**Oracle® Application Server**

Adapter Installation Guide

10*g* Release 3 (10.1.3.1.0)

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Oracle Application Server Adapter Installation Guide, 10g Release 3 (10.1.3.1.0)

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# Preface

This Preface contains the following topics:

- Audience
- Documentation Accessibility
- Related Documents
- Conventions

## Audience

*Oracle Application Server Adapter Installation Guide* is intended for system administrators who perform the following tasks:

- Install and configure Oracle Application Server adapters
- Use adapters with BPEL Process Manager

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# Related Documents

For more information, see the following document in the Oracle Other Product One Release 7.0 documentation set or in the Oracle Other Product Two Release 6.1 documentation set:

- *Oracle BPEL Process Manager User's Guide*
- *Oracle BPEL Process Manager Installation Guide*

# 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 Application Server adapters. It contains the following topics:

- Oracle Application Server Adapter Overview
- Oracle Application Server Adapter System Requirements

## Oracle Application Server Adapter Overview

The OracleAS Adapters CD enables you to install the following types of adapters:

- Packaged-Application Adapters
- Legacy Adapters
- Oracle Application Server Components Integration with Adapters
- Types of Installation

## Packaged-Application Adapters

Packaged-application adapters integrate Oracle Application Server with various packaged applications, such as SAP and Siebel. These adapters include OracleAS Adapter for PeopleSoft, OracleAS Adapter for SAP R3, OracleAS Adapter for mySAP ERP, OracleAS Adapter for Siebel, and OracleAS Adapter for J.D. Edwards.

> **Note:** In the current release, OracleAS Adapter for mySAP ERP adapter would be preferred over OracleAS Adapter for SAP R3, if you are installaing adapters from scratch because of it's backward compatibility

Table 1–1 describes the packaged-application adapters.

***Table 1–1 Oracle Application Server Adapters for Packaged Applications***

| Adapter | Description |
| --- | --- |
| OracleAS Adapter for J.D. Edwards | Provides comprehensive, bidirectional, and standards-based connectivity to J.D.Edwards applications |
| OracleAS Adapter for PeopleSoft | Provides unique features, such as the support for J2CA and Web Service standards, for creating an open and reusable service-oriented architecture that offers a complete connectivity solution for PeopleSoft applications |

*Table 1–1   (Cont.)  Oracle Application Server Adapters for Packaged Applications*

| Adapter | Description |
| --- | --- |
| OracleAS Adapter for SAP R3 | Exchanges real-time business data between SAP systems and other applications, databases, or external business partner systems. |
| OracleAS Adapter for Siebel | Connects Oracle Application Server to a Siebel system by providing unique features that minimize the implementation effort. |
| OracleAS Adapter for mySAP ERP | Connects Oracle Application Server to an SAP system through OracleAS Adapter for mySAP ERP (OracleAS Adapter for mySAP) to provide connectivity and carry out interactions on an SAP system. |
| | OracleAS Adapter for mySAP ERP is a part of the same installation as that of the SAP adapter. In addition, mySAP ERP adapter is backward compatible to all versions supported by the SAP adapter. |
| | **Note**: Verify the certifcation matrix and the Statement of direction (SOD) for both mySAP ERP and SAP R/3 before installing. |

## Legacy Adapters

Legacy adapters integrate Oracle Application Server with legacy and mainframe applications. These adapters include OracleAS Adapter for Tuxedo, OracleAS Adapter for CICS, OracleAS Adapter for VSAM, OracleAS Adapter for IMS/TM, and OracleAS Adapter for IMS/DB.

Table 1–2 describes legacy adapters. These adapters are deployed as J2CA resource adapters within the OC4J container during installation.

*Table 1–2    Oracle Application Server Adapters for Legacy Applications*

| Adapter | Description |
| --- | --- |
| OracleAS Adapter for Tuxedo | Models services running on the BEA Tuxedo application server. Captures and maintains a metadata schema for the Tuxedo system by importing Tuxedo metadata and transforming this metadata into mapping definitions for Oracle Connect. |
| OracleAS Adapter for CICS | Connects Oracle Application Server with CICS. This adapter supports two-phase commit and can fully participate in a distributed transaction. |
| OracleAS Adapter for VSAM | Enables access to VSAM data managed by CICS or directly. This adapter implements interactions as parameterized SQL with the parameters forming the input record, and with the output (in cases where there is an output) aggregated into an XML document forming the output record. |
| OracleAS Adapter for IMS/TM | Provides access to MPP based IMS/TM transactions. Each OracleAS Adapter for IMS/TM outbound interaction is mapped to a specific IMS/TM transaction. |
| OracleAS Adapter for IMS/DB | Captures and maintains a metadata schema for IMS/DB by importing various IMS definition files such as a PSB file, DBD files, and COBOL copybooks. |

## Oracle Application Server Components Integration with Adapters

The Oracle Application Server adapters enable you to integrate packaged, legacy, and mainframe applications with various Oracle Application Server components, such as Oracle BPEL Process Manager and Oracle Enterprise Service Bus. The Oracle Application Server adapters for technology applications and Oracle AS Adapter for Oracle Applications are packaged with the BPEL Process Manager installation.

Table 1–3 describes the Oracle Application Server components that can be integrated with adapters. Adapters are certified to work with the SOA Suite, Oracle Enterprise Service Bus, and Oracle BPEL Process Manager.

*Table 1–3    Oracle Application Server Component Integration with Adapters*

| Component | Description |
|---|---|
| Oracle Application Server Portal | Combines a declarative environment for creating a portal Web interface, publishing and managing information, accessing dynamic data, and customizing the portal experience, with an extensible framework for J2EE-based application access. Using OracleAS Portal, organizations can provide employees, partners, and suppliers with the information they need and the flexibility to create views tailored to each community. |
| Oracle Containers for J2EE (OC4J) | The J2EE server component of Oracle Application Server written entirely in Java that runs on the standard Java Development Kit (JDK) Java Virtual Machine (JVM). OC4J includes a JSP Translator, a Java servlet container, and an Enterprise JavaBeans container. |
| Oracle BPEL Process Manager | Enables organizations to model and deploy business processes based on the Business Process Execution Language for Web Services (BPEL) standard. Using Oracle BPEL Process Manager, organizations can reduce the cost and complexity of integration projects and increase their strategic value. |
| Oracle Enterprise Service Bus | An enterprise service bus moves data among multiple endpoints, both within and outside of an enterprise. It uses open standards to connect, transform, and route business documents (as Extensible Markup Language (XML) messages), among disparate applications. It enables monitoring and management of business data, with minimal impact on existing applications. An enterprise service bus is the underlying infrastructure for delivering a service-oriented architecture (SOA) and event-driven architecture (EDA). |

## Types of Installation

You can use the following two types of installation for Oracle Application Server adapters:

- Design time and Run time
- Design time

After selecting an installation type during installation, select the type of adapter you want to install. Table 1–4 describes the types of installation.

***Table 1–4    Types of Installation***

| Installation Type | Description |
|---|---|
| Design time and Run time | Installs the following design time and run time components: |
| | ■ Design time components |
| | Installs Application Explorer. |
| | **Note:** For legacy applications, the design-time components are not installed. |
| | ■ Run-time components |
| | Deploys the following runtime components automatically: |
| | – J2CA deployment for packaged applications |
| | – BSE deployment for packaged applications |
| | – J2CA legacy adapter for connecting with Oracle Connect engine running on legacy platforms |
| | **Note:** You need to install Oracle Studio on Windows and Oracle Connect on the required legacy platform. These are not components of Oracle Universal Installer, but part of the Adapters CD. |
| Design time | Installs only the Application Explorer design time component. None of the run-time components are deployed. |
| | **Note:** This installation type does not require J2EE and Web Cache or any other Middle Tier installation type. |

Packaged-application adapters can be deployed as a:

■ J2CA 1.0 resource adapter and test servlet for J2CA deployments

■ Web services servlet within the OC4J container, which is known as OracleAS Adapter Business Services Engine (BSE)

The OracleAS Adapter Application Explorer tool is also provided for configuring OracleAS adapters for packaged applications (for both J2CA and BSE deployments).

Legacy adapters can be deployed as a J2CA 1.0 resource adapter. To install Oracle Connect for legacy adapters, refer to the sections described in Table 1–5. These sections describe how to install Oracle Connect and Oracle Studio from the CD-ROM and how to configure Oracle Connect using Oracle Studio.

