-1 (12.1.3.0.0) to 12c (12.2.1.0.0)

The PS6 Application Adapters or 12c (12.1.3.0.0) Application Adapters are not required to be uninstalled before installing the 12c (12.2.1.0.0) release. When upgrading the adapters, the installer overwrites the adapter components (for example, .jar files, scripts, tools, and so on). However, the installer will not remove any WSDL files and schema files that were previously generated using an earlier release.

Note: If you are upgrading the Application Adapters from PS6 to 12c (12.2.1.0.0), 12c (12.1.3.0.0) to 12c (12.2.1.0.0) Application Adapters and 12c Cumulative-1(12.1.3.0.0) to 12c (12.2.1.0.0), then Oracle middle-ware components, such as WebLogic Server, SOA Suite, BPM, and OSB must be upgraded to the 12c (12.2.1.0.0) level before installing the adapters. In addition, the SOA Suite, BPM, and OSB projects must be upgraded to the 12c (12.2.1.0.0) level before installing the adapters.

This section describes how to upgrade the Oracle Fusion Middleware Application Adapters. It contains the following topics:

- [Section 2.3.4.1, "Prerequisites"](#)
- [Section 2.3.4.2, "Upgrading the Adapters"](#)
- [Section 2.3.4.3, "Using a DB2 Repository on AIX Platforms"](#)

2.3.4.1 Prerequisites

The following list provides prerequisites for the upgrade installation:

Note: Stop all servers (Admin and Managed) that are running before you upgrade the Oracle Fusion Middleware Application Adapters. If there are any servers running, then the upgrade will not be completed and a warning message is generated.

- Before you update an instance to 12c (12.2.1.0.0) on the Windows platform, you must manually delete the shortcuts for the instance.
- If you configured iBSE in Managed mode, then you must make a backup of the *ibseconfig.xml* file and save it in a temporary location from the following Stage_Folder:

```
<ORACLE_HOME>\user_projects\domains\<domain_name>\servers\<Managed_Server_Name>\stage\ibse\ibse.war\WEB-INF
```

Note: Before you upgrade the Oracle Fusion Middleware Application Adapters, you must create a backup of the existing installation. The installer also creates a backup and copies it to the following 11g and 12c (12.1.3.0.0) locations based on the upgrade:

For SOA:

```
<ORACLE11g_HOME>\Oracle_SOA1\soa\thirdparty\Old_ApplicationAdapters_Backup_Copy
```

```
<ORACLE_HOME>\soa\thirdparty\Old_ApplicationAdapters_Backup_Copy
```

For OSB:

```
<ORACLE11g_HOME>\Oracle_OSB1\3rdparty\Old_ApplicationAdapters_Backup_Copy
```

```
<ORACLE_HOME>\osb\3rdparty\Old_ApplicationAdapters_Backup_Copy
```

2.3.4.2 Upgrading the Adapters

To upgrade the Oracle Fusion Middleware Application Adapters:

1. Open a terminal and navigate to the location on your system where the installation file `iwora12c-12.2.1-application_adapters_installer.jar` is located.

2. Use the following command to execute the installer on all platforms:

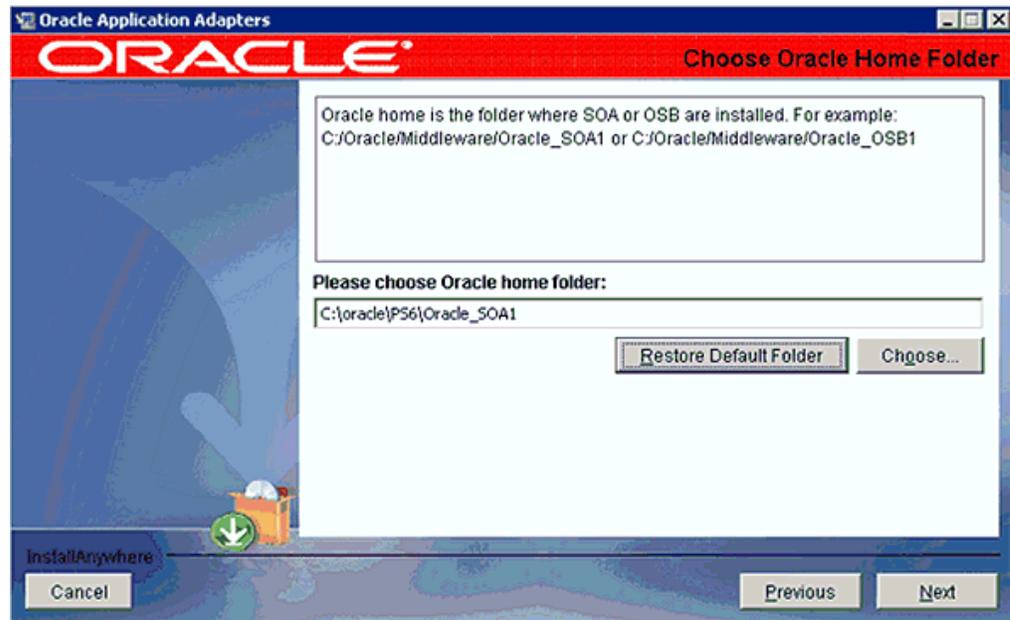
```
java -jar iwora12c-12.2.1-application_adapters_installer.jar
```

Note: Ensure that the recommended version of Java Development Kit (JDK) is installed and available in the path.

3. Click Next.

The Choose Oracle Home Folder pane is displayed, as shown in [Figure 2-3](#).

Figure 2-3 Choose Oracle Home Folder Pane



4. Select the appropriate Oracle Home location that you want to upgrade.

For SOA:

```
<ORACLE11g_HOME>\Oracle_SOA1
<ORACLE_HOME>\soa
```

For OSB:

```
<ORACLE11g_HOME>\Oracle_OSB1
<ORACLE_HOME>\osb
```

5. Click Next.

A warning message appears, as shown in [Figure 2-4](#).

Figure 2–4 Warning Message

6. Click **Next**.

The Pre-Installation Summary screen is displayed.

7. Ensure that all of the information is correct, and click **Install**.

The installation process is started. An automatic backup of the existing adapter installation is created and the adapters are upgraded.

8. When the installation is complete, verify the adapter installation location and click **Done**, as shown in [Figure 2–5](#).

Figure 2–5 Install Complete Pane

2.3.4.3 Using a DB2 Repository on AIX Platforms

If you upgraded the adapters on an AIX platform where a DB2 repository is used, then you must modify the *ra.xml* file as described in this section.

Navigate to the *ra.xml*, which is located in the following directory:

```
<ORACLE11G_HOME>\iwafjca.rar\META-INF
```

For the *IWayRepoDriver* property, replace the default driver value with the DB2 driver value (*com.ibm.db2.jcc.DB2Driver*).

Original Version:

```
<config-property-name>IWayRepoDriver</config-property-name>
<config-property-type>java.lang.String</config-property-type>
<config-property-value>oracle.jdbc.driver.OracleDriver</config-property-value>
```

Modified Version:

```
<config-property-name>IWayRepoDriver</config-property-name>
<config-property-type>java.lang.String</config-property-type>
<config-property-value>com.ibm.db2.jcc.DB2Driver</config-property-value>
```

The steps in this section should be performed only if the following scenario is applicable:

- You are upgrading from a previous supported version of the Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server to the 12c (12.2.1.0.0) version.
- You are using an iBSE configuration with a database repository for the application adapters.

Otherwise, you can skip these remaining steps.

For Managed Mode:

1. After installing the 12c (12.2.1.0.0) application adapters on top of a previous supported version, replace the *ibseconfig.xml* file from the *<ADAPTER_HOME>\ibse.war\WEB-INF* directory with the *ibseconfig.xml* file that is located in the temporary location, as mentioned in the prerequisites step.

Note: To complete the upgrading process for the adapters, you must perform one of the following options.

Option 1:

Start the Oracle WebLogic Server and update the J2CA and BSE adapter components (*iwafjca.rar*, *iwafjca.war*, *ibse.war*) to activate the changes. For more information on updating the adapters, see [Section 2.7, "Using Utility Scripts to Deploy, Undeploy, and Update Adapters"](#) on page 2-31.

Option 2:

Restart the Oracle WebLogic Server, undeploy and redeploy the *iwafjca.rar*, *iwafjca.war*, and *ibse.war* files.

For more information on deploying J2CA and BSE adapter components, see the following sections:

- [Section 2.5.2, "Deploying the J2CA Connector Application Using the Oracle WebLogic Server Administration Console"](#)
- [Section 2.5.3, "Deploying the J2CA Installation Verification Program \(IVP\) Using the Oracle WebLogic Server Administration Console"](#)
- [Section 2.6.2, "Deploying Oracle WebLogic Server Adapter Business Services Engine \(BSE\) Using the Oracle WebLogic Server Administration Console"](#)

If scripts are required to deploy and redeploy the adapters, see [Section 2.7, "Using Utility Scripts to Deploy, Undeploy, and Update Adapters"](#) on page 2-31.

2.3.5 Starting Application Explorer

This section describes how to start Application Explorer.

Using 64-bit Java in a 64-bit non-Windows Environment

To force Application Explorer to use 64-bit Java in a 64-bit non-Windows environment, ensure that the following change is made in the *iwae.sh* file, which is located in the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>/tools/iwae/bin
```

In the *iwae.sh* file, navigate to the end of the script and make the following change:

Original Version:

```
$JAVACMD $remdbg -classpath $CLASSPATH -Diway.home=$IWAY55 -Diway.oem=osb
-DsuppressSwingDropSupport=true -Dfile.encoding=ISO8859_1
com.ibi.bse.gui.BseFlashScreen -D64 -MODE 2 $opt
```

Modified Version:

```
$JAVACMD -d64 $remdbg -classpath $CLASSPATH -Diway.home=$IWAY55 -Diway.oem=osb
-DsuppressSwingDropSupport=true -Dfile.encoding=ISO8859_1
com.ibi.bse.gui.BseFlashScreen -D64 -MODE 2 $opt
```

To start and begin using Application Explorer, perform the following steps:

1. Open the command prompt.

2. Navigate to the following directory:

```
<ORACLE_HOME>\user_projects\domains\base_domain\bin
```

3. Execute *setDomainEnv.cmd* (Windows) or *./setDomainEnv.sh* (UNIX/Linux).

This command sets the class path and other environment variables for Application Explorer in the Oracle WebLogic Server environment. In addition, it allows Application Explorer to access the Oracle WebLogic Server APIs to publish WSDL files to the Oracle Service Bus (OSB) Console.

4. Do not close the command prompt.
5. Navigate to the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\tools\iwae\bin
```

6. Execute *ae.bat* (Windows) or *iwae.sh* (UNIX/Linux) to start Application Explorer.

2.4 Configuring Oracle WebLogic Server Adapter Application Explorer

Before you can use Application Explorer to generate WSDL files, you must create a repository where your configuration details are stored. Each implementation requires you to configure a specific repository before you can explore Enterprise Information System (EIS) metadata. The information in the repository is also referenced at run time.

Business Services Engine (BSE) generates Web services based on enterprise assets that are accessible from adapters regardless of the programming language or the particular operating system being used. In addition, you can use BSE as a standalone Java application running in Oracle WebLogic Server.

The J2CA runs in J2EE Connector Architecture compliant application servers and uses the Common Client Interface (CCI) to provide integration services using Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server. After you deploy the connector, you can access the adapters.

2.4.1 Creating a Configuration for Oracle WebLogic Server Adapter Business Services Engine

To create a configuration for Oracle WebLogic Server Adapter Business Services Engine (BSE) using Application Explorer, you must first define a new configuration. This is a prerequisite for deploying BSE as a Web application in Oracle WebLogic Server.

Defining a New Configuration for BSE

To define a new configuration for BSE:

1. Follow the steps in [Section 2.3.5, "Starting Application Explorer"](#) on page 2-12.

Note: Before you run the *iwae.sh* file on UNIX or Linux platforms, the permissions must be changed. For example:

```
chmod +x iwae.sh
```

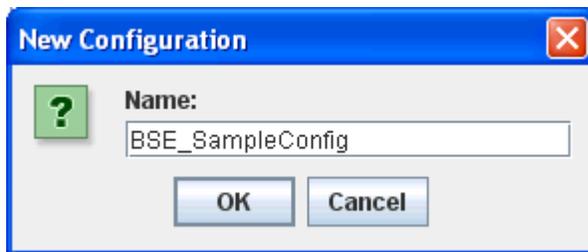
- Right-click the **Configurations** node in Application Explorer and select **New**, as shown in [Figure 2-6](#).

Figure 2-6 Configurations Node



The New Configuration dialog is displayed, as shown in [Figure 2-7](#).

Figure 2-7 New Configuration Dialog



- Enter a name for the new configuration, for example, *BSE_SampleConfig*, and click **OK**.

Note: The name of the BSE configuration that is specified here is used during the BSE deployment process.

Figure 2-8 BSE New Configuration Dialog



- From the Service Provider list, select **iBSE**.
- In the iBSE URL field, accept the default URL or replace it with a different URL with the following format:

`http://host name:port/ibse/IBSEServlet`

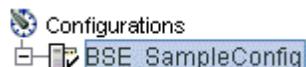
where *host name* is the system on which Oracle WebLogic Server resides and *port* is the HTTP port number where Oracle WebLogic Server is listening, as shown in [Figure 2-8](#).

Note: The HTTP port number varies depending on the type of installation (Oracle SOA Suite or Oracle Service Bus).

6. Click **OK**.

A node representing the new configuration appears beneath the root Configurations node, as shown in [Figure 2-9](#).

Figure 2-9 *BSE_SampleConfig Node*



2.4.2 Creating a Configuration for Oracle WebLogic Server Adapter J2EE Connector Architecture

To create a configuration for Oracle WebLogic Server Adapter J2EE Connector Architecture (J2CA) using Application Explorer, you must first define a new configuration. This is a prerequisite for deploying J2CA as a Web application in Oracle WebLogic Server.

Defining a New Configuration for J2CA

To define a new configuration for J2CA:

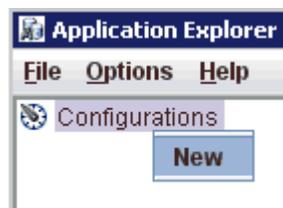
1. Follow the steps in [Section 2.3.5, "Starting Application Explorer"](#) on page 2-12.

Note: Before you run the `iwae.sh` file on UNIX or Linux platforms, the permissions must be changed. For example:

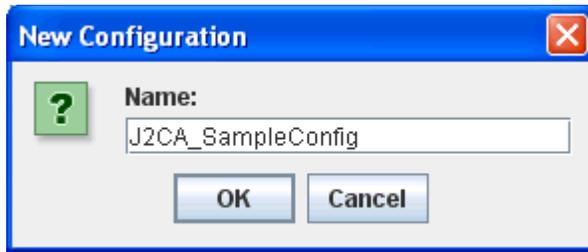
```
chmod +x iwae.sh
```

2. Right-click the **Configurations** node in Application Explorer and select **New**, as shown in [Figure 2-10](#).

Figure 2-10 *Configurations Node in Application Explorer*

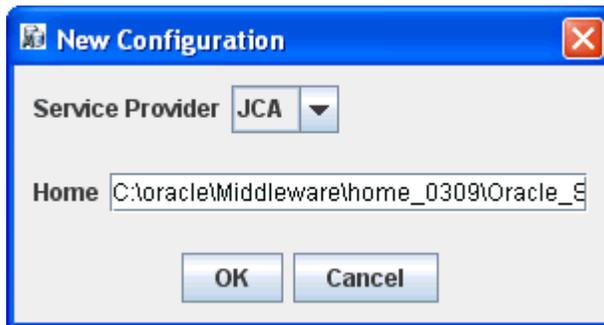


The New Configuration dialog is displayed, as shown in [Figure 2-11](#).

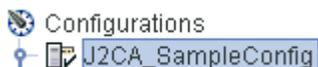
Figure 2–11 J2CA New Configuration Name

3. Enter a name for the new configuration, for example, *J2CA_SampleConfig*, and click OK.

Note: The name of the J2CA configuration that is specified here is used during the J2CA deployment process.

Figure 2–12 J2CA New Configuration Dialog

4. From the Service Provider list, select **JCA**, as shown in [Figure 2–12](#).
5. Click **OK**.
A node representing the new configuration appears beneath the root Configurations node, as shown in [Figure 2–13](#).

