Oracle® Retail Advanced Inventory Planning

Installation Guide

Release 14.0.1

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ORACLE®

Oracle Retail Advanced Inventory Planning Installation Guide, Release 14.0.1

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Preface

This *Oracle Retail Advanced Inventory Planning Installation Guide* describes the requirements and procedures to install this Oracle Retail Advanced Inventory Planning release.

Audience

This Installation Guide is for the following audiences:

- Database administrators (DBA)
- System analysts and designers
- Integrators and implementation staff

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Related Documents

For more information, see the following documents in the Oracle Retail Advanced Inventory Planning Release 14.0.1 documentation set:

- *Oracle Retail Advanced Inventory Planning Implementation Guide*
- *Oracle Retail Advanced Inventory Planning Release Notes*

The following documentation may also be needed when implementing AIP:

- Oracle Retail Planning Batch Script Architecture (BSA) Implementation Guide
- Oracle Retail Integration Bus (RIB) documentation, based on type of deployment
- Oracle Retail Extract Transform and Load (RETL) documentation
- Oracle Retail Predictive Application Server (RPAS) documentation

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- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Review Patch Documentation

When you install the application for the first time, you install either a base release (for example, 14.0) or a later patch release (for example, 14.0.1). If you are installing the base release, additional patch, and bundled hot fix releases, read the documentation for all releases that have occurred since the base release before you begin installation. Documentation for patch and bundled hot fix releases can contain critical information related to the base release, as well as information about code changes since the base release.

Oracle Retail Documentation on the Oracle Technology Network

Documentation is packaged with each Oracle Retail product release. Oracle Retail product documentation is also available on the following Web site:

http://www.oracle.com/technology/documentation/oracle_retail.html

(Data Model documents are not available through Oracle Technology Network. These documents are packaged with released code, or you can obtain them through My Oracle Support.)

Documentation should be available on this Web site within a month after a product release.

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 guide provides the full and patch installation instructions for Advanced Inventory Planning (AIP) version 14.0.1.

About the AIP Installation Process

If you are installing the application for the first time, you can install either a base release (for example, 14.0) or a later patch release (for example, 14.0.1). If you are installing a software version other than the base release, be sure to read the documentation for each patch release (since the base release) before you begin installation. Patch documentation can contain critical information related to the base release and code changes that have been made since the base release.

The process described in this document begins after the .zip files have been properly downloaded from http://edelivery.oracle.com. License keys for licensed products must be obtained before beginning the installation process.

About This Document

This document describes how to install AIP 14.0.1, or upgrade a 13.2.x.x or later installation to AIP 14.0.1. The AIP installation consists of the following components:

- The Oracle® Retail Predictive Applications Server (RPAS) version 14.0.0 domain using a configuration established by Oracle Retail developers.
- An online component based on Java and Oracle.

Detailed instructions for unpacking the software and installing both the RPAS and the online portion of the AIP 14.0.1 solution appear in this guide.

Before you begin installing AIP, you should read the *Oracle Retail Predictive Application Server Installation Guide*. Additional documentation may be required during the installation process and is referenced where applicable.

Read this entire document before beginning the installation process to ensure you understand the installation process and have all the necessary documentation, hardware, and software available.

Note: AIP Java/Oracle, AIP on Oracle, and AIP Oracle are often used interchangeably to refer to those parts of AIP that access the Oracle relational database. This includes the Data Management and Order Management GUI components and a host of UNIX shell scripts and PL/SQL modules.

2

Preinstallation Tasks

This chapter provides information on the compatibility and hardware requirements for AIP.

Check for the Current Version of the Installation Guide

Corrected versions of Oracle Retail installation guides may be published whenever critical corrections are required. For critical corrections, the rerelease of an installation guide may not be attached to a release; the document is replaced on the Oracle Technology Network Web site.

Before you begin installation, check to be sure that you have the most recent version of this installation guide. Oracle Retail installation guides are available on the Oracle Technology Network at the following URL:

http://www.oracle.com/technology/documentation/oracle_retail.html

An updated version of an installation guide is indicated by part number, as well as print date (month and year). An updated version uses the same part number, with a higher-numbered suffix. For example, part number E123456-02 is an updated version of an installation guide with part number E123456-01.

If a more recent version of this installation guide is available, that version supersedes all previous versions. Only use the newest version for your installation.

Check Supported Database Server Requirements

This version of AIP is compatible with the database versions listed in Table 2–1.