***Table 1–5    Installing Oracle Connect***

| Legacy Adapter | Refer to |
|---|---|
| OracleAS Adapter for Tuxedo | The Installing and Configuring OracleAS Adapter for Tuxedo chapter in  *Oracle Application Server Adapter for Tuxedo User's Guide* |
| OracleAS Adapter for CICS | The Installing and Configuring OracleAS Adapter for CICS chapter in *Oracle Application Server Adapter for CICS User's Guide* |
| OracleAS Adapter for VSAM | The Installing and Configuring OracleAS Adapter for VSAM chapter in *Oracle Application Server Adapter for VSAM User's Guide* |

*Table 1–5   (Cont.)  Installing Oracle Connect*

| Legacy Adapter | Refer to |
| --- | --- |
| OracleAS Adapter for IMS/TM | The Installing and Configuring OracleAS Adapter for IMS/TM chapter in *Oracle Application Server Adapter for IMS/TM User's Guide* |
| OracleAS Adapter for IMS/DB | The Installing and Configuring the OracleAS Adapter for IMS/DB chapter in *Oracle Application Server Adapter for IMS/DB User's Guide* |

> **See Also:**   The following documentation in the Oracle Application Server 10*g* Documentation Library for additional information:
>
> - *Oracle BPEL Process Manager User's Guide*
>
> - *Oracle BPEL Process Manager Installation Guide*
>
> - *Oracle Enterprise Service Bus Installation Guide*
>
> - *Oracle SOA Suite Developer's Guide*
>
> - *Oracle Application Server Portal User's Guide*
>
> - *Oracle Application Server Adapter for PeopleSoft User's Guide*
>
> - *Oracle Application Server Adapter for SAP User's Guide*
>
> - *Oracle Application Server Adapter for Siebel User's Guide*
>
> - *Oracle Application Server Adapter for J.D. Edwards OneWorld User's Guide*
>
> - *Oracle Application Server Adapter for Tuxedo User's Guide*
>
> - *Oracle Application Server Adapter for CICS User's Guide*
>
> - *Oracle Application Server Adapter for VSAM User's Guide*
>
> - *Oracle Application Server Adapter for IMS/TM User's Guide*
>
> - *Oracle Application Server Adapter for IMS/DB User's Guide*

# Oracle Application Server Adapter System Requirements

The following sections describe the system requirements for installing Oracle Application Server adapters:

- Hardware Requirements

- Software Requirements

## Hardware Requirements

Table 1–6 lists the hardware requirements for the computer where OracleAS Adapter will be installed.

*Table 1–6    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 |

## Software Requirements

The following sections describe the Oracle Application Server adapters software requirements:

- Operating System Requirements
- J2EE and Web Cache Requirements

### Operating System Requirements

Table 1–7 lists the operating system requirements for the computer where Oracle Application Server adapters will be installed.

*Table 1–7    Operating System Requirements*

| Operating System | Version |
|---|---|
| HP Tru64 | HP Tru64 UNIX (Alpha) 5.1b |
| HP-UX | HP-UX (PA-RISC) 11.11, 11.23 |
| IBM AIX | AIX (POWER) version 5.2 |
| Linux (x86) | Red Hat Enterprise Linux 2.1, 3.0 |
| | SuSE SLES8, SLES9 |
| | **See Also:** *Oracle Application Server Installation Guide for Microsoft Windows* for Linux x86 for information about any required operating system patches and packages and kernel parameter settings |
| Sun SPARC Solaris | Sun SPARC Solaris 8 and 9 |
| | **See Also:** *Oracle Application Server Installation Guide for Microsoft Windows* for Solaris for information about any required operating system patches and packages, swap space requirements, and kernel parameter settings |
| Microsoft Windows | Windows XP Professional, Windows 2000( SP3 or later) |
| | **See Also:** *Oracle Application Server Installation Guide for Microsoft Windows* for Windows for information on processor, TEMP directory, virtual memory, and swap space requirements |

### J2EE and Web Cache Requirements

If you want to use the Complete installation type, then the J2EE and Web Cache installation type of Oracle Application Server must first be installed. You then install the Complete installation type of Oracle Application Server adapters into the same Oracle home.

The design time installation type does not require J2EE and Web Cache or any other Middle Tier installation type.

> **Note:** To install Oracle Application Server adapters with Oracle BPEL Process Manager, you need to use the BPEL Process Manager patch 1.

# 2

# Installation and Configuration

This chapter describes how to install and configure Oracle Application Server adapters. It contains the following topics:

- Installation Tasks
- Postinstallation Tasks for Packaged-Application Adapters
- PostInstallation Tasks for Legacy Adapters
- Deinstallation Tasks

## Installation Tasks

Oracle Application Server can be installed with the following:

- Oracle Application Server SOA Suite
- Oracle BPEL Process Manager
- Oracle Enterprise Service Bus
- J2EE and Web Cache

To install Oracle Application Server adapters, perform the following steps:

1. If you have already installed Oracle BPEL Process Manager (BPEL) and Oracle Enterprise Service Bus (ESB) as part of the SOA suite, skip this step and move to Step 3.

   However, if you have installed the J2EE and Web Cache installation type of Oracle Application Server, then you must modify the `{J2EE_HOME}/config/server.xml`:

   ```
   <shared-library name="oracle.bpel.common" version="10.1.3">
         <code-source path="/temp/dummy/"/>
   </shared-library>
   ```

   If you do not modify server.xml, then you may encounter an error with the JCA-APP-Adapter not deploying during installation.

2. If you are installing on Solaris or Linux, then refer to *Oracle Application Server Installation Guide 10g for Solaris Operating System* and *Oracle Application Server Installation Guide for hp HP-UX PA-RISC , and Linux x86* for specific operating system for instructions to:

   - Set the mount point for the CD-ROM

   If you are installing on Microsoft Windows, then refer to Oracle Application Server Installation Guide for Microsoft Windows for instructions to:

- Start Oracle Universal Installer

3. Insert the OracleAS Adapter CD-ROM.

4. Navigate to the `software` directory of the OracleAS Adapter CD-ROM.

5. Start Oracle Universal Installer. The following table describes the step for starting Oracle Universal Installer.

| Platform | Step |
| --- | --- |
| Solaris or Linux | Enter the following command at the operating system prompt: `./runInstaller` |
| Windows | Click `setup.exe`. |

The Welcome screen is displayed.

6. Click **Next**. The Specify File Locations screen is displayed as shown in Figure 2–1.

*Figure 2–1    Specify File Locations*
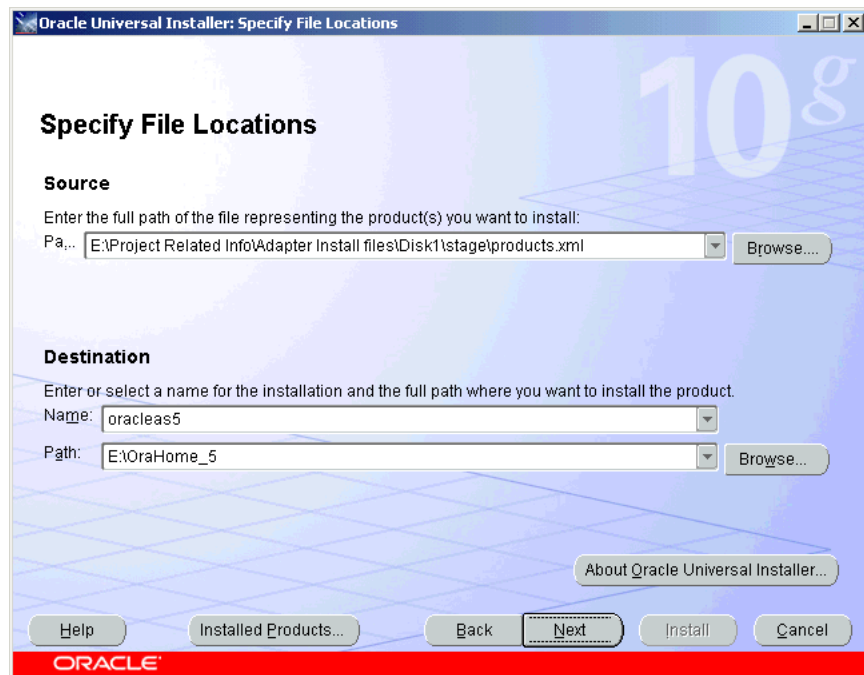


7. Enter the Oracle Home name, where you want to install OracleAS Adapter in the Destination fields. Do not change the directory path in the Source field. This is the location of the OracleAS Adapter installation files.

