

## **Oracle® Fusion Middleware Application Adapters**

Installation Guide for Oracle WebLogic Server

11g Release 1 (11.1.1.4.0)

**E17054-06**

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

Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server, 11g Release 1 (11.1.1.4.0)

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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 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

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

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## Related Documents

For more information, see the following documents in the Oracle Enterprise Repository 11g Release 1 (11.1.1.4.0) 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 SAP R/3 (SAP JCo 3.0) 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)

A wealth of additional Governance information can be found within Oracle's Unified Method (OUM). OUM can be used by Oracle employees, Oracle Partner Network Certified Partners or Certified Advantage Partners, and Clients who either participate in the OUM Customer Program or are engaged on projects where Oracle provides consulting services. OUM is a web-deployed toolkit for planning, executing and controlling software development and implementation projects.

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](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:

<b>Convention</b>	<b>Meaning</b>
<b>boldface</b>	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.



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# Introduction

This chapter provides an overview of Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server 11g Release 1 (11.1.1.4.0). It contains the following topics:

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

## 1.1 Oracle Fusion Middleware Application Adapter Overview

The Oracle Fusion Middleware Application Adapters CD 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 2000	Solaris	Linux
Disk Space (to install all adapters)	200 MB	200 MB	200 MB
Memory	256 MB	256 MB	256 MB

### 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:

- Admin and Managed mode

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

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#### **Oracle Service Bus (OSB)**

Supported modes:

- Admin and Managed mode

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

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- Admin mode

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

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

Supported modes:

- Admin and Managed mode

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**Note:** ■ Installing Oracle Fusion Middleware Application Adapters to SOA \$Oracle\_Home (for example, *<Oracle\_Home>\Oracle\_SOA1\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.
- 
- 

- Admin mode

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**Note:** ■ Installing Oracle Fusion Middleware Application Adapters to SOA \$Oracle\_Home (for example, <Oracle\_Home>\Oracle\_SOA1\soa\thirdparty\ApplicationAdapters) is sufficient to work with SOA and OSB in a combined SOA and OSB environment.

- By default, the Oracle Fusion Middleware Application Adapters are deployed to the Admin Server during deployment.
- Currently in a combined SOA and OSB environment in Admin mode, only OSB is supported. After the Oracle Fusion Middleware Application Adapters are deployed and the Admin server is restarted, the following error is generated, which can be ignored, when you are working with OSB:

```
<Error> <Deployer> <axtst168> <AdminServer> <[ACTIVE]
ExecuteThread: '0' for queue: 'weblogic.kernel.Default
(self-tuning)'' <<WLS Kernel>> <>
<0000IyLimL8FKAYFLrj08A1Dhvol000002> <1303887282955>
<BEA-149231> <Unable to set the activation state to true for
the application 'em'.
weblogic.application.ModuleException:
at
weblogic.servlet.internal.WebAppModule.startContexts(WebAppModu
le.java:1510)
at
weblogic.servlet.internal.WebAppModule.start(WebAppModule.java:
482)
at
weblogic.application.internal.flow.ModuleStateDriver$3.next(Mod
uleStateDriver.java:425)
at
weblogic.application.utils.StateMachineDriver.nextState(StateMa
chineDriver.java:52)
```

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### 1.2.3 Software Requirements

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

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**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 1-6.

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#### 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 11g PS3 (11.1.1.4.0) 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. These two adapters are not certified and supported on any other platforms for the Oracle 11g PS3 (11.1.1.4.0) release. If support on any other platforms is required for these adapters, then contact Oracle customer support.

Oracle Fusion Middleware Application Adapter for SAP R/3 does not support any versions of the JRockit JDK, since it is not supported by SAP Java Connector (JCo) 3.x. As an alternative, you must use a JDK that is supported by SAP JCo. For more information, see SAP Note #1077727 in the SAP Service marketplace.

**Table 1–3 Operating System Requirements**

Platform Type	Platform List	32- or 64-bit	JDK Version
<b>Windows</b>	Intel x86 Microsoft Windows 2003 SP2/R2+	32-bit	<ul style="list-style-type: none"> <li>▪ Sun 1.6.0_07+ (32-bit)</li> <li>▪ JRockit 27.6 (32-bit)</li> </ul>
	x64 Windows 2003 with SP2/R2+	64-bit	<ul style="list-style-type: none"> <li>▪ Sun 1.6.0_07+ (64-bit)</li> <li>▪ JRockit 27.6 (64-bit)</li> </ul>
	Intel x86 Windows Server 2008	32-bit	<ul style="list-style-type: none"> <li>▪ Sun 1.6.0_07+ (32-bit)</li> <li>▪ JRockit 27.6 (32-bit)</li> </ul>
	x64 Windows Server 2008	64-bit	<ul style="list-style-type: none"> <li>▪ Sun 1.6.0_07+ (64-bit)</li> <li>▪ JRockit 27.6 (64-bit)</li> </ul>
<b>Solaris</b>	Sun Solaris Sparc 2.9	64-bit	<ul style="list-style-type: none"> <li>▪ Sun 1.6.0_07+ (64-bit)</li> <li>▪ JRockit 27.6 (64-bit)</li> </ul>
	Sun Solaris Sparc 2.10	64-bit	<ul style="list-style-type: none"> <li>▪ Sun 1.6.0_07+ (64-bit)</li> <li>▪ JRockit 27.6 (64-bit)</li> </ul>
<b>HP</b>	PA-RISC HP UX 11i 11.23, 11.31	64-bit	HP JDK 1.6.0.02 (64-bit)
	Itanium-2 HP UX 11.23, 11.31	64-bit	HP JDK 1.6.0.02 (64-bit)
<b>Linux</b>	Intel x86 RedHat Linux EL 4 (UL7+)	32-bit	<ul style="list-style-type: none"> <li>▪ Sun 1.6.0_07+ (32-bit)</li> <li>▪ JRockit 27.6 (32-bit)</li> </ul>
	Intel x86 RedHat Linux EL 5.x (UL2)	32-bit	<ul style="list-style-type: none"> <li>▪ Sun 1.6.0_07+ (32-bit)</li> <li>▪ JRockit 27.6 (32-bit)</li> </ul>
	x64 RedHat Linux EL 4 (UL7+)	64-bit	<ul style="list-style-type: none"> <li>▪ Sun 1.6.0_07+ (64-bit)</li> <li>▪ JRockit 27.6 (64-bit)</li> </ul>
	x64 RedHat Linux EL 5.x (UL2+)	64-bit	<ul style="list-style-type: none"> <li>▪ Sun 1.6.0_07+ (64-bit)</li> <li>▪ JRockit 27.6 (64-bit)</li> </ul>
	Intel SUSE 10	32-bit	<ul style="list-style-type: none"> <li>▪ Sun 1.6.0_07+ (32-bit)</li> <li>▪ JRockit 27.6 (32-bit)</li> </ul>

**Table 1–3 (Cont.) Operating System Requirements**

Platform Type	Platform List	32- or 64-bit	JDK Version
	x64 SUSE10	64-bit	<ul style="list-style-type: none"> <li>■ Sun 1.6.0_07+ (64-bit)</li> <li>■ JRockit 27.6 (64-bit)</li> </ul>
	Intel Oracle Enterprise Linux 4 (UL7+)	32-bit	<ul style="list-style-type: none"> <li>■ Sun 1.6.0_07+ (32-bit)</li> <li>■ JRockit 27.6 (32-bit)</li> </ul>
	Intel Oracle Enterprise Linux 5.x (UL2+)	32-bit	<ul style="list-style-type: none"> <li>■ Sun 1.6.0_07+ (32-bit)</li> <li>■ JRockit 27.6 (32-bit)</li> </ul>
	x64 Oracle Enterprise Linux 4 (UL7+)	64-bit	<ul style="list-style-type: none"> <li>■ Sun 1.6.0_07+ (64-bit)</li> <li>■ JRockit 27.6 (64-bit)</li> </ul>
	x64 Oracle Enterprise Linux 5.x (UL2+)	64-bit	<ul style="list-style-type: none"> <li>■ Sun 1.6.0_07+ (64-bit)</li> <li>■ JRockit 27.6 (64-bit)</li> </ul>
AIX	IBM Power AIX 5L (5.3 ML01+)	64-bit	IBM 1.6 SR2 (64-bit)
	IBM Power AIX 6.1	64-bit	IBM 1.6 SR2 (64-bit)

## 1.2.4 Supported EIS Systems

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

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

### 1.2.4.1 Considerations for SAP R/3 (Using SAPJCo 3.x)

iWay Software released the SAP R/3 adapter for SAP Java Connector (JCo) version 2.1.8 in 2007. The SAP JCo 2.1.8 and 2.1.9 support is limited to Java 1.4 JVM support. Note that while SAP has extended the life of the 2.x JCo until 2013, iWay Software can only support this connector for SUN JVM 1.4 under the terms of SAP note 549268. SAP has released the SAP Java Connector 3 (JCo) for Java 1.5 and 1.6 support. iWay Software has also released the SAP R/3 adapter (using SAPJCo 3.x) and recommends that all customers migrate to this version to take advantage of the speed and stability that is offered by JCo 3.x and the new features that have been added to the adapter. The new release of the SAP R/3 adapter contains all of the previous adapter fixes and new feature enhancements. For more information about migrating existing SAP adapter (using SAP JCo 3.x) adapter targets and channels and application artifacts (BPEL, Mediator, ESB, and OSB) to Application Adapter for SAP R/3 (using SAP JCo 3.x), see [Appendix C, "Migrating to Oracle Fusion Middleware Application Adapter for SAP R/3 \(SAP JCo 3.x\)"](#).

Oracle Fusion Middleware Application Adapter for SAP R/3 (using SAP JCo 3.x) is developed with Java 1.5 and also certified on Java 1.6. Note that if the SAP R/3 adapter is deployed to an application server, the application server must also use Java 1.5 or higher. It is recommended to upgrade to the new version of the SAP R/3 adapter

in 2010 to provide ongoing support, maintenance, and enhancements. For specific releases of SAP JCo 3.x, see SAP note 1077727.

iWay Software has separately announced the advanced notification of End Of Support (EOS) for the SAP R/3 adapter (using SAP JCo 2.1.x) effective 12/31/2011. 11g Release 1 (11.1.1.3.0) is the last supported release for the SAP R/3 adapter (using SAP JCo 2.1.x). The SAP R/3 adapter (using SAP JCo 2.1.x) is not available with the PS3 release (11.1.1.4.0). Only the SAP R/3 adapter (using SAP JCo 3.x) is available with the PS3 release (11.1.1.4.0).

#### 1.2.4.2 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 3.0.5

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

- Windows 32-bit (Windows XP, Windows Vista, Windows Server 2003, and Windows Server 2008)
- Windows 64-bit (Windows XP, Windows Vista, Windows Server 2003, and Windows Server 2008)
- Linux (Intel processor only) - (32-bit and 64-bit)
- 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.

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**Note:** The Oracle JRockit JVM is not supported by SAP JCo 3.0.5.

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#### 1.2.4.3 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 <a href="#">Table 1-3, "Operating System Requirements"</a>	All PeopleSoft supported platforms	8.1	8.16.03 - 8.22
	(for example, Windows, Solaris, AIX, and so on)	8.4	8.40.05 - 8.50

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**Note:** For the Oracle 11g PS3 (11.1.1.4.0) release, Oracle Fusion Middleware Application Adapter for PeopleSoft is certified only with Windows and Oracle Enterprise Linux platforms. This adapter is not certified and supported on any other platforms for the Oracle 11g PS3 (11.1.1.4.0) release. If support on any other platforms is required for this adapter, then contact Oracle customer support.

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#### 1.2.4.4 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 - 8.0	Java Data Bean
	Solaris	6.0.1 - 8.0	Java Data Bean
	AIX	6.3 - 8.0	Java Data Bean

#### 1.2.4.5 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, AS400, HP 9000/B, Sun or IBM RS/6000	<ul style="list-style-type: none"> <li>■ XE (B7333) from SP19 to SP23</li> <li>■ ERP 8.0 (B7334)</li> <li>■ EnterpriseOne B9 (8.9)</li> <li>■ EnterpriseOne 8.10 (Tools Release 8.93 and 8.94)</li> <li>■ EnterpriseOne 8.11 (SP1)</li> <li>■ EnterpriseOne 8.12 (Tools Release 8.96 2.0)</li> <li>■ EnterpriseOne 9.0 (Tools Release 8.98.1.3)</li> </ul>

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**Note:** For the Oracle 11g PS3 (11.1.1.4.0) release, Oracle Fusion Middleware Application Adapter for J.D. Edwards OneWorld is certified only with Windows and Oracle Enterprise Linux platforms. This adapter is not certified and supported on any other platforms for the Oracle 11g PS3 (11.1.1.4.0) release. If support on any other platforms is required for this adapter, then contact Oracle customer support.

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# Installation and Configuration

This chapter describes how to install and configure Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server 11g. 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, "Postinstallation Tasks"](#)
- [Section 2.8, "Uninstalling Oracle Fusion Middleware Application Adapters"](#)

## 2.1 Required Oracle Patches

The following patch is required to ensure that the Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server 11g function properly.

- Mandatory Patch for SOA BPM Suite PS3 (Patch 10649519)

This patch is required if you are planning to use Oracle Fusion Middleware Application Adapters with Oracle Service-Oriented Architecture (SOA) and with Business Process Management (BPM) Suite PS3.

The patch that is mentioned here is available on the Oracle Support Web site:

<http://support.oracle.com>

For additional details, contact Oracle Customer Support.

## 2.2 Installation Overview

The Application Adapter installer for 11g Release 1 (11.1.1.4.0) 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.

### **Oracle Fusion Middleware Application Adapter for SAP R/3 Installation**

The Application Adapter installer for 11g PS3 installs only the Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x).

## 2.3 Installing Oracle Fusion Middleware Application Adapters

To install Oracle Fusion Middleware Application Adapters, perform the following steps:

1. Open a terminal and navigate to the location on your system where the installation file is located and execute the platform-specific installer.
  - **Windows:** `iwora11gPS3_application-adapters_win.exe`
  - **Linux:** `iwora11gPS3_application-adapters_linux.bin`
  - **Solaris:** `iwora11gPS3_application-adapters_solaris.bin`
  - **HPUX:** `iwora11gPS3_application-adapters_hpx.bin`
  - **AIX:** `iwora11gPS3_application-adapters_jvm.jar`

The Introduction screen is displayed.

---

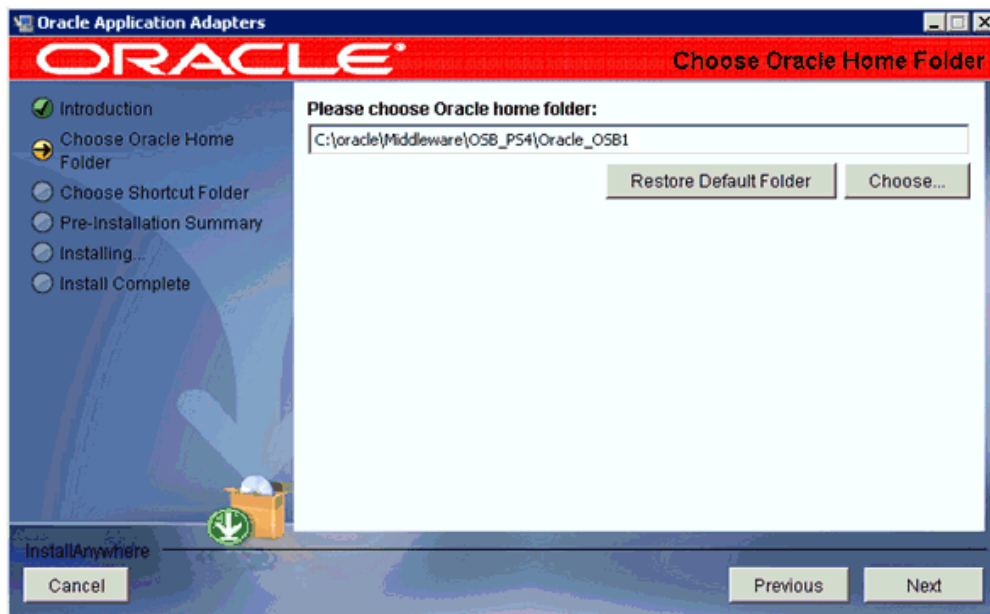
**Note:** The images used in this procedure are samples from the Windows installer. The installation steps are the same for all platforms.

