Oracle® Fusion Middleware

Application Adapters Installation Guide for Oracle WebLogic Server

11*g* Release 1 (11.1.1.3.0)

E17054-03

November 2010

ORACLE®

Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server, 11*g* Release 1 (11.1.1.3.0)

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Preface

Oracle Fusion Middleware Application Adapters Installation Guide for Oracle WebLogic Server describes how to install and configure Oracle Application Adapters for Oracle WebLogic Server 11*g* Release 1 (11.1.1.3.0).

Audience

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For more information, see the following documents in the Oracle Enterprise Repository 11*g* Release 1 (11.1.1.3.0) 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*

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  For more information about OUM, see the OUM FAQ at

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Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	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.

1

Introduction

This chapter provides an overview of Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server 11*g* Release 1 (11.1.1.3.0). 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, "Software Requirements"

- Section 1.2.3, "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 Software Requirements

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

> **Note:**   The supported systems and platforms vary for Oracle Fusion Middleware Application Adapters on an individual adapter level. For example, the Oracle Fusion Middleware Application Adapter for SAP R/3 does not support the Windows 2008 (64-bit) operating system.
>
> For more information on supported systems and platforms for Oracle Fusion Middleware Application Adapters, see Section 1.2.3, "Supported EIS Systems" on page 1-4.

Operating System Requirements

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

Table 1–3   Operating System Requirements

Platform Type	Platform List	32- or 64-bit	JDK Version
Windows	Intel x86 Microsoft Windows 2003 SP2/R2+	32-bit	■ Sun 1.6.0_07+ (32-bit) ■ JRockit 27.6 (32-bit)

Table 1–3 (Cont.) Operating System Requirements

Platform Type	Platform List	32- or 64-bit	JDK Version
	x64 Windows 2003 with SP2/R2+	64-bit	■ Sun 1.6.0_07+ (64-bit) ■ JRockit 27.6 (64-bit)
	Intel x86 Windows Server 2008	32-bit	■ Sun 1.6.0_07+ (32-bit) ■ JRockit 27.6 (32-bit)
	x64 Windows Server 2008	64-bit	■ Sun 1.6.0_07+ (64-bit) ■ JRockit 27.6 (64-bit)
Solaris	Sun Solaris Sparc 2.9	64-bit	■ Sun 1.6.0_07+ (64-bit) ■ JRockit 27.6 (64-bit)
	Sun Solaris Sparc 2.10	64-bit	■ Sun 1.6.0_07+ (64-bit) ■ JRockit 27.6 (64-bit)
HP	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)
Linux	Intel x86 RedHat Linux EL 4 (UL7+)	32-bit	■ Sun 1.6.0_07+ (32-bit) ■ JRockit 27.6 (32-bit)
	Intel x86 RedHat Linux EL 5.x (UL2)	32-bit	■ Sun 1.6.0_07+ (32-bit) ■ JRockit 27.6 (32-bit)
	x64 RedHat Linux EL 4 (UL7+)	64-bit	■ Sun 1.6.0_07+ (64-bit) ■ JRockit 27.6 (64-bit)
	x64 RedHat Linux EL 5.x (UL2+)	64-bit	■ Sun 1.6.0_07+ (64-bit) ■ JRockit 27.6 (64-bit)
	Intel SUSE 10	32-bit	■ Sun 1.6.0_07+ (32-bit) ■ JRockit 27.6 (32-bit)
	x64 SUSE10	64-bit	■ Sun 1.6.0_07+ (64-bit) ■ JRockit 27.6 (64-bit)
	Intel Oracle Enterprise Linux 4 (UL7+)	32-bit	■ Sun 1.6.0_07+ (32-bit) ■ JRockit 27.6 (32-bit)
	Intel Oracle Enterprise Linux 5.x (UL2+)	32-bit	■ Sun 1.6.0_07+ (32-bit) ■ JRockit 27.6 (32-bit)
	x64 Oracle Enterprise Linux 4 (UL7+)	64-bit	■ Sun 1.6.0_07+ (64-bit) ■ JRockit 27.6 (64-bit)
	x64 Oracle Enterprise Linux 5.x (UL2+)	64-bit	■ Sun 1.6.0_07+ (64-bit) ■ JRockit 27.6 (64-bit)
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)

1.2.3 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 SAP JCo 2.1.x) and SAP R/3 (Using SAPJCo 3.x)

- SAP R/3 (Using SAP JCo 2.1.x)

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

- PeopleSoft

- Siebel

- J.D. Edwards OneWorld

1.2.3.1 Considerations for SAP R/3 (Using SAP JCo 2.1.x) and 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 / 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 application artifacts (BPEL, Mediator, ESB, and OSB) and installing the Oracle Fusion Middleware Application Adapter for SAP R/3 (using SAP JCo 3.x), see Appendix C, "Configuring 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). It is recommended that you begin migrating to the SAP R/3 adapter (using SAP JCo 3.x) starting with 11g Release 1 (11.1.1.3.0). This is the only Oracle release where both versions of the SAP R/3 adapters are supported. The SAP R/3 adapter (using SAP JCo 2.1.x) adapter is not supported in any future releases as well as after 12/31/2011.

1.2.3.2 SAP R/3 (Using SAP JCo 2.1.x)

The following SAP R/3 platforms are supported by the Oracle Fusion Middleware Application Adapter for SAP R/3 (using SAP JCo 2.1.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 2.1.9

> **Notes:**
>
> - SAP JCo Version 2.1.8 is no longer supported by SAP. SAP recommends using SAP JCo Version 2.1.9. For more information, see the SAP Note #1257539 in the SAP Service Marketplace.
>
> - For 11*g* Release 1 (11.1.1.3.0), the Oracle Fusion Middleware Application Adapter for SAP R/3 supports SAP JCo Version 2.1.9.
>
> - SAP JCo Version 2.1.9 is not supported on the Windows 64-bit platform. The JCo API does not support this platform.
>
> - The Oracle Fusion Middleware Application Adapter for SAP R/3 does not support any versions of *Apple Mac* Operating Systems.
>
> - Release versions may vary by product component. In addition, SAP functions may vary by SAP product version and support package.

1.2.3.3 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.

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

1.2.3.4 PeopleSoft

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

Adapter Platform	PeopleSoft Platform	PeopleSoft Release	PeopleTools Release Level
List of platforms in Table 1–3, " Operating System Requirements"	All PeopleSoft supported platforms (for example, Windows, Solaris, AIX, and so on)	8.1	8.16.03 - 8.22
		8.4	8.40.05 - 8.50

1.2.3.5 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

1.2.3.6 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	- XE (B7333) from SP19 to SP23 - ERP 8.0 (B7334) - EnterpriseOne B9 (8.9) - EnterpriseOne 8.10 (Tools Release 8.93 and 8.94) - EnterpriseOne 8.11 (SP1) - EnterpriseOne 8.12 (Tools Release 8.96 2.0) - EnterpriseOne 9.0 (Tools Release 8.98.1.3)

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Installation and Configuration

This chapter describes how to install and configure Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server 11*g*. It contains the following topics:

2.1 Required Oracle Patches

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

- Mandatory Patch for BPM PS2 - BPM BP1 (Patch 9958661)

  This patch is required if you are planning to use Oracle Fusion Middleware Application Adapters with Business Process Management (BPM).

- Mandatory Patches for OSB PS2 (Patch 9654566 and 10182476)

  These patches are required if you are planning to use Oracle Fusion Middleware Application Adapters with Oracle Service Bus (OSB).

- Mandatory Patch for SOA Suite PS2 (Patch 9563280)

  This patch is required if you are planning to use Oracle Fusion Middleware Application Adapters with Oracle Service-Oriented Architecture (SOA) Suite PS2.

The patches mentioned here are 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 11*g* Release 1 (11.1.1.3.0) 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 OSB components. Using this installer, Application Adapters can be installed in a standalone SOA environment, standalone OSB environment, or mixed (SOA and OSB) environment.

The Application Adapters are installed based on the value that is specified for the *ORACLE_HOME* parameter. The installer uses the OPatch utility to check for the specific version of OSB or SOA that is installed on the system. The installer starts the OPatch utility with the -oh option to use the JDK that is delivered with the Oracle SOA Suite and OSB. For example:

```
<ORACLE_HOME>\Oracle_SOA1\OPatch>opatch.bat lsinventory -oh <SOA_HOME> -jre <JDK_
HOME>
```

The installer parses the output of the OPatch utility for the following strings and values:

1. `Application Server 11g SOA Patchset 11.1.1.3.0`

2. `Oracle Service Bus 11.1.1.3.0`

If the installer finds the string Application Server 11*g* SOA Patchset 11.1.1.3.0, then it assumes that the system is an Oracle SOA Suite environment. If the installer finds the string Oracle Service Bus 11.1.1.3.0, then it assumes that the system is an OSB environment.

If you enter the value of *SOA_HOME* for *ORACLE_HOME*, then the Application Adapters are installed in the following folder:

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

If you enter the value of *OSB_HOME* for *ORACLE_HOME*, then the Application Adapters are installed in the following folder:

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

If only OSB and SOA Suite are installed, then the Application Adapters are installed in *SOA_HOME* or *OSB_HOME* based on the value that is specified for *ORACLE_HOME* during the installation. In this case, the Application Adapters are installed in either of the following folders:

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

2. `<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty`

For the installer to run successfully, the OPatch utility must be run successfully in your environment. The OPatch utility is a prerequisite for the Application Adapters installer. Note that *SOA_HOME* and *OSB_HOME* have their own OPatch utilities in the combined or standalone environments. Ensure that the OPatch utility is run successfully in the system where the Application Adapters are installed.

For more information (including prerequisites) about the Opatch utility, see the following Web site:

http://www.comp.dit.ie/btierney/oracle11gdoc/em.111/b31207/oui7_opatch.htm#CEGHCGJI

> **Note:** If the OPatch utility is not started with the default options that are described in this section, then the installer does not work in your environment. If the OPatch utility or installer do not work as described, then you can install the Application Adapters using a .zip file. For more information on bug 10207507 and downloading the zip file version of the installer, contact Oracle Support.

Oracle Fusion Middleware Application Adapter for SAP R/3 Installation

The Application Adapter installer for 11*g* Release 1 (11.1.1.3.0) installs both versions of the Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 2.1.x and SAP JCo 3.x). By default, the Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 2.1.x) is installed in the following folder:

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

The Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x) is installed in the following folder:

```
<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\etc\mysap30
```

For more information about installing the Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x), see Appendix C, "Configuring Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x)".

2.3 Installing Oracle Fusion Middleware Application Adapters on Windows

Oracle Fusion Middleware Application Adapters can be installed with the following:

- Application Server 11g SOA Patchset 11*g* Release 1 (11.1.1.3.0)
- Oracle Service Bus 11*g* Release 1 (11.1.1.3.0)

To install Oracle Fusion Middleware Application Adapters on a Windows platform, perform the following steps:

1. Install Java Development Kit (JDK) version 1.6 on the system.

   Oracle Fusion Middleware Application Adapters are certified with JDK version 1.6.