Figure 2–13 J2CA Sample Configuration Node

2.5 Configuring and Deploying J2CA

After the appropriate settings are configured according to your requirements, you must first deploy the J2CA Connector Application for use with Oracle WebLogic Server using the Oracle WebLogic Server Administration Console. After the J2CA Connector Application is deployed successfully, you can configure and deploy the J2CA Installation Verification Program (IVP). This section describes how to configure settings for the J2CA Connector Application and J2CA Installation Verification Program (IVP). It contains the following topics:

- [Section 2.5.1, "Configuring Settings for the J2CA Connector Application"](#)
- [Section 2.5.2, "Deploying the J2CA Connector Application Using the Oracle WebLogic Server Administration Console"](#)

- [Section 2.5.3, "Deploying the J2CA Installation Verification Program \(IVP\) Using the Oracle WebLogic Server Administration Console"](#)
- [Section 2.5.4, "Connecting to a J2CA Configuration Using Application Explorer"](#)

2.5.1 Configuring Settings for the J2CA Connector Application

To configure settings for the J2CA Connector Application:

1. Locate the `ra.xml` file, which is located in the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\iwafjca.rar\META-INF\ra.xml
```

2. Open the `ra.xml` file in an editor.
3. Enter a value for the `IWayHome` property.

This is the folder where the adapters are installed. For example:

```
<config-property>
  <config-property-name>IWayHome</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
  <config-property-value>C:\oracle\Middleware\home_0309\Oracle
SOA1\soa\thirdparty\ApplicationAdapters</config-property-value>
</config-property>
```

4. Enter a value for the `IWayConfig` property.

This is the value that you specified when you created a new J2CA configuration using Application Explorer. For example:

```
<config-property>
  <config-property-name>IWayConfig</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
  <config-property-value>J2CA_SampleConfig</config-property-value>
</config-property>
```

5. Save the `ra.xml` file and exit the editor.

2.5.2 Deploying the J2CA Connector Application Using the Oracle WebLogic Server Administration Console

To deploy the J2CA Connector Application:

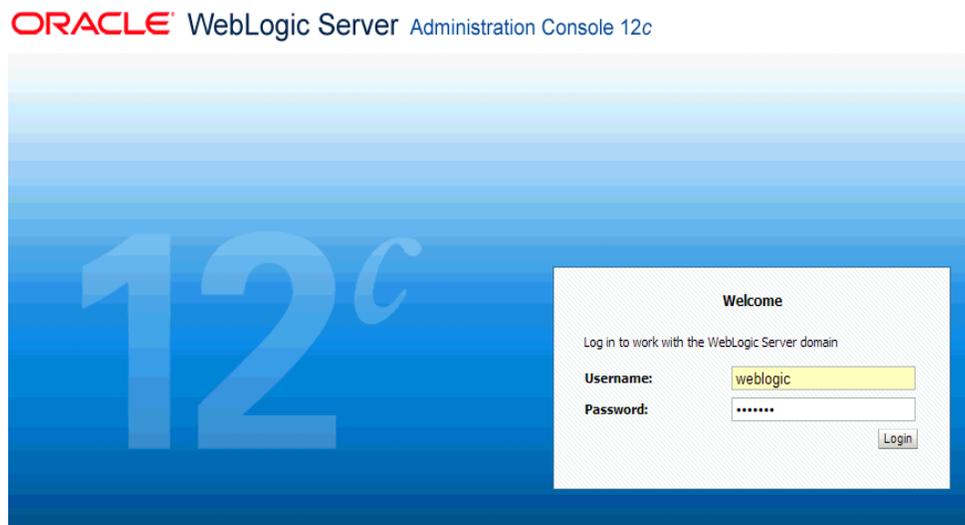
1. Start the Oracle WebLogic Server for the Oracle WebLogic Server domain that you have configured.
2. Open the Oracle WebLogic Server Administration Console in a Web browser by entering the following URL:

```
http://host name:port/console
```

where `host name` is the name of the system where Oracle WebLogic Server is running and `port` is the port for the Oracle WebLogic Server that is running. The default port for the Oracle WebLogic Server is 7001. However, this value can vary between installations.

The Oracle WebLogic Server Administration Console page is displayed, as shown in [Figure 2-14](#).

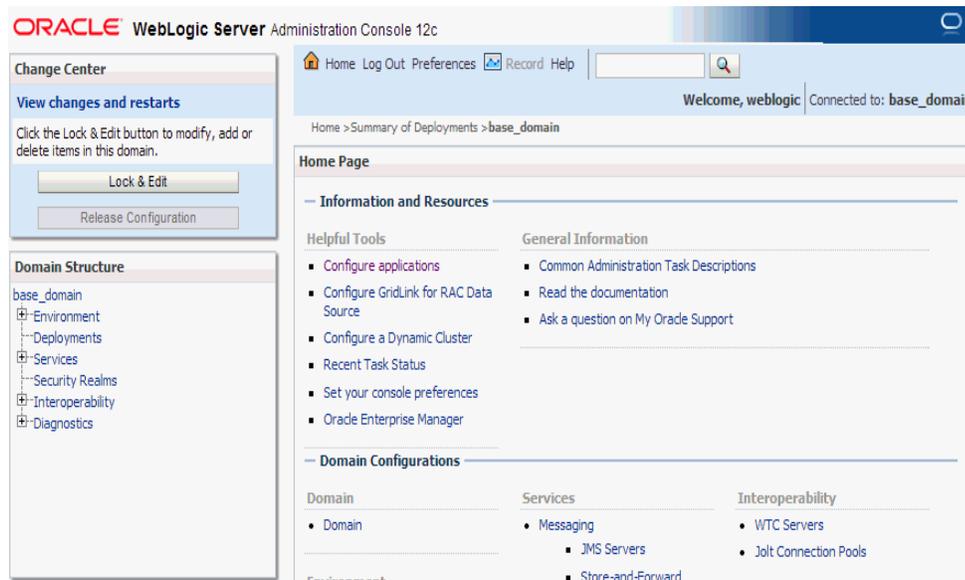
Figure 2–14 Oracle WebLogic Server Administration Console



3. Log in to the Oracle WebLogic Server Administrative Console using an account that has administrator privileges.

The Oracle WebLogic Server Administration Console home page is displayed, as shown in [Figure 2–15](#).

Figure 2–15 Oracle WebLogic Server Administration Console Home Page



4. In the left pane, under Change Center, click **Lock & Edit**, and then in the Domain Structure section, click **Deployments**.

The Deployments page is displayed, as shown in [Figure 2–16](#).

Figure 2–16 Deployments Page

<input type="checkbox"/>	Name	State	Health	Type	Deployment Order
<input type="checkbox"/>	AqAdapter	New		Resource Adapter	324
<input type="checkbox"/>	b2bui	New		Enterprise Application	313

5. Click **Install**.

The Install Application Assistant page is displayed, as shown in [Figure 2–17](#).

Figure 2–17 Install Application Assistant Page

Install Application Assistant

Back Next Finish Cancel

Locate deployment to install and prepare for deployment

Select the file path that represents the application root directory, archive file, exploded archive directory, or application module descriptor that you want to install. You can also enter the path of the application directory or file in the Path field.

Note: Only valid file paths are displayed below. If you cannot find your deployment files, upload your file(s) and/or confirm that your application contains the required deployment descriptors.

Path: C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\iwafjca.rar

Recently Used Paths: C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters

Current Location: oracle11g-vm2 \ C: \ oracle \ Middleware \ Oracle_SOA1 \ soa \ thirdparty \ ApplicationAdapters

- _uninst
- config
- etc
- ibse.war (open directory)
- iwafjca.rar (open directory)
- iwafjca.war (open directory)
- lib
- tools

Back Next Finish Cancel

6. Browse to the <ADAPTER_HOME> location where the adapters are installed:

- **For SOA:**

<ORACLE_HOME>\soa\soa\thirdparty\ApplicationAdapters

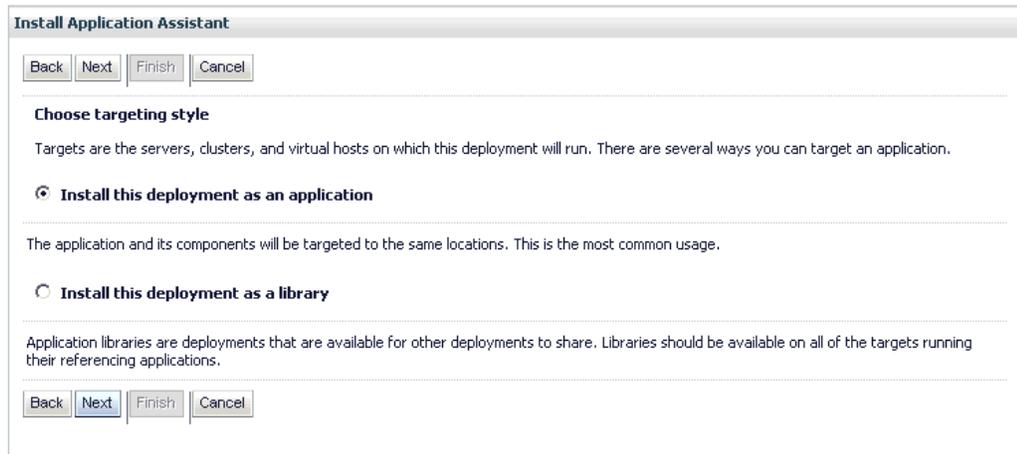
- **For OSB:**

<ORACLE_HOME>\osb\3rdparty\ApplicationAdapters

7. Select the **iwafjca.rar** option and click **Next**.

The Choose Targeting Style page is displayed, as shown in [Figure 2–18](#).

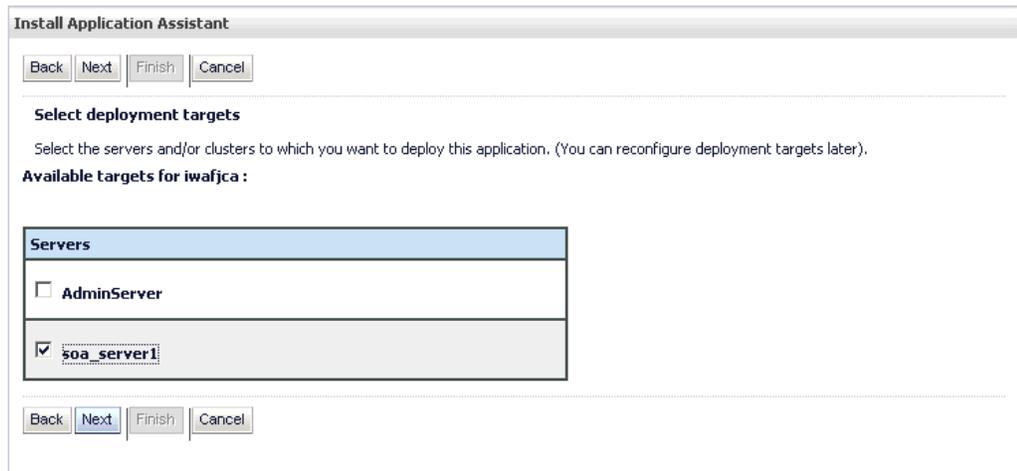
Figure 2–18 Choose Targeting Style Page



8. Leave the default **Install this deployment as an application** selected and click **Next**.

The Select Deployment Targets page is displayed, as shown in [Figure 2–19](#).

Figure 2–19 Select Deployment Target Page



9. Select **soa_server1** and click **Next**.

The Optional Settings page is displayed, as shown in [Figure 2–20](#).

Figure 2–20 Optional Settings Page

Install Application Assistant

Back Next Finish Cancel

Optional Settings
You can modify these settings or accept the defaults

General

What do you want to name this deployment?

Name: iwafjca

Source accessibility

How should the source files be made accessible?

Use the defaults defined by the deployment's targets

Recommended selection.

Copy this application onto every target for me

During deployment, the files will be copied automatically to the managed servers to which the application is targeted.

I will make the deployment accessible from the following location

Location: C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\Applicat

Provide the location from where all targets will access this application's files. This is often a shared directory. You must ensure the application files exist in this location and that each target can reach the location.

Back Next Finish Cancel

10. Click **Next** again leaving the default values.

The Summary page is displayed, as shown in [Figure 2–21](#).

Figure 2–21 Summary Page

Summary

Deployment: C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\iwafjca.rar

Name: iwafjca

Staging mode: Use the defaults defined by the chosen targets

Target Summary

Components	Targets
iwafjca.rar	soa_server1

Back Next Finish Cancel

11. Click **Finish**.

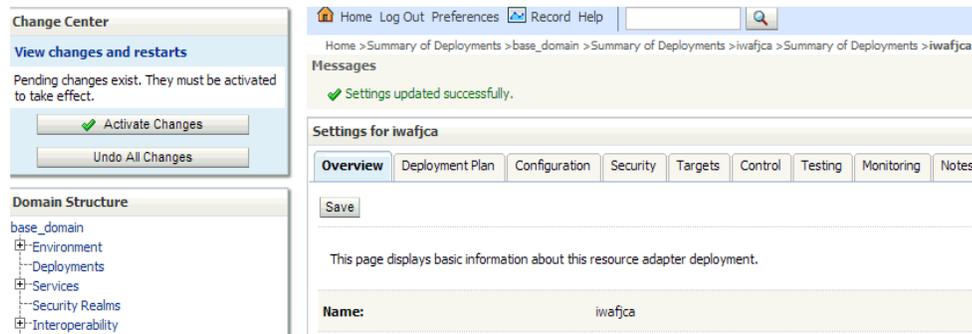
The Settings page for the J2CA (iwafjca) Connector Application is displayed.

12. Click **Save**.

The "Settings updated successfully" message is displayed, which indicates a successful deployment.

13. Under Change Center in the left pane, click **Activate Changes**.

14. In the Domain Structure section in the left pane, click **Deployments**, as shown in [Figure 2–22](#).

Figure 2–22 Domain Structure

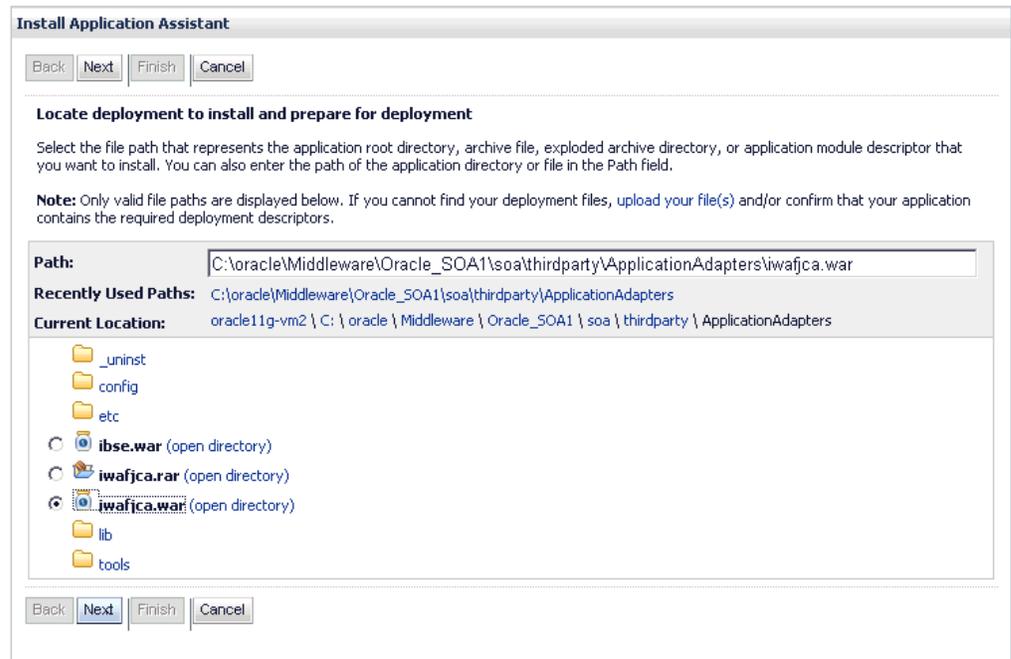
15. In the Summary of Deployments screen page, click on the Control tab and navigate through the table that lists all the deployed applications until you find the J2CA (iwafjca) Connector Application.
16. Select the **iwafjca** option.
17. Click the **Start** submenu (down arrow) and select **Servicing all requests**.
The Start Application Assistant page is displayed.
18. Click **Yes** to start the selected deployment.
You are now ready to deploy the J2CA Installation Verification Program (IVP).

2.5.3 Deploying the J2CA Installation Verification Program (IVP) Using the Oracle WebLogic Server Administration Console

The J2CA Installation Verification Program (IVP) must be deployed and started after the J2CA Connector Application. It is better to have the deployment order also changed when deploying the J2CA IVP. For example, if the J2CA Connector Application has a deployment order of 100, then the J2CA IVP can have a deployment order of 101.

To deploy the J2CA IVP:

1. In the left pane, under Change Center, click **Lock & Edit**, and then in the Domain Structure section, click **Deployments**.
The Deployments page is displayed.
2. Click **Install**.
The Install Application Assistant page is displayed, as shown in [Figure 2–23](#).

Figure 2–23 Install Application Assistant

3. Browse to the <ADAPTER_HOME> location where the adapters are installed:

- **For SOA:**

<ORACLE_HOME>\soa\soa\thirdparty\ApplicationAdapters

- **For OSB:**

<ORACLE_HOME>\osb\3rdparty\ApplicationAdapters

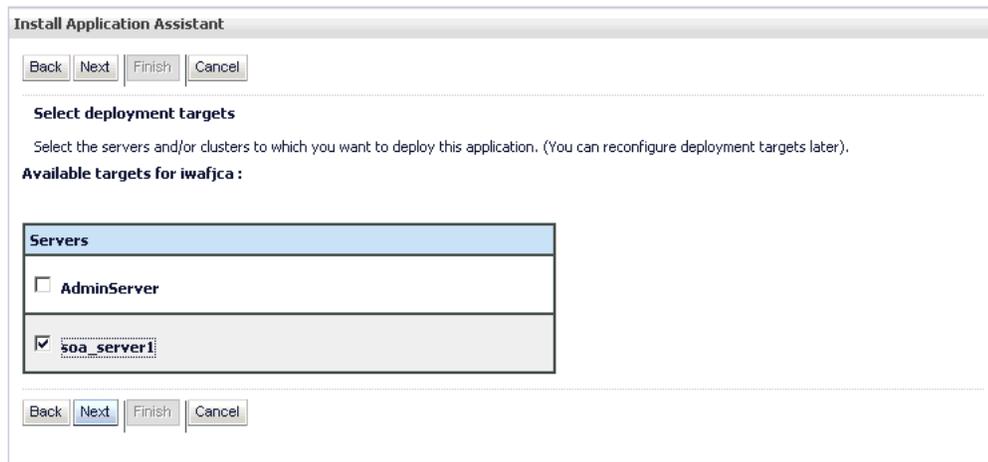
4. Select the **iwafjca.war** option, and click **Next**.

The Choose Targeting Style page is displayed.

5. Leave the default **Install this deployment as an application** selected and click **Next**.

The Select Deployment Targets page is displayed, as shown in [Figure 2–24](#).

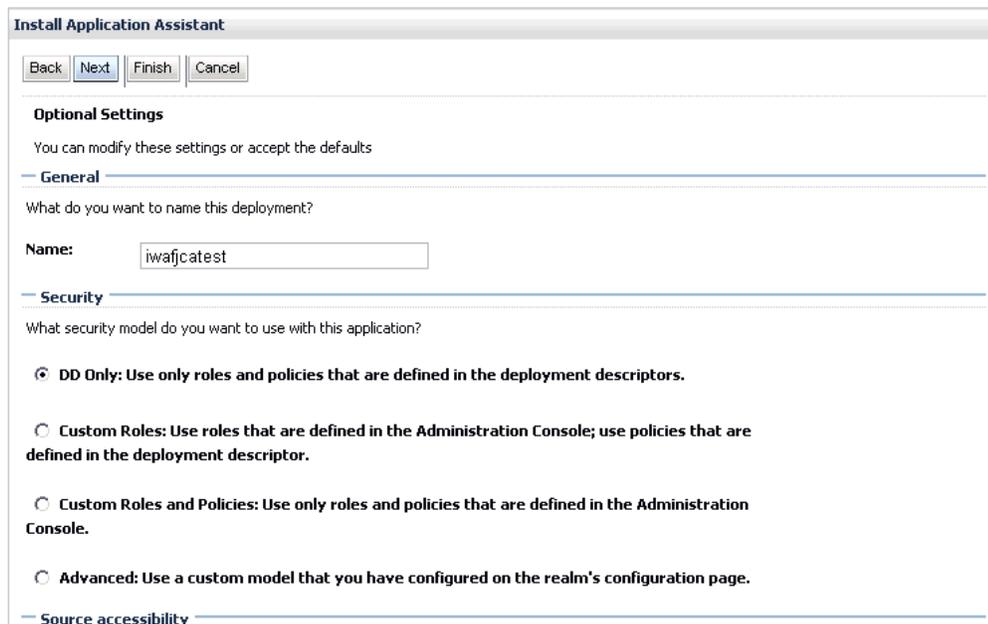
Figure 2–24 Select Deployment Targets Page



6. Select `soa_server1` and click **Next**.

The Optional Settings page is displayed, as shown in [Figure 2–25](#).

Figure 2–25 Optional Settings Page



7. In the Name field, enter the following:

```
iwafjcatest
```

8. Click **Next** and leave the remaining default values unchanged.

The Summary page is displayed.

9. Click **Finish**.

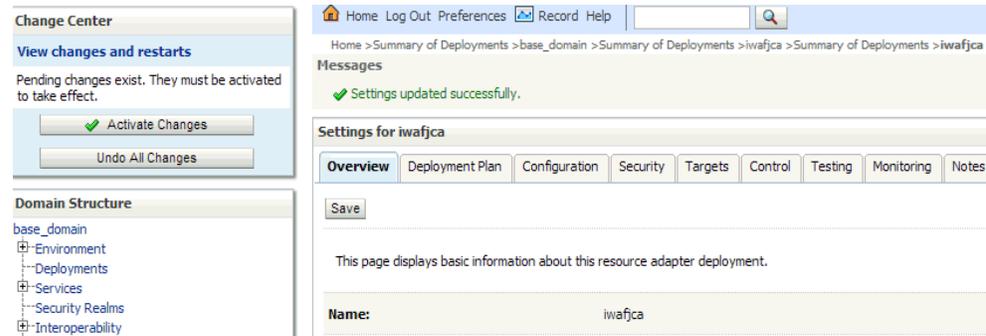
The Settings page for the J2CA Installation Verification Program (IVP) is displayed.

10. Click **Save**.

The "Settings updated successfully" message is displayed, which indicates a successful deployment.

11. Under Change Center in the left pane, click **Activate Changes**, as shown in Figure 2–26.

Figure 2–26 Change Center



12. In the Domain Structure section in the left pane, click **Deployments**.
13. In the Summary of Deployments screen page, click on the Control tab and navigate through the table that lists all the deployed applications until you find the J2CA (iwafjctest) Installation Verification Program (IVP).
14. Select the **iwafjctest** option.
15. Click the **Start** submenu (down arrow) and select **Servicing all requests**.
The Start Application Assistant page is displayed.
16. Click **Yes** to start the selected deployment.

The J2CA (iwafjctest) Installation Verification Program (IVP) has been deployed successfully to Oracle WebLogic Server.

After the adapter targets are created using Application Explorer, you can select these targets and test outbound connections from the Oracle J2CA Test Servlet.

Note: Oracle WebLogic Server must be restarted after adapter targets are created using Application Explorer.

2.5.4 Connecting to a J2CA Configuration Using Application Explorer

To connect to a new J2CA configuration:

1. Right-click the configuration to which you want to connect, for example, **J2CA_SampleConfig**.
2. Select **Connect**.

Nodes appear for Adapters and Events.

Note: You can configure events using a J2CA configuration only.

An example of a J2CA configuration named *J2CA_SampleConfig* is displayed, as shown in Figure 2–27.

Figure 2–27 J2CA Sample Configuration Node

- Use the Adapters node to create inbound interaction with an adapter.
- Use the Events node to configure listeners that listen for events.

After completing the post installation tasks, you can define new targets for Oracle Fusion Middleware Application Adapters. For more information about configuring targets, see the corresponding *Oracle Fusion Middleware Application Adapter User's Guide* for your adapter.

2.6 Configuring and Deploying Business Services Engine

After the appropriate settings are configured according to your requirements, you must deploy BSE for use with Oracle WebLogic Server using the Oracle WebLogic Server Administration Console. This section describes how to configure settings for Oracle WebLogic Server Adapter Business Services Engine (BSE). It contains the following topics:

- [Section 2.6.1, "Configuring Settings for Oracle WebLogic Server Adapter Business Services Engine \(BSE\)"](#)
- [Section 2.6.2, "Deploying Oracle WebLogic Server Adapter Business Services Engine \(BSE\) Using the Oracle WebLogic Server Administration Console"](#)
- [Section 2.6.3, "Connecting to a BSE Configuration Using Application Explorer"](#)

2.6.1 Configuring Settings for Oracle WebLogic Server Adapter Business Services Engine (BSE)

To configure settings for BSE:

1. Locate the *web.xml* file, which is located in the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\ibse.war\WEB-INF\web.xml
```

2. Open the *web.xml* file in an editor.
3. Enter a value for the *ibseroot* parameter.

This is the folder where the BSE files are stored in subdirectories for each adapter. For example:

```
<context-param>
  <param-name>ibseroot</param-name>
  <param-value>C:\oracle\Middleware\home_0309\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\ibse.war</param-value>
  <description>ibse root directory</description>
</context-param>
```

4. Enter a value for the *iway.home* parameter.

This is the folder where adapters are installed. For example:

```
<context-param>
  <param-name>iway.home</param-name>
```

```

    <param-value>C:\oracle\Middleware\home_0309\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters</param-value>
    <description>license file location</description>
</context-param>

```

5. Enter a value for the *iway.config* parameter.

This is the value that you specified when you created a new BSE configuration using Application Explorer. For example:

```

<context-param>
  <param-name>iway.config</param-name>
  <param-value>BSE_SampleConfig</param-value>
  <description>Base Configuration</description>
</context-param>

```

6. Save the *web.xml* file and exit the editor.

2.6.2 Deploying Oracle WebLogic Server Adapter Business Services Engine (BSE) Using the Oracle WebLogic Server Administration Console

To deploy BSE:

1. Start the Oracle WebLogic Server for the Oracle WebLogic Server domain that you have configured.
2. Open the Oracle WebLogic Server Administration Console in a Web browser by entering the following URL:

```
http://host name:port/console
```

where *host name* is the name of the system where Oracle WebLogic Server is running and *port* is the port for the Oracle WebLogic Server that is running. The default port for the Oracle WebLogic Server is 7001. However, this value can vary between installations.

3. Log in to the Oracle WebLogic Server Administrative Console using an account that has administrator privileges.

The Oracle WebLogic Server Administration Console home page is displayed.

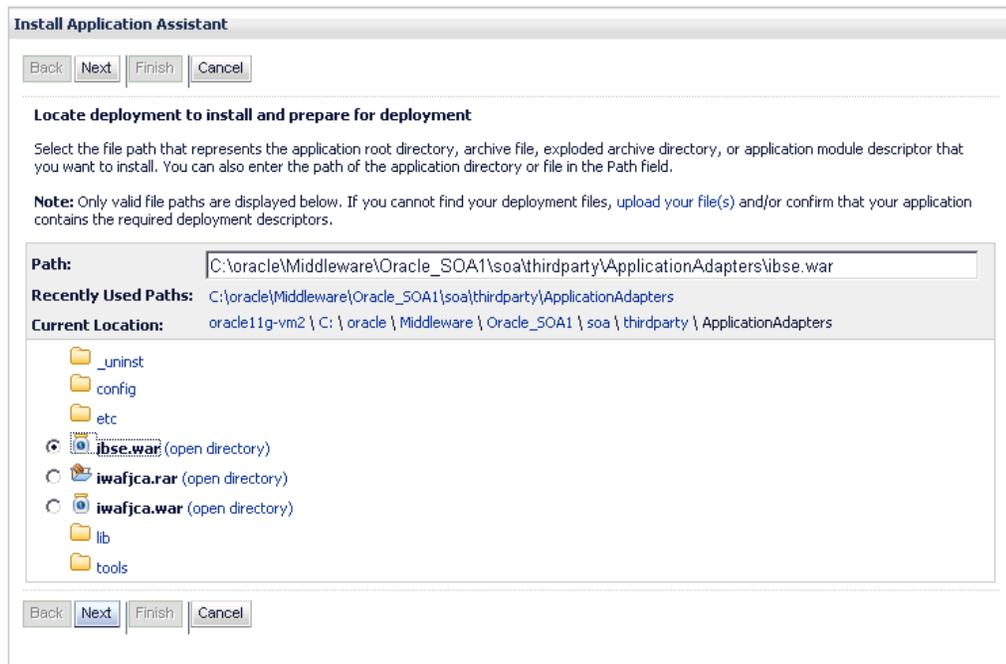
4. In the left pane, under Change Center, click **Lock & Edit** and then click **Deployments** in the Domain Structure section.

The Deployments page is displayed.

5. Click **Install**.

The Install Application Assistant page is displayed, as shown in [Figure 2-28](#).

Figure 2–28 Install Application Assistant



6. Browse to the <ADAPTER_HOME> location where the adapters are installed:
 - **For SOA:**

```
<ORACLE_HOME>\soa\soa\thirdparty\ApplicationAdapters
```
 - **For OSB:**

```
<ORACLE_HOME>\osb\3rdparty\ApplicationAdapters
```
7. Select the **ibse.war** option and click **Next**.
The Choose Targeting Style page is displayed.
8. Leave the default **Install this deployment as an application** selected and click **Next**.
The Deployment Target page is displayed, as shown in [Figure 2–29](#).

Figure 2–29 Deployment Target Page

Install Application Assistant

Back Next Finish Cancel

Select deployment targets

Select the servers and/or clusters to which you want to deploy this application. (You can reconfigure deployment targets later).

Available targets for iwafjca :

Servers	
<input type="checkbox"/>	AdminServer
<input checked="" type="checkbox"/>	soa_server1

Back Next Finish Cancel

9. Select **soa_server1** and click **Next**.

The Optional Settings page is displayed, as shown in [Figure 2–30](#).

Figure 2–30 Optional Settings Page

Install Application Assistant

Back Next Finish Cancel

Optional Settings

You can modify these settings or accept the defaults

General

What do you want to name this deployment?

Name:

Security

What security model do you want to use with this application?

DD Only: Use only roles and policies that are defined in the deployment descriptors.

Custom Roles: Use roles that are defined in the Administration Console; use policies that are defined in the deployment descriptor.

Custom Roles and Policies: Use only roles and policies that are defined in the Administration Console.

Advanced: Use a custom model that you have configured on the realm's configuration page.

Source accessibility

10. Click **Next** and leave the remaining default values unchanged.

The Summary page is displayed.

11. Click **Finish**.

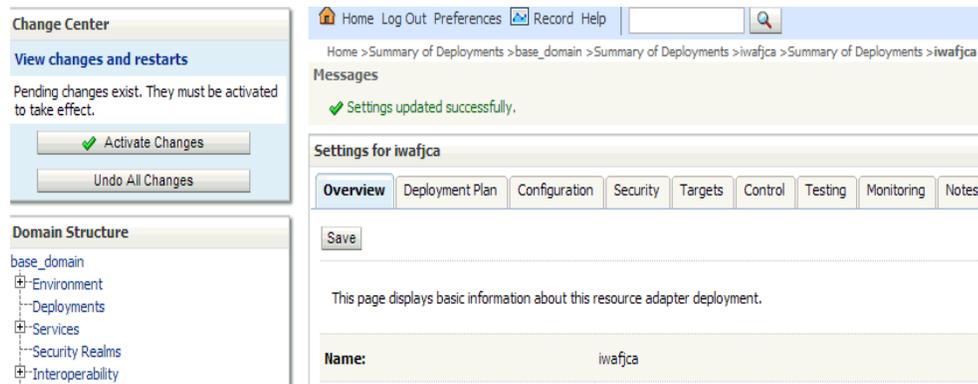
The Settings page for the BSE (ibse) Application is displayed.

12. Click **Save**.

The "Settings updated successfully" message is displayed, which indicates a successful deployment.

13. Under Change Center in the left pane, click **Activate Changes**, as shown in [Figure 2–31](#).

Figure 2–31 Activate Changes Button



14. In the Domain Structure section in the left pane, click **Deployments**.
15. In the Summary of Deployments screen page, click on the Control tab and navigate through the table that lists all the deployed applications until you find the BSE (ibse) Application.
16. Select the **ibse** option.
17. Click the **Start** submenu (down arrow) and select **Servicing all requests**.
The Start Application Assistant page is displayed.
18. Click **Yes** to start the selected deployment.
The BSE (ibse) Application has been deployed successfully to Oracle WebLogic Server.

2.6.3 Connecting to a BSE Configuration Using Application Explorer

To connect to a new BSE configuration:

1. Right-click the configuration to which you want to connect, for example, **BSE_SampleConfig**.
2. Select **Connect**.

Nodes appear for Adapters and Business Services (also known as Web services). The Business Services node is only available for BSE configurations.

Events are not applicable when using a BSE configuration. You can configure events using a J2CA configuration only.

An example of a BSE configuration named *BSE_SampleConfig* is displayed, as shown in [Figure 2–32](#).

Figure 2–32 BSE Sample Configuration Node



- Use the Adapters node to create inbound interaction with an adapter.

- Use the Business Services node (available for BSE configurations only) to test Web services. You can also control security settings for the Web services by using the security features of the Business Services node.

After completing the post installation tasks, you can define new targets for Oracle Fusion Middleware Application Adapters. For more information about configuring targets, see the corresponding *Oracle Fusion Middleware Application Adapter User's Guide* for your adapter.

2.7 Using Utility Scripts to Deploy, Undeploy, and Update Adapters

This section describes how to deploy Oracle Fusion Middleware Application Adapters using the available utility scripts. It contains the following topics:

- [Section 2.7.1, "Accessing the Deployment Script"](#)
- [Section 2.7.2, "Using the Deployment Script"](#)

Note: The utility scripts that are described in this section do not work for the following environments:

- SOA/OSB cluster environment
 - Adapters upgraded from PS6 to 12c (12.2.1.0.0), 12c (12.1.3.0.0) to 12c (12.2.1.0.0) and 12c Cumulative-1(12.1.3.0.0) to 12c (12.2.1.0.0).
-
-

Before proceeding, ensure that the following conditions are met:

- Oracle WebLogic Server must be started.
- Make sure all manual configurations are done for ra.xml and web.xml.
- During the execution of the script, you are prompted for the following information. Ensure that you have the appropriate information before proceeding.
 - Admin Server listening port - Port on which the Admin Server is listening and running.
 - Adapters to be deployed / undeployed / updated (iBSE or JCA, or iBSE and JCA together).
 - Name under which the adapters should be deployed / undeployed / updated (default values are *ibse*, *iwafjca*, and *iwafjcaivp*).
 - Oracle suite that the script has to be run against (SOA or OSB).
 - Domain mode of the selected Oracle suite (Integrated Server or Managed Mode).
 - Name of the Server provided during creation of the domain.
 - Oracle Home - Home location where Oracle WebLogic Server and SOA/OSB suite are installed.
 - Domain User Name and Password that were provided during creation of the domain.

Note: The deploy, undeploy, and update scripts require the same parameter values (for Windows and non-Windows platforms). For demonstration purposes, the deploy script for Windows platform is used as an example in the remaining topics in this section.

Note: When using the undeploy and update scripts, you must know the name under which the adapters (ibse.war, iwafjca.rar, iwafjca.war) are deployed in Oracle WebLogic Server.

2.7.1 Accessing the Deployment Script

This section describes how to access the deployment script on Windows and non-Windows platforms.

2.7.1.1 Windows Platforms

Option 1:

Navigate to the following directory where the deployment script is available:

```
<ADAPTER_HOME>\etc\util\AdapterDeployment
```

Double-click the *Deployment_Windows.bat* file to start the deployment.

Option 2:

In a command prompt, navigate to the following directory where the deployment script is available:

```
<ADAPTER_HOME>\etc\util\AdapterDeployment
```

Run the *Deployment_Windows.bat* file.

2.7.1.2 Non-Windows Platforms

In a command prompt, navigate to the following directory where the deployment script is available:

```
<ADAPTER_HOME>/etc/util/AdapterDeployment
```

Run the *Deployment_Linux.sh* or *Deployment_Solaris_HP_AIX.sh* file, depending on the platform.

Note: For the undeployment of adapters, the available scripts are:

- Windows: *UnDeployment_Windows.bat*
Linux: *UnDeployment_Linux.sh*
Solaris_AIX_HP: *UnDeployment_Solaris_HP_AIX.sh*

For the update of adapters, the available scripts are:

- Windows: *Update_Deployment_Windows.bat*
Linux: *Update_Deployment_Linux.sh*
Solaris_AIX_HP: *Update_Deployment_Solaris_HP_AIX.sh*
-
-

2.7.2 Using the Deployment Script

To deploy Oracle Fusion Middleware Application Adapters using the deployment script, perform the following steps:

1. Once the deployment script is executed, read the warning messages displayed, as shown in [Figure 2-33](#).

Figure 2–33 Deployment Script Warning Messages

```

Application Adapters Deployment
-----
Providing blank values for parameters will cause the application to close
-----
Please make sure the WebLogic Servers are up and running
-----
Press any key to continue . . .

```

2. Press any key to continue.

You are prompted to enter the Admin server listening port, as shown in [Figure 2–34](#).

Figure 2–34 Admin Server Listening Port

```

Application Adapters Deployment
Enter the AdminServer Listening port <Ex:7001>: 7001

```

3. Provide a listening port value and press **Enter** to continue.

You are prompted to select whether to deploy iBSE or JCA, or iBSE and JCA together, as shown in [Figure 2–35](#).

Figure 2–35 Adapter Deployment Options

```

Application Adapters Deployment
Enter the AdminServer Listening port <Ex:7001>: 7001
Adapter Deployment Options:
1 - To deploy iBSE
2 - To deploy JCA
3 - To deploy both iBSE and JCA
Please enter your selection:3

```

In this example, the option to deploy iBSE and JCA together is used. Based on this selection, you are prompted to enter the names under which iBSE and JCA are deployed to Oracle WebLogic Server.

4. Type 3 and press **Enter** to continue.

You are prompted to enter the name under which the *ibse.war* file should be deployed to Oracle WebLogic Server, as shown in [Figure 2–36](#).

Figure 2–36 Specify iBSE Deployment Name

```

Application Adapters Deployment
Enter the AdminServer Listening port <Ex:7001>: 7001
Adapter Deployment Options:
1 - To deploy iBSE
2 - To deploy JCA
3 - To deploy both iBSE and JCA
Please enter your selection:3
Please enter the name under which the ibse.war has to be deployed <Ex: ibse>:ibse

```

5. Provide an appropriate name and press **Enter** to continue.

You are prompted to enter the name under which the `iwafjca.rar` file should be deployed to Oracle WebLogic Server, as shown in [Figure 2–37](#).

Figure 2–37 Specify JCA (`iwafjca.rar`) Deployment Name

```

1 - To deploy iBSE
2 - To deploy JCA
3 - To deploy both iBSE and JCA
Please enter your selection:3
Please enter the name under which the ibse.war has to be deployed <Ex: ibse>:ibse
Please enter the name under which the iwafjca.rar has to be deployed <Ex: iwafjca>:iwafjca

```

6. Provide an appropriate name and press **Enter** to continue.

You are prompted to enter the name under which the `iwafjca.war` file should be deployed to Oracle WebLogic Server, as shown in [Figure 2–38](#).

Figure 2–38 Specify JCA (`iwafjca.war`) Deployment Name

```

Adapter Deployment Options:
1 - To deploy iBSE
2 - To deploy JCA
3 - To deploy both iBSE and JCA
Please enter your selection:3
Please enter the name under which the ibse.war has to be deployed <Ex: ibse>:ibse
Please enter the name under which the iwafjca.rar has to be deployed <Ex: iwafjca>:iwafjca
Please enter the name under which the iwafjca.war has to be deployed <Ex: iwafjcaiwp>:iwafjca_iwp

```

7. Provide an appropriate name and press **Enter** to continue.

You are prompted to enter the suite that the script must be run against, which might be SOA or OSB, as shown in [Figure 2–39](#).

Figure 2–39 SOA or OSB Suite Prompt

```

3 - To deploy both iBSE and JCA
Please enter your selection:3
Please enter the name under which the ibse.war has to be deployed <Ex: ibse>:ibse
Please enter the name under which the iwafjca.rar has to be deployed <Ex: iwafjca>:iwafjca
Please enter the name under which the iwafjca.war has to be deployed <Ex: iwafjcaiwp>:iwafjca_iwp
Enter the option for which the adapters to be deployed SOA - 1 , OSB - 2: 1

```

8. Provide the appropriate option and press **Enter** to continue.

You are prompted to enter the domain mode of the selected Oracle suite (for example, SOA).