---

2. Click Next.

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

**Figure 2-1** Choose Oracle Home Folder Screen



3. Choose the appropriate Oracle Home location.

**For Oracle SOA Suite:**

`<ORACLE_HOME>\oracle_SOA1`

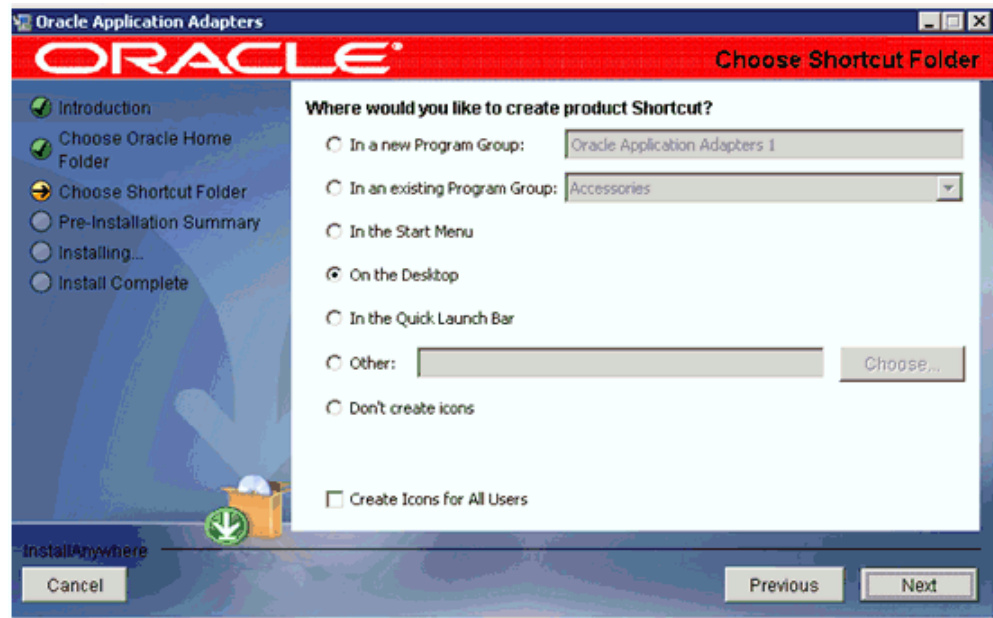
**For OSB:**

`<OSB_HOME>\Oracle_OSB1`

4. Click **Next**.

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

**Figure 2-2 Choose Shortcut Folder Screen**



5. Choose the location for the shortcuts to be installed.

This step is applicable only to Windows platforms. It is skipped on non-Windows platforms.

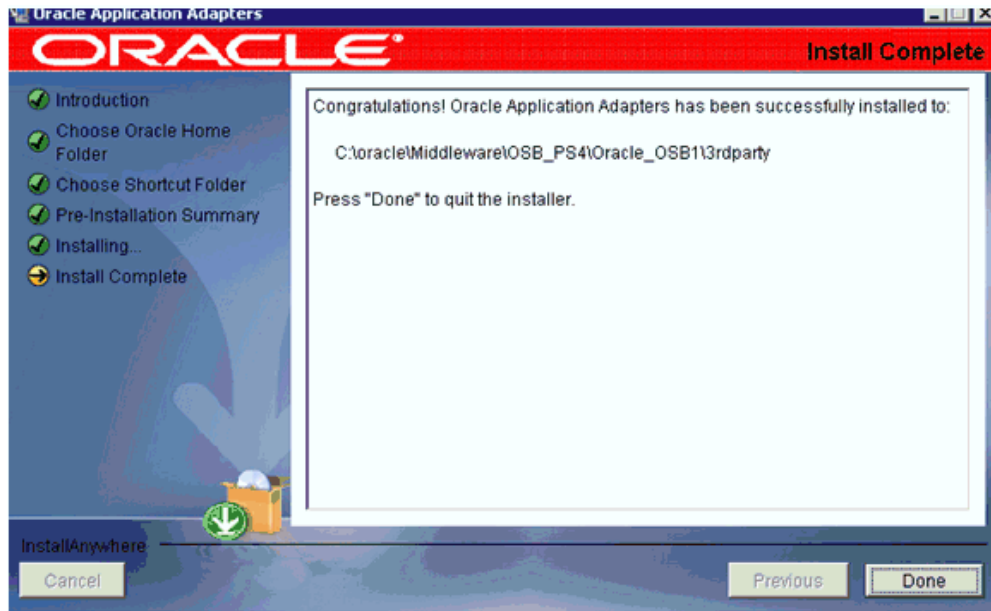
6. Click **Next**.

The Pre-Installation Summary screen is displayed.

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

The installation process is started.

8. When the installation is complete, verify that the adapter installation location is displayed and click **Done**, as shown in [Figure 2-3](#).

**Figure 2–3 Install Complete Screen**

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

- **For Oracle SOA Suite:**

```
<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters
```

- **For OSB:**

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters
```

### 2.3.1 Starting Application Explorer

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

1. Open the command prompt.
2. Navigate to the following directory:
 

```
<WLS_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 directory:

**For Oracle SOA Suite:**

```
<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\tools\iwae\bin\ae.bat
```

In this example, `<ORACLE_HOME>` is the location where Oracle SOA Suite is installed.

**For OSB:**

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\tools\iwae\bin\ae.bat
```

In this example, `<OSB_HOME>` is the location where Oracle Service Bus is installed.

```
<OSB_Home>\3rdparty\ApplicationAdapters\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 "[Starting Application Explorer](#)" on page 2-4.

---

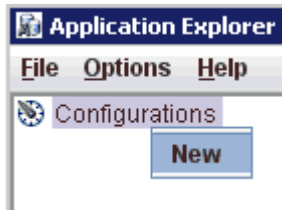
**Note:** Before you run the `iwae.sh` file on UNIX or Linux platforms, the permissions must be changed. For example:

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

---

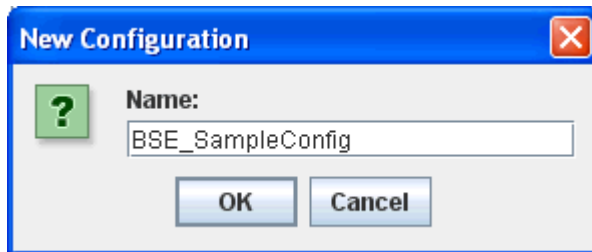
2. Right-click the **Configurations** node in Application Explorer and select **New**, as shown in [Figure 2-4](#).

**Figure 2–4 Configurations Node**



The New Configuration dialog is displayed, as shown in [Figure 2–5](#).

**Figure 2–5 New Configuration Dialog**



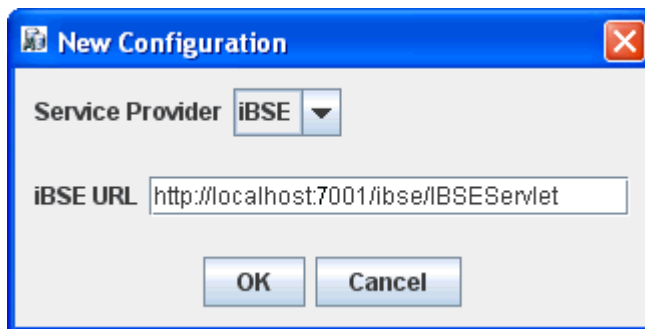
3. Enter a name for the new configuration, for example, *BSE\_SampleConfig*, and click OK.

---

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

---

**Figure 2–6 BSE New Configuration Dialog**



4. From the Service Provider list, select **iBSE**.
5. 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 2–6](#).

---

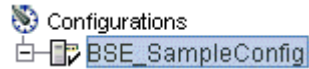
**Note:** The HTTP port number varies depending on the type of installation (Oracle SOA Suite or Oracle Service Bus).

---

## 6. Click OK.

A node representing the new configuration appears beneath the root Configurations node, as shown in [Figure 2-7](#).

**Figure 2-7 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 "[Starting Application Explorer](#)" on page 2-4.

---

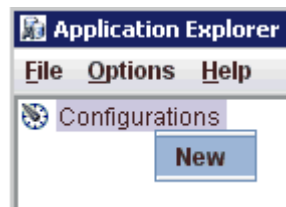
**Note:** Before you run the `iwae.sh` file on UNIX or Linux platforms, the permissions must be changed. For example:

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

---

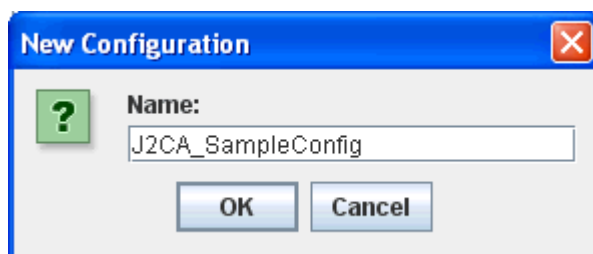
2. Right-click the **Configurations** node in Application Explorer and select **New**, as shown in [Figure 2-8](#).

**Figure 2-8 Configurations Node in Application Explorer**



The New Configuration dialog is displayed, as shown in [Figure 2-9](#).

**Figure 2-9 J2CA New Configuration Name**



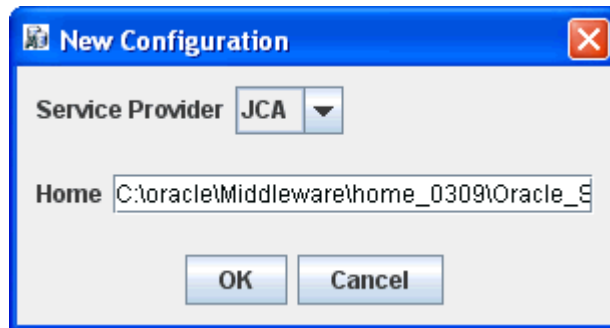
3. Enter a name for the new configuration, for example, *J2CA\_SampleConfig*, and click **OK**.

---

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

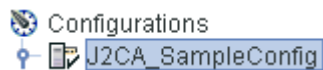
---

**Figure 2–10 J2CA New Configuration Dialog**



4. From the Service Provider list, select **JCA**, as shown in [Figure 2–10](#).
5. Click **OK**.  
A node representing the new configuration appears beneath the root Configurations node, as shown in [Figure 2–11](#).

**Figure 2–11 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, "Configuring Log File Management for the J2CA Connector Application"](#)
- [Section 2.5.3, "Deploying the J2CA Connector Application Using the Oracle WebLogic Server Administration Console"](#)
- [Section 2.5.4, "Deploying the J2CA Installation Verification Program \(IVP\) Using the Oracle WebLogic Server Administration Console"](#)
- [Section 2.5.5, "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 directory:

```
<ORACLE_HOME>\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\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 Configuring Log File Management for the J2CA Connector Application

Log file management for the J2CA Connector Application is governed by the configuration of the *ra.xml* file. The properties such as *LogLevel*, *LogSize*, and *LogCount* are the actual parameters that must be configured.

For example:

```
<config-property>
  <config-property-name>LogLevel</config-property-name>
  <config-property-type>java.lang.String</config-property-type>
  <config-property-value>DEBUG</config-property-value>
</config-property>
<config-property>
  <config-property-name>LogSize</config-property-name>
  <config-property-type>java.lang.Integer</config-property-type>
  <config-property-value>100000</config-property-value>
</config-property>
<config-property>
  <config-property-name>LogCount</config-property-name>
  <config-property-type>java.lang.Integer</config-property-type>
  <config-property-value>10</config-property-value>
</config-property>
```

*LogLevel* specifies the level of the log to be shown in the log files. Valid values for *LogLevel* include *DEBUG*, *INFO*, *ERROR*, *FATAL*, and *WARN*. For development and test environments, *DEBUG* is the preferred log level, which displays all of the log details. For production environments, *ERROR* is the preferred log level.

*LogSize* is the parameter that controls the size of the log files. The size should be mentioned in bytes.

LogCount is the parameter that controls the number of log files that are required. The value for this parameter must be specified as an integer. The number of log files that are generated do not exceed the number that is specified and a rollover of the log occurs only within the files that have been generated.

The log files would be created under the `<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\config\xxxxxxx\log` folder where `xxxxxxx` is the name of the J2CA configuration that you created in Application Explorer. Each J2CA configuration in Application Explorer has a corresponding log folder under the named J2CA configuration folder.

Regardless of inbound or outbound processing, all log information is stored in a file that uses the `iwafjcaxxxx.log` naming convention. Outbound process logs are updated in the format `iwafjcaxx.log` (for example, `iwafjca00.log`). Inbound process logs are updated in the format `iwafjca15xx.log` (for example, `iwafjca1500.log`).

When an outbound process is deployed, all the current logs are updated in the `iwafjca00.log` file. After this file reaches its maximum log file size, the file is saved as `iwafjca10.log` and `iwafjca00.log` continues to log new activity. If `iwafjca00.log` reaches its maximum log file size for a second time, then this file is saved as `iwafjca10.log` and the previous log file (`iwafjca10.log`) is now saved as `iwafjca20.log`.

All new log files are created in this manner based on the value specified for the LogCount parameter in the `ra.xml` file. After the log files reaches the maximum log file size (LogSize) and number of log files (LogCount), then the logs are overwritten on the log file that was created first. For example, if you set LogSize to 100000 and LogCount to 5, then five separate files with a maximum size of 100000 are created initially as `iwafjca00.log`, `iwafjca10.log`, `iwafjca20.log`, `iwafjca30.log`, and `iwafjca40.log`. When the `iwafjca00.log` file reaches its maximum size, then the contents of the `iwafjca40.log` file would be replaced with `iwafjca30.log` and subsequent replacement with the other log files also occurs. This same behavior is followed with J2CA log file management for inbound processing.

### 2.5.3 Deploying the J2CA Connector Application Using the Oracle WebLogic Server Administration Console

To deploy the J2CA Connector Application:

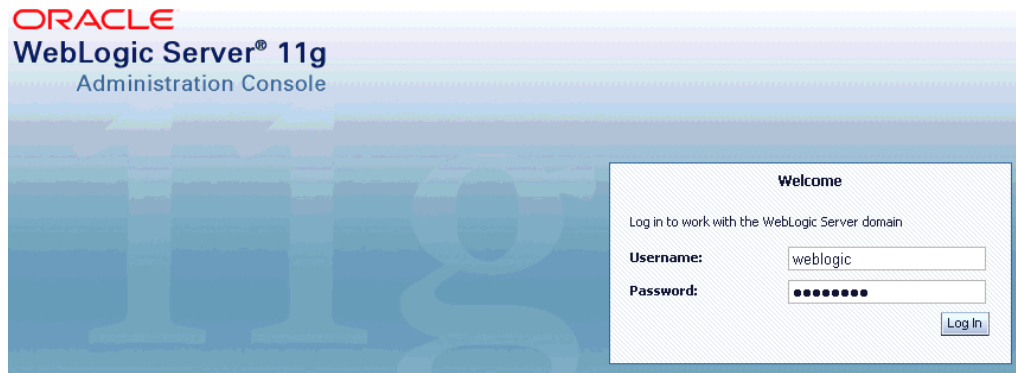
1. Start the Oracle WebLogic Server for the Oracle WebLogic Server domain that you have configured.
2. Open the Oracle WebLogic Server Administration Console in a Web browser by entering the following URL:

```
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 2-12](#).