2. Ensure that the JDK is added to your system PATH or on a predefined path.

   If you have multiple JDK versions other than JDK version 1.6 installed on your system, then ensure that JDK version 1.6 is listed first in your system PATH. The installation program should install the adapters only with JDK version 1.6. The adapters should not be installed with any other JDK version.

3. Navigate to the location on your system where the **iwora11g.application-adapters.win32.exe** installation file is located.

4. Double-click the **iwora11g.application-adapters.win32.exe** file to start the Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server installation program.

   The installation program uses the JDK version that is available in your system PATH or on a predefined path.

   If you want the installer to use a JDK version in a specific path, then you can invoke the installer by performing the following steps.

For example, on Windows:

a. Navigate to the command prompt for your system.

b. Enter the following command:

```
iwora11g.application-adapters.win32.exe -is:javahome c:\myfolder\jdk1.6
```

In this example, the installation program is run using JDK version 1.6.
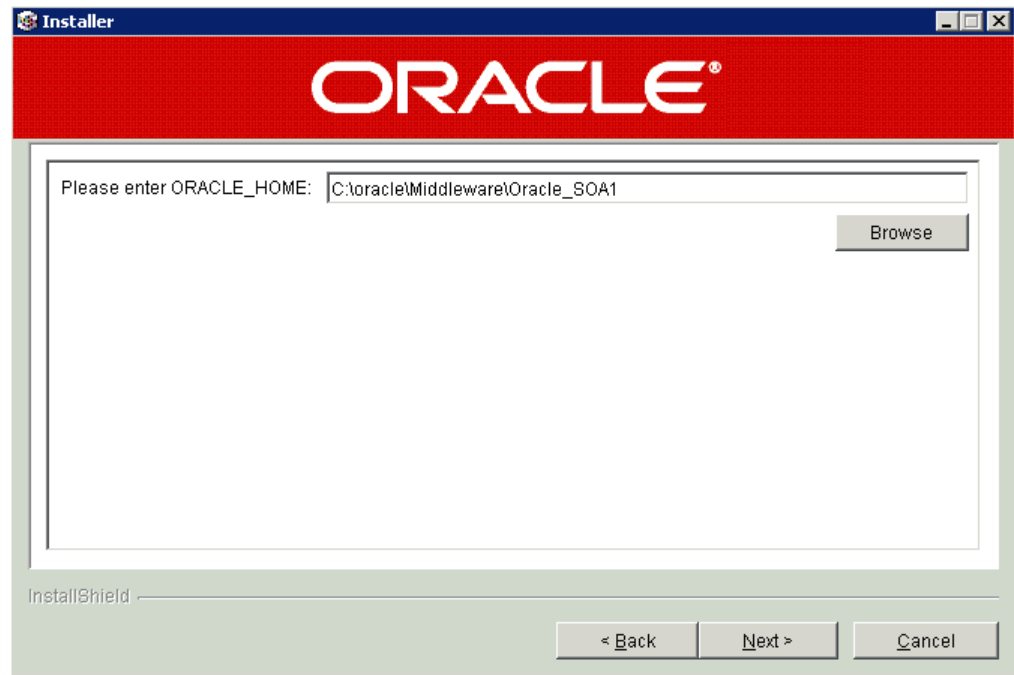
The Welcome screen is displayed, as shown in Figure 2–1.

Figure 2–1   Welcome Screen

5. Click **Next**.

The ORACLE_HOME path screen is displayed, as shown in Figure 2–2.

Figure 2–2   ORACLE_HOME Path Screen

6. Enter the path where Oracle SOA Suite or OSB is installed on your system. For example:

    Oracle SOA Suite Home

    `C:\oracle\Middleware\Oracle_SOA1`

    OSB Home

    `C:\OSB\Oracle_OSB1`

    Depending on your environment (Oracle SOA Suite or OSB), the installation program installs all the application adapters and related files in the following location:

    For Oracle SOA Suite:

    `<ORACLE_HOME>\soa\thirdparty\ApplicationAdapters`

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

    For OSB:

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

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

    For more information about the Application Adapter installer for 11*g* Release 1 (11.1.1.3.0), see "Installation Overview" on page 2-2.

7. Click **Next**.

    The Summary screen is displayed, as shown in Figure 2–3.

Figure 2–3   Summary Screen
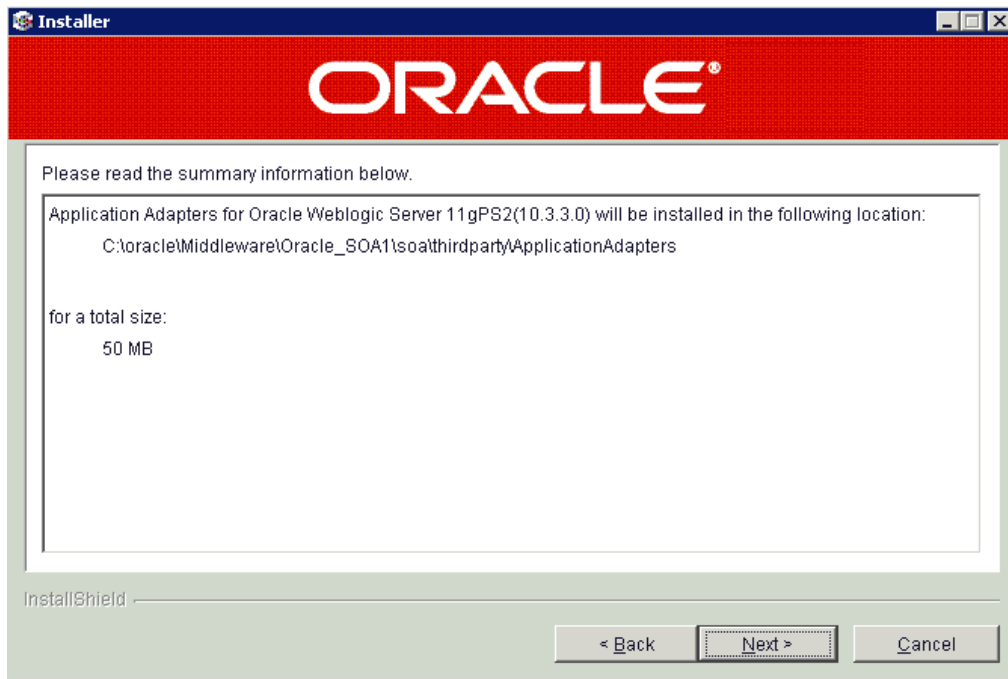
8. Review specific details on the Summary screen, including the disk requirements to ensure that you have sufficient disk space, and click **Next** to begin the installation.

    A Status screen is displayed.

    After the installation is complete, the following installation confirmation screen is displayed, as shown in Figure 2–4.

Figure 2–4   Confirmation Screen
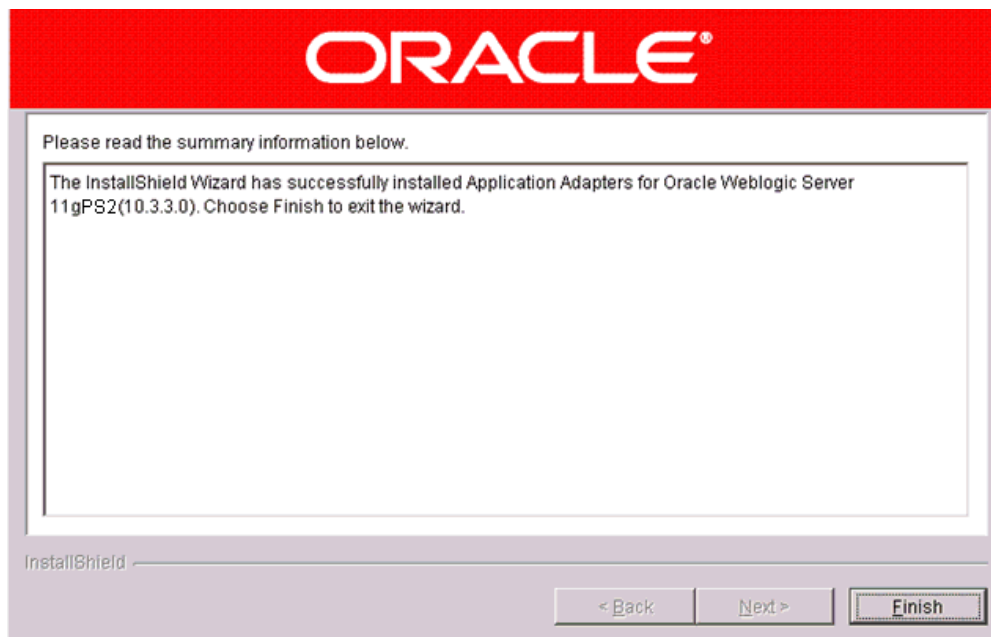
9. Click **Finish**.

The Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server are now installed on your system.

In addition, the following Windows Program Menu listing is created, as shown in Figure 2–5.

Figure 2–5 Windows Program Menu
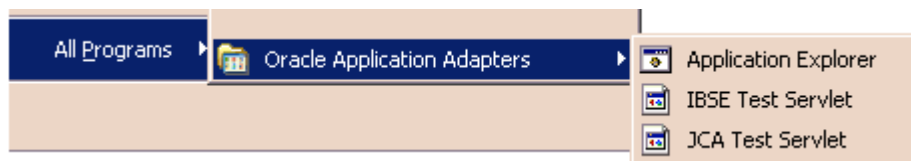
Starting Application Explorer from the Windows Start menu does not run the Oracle WebLogic Server batch command *setdomainenv.cmd*. It is recommended to run the *setdomainenv.cmd* command on Windows systems and the *setdomainenv.sh* command on UNIX/Linux systems before starting Application Explorer.

Before starting and using Application Explorer, you must perform the following steps:

1. Open the command prompt window.

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 window.

5. Navigate to the following directory:

    For Oracle SOA Suite:

    `<ORACLE_HOME>\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 Installing Oracle Fusion Middleware Application Adapters on UNIX and Linux

To install Oracle Fusion Middleware Application Adapters on a UNIX or Linux platform, you can invoke the installer by performing the following steps:

1. Navigate to the command prompt for your UNIX or Linux platform.

2. Depending on your UNIX or Linux platform, enter the following command:

For IBM AIX:

```
$./iwora11g.application-adapters.aix.bin
```

For HP-UX:

```
$./iwora11g.application-adapters.hp.bin
```

For Linux:

```
$./iwora11g.application-adapters.linux.bin
```

For Solaris:

```
$./iwora11g.application-adapters.solaris.bin
```

> **Note:** It is recommended to use the `-is:javahome` option on the UNIX and Linux platforms. For more information on how to start the installer with a command to use a JDK version in a specific path, see step 4 in "Installing Oracle Fusion Middleware Application Adapters on Windows" on page 2-3.