9. Provide the appropriate option (for example, Managed Mode) and press **Enter** to continue.

You are prompted to enter the name of the SOA managed server, as shown in [Figure 2–40](#).

Figure 2–40 SOA Managed Server Name Prompt

```

Application Adapters Deployment
Enter the AdminServer Listening port (Ex:7001): 7001
Adapter Deployment Options:
1 - To deploy IBSE
2 - To deploy JCA
3 - To deploy both IBSE and JCA
Please enter your selection:3
Please enter the name under which the ibse.war has to be deployed (Ex: ibse):ibse
Please enter the name under which the iwafjca.rar has to be deployed (Ex: iwafjca):iwafjca
Please enter the name under which the iwafjca.war has to be deployed (Ex: iwafjcaivp):iwafjca_ivp
Enter the option for which the adapters to be deployed SOA - 1 , OSB - 2: 1
Enter the SOA Domain Mode (Admin Mode - 1 , Managed Mode - 2):2
Enter the SOA ManagedServer name (Ex: soa_server1):soa_server1

```

10. Provide the appropriate value and press **Enter** to continue.

Note: In case Integrated Server Mode was selected in the previous step, you would have been prompted for the Integrated server name. This behavior is the same for SOA and OSB.

You are prompted to enter the Oracle home directory, as shown in [Figure 2–41](#).

Figure 2–41 Oracle Home Location Prompt

```

Application Adapters Deployment
Enter the AdminServer Listening port (Ex:7001): 7001
Adapter Deployment Options:
1 - To deploy IBSE
2 - To deploy JCA
3 - To deploy both IBSE and JCA
Please enter your selection:3
Please enter the name under which the ibse.war has to be deployed (Ex: ibse):ibse
Please enter the name under which the iwafjca.rar has to be deployed (Ex: iwafjca):iwafjca
Please enter the name under which the iwafjca.war has to be deployed (Ex: iwafjcaivp):iwafjca_ivp
Enter the option for which the adapters to be deployed SOA - 1 , OSB - 2: 1
Enter the SOA Domain Mode (Admin Mode - 1 , Managed Mode - 2):2
Enter the SOA ManagedServer name (Ex: soa_server1):soa_server1
Enter the Oracle Home Location (Ex C:\Middleware): C:\oracle\PS5

```

This is the location where Oracle 12c (12.2.1.0.0) is located.

11. Provide the appropriate value and press **Enter** to continue.

You are prompted to enter the domain user name and password, as shown in [Figure 2–42](#).

Figure 2–42 Domain User Name and Password Prompt

```

Please enter the name under which the ibse.war has to be deployed <Ex: ibse>:ibse
Please enter the name under which the iwafjca.rar has to be deployed <Ex: iwafjca>:iwafjca
Please enter the name under which the iwafjca.war has to be deployed <Ex: iwafjcaiwp>:iwafjca_iwp
Enter the option for which the adapters to be deployed SOA - 1 , OSB - 2: 1
Enter the SOA Domain Mode <Admin Mode - 1 , Managed Mode - 2>:2
Enter the SOA ManagedServer name <Ex: soa_server1>:soa_server1
Enter the Oracle Home Location <Ex C:\Middleware>: C:\oracle\PS5
Enter the SOA Domain Username: weblogic
Enter the SOA Domain Password: welcome1

```

This is the user name and password provided during creation of the domain.

12. Provide the appropriate values and press **Enter** to continue.

A summary of the details you provided is displayed, as shown in [Figure 2–43](#).

Figure 2–43 Deployment Details Summary

```

Enter the option for which the adapters to be deployed SOA - 1 , OSB - 2: 1
Enter the SOA Domain Mode <Admin Mode - 1 , Managed Mode - 2>:2
Enter the SOA ManagedServer name <Ex: soa_server1>:soa_server1
Enter the Oracle Home Location <Ex C:\Middleware>: C:\oracle\PS5
Enter the SOA Domain Username: weblogic
Enter the SOA Domain Password: welcome1
Please make sure if the deployment details are correct. Press "y" to continue with the Deployment of
-----
Admin Server Listen Port - 7001
Oracle Suite - SOA
Domain Mode - Managed Mode
Adapter Deployment - iBSE and JCA
Server Name - soa_server1
Oracle Home Location - C:\oracle\PS5
Username - weblogic
Password - welcome1
-----
Enter y/n:

```

13. If the information is correct, then type **y** or **Y** to continue with the adapter deployment. If not, then type **n** or **N** to go back and reenter the appropriate values. You can also type **E** or **e** to exit the program.

Note: ■ If any information listed in the summary must be modified, then type **n** or **N** and you are prompted to reenter the values.

- Once you type **y** or **Y** to continue, the script continues to deploy (in this example), undeploy, or update according to the script being used. No user input or manual interaction is required after this point.
 - If you want to stop the execution of the script, then type **E** or **e** to exit the program.
-

The following images show an example of deploy, undeploy and update script operations:

- [Figure 2–44, "Deploy Script Example"](#)
- [Figure 2–45, "Undeploy Script Example"](#)
- [Figure 2–46, "Update Script Example"](#)

Figure 2-44 Deploy Script Example

```

c:\Application Adapters Deployment
Username - weblogic
Password - welcone1
-----
Enter y/n:y

CLASSPATH="C:\oracle\PS5\patch_wls1036\profiles\default\sys_manifest_classpath\w
eblogic_patch.jar;C:\oracle\PS5\patch_ocp371\profiles\default\sys_manifest_class
path\weblogic_patch.jar;C:\oracle\PS5\JROCKI~1.0-1\lib\tools.jar;C:\oracle\PS5\W
LSEURU~1.3\server\lib\weblogic_sp.jar;C:\oracle\PS5\WLSEURU~1.3\server\lib\weblogi
c.jar;C:\oracle\PS5\modules\features\weblogic.server.modules_10.3.6.0.jar;C:\ora
cle\PS5\WLSEURU~1.3\server\lib\webservices.jar;C:\oracle\PS5\modules\ORGAPPA~1.1\l
ib\ant-all.jar;C:\oracle\PS5\modules\NETSFA~1.0_1\lib\ant-contrib.jar;C:\oracle\
PS5\jdk160_29\bin;C:\PsTools"

PATH="C:\oracle\PS5\patch_wls1036\profiles\default\native;C:\oracle\PS5\patch_oc
p371\profiles\default\native;C:\oracle\PS5\WLSEURU~1.3\server\native\win\32;C:\or
acle\PS5\WLSEURU~1.3\server\bin;C:\oracle\PS5\modules\ORGAPPA~1.1\bin;C:\oracle\PS
5\JROCKI~1.0-1\jre\bin;C:\oracle\PS5\JROCKI~1.0-1\bin;C:\oracle\product\11.1.0\nd
b_1\bin;C:\Java\jdk1.6.0_29\jre;C:\PsTools;C:\Program Files\Legato\nsr\bin;C:\WI
NDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wbem;C:\PROGRAM~1\Graphics\bin;C:\P
rogram Files\GnuWin32\bin;C:\oracle\PS5\jdk160_29\bin;C:\oracle\PS5\WLSEURU~1.3\s
erver\native\win\32\oc1920_8"

Your environment has been set.
weblogic.Deployer invoked with options: -adminurl t3://localhost:7001 -username
weblogic -name iwafjca -source C:\oracle\PS5\Oracle_SOA1\soa\thirdparty\Applica
tionAdapters\iwafjca.rar -targets soa_server1 -deploy
<Aug 9, 2013 8:42:45 AM EDT> <Info> <J2EE Deployment SPI> <BEA-260121> <Initiati
ng deploy operation for application, iwafjca [archive: C:\oracle\PS5\Oracle_SOA1
\soa\thirdparty\ApplicationAdapters\iwafjca.rar], to soa_server1 .>
Task 9 initiated: [Deployer:149026]deploy application iwafjca on soa_server1.
Task 9 completed: [Deployer:149026]deploy application iwafjca on soa_server1.
Target state: deploy completed on Server soa_server1

weblogic.Deployer invoked with options: -adminurl t3://localhost:7001 -username
weblogic -name iwafjcaivp -source C:\oracle\PS5\Oracle_SOA1\soa\thirdparty\Appl
icationAdapters\iwafjca.war -targets soa_server1 -deploy
<Aug 9, 2013 8:43:10 AM EDT> <Info> <J2EE Deployment SPI> <BEA-260121> <Initiati
ng deploy operation for application, iwafjcaivp [archive: C:\oracle\PS5\Oracle_S
OA1\soa\thirdparty\ApplicationAdapters\iwafjca.war], to soa_server1 .>
Task 10 initiated: [Deployer:149026]deploy application iwafjcaivp on soa_server1
.
Task 10 completed: [Deployer:149026]deploy application iwafjcaivp on soa_server1
.
Target state: deploy completed on Server soa_server1

weblogic.Deployer invoked with options: -adminurl t3://localhost:7001 -username
weblogic -name ibse -source C:\oracle\PS5\Oracle_SOA1\soa\thirdparty\Applica
tionAdapters\ibse.war -targets soa_server1 -deploy
<Aug 9, 2013 8:43:28 AM EDT> <Info> <J2EE Deployment SPI> <BEA-260121> <Initiati
ng deploy operation for application, ibse [archive: C:\oracle\PS5\Oracle_SOA1\so
a\thirdparty\ApplicationAdapters\ibse.war], to soa_server1 .>
Task 11 initiated: [Deployer:149026]deploy application ibse on soa_server1.
Task 11 completed: [Deployer:149026]deploy application ibse on soa_server1.
Target state: deploy completed on Server soa_server1

Press any key to continue . . .

```

The deployed adapters are also activated.

Figure 2-45 Undeploy Script Example

```

Application Adapters Undeployment
Server Name - soa_server1
Oracle Home Location - C:\oracle\PS5
Username - weblogic
Password - welcome1

-----
Enter y/n:y
"Undeployment of adapters for SOA Managed Mode begins"

CLASSPATH="C:\oracle\PS5\patch_wls1036\profiles\default\sys_manifest_classpath\w
eblogic_patch.jar;C:\oracle\PS5\patch_ocp371\profiles\default\sys_manifest_class
path\weblogic_patch.jar;C:\oracle\PS5\JROCKI~1.0-1\lib\tools.jar;C:\oracle\PS5\W
LSERU~1.3\server\lib\weblogic_sp.jar;C:\oracle\PS5\WLSERU~1.3\server\lib\weblogi
c.jar;C:\oracle\PS5\modules\features\weblogic_server.modules_10.3.6.0.jar;C:\ora
cle\PS5\WLSERU~1.3\server\lib\webservices.jar;C:\oracle\PS5\modules\ORGAPAT~1.1\l
ib\ant-all.jar;C:\oracle\PS5\modules\NETSFA~1.0_1\lib\ant-contrib.jar;C:\oracle\
PS5\jdk160_29\bin;C:\PsTools"

PATH="C:\oracle\PS5\patch_wls1036\profiles\default\native;C:\oracle\PS5\patch_oc
p371\profiles\default\native;C:\oracle\PS5\WLSERU~1.3\server\native\win32;C:\or
acle\PS5\WLSERU~1.3\server\bin;C:\oracle\PS5\modules\ORGAPAT~1.1\bin;C:\oracle\PS
5\JROCKI~1.0-1\jre\bin;C:\oracle\PS5\JROCKI~1.0-1\bin;C:\oracle\product\11.1.0\de
b_1\bin;C:\Java\jdk1.6.0_29\jre;C:\PsTools;C:\Program Files\Legato\nsr\bin;C:\WI
NDOWS\system32;C:\WINDOWS;C:\WINDOWS\system32\Wbem;C:\PROGRAM~1\Graphiz\bin;C:\P
rogram Files\GnuWin32\bin;C:\oracle\PS5\jdk160_29\bin;C:\oracle\PS5\WLSERU~1.3\s
erver\native\win32\oci920_8"

Your environment has been set.
weblogic.Deployer invoked with options: -adminurl t3://localhost:7001 -username
weblogic -name iwafjca -targets soa_server1 -undeploy
<Aug 9, 2013 7:35:15 AM EDT> <Info> <J2EE Deployment SPI> <BEA-260121> <Initiati
ng undeploy operation for application, iwafjca [archive: null], to soa_server1 .>
Task 0 initiated: [Deployer:149026]remove application iwafjca on soa_server1.
Task 0 completed: [Deployer:149026]remove application iwafjca on soa_server1.
Target state: undeploy completed on Server soa_server1

weblogic.Deployer invoked with options: -adminurl t3://localhost:7001 -username
weblogic -name iwafjcaivp -targets soa_server1 -undeploy
<Aug 9, 2013 7:35:35 AM EDT> <Info> <J2EE Deployment SPI> <BEA-260121> <Initiati
ng undeploy operation for application, iwafjcaivp [archive: null], to soa_server
1 .>
Task 1 initiated: [Deployer:149026]remove application iwafjcaivp on soa_server1.
Task 1 completed: [Deployer:149026]remove application iwafjcaivp on soa_server1.
Target state: undeploy completed on Server soa_server1

weblogic.Deployer invoked with options: -adminurl t3://localhost:7001 -username
weblogic -name ibse -targets soa_server1 -undeploy
<Aug 9, 2013 7:35:41 AM EDT> <Info> <J2EE Deployment SPI> <BEA-260121> <Initiati
ng undeploy operation for application, ibse [archive: null], to soa_server1 .>
Task 2 initiated: [Deployer:149026]remove application ibse on soa_server1.
Task 2 completed: [Deployer:149026]remove application ibse on soa_server1.
Target state: undeploy completed on Server soa_server1

Press any key to continue . . .

```

Figure 2–46 Update Script Example

```

c:\Application Adapters Update
Enter y/n:y

CLASSPATH="C:\oracle\PS5\patch_wls1036\profiles\default\sys_manifest_classpath\weblogic_patch.jar;C:\oracle\PS5\patch_ocp371\profiles\default\sys_manifest_classpath\weblogic_patch.jar;C:\oracle\PS5\JROCKI\1.0-1\lib\tools.jar;C:\oracle\PS5\MLSERU\1.3\server\lib\weblogic_sp.jar;C:\oracle\PS5\MLSERU\1.3\server\lib\weblogic.jar;C:\oracle\PS5\modules\features\weblogic.server.modules_10.3.6.0.jar;C:\oracle\PS5\MLSERU\1.3\server\lib\webservices.jar;C:\oracle\PS5\modules\ORGAPPA\1.1\lib\ant-all.jar;C:\oracle\PS5\modules\NETSFA\1.0_1\lib\ant-contrib.jar;C:\oracle\PS5\jdk160_29\bin;C:\PsTools"

PATH="C:\oracle\PS5\patch_wls1036\profiles\default\native;C:\oracle\PS5\patch_ocp371\profiles\default\native;C:\oracle\PS5\MLSERU\1.3\server\native\win\32;C:\oracle\PS5\MLSERU\1.3\server\bin;C:\oracle\PS5\modules\ORGAPPA\1.1\bin;C:\oracle\PS5\JROCKI\1.0-1\jre\bin;C:\oracle\PS5\JROCKI\1.0-1\bin;C:\oracle\product\11.1.0\ndb\1\bin;C:\Java\jdk1.6.0_29\jre;C:\PsTools;C:\Program Files\Legato\nsr\bin;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wbem;C:\PROGRAM\1\Graphviz\bin;C:\Program Files\GnuWin32\bin;C:\oracle\PS5\jdk160_29\bin;C:\oracle\PS5\MLSERU\1.3\server\native\win\32\oci920_8"

Your environment has been set.
weblogic.Deployer invoked with options: -adminurl t3://localhost:7001 -username
weblogic -name iwafjca -targets soa_server1 -redeploy
<Aug 9, 2013 9:02:34 AM EDT> <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating redeploy operation for application, iwafjca [archive: null], to soa_server1 .>
Task 12 initiated: [Deployer:149026]redeploy application iwafjca on soa_server1.
Task 12 completed: [Deployer:149026]redeploy application iwafjca on soa_server1.
Target state: redeploy completed on Server soa_server1

weblogic.Deployer invoked with options: -adminurl t3://localhost:7001 -username
weblogic -name iwafjcaivp -targets soa_server1 -redeploy
<Aug 9, 2013 9:02:44 AM EDT> <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating redeploy operation for application, iwafjcaivp [archive: null], to soa_server1 .>
Task 13 initiated: [Deployer:149026]redeploy application iwafjcaivp on soa_server1.
Task 13 completed: [Deployer:149026]redeploy application iwafjcaivp on soa_server1.
Target state: redeploy completed on Server soa_server1

weblogic.Deployer invoked with options: -adminurl t3://localhost:7001 -username
weblogic -name ibse -targets soa_server1 -redeploy
<Aug 9, 2013 9:02:51 AM EDT> <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating redeploy operation for application, ibse [archive: null], to soa_server1 .>
Task 14 initiated: [Deployer:149026]redeploy application ibse on soa_server1.
Task 14 failed: [Deployer:149026]redeploy application ibse on soa_server1.
Target state: redeploy failed on Server soa_server1
weblogic.management.DeploymentException: [Deployer:149258]Server failed to remove the staged files 'C:\oracle\PS5\user_projects\domains\base_domain\servers\soa_server1\stage\ibse\ibse.war' for application 'ibse' completely. Check the directory and make sure no other application using this directory. This will result in inappropriate results when this server gets partitioned and trying to deploy this application.

Press any key to continue . . .

```

The deployed adapters are also activated.

2.8 Post Installation Tasks

Perform the following post installation configuration tasks for packaged application adapters:

- [Section 2.8.1, "Configuring the Logging Feature"](#)
- [Section 2.8.2, "List of Enterprise Information System Library Files"](#)
- [Section 2.8.3, "Copying the Enterprise Information System Library Files"](#)
- [Section 2.8.4, "Directory Structure"](#)
- [Section 2.8.5, "Configuring the Oracle Database Repository"](#)
- [Section 2.8.6, "Configuring the DB2 Database Repository"](#)
- [Section 2.8.7, "Configuring the Microsoft SQL \(MS SQL\) Server Database Repository"](#)

If you installed the Oracle WebLogic Server Application Adapter for PeopleSoft, then see [Appendix A, "Configuring Oracle Fusion Middleware Application Adapter for](#)

PeopleSoft". If you installed the Oracle WebLogic Server Application Adapter for J.D. Edwards OneWorld, then see [Appendix B, "Configuring Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld"](#).

Note: The directory paths mentioned in this guide follow Windows conventions. For example, back slashes (\) are used.

If you are using an Oracle WebLogic Server Application Adapter on UNIX, then modify the directory paths as required.

2.8.1 Configuring the Logging Feature

For more information on configuring the Logging feature, see the Key Features chapter in the corresponding *Oracle Fusion Middleware Application Adapter User's Guide* for your adapter.