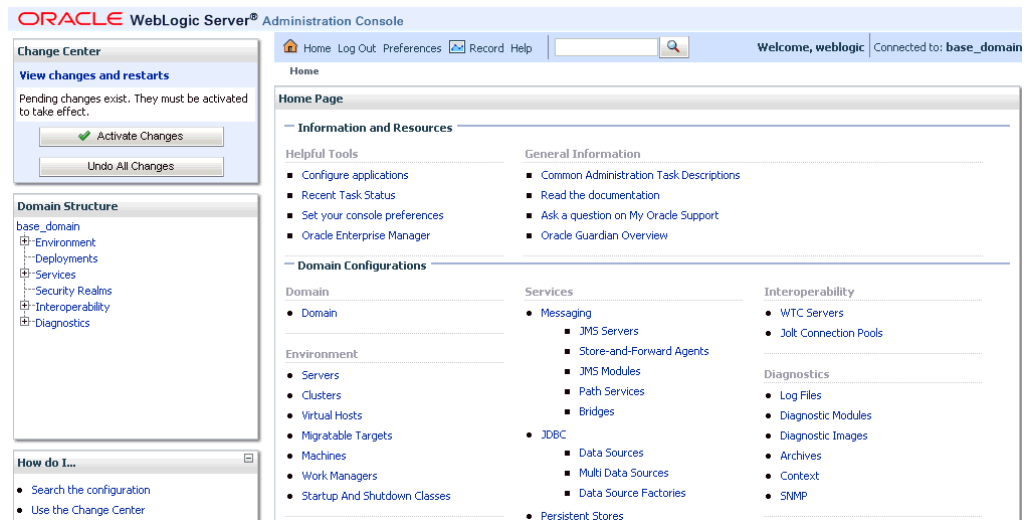
**Figure 2–12 Oracle WebLogic Server Administration Console**



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 2–13](#).

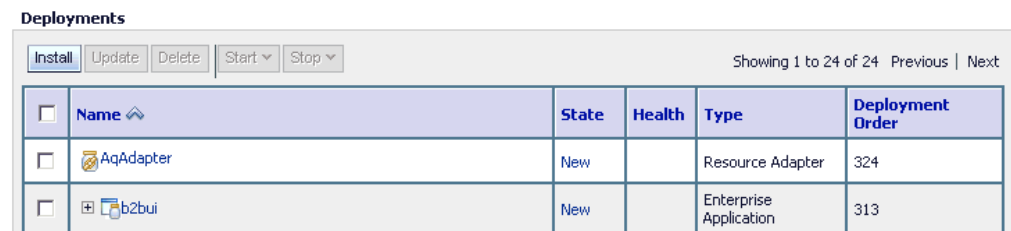
**Figure 2–13 Oracle WebLogic Server Administration Console Home Page**



4. In the Domain Structure section in the left pane, click **Deployments**.

The Deployments page is displayed, as shown in [Figure 2–14](#).

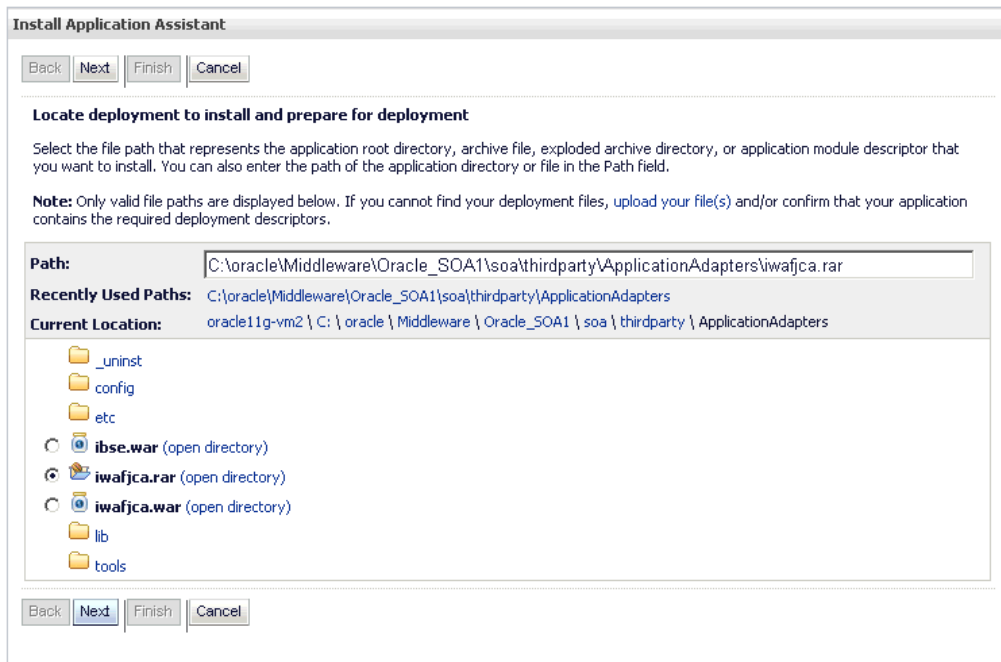
**Figure 2–14 Deployments Page**



5. Click **Install**.

The Install Application Assistant page is displayed, as shown in [Figure 2–15](#).

**Figure 2–15 Install Application Assistant Page**



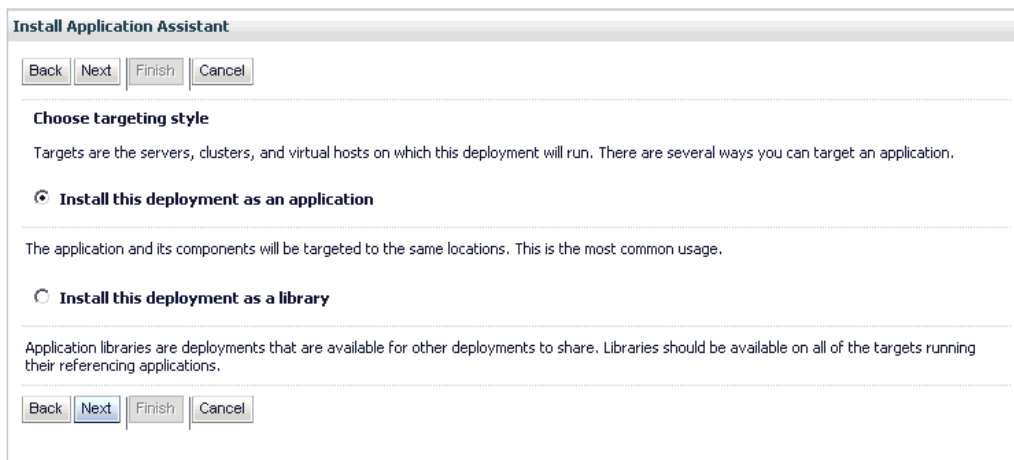
6. Browse to the following directory:

`<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\iwafjca.rar`

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

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

**Figure 2–16 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 2–17](#).

**Figure 2–17 Select 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 2–18](#).

**Figure 2–18 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:

**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:

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 2–19](#).

**Figure 2–19 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, as shown in Figure 2–20.

**Figure 2–20 J2CA Settings Page**

Settings for iwafjca

Overview Deployment Plan Configuration Security Targets Control Testing Monitoring Notes

Save

This page displays basic information about this resource adapter deployment.

<b>Name:</b>	iwafjca	The name of this application deployment. <a href="#">More Info...</a>
<b>Source Path:</b>	C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\iwafjca.rar	The path to the source of the deployable unit on the Administration Server. <a href="#">More Info...</a>
<b>Deployment Plan:</b>	(no plan specified)	The path to the deployment plan document on Administration Server. <a href="#">More Info...</a>
<b>Staging Mode:</b>	(not specified)	The mode that specifies whether an application's files are copied from a source on the Administration Server to the Managed Server's staging area during application preparation. <a href="#">More Info...</a>
<b>Security Model:</b>	DDOnly	The security model specifies how this deployment should be secured. <a href="#">More Info...</a>

**12. Click Save.**

The "Settings updated successfully" message is displayed, which indicates a successful deployment, as shown in Figure 2–21.

**Figure 2–21 Settings Updated Successfully Message**

Messages

✔ Settings updated successfully.

**13. In the Domain Structure section in the left pane, click Deployments.**

**14. Navigate through the table that lists all the deployed applications until you find the J2CA (iwafjca) Connector Application, as shown in Figure 2–22.**

Figure 2–22 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
<input type="checkbox"/>	composer	New		Enterprise Application	315
<input type="checkbox"/>	DbAdapter	New		Resource Adapter	322
<input type="checkbox"/>	DefaultToDoTaskFlow	New		Enterprise Application	314
<input type="checkbox"/>	DMS Application (11.1.1.1.0)	Active	OK	Web Application	5
<input type="checkbox"/>	em	Active	OK	Enterprise Application	400
<input type="checkbox"/>	FileAdapter	New		Resource Adapter	321
<input type="checkbox"/>	FMW Welcome Page Application (11.1.0.0.0)	Active	OK	Enterprise Application	5
<input type="checkbox"/>	FtpAdapter	New		Resource Adapter	325
<input checked="" type="checkbox"/>	iwafjca	Installed		Resource Adapter	100
<input type="checkbox"/>	JmsAdapter	New		Resource Adapter	323

15. Select the `iwafjca` option.

16. Click the **Start** submenu (down arrow) and select **Servicing all requests**.

The Start Application Assistant page is displayed, as shown in Figure 2–23.

Figure 2–23 Start Application Assistant Page

Start Application Assistant

Yes No

**Start Deployments**

You have selected the following deployments to be started. Click 'Yes' to continue, or 'No' to cancel.

- iwafjca

Yes No

17. Click **Yes** to start the selected deployment.

You are now ready to deploy the J2CA Installation Verification Program (IVP).

## 2.5.4 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:

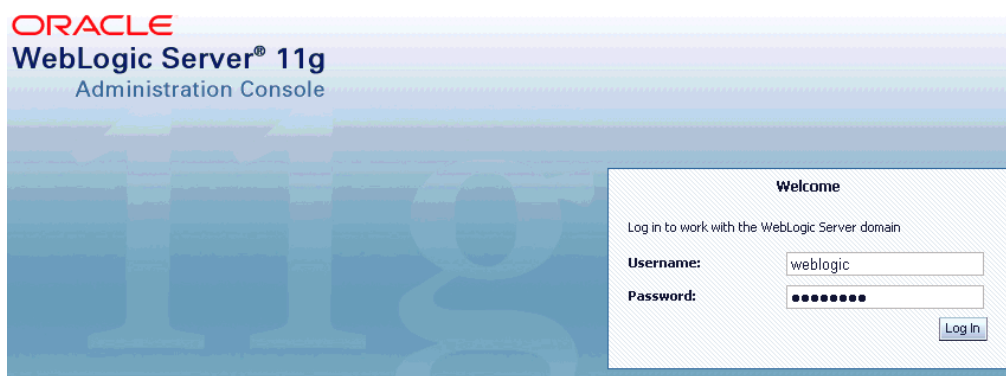
1. Start the Oracle WebLogic Server for the Oracle WebLogic Server domain that you have configured.
2. Open the Oracle WebLogic Server Administration Console in a Web browser by entering the following URL:

`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 2-24](#).

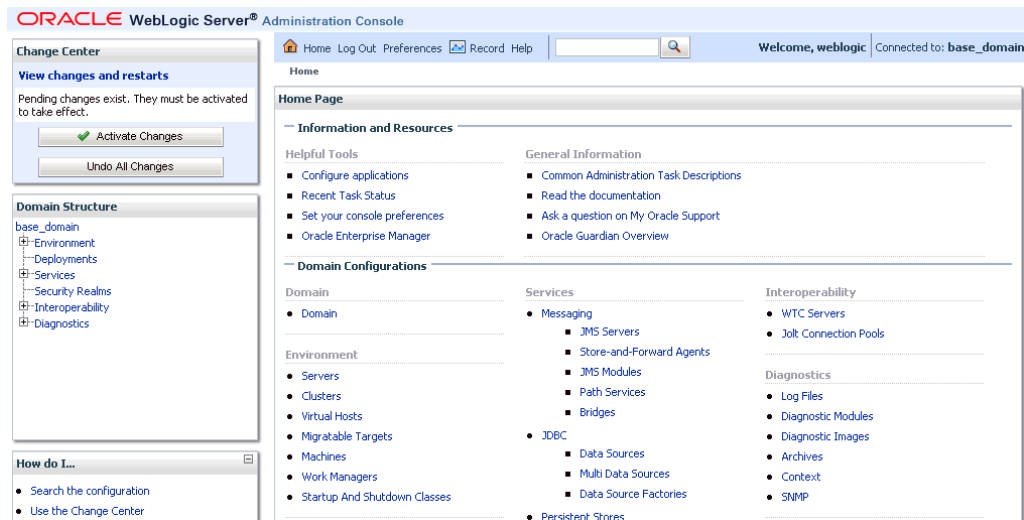
**Figure 2-24 Oracle WebLogic Server Administration Console**



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 2-25](#).

**Figure 2-25 Oracle WebLogic Server Administration Console Home Page**



4. In the Domain Structure section in the left pane, click **Deployments**.



The Deployments page is displayed, as shown in [Figure 2–26](#).

**Figure 2–26 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 2–27](#).

**Figure 2–27 Install Application Assistant**

**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.war

**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
- └─  iwafjca.war (open directory)
- └─  iwafjca.rar (open directory)
- └─  iwafjca.war (open directory)
- └─ lib
- └─ tools

Back Next Finish Cancel

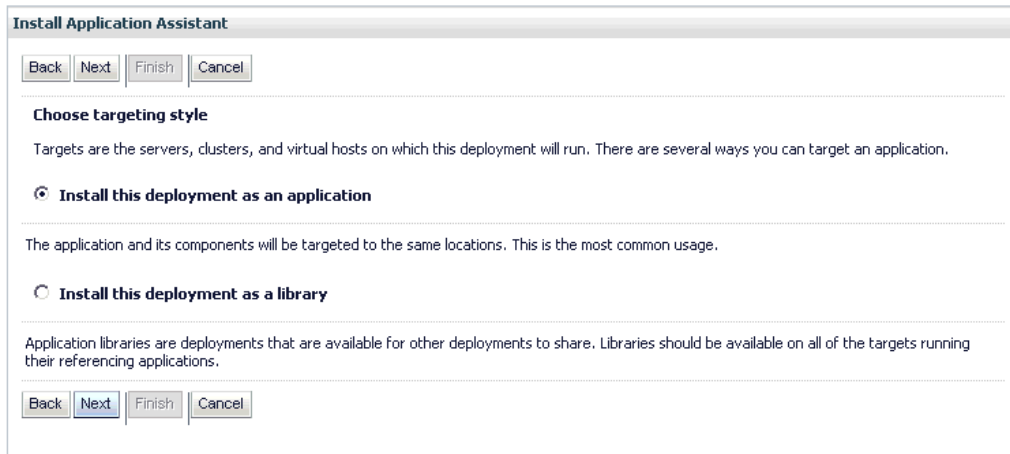
6. Browse to the following directory:

```
<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\iwafjca.war
```

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

The Choose Targeting Style page is displayed, as shown in [Figure 2–28](#).