After the installation file is invoked, the remaining installation steps for the UNIX and Linux platform are similar to those for the Windows platform.

2.5 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.

2.5.1 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. Click the Windows **Start** menu, select **All Programs**, **Oracle Application Adapters**, and then click **Application Explorer**, as shown in Figure 2–6.

Figure 2–6   Oracle Application Adapters Program Menu

Application Explorer is displayed.

Alternatively, you can run the **ae.bat** file, which is located in the following directory, to start Application Explorer:

Oracle SOA Suite:

```
<ORACLE_HOME>\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\tools\iwae\bin\ae.bat
```

Oracle Service Bus (OSB):

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

It is a good practice to create a shortcut for the **ae.bat** file on your desktop.
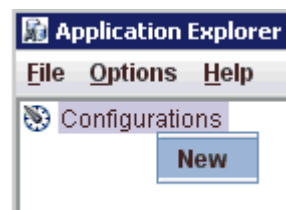
If you are using a UNIX or Linux platform, then you can start Application Explorer by using the **iwae.sh** file.

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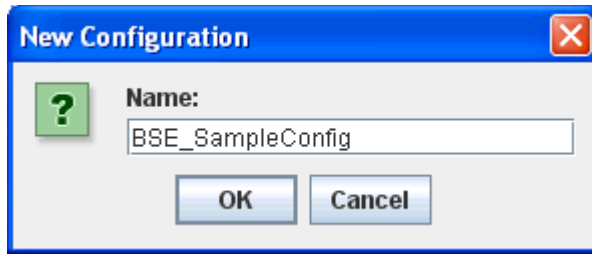
```
chmod +x iwae.sh
```

---

2. Right-click **Configurations** and select **New**, as shown in Figure 2–7.

Figure 2–7   Configurations Node

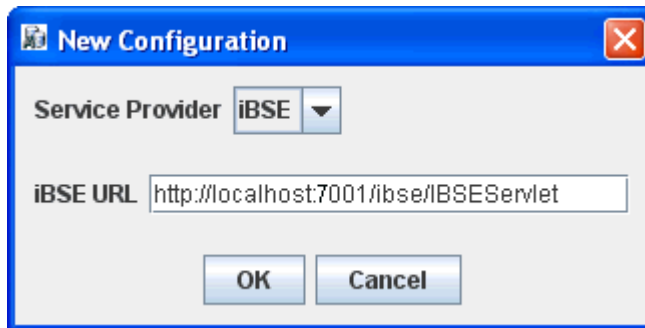The New Configuration dialog is displayed, as shown in Figure 2–8.

Figure 2–8   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 2–9   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 2–9.

> **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 2–10.

Figure 2–10   BSE_SampleConfig Node
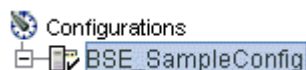
2.5.2 Creating a Configuration for Oracle WebLogic Server Adapter J2EE Connector Architecture

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. Click the Windows **Start** menu, select **All Programs**, **Oracle Application Adapters**, and then click **Application Explorer**, as shown in Figure 2–11.

Figure 2–11   Oracle Application Adapters Program Menu

Application Explorer is displayed.

Alternatively, you can run the **ae.bat** file, which is located in the following directory, to start Application Explorer:

Oracle SOA Suite:

```
<ORACLE_HOME>\Oracle_
SOA1\soa\thirdparty\ApplicationAdapters\tools\iwae\bin\ae.bat
```

Oracle Service Bus (OSB):

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

It is a good practice to create a shortcut for the **ae.bat** file on your desktop.

If you are using a UNIX or Linux platform, then you can start Application Explorer by using the **iwae.sh** file.

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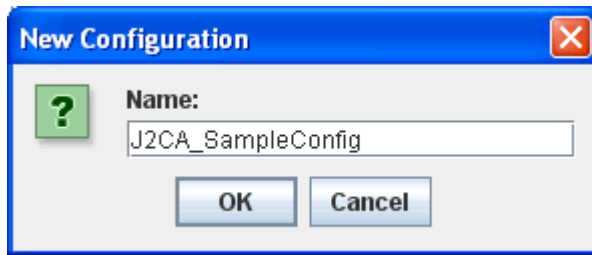
```
chmod +x iwae.sh
```

---

2. Right-click **Configurations** and select **New**, as shown in Figure 2–12.

Figure 2–12   Configurations Node in Application Explorer
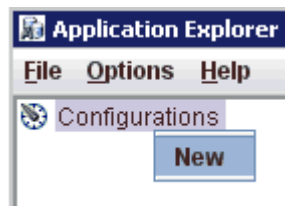
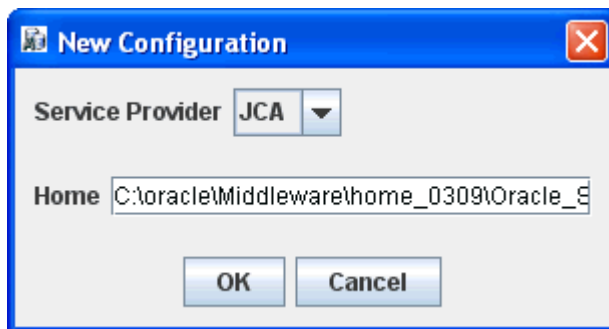The New Configuration dialog is displayed, as shown in Figure 2–13.

Figure 2–13   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.
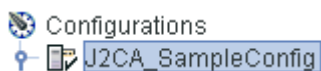

Figure 2–14   J2CA New Configuration Dialog

4. From the Service Provider list, select **JCA**, as shown in Figure 2–14.

5. Click **OK**.

A node representing the new configuration appears beneath the root Configurations node, as shown in Figure 2–15.

Figure 2–15   J2CA Sample Configuration Node

2.6 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 2.6.1, "Configuring Settings for the J2CA Connector Application"

- Section 2.6.2, "Configuring Log File Management for the J2CA Connector Application"

- Section 2.6.3, "Deploying the J2CA Connector Application Using the Oracle WebLogic Server Administration Console"

- Section 2.6.4, "Deploying the J2CA Installation Verification Program (IVP) Using the Oracle WebLogic Server Administration Console"

- Section 2.6.5, "Connecting to a J2CA Configuration Using Application Explorer"

2.6.1 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>\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.

2.6.2 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>*\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.

2.6.3 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 2–16.

Figure 2–16 Oracle WebLogic Server Administration Console
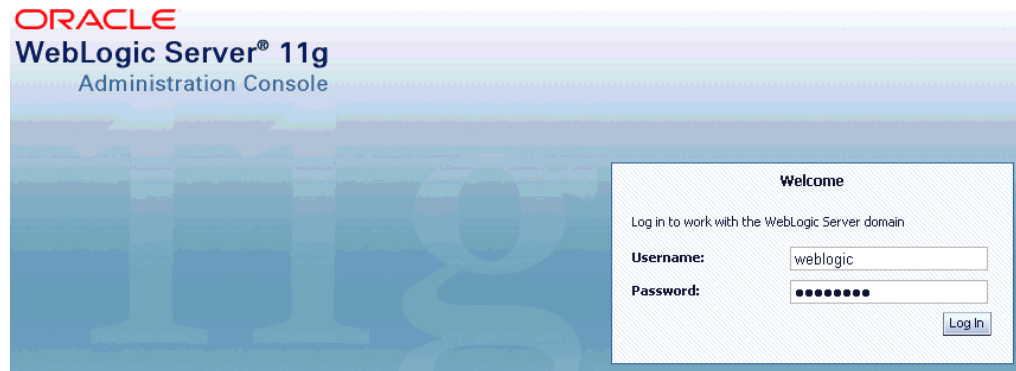
3. Log in to the Oracle WebLogic Server Administrative Console using an account that has administrator privileges.

The Oracle WebLogic Server Administration Console home page is displayed, as shown in Figure 2–17.

Figure 2–17 Oracle WebLogic Server Administration Console Home Page
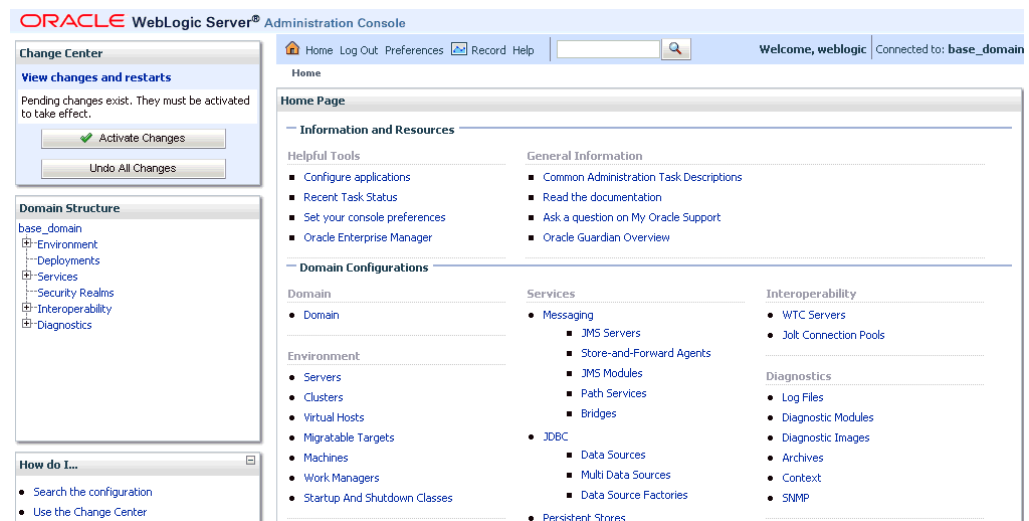
4. In the Domain Structure section in the left pane, click **Deployments**.

The Deployments page is displayed, as shown in Figure 2–18.

Figure 2–18   Deployments Page

5. Click **Install**.

    The Install Application Assistant page is displayed, as shown in Figure 2–19.

Figure 2–19   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 2–20.

Figure 2–20   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 2–21.

Figure 2–21   Select Deployment Target Page

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

    The Optional Settings page is displayed, as shown in Figure 2–22.

Figure 2–22   Optional Settings Page

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

    The Summary page is displayed, as shown in Figure 2–23.

Figure 2–23   Summary Page

11. Click **Finish**.

    The Settings page for the J2CA (iwafjca) Connector Application is displayed, as shown in Figure 2–24.

Figure 2–24   J2CA Settings Page

12. Click **Save**.

The "Settings updated successfully" message is displayed, which indicates a successful deployment, as shown in Figure 2–25.

Figure 2–25   Settings Updated Successfully Message

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 2–26.

Figure 2–26   Deployments Page

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 2–27.