2.8.2 List of Enterprise Information System Library Files

The following section lists the required Enterprise Information System (EIS) library files for the following adapters:

- Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld
- Oracle Fusion Middleware Application Adapter for PeopleSoft
- Oracle Fusion Middleware Application Adapter for Siebel
- Oracle Fusion Middleware Application Adapter for SAP R/3 (Using SAP JCo 3.x)

Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld

This section lists the library files that are required by the Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld.

J.D. Edwards OneWorld Java-based ThinNet API

This API is distributed as .jar files on the J.D. Edwards OneWorld installation media. These libraries can vary based on the J.D. Edwards OneWorld release.

On the J.D. Edwards OneWorld system, these library files are located in the following folder:

```
\\system\classes
```

For XE (B7333):

- Connector.jar
- Kernel.jar

For ERP 8.0 (B7334):

- Connector.jar
- Kernel.jar

For EnterpriseOne 8.9 (B9):

- Connector.jar
- Kernel.jar
- jdeutil.jar
- log4j.jar

For EnterpriseOne 8.10:

- Connector.jar
- Kernel.jar
- jdeutil.jar
- log4j.jar

For EnterpriseOne 8.11 (SP1 and Tools Release 8.95):

- Base_JAR.jar
- Connector.jar
- JdeNet_JAR.jar
- log4j.jar
- System_JAR.jar

For EnterpriseOne 8.12 (Tools Release 8.96.2.0):

- Connector.jar
- log4j.jar
- Base_JAR.jar
- EventProcessor_EJB.jar
- EventProcessor_JAR.jar
- JdeNet_JAR.jar
- System_JAR.jar

For EnterpriseOne 9.0 (Tools Release 8.98.1.3):

- Connector.jar
- log4j.jar
- Base_JAR.jar
- EventProcessor_EJB.jar
- EventProcessor_JAR.jar
- JdeNet_JAR.jar
- System_JAR.jar
- commons-httpclient-3.0.jar
- jmxri.jar
- ManagementAgent_JAR.jar

For EnterpriseOne 9.1 (Tools Release 9.1.02):

- Connector.jar
- Base_JAR.jar
- EventProcessor_EJB.jar
- EventProcessor_JAR.jar
- JdeNet_JAR.jar
- System_JAR.jar

- commons-httpclient-3.0.jar
- jmxri.jar
- ManagementAgent_JAR.jar
- jmxremote.jar
- jmxremote_optional.jar
- commons-logging.jar
- ApplicationAPIs_JAR.jar

For EnterpriseOne 9.1 (Tools Release 9.1.5.2):

- Connector.jar
- Base_JAR.jar
- EventProcesser_EJB.jar
- EventProcesser_JAR.jar
- JdeNet_JAR.jar
- System_JAR.jar
- httpcore.jar
- httpclient.jar
- jmxri.jar
- ManagementAgent_JAR.jar
- jmxremote.jar
- jmxremote_optional.jar
- commons-logging.jar
- ApplicationAPIs_JAR.jar

The corresponding library files for J.D. Edwards OneWorld must be copied to the application adapters lib and domain lib directories of the SOA or OSB environment. For more information, see [Section 2.8.3, "Copying the Enterprise Information System Library Files,"](#) on page 2-44.

Oracle Fusion Middleware Application Adapter for PeopleSoft

This section lists the library files that are required by the Oracle Fusion Middleware Application Adapter for PeopleSoft.

- PeopleSoft Java Object Adapter file (psjoa.jar)
This file provides a low-level interface between client applications and PeopleSoft. This file is provided with PeopleSoft in the *PeopleSoft_Home/web/PSJOA* directory.
The psjoa.jar file is different for every version of PeopleSoft. When you upgrade your PeopleTools release, ensure that you copy the psjoa.jar file for the new release into the *lib* directory and restart all components.
- pstools.properties
This file is required for PeopleTools 8.1x. This file belongs in the *PeopleSoft_Home/web/jmac* directory.
- PeopleSoft Generated Java APIs

- psmanagement.jar

If you are using PeopleTools 8.54 or PeopleTools 8.55, then you must also copy the psmanagement.jar file from the `PeopleSoft_Home/client-tools/class` directory.

For more information on generating the Component Interface Java APIs, see the *Oracle Fusion Middleware Application Adapter for PeopleSoft User's Guide for Oracle WebLogic Server*.

The library files for the PeopleSoft adapter must be copied to the application adapters lib and domain lib directories of the SOA or OSB environment. For more information, see [Section 2.8.3, "Copying the Enterprise Information System Library Files"](#) on page 2-44.

Oracle Fusion Middleware Application Adapter for Siebel

This section lists the library files that are required by the Oracle Fusion Middleware Application Adapter for Siebel.

For Siebel 6.3.x and later, the Siebel Java Data Bean API, which is distributed as .jar files with the Siebel Thin Client

These libraries vary by Siebel release in both content and name. Therefore, the Siebel Thin Client that comes with the target Siebel system must always be used with the adapter. For example:

On the Siebel system, these library files are located in the following folder:

```
<siebel_home>\siebsrvr\CLASSES
```

For Siebel 6.3.x:

- SiebelTcOM.jar
- SiebelTcCommon.jar
- SiebelTC_enu.jar
- SiebelDataBean.jar

For Siebel 7.0.3:

- SiebelJI_Common.jar
- SiebelJI_enu.jar

For Siebel 7.5.2:

- SiebelJI_Common.jar
- SiebelJI_enu.jar
- SiebelJI.jar

For Siebel 7.7 - 8.0, 8.2:

- SiebelJI_enu.jar
- Siebel.jar

For Siebel 8.1:

- SiebelJI.jar
- Siebel.jar

For Siebel 8.2:

- SiebelJI.jar

- Siebel.jar

The Siebel COM-based API (Windows only) requires the Siebel Thin Client to be installed and accessible to the Siebel adapter.

The following previously listed files are for English language installations:

- SiebelTC_enu.jar
- SiebelJI_enu.jar

For non-English installations, the last three letters (_enu) vary.

If you are using the MQ Series as a transport, then you must use the *com.ibm.mq.jar* file.

For any additional steps required for Siebel, see the *Oracle Fusion Middleware Application Adapter for Siebel User's Guide for Oracle WebLogic Server*.

The corresponding library files for Siebel must be copied to the application adapters lib and domain lib directories of the SOA or OSB environment. For more information, see [Section 2.8.3, "Copying the Enterprise Information System Library Files"](#) on page 2-44.

Oracle Fusion Middleware Application Adapter for SAP R/3 (Using SAP JCo 3.x)

This section lists the library files that are required by the Oracle Fusion Middleware Application Adapter for SAP R/3 (Using SAP JCo 3.x).

Windows:

- SAP Java Connector (SAP JCo) Version 3.0.14
 - sapjco3.jar
 - sapjco3.dll

Linux/Solaris/OS400:

- sapjco3.jar
- libsapjco3.so

HP-UX:

- sapjco3.jar
- libsapjco3.sl

AIX:

- sapjco3.jar
- libsapjco3.so

2.8.3 Copying the Enterprise Information System Library Files

This section describes the specific directories where Enterprise Information System (EIS) library files must be copied for the following adapters:

- Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld
- Oracle Fusion Middleware Application Adapter for PeopleSoft
- Oracle Fusion Middleware Application Adapter for Siebel

Copy the EIS library files for these adapters into the following adapter installation directory of SOA/OSB:

- <ADAPTER_HOME>\lib
- <ORACLE_HOME>\user_projects\domains\base_domain\lib

The list of specific EIS library files are provided in the following sections for each EIS, depending on the EIS version.

Note: You must only use one version of an EIS at a given point in time. Do not use two versions of an EIS library file simultaneously. Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld, Oracle Fusion Middleware Application Adapter for PeopleSoft, and Oracle Fusion Middleware Application Adapter for Siebel can be used to connect to only one version of the EIS at a given point in time.

Oracle Fusion Middleware Application Adapter for SAP R/3 (Using SAP JCo 3.x)

This section describes the specific directories where Enterprise Information System (EIS) library files must be copied for the Oracle Fusion Middleware Application Adapter for SAP R/3 (Using SAP JCo 3.x).

Windows:

Copy the *sapjco3.jar* and *sapjco3.dll* files to the following adapter installation directory of SOA/OSB:

- <ADAPTER_HOME>\lib
- <ORACLE_HOME>\user_projects\domains\base_domain\lib

Note: You must also add the *sapjco3.jar* and *sapjco3.dll* files to the Oracle WebLogic Server classpath

Linux/Solaris/OS400:

Copy the *sapjco3.jar* and *libsapjco3.so* files to the following adapter installation directory of SOA/OSB:

- <ADAPTER_HOME>\lib
- <ORACLE_HOME>\user_projects\domains\base_domain\lib

HP-UX:

Copy the *sapjco3.jar* and *libsapjco3.sl* and files to the following adapter installation directory of SOA/OSB:

- <ADAPTER_HOME>\lib
- <ORACLE_HOME>\user_projects\domains\base_domain\lib

AIX:

Copy the *sapjco3.jar* and *libsapjco3.so* files to the following adapter installation directory of SOA/OSB:

- <ADAPTER_HOME>\lib
- <ORACLE_HOME>\user_projects\domains\base_domain\lib

Solaris:

The following are the two supported methods for specifying the SAP JCo library files:

- Copy the SAP JCo files (*sapjco3.jar* and *libsapjco3.so*) to JDK folders such as *jdk/jre/lib/sparc/server*

Or:

- Copy the SAP JCo files to */usr/j2sdkxxxxx/jre/lib/sparcv9/server*

Where *xxxxx* represents the JDK version

Alternatively, you may add the path to these files to your environment variable definition using the Application Server Control console. For more information about Application Server administration options, see the *Oracle WebLogic Server Administrator's Guide*.

2.8.4 Directory Structure

The packaged application adapters are installed into the `ApplicationAdapters` subdirectory of your Oracle WebLogic Server home directory. [Table 2-1](#) shows the directory structure.

Table 2-1 Packaged Application Adapter Directory Structure

Subdirectory	Description
<code>_uninst</code>	Contains the uninstallation files
<code>etc</code>	Contains the application, doc, jde, licenses, peoplesoft folders, and the <i>iwse.ora</i> file.
<code>ibse.war</code>	Contains the BSE application and repository configuration.
<code>iwafjca.rar</code>	Contains the J2CA application and repository configuration
<code>iwafjca.war</code>	Contains the J2CA Installation Verification Program (IVP).
<code>lib</code>	Contains library files and the iWay Adapter Framework files.
<code>tools</code>	Contains the graphical user interface for Application Explorer.

2.8.5 Configuring the Oracle Database Repository

A repository holds information about configuration details, adapter targets, channels and other configuration information. When the adapters are installed, by default, they are installed with a file repository. File repositories are not supported on development, test, or production environments. You are advised to configure the database repository immediately after the installation.

Note: As of Oracle 12c (12.2.1.0.0), Oracle database repositories can be migrated from earlier releases to the current release. For more information, see the *Oracle Fusion Middleware Application Adapter Upgrade Guide for Oracle WebLogic Server*.

You must specify the same user name and password that is configured for you database when you perform the following actions:

- Running the *iwse.ora* SQL script.
- Configuring the *jcatransport.properties* file.
- Configuring the *ra.xml* file.
- Configuring BSE using the BSE configuration Web page.

This section describes how to configure the Oracle database repository.

Note: Oracle Application adapters have been certified with the Oracle enterprise database as the repository. The version that was certified is Oracle Database 12c Enterprise Edition (12.1.0.2.0).

Other versions of the Oracle enterprise database are also supported as long as they are supported by the Oracle SOA Suite. Except for the Oracle enterprise database, Oracle Application Adapters do not support any other database, including Oracle XE and Oracle Berkeley Database.

1. Run the *iwse.ora* SQL script on the system where the database is installed.

Note: When the *iwse.ora* script is used for the first time, database repositories are automatically created for BSE and J2CA configurations. As a result, it is not required to run the *iwse.ora* script twice for each configuration type. If the script is used multiple times, then the BSE and J2CA repositories are re-created and any values that were stored in the original database repositories are deleted.

The *iwse.ora* SQL script is located in the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\etc
```

This script creates the required tables that are used to store the adapter configuration information in the database. These tables are used by Application Explorer and by adapters during design time and run time. It is recommended that you use the same credentials to create the database repository and also in the *ra.xml* file (J2CA configuration) for database user credentials.

Open a command prompt and navigate to the following directory based on your adapter installation and type `sqlplus`.

Provide the username and password to connect the user against which tables have to be created.

Run the *iwse.ora* script file as shown below.

```
<ADAPTER_HOME>\etc>sqlplus
```

```
SQL*Plus: Release 12.1.0.2.0 Production  
Copyright (c) 1982, 2013, Oracle. All rights reserved.
```

```
Enter user-name: scott  
Enter password:
```

```
Connected to:  
Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production  
With the Partitioning, OLAP, Advanced Analytics and Real Application Testing  
options
```

```
SQL>@ iwse.ora
```

- Copy the *ojdbc7.jar* file to the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\lib
```

The *ojdbc7.jar* file can be found in the following directory:

```
<Oracle_dbhome_1>\jdbc\lib
```

- Restart the Oracle WebLogic Server to recognize the *ojdbc7.jar* file.

J2CA Repository Configuration

The following additional steps are required to configure a J2CA repository:

- Create the *jcatransport.properties* file and save it in the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\config\J2CA_SampleConfig
```

Note: The *jcatransport.properties* file is required for each J2CA configuration that is created using Application Explorer. The J2CA configuration folder, for example, *J2CA_SampleConfig*, is named according to the configuration name that is specified in Application Explorer.

- Enter values for *iwafjca.repo.driver*, *iwafjca.repo.url*, *iwafjca.repo.user*, and *iwafjca.repo.password* fields in the newly created *jcatransport.properties* file, as shown in the following example:

```
iwafjca.repo.driver= oracle.jdbc.driver.OracleDriver
iwafjca.repo.url=jdbc:oracle:thin:@90.0.0.51:1521:orcl
iwafjca.repo.user=scott
iwafjca.repo.password=scott1
```

The following table lists and describes the *iwafjca* parameters.

Parameter	Description
<i>iwafjca.repo.driver</i>	Provide the driver class to use when opening a connection to the database. For example, the following repository driver format is used when connecting to Oracle: oracle.jdbc.driver.OracleDriver
<i>iwafjca.repo.url</i>	Enter the URL to use when opening a connection to the database. For example, the following repository URL format is used when connecting to Oracle: jdbc:oracle:thin:@host name:port:SID
<i>iwafjca.repo.user</i>	Enter the same user ID that you specified when running the <i>iwse.ora</i> SQL script to configure the database repository.
<i>iwafjca.repo.password</i>	Enter the same password that you specified when running the <i>iwse.ora</i> SQL script to configure the database repository.

- Navigate to the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\iwafjca.rar\META-INF
```

4. Open the *ra.xml* file in a text editor.
5. Provide the repository driver value for the *IWAYRepoDriver* property the same as you provided for the *jcatransport.properties* file in step 2.
6. Provide the JDBC connection information as a value for the *IWAYRepoURL* property the same as you provided for the *jcatransport.properties* file in step 2.
7. Provide a valid user name for the *IWAYRepoUser* property the same as you provided for the *jcatransport.properties* file in step 2.
8. Provide a valid password for the *IWAYRepoPassword* property the same as you provided for the *jcatransport.properties* file in step 2.

For example:

```
<config-property>
  <config-property-name>IWAYRepoDriver</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
  <config-property-value>oracle.jdbc.driver.OracleDriver</config-property-value>
</config-property>
<config-property>
  <config-property-name>IWAYRepoURL</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
  <config-property-value>jdbc:oracle:thin:@192.168.128.167.1521:orcl</config-prop
erty-value>
</config-property>
<config-property>
  <config-property-name>IWAYRepoUser</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
  <config-property-value>scott</config-property-value>
</config-property>
<config-property>
  <config-property-name>IWAYRepoPassword</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
  <config-property-value>scott1</config-property-value>
</config-property>
```

9. Save your changes to the *ra.xml* file.
10. Restart Oracle WebLogic Server and redeploy the *iwafjca.rar* and *iwafjca.war* files.

This completes the installation and configuration of the Oracle repository for the J2CA configuration.

BSE Repository Configuration

The following additional steps are required to configure a BSE repository:

1. Open the BSE configuration page in a web browser:

```
http://host name:port/ibse/IBSEConfig
```

where *host name* is the system where BSE is installed and *port* is the port number on which BSE is listening.

Note: The server to which BSE is deployed must be running.

The BSE settings pane is displayed, as shown in [Figure 2-47](#).

Figure 2–47 BSE Settings Pane

Property Name	Property Value
System	
Language	English
Adapter Lib Directory	../base_domain/lib
Encoding	UTF-8
Debug Level	DEBUG
Number of Async. Processors	0

2. Configure the system settings.

A list of System parameters with descriptions is provided in the following table.

Parameter	Description
<i>Language</i>	Specify the required language.
<i>Adapter Lib Directory</i>	Enter the full path to the directory where the adapter .jar files reside.
<i>Encoding</i>	Only UTF-8 is supported.
<i>Debug Level</i>	Specify the debug level from the following options: <ul style="list-style-type: none"> ▪ None ▪ Fatal ▪ Error ▪ Warning ▪ Info ▪ Debug
<i>Number of Async. Processors</i>	Select the number of asynchronous processors.

3. Configure the repository settings, as shown in [Figure 2–48](#).

Figure 2–48 Repository Settings Pane

Repository

Repository Type: File System

Repository Url: file://C:\oracle\Middleware\home_03

Repository Driver:

Repository User:

Repository Password:

Repository Pooling:

Save

4. Configure the repository settings.

BSE requires a repository to store transactions and metadata required for the delivery of Web services.

A list of Repository parameters with descriptions is provided in the following table.

Parameter	Description
<i>Repository Type</i>	Select Oracle from the following repositories list: <ul style="list-style-type: none"> Oracle DB2 File System (Do not use for BSE in production environments.) SQL Server
<i>Repository URL</i>	Enter the URL to use when opening a connection to the database. For example, the following repository URL format is used when connecting to Oracle: <pre>jdbc:oracle:thin:@host name:port:SID</pre>
<i>Repository Driver</i>	Provide the driver class to use when opening a connection to the database (optional). For example, the following repository driver format is used when connecting to Oracle: <pre>oracle.jdbc.driver.OracleDriver</pre>
<i>Repository User</i>	Enter the same user ID that you specified when running the <i>iwse.ora</i> SQL script to configure the database repository.
<i>Repository Password</i>	Enter the same password that you specified when running the <i>iwse.ora</i> SQL script to configure the database repository.
<i>Repository Pooling</i>	If selected, then repository pooling is used. This option is disabled by default.

5. Click Save.

6. Restart Oracle WebLogic Server.

To continue working with the Oracle Fusion Middleware Application Adapters, see the corresponding *Oracle Fusion Middleware Application Adapter User's Guide* for your adapter.

2.8.6 Configuring the DB2 Database Repository

A repository holds information about configuration details, adapter targets, channels and other configuration information. When the adapters are installed, by default, they are installed with a file repository. File repositories are not supported on development, test, or production environments. You are advised to configure the database repository immediately after the installation.