Table 2–1 Supported Database Server

Database Server	Supported Versions
Database Server 11gR2	▪ Oracle 11g Enterprise Edition Release 2 (version 11.2.0.4 in clustered topology. ▪ Oracle 11g Enterprise Edition Release 2 (version 11.2.0.4) in standalone configuration.

Database Features

The following is an important note about Oracle Partitioning.

Note: Although this database feature is available in the Oracle Database Enterprise Edition, you may need a separate license to use this feature. For more information, refer to the Oracle Database Licensing Information 11g Release 2.

Check Application Server Requirements

General requirements for an application server capable of running the AIP Oracle application include the versions listed in Table 2–2.

Table 2–2 Supported Application Server

Application Server	Supported Versions
Application Server OS	Oracle WebLogic Server 11g Enterprise Edition (10.3.6)

Check Server Operating Systems Requirements

This version of AIP is compatible with the server operating systems listed in Table 2–3.

Table 2–3 Server Operating Systems

Server Operating Systems	Supported Version
Oracle Solaris	11
AIX	6.1, 7.1
HP-UX	11.31 (Itanium)
Oracle Linux	6

Korn Shell

This version of AIP is compatible with the versions of Korn shell listed in Table 2–4.

Table 2–4 Korn Shell Compatibility

Supported Version	Operating Systems
ksh88	▪ Solaris ▪ AIX ▪ HP-UX
ksh93	Oracle Linux

Check Supported Server JRE Requirements

General requirements for the server JRE are listed in Table 2–5.

Table 2–5 Supported Server JRE Requirements

Requirements	Supported Versions
Java Run Time Environment (JRE)	1.7

RPAS

This version of AIP is compatible with the RPAS versions, which includes RPAS Server and RPAS Configuration Tools in the following list. Refer to the Oracle Retail

Predictive Application Server documentation for information on installing and administering RPAS.

- RPAS 14.0.0
- Java Development Kit (JDK) 1.7.0-25
- unzip utility (on UNIX)
- compress utility
- uncompress utility
- GNU stream editor (sed)
- GNU Diffutils
- GNU Tar (gtar): create a symbolic link to *tar* and ensure the link is before tar in the PATH

Software Requirements

Table 2–6 provides information on the software requirements for AIP.

Table 2–6 Software Requirements

Requirement	Details
Oracle Retail Batch Script Architecture (BSA)	14.0.0

Note: Oracle Retail Batch Scripting Architecture (BSA) must be installed prior to installing AIP. For information about installing BSA, see the *Oracle Retail Batch Script Architecture Implementation Guide*.

Check Supported PC and Client Browser Requirements

This version of AIP is compatible with the PC and client browser requirements listed in Table 2–7.

Table 2–7 PC and Client Browser Requirements

Requirements	Supported Version
Operating system	Windows 7 SP1 and Windows 7 Enterprise for any other language other than English
Display resolution	1024x768 or higher
Processor	1GHz or higher processor
Memory	256 MB or higher memory
Java Run Time Environment (JRE)	1.7
Networking	Intranet network connectivity with at least 10Mbps data rate
Browsers	■ Microsoft Internet Explorer 8.0 ■ Microsoft Internet Explorer 9.0 ■ Firefox 17 ESR

Check Oracle Retail Software Dependencies

This section lists Oracle Retail software dependencies for AIP.

Supported Oracle Retail Integration Technologies

This version of AIP is compatible with the Oracle Retail integration technologies listed in Table 2–8.

Table 2–8 Supported Oracle Retail Products

Oracle Retail Integration Technologies	Supported Version
Oracle Retail Merchandising System (RMS)	14.0.0
Oracle Retail Integration Bus (RIB)	14.0.0
Oracle Retail Extract Transform and Load (RETL)	13.2.6.0.1

Note: AIP 14.0.1 can integrate with RMS 14.0.1 if a custom interface is used to transmit AIP-generated purchase orders and transfers to RMS.

Supported Oracle Retail Products

This version of AIP is compatible with the Oracle Retail products listed in Table 2–9.

Table 2–9 Supported Oracle Retail Products

Oracle Retail Product	Supported Version
Oracle Retail Demand Forecasting (RDF)	14.0.0
Oracle Retail Replenishment Optimization (RO)	14.0.0

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Preparing for Installation

This chapter provides information necessary to prepare for AIP installation.