Figure 2–27   Start Application Assistant Page
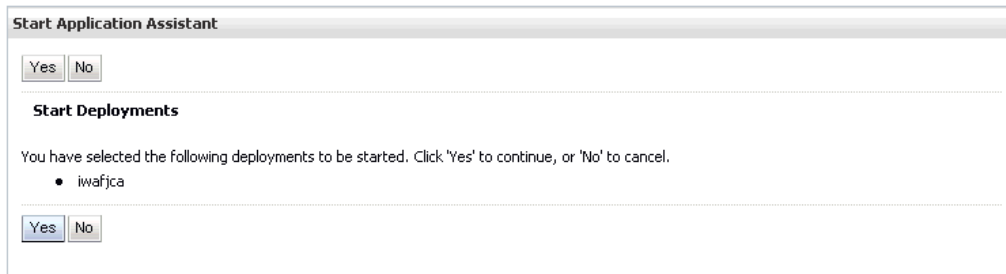
17. Click **Yes** to start the selected deployment.

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

2.6.4 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 2–28.

Figure 2–28 Oracle WebLogic Server Administration Console
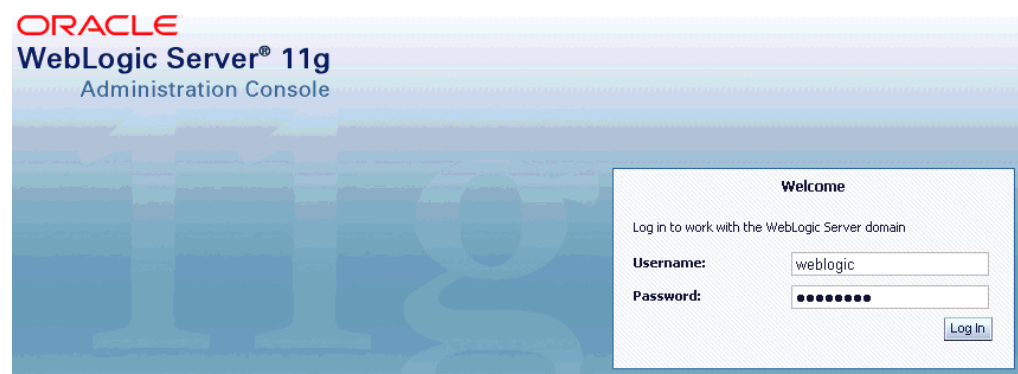
3. Log in to the Oracle WebLogic Server Administrative Console using an account that has administrator privileges.

   The Oracle WebLogic Server Administration Console home page is displayed, as shown in Figure 2–29.

Figure 2–29 Oracle WebLogic Server Administration Console Home Page
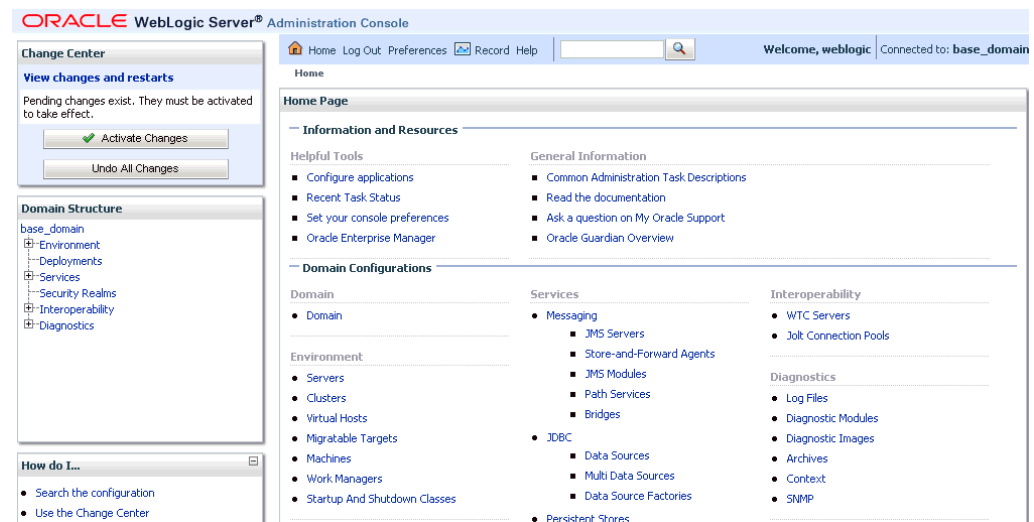
4. In the Domain Structure section in the left pane, click **Deployments**.

The Deployments page is displayed, as shown in Figure 2–30.

Figure 2–30   Deployments Page

5.   Click **Install**.

The Install Application Assistant page is displayed, as shown in Figure 2–31.

Figure 2–31   Install Application Assistant

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 2–32.

Figure 2–32   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 2–33.

Figure 2–33   Select Deployment Targets Page

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

    The Optional Settings page is displayed, as shown in Figure 2–34.

Figure 2–34   Optional Settings Page
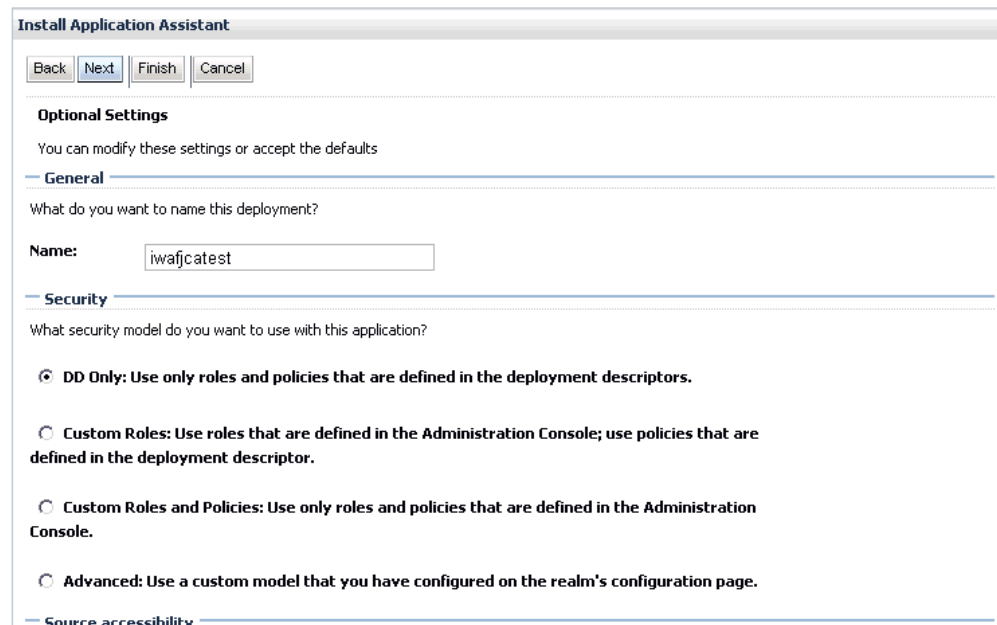
10. In the Name field, enter the following:

    iwafjcatest

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

    The Summary page is displayed, as shown in Figure 2–35.

Figure 2–35   Summary Page
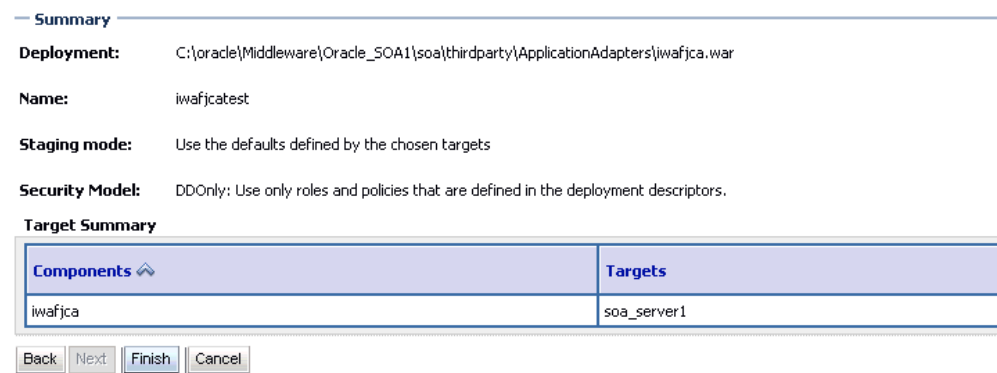
12. Click **Finish**.

    The Settings page for the J2CA Installation Verification Program (IVP) is displayed, as shown in Figure 2–36.

Figure 2–36   J2CA Settings Page

13. Click **Save**.

    The "Settings updated successfully" message is displayed, which indicates a successful deployment, as shown in Figure 2–37.

Figure 2–37   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 (iwafjcatest) Installation Verification Program (IVP), as shown in Figure 2–38.

Figure 2–38 Deployments Page

16. Select the **iwafjcatest** option.

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

The Start Application Assistant page is displayed, as shown in Figure 2–39.

Figure 2–39 Start Application Assistant
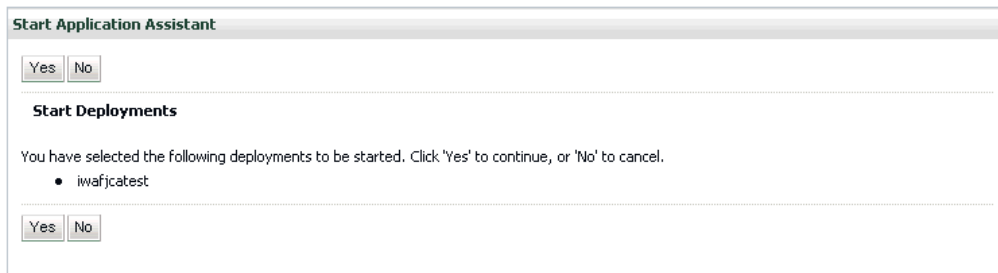
18. Click **Yes** to start the selected deployment.

The J2CA (iwafjcatest) 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.

2.6.5 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 2–40.

Figure 2–40   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.

2.7 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 2.7.1, "Configuring Settings for Oracle WebLogic Server Adapter Business Services Engine (BSE)"

- Section 2.7.2, "Deploying Oracle WebLogic Server Adapter Business Services Engine (BSE) Using the Oracle WebLogic Server Administration Console"

- Section 2.7.3, "Connecting to a BSE Configuration Using Application Explorer"

2.7.1 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 `iway.home` parameter.

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

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

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

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

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

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

2.7.2 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 2–41.

Figure 2–41   Oracle WebLogic Server Administration Console
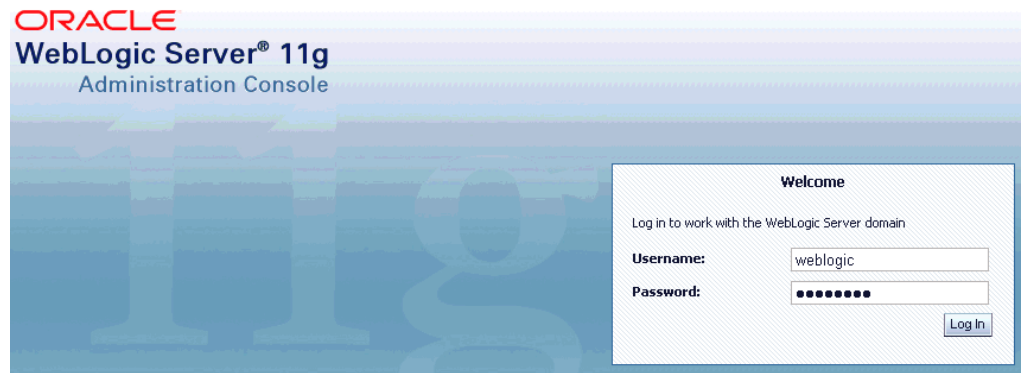
3. Log in to the Oracle WebLogic Server Administrative Console using an account that has administrator privileges.