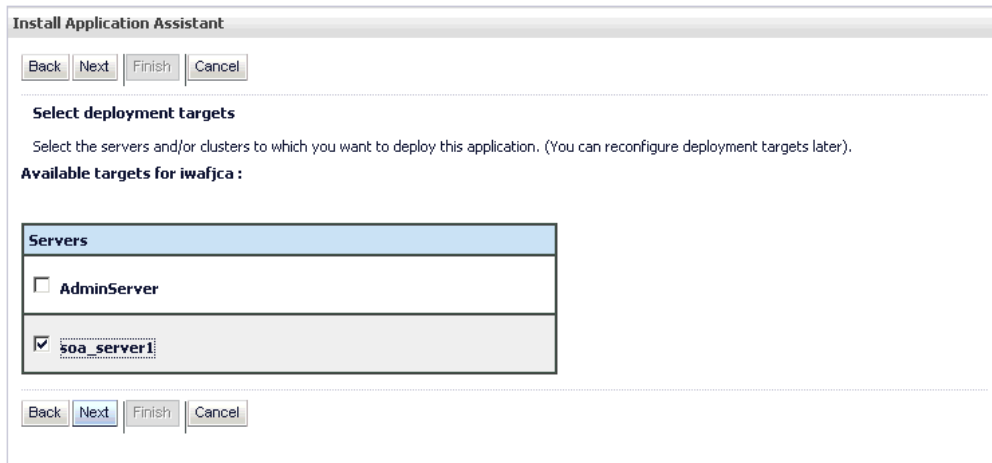
**Figure 2–28 Choose Targeting Style Page**



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 2–29](#).

**Figure 2–29 Select Deployment Targets Page**



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. In the Name field, enter the following:

```
iwafjcatest
```

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

The Summary page is displayed, as shown in [Figure 2–31](#).

**Figure 2–31 Summary Page**

**Summary**

**Deployment:** C:\oracle\Middleware\Oracle\_SOA1\soa\thirdparty\ApplicationAdapters\iwafjca.war

**Name:** iwafjcatest

**Staging mode:** Use the defaults defined by the chosen targets

**Security Model:** DDOnly: Use only roles and policies that are defined in the deployment descriptors.

**Target Summary**

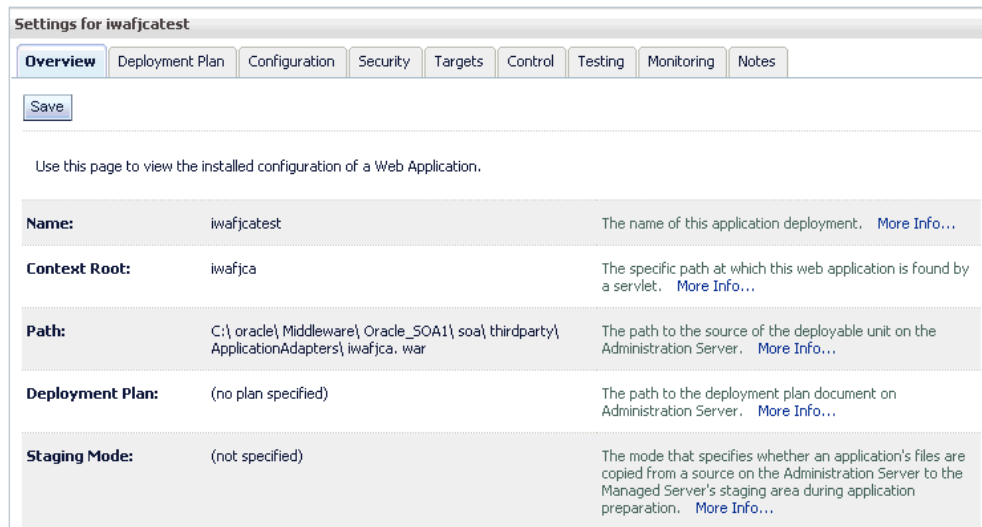
Components	Targets
iwafjca	soa_server1

Back Next Finish Cancel

12. Click **Finish**.

The Settings page for the J2CA Installation Verification Program (IVP) is displayed, as shown in [Figure 2–32](#).

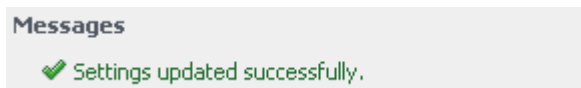
**Figure 2–32 J2CA Settings Page**



13. Click **Save**.

The "Settings updated successfully" message is displayed, which indicates a successful deployment, as shown in [Figure 2–33](#).

**Figure 2–33 Settings Updated Successfully Message**



14. In the Domain Structure section in the left pane, click **Deployments**.

15. Navigate through the table that lists all the deployed applications until you find the J2CA (iwafjctest) Installation Verification Program (IVP), as shown in [Figure 2–34](#).

**Figure 2–34 Deployments Page**

Deployments

Install Update Delete Start Stop Showing 1 to 26 of 26 Previous Next

<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
<input type="checkbox"/>	composer	New		Enterprise Application	315
<input type="checkbox"/>	DbAdapter	New		Resource Adapter	322
<input type="checkbox"/>	DefaultToDoTaskFlow	New		Enterprise Application	314
<input type="checkbox"/>	DMS Application (11.1.1.1.0)	Active	OK	Web Application	5
<input type="checkbox"/>	em	Active	OK	Enterprise Application	400
<input type="checkbox"/>	FileAdapter	New		Resource Adapter	321
<input type="checkbox"/>	FMW Welcome Page Application (11.1.0.0.0)	Active	OK	Enterprise Application	5
<input type="checkbox"/>	FtpAdapter	New		Resource Adapter	325
<input type="checkbox"/>	iwafjca	New		Resource Adapter	100
<input checked="" type="checkbox"/>	iwafjctest	distribute Initializing		Web Application	100
<input type="checkbox"/>	JmsAdapter	New		Resource Adapter	323

16. Select the **iwafjctest** option.

17. Click the **Start** submenu (down arrow) and select **Servicing all requests**.

The Start Application Assistant page is displayed, as shown in [Figure 2–35](#).

**Figure 2–35 Start Application Assistant**

Start Application Assistant

Yes No

---

**Start Deployments**

You have selected the following deployments to be started. Click 'Yes' to continue, or 'No' to cancel.

- iwafjctest

Yes No

18. 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.

---

## 2.5.5 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 2–36](#).

**Figure 2–36 J2CA Sample Configuration Node**



- Use the Adapters folder to create inbound interaction with an adapter, for example, Siebel. For example, you can use the Siebel node in the Adapters folder to configure a service that updates a Siebel system.
- Use the Events folder to configure listeners that listen for events in Siebel.

After completing the postinstallation tasks, you can define new targets for Oracle Fusion Middleware Application Adapters. For more information about configuring targets, see the corresponding user 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 directory:

```
<ORACLE_
HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\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 *ibway.home* parameter.

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

```
<context-param>
  <param-name>ibway.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 *ibway.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>ibway.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:

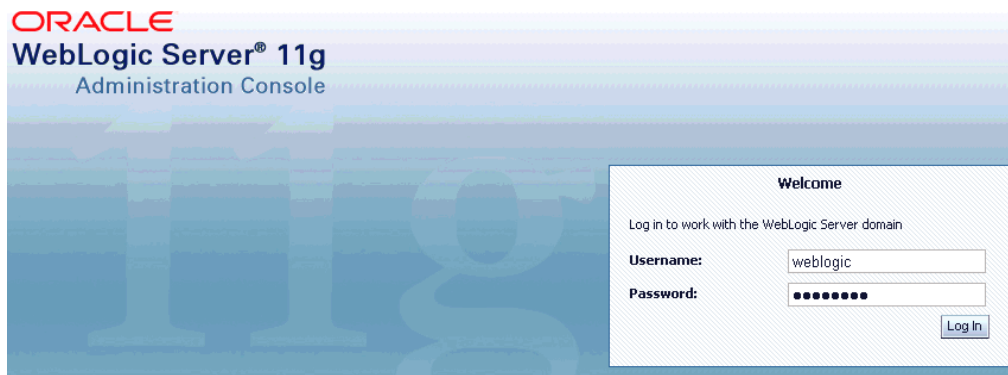
1. Start the Oracle WebLogic Server for the Oracle WebLogic Server domain that you have configured.
2. Open the Oracle WebLogic Server Administration Console in a Web browser by entering the following URL:

```
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.

The Oracle WebLogic Server Administration Console page is displayed, as shown in [Figure 2-37](#).

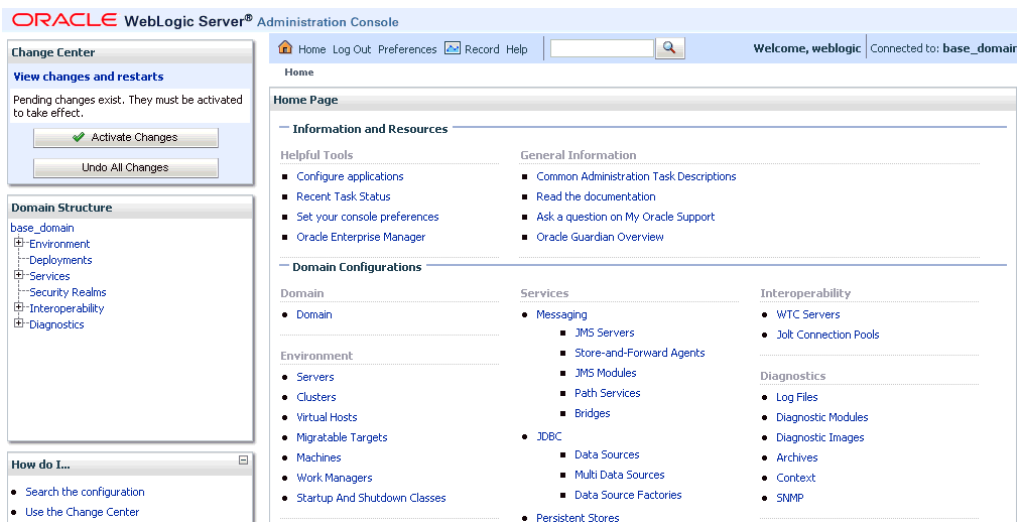
**Figure 2–37 Oracle WebLogic Server Administration Console**



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 2–38](#).

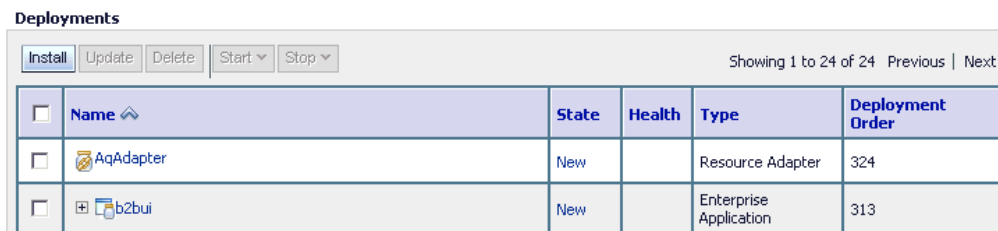
**Figure 2–38 Oracle WebLogic Server Administration Console Home Page**



4. In the Domain Structure section in the left pane, click **Deployments**.

The Deployments page is displayed, as shown in [Figure 2–39](#).

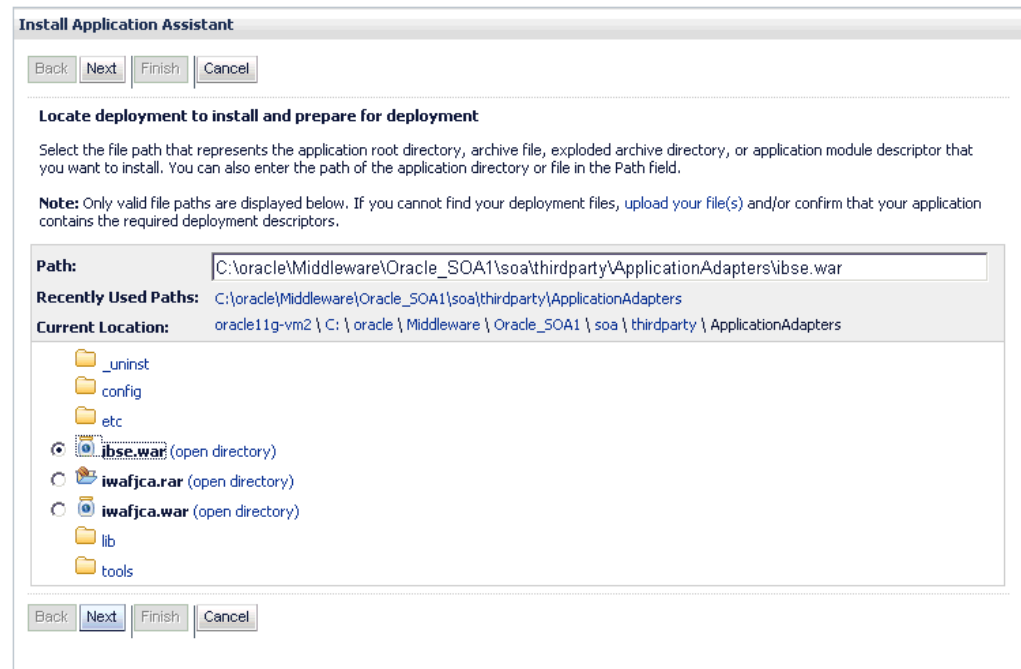
**Figure 2–39 Deployments Page**



5. Click **Install**.

The Install Application Assistant page is displayed, as shown in [Figure 2–40](#).



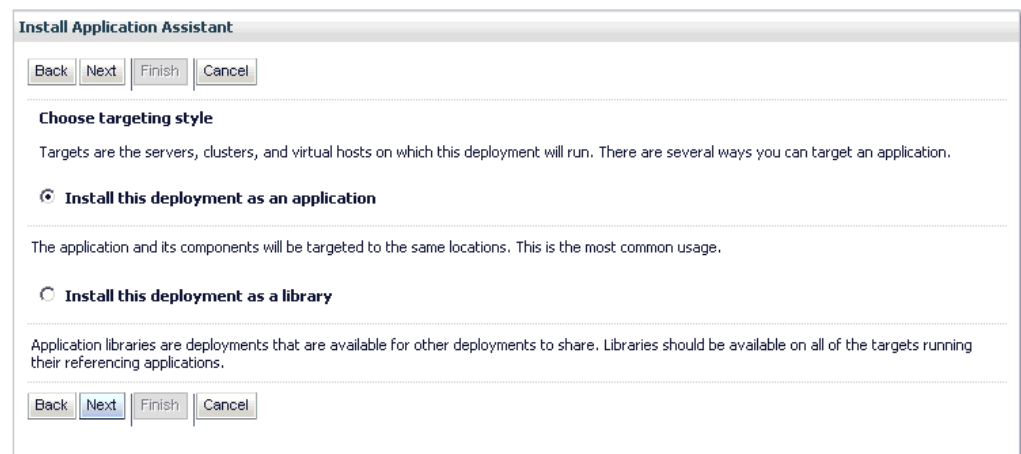
**Figure 2–40 Install Application Assistant**

6. Browse to the following directory:

```
<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\ibse.war
```

7. Select the **ibse.war** option and click **Next**.

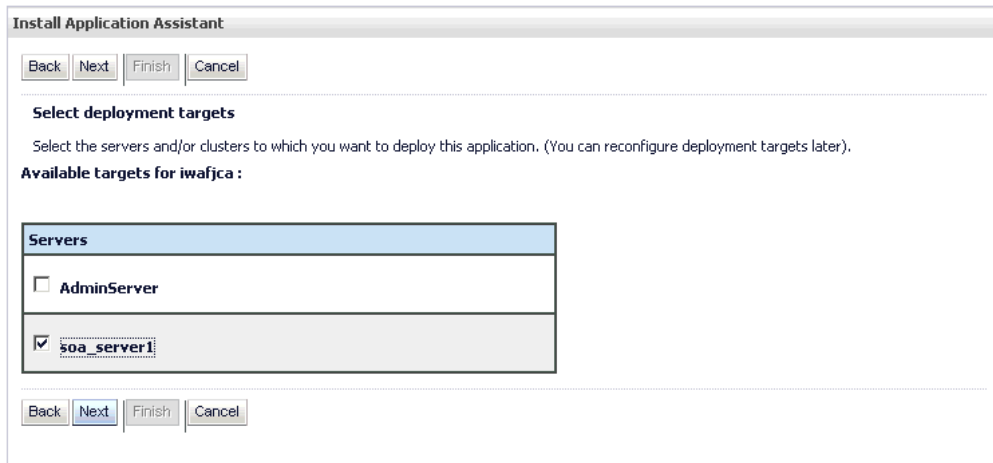
The Choose Targeting Style page is displayed, as shown in [Figure 2–41](#).

**Figure 2–41 Choose Targeting Style Page**

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

The Deployment Target page is displayed, as shown in [Figure 2–42](#).

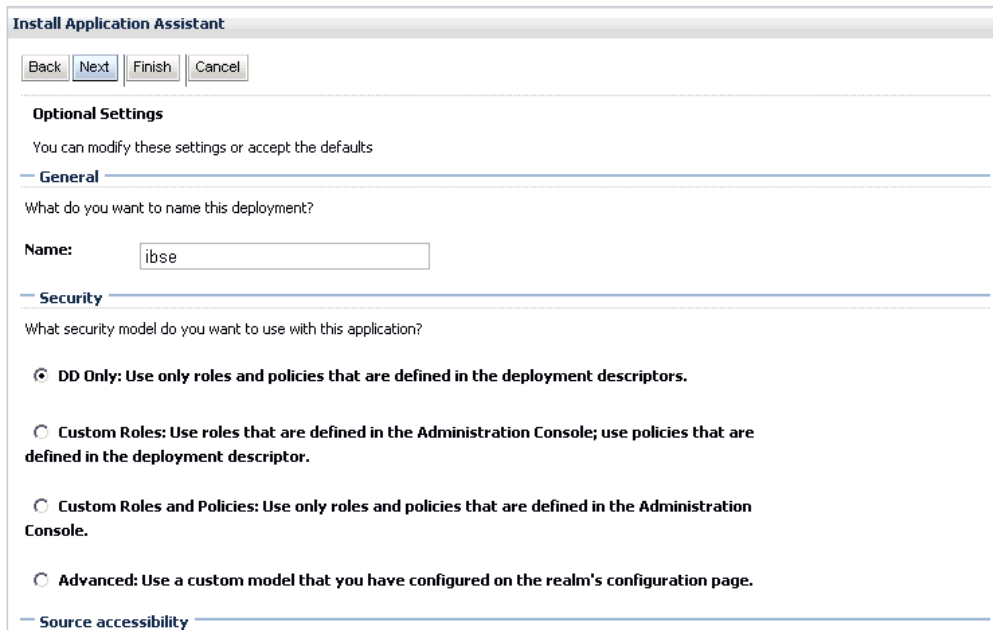
**Figure 2–42 Deployment Target Page**



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

The Optional Settings page is displayed, as shown in [Figure 2–43](#).

**Figure 2–43 Optional Settings Page**



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

The Summary page is displayed, as shown in [Figure 2–44](#).

**Figure 2–44 Summary Page**

**Summary**

**Deployment:** C:\oracle\Middleware\Oracle\_SOA1\soa\thirdparty\ApplicationAdapters\ibse.war

**Name:** ibse

**Staging mode:** Use the defaults defined by the chosen targets

**Security Model:** DDOnly: Use only roles and policies that are defined in the deployment descriptors.

**Target Summary**

Components	Targets
ibse	soa_server1

Back Next **Finish** Cancel

**11. Click Finish.**

The Settings page for the BSE (ibse) Application is displayed, as shown in [Figure 2–45](#).

**Figure 2–45 BSE Settings Page**

Settings for ibse

Overview Deployment Plan Configuration Security Targets Control Testing Monitoring Notes

Save

Use this page to view the installed configuration of a Web Application.

<b>Name:</b>	ibse	The name of this application deployment. <a href="#">More Info...</a>
<b>Context Root:</b>	ibse	The specific path at which this web application is found by a servlet. <a href="#">More Info...</a>
<b>Path:</b>	C:\oracle\Middleware\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\ibse.war	The path to the source of the deployable unit on the Administration Server. <a href="#">More Info...</a>
<b>Deployment Plan:</b>	(no plan specified)	The path to the deployment plan document on Administration Server. <a href="#">More Info...</a>
<b>Staging Mode:</b>	(not specified)	The mode that specifies whether an application's files are copied from a source on the Administration Server to the Managed Server's staging area during application preparation. <a href="#">More Info...</a>

**12. Click Save.**

The "Settings updated successfully" message is displayed, which indicates a successful deployment, as shown in [Figure 2–46](#).

**Figure 2–46 Settings Updated Successfully Message**

Messages

✔ Settings updated successfully.

**13. In the Domain Structure section in the left pane, click Deployments.****14. Navigate through the table that lists all the deployed applications until you find the BSE (ibse) Application, as shown in [Figure 2–47](#).**

**Figure 2–47 Deployments Page**

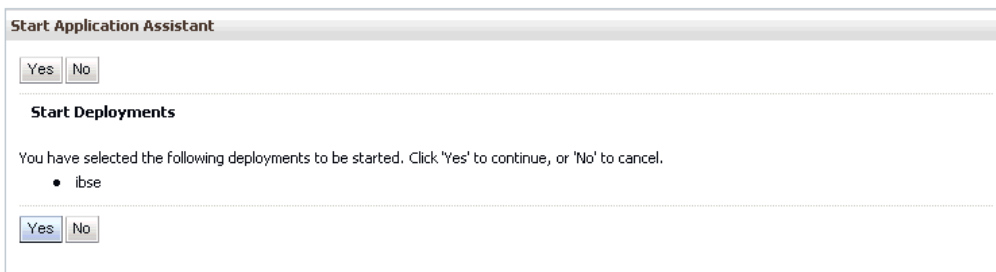
<input type="checkbox"/>	Name	State	Health	Type	Deployment Order
<input type="checkbox"/>	AqAdapter	New		Resource Adapter	324
<input type="checkbox"/>	b2bui	New		Enterprise Application	313
<input type="checkbox"/>	composer	New		Enterprise Application	315
<input type="checkbox"/>	DbAdapter	New		Resource Adapter	322
<input type="checkbox"/>	DefaultToDoTaskFlow	New		Enterprise Application	314
<input type="checkbox"/>	DMS Application (11.1.1.1.0)	Active	OK	Web Application	5
<input type="checkbox"/>	em	Active	OK	Enterprise Application	400
<input type="checkbox"/>	FileAdapter	New		Resource Adapter	321
<input type="checkbox"/>	FMW Welcome Page Application (11.1.0.0.0)	Active	OK	Enterprise Application	5
<input type="checkbox"/>	FtpAdapter	New		Resource Adapter	325
<input checked="" type="checkbox"/>	ibse	New		Web Application	100
<input type="checkbox"/>	iwafjca	New		Resource Adapter	100
<input type="checkbox"/>	iwafjcatest	New		Web Application	100

15. Select the **ibse** option.

16. Click the **Start** submenu (down arrow) and select **Servicing all requests**.

The Start Application Assistant page is displayed, as shown in [Figure 2–48](#).

**Figure 2–48 Start Application Assistant**



17. 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:

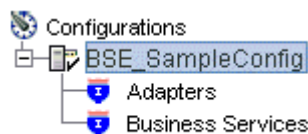
1. Right-click the configuration to which you want to connect, for example, **BSE\_SampleConfig**.
2. Select **Connect**.

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 2–49](#).

**Figure 2–49 BSE Sample Configuration Node**



- Use the Adapters folder to create inbound interaction with an adapter, for example, Siebel. For example, you can use the Siebel node in the Adapters folder to configure a service that updates Siebel.
- Use the Business Services folder (available for BSE configurations only) to test Web services created in the Adapters folder. You can also control security settings for the Web services by using the security features of the Business Services folder.

After completing the postinstallation tasks, you can define new targets for Oracle Fusion Middleware Application Adapters. For more information about configuring targets, see the corresponding user guide for your adapter.

## 2.7 Postinstallation Tasks

Perform the following postinstallation configuration tasks for packaged application adapters:

- [Section 2.7.1, "List of Enterprise Information System Library Files"](#)
- [Section 2.7.2, "Copying the Enterprise Information System Library Files"](#)
- [Section 2.7.3, "Directory Structure"](#)
- [Section 2.7.4, "Configuring the Oracle Database Repository"](#)
- [Section 2.7.5, "Configuring the DB2 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.

---



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### 2.7.1 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

The corresponding library files for J.D. Edwards OneWorld must be copied to the specific <ORACLE\_HOME> or <OSB\_HOME> application adapters and domain lib directories. For more information, see ["Copying the Enterprise Information System Library Files"](#) on page 2-33.

### 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\_directory/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\_directory/web/jmac* directory.

- PeopleSoft Generated Java APIs

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 specific <ORACLE\_HOME> or <OSB\_HOME> application adapters and domain lib directories. For more information, see ["Copying the Enterprise Information System Library Files"](#) on page 2-33.

**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:

- SiebelJI\_enu.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 specific <ORACLE\_HOME> or <OSB\_HOME> application adapters and domain lib directories. For more information, see "[Copying the Enterprise Information System Library Files](#)" on page 2-33.



### 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 3.0.5
  - sapjco3.jar
  - sapjco3.dll

#### Linux/Solaris/OS400:

- sapjco3.jar
- libsapjco3.so

#### HP-UX:

- sapjco3.jar
- libsapjco3.sl

#### AIX:

- sapjco3.jar
- libsapjco3.so

## 2.7.2 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 directories:

For Oracle SOA Suite:

- `<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\lib`
- `<ORACLE_HOME>\user_projects\domains\base_domain\lib`

For Oracle Service Bus:

- `<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\lib`
- `<OSB_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 directories:

For Oracle SOA Suite:

- `<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\lib`
- `<ORACLE_HOME>\user_projects\domains\base_domain\lib`

For Oracle Service Bus:

- `<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\lib`
- `<OSB_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 *libsapjcorfc.so* files to the following directories:

For Oracle SOA Suite:

- `<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\lib`
- `<ORACLE_HOME>\user_projects\domains\base_domain\lib`

For Oracle Service Bus:

- `<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\lib`
- `<OSB_HOME>\user_projects\domains\base_domain\lib`

**HP-UX:**

Copy the *sapjco3.jar* and *libsapjco3.sl* and files to the following directories:

For Oracle SOA Suite:

- `<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\lib`
- `<ORACLE_HOME>\user_projects\domains\base_domain\lib`

For Oracle Service Bus:

- `<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\lib`
- `<OSB_HOME>\user_projects\domains\base_domain\lib`

**AIX:**

Copy the *sapjco3.jar* and *libsapjco3.so* files to the following directories:

For Oracle SOA Suite:

- `<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\lib`

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

For Oracle Service Bus:

- `<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\lib`
- `<OSB_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.

## 2.7.3 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>config</code>	Contains the <i>J2CA_SampleConfig</i> subdirectory and the XML-file-based repository for Oracle WebLogic Server Adapter J2CA  In addition, the <code>config</code> subdirectory also contains a folder named <code>log</code> , which stores the generated log files.
<code>etc</code>	Contains the application, doc, jde, licenses, peoplesoft folders, mysap30 jar, and the iwse.ora 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.

## 2.7.4 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.

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:** iWay Software adapters have been certified with the Oracle enterprise database as the repository. The version that was certified is Oracle Database 11g Enterprise Edition (11.1.0.7.0).

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, iWay Software does not support any other database, including Oracle XE, Oracle Berkeley Database, or databases from other vendors.

---

---

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 directory:

Oracle SOA Suite:

```
<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\etc
```

Oracle Service Bus (OSB):

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\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.

Oracle SOA Suite:

```
<Oracle_Home>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\etc>sqlplus
```

Oracle Service Bus (OSB):

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\etc>sqlplus
```

```
SQL*Plus: Release 11.1.1.3.0 - Production  
Copyright (c) 1982, 2010, Oracle. All rights reserved.
```

```

Enter user-name: scott
Enter password: scott1

Connected to:
Oracle Database 11g Enterprise Edition Release 11.1.1.3.0 - Production
With the Partitioning, OLAP and Data Mining options

SQL>@ iwse.ora

```

2. Copy the *ojdbc14.jar* file to the following directory:

Oracle SOA Suite:

```
<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\lib
```

Oracle Service Bus (OSB):

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\lib
```

The *ojdbc14.jar* file can be found in the following directory:

```

<ORACLE_HOME>\Oracle_
SOA1\soa\thirdparty\edifecs\XEngine\extensions\Selector\lib\thirdParties\JDBC\o
jdbc14.jar

```

3. Restart the Oracle WebLogic Server to recognize the *ojdbc14.jar* file.

### J2CA Repository Configuration

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

1. Create the *jcatransport.properties* file and save it in the following directory:

Oracle SOA Suite:

```

<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\config\J2CA_
SampleConfig

```

Oracle Service Bus (OSB):

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\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.

---

2. Enter values for *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.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.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.

3. Navigate to the following directory:

Oracle SOA Suite:

```
<ORACLE_HOME>\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\iwafjca.rar\META-INF
```

Oracle Service Bus (OSB):

```
<OSB_HOME>\Oracle_
OSB1\3rdparty\ApplicationAdapters\iwafjca.rar\META-INF
```

4. Open the *ra.xml* file in a text editor.
5. Provide the JDBC connection information as a value for the `IWAYRepo_URL` property the same as you provided for the *jcatransport.properties* file in step 2.
6. Provide a valid user name for the `IWAYRepo_User` property the same as you provided for the *jcatransport.properties* file in step 2.
7. Provide a valid password for the `IWAYRepo_Password` property the same as you provided for the *jcatransport.properties* file in step 2.
8. Save your changes to the *ra.xml* file.

### 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 2-50](#).

**Figure 2–50 BSE Settings Pane**

Property Name	Property Value
<b>System</b>	
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"> <li>▪ None</li> <li>▪ Fatal</li> <li>▪ Error</li> <li>▪ Warning</li> <li>▪ Info</li> <li>▪ Debug</li> </ul>
<i>Number of Async. Processors</i>	Select the number of asynchronous processors.

3. Configure the repository settings, as shown in [Figure 2–51](#).

**Figure 2–51 Repository Settings Pane**

The screenshot shows a 'Repository Settings Pane' with the following fields:

- Repository Type:** A dropdown menu with 'File System' selected.
- Repository Url:** A text input field containing 'file://C:\oracle\Middleware\home\_03'.
- Repository Driver:** An empty text input field.
- Repository User:** An empty text input field.
- Repository Password:** An empty text input field.
- Repository Pooling:** A checkbox that is currently unchecked.

A 'Save' button is located at the bottom right of the pane.

**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 the following repositories from the list: <ul style="list-style-type: none"> <li>■ Oracle</li> <li>■ DB2</li> <li>■ File System (Do not use for BSE in production environments.)</li> </ul>
<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: <code>jdbc:oracle:thin:@host name:port:SID</code>
<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: <code>oracle.jdbc.driver.OracleDriver</code>
<i>Repository User</i>	Enter the same user ID that you specified when running the <code>iwse.ora</code> SQL script to configure the database repository.
<i>Repository Password</i>	Enter the same password that you specified when running the <code>iwse.ora</code> 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.**

To continue working with the Oracle Fusion Middleware Application Adapters, see the corresponding adapter user guide for more information.



## 2.7.5 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.

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

- [Section 2.7.5.1, "DB2 Supported Versions"](#)
- [Section 2.7.5.2, "Usage Considerations"](#)
- [Section 2.7.5.3, "Prerequisites"](#)
- [Section 2.7.5.4, "Creating the DB2 Database Repository"](#)
- [Section 2.7.5.5, "J2CA Repository Configuration"](#)
- [Section 2.7.5.6, "BSE Repository Configuration"](#)

### 2.7.5.1 DB2 Supported Versions

Only DB2 Enterprise Server Edition version 9.5 on the IBM-AIX platform is supported. No other version of DB2 and operating system (other than IBM-AIX) is supported.

### 2.7.5.2 Usage Considerations

This section provides usage considerations for the DB2 database repository.

1. If you were previously working with a file repository or an Oracle database repository and you install and configure the DB2 repository, then you cannot access the previously configured repository.
2. J2CA or BSE configurations, adapter targets, and channels must be created after the DB2 repository is installed and configured.
3. If you want to reuse any J2CA configuration WSDLs that were generated for a previous repository, then you must create your J2CA configuration, adapter targets and channels with the same name and parameter values that were used with the previous repository. As a result, before you install and configure the DB2 repository, make a note of the configuration details that are used with the previous repository.
4. If you are using an existing BSE configuration, you cannot reuse the WSDLs. You must recreate all of the WSDLs and any processes that are associated with the new WSDLs.
5. 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.

### 2.7.5.3 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/sqlllib/lib
```

```
$DB2_home/sqlllib/java
```

#### 2.7.5.4 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 directory based on your adapter installation:

**For Oracle SOA Suite:**

```
<ORACLE_HOME>Oracle_SOA1\soa\thirdparty\ApplicationAdapters\etc
```

**For OSB:**

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\etc
```

2. Open a command prompt and navigate to the following directory based on your adapter installation:

**For Oracle SOA Suite:**

```
<ORACLE_HOME>Oracle_SOA1\soa\thirdparty\ApplicationAdapters\etc
```

**For OSB:**

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\etc
```

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:

**For Oracle SOA Suite:**

```
<ORACLE_HOME>Oracle_SOA1\soa\thirdparty\ApplicationAdapters\etc
```

**For OSB:**

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\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 2.7.5.5, "J2CA Repository Configuration"](#) on page 2-43 or [Section 2.7.5.6, "BSE Repository Configuration"](#) on page 2-45.