Note: As of Oracle 12c (12.2.1.0.0), DB2 database repositories can be migrated from earlier releases to the current release. For more information, see the *Oracle Fusion Middleware Application Adapter Upgrade Guide for Oracle WebLogic Server*.

This section describes how to configure the DB2 database repository. It contains the following topics:

- [Section 2.8.6.1, "DB2 Supported Versions"](#)
- [Section 2.8.6.2, "Usage Considerations"](#)
- [Section 2.8.6.3, "Prerequisites"](#)
- [Section 2.8.6.4, "Creating the DB2 Database Repository"](#)
- [Section 2.8.6.5, "J2CA Repository Configuration"](#)
- [Section 2.8.6.6, "BSE Repository Configuration"](#)

2.8.6.1 DB2 Supported Versions

Only DB2 Enterprise Server Edition version 9.7 and 10.1 on the IBM-AIX platform is supported. No other version of DB2 and operating system (other than IBM-AIX) is supported.

2.8.6.2 Usage Considerations

This section provides usage considerations for the MS SQL Server database repository.

1. If you were previously working with a file repository or an Oracle database repository, and you installed and configured the DB2/SQL Server repository, you can still access the previously configured repository by configuring back the parameters to the Oracle database repository (provided the database does not undergo any change). Otherwise, you can take a copy of the database repository using migration utility with the command below, and load it to the database whenever it is required.

```
jcaupd copy jca_sample -jdbc oracle.jdbc.driver.OracleDriver
jdbc:oracle:thin:@localhost:1521:orcl scott Scott123 -file jca_repository.xml
```

If it is a file repository, a backup of the repository.xml should be taken for re-use.

2. Do not use the default parameter values that are found in the ra.xml and jcatransport.properties files. You must modify these parameter values according to your environment.

2.8.6.3 Prerequisites

Ensure that the following prerequisite steps are completed before configuring the DB2 database repository.

1. Ensure that Application Explorer is closed

2. If the *ibse.war*, *iwafjca.rar* and *iwafjca.war* files are already deployed, then undeploy these files.
3. Ensure that Oracle WebLogic Server is shutdown.
4. Acquire the JDBC driver files for the DB2 database.

The JDBC driver files for the DB2 database are *db2jcc_license_cu.jar* and *db2jcc.jar*. DB2 JDBC driver files are generally available in one of the following directories (depending on the installation):

```
$DB2_home/sql/lib/lib
```

```
$DB2 home/sql/lib/java
```

2.8.6.4 Creating the DB2 Database Repository

This section describes how to create the DB2 database repository.

1. Ensure that the *iwse.db2* database script is available in the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\etc
```

2. Open a command prompt and navigate to the directory.
3. Connect to the DB2 database using the following command:

```
db2 connect to DATABASE user USERNAME using PASSWORD
```

For example:

```
$ db2 connect to orcl user db2 using 11unix
```

Note: Ensure that the user ID and password have the permission to read and write into the database. Make note of the user name and password as it is required during the repository configuration process for J2CA and BSE.

4. Run the *iwse.db2* database script using the following command:

```
db2 -vtf iwse.db2
```

Note: When the script is run for the first time, error messages are received from the DROP TABLE statements because the tables are not yet available. You can ignore these error messages.

The following sample syntax shows how the *iwse.db2* database script is run in a command prompt:

```
<ADAPTER_HOME>\etc
```

```
$ db2 connect to orcl user db2 using 11unix
```

```
Database Connection Information
Database server      = DB2/AIX64 9.5.5
SQL authorization ID = DB2
```

```
Local database alias = ORCL
$db2 -vtf iwse.db2
-----
-----
DROP TABLE IBS_OBJECT
DB21034E The command was processed as an SQL statement because it was not a
valid Command Line Processor command. During SQL processing it returned:
SQL0204N "DB2.IBS_OBJECT" is an undefined name. SQLSTATE=42704
```

Note: The *iwse.db2* database script executes many DROP commands and CREATE commands sequentially. Each successful command is followed by a message indicating that the SQL command completed successfully.

5. Verify that all of the commands have been successfully executed.

If the commands have been successfully executed, then proceed to [Section 2.8.6.5, "J2CA Repository Configuration"](#) on page 2-54 or [Section 2.8.6.6, "BSE Repository Configuration"](#) on page 2-56.

Note: Executing the *iwse.db2* database script creates the repository for J2CA and BSE configurations.

2.8.6.5 J2CA Repository Configuration

This section describes how to configure the DB2 database repository for J2CA.

1. Copy the JDBC driver files (*db2jcc_license_cu.jar* and *db2jcc.jar*) for the DB2 database to the following adapter installation directory of SOA/ OSB:

```
<ADAPTER_HOME>\lib
```

```
<ADAPTER_HOME>\iwafjca.rar
```

2. Create a text file called *jcatransport.properties* under the J2CA configuration folder.

The J2CA configuration folder is located in the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\config
```

The J2CA configuration folder uses the name that was specified when you created a new J2CA configuration using Application Explorer.

For example, if you created a J2CA configuration called *jca_sample*, then the *jca_sample* folder is created in the following directory:

```
<ADAPTER_HOME>\config\jca_sample
```

After navigating to the appropriate J2CA configuration folder, perform the following steps:

- a. Create a text file called *jcatransport.properties*.
- b. Enter the following parameters and provide the corresponding values:
iwafjca.repo.driver - The JDBC driver class for the DB2 database.

iwafjca.repo.url - The JDBC URL.

iwafjca.repo.user - The DB2 database user name.

iwafjca.repo.password - The DB2 database user password.

For example:

```
iwafjca.repo.driver=com.ibm.db2.jcc.DB2Driver
iwafjca.repo.url=jdbc:db2://172.30.163.197:60000/orcl
iwafjca.repo.user=db2
iwafjca.repo.password=11unix
```

Note: You must use the same user name and password that were specified during the DB2 repository creation process when you executed the *iwse.db2* script. You can refer to the sample *jcatransport.properties* file that is packaged with the .zip archive file.

- c. Save the *jcatransport.properties* file under the J2CA configuration folder. For example:

```
<ADAPTER_HOME>\config\jca_sample
```

If your J2CA configuration has a different name, then save the file under the appropriate folder. The file name must be *jcatransport.properties*. Providing a different name for this file causes the J2CA connector to become unstable.

- d. If you are using multiple J2CA configurations, then you must create and store a separate instance of the *jcatransport.properties* file under each J2CA configuration folder.
3. Modify the *ra.xml* file in the following directory with the appropriate database repository parameters:

```
<ADAPTER_HOME>\iwafjca.rar/META-INF
```

- a. Open the *ra.xml* file using an editor.
- b. Modify the values for the *IWayRepoURL*, *IWayRepoUser*, and *IWayRepoPassword* elements. For example:

```
<config-property>
  <config-property-name>IWayRepoURL</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
  <config-property-value>jdbc:db2://172.30.163.197:60000/orcl@driverType=JCC
</config-property-value>
</config-property>
<config-property>
  <config-property-name>IWayRepoUser</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
  <config-property-value>db2</config-property-value>
</config-property>
<config-property>
  <config-property-name>IWayRepoPassword</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
  <config-property-value>11unix</config-property-value>
</config-property>
```

Note: You must use the same user name and password that were specified during the DB2 repository creation process when you executed the *iwse.db2* script. You can refer to the sample *ra.xml* file that is packaged with the .zip archive file.

- c. Save the *ra.xml* file.
- d. Restart Oracle WebLogic Server and redeploy the *iwafjca.rar* and *iwafjca.war* files.

This completes the installation and configuration of the DB2 repository for the J2CA configuration.

2.8.6.6 BSE Repository Configuration

This section describes how to configure the DB2 database repository for BSE.

1. Ensure that the *ibse.war* file is undeployed and that Oracle WebLogic Server is stopped.
2. Copy the JDBC driver files (*db2jcc_license_cu.jar* and *db2jcc.jar*) for the DB2 database to the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\ibse.war\WEB-INF\lib
```

3. Start Oracle WebLogic Server and deploy the *ibse.war* file using the Admin console.
4. Open the BSE configuration page in a Web browser:

```
http://host name:port/ibse/IBSEConfig
```

where *host name* is the system where BSE is installed and *port* is the port number on which BSE is listening.

Note: The server to which BSE is deployed must be running.

5. Select *db2* as the repository type and enter the values for the parameters accordingly.

```
jdbc:db2://[host]:[port]/database
```

Where *host* is the server name where database is installed, *port* is the database port, and *database* is the database name.

6. Enter the following parameters and provide the corresponding values:

Repository URL - The JDBC URL for the repository. For example,

```
jdbc:db2://172.30.163.197:60000/orcl.
```

Repository Driver - The JDBC driver class for the DB2 database. For example,

```
com.ibm.db2.jcc.DB2Driver.
```

Repository user - The user name for the database.

Repository Password - The password for the user.

Note: You must use the same user name and password that were specified during the DB2 repository creation process when you executed the *iwse.db2* script.

7. Click **Save**.
8. Restart Oracle WebLogic Server.

This completes the installation and configuration of the DB2 repository for the BSE configuration.

2.8.7 Configuring the Microsoft SQL (MS SQL) Server Database Repository

A repository holds information about configuration details, adapter targets, channels and other configuration information. When the adapters are installed, by default, they are installed with a file repository. File repositories are not supported on development, test, or production environments. You are advised to configure the database repository immediately after the installation.

This section describes how to configure the Microsoft SQL (MS SQL) database repository. It contains the following topics:

- [Section 2.8.7.1, "MS SQL Server Supported Versions"](#)
- [Section 2.8.7.2, "Usage Considerations"](#)
- [Section 2.8.7.3, "Prerequisites"](#)
- [Section 2.8.7.4, "Creating the MS SQL Server Database Repository"](#)
- [Section 2.8.7.5, "J2CA Repository Configuration"](#)
- [Section 2.8.7.6, "BSE Repository Configuration"](#)

2.8.7.1 MS SQL Server Supported Versions

Only MS SQL Server Windows 2008 on the Windows platform is supported. No other version of MS SQL Server and operating system (other than Windows) is supported.

2.8.7.2 Usage Considerations

This section provides usage considerations for the MS SQL Server database repository.

1. If you were previously working with a file repository or an Oracle database repository and you install and configure the DB2/SQL Server repository, still you can access the previously configured repository by configuring back the parameters to Oracle database repository (provided the database doesn't undergone any change). Else take a copy of the database repository with migration utility with the below command and load to the database whenever required.

```
jcaupd copy jca_sample -jdbc oracle.jdbc.driver.OracleDriver
jdbc:oracle:thin:@localhost:1521:orcl scott Scott123 -file jca_repository.xml
```

If file repository, a backup of the repository.xml should be taken for re-use.

2. Do not use the default parameter values that are found in the *ra.xml* and *jcatransport.properties* files. You must modify these parameter values according to your environment.

2.8.7.3 Prerequisites

Ensure that the following prerequisite steps are completed before configuring the MS SQL Server database repository.

1. Ensure a database is already created and available in the MS SQL Server database.
2. Ensure that Application Explorer is closed.
3. If the *ibse.war*, *iwafjca.rar* and *iwafjca.war* files are already deployed, then undeploy these files.
4. Ensure that Oracle WebLogic Server is shutdown.
5. Acquire the JDBC driver *sqljdbc4.jar* file for the MS SQL Server 2008 database. The JDBC driver files for the MS SQL Server database are generally available in one of the following directories (depending on the installation):

```
c:\<MS-SQL_SERVER_home>/sqllib/lib  
c:\<MS-SQL_SERVER home>/sqllib/java
```

2.8.7.4 Creating the MS SQL Server Database Repository

This section describes how to create the MS SQL Server database repository.

1. Ensure that the *iwse.sql* database script is available in the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\etc
```
2. Open the SQL Management Studio and connect to the Database engine.
3. Expand the Databases and Select the Database against which the scripts has to be run.
4. Right Click the database and select New Query
5. In the opened window Copy & Paste the complete scripts from the file "iwse.sql" and click on the button Execute.
6. After execution "The command executed successfully" message will be displayed.

2.8.7.5 J2CA Repository Configuration

This section describes how to configure the MS SQL Server database repository for J2CA.

1. Copy the JDBC driver file *sqljdbc4.jar* for the MS SQL Server database to the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\lib  
<ADAPTER_HOME>\iwafjca.rar
```

2. Create a text file called *jcctransport.properties* under the J2CA configuration folder.

The J2CA configuration folder is located in the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\config
```

The J2CA configuration folder uses the name that was specified when you created a new J2CA configuration using Application Explorer.

For example, if you created a J2CA configuration called `jca_sample`, then the `jca_sample` folder is created in the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\config\jca_sample
```

After navigating to the appropriate J2CA configuration folder, perform the following steps:

- a. Edit the `jcatransport.properties` file.
- b. Enter the following parameters and provide the corresponding values:

`iwafjca.repo.driver` - The JDBC driver class for the MS SQL Server database.

`iwafjca.repo.url` - The JDBC URL.

`iwafjca.repo.user` - The MS SQL Server database user name.

`iwafjca.repo.password` - The MS SQL Server database user password.

For example:

```
iwafjca.repo.driver=com.microsoft.sqlserver.jdbc.SQLServerDriver
iwafjca.repo.url=jdbc:sqlserver://localhost:1433;databaseName=SQLRepository
iwafjca.repo.user=sa
iwafjca.repo.password=Welcome123
```

Note: You must use the same user name and password that were specified during the MS SQL Server repository creation process when you executed the `iwse.sql` script.

- c. Save the `jcatransport.properties` file under the J2CA configuration folder. For example:

```
<ADAPTER_HOME>\config\jca_sample
```

If your J2CA configuration has a different name, then save the file under the appropriate folder. The file name must be `jcatransport.properties`. Providing a different name for this file causes the J2CA connector to become unstable.

- d. If you are using multiple J2CA configurations, then you must create and store a separate instance of the `jcatransport.properties` file under each J2CA configuration folder.
3. Modify the `ra.xml` file in the following directory with the appropriate database repository parameters:

```
<ADAPTER_HOME>\iwafjca.rar\META-INF
```

- a. Open the `ra.xml` file using an editor.
- b. Modify the values for the `IWayRepoDriver`, `IWayRepoURL`, `IWayRepoUser`, and `IWayRepoPassword` elements. For example:

```
<config-property>
  <config-property-name>IWayRepoDriver</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
<config-property-value>com.microsoft.sqlserver.jdbc.SQLServerDriver</config-
-property-value>
```

```

</config-property>
<config-property>
  <config-property-name>IWayRepoURL</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
<config-property-value>jdbc:sqlserver://localhost:1433;databaseName=SQLRepo
sitory</config-property-value>
</config-property>
<config-property>
  <config-property-name>IWayRepoUser</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
<config-property-value>sa</config-property-value>
</config-property>
<config-property>
  <config-property-name>IWayRepoPassword</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
  <config-property-value>Welcome123</config-property-value>
</config-property>

```

Note: You must use the same user name and password that were specified during the MS SQL Server repository creation process when you executed the *iwse.sql* script.

- c. Save the *ra.xml* file.
- d. Restart Oracle WebLogic Server and redeploy the *iwafjca.rar* and *iwafjca.war* files.

This completes the installation and configuration of the MS SQL Server repository for the J2CA configuration.

2.8.7.6 BSE Repository Configuration

This section describes how to configure the MS SQL Server database repository for BSE.

1. Ensure that the *ibse.war* file is undeployed and that Oracle WebLogic Server is stopped.
2. Copy the JDBC driver file *sqljdbc4.jar* for the DB2 database to the following adapter installation directory of SOA/OSB:

```

<ADAPTER_HOME>\lib
<ADAPTER_HOME>\ibse.war\WEB-INF\lib

```

3. Start Oracle WebLogic Server and deploy the *ibse.war* file using the Administration console.
4. Open the BSE configuration page in a Web browser:

```
http://host name:port/ibse/IBSEConfig
```

where *host name* is the system where BSE is installed and *port* is the port number on which BSE is listening.

5. Select *SQL Server* as the repository type and enter the values for the parameters accordingly.
6. Enter the following parameters and provide the corresponding values:

Repository URL - The JDBC URL for the repository. For example:

```
jdbc:sqlserver://localhost:1433;databaseName=SQLRepository
```

Repository Driver - The JDBC driver class for the MS SQL Server database.
For example:

```
com.microsoft.sqlserver.jdbc.SQLServerDriver
```

Repository user - The user name for the database.

Repository Password - The password for the user.

A sample BSE repository configuration for the MS SQL Server database is shown in [Figure 2-49](#).

Figure 2-49 BSE Repository Dialog

7. Click **Save**.
8. Restart Oracle WebLogic Server.

This completes the installation and configuration of the MS SQL Server repository for the BSE configuration.

2.9 Uninstalling Oracle Fusion Middleware Application Adapters

To uninstall Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server on a Windows or UNIX/Linux platform, perform the following steps:

1. Navigate to the following adapter installation directory of SOA/OSB:

```
<ADAPTER_HOME>\_Oracle_Application_Adapters_Uninstallation
```

2. Execute the following command:

```
java -jar uninstaller.jar
```

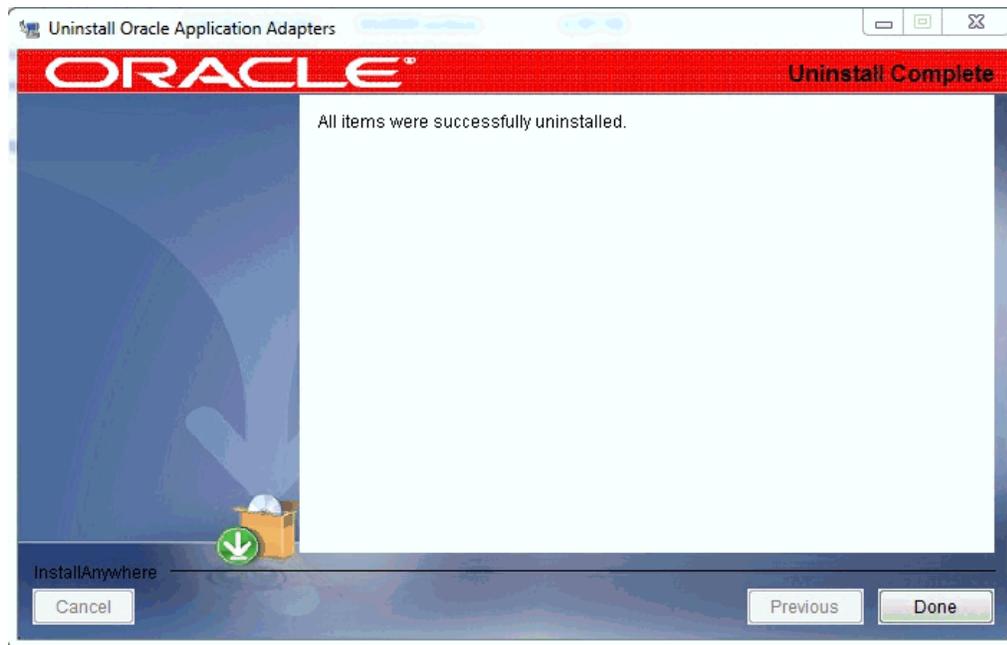
The Maintenance Mode screen is displayed.

3. Click **Next** and then click **Uninstall**.

The uninstallation process is started.

4. When the uninstallation is complete, verify that a successful uninstallation message is displayed and click **Done**, as shown in [Figure 2-50](#).

Figure 2-50 Uninstall Complete Screen



Note: Only the folders and files created during the installation are removed by the uninstaller. Any folders or files created after the installation must be manually removed.

2.9.1 Using the Silent Uninstaller

To uninstall Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server on a Windows or UNIX/Linux platform using the silent uninstaller, perform the following steps:

1. Navigate to the following adapter installation directory of SOA/OSB:
`<ADAPTER_HOME>_Oracle_Application_Adapters_Uninstallation`
2. Execute the following command:
`java -jar uninstaller.jar -i silent`
3. When the uninstallation is complete, verify that the Oracle Fusion Middleware Application Adapters are uninstalled correctly.

Note: Only the folders and files created during the installation are removed by the uninstaller. Any folders or files created after the installation must be manually removed.

Configuring Oracle Fusion Middleware Application Adapter for PeopleSoft

This appendix describes how to configure Oracle Fusion Middleware Application Adapter for PeopleSoft. It contains the following sections:

- [Section A.1, "Specifying the PeopleSoft Version"](#)
- [Section A.2, "Installing the Adapter Component Interfaces"](#)
- [Section A.3, "Upgrading PeopleTools"](#)

A.1 Specifying the PeopleSoft Version

Oracle Fusion Middleware Application Adapter for PeopleSoft supports multiple versions of PeopleSoft. However, certain versions are incompatible with each other, and the adapter must recognize the version you are using.

After installation, the *iwpsci84.jar* file for PeopleTools 8.4x releases are available in the default location. For example:

```
<ADAPTER_HOME>\lib
```

The *iwpsci81.jar* file for PeopleTools 8.1x releases are available under the following directory:

```
<ADAPTER_HOME>\etc\peoplesoft
```

Use the corresponding location on non-Windows systems.

To ensure that the adapter functions properly, use the file that corresponds to your release:

- For PeopleSoft 8.4x releases, use *iwpsci84.jar*.
- For PeopleSoft 8.1x releases, remove *iwpsci84.jar* and copy *iwpsci81.jar* from:

```
<ADAPTER_HOME>\etc\peoplesoft
```

To the following locations:

```
<ADAPTER_HOME>\lib
```

```
<ADAPTER_HOME>\iwafjca.rar
```

After changing the contents of the lib directory, restart all components (for example, Application Explorer SOA Server and OSB server).

A.2 Installing the Adapter Component Interfaces

Oracle Fusion Middleware Application Adapter for PeopleSoft includes two custom Component Interfaces. Oracle WebLogic Server Adapter Application Explorer uses these Component Interfaces to create schemas for events and services.

To configure Component Interfaces for Oracle Fusion Middleware Application Adapter for PeopleSoft, see the following sections:

1. [Section A.2.1, "Importing and Building the Component Interfaces"](#)
2. [Section A.2.2, "Configuring Component Interface Security"](#)
3. [Section A.2.3, "Installing the TCP/IP and HTTP Message Router for Oracle Fusion Middleware Application Adapter for PeopleSoft"](#)

A.2.1 Importing and Building the Component Interfaces

The Component Interfaces provided with Oracle Fusion Middleware Application Adapter for PeopleSoft are delivered through a PeopleSoft project:

- For PeopleSoft Release 8.4, it is the `IWY_CI_84` project, packaged in `iwpsci84.zip`.
- For PeopleSoft Release 8.1, it is the `IWY_CI_81` project, packaged in `iwpsci81.zip`.

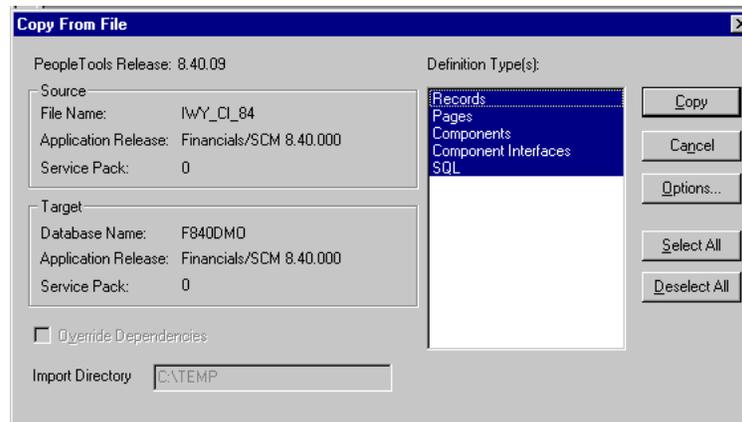
The default location of the files is:

```
<ADAPTER_HOME>\etc\peoplesoft
```

Importing and Building the Component Interfaces

To import the `IWY_CI_81` or `IWY_CI_84` project to PeopleSoft:

1. Unzip `iwpsci81.zip` or `iwpsci84.zip` to any directory.
The unzip process creates its own subdirectory. For example, if you extract the file to `c:\temp`, it creates `c:\temp\IWY_CI_81` or `c:\temp\IWY_CI_84`.
2. Launch the PeopleSoft Application Designer in the two-tier mode.
3. Open the Copy From File Select Project dialog as follows:
 - In PeopleSoft 8.4, select **Copy Project** from the Tools menu, and then select **From File**.
 - In PeopleSoft 8.1, select **Copy Project from File** from the File menu.
The Copy Project From File dialog is displayed, as shown in [Figure A-1](#).
4. Navigate to the original directory in which you unzipped the file.

Figure A-1 Copy From File Dialog

5. Click **Open** (in release 8.4) or **Copy** (in release 8.1) to open the Copy From File dialog.

Note: Although the preceding figures illustrate PeopleSoft release 8.4, the corresponding instructions are accurate for releases 8.1 and 8.4.

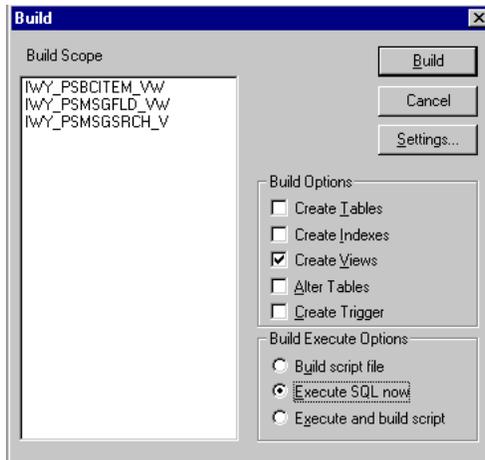
6. Highlight all objects listed in **Definition Type(s)**, and then click **Copy**.
The Application Designer displays a message, which indicates successful completion, as shown in [Figure A-2](#).

Figure A-2 Application Designer Message

```
Components Application Upgrade Copy ended: 2002-10-21-13:01:38 (62,21)
Component Interfaces Application Upgrade Copy started: 2002-10-21-13:01:38 (62,6)
Component Interfaces Application Upgrade Copy ended: 2002-10-21-13:01:39 (62,21)
SQL Application Upgrade Copy started: 2002-10-21-13:01:39 (62,6)
SQL Application Upgrade Copy ended: 2002-10-21-13:01:40 (62,21)
```



7. To build the views in the project, select **Build**, and then select **Project**.
The Build dialog is displayed, as shown in [Figure A-3](#).

Figure A-3 Build Dialog

8. In the Build Options pane, select **Create Views**.
9. Select your site's customary option in the Build Execute Options pane. (In the previous figure, Execute SQL now is selected.)
10. Click **Build**.

The Application Designer displays a Build Progress status window, as shown in [Figure A-4](#).

Figure A-4 Build Progress Status

You can use your native SQL Tool to view the records from the generated view to ensure that they have been created correctly.

11. If the view has not been generated correctly, then click **Close**, and double-click the SQL Build log statement.

The PSBUILD log file appears, as shown in [Figure A-5](#).

Figure A-5 PSBuild Log File

```

Psbuild.log - Notepad
File Edit Search Help
SQL Build process began on 11/5/02 at 10:29:20 AM for database F840DM0.

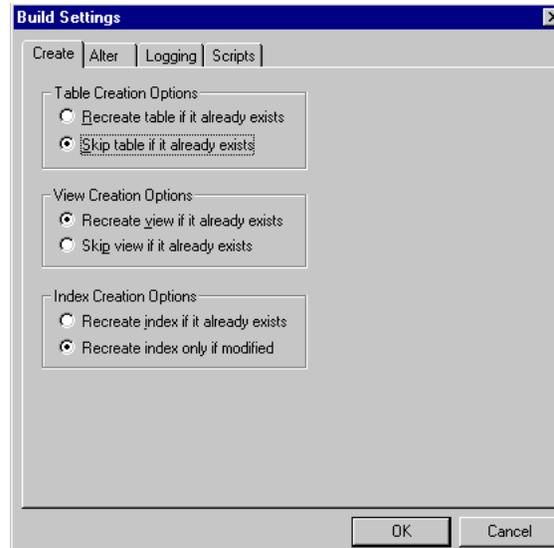
SQL Build process ended on 11/5/02 at 10:29:22 AM.
3 records processed, 0 errors, 0 warnings.
SQL executed online.
SQL Build log file written to C:\TEMP\PSBUILD.LOG.

```

12. If you encounter problems, then check the Build settings options by selecting **Build**, and then **Settings**.

The Build Settings dialog is displayed, as shown in [Figure A-6](#).

Figure A-6 Build Settings Dialog



Depending on the application server database for PeopleSoft, some databases may require the Tablespace name. Consult your PeopleSoft database administrator for more information regarding this function.

You have now finished importing and building the Component Interfaces. For more information about configuring security for Component Interfaces, see "[Configuring Component Interface Security](#)" on page A-5.

A.2.2 Configuring Component Interface Security

Application Explorer requires the custom Component Interfaces that you imported and built in the previous step, so you must ensure that all Application Explorer users have access to these Component Interfaces. As with all PeopleSoft objects, security is assigned at the Permission List level. Review your site security requirements to determine which users are going to work with Application Explorer, and then set Component Interface security for each distinct Permission List belonging to those users.

Note: These Component Interfaces are required for creating schemas and business services, and they are used at run time for using the Find method. They have only Get and Find access and cannot be used to update your PeopleSoft database. This minimizes any possible security exposure.

In PeopleSoft release 8.1, you can set security in 2, 3, or 4-tier mode, whereas in release 8.4 and higher, you can set security 4-tier mode only.

The following steps describe how to configure security for all supported releases of PeopleSoft in all supported modes. The images shown in the following steps reflect PeopleSoft release 8.4 in 4-tier mode.

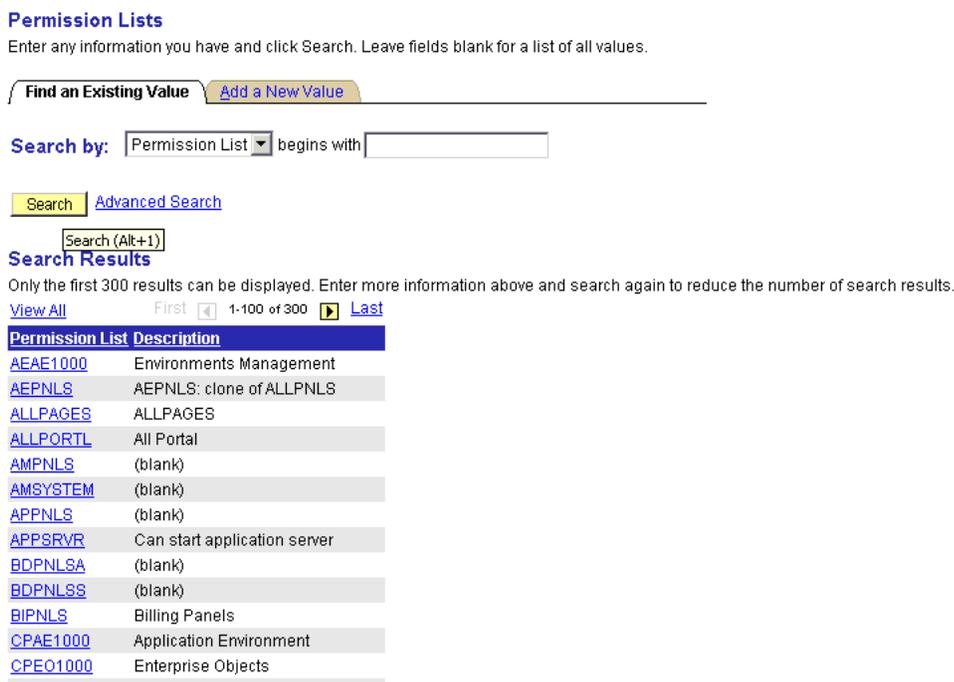
Figure A-7 PeopleSoft Security Configuration



1. Select **PeopleTools, Security, User Profiles, Permissions & Roles**, and then **Permission Lists**, as shown in [Figure A-7](#).
2. Click **Search** and select the relevant Permission List.

The Permission List pane is displayed, as shown in [Figure A-8](#).

Figure A-8 Permission Lists Pane



3. Click the right arrow next to the **Sign-on Times** tab to display the **Component Interfaces** tab, as shown in [Figure A-9](#).

Figure A-9 General, Pages, PeopleTools, Process, and Sign-on Times Tabs



4. Click the **Component Interfaces** tab.
5. To add a new row to the Component Interfaces list, select the plus sign (+).
6. Enter or select **IWY_CI_ATTRIBUTES Component Interface** and click **Edit**.

7. To set the Get and Find methods to Full Access, click **Full Access (All)**.
8. Click **OK**.
9. Repeat steps 5 through 8 for the IWY_CI_MESSAGES Component Interface.
10. Scroll down to the bottom of the Component Interfaces window, and click **Save**.

You have finished configuring security for the Component Interfaces delivered with Oracle Fusion Middleware Application Adapter for PeopleSoft. To test these Component Interfaces, see "[Testing the Component Interfaces](#)" on page A-7.

Testing the Component Interfaces

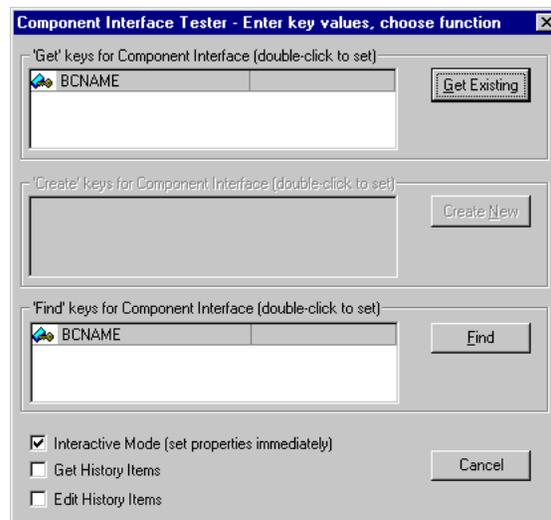
You must test each of the Oracle Fusion Middleware Application Adapter for PeopleSoft Component Interfaces before using them.

To test the Component Interfaces:

1. In PeopleSoft Application Designer, open the IWY_CI_ATTRIBUTES Component Interface.
2. Select **Tools**, and then **Test Component Interface**.

The Component Interface Tester dialog is displayed, as shown in [Figure A-10](#).

Figure A-10 *Component Interface Tester Dialog*

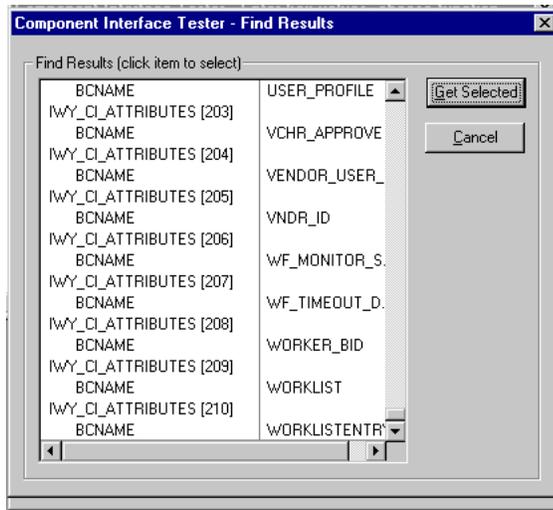


Note: The Create New option is disabled because the Add method is not applicable to this Component Interface.

3. Click **Find**. Entries for the underlying component appear.

A message may appear stating that display is limited to a certain number of entries, as shown in [Figure A-11](#). This is not a problem.

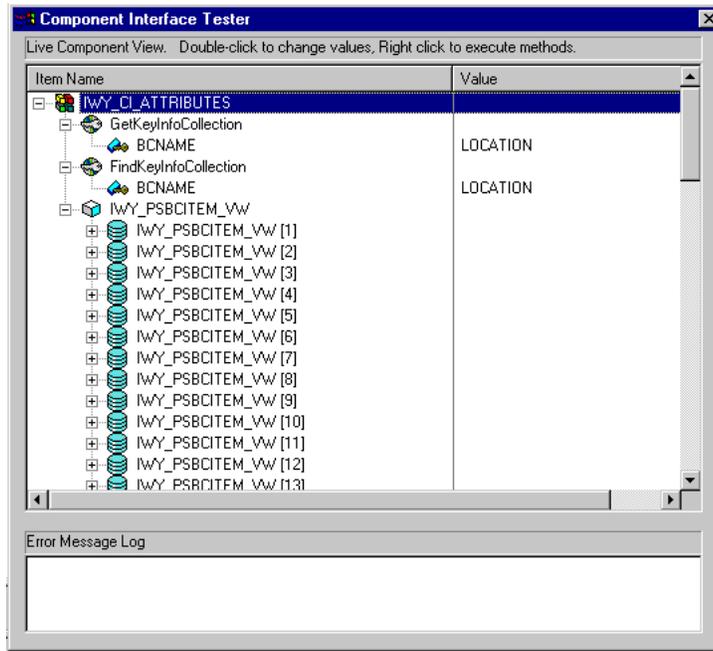
Figure A-11 Component Interface Tester - Find Results Dialog



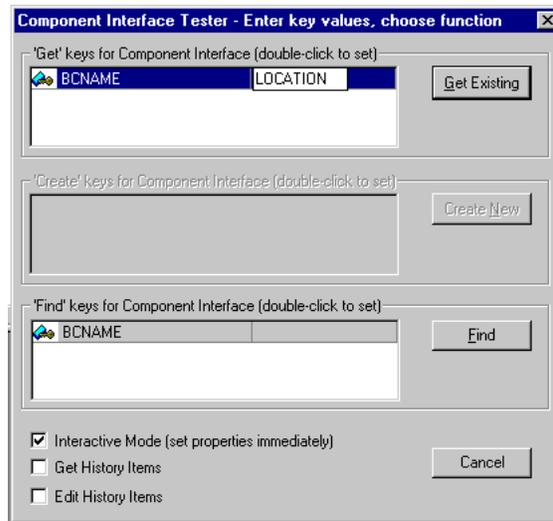
4. Highlight a line with its corresponding key in the Find Results window and click **Get Selected**. The relevant data for the selected key is displayed.

If this window opens, then the Component Interface has been successfully tested for the Find method, as shown in [Figure A-12](#).

Figure A-12 Component Interface Tester Dialog

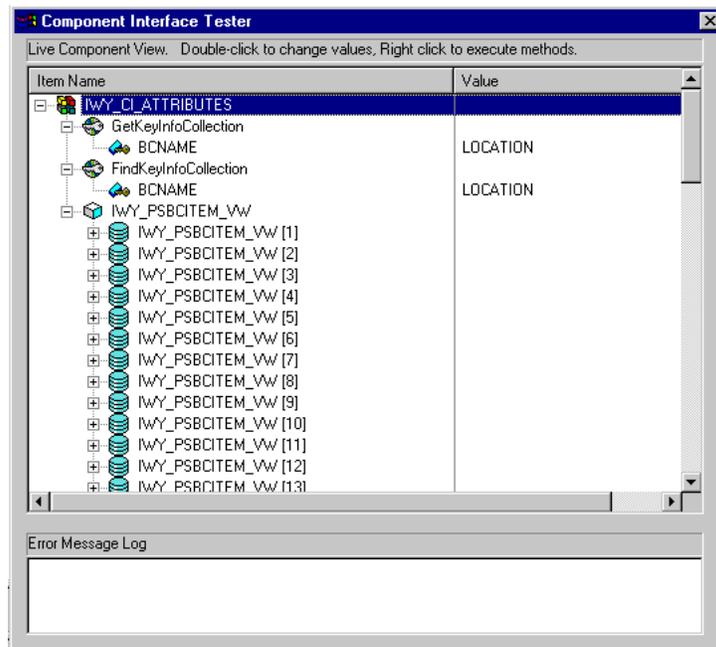


5. Click **Get Existing**. For the Get method, an existing key must be entered, as shown in [Figure A-13](#).

Figure A-13 Component Interface Tester Dialog - Key Values

The exposed properties for the key that is entered are returned.

If a window opens, then the Component Interface has been successfully tested for the Get method, as shown in [Figure A-14](#)

Figure A-14 Component Interface Tester Dialog - Get Method

6. Repeat this process for the IWY_CI_MESSAGES Component Interface.

You have finished testing the Component Interfaces.

A.2.3 Installing the TCP/IP and HTTP Message Router for Oracle Fusion Middleware Application Adapter for PeopleSoft

To enable PeopleSoft to send an XML event document to components using TCP/IP and HTTP, you must install the type of TCP/IP and HTTP message router required for your PeopleSoft release:

- For Release 8.4, install the TCP/IP and HTTP target connector. For more information, see ["Installing the TCP/IP and HTTP Target Connector for PeopleSoft Release 8.4"](#) on page A-10.
- For Release 8.1, install the TCP/IP and HTTP handler. For more information, see ["Installing the TCP/IP and HTTP Handler for PeopleSoft Release 8.1"](#) on page A-10.

Note: If you are using PeopleTools Release 8.40 and higher, then it is recommended that you to use the target connectors that are delivered by PeopleSoft. Do not install the target connectors that are delivered with the Oracle Fusion Middleware Application Adapter for PeopleSoft.

The TCP/IP target connector configuration for PeopleSoft Release 8.4 is provided for customers who are migrating from an older PeopleSoft release (PeopleSoft 8.1 series) to a newer PeopleSoft release.

If you are migrating from PeopleTools Version 8.1 to 8.4, then it is recommended to use the target connectors from PeopleSoft. Do not use the TCP/IP target connector from iWay.

If you are not using PeopleSoft messages for event handling, then skip the steps that describe how to install the target connectors for TCP and HTTP that are delivered with the Oracle Fusion Middleware Application Adapter for PeopleSoft.

Installing the TCP/IP and HTTP Target Connector for PeopleSoft Release 8.4

The TCP/IP and HTTP target connector for PeopleSoft release 8.4 is installed with Oracle Fusion Middleware Application Adapter for PeopleSoft. The default location is:

```
<ADAPTER_HOME>\etc\peoplesoft\iwpsevent84.jar
```

To install the TCP/IP and HTTP target connector for PeopleSoft Release 8.4:

1. Extract `TCPIPTARGET84.class` from `iwpsevent84.jar`. Use any extraction utility for your platform.
2. Port `TCPIPTARGET84.class` to the platform where the PeopleSoft gateway Web server is located.
3. Place `TCPIPTARGET84.class` in the PeopleSoft server target connector directory.

For example:

```
$PS_HOME/webserv/servletclasses/TCPIPTARGET84.class
```

Installing the TCP/IP and HTTP Handler for PeopleSoft Release 8.1

The TCP/IP and HTTP target connector for PeopleSoft release 8.1 is installed with Oracle Fusion Middleware Application Adapter for PeopleSoft. The default location is:

```
<ADAPTER_HOME>\etc\peoplesoft\iwpsevent81.jar
```

Contact your distributor for copies of the relevant files if this location does not exist.

To install the TCP/IP and HTTP Handler for PeopleSoft release 8.1:

1. Port `iwpsevent81.jar` to the platform on which the PeopleSoft gateway Web server is located.
2. Place `iwpsevent81.jar` in the `servletclasses` directory under the PeopleSoft Web server.

For example:

```
$PS_HOME/webserv/servletclasses/iwpsevent81.jar
```

3. Extract the embedded class files.

Installing the TCP/IP and HTTP Handler on a UNIX System

To install the TCP/IP and HTTP handler for PeopleSoft release 8.1 on a UNIX system:

1. Log in to the UNIX system with the proper PeopleSoft ID and permissions.
2. Navigate to the PeopleSoft Web servlets directory. This may vary by release and by Web server, but is usually:

```
$PS_HOME/webserv/servletclasses
```

3. Issue the `jar` command to extract the class files required by PeopleSoft.

This is a sample command:

```
jar -xvf /tmp/iwpsevent81.jar
```

It displays the following output on a Sun or Solaris system:

```
$ jar -xvf /tmp/iwpsevent81.jar
created: META-INF/
extracted: META-INF/MANIFEST.MF
extracted: psft/pt8/tcphandler/TCPIPHandler81$Entry.class
extracted:
psft/pt8/tcphandler/TCPIPHandler81$HandlerEntry.class
extracted:
psft/pt8/tcphandler/TCPIPHandler81$PublicationHandler.class
extracted: psft/pt8/tcphandler/TCPIPHandler81.class
$
```

Note: The files are placed in a new directory, `tcphandler`, under `psft/pt8`.

A.3 Upgrading PeopleTools

This section provides instructions and considerations for upgrading PeopleTools.

1. If you are upgrading from PeopleTools Version 8.1 to Version 8.4, then see [Section A.1, "Specifying the PeopleSoft Version"](#) on page A-1.
2. Ensure that the custom Component Interfaces delivered by iWay Software are available in the new PeopleTools version.

If you are migrating from an older PeopleTools version to a newer PeopleTools version, then PeopleSoft automatically migrates the Component Interfaces.

Otherwise, you must reinstall the custom Component Interfaces delivered by iWay

Software. For more information, see [Section A.2, "Installing the Adapter Component Interfaces"](#) on page A-2.

3. If you installed the TCP/IP handler in the current production version of PeopleTools, then perform the following steps:
 - a. If you are currently using PeopleTools Version 8.1 and are migrating to PeopleTools Version 8.4, then it is recommended to use the HTTP connector that is delivered by PeopleSoft. For more information, see *Appendix D, Using PeopleSoft Integration Broker in the Oracle Fusion Middleware Application Adapter for PeopleSoft User's Guide for Oracle WebLogic Server*.
 - b. If you are currently using PeopleTools Version 8.4 and the TCP/IP handler, then it is recommended to use the HTTP connector that is delivered by PeopleSoft. For more information, see *Appendix D, Using PeopleSoft Integration Broker in the Oracle Fusion Middleware Application Adapter for PeopleSoft User's Guide for Oracle WebLogic Server*.
4. If you are using the PeopleSoft Integration Broker to publish messages to Oracle Fusion Middleware Application Adapter for PeopleSoft, then see the PeopleTools release notes and user guide for any changes in how the PeopleSoft Integration Broker currently operates.
5. Perform the following steps in the \lib folder of the Oracle Fusion Middleware Application Adapter for PeopleSoft installation.

<ADAPTER_HOME>\lib

- a. Stop Oracle WebLogic Server if it is already running.
 - b. Make a backup copy of the current psjoa.jar and Component Interface API .jar files, and then delete these files from the \lib folder.
 - c. Copy the new psjoa.jar and Component Interface API .jar files to the \lib folder. For more information, see *Appendix A, Generating Component Interface APIs in the Oracle Fusion Middleware Application Adapter for PeopleSoft User's Guide for Oracle WebLogic Server*.
 - d. If you are using PeopleTools 8.54 or PeopleTools 8.55, then you must also copy the psmanagement.jar file from the *PeopleSoft_Home/client-tools/class* directory.
 - e. Start Oracle WebLogic Server.
6. Using Application Explorer, modify the connection parameter values for the defined adapter target and channels.
 - a. Stop Oracle WebLogic Server.
 - b. Open Application Explorer.

The adapter target and channels contain parameter values based on an earlier version of PeopleSoft server and PeopleTools. These values must be modified accordingly for the current version of PeopleSoft server and PeopleTools.
 - c. Close Application Explorer.
 - d. Start Oracle WebLogic Server.
 7. If you created any new adapter targets and channels for the new server then you will have to regenerate the WSDL files and use them in the processes. This is the case because WSDL files contain the adapter target name and channel name. As a result, WSDL files that were created with older targets and channels are not compatible with the new targets and channels.

Configuring Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld

This appendix describes how to configure Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld. It contains the following sections:

- [Section B.1, "Modifying the JDE.INI File for Outbound and Inbound Processing"](#)
- [Section B.2, "The OneWorld Event Listener"](#)
- [Section B.3, "Configuring the OneWorld Event Listener"](#)
- [Section B.4, "Runtime Overview"](#)

B.1 Modifying the JDE.INI File for Outbound and Inbound Processing

This section describes the settings that are required in the *JDE.INI* file for the XML call object kernel (outbound and inbound processing).

The *JDE.INI* file is located in the following directory on the Enterprise Server:

```
\\system\bin32
```

Open the *JDE.INI* file and modify the `[JDENET_KERNEL_DEF6]` and `[JDENET_KERNEL_DEF15]` sections as follows:

```
[JDENET_KERNEL_DEF6]
krnlName=CALL OBJECT KERNEL
dispatchDLLName=XMLCallObj.dll
dispatchDLLFunction=_XMLTransactionDispatch@28
maxNumberOfProcesses=1
numberOfAutoStartProcesses=1
```

```
[JDENET_KERNEL_DEF15]
krnlName=XML TRANSACTION KERNEL
dispatchDLLName=XMLTransactions.dll
dispatchDLLFunction=_XMLTransactionDispatch@28
maxNumberOfProcesses=1
numberOfAutoStartProcesses=1
```

The parameters containing an underscore (`_`) and `@28` are for Windows NT operating systems only. For other operating systems, replace the parameters with the values in the following table:

Operating System	Call Object dispatch DLLName	XML Trans dispatch DLLName
AS400	XMLCALLOBJ	XMLTRANS
HP9000B	libxmlcallobj.sl	libxmltransactions.lo
Sun or RS6000	libxmlcallobj.so	Libxmltransactions.so

Note: The J.D. Edwards OneWorld installation for version B7333(XE) does not include `[JDENET_KERNEL_DEF15]`. As a result, if you are using version B7333(XE), you must manually add it to the `jde.ini` file. For all other J.D. Edwards OneWorld versions, `[JDENET_KERNEL_DEF15]` is included with the installation.

B.2 The OneWorld Event Listener

Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld Event Listener is designed specifically to provide J.D. Edwards approved access to your OneWorld business events. The OneWorld Event Listener refers to a specialized application that runs with OneWorld business functions and is called by the OneWorld application system.

The OneWorld application system provides the Event Listener with the information required to retrieve the event information for only the desired events. For information about configuring the OneWorld environment, see the *J.D. Edwards Interoperability Guide for OneWorld*.

The OneWorld Event Listener is called directly from the OneWorld application and is passed a Z-file record identifier. This identifier then generates a request document that is passed to the server for processing. The server retrieves the event information from the J.D. Edwards OneWorld system and propagates the information for integration with other application systems.

B.3 Configuring the OneWorld Event Listener

The OneWorld Event Listener is installed as part of the Oracle Fusion Middleware Application Adapters installation. The OneWorld Event Listener supports TCP/IP and HTTP protocols.

The OneWorld Event Listener is invoked by J.D. Edwards for specific transactions as configured in the OneWorld environment.

The OneWorld Event Listener includes the following components:

- The listener event stub, `IWOEvent.dll`, is located in the `\etc\jde` directory. For example:

```
<ADAPTER_HOME>\etc\jde\iwoevent.dll
```

The file extension varies depending on your operating system:

- For **Windows**, the event stub is `iwoevent.dll`.
- For **Sun Solaris**, the event stub is `libiwoevent.so`.
- For **HP-UX**, the event stub is `libiwoevent.sl`.
- For **AS/400**, the event stub is `iwaysav.sav`.

- For **IBM AIX**, the event stub is *libiwoevent.so*.
- The listener configuration file, *iwoevent.cfg*, which must be created by you.

The OneWorld Event listener exit is the function that passes the key fields for a record in the OneWorld outbound transaction tables to the integration server for processing by the inbound Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld. The OneWorld Event listener is deployed under the J.D. Edwards OneWorld Enterprise Server. The Java class for the OneWorld Event listener is called *IWOEvent* (the file extension depends on the operating system) and is case-sensitive.

1. Create a folder called Outbound under the JDE structure on the JDE Enterprise Sever, for example:

```
\\JDEdwards\E812\DDP\Outbound
```

2. Copy the *iwoevent.dll* file in the new Outbound folder.
3. Create an environment variable, *IWOEVENT_HOME*, to point to the directory containing the *iwoevent.dll* file.
 - On Windows: Add *IWOEVENT_HOME* to the system environment variables.
 - On UNIX: Add the following command to your start-up script:

```
export IWOEVENT_HOME =/directory_name
```

4. On the J.D. Edwards OneWorld Server, create an *iwoevent.cfg* file in the defined directory, *IWOEVENT_HOME*.

The OneWorld Event listener requires connection information for the associated adapter to initiate events properly. This information is contained in the *iwoevent.cfg* file. You must create this file and add the connection information to it. The OneWorld Event Listener requires connection information for the associated integration server to function properly. This information is contained in the *iwoevent.cfg* file. The *iwoevent.cfg* file has three distinct sections:

- **Common**

The common section of the configuration file contains basic configuration options. Currently, only the trace option is supported.

To set the trace option, select **on** or **off**.

```
common.trace=on|off
```

where **on** sets the tracing to on and **off** sets the tracing to off. The default value is **off**.

By default, the OneWorld Event listener supports TCP/IP. To activate the HTTP protocol for this listener, add the following line:

```
common.http=on
```

- **Alias**

The alias section of the configuration file contains the connection information required to send transactions to specific servers. Currently, the Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld supports 100 entries (alias names) in the configuration file.

The alias values to these entries are as follows:

```
Alias.aliasname={ipaddress|dsn}:port, trace={on|off}
```

where `aliasname` is the symbolic name given to the connection.

`ipaddress|dsn` is the IP address or DSN name for the server containing Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld (required).

`port` is the port defined for Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld in the TCP channel configuration (required).

`trace={on|off}` sets the tracing to on for the particular alias.

- **Trans**

The `trans` section of the configuration file contains transaction information required to route J.D. Edwards OneWorld transactions to specified servers.

If a particular J.D. Edwards OneWorld transaction is not defined to an alias, then it is sent to all aliases. The `trans` values to these entries are as follows:

```
trans.jdeTransactionName=alias1,alias2,aliasn
```

where `jdeTransactionName` is the JDE-defined name for the outbound transaction and `alias1,alias2,aliasn` is the list of aliases to which the transactions are sent.

The following is a sample entry for `iwoevent.cfg` that supplies connection information:

```
common.trace=on

alias.edamcs1=172.1.1.1:3694
alias.edamcs1t=172.1.1.1:3694, trace=on
alias.edamcs2=222.2.2.2:1234

trans.JDES00OUT=edamcs1t,edamcs2
trans.JDEP00OUT=edamcs1
```

5. Create a folder using the alias names that are specified in the `iwoevent.cfg` file under the defined directory, `IWOEVENT_HOME`. For example:

```
\\JDEdwards\E812\DDP\Outbound\edamcs1
```

B.3.1 Configuring an Event Listener on AS/400

To configure the `iwoevent.cfg` file:

1. Using the `CRTDIR` command, create a directory on AS/400 that is accessible by the J.D. Edwards OneWorld application server.

For example:

```
CRTDIR DIR('/e810sys/outbound') DTAAUT(*RW)
```

2. Copy the `iwoevent.cfg` configuration file to the directory you just created.

For example:

```
/e810sys/outbou
```

3. Create a directory using the alias name that is specified in the `iwoevent.cfg` file.
4. Add an environment variable called `IWOEVENT_HOME` for the J.D. Edwards OneWorld application server.

The value should be a full path to the directory that you specified in step 1.

For example:

```
ADDENVVAR ENVVAR(IWOEVENT_HOME) VALUE('/e810sys/outbound') LEVEL(*SYS)
```

If the *iwoevent.cfg* configuration file has tracing enabled (`trace=on`), then the *iwoevent.log* trace file is created in the `IWOEVENT_HOME` directory.

Sample *iwoevent.cfg* Configuration File

You can use the following sample *iwoevent.cfg* configuration file for reference purposes:

```
common.trace=on
alias.JDE=172.30.24
```

Configuring the Event Stub

To configure the Event Stub:

1. In the iSeries green console, use the `CRTLIB` command to create a temporary library.

For example:

```
CRTLIB IWAYTEMP
```

2. Use the `CRTSAVF` command to create an online save file in the library you just created.

For example:

```
CRTSAVF IWAYTEMP/IWAYSAV
```

3. Using FTP, upload the *iwaysav.sav* file to your iSeries system.

For example:

```
FTP YourSystemName
Login
BIN
PUT IWAYSAV.SAV IWAYTEMP/IWAYSAV
```

Where *YourSystemName* is the name of your iSeries system.

4. In the iSeries green console, enter the following command:

```
RSTLIB SAVLIB(IWAYPLUGIN) DEV(*SAVF) SAVF(IWAYTEMP/IWAYSAV)
```

A new library named `IWAYPLUGIN` is created, which contains one object named `EVENTPLUG`.

Note: Using the P0047 (Work With Data Export Controls) application, you must specify the Function Library as `IWAYPLUGIN/EVENTPLUG`.

B.4 Runtime Overview

After OneWorld starts the OneWorld Event listener, the listener accesses the configuration file, called *iwoevent.cfg* (case-sensitive). Based on the information in the configuration file, the listener sends the event notification to the integration server. All log information is saved in a file called *iwoevent.log*. The *iwoevent.log* file is

created in the outbound folder where the *iwoevent.dll* and *iwoevent.cfg* files are located.

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