    The Oracle WebLogic Server Administration Console home page is displayed, as shown in Figure 2–42.

Figure 2–42   Oracle WebLogic Server Administration Console Home Page
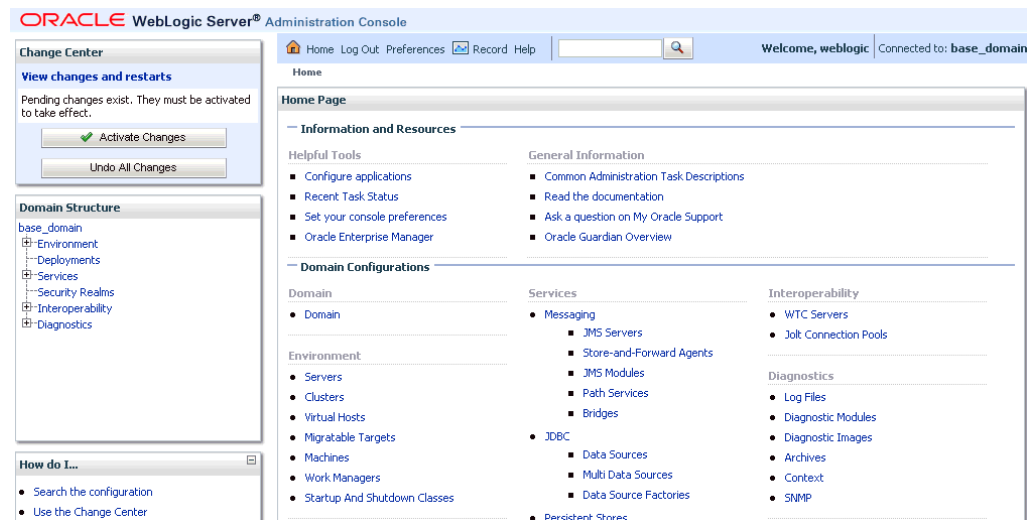
4. In the Domain Structure section in the left pane, click **Deployments**.

    The Deployments page is displayed, as shown in Figure 2–43.

Figure 2–43   Deployments Page
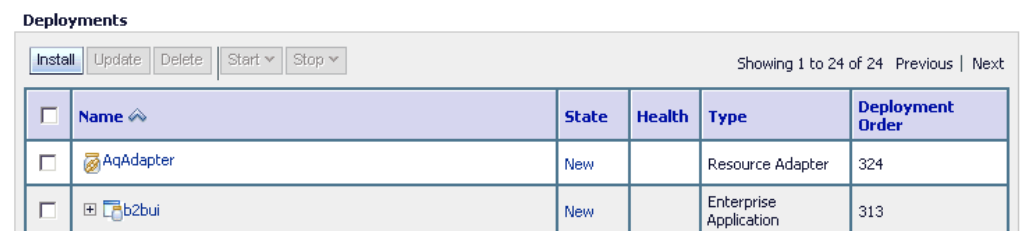
5. Click **Install**.

    The Install Application Assistant page is displayed, as shown in Figure 2–44.

Figure 2–44   Install Application Assistant
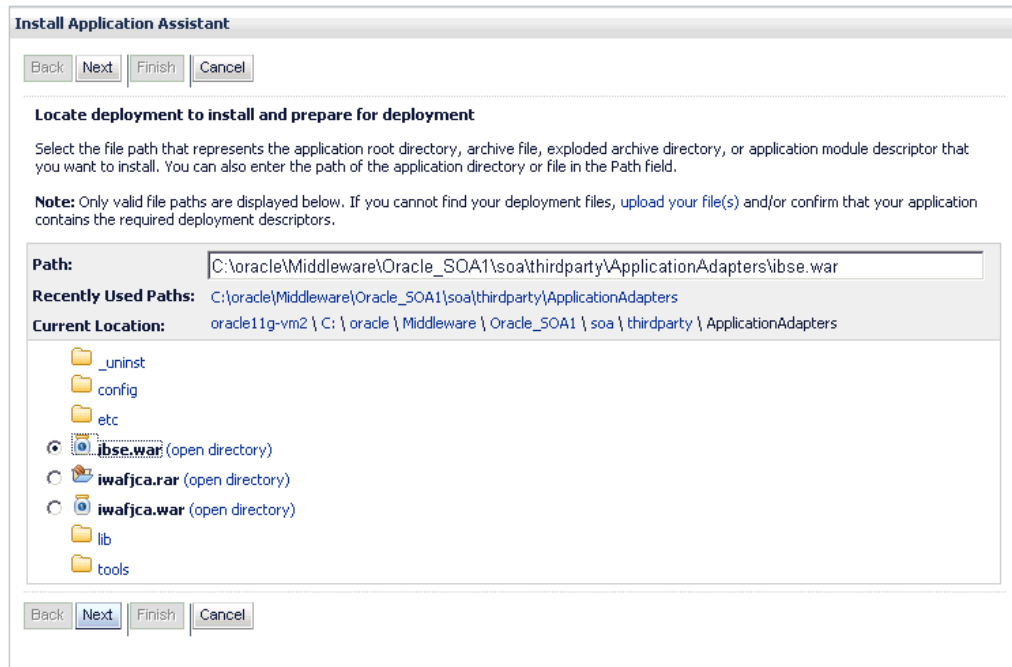
6. Browse to the following directory:

   `<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 2–45.

Figure 2–45   Choose Targeting Style Page
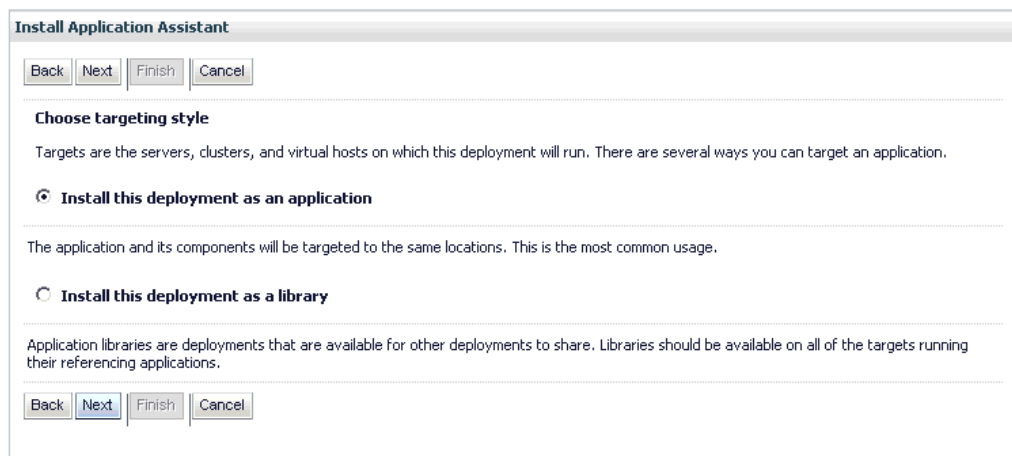
8. Leave the default **Install this deployment as an application** selected and click **Next**.

   The Deployment Target page is displayed, as shown in Figure 2–46.

Figure 2–46   Deployment Target Page

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

   The Optional Settings page is displayed, as shown in Figure 2–47.

Figure 2–47   Optional Settings Page

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

   The Summary page is displayed, as shown in Figure 2–48.

Figure 2–48   Summary Page
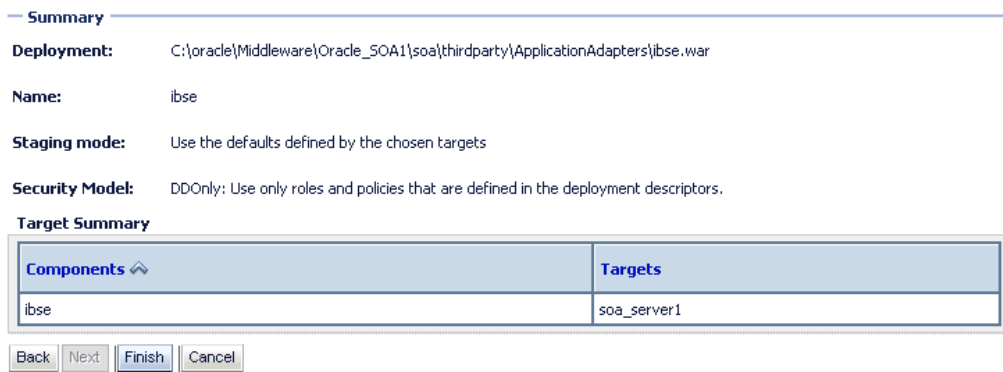
11. Click **Finish**.

The Settings page for the BSE (ibse) Application is displayed, as shown in Figure 2–49.

Figure 2–49   BSE Settings Page
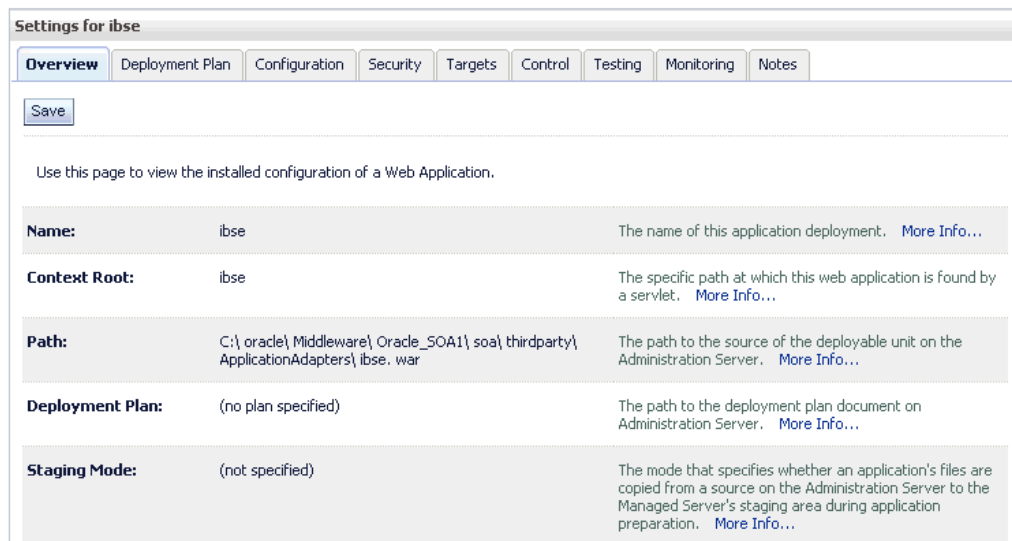
12. Click **Save**.