---

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

---

### 2.7.5.5 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 directories:

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\lib
```

```
<OSB_HOME>\Oracle_OSB1\3rdparty \ApplicationAdapters\iwafjca.rar
```

**For Oracle SOA Suite:**

```
<ORACLE_HOME>Oracle_SOA1\soa\thirdparty\ApplicationAdapters\
```

**For OSB:**

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\
```

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

The J2CA configuration folder is located in the following directory:

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\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:

```
<OSB_HOME>\erp-Oracle_OSB1\3rdparty\ApplicationAdapters\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:

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\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:

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\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.

### 2.7.5.6 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 directory:

```
<OSB_HOME>\Oracle_OSB1\3rdparty \ApplicationAdapters\ibse.war\WEB-INF\lib
```

**For Oracle SOA Suite:**

```
<ORACLE_HOME>Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\ibse.war\WEB-INF\lib
```

**For OSB:**

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\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 and redeploy the *ibse.war* file.

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

## 2.8 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 directory:

**For Oracle SOA Suite:**

```
<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\_Oracle_Application_Adapters_Uninstallation
```

**For OSB:**

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\_Oracle_Application_Adapters_Uninstallation
```

2. Double-click the *uninstaller.exe* file.

For other platforms, execute the platform-specific uninstaller file from a terminal. For AIX platforms, use *uninstaller.jar*.

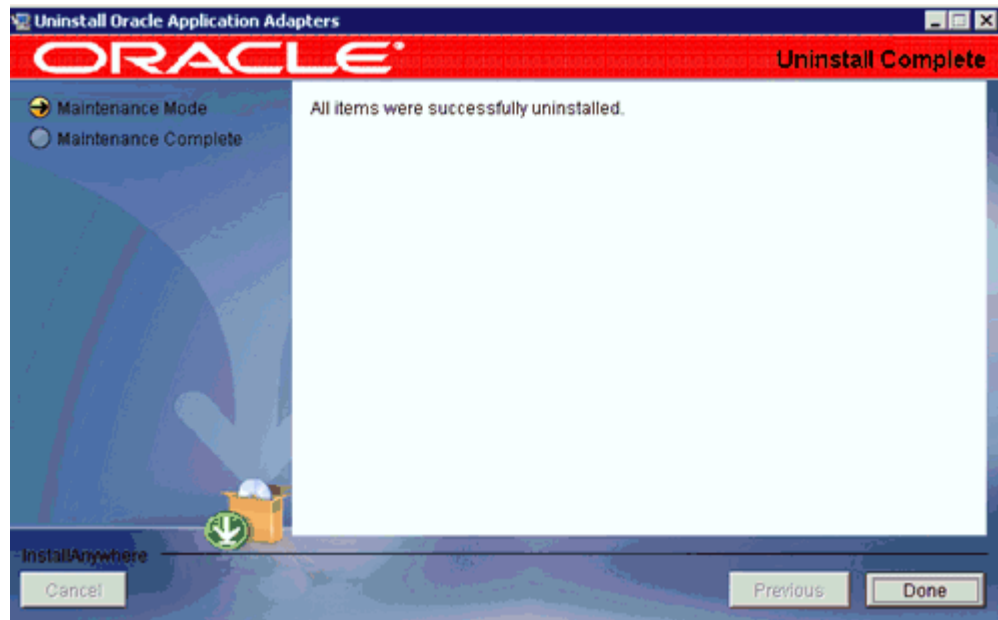
The Maintenance Mode screen is displayed.

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 2–52](#).

**Figure 2–52 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.

---

---





---

---

# 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"](#)

## 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:

Oracle SOA Suite:

```
<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\lib
```

Oracle Service Bus (OSB):

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\lib
```

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

Oracle SOA Suite:

```
<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\etc\peoplesoft
```

Oracle Service Bus (OSB):

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\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:

Oracle SOA Suite:

```
<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\etc\peoplesoft
```

Oracle Service Bus (OSB):

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\etc\peoplesoft
```

To the following locations:

Oracle SOA Suite:

```
<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\lib
<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\iwafjca.rar
```

Oracle Service Bus (OSB):

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\lib
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\iwafjca.rar
```

After changing the contents of the lib directory, restart all components (for example, Application Explorer and the SOA 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`.

On Microsoft Windows, the default location of the files is:

Oracle SOA Suite:

```
<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\etc\peoplesoft
```

Oracle Service Bus (OSB):

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\etc\peoplesoft
```

Use the corresponding location on non-Windows systems.

#### 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.

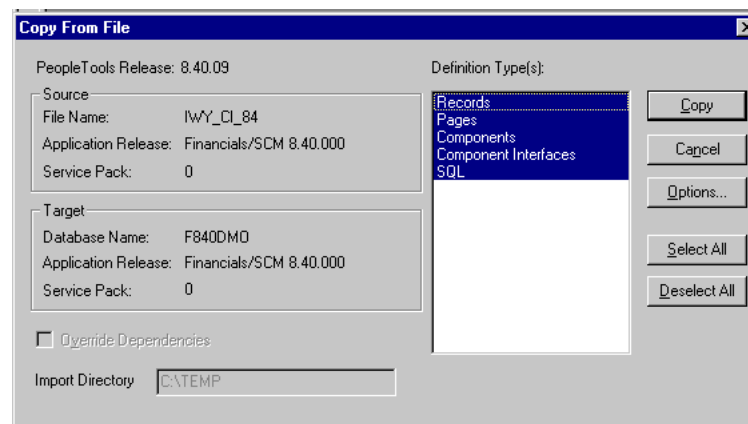
The unzip process creates its own subdirectory. For example, if you extract the file to `c:\temp`, it creates `c:\temp\IWY_CI_81` or `c:\temp\IWY_CI_84`.

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](#).

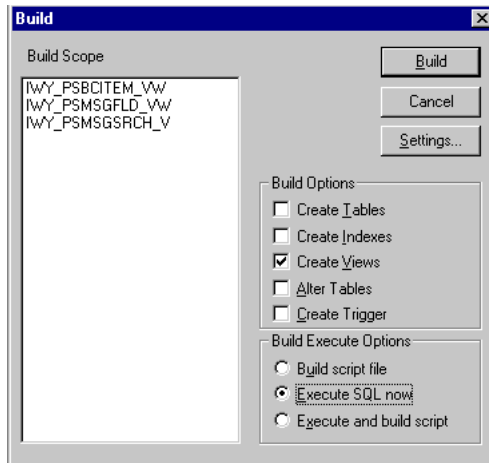
**Figure A-2 Application Designer Message**

```
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)
```



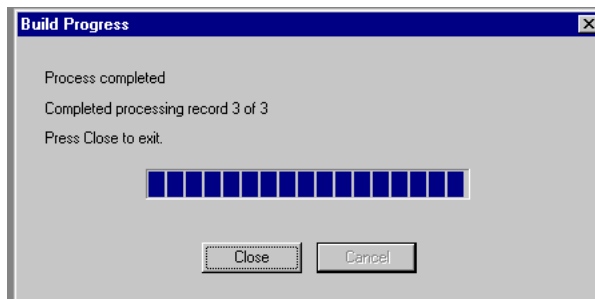
7. To build the views in the project, select **Build**, and then select **Project**.

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.

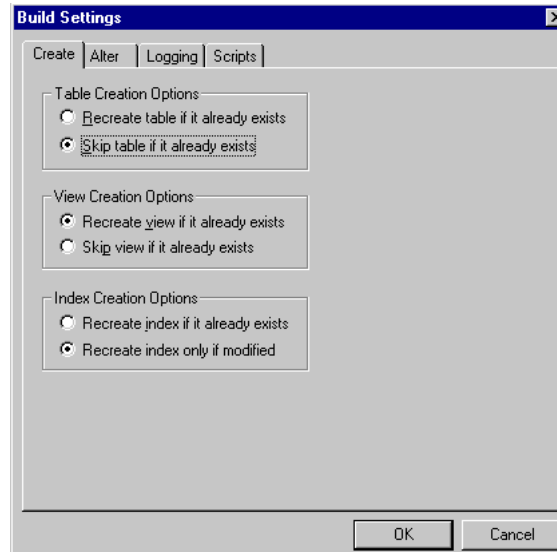
SQL Build process ended on 11/5/02 at 10:29:22 AM.
3 records processed, 0 errors, 0 warnings.
SQL executed online.
SQL Build log file written to C:\TEMP\PSBUILD.LOG.

```

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.

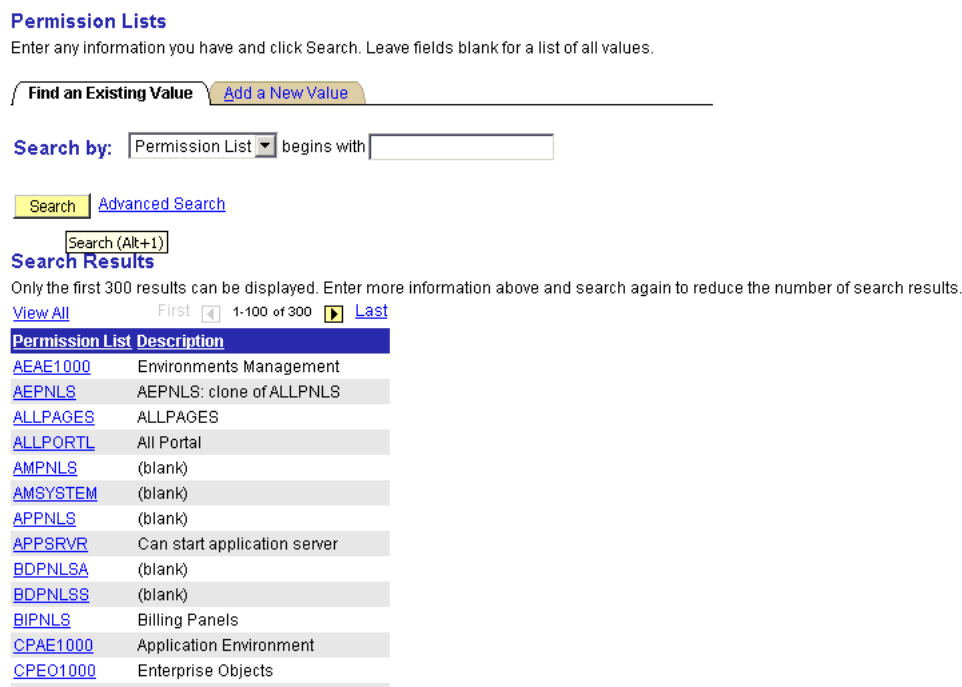
**Figure A-7 PeopleSoft Security Configuration**



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.

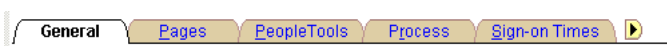
The Permission List pane is displayed, as shown in [Figure A-8](#).

**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

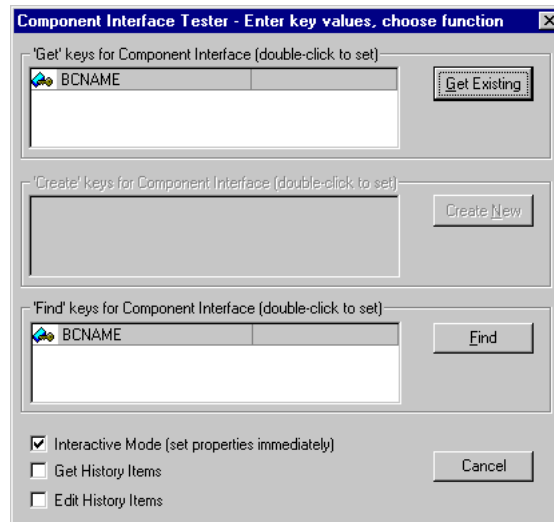
You must test each of the Oracle Fusion Middleware Application Adapter for PeopleSoft Component Interfaces before using them.

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*




---

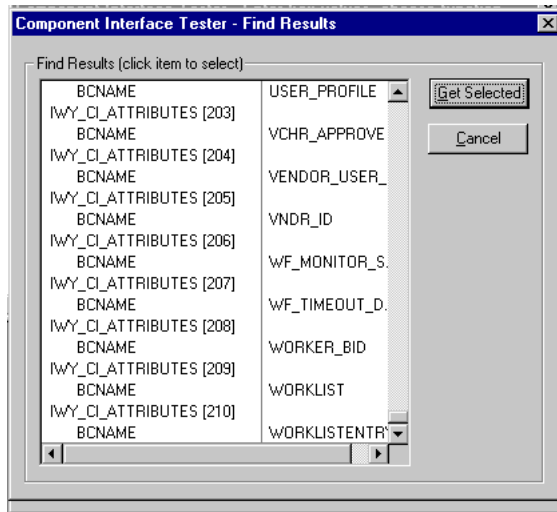
**Note:** The Create New option is disabled because the Add method is not applicable to this Component Interface.

---

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.

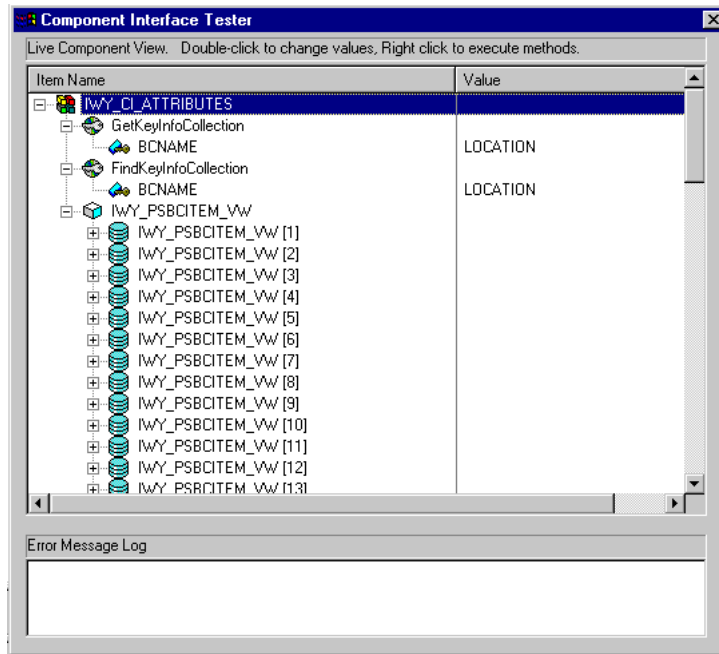
**Figure A-11 Component Interface Tester - Find Results Dialog**



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.

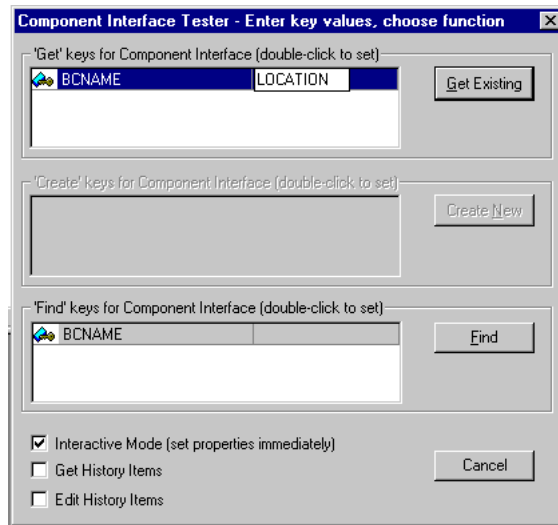
If this window opens, then the Component Interface has been successfully tested for the Find method, as shown in [Figure A-12](#).

**Figure A-12 Component Interface Tester Dialog**



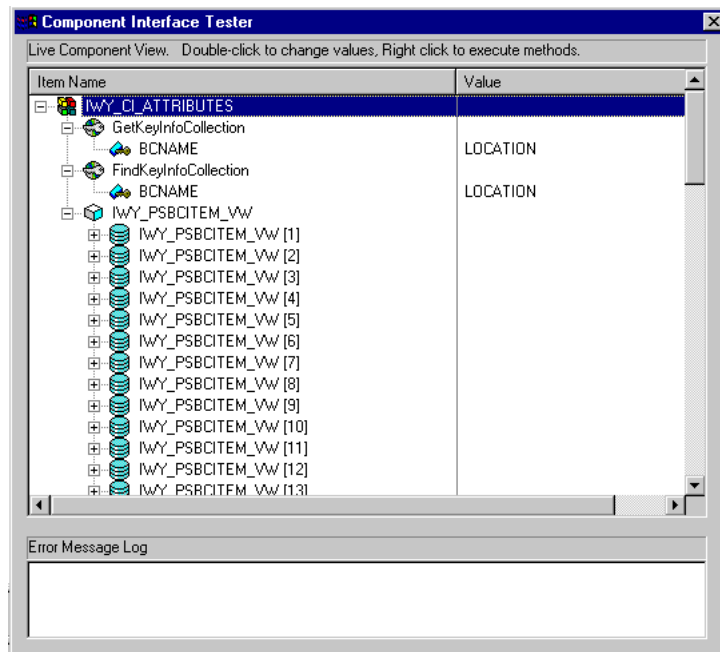
5. Click **Get Existing**. For the Get method, an existing key must be entered, as shown in [Figure A-13](#).



**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 8.4, iWay Software recommends using the TCP/IP and HTTP target connectors that are delivered by PeopleSoft for the PeopleTools 8.4 series. Do not use the target connectors that are supplied by iWay Software for the PeopleTools 8.1 series. They are only packaged by iWay Software for the PeopleTools 8.4 series to assist existing users who are migrating from Release 8.1 to Release 8.4.

- 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 not using PeopleSoft messages for event handling, then you may skip this topic.

---



---

### 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 on Microsoft Windows is:

Oracle SOA Suite:

```
<ORACLE_HOME>\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\etc\peoplesoft\iwpsevent84.jar
```

Oracle Service Bus (OSB):

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\etc\peoplesoft\iwpsevent84.jar
```

Use the corresponding location on non-Windows systems.

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 on Microsoft Windows is:

Oracle SOA Suite:

```
<ORACLE_HOME>\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\etc\peoplesoft\iwpsvent81.jar
```

#### Oracle Service Bus (OSB):

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\etc\peoplesoft\iwpsvent81.jar
```

Use the corresponding location on non-Windows systems. 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 `iwpsvent81.jar` to the platform on which the PeopleSoft gateway Web server is located.
2. Place `iwpsvent81.jar` in the `servletclasses` directory under the PeopleSoft Web server.

For example:

```
$PS_HOME/webserv/servletclasses/iwpsvent81.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/iwpsvent81.jar
```

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

```
$ jar -xvf /tmp/iwpsvent81.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`.

---



# B

---

---

## 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 exit, `IWOEvent.dll`, is located in the `\etc\jde` directory. For example:

Oracle SOA Suite:

```
<ORACLE_HOME>\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\etc\jde\iwoevent.dll
```

Oracle Service Bus (OSB):

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\etc\jde\iwoevent.dll
```

The file extension varies depending on your operating system:

- For **Windows**, the exit is `iwoevent.dll`.

- For **Sun Solaris**, the exit is *libiwoevent.so*.
  - For **HP-UX**, the exit is *libiwoevent.sl*.
  - For **AS/400**, the exit is *iwaysav.sav*.
  - For **IBM AIX**, the exit 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 Server, 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:

```
\\JDEwards\E812\DDP\Outbound\edamcs1
```

## 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.



---

# Migrating to Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x)

This appendix describes how to migrate to Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x). It contains the following sections:

- [Section C.1, "Introduction"](#)
- [Section C.2, "Supported Releases"](#)
- [Section C.3, "Migration Utility Installation Overview"](#)
- [Section C.4, "Working With the Migration Utility"](#)
- [Section C.5, "Use Case Scenario"](#)
- [Section C.6, "Useful Considerations"](#)
- [Section C.7, "Best Practices"](#)
- [Section C.8, "Troubleshooting"](#)

## C.1 Introduction

A new version of the Oracle Fusion Middleware Application Adapter for SAP R/3 is available that supports SAP Java Connector (SAP JCo) version 3.x. The SAP JCo API has changed by providing a different set of connection parameters to connect with the SAP R/3 server. As a result, the new Oracle Fusion Middleware Application Adapter for SAP R/3 has a different set of connection parameters than the previous version, which supported SAP JCo version 2.x. This introduced a backward compatibility issue by preventing users to reuse adapter targets and channels that were created by the previous version of the SAP R/3 adapter with the new version of the adapter that supports SAP JCo version 3.x. To enable the transition from the previous version of the SAP R/3 adapter, a command line migration utility is available that can be used to migrate the adapter targets and channels from the SAP R/3 adapter (using SAP JCo 2.x) to the SAP R/3 adapter (using SAP JCo 3.x).

This migration utility cannot completely automate the migration of the targets and channels between the SAP R/3 adapters because of the incompatibility between the SAP JCo versions. As a result, some manual operation is required. The scope of the migration utility is to provide adapter target and channel migration capabilities between both versions of the SAP R/3 adapter. The migration utility does not provide any other functionality and cannot be used for any other purposes. In this appendix, the SAP R/3 adapter (using SAP JCo 2.x) is referred to as the sap2 adapter and the SAP R/3 adapter (using SAP JCo 3.x) is referred to as the sap3 adapter.

## C.2 Supported Releases

The following Oracle releases are supported:

- 10.1.3.4
- 11g PS1
- 11g PS2

Only J2CA configurations are supported for migration purpose. BSE configurations are not supported by the migration utility. The migration utility only supports Oracle database repositories for migration purposes. No other database repositories are supported. The utility works with a file repository, but migrating file repositories is not supported.

## C.3 Migration Utility Installation Overview

The migration utility is located in the following directory:

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

The contents of the `util` folder include:

- The `iwrepocmd.jar` file, which is the required .jar file for the migration utility.

---



---

**Note:** The `iwrepocmd.jar` file must not be used for any other purpose other than the migration. This file must not be part of the classpath or any other path when the adapter is running for design time or runtime purposes.

---



---

- The `sapupd.bat` file, which is the migration utility .bat file for Windows platforms.
- The `sapupd.sh` file, which is the migration utility .sh file for UNIX/Linux platforms.

## C.4 Working With the Migration Utility

This section describes the syntax that must be used with the migration utility.

### Syntax for Listing the Targets or Channels

```
sapupd list config [targets | channels] [sap2 | sap3 | sap2to3] [-jdbc driver url  
user password | -file file] > [output file]
```

**Table C-1** Syntax for Listing the Targets or Channels

Syntax	Description
<code>sapupd list</code>	Command to list the adapter targets or channels.
<code>config</code>	The name of the J2CA configuration that was specified by the user in Application Explorer.
<code>targets   channels</code>	List of targets or channels.
<code>sap2   sap3   sap2to3</code>	List of sap2 objects, sap3 objects, or sap2 objects as mapped to sap3 parameters.

**Table C-1 (Cont.) Syntax for Listing the Targets or Channels**

Syntax	Description
<code>-jdbc driver url user password   -file file</code>	Repository to connect to, which can be a file or Oracle database repository. The JDBC URL is used to connect to the Oracle database repository.
<code>output file</code>	List of adapter targets or channels are redirected to the output file, which must use the <code>.tab</code> extension.

Usage considerations:

- Use the `sapupd list` command to list the targets or channels from a file or Oracle database repository (J2CA configuration). The output consists of tab-delimited text with targets or channels as columns and parameters as rows.
- The `sap2` and `sap3` options are provided to allow you to list the respective SAP R/3 objects from the repository.
- When you run the migration utility, you can list only the adapter targets or channels. Adapter targets or channels cannot be combined to create a single Excel spreadsheet.
- The output file name must use the `.tab` extension, since that extension is recognized by Excel for the migration. In this appendix, the output file uses the `sap2to3.tab` naming convention.
- To replace `sap2` objects with `sap3` objects, the `sap2to3` option can be used.

In the following examples, the `sapupd list` command lists all `sap2` targets mapped to `sap3` parameters into the `sap2to3.tab` file.

#### File Repository Example

```
sapupd list jca targets sap2to3 -file $ADAPTER_HOME\config\jca_
sample\repository.xml > sap2to3.tab
```

In this example:

- `ADAPTER_HOME` is the location where the adapters are installed.
- `jca` represents the name of the J2CA configuration that was specified in Application Explorer.

#### Database Repository Example

```
sapupd list jca targets sap2to3 -jdbc oracle.jdbc.driver.OracleDriver
jdbc:oracle:thin:@192.168.128.164:1521:orcl scott scott1 > sap2to3.tab
```

For UNIX/Linux platforms, execute the `sapupd.sh` file. For example, the following command lists all `sap2` channels mapped to `sap3` parameters into the `dbchn.tab` file for a database repository:

```
./sapupd.sh list jca_sample channels sap2to3 -jdbc
oracle.jdbc.driver.OracleDriver jdbc:oracle:thin:@172.19.20.242:1521:orcl system
welcome1 > dbchn.tab
```

#### Syntax for Updating the Targets or Channels

```
sapupd update config [targets | channels] sap2to3[source file] [-jdbc driver url
user password | -file file]
```

**Table C-2 Syntax for Updating the Targets or Channels**

Syntax	Description
<code>sapupd update</code>	Command to update the adapter targets or channels.
<code>config</code>	The name of the J2CA configuration that was specified in Application Explorer.
<code>targets   channels</code>	List of targets or channels to update.
<code>source file</code>	The source Excel file that contains the mappings between sap2 and sap3 parameters.
<code>-jdbc driver url</code> <code>user password  </code> <code>-file file</code>	Repository to connect to, which can be a file or Oracle database repository. The JDBC URL is used to connect to the Oracle database repository.

Use the `sapupd update` command to update the targets or channels in a file or Oracle database repository (J2CA configuration).

#### File Repository Example

```
sapupd update jca targets sap2to3 sap2to3.tab -file $ADPTE_HOME\config\jca_
sample\repository.xml
```

#### Database Repository Example

```
sapupd update jca targets sap2to3 sap2to3.tab -jdbc
oracle.jdbc.driver.OracleDriver jdbc:oracle:thin:@192.168.128.164:1521:orcl scott
scott1
```

For UNIX/Linux platforms, run the `sapupd.sh` file. For example:

```
./sapupd.sh update jca targets sap2to3 sap2to3.tab -jdbc
oracle.jdbc.driver.OracleDriver jdbc:oracle:thin:@172.19.20.242:1521:orcl system
welcome1
```

A manual step must be performed before you create the list and update the J2CA repository. This is the process of mapping the values between sap2 and sap3 adapter targets and channels. At this stage, you must take a look at the values underneath each adapter target/channel column and update the output file that has been created accordingly. While editing, do not remove or add rows and columns to the file. Also, do not change the SAP R/3 connection parameters in the file. The only action allowed is to update the parameter values.

Figure C-1 shows sample output from a J2CA repository with two SAP R/3 application server targets, "asserver2" and "isdsrv2", and one SAP R/3 message server target, "msgsrvr", as opened in an Excel spreadsheet. The SAP R/3 parameters have been pre-populated with the matching sap2 parameter values. If no matching value was present in the sap2 target, then the sap3 parameter default is used.

Figure C-1 Sample Mapping Document

	A	B	C
1	Application Server		
2		asserver2	isdsrv2
3	jco.client.client	800	800
4	user	iwayqa	iwayqa
5	password	tom21cat	tom21cat
6	jco.client.lang	EN	EN
7	jco.client.codepage		
8	authentication	Password	Password
9	jco.client.ashost	asserver2	isdsrv2
10	jco.client.sysnr	0	0
11	jco.destination.peak_limit	2	2
12	jco.destination.expiration_tin	10	10
13	jco.destination.max_get_clier	30	30
14	edi_version	3	3
15	edi_release		
16	edi_release_option	IDOC DOCREL field	IDOC DOCREL field
17	exception	Throws Exception	Throws Exception
18	commitwait	FALSE	FALSE
19	jco.client.trace	FALSE	FALSE
20	trace_level	0	0
21	jco.client.snc_mode	0	0
22	jco.client.snc_partername		
23	jco.client.snc_qop	3	3
24	jco.client.snc_myname		
25	jco.client.snc_lib		
26			
27	Message Server		
28		msgsrvr	
29	jco.client.client	800	
30	user	iwayqa	
31	password	tom21cat	
32	jco.client.lang	EN	
33	jco.client.codepage		

You can add or modify parameter values as required, then save the file and use it to replace existing sap2 objects with sap3 objects.

The update command can be used only to replace existing sap2 targets or channels with their sap3 equivalents. It cannot be used to create new targets or channels or to edit the parameter values of existing targets and channels. Also, you cannot change the adapter target or channel names in the file.

## C.5 Use Case Scenario

This section provides a use case scenario for the migration utility.

1. Close Application Explorer. Ensure that no instance of Application Explorer is running and that no updates are being made in the J2CA repository.
2. Use the `sapupd list` command to list the connection parameters into an Excel spreadsheet. This command inserts the sap2 targets or channels into the spreadsheet. Running this command only extracts targets or channels. As a result, first run the command to list the adapter targets and then repeat the command to list the channels. Ensure to save the contents in separate files for adapter targets and channels.

3. Make an required updates to the Excel spreadsheet. This is the step where the Excel spreadsheet is updated with the sap3 targets and channels.
4. Stop Oracle WebLogic Server if it is running. Remove the SAP R/3 adapter (using SAP JCo 2.x) files and any SAP JCo 2.x library files from the adapter environment.
5. Install the SAP R/3 adapter (using SAP JCo 3.x) in the environment. This adapter is delivered as a patch for 10.1.3.4 and 11g PS1 releases. It is a part of the application adapters in the 11g PS2 release.
6. If you are using a 10.1.3.4 adapter environment, then check the installation documentation when making any changes to configuration files (for example, server.xml).
7. Use the `sapupd update` command to update the connection parameters for sap3 targets or channels. Running this command only updates adapter targets or channels from different files. As a result, repeat the steps accordingly with the correct input file. As a best practice, first update the adapter targets and then update the adapter channels.
8. Start Application Explorer and connect to an SAP R/3 adapter (using SAP JCo 3.x) target and channel to ensure that the design time is working.
9. Restart the Oracle WebLogic Server and execute runtime test cases to verify successfully functionality.

## C.6 Useful Considerations

This section includes useful considerations for the migration utility.

The following is list of actions that are recommended:

- Close Application Explorer before executing the update command. The target or channel parameters are not updated if Application Explorer is open.
- Running the utility remains the same with a single instance of the Oracle database or with the RAC database. In the RAC database environment, running the utility on one instance updates the repository for any other instances that belong to the environment.

The following is list of actions that must be avoided:

- Do not add, delete or change the rows in the Excel spreadsheet that was created by the upgrade utility.
- Do not rename the targets or channels in the Excel spreadsheet that was created by the upgrade utility.
- Do not add or delete the column in the Excel spreadsheet that was created by the upgrade utility.
- This utility cannot be used to migrate the adapter targets and channels from one environment to another environment. For example, migration between development, testing, and production environments cannot be performed. You must use the migration utility in each of the environments separately.

## C.7 Best Practices

This section describes best practices for the migration utility.

- Create a backup of the Oracle database which contains the J2CA repository. This applies irrespective of development, testing, and production environments. In case

of a file repository, create a backup of the file repository. This also applies irrespective of development, testing, and production environments. The file repository is located in the adapter folder structure. For example:

```
$ADAPTER_HOME\config\jca
```

- When you use the migration utility with K shell, the following warning may be generated, which can be ignored:

```
./sapupd.sh: /dev/null: bad number
```

- When the migration utility extracts information into the Excel spreadsheet, the Excel spreadsheet takes 00 as 0 for the system number parameter value for the sap2 target. When the sap2 target values are mapped to sap3 from the Excel spreadsheet, the adapter target has the system number parameter value set to 0 in Application Explorer.

There is no issue with the adapter to work with this target in design and run time. However, it is recommended that you to manually update the target for the correct value. For example, replace "0" with "00".

- There is no command to migrate both targets and channels. This must be done separately
- When performing the upgrade in a production environment, consider the following guidelines:
  1. Extract the sap2 adapter targets and channels well in advance of the production migration date. Perhaps two to four weeks earlier. This date is just an approximation.
  2. Make changes to the Excel spreadsheet with the new parameter values for the sap3 adapter.
  3. Upload the details from the Excel spreadsheet into the environment which should be an exact replica of the production environment. Ensure that the design time (Application Explorer), run time (BPEL, ESB, Mediator) is working. Note that if there is a change in the environment, then the runtime scenarios based on BPEL, ESB, and Mediator process flows would not work.
  4. If everything is working accordingly, then keep the Excel spreadsheet intact until the production migration.
  5. Do not make any changes to the adapter targets and channels in the production environment after extracting the details. If you make any changes, then repeat steps 1 through 4.
  6. On the day of the production environment migration, use the Excel spreadsheet to update the sap3 adapter targets and channels.  
This approach minimizes the downtime during the production migration.
  7. If your production environment is a high availability (cluster) environment, then perform this procedure for any node that belongs to the cluster.

## C.8 Troubleshooting

This section provides troubleshooting information for the migration utility.

- Executing the `spaupd update` command to update the adapter targets with the `sap2to3.tab` file, which contains the adapter channel parameters, generates the following exception:

```
C:\soadp1\adapters\application\etc\util>sapupd update jca_sample targets
sap2to3 sap2to3chn.tab -jdbc oracle.jdbc.driver.OracleDriver
jdbc:oracle:thin:@192.168.128.164:1521:orcl scott scott1
```

```
Exception in thread "main"
com.iwaysoftware.iwrepository.PrimaryKeyNotExistsException: Primary key does
not exist: xpath = //AF_CONFIG[cfg_adapter='MySAP' and cfg_name='jca_sample'
and cfg_target='service_mysap_isdsrv2_ch2']
at com.iwaysoftware.iwrepository.xml.file.FileDataObjectFactory.getDataObject
(FileDataObjectFactory.java:86)
```

- Executing the `sapupd update` command to update the adapter channels with the `sap2to3tgt.tab` file, which contains the adapter target parameters, generates the following exception:

```
C:\soadp1\adapters\application\etc\util>sapupd update jca_sample channels
sap2to3 sap2to3tgt.tab -jdbc oracle.jdbc.driver.OracleDriver
jdbc:oracle:thin:@192.168.128.164:1521:orcl scott scott1
```

```
Exception in thread "main"
com.iwaysoftware.iwrepository.PrimaryKeyNotExistsException: Primary key does
not exist: xpath = //AF_CONFIG[cfg_adapter='MySAP' and cfg_name='jca_sample'
and cfg_channel='service_mysap_isdsrv2_tgt']
at com.iwaysoftware.iwrepository.xml.file.FileDataObjectFactory.getDataObject
(FileDataObjectFactory.java:86)
```

- After the connection parameters are updated successfully for the Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x), if you try to connect to the J2CA configuration using the SAPJCO 2.x libraries, the following exception is generated:

```
Jca could not initialize
```

- Executing the `sapupd list` command to list the targets when no targets are available results in the creation of an empty output file (0 KB in size).
- Executing the `sapupd list` command to list the channels when no channels are available results in the creation of an empty output file (0 KB in size).
- Executing the `sapupd update` command without specifying a file name generates the following exception:

```
C:\soadp1\adapters\application\etc\util>sapupd update jca_sample targets
sap2to3 -file
C:\soadp1\adapters\application\config\jca_sample\repository.xml
```

```
Exception in thread "main" java.lang.Exception: File -file does not exist.
at com.iwaysoftware.iwrepocmd.sap.Script.update(Script.java:67)
at com.iwaysoftware.iwrepocmd.sap.Script.run(Script.java:83)
at com.iwaysoftware.iwrepocmd.CommandBase.run(CommandBase.java:86)
at com.iwaysoftware.iwrepocmd.sap.Command.main(Command.java:8)
```

- Executing the `sapupd update` command to update the targets in a repository where no targets are available in the J2CA configuration (for example, empty `repository.xml`), generates the following exception:

```
C:\soadp1\adapters\application\etc\util>sapupd update jca_sample targets
sap2to3 sap2to3tgt.tab -file
C:\soadp1\adapters\application\config\jca_sample\repository.xml
```

```
Exception in thread "main"
com.iwaysoftware.iwrepository.PrimaryKeyNotExistsException: Primary key does
```



```

not exist: xpath = //AF_CONFIG[cfg_adapter='MySAP' and cfg_name='jca_sample'
and cfg_target='service_isdsrv2_tgt']
    at
com.iwaysoftware.iwrepository.xml.file.FileDataObjectFactory.getDataObject(File
DataObjectFactory.java:86)
    at
com.iwaysoftware.iwrepocmd.sap.Sap2to3.updateDescriptor(Sap2to3.java:273)
    at
com.iwaysoftware.iwrepocmd.sap.Sap2to3.updateTargets(Sap2to3.java:303)

```

- Executing the `sapupd update` command to update the channels in a repository where no channels are available in the J2CA configuration (for example, empty repository.xml), generates the following exception:

```

C:\soadp1\adapters\application\etc\util>sapupd update jca_sample channels
sap2to3 sap2to3chn.tab -file
C:\soadp1\adapters\application\config\jca_sample\repository.xml

```

```

Exception in thread "main"
com.iwaysoftware.iwrepository.PrimaryKeyNotExistsException: Primary key does
not exist: xpath = //AF_CONFIG[cfg_adapter='MySAP' and cfg_name='jca_sample'
and cfg_channel='channel_isdsrv2_chn1']
    at
com.iwaysoftware.iwrepository.xml.file.FileDataObjectFactory.getDataObject(File
DataObjectFactory.java:86)
    at
    com.iwaysoftware.iwrepocmd.sap.Sap2to3.updateDescriptor(Sap2to3.java:273)
    at
    com.iwaysoftware.iwrepocmd.sap.Sap2to3.updateChannels(Sap2to3.java:325)

```

- Executing the `sapupd list` command using the incorrect user name to the database repository, generates the following exception:

```

C:\soadp1\adapters\application\etc\util>sapupd list jca_sample channels sap2to3
-jdbc oracle.jdbc.driver.OracleDriver
jdbc:oracle:thin:@192.168.128.164:1521:orcl sct scott1 > sap2to3.tab
java.sql.SQLException: ORA-01017: invalid username/password; logon denied
at oracle.jdbc.driver.DatabaseError.throwSQLException(DatabaseError.java:112)
    at oracle.jdbc.driver.T4CTTIoer.processError(T4CTTIoer.java:331)

```

- Executing the `sapupd list` command using the incorrect password to the database repository, generates the following exception:

```

C:\soadp1\adapters\application\etc\util>sapupd list jca_sample channels sap2to3
-jdbc oracle.jdbc.driver.OracleDriver
jdbc:oracle:thin:@192.168.128.164:1521:orcl scott ott > sap2to3.tab
java.sql.SQLException: ORA-01017: invalid username/password; logon denied
    at
oracle.jdbc.driver.DatabaseError.throwSQLException(DatabaseError.java:112)
    at oracle.jdbc.driver.T4CTTIoer.processError(T4CTTIoer.java:331)
    at oracle.jdbc.driver.T4CTTIoer.processError(T4CTTIoer.java:283)
    at oracle.jdbc.driver.T4CTTIoer.processError(T4CTTIoer.java:278)

```

- Executing the `sapupd list` command using the incorrect URL to the database repository, generates the following exception:

```

C:\soadp1\adapters\application\etc\util>sapupd list jca_sample channels sap2to3
-jdbc oracle.jdbc.driver.OracleDriver jdbc:oracle:thin:@192.168.128.164:1521:rl
scott scott1 > sapt.tab
java.sql.SQLException: Listener refused the connection with the following
error:

```

```
ORA-12505, TNS:listener does not currently know of SID given in connect
descriptor
The Connection descriptor used by the client was:192.168.128.164:1521:rl
```

- Executing the `sapupd list` command using the incorrect driver to the database repository, generates the following exception:

```
C:\soadp1\adapters\application\etc\util>sapupd list jca_sample channels sap2to3
-jdbc oracle.jdbc.driverr jdbc:oracle:thin:@192.168.128.164:1521:orcl scott
scott1 > sapt.tab
java.lang.ClassNotFoundException: oracle.jdbc.driverr
    at java.net.URLClassLoader$1.run(URLClassLoader.java:200)
    at java.security.AccessController.doPrivileged(Native Method)
```

- Executing the `sapupd list` command without specifying a driver to the database repository, generates the following exception:

```
C:\soadp1\adapters\application\etc\util>sapupd list jca_sample channels sap2to3
-jdbc jdbc:oracle:thin:@192.168.128.164:1521:orcl scott scott1 > sapt.tab
Exception in thread "main" java.lang.NullPointerException
    at
com.iwaysoftware.iwrepository.IWRepositoryFactory.getRepositoryClassName(IWRepo
sitoryFactory.java:196)
    at
com.iwaysoftware.iwrepository.IWRepositoryFactory.getRepository(IWRepositoryFac
tory.java:163)
    at
com.iwaysoftware.iwrepopcmd.CommandBase.readOptions(CommandBase.java:67)
```

- Executing the `sapupd list` command without specifying a user name to list `sap2 / sap3` in the database repository, generates the following exception:

```
C:\soadp1\adapters\application\etc\util>sapupd list jca_sample channels sap2to3
-jdbc oracle.jdbc.driver.OracleDriver
jdbc:oracle:thin:@192.168.128.164:1521:orcl scott1 > sap2to3.tab
java.lang.NullPointerException
    at java.util.Hashtable.put(Hashtable.java:394)
    at
com.iwaysoftware.iwrepository.rdbms.oracle.OracleRepository.open(OracleReposito
ry.java:144)
```

- Executing the `sapupd list` command without specifying a password to list `sap2 / sap3` in the database repository, generates the following exception:

```
C:\soadp1\adapters\application\etc\util>sapupd list jca_sample channels sap2to3
-jdbc oracle.jdbc.driver.OracleDriver
jdbc:oracle:thin:@192.168.128.164:1521:orcl scott > sapt.tab
java.lang.NullPointerException
    at java.util.Hashtable.put(Hashtable.java:394)
    at
com.iwaysoftware.iwrepository.rdbms.oracle.OracleRepository.open(OracleReposito
ry.java:144)
    at
com.iwaysoftware.iwrepository.IWRepositoryFactory.getRepo(IWRepositoryFactory.j
ava:286)
```

- Executing the `sapupd update` command with an incorrect user name to update `sap2` to `sap3` in the database repository, generates the following exception:

```
C:\soadp1\adapters\application\etc\util>sapupd update jca_sample targets
sap2to3 saptgt.tab -jdbc oracle.jdbc.driver.OracleDriver
jdbc:oracle:thin:@192.168.128.164:1521:orcl sco scott1
```

```
java.sql.SQLException: ORA-01017: invalid username/password; logon denied
    at
oracle.jdbc.driver.DatabaseError.throwSQLException(DatabaseError.java:112)
    at oracle.jdbc.driver.T4CTTIoer.processError(T4CTTIoer.java:331)
    at oracle.jdbc.driver.T4CTTIoer.processError(T4CTTIoer.java:283)
    at oracle.jdbc.driver.T4CTTIoer.processError(T4CTTIoer.java:278)
```

- Executing the `sapupd update` command with an incorrect password to update sap2 to sap3 in the database repository, generates the following exception:

```
C:\soadp1\adapters\application\etc\util>sapupd update jca_sample targets
sap2to3 saptgt.tab -jdbc oracle.jdbc.driver.OracleDriver
jdbc:oracle:thin:@192.168.128.164:1521:orcl scott scpt1
java.sql.SQLException: ORA-01017: invalid username/password; logon denied
    at
oracle.jdbc.driver.DatabaseError.throwSQLException(DatabaseError.java:112)
    at oracle.jdbc.driver.T4CTTIoer.processError(T4CTTIoer.java:331)
    at oracle.jdbc.driver.T4CTTIoer.processError(T4CTTIoer.java:283)
    at oracle.jdbc.driver.T4CTTIoer.processError(T4CTTIoer.java:278)
```

- Executing the `sapupd update` command without specifying a user name to update sap2 to sap3 in the database repository, generates the following exception:

```
C:\soadp1\adapters\application\etc\util>sapupd update jca_sample channels
sap2to3 saptch.tab -jdbc oracle.jdbc.driver.OracleDriver
jdbc:oracle:thin:@192.168.128.164:1521:orcl scott1
java.lang.NullPointerException
    at java.util.Hashtable.put(Hashtable.java:394)
    at
com.iwaysoftware.iwrepository.rdbms.oracle.OracleRepository.open(OracleRepository.java:144)
```

- Executing the `sapupd update` command without specifying a file name to update sap2 to sap3 in the database repository, generates the following exception:

```
C:\soadp1\adapters\application\etc\util>sapupd update jca_sample targets
sap2to3
-jdbc oracle.jdbc.driver.OracleDriver
jdbc:oracle:thin:@192.168.128.164:1521:orcl scott scott1
Exception in thread "main" java.lang.Exception: File -jdbc does not exist.
    at com.iwaysoftware.iwrepcmd.sap.Script.update(Script.java:67)
    at com.iwaysoftware.iwrepcmd.sap.Script.run(Script.java:83)
    at com.iwaysoftware.iwrepcmd.CommandBase.run(CommandBase.java:86)
    at com.iwaysoftware.iwrepcmd.sap.Command.main(Command.java:8)
```

- Executing the `sapupd update` command without specifying a password to update sap2 to sap3 in the database repository, generates the following exception:

```
C:\soadp1\adapters\application\etc\util>sapupd update jca_sample channels
sap2to3 sapch.tab -jdbc oracle.jdbc.driver.OracleDriver
jdbc:oracle:thin:@192.168.128.164:1521:orcl scott
java.lang.NullPointerException
    at java.util.Hashtable.put(Hashtable.java:394)
    at
com.iwaysoftware.iwrepository.rdbms.oracle.OracleRepository.open(OracleRepository.java:144)
    at
com.iwaysoftware.iwrepository.IWRepositoryFactory.getRepo(IWRepositoryFactory.java:286)
```



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