8. Click **Next**. The Select Installation Type screen is displayed.

9. Select one of the following types of installation type:

- Design time and Run time

- Design time

10. Click **Next**. The Available Product Components screen is displayed as shown in Figure 2–2.

*Figure 2–2   Available Products Components*



11. Select the adapters you want to install from the following list:

   ■   OracleAS Adapter for J.D. Edwards OneWorld XE 10.1.3.1.0

   ■   OracleAS Adapter for PeopleSoft 10.1.3.1.0

   ■   OracleAS Adapter for SAP R/3 10.1.3.1.0

   ■   OracleAS Adapter for Siebel 10.1.3.1.0

   ■   OracleAS Adapter for CICS 10.1.3.1.0

   ■   OracleAS Adapter for IMS/DB 10.1.3.1.0

   ■   OracleAS Adapter for IMS/TM 10.1.3.1.0

   ■   OracleAS Adapter for Tuxedo 10.1.3.1.0

   ■   OracleAS Adapter for VSAM 10.1.3.1.0

12. Click **Next**.

13. If you have selected **Design-time and Run-time** in Step 9, then the Administration Settings is displayed, as shown in Figure 2–3. Perform Steps 13a through 13b. Otherwise, the Summary screen is displayed. Go to Step 14.

*Figure 2–3   Administration Settings*
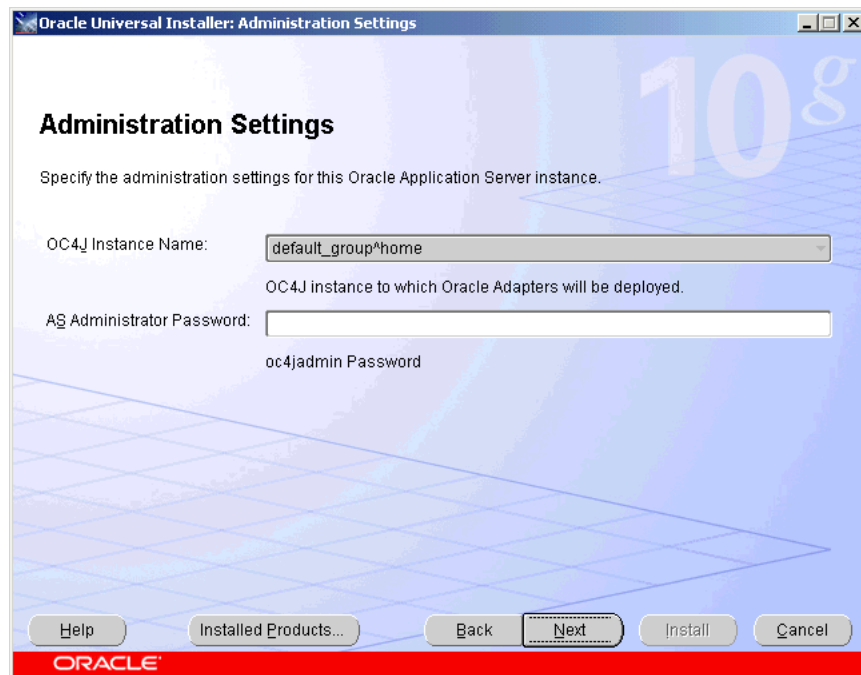


  **a.**   Type the AS Administrator password.

  **b.**   Click **Next**. The Summary screen is displayed, as shown in Figure 2–4.

*Figure 2–4   Summary Screen*
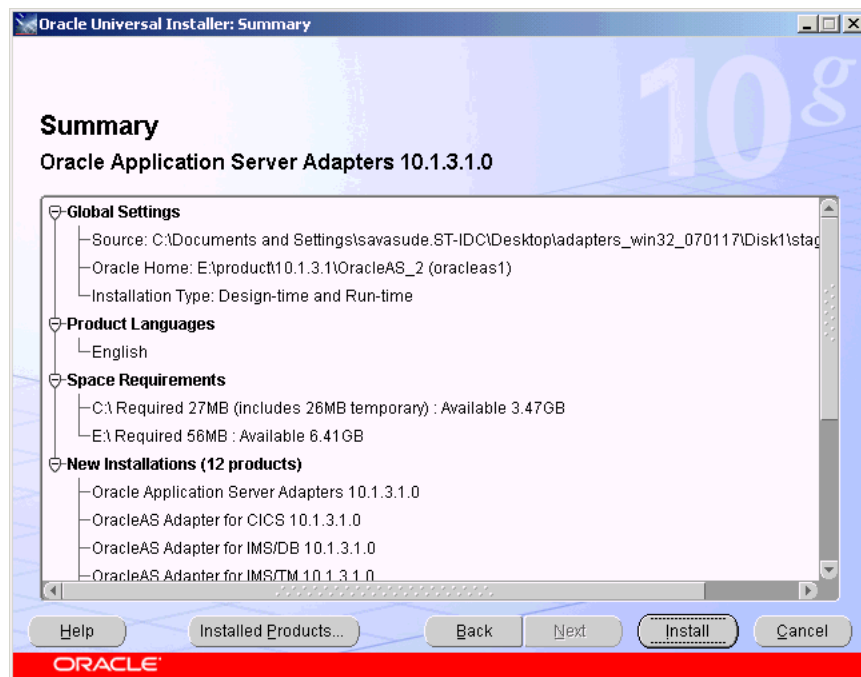


  **14.**   Review specific details on the Summary screen, including the disk requirements to ensure that you have sufficient disk space.

  **15.**   Click **Install**.

After the installation is complete, the following postinstallation configuration assistants are started to automatically configure OracleAS Adapter, as shown in Figure 2–5:

- Deploy JCA Legacy Adapters

- Deploy JCA Application Adapters

- Deploy JCA Application Adapters Test

- Deploy Web Services Application Adapters

*Figure 2–5   Configuration Assistants Screen*
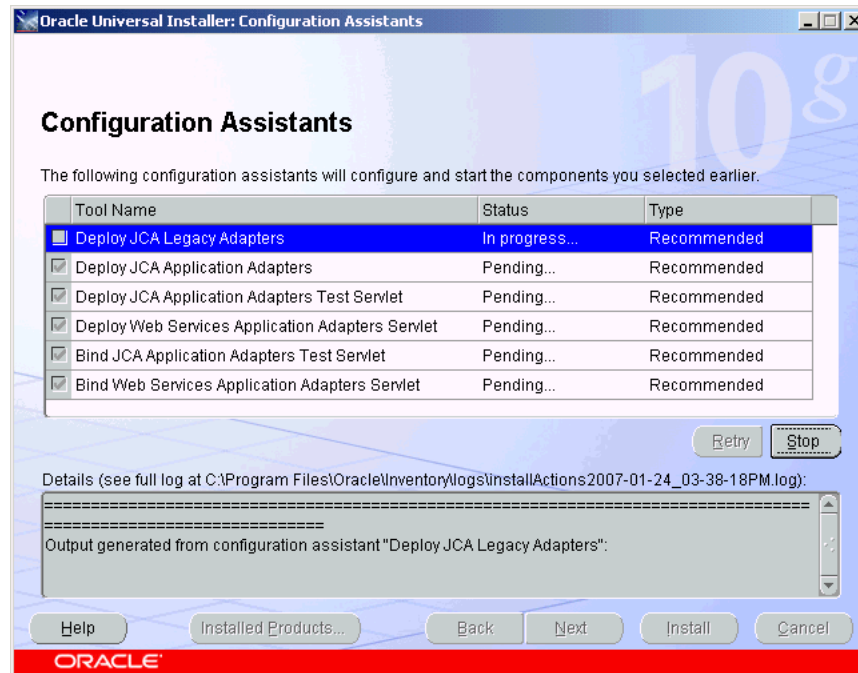


**16.** If installation and configuration are successful, then the End of Installation screen is displayed. The selected adapters are installed in the `adapters/application` directory of your Oracle home for packaged application adapters.

For details about the installation, refer to the latest `installActions`*YEAR_MM_DD_TIME*`.log` file located in the `oraInventory_location/logs` directory on UNIX or the `Program Files\Oracle\Inventory\logs` directory on Windows.

## Postinstallation Tasks for Packaged-Application Adapters

Perform the following postinstallation configuration tasks for packaged-application adapters:

- Installing Patches

- Copying the Library Files

- Verifying BSE deployment

- Configuring the J2CA deployment

- Verifying the J2CA Installation

- Directory Structure

- Starting Application Explorer

- Configuring the Database Repository for J2CA

- Modifying server.xml

- Modifying oc4j-ra.xml

---

**Note:** The directory paths mentioned in this guide follow UNIX conventions. For example, forward slashes (/) are used.