The "Settings updated successfully" message is displayed, which indicates a successful deployment, as shown in Figure 2–50.

Figure 2–50   Settings Updated Successfully Message
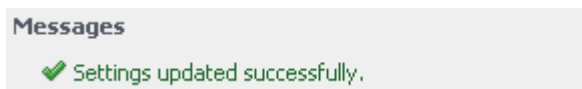
13. In the Domain Structure section in the left pane, click **Deployments**.

14. Navigate through the table that lists all the deployed applications until you find the BSE (ibse) Application, as shown in Figure 2–51.

Figure 2–51   Deployments Page

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 2–52.

Figure 2–52   Start Application Assistant

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

The BSE (ibse) Application has been deployed successfully to Oracle WebLogic Server.

2.7.3 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 2–53.

Figure 2–53   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.

2.8 Postinstallation Tasks

Perform the following postinstallation configuration tasks for packaged application adapters:

- Section 2.8.1, "List of Enterprise Information System Library Files"

- Section 2.8.2, "Copying the Enterprise Information System Library Files"

- Section 2.8.3, "Directory Structure"

- Section 2.8.4, "Configuring the 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". If you installed the Oracle WebLogic Server Application Adapter for SAP R/3 (SAP JCo 3.x), then see Appendix C, "Configuring Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x)".

> **Note:**   The directory paths mentioned in this guide follow Windows conventions. For example, back slashes (\) are used.
>
> If you are using an Oracle WebLogic Server Application Adapter on UNIX, then modify the directory paths as required.

2.8.1 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 2.1.x)

- 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

- EventProcesser_EJB.jar

- EventProcesser_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

- EventProcesser_EJB.jar

- EventProcesser_JAR.jar

- JdeNet_JAR.jar

- System_JAR.jar

- commons-httpclinet-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 2-39.

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 8.1*x*. 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 2-39.

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.

Note: 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 `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 2-39.

Oracle Fusion Middleware Application Adapter for SAP R/3 (Using SAP JCo 2.1.x)

This section lists the library files that are required by the Oracle Fusion Middleware Application Adapter for SAP R/3 (Using SAP JCo 2.1.x).

Windows:

- SAP Java Connector (SAP JCo) Version 2.1.9

    – sapjco.jar

    – sapjcorfc.dll

- librfc32.dll

For more information about the current set of SAP connectors, see:

`http://service.sap.com/connectors`

A valid SAP service ID is required to access this file. Follow the instructions provided on the SAP JCo overview page to download the current version. For more information, contact your SAP BASIS Administrator.

Using the archive tool, open the archive containing the SAP JCo and extract the run-time files. The file names can vary by operating system, but typically are contained in the root of the archive.

Linux/Solaris/OS400:

- sapjco.jar
- libsapjcorfc.so
- librfccm.so

HP-UX:

- sapjco.jar
- libsapjcorfc.sl
- librfccm.sl

AIX:

- sapjco.jar
- libsapjcorfc.so
- librfccm.o

On UNIX platforms, the directory in which the shared library files are located must be added to the shared library variable applicable to the operating system. The following is a list of platforms and associated variables:

AIX:

- `LIBPATH`

HP-UX:

- `SHLIB_PATH`

UNIX:

- `LD_LIBRARY_PATH`

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

For more information about configuring the Oracle Fusion Middleware Application Adapter for SAP R/3 using SAP JCo 3.x, see Appendix C, "Configuring Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x)".

2.8.2 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 2.1.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 2.1.x).

Windows:

Copy the `sapjco.jar` and `sapjcorfc.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 `sapjco.jar` and `sapjcorfc.dll` files to the Oracle WebLogic Server classpath

Copy the `librfc32.dll` file to the following directory:

`\WINDOWS\system32`

Linux/Solaris/OS400:

Copy the `sapjco.jar`, `libsapjcorfc.so`, and `librfccm.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 `sapjco.jar`, `libsapjcorfc.sl`, and `librfccm.sl` 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 `sapjco.jar`, `libsapjcorfc.so`, and `librfccm.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 (`sapjco.jar`, `librfccm.so`, and `libsapjcorfc.so`)
  to JDK folders such as *jdk/jre/lib/sparc/server*

  Or:

- Copy the SAP JCo files to `/usr/j2sdk`*xxxxx*`/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.

For any additional steps required, see the *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 (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.

For more information about configuring the Oracle Fusion Middleware Application Adapter for SAP R/3 using SAP JCo 3.x, see Appendix C, "Configuring Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x)".

2.8.3 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
_uninst	Contains the uninstallation files
config	Contains the *J2CA_SampleConfig* subdirectory and the XML-file-based repository for Oracle WebLogic Server Adapter J2CA
	In addition, the `config` subdirectory also contains a folder named `log`, which stores the generated log files.
etc	Contains the application, doc, jde, licenses, peoplesoft folders, mysap30 jar, and the `iwse.ora` file.
ibse.war	Contains the BSE application and repository configuration.
iwafjca.rar	Contains the J2CA application and repository configuration
iwafjca.war	Contains the J2CA Installation Verification Program (IVP).
lib	Contains library files and the iWay Adapter Framework files.
tools	Contains the graphical user interface for Application Explorer.

2.8.4 Configuring the Database Repository

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

> **Note:** iWay Software adapters have been certified with the Oracle enterprise database as the repository. The version that was certified is Oracle Database 11*g* 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
iwafjca.repo.url	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`
iwafjca.repo.user	Enter the same user ID that you specified when running the **iwse.ora** SQL script to configure the database repository.
iwafjca.repo.passwo rd	Enter the same password that you specified when running the **iwse.ora** 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 2–54.

Figure 2–54   BSE Settings Pane

2. Configure the system settings.

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

Parameter	Description
Language	Specify the required language.
Adapter Lib Directory	Enter the full path to the directory where the adapter jar files reside.
Encoding	Only UTF-8 is supported.
Debug Level	Specify the debug level from the following options: ■ None ■ Fatal ■ Error ■ Warning ■ Info ■ Debug
Number of Async. Processors	Select the number of asynchronous processors.

3. Configure the repository settings, as shown in Figure 2–55.

Figure 2–55   Repository Settings 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
Repository Type	Select the following repositories from the list: ■ Oracle ■ File (Do not use for BSE in production environments.)

Parameter	Description
Repository URL	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`
Repository Driver	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: `oracle.jdbc.driver.OracleDriver`
Repository User	Enter the same user ID that you specified when running the **iwse.ora** SQL script to configure the database repository.
Repository Password	Enter the same password that you specified when running the **iwse.ora** SQL script to configure the database repository.
Repository Pooling	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.

2.9 Uninstalling Oracle Fusion Middleware Application Adapters

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

1. Undeploy the Oracle WebLogic Server Adapter J2EE Connector Architecture (J2CA) and J2CA Installation Verification Program (IVP) using the Oracle WebLogic Server Administration Console.

2. Undeploy Oracle WebLogic Server Adapter Business Services Engine (BSE) using the Oracle WebLogic Server Administration Console.

3. Stop the Oracle WebLogic Server.

4. Navigate to the following directory:

   Oracle SOA Suite:

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

   Oracle Service Bus (OSB):

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

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

   The Application Adapters for Oracle WebLogic Server Uninstallation Welcome screen is displayed.

6. Click **Next**.

   The Summary screen is displayed, which indicates the path to the Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server.

7. Click **Next**.

   The Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server are uninstalled.

8. Click **Finish**.

9. To manually delete any files that still remain after the uninstallation process has completed, navigate to the following directory:

Oracle SOA Suite:

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

Oracle Service Bus (OSB):

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

To uninstall Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server on UNIX and Linux platforms, perform the following steps:

1. Undeploy the J2CA Connector Application and J2CA Installation Verification Program (IVP) using the Oracle WebLogic Server Administration Console.

2. Undeploy Business Services Engine (BSE) using the Oracle WebLogic Server Administration Console.

3. Stop the Oracle WebLogic Server.

4. Navigate to the following directory:

Oracle SOA Suite:

`<ORACLE_HOME>/Oracle_SOA1/soa/thirdparty/ApplicationAdapters/_uninst`

Oracle Service Bus (OSB):

`<OSB_HOME>/Oracle_OSB1/3rdparty/ApplicationAdapters/_uninst`

5. Enter the following command at the prompt to begin the uninstallation process:

`./uninstaller.bin -is:javahome <java_home>`

The Application Adapters for Oracle WebLogic Server Uninstallation Welcome screen is displayed.

6. Click **Next**.

The Summary screen is displayed, which indicates the path to the Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server.

7. Click **Next**.

The Oracle Fusion Middleware Application Adapters for Oracle WebLogic Server are uninstalled.

8. Click **Finish**.

9. To manually delete any files that still remain after the uninstallation process has completed, navigate to the following directory:

Oracle SOA Suite:

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

Oracle Service Bus (OSB):

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

A

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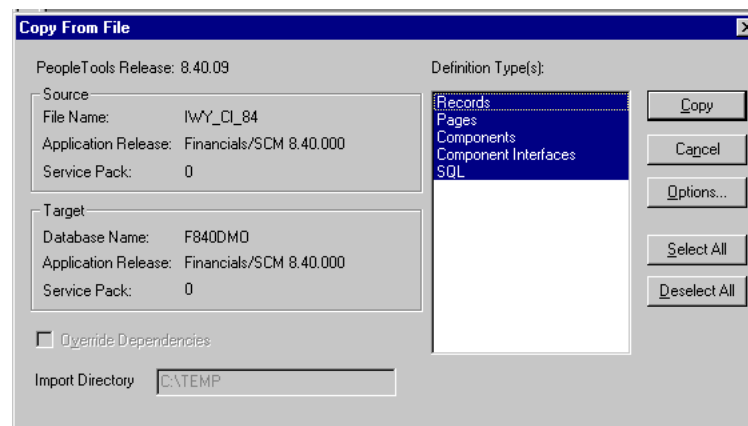
5. Click **Open** (in release 8.4) or **Copy** (in release 8.1) to open the Copy From File dialog.

   > **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

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
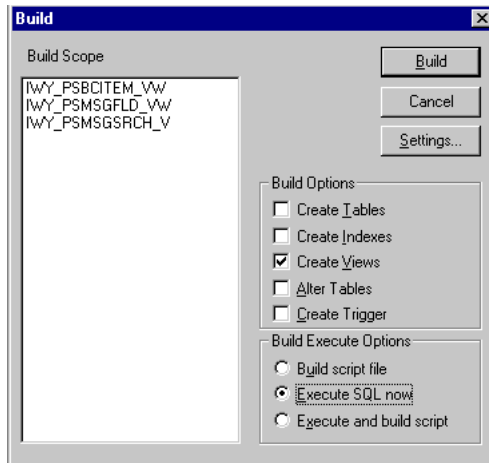
8. In the Build Options pane, select **Create Views.**

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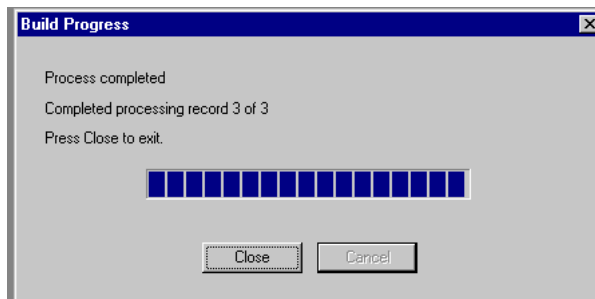
   You can use your native SQL Tool to view the records from the generated view to ensure that they have been created correctly.