If you are using OracleAS Adapter on Windows, then modify the directory paths as required.

---

## Installing Patches

The first postinstallation step is to install the following mandatory patches available on metalink:

- **Patch 5717193** for Tuxedo adapters.

- **Patch 5895585** for Application Adapters: mySAP, Siebel, Peoplesoft and  J.D. Edwards OneWorld XE.

- **Patch 5895598** for Legacy Adapters: Tuxedo, CICS, VSAM, IMS/TM and IMS/DB.

## Copying the Library Files

Packaged-application adapters require you to copy library files to directories.

1. Copy the library files for these adapters into the *ORACLE_HOME*/adapter/application/lib directory.

| Adapter | Library Files |
|---|---|
| OracleAS Adapter for J.D. Edwards OneWorld XE | J.D. Edwards OneWorld Java-based ThinNet API<br><br>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 and include the following files:<br><br>- Kernel.jar<br>- Connector.jar<br><br>Refer to *Oracle Application Server Adapter for J.D. Edwards OneWorld User's Guide* for any additional steps required for the J.D. Edwards OneWorld XE system. |
| OracleAS Adapter for PeopleSoft | - PeopleSoft Java Object Adapter file (psjoa.jar)<br><br>  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.<br><br>  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.<br><br>- pstools.properties<br><br>  This file is required for PeopleSoft 8.1*x*. This file belongs in the *PeopleSoft_home_directory*/web/jmac directory.<br><br>Refer to *Oracle Application Server Adapter for PeopleSoft User's Guide* for any additional steps required for PeopleSoft. |

| Adapter | Library Files |
|---|---|
| OracleAS Adapter for SAP (R/3 and mySAP ERP) | The SAP Java connector (typically named `sapjco.jar`) |
| | Information on the current set of SAP connectors is available at `http://service.sap.com/connectors`. |
| | A valid SAP service ID is required to access this file. Follow the instructions provided on the SAP Java Connector (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 runtime files. The file names can vary by operating system, but typically are contained in the root of the archive. |
| | **Note: All operating systems**: You must place the `sapjco.jar` file in the *ORACLE_HOME*`\adapters\application\lib` directory. Then, you must add the `sapjco.jar` to the Oracle Application Server classpath. |
| | On Windows, `librfc32.dll` should be placed in the `%WINDIR%\system32` directory and `sapjcorfc.dll` should be placed in the same directory as `sapjco.jar` (*ORACLE_HOME*`\adapters\application\lib`). On other platforms, use the corresponding location. These library files vary by operating system. For example: |
| | `Linux/Solaris/OS400`: |
| | ■ `libsapjcorfc.so` |
| | ■ `librfccm.so` |
| | `HP-UX`: |
| | ■ `librfccm.sl` |
| | ■ `libsapjcorfc.sl` |
| | `AIX`: |
| | ■ `librfccm.so` |
| | ■ `libsapjcorfc.so` |
| | 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` |
| | Other `UNIX` Platforms |
| | ■ `LD_LIBRARY_PATH` |
| | **`Solaris`**: The following are the two supported methods for specifying the `SAP` library files: |
| | ■ Copy the `SAP JCO` files (`sapjco.jar`, `librfccm.so`, and `libsapjcorfc.so`) to *ORACLE_HOME*`/jdk/jre/lib/sparc/server` |
| | ■ Copy the `SAP JCO` files to `/usr/j2sdk1.4.2_09/jre/lib/sparcv9/server` |
| | Alternatively, you may add the path to these files to your environment variable definition using the Application Server Control console. For details on application server administration options, see Oracle Application Server Administrator's Guide. |
| | Refer to *Oracle Application Server Adapter for SAP User's Guide* for any additional steps required for SAP R/3 and mySAP ERP.. |

| Adapter | Library Files |
|---|---|
| OracleAS 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: |
| | 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: |
| | ■ `SiebelJI_enu.jar` |
| | ■ `Siebel.jar` |
| | For Siebel 7.8: |
| | ■ `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 also need to use `com.ibm.mq.jar` file. |
| | Refer to *Oracle Application Server Adapter for Siebel User's Guide* for any additional steps required for Siebel. |

## Verifying BSE deployment

To verify the OracleAS Adapter Business Services Engine installation:

1. Open the following page in your Web browser:

   ```
   http://hostname:port/ibse/IBSEServlet/
   ```

   where `hostname` is the name of the Oracle Application Server host and `port` is the HTTP port of the Oracle Application Server. For example:

   ```
   http://localhost:80/ibse/IBSEServlet
   ```

   The OracleAS Adapter Business Services Engine home page opens as shown in Figure 2–6. This page enables you to test the sample Web server installed with the OracleAS Adapter Business Services Engine.

*Figure 2–6   OracleAS Adapter Business Services Engine Home Page*
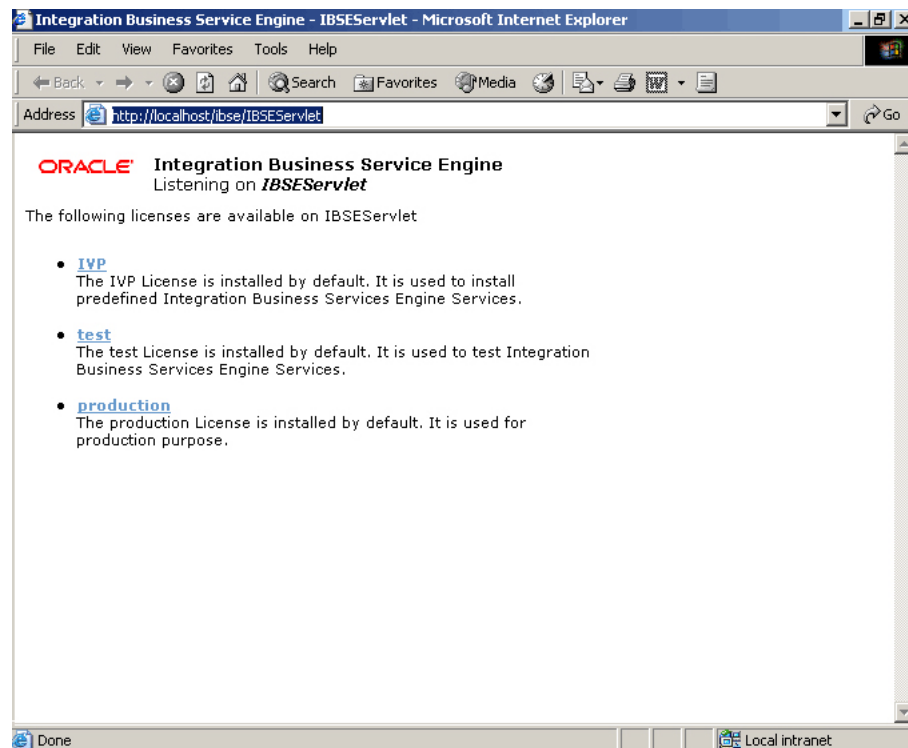


2.  Click **IVP**, **iwayivp**, **ivp**, and **Invoke**.

An XML response similar to the following is displayed in your browser:

```
<?xml version="1.0" encoding="UTF-8" ?>
- <SOAP-ENV:Envelope xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:SOAPENV="
http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
- <SOAP-ENV:Body>
- <ivpResponse xmlns="urn:oraclesoftware:ibse:jul2003:ivp:response"
cid="A0328ED84ABFA055C4F64B8039C991AA">
<CurrentTime>2004-01-05T19:15:48Z</CurrentTime>
<Version>IWAY5.5</Version>
</ivpResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

## Configuring the J2CA deployment

OracleAS Adapter JCA supports file and database repository. The default repository is a file repository. You can create the database repository by running the `iwse.ora` SQL script in the `adapters/application/etc` directory.

If you selected the Design-time and Run-time installation type, then Oracle Universal Installer automatically deploys OracleAS Adapter JCA version 1.0 and provides a default `oc4j-ra.xml` configuration file. This file contains a default `ManagedConnectionFactory` with `eis/Oracle JCAAdapter/DefaultConnection` as the JNDI name:

```
<connector-factory location="eis/OracleJCAAdapter/DefaultConnection"
connector-name="IWAFJCA10">
```

```
    <config-property name="IWayHome" value="../../adapters/application"/>
    <config-property name="IWayConfig" value="jca_sample"/>
    <config-property name="IWayRepoURL" value=""/>
    <config-property name="IWayRepoUser" value=""/>
    <config-property name="IWayRepoPassword" value=""/>
    <config-property name="logLevel" value="debug"/>
</connector-factory>
```

> **Note:** The `IWayRepoURL`, `IWayRepoUser`, and
> `IWayRepoPassword` parameters are used for a database repository
> only.

You can create a different `ManagedConnectionFactory` by editing the
`oc4j-ra.xml` configuration file. To do this:

1. Open the *ORACLE_HOME*`/j2ee/OC4J_`
   `BPEL/application-deployments/default/jca-app-adapter/oc4j-ra.`
   `xml` file.

2. Change the `iWayConfig` parameter to point to the corresponding OracleAS
   Adapter JCA version 1.0 repository project.

3. Set the JNDI location to the correct value. For example:

```
<connector-factory location="eis/OracleJCAAdapter/MyConnection"
connector-name="IWAFJCA10">
    <config-property name="IWayHome" value="../../adapters/application"/>
    <config-property name="IWayConfig" value="My_jca_config"/>
    <config-property name="IWayRepoURL" value=""/>
    <config-property name="IWayRepoUser" value=""/>
    <config-property name="IWayRepoPassword" value=""/>
    <config-property name="logLevel" value="debug"/>
    </connector-factory>
```

## Verifying the J2CA Installation

To verify the J2CA version 1.0 installation:

1. Open the *ORACLE_HOME*`/j2ee/OC4J_`
   `BPEL/applications/jca-app-adapter-test`
   `/iwafjca/WEB-INF/web.xml` file.

2. Modify the deployment descriptor `web.xml` file to point to the JNDI location of
   the `ManagedConnectionFactory` defined in Step 2 of "Configuring the J2CA
   deployment" on page 2-9.

   You can access the OracleAS Adapter JCA test servlet using the following URL:

   ```
   http://hostname:port/iwafjca
   ```

   where *hostname* is the name of the Oracle Application Server host and *port* is
   the HTTP port of the Oracle Application Server.

## Directory Structure

The packaged application adapters are installed into the `adapters/application`
subdirectory of your Oracle home directory. Table 2–1 shows the directory structure.
The `license.xml` file is also installed in the `application` directory.

*Table 2–1    Packaged Application Adapter Directory Structure*

| Subdirectory | Description |
| --- | --- |
| `bin` | Contains the `install.xml` file |
| `config` | Contains the `jca_sample` subdirectory and the XML-file-based repository for the OracleAS Adapter J2CA |
| `etc` | Contains the `ibse.ear`, `iwafjca.ear`, `iwafjca.rar`, and `iwse.ora` files |
| `lib` | Contains library files |
| `tools` | Contains the OracleAS Adapter Application Explorer graphical user interface |
| `wsdl` | Contains the WSDL files generated by the user |

The `directory\legacy` folder contains the `.rar` file for legacy adapters. In addition, the `adapters\lib` folder contains the `orabpel-adapters.jar` file.

> **Note:**   A user can create additional directories under the WSDL directory to organize the generated WSDL files.

## Starting Application Explorer

Use Application Explorer to configure the OracleAS Adapter J2CA version 1.0 and OracleAS Adapter Business Services Engine repository projects. To start Application Explorer on Windows, From the **Start** menu, select **Programs**, **OracleAS_home Adapters**, and then select **Application Explorer**.

In addition, on Windows, `iaexplorer.bat` is found under `OracleAS_home\adapters\application\tools`

Where `OracleAS_home` is the directory where Oracle Application Server is installed.

On UNIX, load the iwae.sh script, found under `OracleAS_home/adapters/application/tools`

Where `OracleAS_home` is the directory where Oracle Application Server is installed.

## Configuring the Database Repository for J2CA

1.  Execute the `iwse.ora`  SQl statement on the machine where database is installed.

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

    `Oracle_Home\adapters\application\config\jca_sample`

3.  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 exapmle:

    ` iwafjca.repo.url=jdbc:oracle:thin:@90.0.0.51:1521:orcl`

    `iwafjca.repo.user=scott`

    `iwafjca.repo.password=scott1`

4.  Open the `oc4j-ra.xml` file in a text editor.

5.  Provide the JDBC connection information as a value for the `IWAYRepo_URL` property.

6. Provide a valid user name for the `IWAYRepo_User` property.

7. Provide a valid password for the `IWAYRepo_Password` property.

8. Save your changes to the `oc4j-ra.xml` file.

9. Alter the JDBC driver path in Application Explorer. Change the path shown in example1 to the path listed in example2:

   **Example1:**

   ```
   lcp=..\lib\orabpel-adapters.jar;C:\jdev\jdbc\lib\classes12.jar;C:\jdev\jdbc\lib
   \nls_charset12.jar;%lcp%
   ```

   **Example2:**

   ```
   lcp=..\lib\orabpel-adapters.jar;..\..\..\jdbc\lib\ojdbc14.jar;..\..\..\jdbc\l
   ib\nls_charset12.jar;%lcp%
   ```

## Modifying server.xml

You must edit $*ORACLE_HOME*/j2ee/(container)/config/server.xml, where the container could be either home or `oc4j_soa` based on your installation. Typically, SOA Basic installation uses the home container while the SOA advanced installation uses the `oc4j_soa` container.

Perform the following steps to modify `server.xml`:

1. Create an entry for `jca.app.adapter.libraries` in `server.xml`. The required jar files should be added to this new library section. Typically these jar files are EIS library files delivered by respective EIS vendors.

   The following is a sample entry into `server.xml` for `jca.app.adapter.libraries`:

   ```
   <shared-library name="jca.app.adapter.libraries" version="1.0"
   library-compatible="true">
   <code-source path="C:\soadp1\adapters\application\lib\psjoa.jar"/>
   <code-source path="C:\soadp1\adapters\application\lib\psGenCompF840Mi14.jar"/>
   <code-source path="C:\soadp1\adapters\application\lib\sapjco.jar"/>
   </shared-library>
   ```

   > **Note:** In the preceding example substitute your oracle home in the path. Only jar files should be added in the preceding example. Additionally, `*.so` or `*.dll` files should be mentioned in `PATH`.

2. You should import `jca.app.adapter.library` in the `oracle.bpel.common` section in the shared library of `server.xml`, as shown in the following example:

   ```
   <import-shared-library name="jca.app.adapter.libraries"/>
   ```

## Modifying oc4j-ra.xml

The following are the steps to modify `oc4j-ra.xml`:

1. Add the following code to the `imported-shared-libraries` section of `oc4j-ra.xml`:

   ```
   <import-shared-library name="jca.app.adapter.libraries"/>
   ```

2. Make changes in the two `oc4j-ra.xml` files, as mentioned in the following example:

   1. **Example1:**

      ```
      <<j2ee-home>>\application-deployments\default\jca-app-adapter\
      oc4jra.xml
      ```

   2. **Example2:**

      ```
      <<j2ee-home>>\connectors\jca-app-adapter\jca-app-adapter\META-INF\
      oc4j-ra.xml
      ```

   > **Note:**   If you re-deploy JCA-App-Adapter, then the changes mentioned in the preceding examples will be deleted.

# PostInstallation Tasks for Legacy Adapters

This section describes the following postinstallation tasks for legacy adapters:

- Configuring Run-Time Connections
- Configuring Design-Time Connections

## Configuring Run-Time Connections

Perform the following steps to configure run-time connections:

1. Edit the `oc4j-ra.xml` file present at the following location:

   *ORACLE_HOME*\j2ee\OC4J_
   BPEL\application-deployments\default\jca-legacy-adapter

2. Set the following settings for each connection:

   ```
   <oc4j-connector-factories>
     <connector-factory location=" " connector-name="Oracle Legacy Adapter">
       <config-property name="userName" value=" "/>
       <config-property name="password" value=" "/>
       <config-property name="eisName" value=" "/>
       <config-property name="serverName" value=" "/>
       <config-property name="workspace" value=" "/>
       <config-property name="portNumber" value=" "/>
       <config-property name="persistentConnection" value=" "/>
       <config-property name="keepAlive" value=" "/>
       <config-property name="firewallProtocol" value=""/>
       <config-property name="connectTimeout" value=""/>
       <config-property name="encryptionProtocol" value=""/>
       <config-property name="encryptionKeyName" value=""/>
       <config-property name="encryptionKeyValue" value=""/>
       <config-property name="fakeXa" value="false"/>
       <config-property name="useNamespace" value="true"/>
     </connector-factory>
   </oc4j-connector-factories>
   ```

   The following table lists the properties that must be specified:

| Property | Description |
|---|---|
| location | Specifies the JNDI location where Oracle Application Server should bind the connection factory instance for application components. It is mandatory that you specify the location as `eis/legacy/eisName`. |
| | This convention is used by the design-time WSIL browser when it generates the legacy adapter service WSDLs containing the jndi location (specifically for the `adapterInstanceJndi` attribute on the *jca:address* element); this is the same jndi location that the runtime uses to acquire a connection. For example, if the `eisName` is DEMOEvent, then the location should be specified as `eis/legacy/DEMOEvent`. |
| | In this example, the given `eisName` is DEMOEvent, therefore the WSIL design time sets `adapterInstanceJndi=eis/legacy/DEMOEvent` in the WSDL, and the runtime automatically will use `eis/legacy/DEMOEvent` jndi location to acquire a run-time connection. Therefore, you need to set this same value for the location attribute, otherwise, the run-time resolution is going to fail and error out. |
| eisName | Sets the name of the adapter to use. |
| serverName | Sets the TCP/IP address or host name where the Oracle Connect daemon is running. |
| workspace | Specifies the name of an Oracle Connect server workspace to use. The default workspace is Navigator. |
| portNumber | Specifies the TCP/IP port where the Oracle Connect daemon is running on the server. The default port is 2552. |
| fakeXa | Values can be set to true or false. When set to true, The XA APIs are converted internally to local transaction APIs. |
| useNamespace | Values can be set to true or false. When set to true, XSD metadata are provided with namespace and payload nodes are built using this namespace. |
| | **Note**: It is recommended that you set this property to true. |

The following table lists the optional properties:

| Property | Description |
|---|---|
| userName | Specifies a user who can access the Oracle Connect server. The user is defined in the Oracle Connect daemon configuration. |
| password | Specifies a valid password for the user. |
| persistentConnection | Set to true or false. When set to true, connections can persist across multiple requests or connection context changes. It is recommended to set this property to true. |
| keepAlive | Set to true or false. When set to true, the socket used for the connection is always kept open. It is recommended to set this property to true. |
| firewallProtocol | Specifies the firewall protocol used: either none or fixedNat (the Nat protocol using a fixed address for the daemon). The default is none. |
| connectTimeout | Specifies the connection timeout in seconds. The default is 0, meaning that there is no connection timeout |

| Property | Description |
| --- | --- |
| encryptionProtocol | Specifies the name of encryption protocol to use. The default is null. The RC4 protocol is supported. |
| encryptionKeyName | Specifies the name of the symmetric encryption key to use. |
| encryptionKeyValue | Specifies the value of the symmetric encryption key to use. |

## Configuring Design-Time Connections

If you need to browse legacy interactions using WSIL browser in JDeveloper, then update the collaxa-config.xml file. This enables the BPEL Process Manager to communicate with the legacy server. The collaxa-config.xml file is available at the following location:

*$Oracle_Home*/integration/orabpel/system/config

Perform the following steps to configure design-time connections:

1. From the Start menu, select **Programs**, **Oracle BPEL PM**, and then select **Developer Prompt**.

2. Type **encrypt <passwd>**.

3. In the collaxa-config.xml file, update the parameters listed in the following table:

| Parameter | Description |
| --- | --- |
| LegacyServer | Specifies the legacy server(s) where attunity connect is running |
| LegacyPort | Specifies the port(s) where attunity connect is listening |
| LegacyUser | Specifies the user ID(s) that can access mainframe system |
| LegacyUserCredential | Specifies the encrypted password(s) for the user |

*Example 2–1   Updating the collaxa-config.xml File*

In the following example, the collaxa-config.xml file is updated with the required parameters.