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

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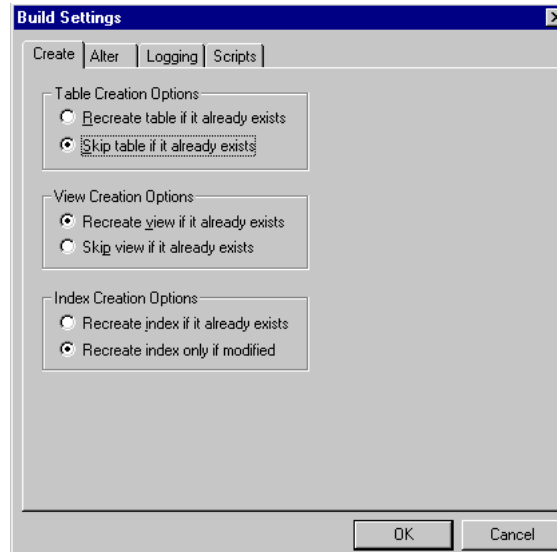
Depending on the application server database for PeopleSoft, some databases may require the Tablespace name. Consult your PeopleSoft database administrator for more information regarding this function.

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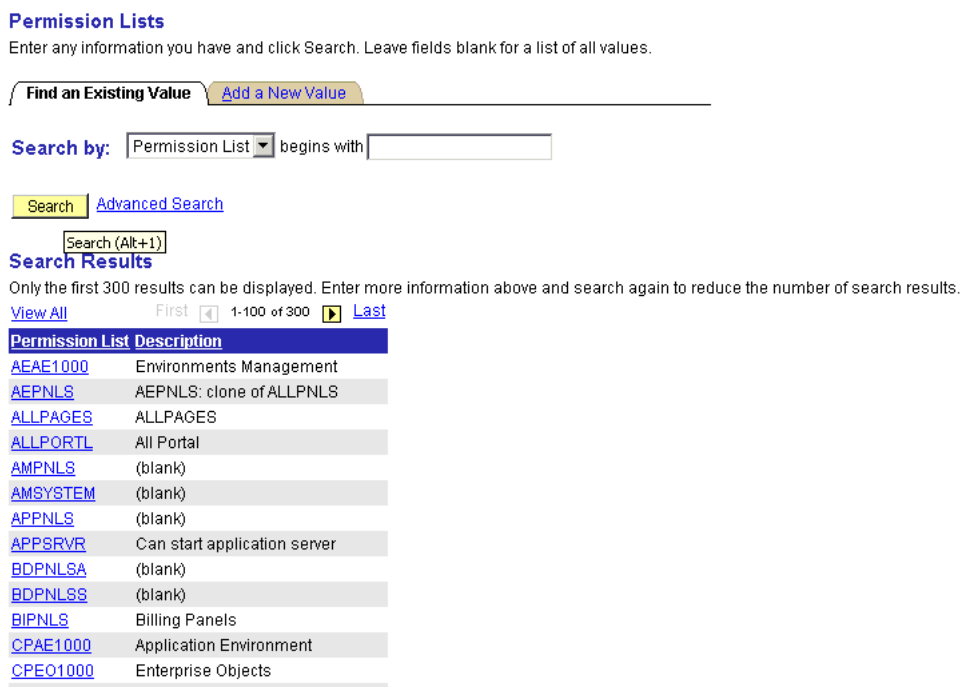
3. Click the right arrow next to the **Sign-on Times** tab to display the Component Interfaces tab, as shown in Figure A–9.

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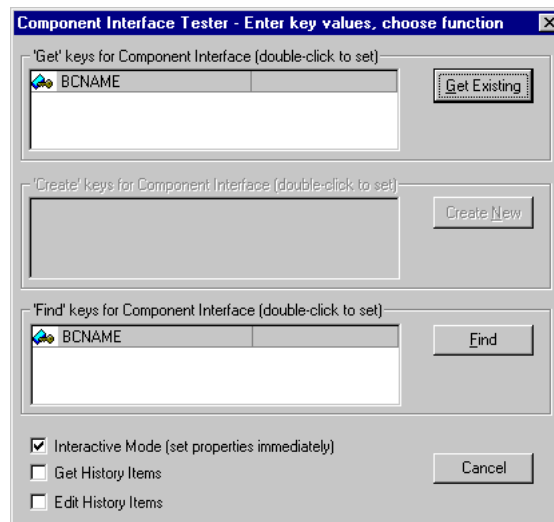
> **Note:**   The Create New option is disabled because the Add method is not applicable to this Component Interface.

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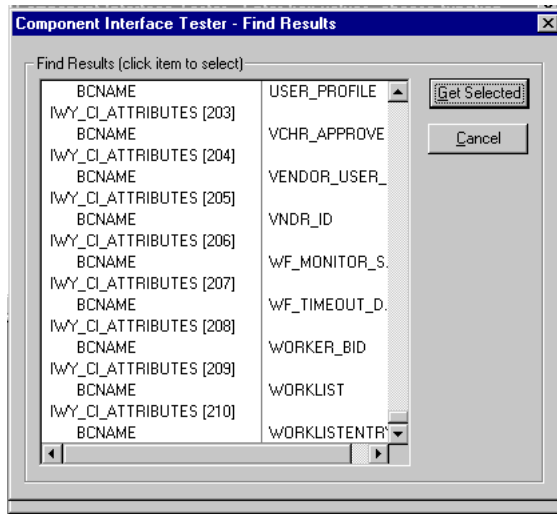
4. Highlight a line with its corresponding key in the Find Results window and click **Get Selected**. The relevant data for the selected key is displayed.

    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
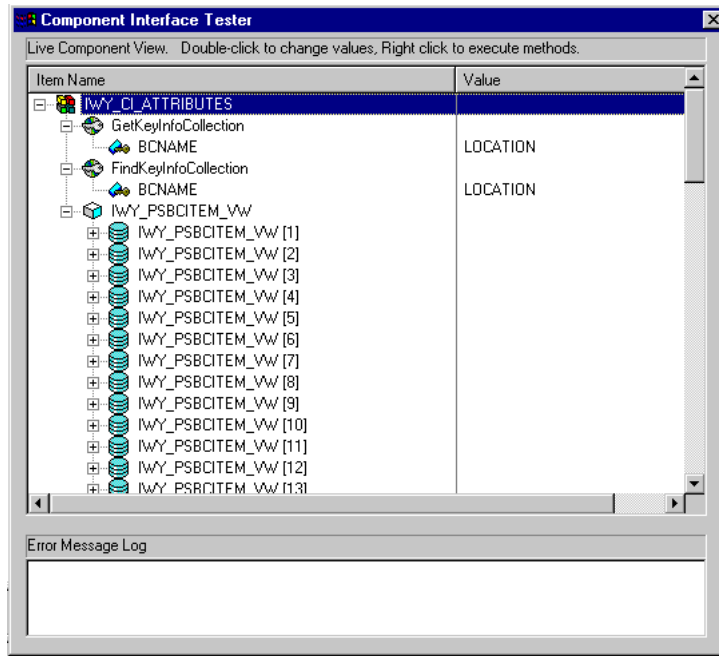
5. Click **Get Existing**. For the Get method, an existing key must be entered, as shown in Figure A–13.

Figure A–13   Component Interface Tester Dialog - Key Values
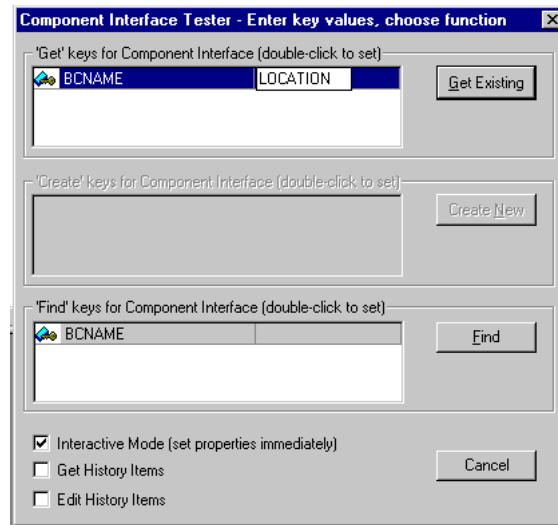
The exposed properties for the key that is entered are returned.

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
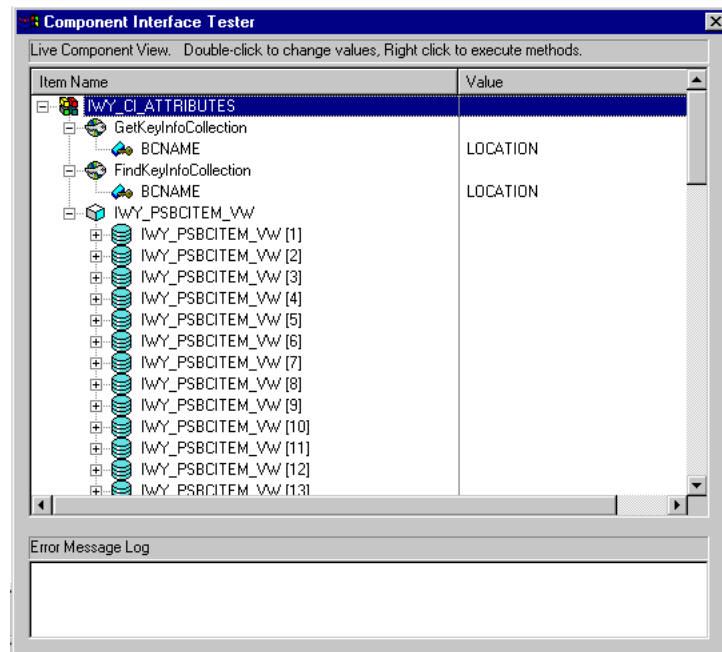
6. Repeat this process for the IWY_CI_MESSAGES Component Interface.

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\iwpsevent81.jar
```

Oracle Service Bus (OSB):

```
<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\etc\peoplesoft\iwpsevent81.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 `iwpsevent81.jar` to the platform on which the PeopleSoft gateway Web server is located.