```
 <property id="LegacyServer">
       <name>Legacy server(s) where Oracle Connect is installed</name>
       <value>mvs08</value>
       <comment>
       <![CDATA[Server IP where Oracle Connect has been installed.
       <p/>
       The default fault is value <i>localhost</i>.]]>
       </comment>
    </property>

<property id="LegacyPort">
       <name>Legacy server port(s) where Oracle Connect is running</name>
       <value>2554</value>
     <comment>
     <![CDATA[Server port where Oracle Connect has been installed.
     <p/>
     The default is <i>2551</i>.]]>
```

```
            </comment>
    </property>

    <property id="LegacyUser">
          <name>Legacy server user(s) where Oracle Connect is running</name>
          <value>null</value>
          <comment>
          <![CDATA[Server user who has access to Oracle Connect.
          <p/>
          The default is <i>Null</i>.]]>
          </comment>
    </property>

    <property id="LegacyUserCredential">
           <name>Legacy server user credential(s) where Oracle Connect is
running</name>
          <value>null</value>
          <comment>
          <![CDATA[Credential for server user that has access to Oracle Connect.
          <p/>
          The default is <i>Null</i>.]]>
          </comment>
     </property>
```

> **Note:** if you have an anonymous access setup in Oracle Studio, then
> you need to specify `null` for both `LegacyUser` and
> `LegacyUserCredential`property.

### Example 2–2   Specifying Multiple Connections

To add more instances of legacy systems, provide comma separated values for each
computer as shown in the following example:

```
 <property id="LegacyServer">
          <name>Legacy server(s) where Oracle Connect is installed</name>
          <value>mvs08,mvs09</value>
          <comment>
          <![CDATA[Server IP where Oracle Connect has been installed.
          <p/>
          The default is <i>localhost</i>.]]>
          </comment>
 </property>

 <property id="LegacyPort">
          <name>Legacy server port(s) where Oracle Connect is running</name>
          <value>2554,2555</value>
          <comment>
          <![CDATA[Server port where Oracle Connect has been installed.
          <p/>
          The default is <i>2551</i>.]]>
          </comment>
   </property>

 <property id="LegacyUser">
          <name>Legacy server user(s) where Oracle Connect is running</name>
          <value>null,xyz</value>
          <comment>
          <![CDATA[Server user who has access to Oracle Connect.
```

```
        <p/>
        The default is <i>Null</i>.]]>
        </comment>
 </property>

 <property id="LegacyUserCredential">
        <name>Legacy server user credential(s) where Oracle Connect is
running</name>
        <value>null,AVCGS80JK9J08M9MLYJM90U</value>
        <comment>
        <![CDATA[Credential for server user that has access to Oracle Connect.
        <p/>
        The default is <i>Null</i>.]]>
        </comment>
 </property>
```

## Deinstallation Tasks

To deinstall Oracle Application Server adapters:

1.  Cleanup any previous 10.1.3.1 Adapter installations by running the following commands:

    **On Unix:**

    ```
    cd $ORACLE_HOME/j2ee/home

    $ORACLE_HOME/jdk/bin/java -jar admin_client.jar
    deployer:oc4j:opmn://localhost:6003/home oc4jadmin welcome1 -undeploy
    jca-legacy-adapter -isConnector

    $ORACLE_HOME/jdk/bin/java -jar admin_client.jar
    deployer:oc4j:opmn://localhost:6003/home oc4jadmin welcome1 -undeploy
    jca-app-adapter -isConnector

    $ORACLE_HOME/jdk/bin/java -jar admin_client.jar
    deployer:oc4j:opmn://localhost:6003/home oc4jadmin welcome1 -undeploy
    jca-app-adapter-test

    $ORACLE_HOME/jdk/bin/java -jar admin_client.jar
    deployer:oc4j:opmn://localhost:6003/home oc4jadmin welcome1 -undeploy
    ws-app-adapter
    ```

    **On Windows:**

    ```
    cd %ORACLE_HOME%/j2ee/home

    %ORACLE_HOME%/jdk/bin/java -jar admin_client.jar
    deployer:oc4j:opmn://localhost:6003/home oc4jadmin welcome1 -undeploy
    jca-legacy-adapter -isConnector

    %ORACLE_HOME%/jdk/bin/java -jar admin_client.jar
    deployer:oc4j:opmn://localhost:6003/home oc4jadmin welcome1 -undeploy
    jca-app-adapter -isConnector

    %ORACLE_HOME%/jdk/bin/java -jar admin_client.jar
    deployer:oc4j:opmn://localhost:6003/home oc4jadmin welcome1 -undeploy
    jca-app-adapter-test

    %ORACLE_HOME%/jdk/bin/java -jar admin_client.jar
    ```