2. Place `iwpsevent81.jar` in the servletclasses directory under the PeopleSoft Web server.

    For example:

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

3. Extract the embedded class files.

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

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

1. Log in to the UNIX system with the proper PeopleSoft ID and permissions.

2. Navigate to the PeopleSoft Web servlets directory. This may vary by release and by Web server, but is usually:

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

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

    This is a sample command:

    ```
    jar -xvf /tmp/iwpsevent81.jar
    ```
    It displays the following output on a Sun or Solaris system:

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

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

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:

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	libxmlcallojb.sl	libxmltransactions.lo
Sun or RS6000	libxmlcallojb.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 Sever, for example:

   `\\JDEdwards\E812\DDP\Outbound`

2. Copy the `iwoevent.dll` file in the new Outbound folder.

3. Create an environment variable, *IWOEVENT_HOME*, to point to the directory containing the `iwoevent.dll` file.

   - On Windows: Add *IWOEVENT_HOME* to the system environment variables.

   - On UNIX: Add the following command to your start-up script:

     `export IWOEVENT_HOME =/directory_name`

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

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

   - **Common**

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

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

     `common.trace=on|off`

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

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

     `common.http=on`

   - **Alias**

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

The alias values to these entries are as follows:

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

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

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

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

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

- **Trans**

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

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

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

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

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

```
common.trace=on

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

trans.JDESOOUT=edamcs1t,edamcs2
trans.JDEPOOUT=edamcs1
```

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

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

B.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.

C

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

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

- Section C.1, "Overview"

- Section C.2, "Scenario I"

- Section C.3, "Scenario II"

- Section C.4, "SAP Ports Requirement"

- Section C.5, "Microsoft Run Time DLLs"

C.1 Overview

The installation of Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x) on a 11*g* Release 1 (11.1.1) system depends on your existing configuration.

If you already have Oracle Fusion Middleware Application Adapter for SAP R/3 (using SAP JCo 2.1.x) installed on your system with configured BPEL and Mediator processes, then follow the steps described in "Scenario I" on page C-1.

If you have the 11*g* Release 1 (11.1.1) Oracle Fusion Middleware Application Adapters installed on your system and no configuration has been performed with the Oracle Fusion Middleware Application Adapter for SAP R/3 (using SAP JCo 2.1.x), then follow the steps described in "Scenario II" on page C-3.

C.2 Scenario I

This scenario describes how to configure Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x) if you already have the previous version of the adapter (using SAP JCo 2.1.x) installed on your system with configured BPEL and Mediator processes.

1. Start Application Explorer.

   For more information, see Chapter 2, "Installation and Configuration".

2. Delete the following components that were created with Oracle Fusion Middleware Application Adapter for SAP R/3 (using SAP JCo 2.1.x) in Application Explorer:

   - Adapter Targets

- Channels
- All Web services that were created for BSE configurations

3. Stop the Oracle WebLogic Server (Admin server) and managed Oracle WebLogic Server (SOA sever).

4. Delete the **iwmysap.jar** and SAP JCo 2.1.x library files (**sapjco.jar**, **sapjcorfc.dll**, and **librfc32.dll**) from the Adapter lib directory and Domain lib directories. For example:

   Adapter lib directory:

   Oracle SOA Suite:

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

   Oracle Service Bus (OSB):

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

   Domain lib directory:

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

5. Delete the **iwmysap.jar** file from the iwafjca.rar folder.

   Oracle SOA Suite:

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

   Oracle Service Bus (OSB):

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

6. Delete the SAP JCo 2.1.x library files from the WebLogic domain lib directory:

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

7. Copy the new **iwmysap30.jar** file from the following installation build directory:

   Oracle SOA Suite:

   `<ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\etc\mysap30`

   Oracle Service Bus (OSB):

   `<OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\etc\mysap30`

   to the following directories:

   Adapter lib directory

   Oracle SOA Suite:

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

   Oracle Service Bus (OSB):

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

   iwafjca.rar directory

   Oracle SOA Suite:

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

   Oracle Service Bus (OSB):

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

8. Copy the SAP JCo 3.0.5 library files (**sapjco3.jar** and **sapjco3.dll**) to the Adapter lib and Domain lib directories:

    Adapter lib directory

    Oracle SOA Suite:

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

    Oracle Service Bus (OSB):

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

    Domain lib directory

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

9. Redeploy **ibse.war**, **iwafjca.rar**, and **iwafjca.war** using the Oracle WebLogic Server Administration Console.

    For more information, see Chapter 2, "Installation and Configuration".

10. Start Application Explorer.

11. Create the following components using Application Explorer for Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x):

    ■   Adapter Targets

    ■   Channels

    ■   All Web services that was created using BSE configurations

    ---

    > **Note:**   The names that are specified for the new adapter targets, channels, and Web services must match those that were created for Oracle Fusion Middleware Application Adapter for SAP R/3 (using SAP JCo 2.1.x).
    >
    > This ensures that the BPEL and Mediator processes that were created with Oracle Fusion Middleware Application Adapter for SAP R/3 (using SAP JCo 2.1.x) work properly with the new Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x).

    ---

12. Start the Oracle WebLogic Server (Admin server) and managed Oracle WebLogic Server (SOA sever).

13. Execute all available BPEL and Mediator processes for BSE and J2CA configurations.

C.3 Scenario II

This scenario describes how to configure Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x) if you have the 11*g* Release 1 (11.1.1) Oracle Fusion Middleware Application Adapters installed on your system and no configuration has been performed with the Oracle Fusion Middleware Application Adapter for SAP R/3 (using SAP JCo 2.1.x).

1. Install the Oracle Fusion Middleware Application Adapters build containing Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x) on a 11*g* Release 1 (11.1.1) system.

2. Stop the Oracle WebLogic Server (Admin server) and managed Oracle WebLogic Server (SOA sever).

3. Delete the **iwmysap.jar** file from the Adapter lib directory:

   Oracle SOA Suite:

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

   Oracle Service Bus (OSB):

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

4. Delete the **iwmysap.jar** file from the iwafjca.rar folder.

   Oracle SOA Suite:

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

   Oracle Service Bus (OSB):

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

5. Copy the new **iwmysap30.jar** file from the following installation build directory:

   Oracle SOA Suite:

   <ORACLE_HOME>\Oracle_SOA1\soa\thirdparty\ApplicationAdapters\etc\mysap30

   Oracle Service Bus (OSB):

   <OSB_HOME>\Oracle_OSB1\3rdparty\ApplicationAdapters\etc\mysap30

   to the following directories:

   Adapter lib directory

   Oracle SOA Suite:

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

   Oracle Service Bus (OSB):

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

   iwafjca.rar directory

   Oracle SOA Suite:

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

   Oracle Service Bus (OSB):

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

6. Copy the SAP JCo 3.0.5 library files (**sapjco3.jar** and **sapjco3.dll**) to the Adapter lib and Domain lib directories:

   Adapter lib directory

   Oracle SOA Suite:

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

Oracle Service Bus (OSB):

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

Domain lib directory

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

7. Deploy **ibse.war**, **iwafjca.rar**, and **iwafjca.war** using the Oracle WebLogic Server Administration Console.

    For more information, see Chapter 2, "Installation and Configuration".

8. Start Application Explorer.

    For more information, see Chapter 2, "Installation and Configuration".

9. Create the following components using Application Explorer for Oracle Fusion Middleware Application Adapter for SAP R/3 (SAP JCo 3.x):

    ■   Adapter Targets

    ■   Channels

10. Start the Oracle WebLogic Server (Admin server) and managed Oracle WebLogic Server (SOA sever).

11. Execute all available BPEL and Mediator processes for BSE and J2CA configurations.

C.4 SAP Ports Requirement

If SAP GUI is not installed on your Windows system, then you must modify the **services** file and manually add the SAP ports to the bottom of this file.

The **services** file is a relational database file, where each line consists of a service name, port number, protocol name, and an alias.

On Windows platforms, the **services** file is located in the following directory:

`C:\WINDOWS\system32\drivers\etc`

On UNIX/Linux platforms, the **services** file is located in the "etc" directory of the root ("/"):

`/etc/services`

The following is an example of the **services** file with SAP ports that have been added:

```
sapdp00          3200/tcp
sapdp01          3201/tcp
sapdp02          3202/tcp
sapdp03          3203/tcp
sapdp04          3204/tcp
sapdp05          3205/tcp
sapdp06          3206/tcp
sapdp07          3207/tcp
sapdp08          3208/tcp
sapdp09          3209/tcp
sapdp10          3210/tcp
.
.
.
sapgw00          3300/tcp
```

```
         sapgw01          3301/tcp
         sapgw02          3302/tcp
         sapgw03          3303/tcp
         sapgw04          3304/tcp
         sapgw05          3305/tcp
         sapgw06          3306/tcp
         sapgw07          3307/tcp
         sapgw08          3308/tcp
         sapgw09          3309/tcp
         sapgw10          3310/tcp
         .
         .
         .
         sapdp01s         4701/tcp# SAP System Dispatcher Security Port
         sapgw01s         4801/tcp# SAP System Gateway Security Port
         sapgw00s         4800/tcp# SAP System Gateway Security Port
```

C.5 Microsoft Run Time DLLs

This section applies only for users that have Oracle installed on Windows platforms. SAP JCo 3.0.5 requires you to apply a Microsoft hotfix, which is described in the following section.

SAP Note 684106 contains the C++ run time DLLs for the SAP JCo 3.x library, which are a prerequisite for running the libraries. From the SAP Note 684106 page, download the **r3dllinstll.zip** file and save it to a directory on your system. Expand the contents of this .zip file and run either **r3dllins.exe** for a GUI install or **r3dllcon.exe** for console mode, to install the required run time libraries on your system.

SAP Note 1375494 describes the details of the Microsoft ATL libraries security patch. From the SAP Note 1375494 page, download the **ATL_patch_ms_0935_1.zip** file and save it to a directory on your system. Expand the contents of this .zip file and open the PDF that is provided.

> **Note:** The Microsoft hotfix to be applied is KB973544 in the MS09-035 security bulletin. Read the entire contents of hotfix issues KB969706 and KB973544.

1. Download Microsoft hotfix KB973544 from the following URL:

   ```
   http://www.microsoft.com/technet/security/bulletin/MS09-035.mspx
   ```

> **Note:** Select the correct ATL library version with enhanced security. Select 32- or 64-bit depending on your system. Ensure that you select the correct system type.
>
> The hotfix installer specifies the directory on your system to install the library. You can delete the downloaded package after installation is successful. If you have other programs on your system that depend on these binaries, then you may also need to install the 2008 versions of the binaries as well.
>
> If you have an older version of Windows (for example, XP or 200x server), then you may be required to update the Windows installer before installing the hotfix. The URL for Windows XP users is:
>
> ```
> http://www.microsoft.com/downloads/details.aspx?FamilyID=5a58b56f-6
> 0b6-4412-95b9-54d056d6f9f4&displaylang=en
> ```

2. Unpack and install this hotfix on your system.

3. Install SAP JCo in the Adapter lib folder. For example:

Oracle SOA Suite:

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

Oracle Service Bus (OSB):

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

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