```
deployer:oc4j:opmn://localhost:6003/home oc4jadmin welcome1 -undeploy
ws-app-adapter
```

> **Note:** Ensure that the ORACLE_HOME environment variable is set to the location of your SOA installation.
>
> In each of the commands specified in the preceding examples, ensure that the hostname and OPMN request port number are specified correctly. This example uses, localhost and 6004 respectively.
>
> Ignore any error message you get indicating that a certain application/resource adapter is not present.

2. Start Oracle Universal Installer, which is installed on your host.

3. Click **Deinstall Products**.

4. Expand the Oracle home directory that contains the products that you want to deinstall.

5. Select the specific OracleAS Adapter that you want to deinstall.

6. Click **Remove**.

7. Click **Yes** when prompted. The selected products are deinstalled.

8. Click **Close**.

> **Note:** The legacy J2CA resource adapter must be undeployed only if you choose to undeploy the entire set of legacy adapters.

# Globalization Support

The Oracle Application Server adapters for packaged applications and legacy applications support a wide variety of encoding and can accept non-ASCII data during runtime. In addition, Application Explorer supports localization, while Oracle Studio does not support localization.

> **Note:** Application Explorer supports ADA compliance, while Oracle Studio does not support ADA compliance.

# A

# Configuring OracleAS Adapter for PeopleSoft

This appendix describes how to configure OracleAS Adapter for PeopleSoft. To configure:

- Specify the version of PeopleSoft you are using.

- Install the Component Interfaces of the adapter.

- Install the TCP/IP message router adapter.

- Copy the `psjoa.jar` file (and, for PeopleSoft release 8.1, the `pstools.properties` file) into the *OracleAS_home*`\adapters\application\lib` directory.

This appendix contains the following topics:

- Specifying the PeopleSoft Version

- Installing the Adapter Component Interfaces

## Specifying the PeopleSoft Version

OracleAS 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, files for both PeopleSoft versions appear in the default location, *OracleAS_home*`\adapters\application\lib`.

Use the corresponding location on non-Windows systems.

To ensure that the adapter functions properly, remove the file that does not correspond to your release:

- For PeopleSoft 8.4x releases, remove `iwpsci81.jar`.

- For PeopleSoft 8.1x releases, remove `iwpsci84.jar`.

After changing the contents of the lib directory, restart all components.

## Installing the Adapter Component Interfaces

OracleAS Adapter for PeopleSoft includes two custom Component Interfaces. Application Explorer uses these Component Interfaces to create schemas for events and services.

To configure Component Interfaces for OracleAS Adapter for PeopleSoft, you must:

1. Import and build the Component Interfaces.

2. Configure Component Interface security.

3. Test the Component Interfaces.

## Importing and Building the Component Interfaces

The Component Interfaces provided with OracleAS 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 *OracleAS_home*`\adapters\application\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 box 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 box opens.

4. Navigate to the original directory in which you unzipped the file.
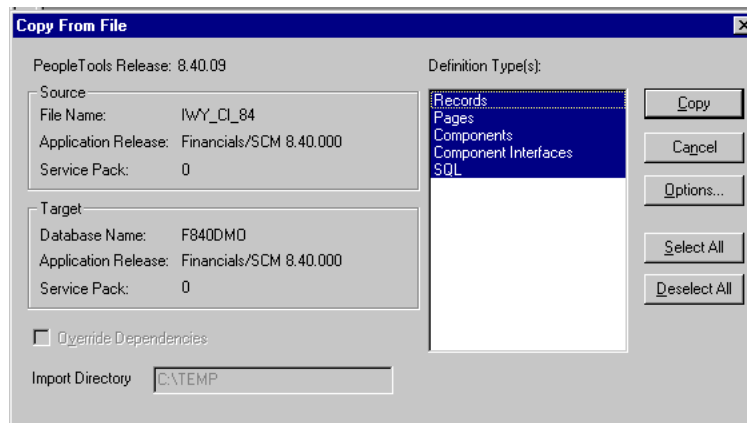


5. Click **Open** (in release 8.4) or **Copy** (in release 8.1) to open the Copy From File dialog box.

> **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 the following message, which indicates successful completion.

   ```
   Components Application Upgrade Copy ended:  2002-10-21-13.01.38 (62,21)
   Component Interfaces Application Upgrade Copy started:  2002-10-21-13.01.38 (62,6)
   Component Interfaces Application Upgrade Copy ended:  2002-10-21-13.01.39 (62,21)
   SQL Application Upgrade Copy started:  2002-10-21-13.01.39 (62,6)
   SQL Application Upgrade Copy ended:  2002-10-21-13.01.40 (62,21)
   ```

   ◄ | ► \ Build ʌ **Upgrade** ʌ Results ʌ Validate /

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

   The Build dialog box is displayed.
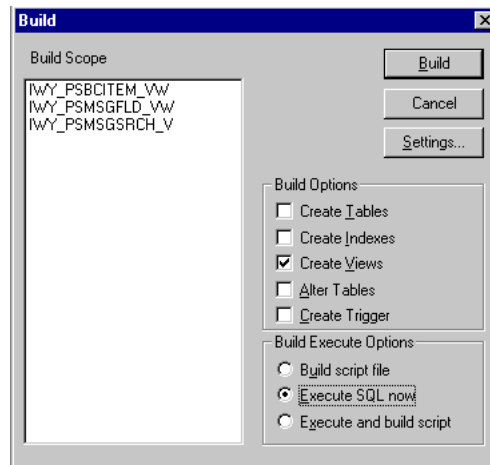
   

8. In the Build Options pane, select **Create Views.**

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.
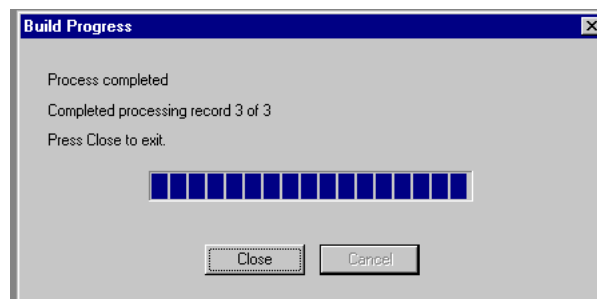
    

    You can use your native SQL Tool to view the records from the generated view to ensure that they have been created correctly.

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

The PSBUILD log file appears.



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

The Build Settings dialog box is displayed.
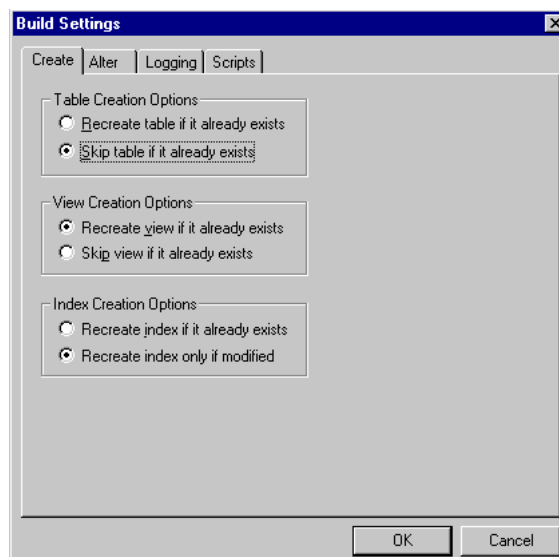


Depending on the application server database for PeopleSoft, some databases may require the Tablespace name. Consult your PeopleSoft database administrator for more information regarding this function.

You have now finished importing and building the Component Interfaces. To configure security for Component Interfaces, refer to "Configuring Component Interface Security" on page A-4.

## Configuring Component Interface Security

Application Explorer requires the custom Component Interfaces that you imported and built in the previous step, so you need to 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 runtime 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 figures shown in the steps reflect PeopleSoft release 8.4 in 4-tier mode.



1. Select PeopleTools, Security, User Profiles, Permissions & Roles, and then Permission Lists.

2. Click **Search** and select the relevant Permission List.

   The Permission List pane opens on the right.



3. Click the right arrow next to the **Sign-on Times** tab to display the Component Interfaces tab.

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 OracleAS Adapter for PeopleSoft. To test these Component Interfaces, refer to "Testing the Component Interfaces" on page A-6.

### Testing the Component Interfaces

You must test each of the OracleAS 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 box is displayed.



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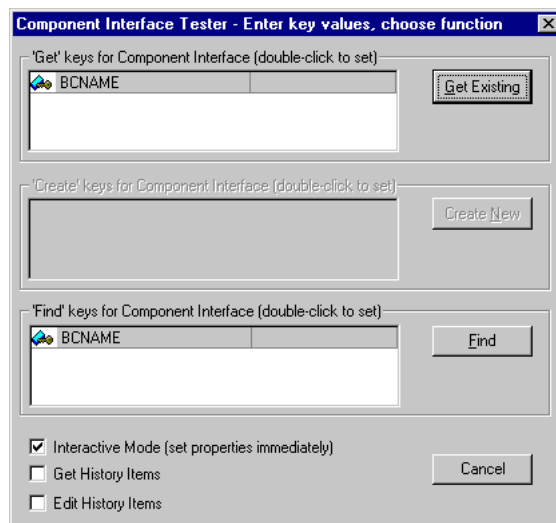
> **Note:** The Create New option is disabled because the Add method is not applicable to this Component Interface.

---

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

   A message may appear stating that display is limited to a certain number of entries. This is not a problem.
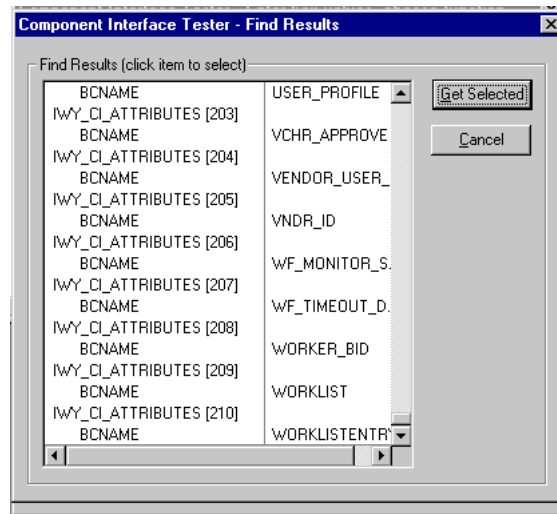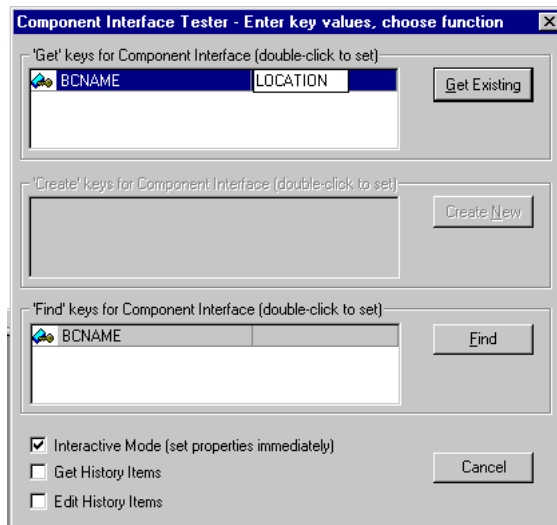
4. Highlight one of the lines with its corresponding key in the Find Results window and click **Get Selected**. The relevant data for the selected key is displayed.

   If this window opens, the Component Interface has been successfully tested for the Find method.
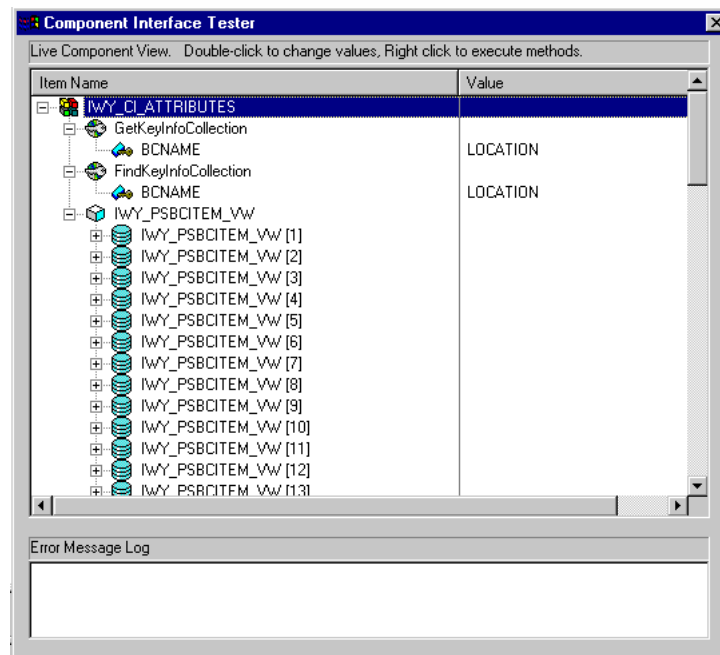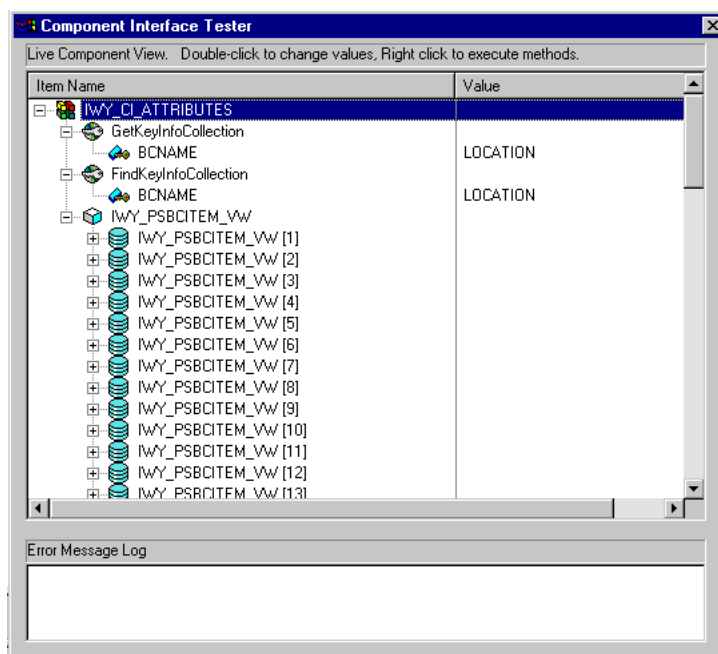


5. Click **Get Existing**. For the Get method, an existing key must be entered.

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

If the following window opens, the the Component Interface has been successfully tested for the `Get` method.



**6.** Repeat this process for the IWY_CI_MESSAGES Component Interface.

You have finished testing the Component Interfaces.

## Installing the TCP/IP Message Router for OracleAS Adapter for PeopleSoft

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

- For Release 8.4, install the TCP/IP target connector. For more information, refer to "Installing the TCP/IP Target Connector for PeopleSoft Release 8.4" on page A-9.

■ For Release 8.1, install the TCP/IP handler. For more information, refer to "Installing the TCP/IP Handler for PeopleSoft Release 8.1" on page A-9.

---

> **Note:** If you are not using PeopleSoft messages for event handling, you may skip this topic.

---

### Installing the TCP/IP Target Connector for PeopleSoft Release 8.4

The TCP/IP target connector for PeopleSoft release 8.4 is installed with OracleAS Adapter for PeopleSoft. The default location on Microsoft Windows is *OracleAS_home*\adapters\application\etc\peoplesoft\iwpsevent84.jar.

Use the corresponding location on non-Windows systems.

To install the TCP/IP 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.

### Installing the TCP/IP Handler for PeopleSoft Release 8.1

The TCP/IP target connector for PeopleSoft release 8.1 is installed with OracleAS Adapter for PeopleSoft. The default location on Microsoft Windows is *OracleAS_home*\adapters\application\etc\peoplesoft\iwpsevent81.jar

Use the corresponding location on non-Windows systems. If this location does not exist, contact your distributor for copies of the relevant files.

To install the TCP/IP 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.

3. Extract the embedded class files.

### Installing the TCP/IP Handler on a UNIX System

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

1. Log on 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`.

## Copying PeopleSoft Files into the Lib Directory

Application Explorer creates XSD schemas and business services from PeopleSoft
Component Interfaces, and creates XSD schemas from PeopleSoft messages. To do this,
the following files must be in the *OracleAS_home*\adapters\application\lib
directory.:

Ensure the following is in the lib directory:

■  PeopleSoft Java Object Adapter (`psjoa.jar`)

This file provides a low level interface between client applications and PeopleSoft.
This file is provided with PeopleSoft and can be found in the following directory:

*PS_HOME*\web\PSJOA

The `psjoa.jar` file is different for every version of PeopleSoft. When you
upgrade your Peopletools release, be sure to copy the new release's `psjoa.jar`
file into the *OracleAS_home*\adapters\application\lib directory and
restart all components.

■  `pstools.properties` (for PeopleSoft 8.1.x)

PeopleSoft release 8.1x requires an additional file, `pstools.properties`, found
in the following directory:

*PS_HOME*\web\jmac

■  `psoftcrmci.jar`

This is a set of Java classes generated from PeopleSoft Component Interfaces.

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