Package Contents

A complete AIP 14.0.1 solution is delivered in the following files, which can be obtained from `http://edelivery.oracle.com`:

- AIP 14.0.1 Media Pack

Verify Contents

Follow these steps to verify the package contents.

1. Download the files and unpack the AIP patch. The patch contains the following files:
   - CDROM/AIP-online-appserver-installer.zip
   - CDROM/AIP-online-dbserver-installer.zip
2. Verify that all files listed in Step 1 appear in the AIP patch.

Installation Setup

The following sections describe preparations necessary for installation.

Preparing Your Windows Workstation

Unpack the AIP Media Pack to view the documentation. The AIP documentation is located in the DOCS folder.

Preparing Your UNIX Machine

1. Copy the following ZIP files to the UNIX machine that will house the server-side Oracle, and Java files:

- AIP-online-appserver -installer.zip - This zip file contains the AIP 14.0.1 Online EAR file and binary license file for AIP Oracle. Inside this file is the AIP-online-integration.zip, which contains the AIP 14.0.1 Online integration files to exchange information between AIP Oracle, RPAS, and RMS (or an external system).
- AIP-online-dbserver -installer.zip - This zip file contains the AIP 14.0.1 Online Oracle schema database files.

4

Installing the AIP Oracle Database Server Components

This chapter describes how to install the AIP Oracle database server componentsincluding:

- Creating a UNIX User Account for Oracle and Retail
- Creating a Staging Directory for AIP Oracle Database Files
- Creating the Oracle 11g Database
- Creating the AIP Oracle Schema Owner
- Installing the AIP Oracle Database - Patch Mode
- Preparing Your Server for Installation
- Running the AIP Oracle Database Schema Installer

Creating a UNIX User Account for Oracle and Retail

Perform the following procedure to create the necessary UNIX user accounts:

1. Create the following UNIX groups:
   - dba
   - dev

   This account owns the Oracle RDBMS.
2. Create the following UNIX users, using ksh as the default shell:
   - oracle - dba group
   - retail - dev group

   Note: The Oracle account is used to create the Oracle 11gR2 database. The Retail account is the owner of the AIP Oracle files that reside on the UNIX server.

Creating a Staging Directory for AIP Oracle Database Files

Perform the following procedure to create the staging directory for your AIP Oracle database server files:

1. Log on to the UNIX server as the newly created retail user and determine where the AIP Oracle database files will be installed. There should be a minimum of 12 MB disk space available for the database installation files.
2. Copy the AIP-online-dbserver-installer.zip file from the CDROM directory to the newly created staging directory.
3. Change directories (cd) to the staging directory and extract the zip file. This location is referred to as <DBINSTALL_DIR>.

Creating the Oracle 11g Database

If Oracle 11g is already installed then skip this section. Perform the following procedure to create the Oracle 11g database:

1. Install Oracle 11g Release 2 (version 11.2.0.3) with the Oracle UNIX account. Oracle 11g can be installed either in clustered topology or as standalone database.
2. Create a 11g database. Again this can be done either as Oracle Real Application Clusters (RAC) database or as single instance database.
   - When set up as clustered database, the tnsnames.ora should include all the database connection details.
   - Refer to Appendix A, "Appendix: Database Parameter File" in this document for sample init.ora files.
   - If these scripts are not used as a guide, a system tablespace of 500MB is required for each installation of the AIP Oracle schema.
3. Create the retail_data tablespace and the retail_index tablespace.

   Refer to Appendix A, "Appendix: Database Parameter File" in this document for the sample tablespace creation script. The size of these tablespaces vary from client to client. For the initial installation, minimum tablespaces of 500MB are recommended.

Creating the AIP Oracle Schema Owner

A script called create_user.sql in <DBINSTALL_DIR>/AIPOnlineDBServer/aip/utility can be used to create the schema owner. This script prompts you for schema owner name, password, and a temporary tablespace. This script should be run as *sys*.

Next grant the necessary Java runtime permissions to the schema owner using the following PL/SQL:

```
dbms_java.grant_permission( '<AIP SCHEMA OWNER>',
'SYS:java.lang.RuntimePermission','accessClassInPackage.sun.misc', '' )
```

Note: It is recommended to create a second database user besides the schema owner to run AIP processes. This user requires access to all tables, views, sequences, packages, functions and procedures belonging to the schema owner through the use of public or private synonyms. Steps 1 and 2 in the following task may be used to create the user and the following additional grants are required:

- SELECT ANY TABLE
- INSERT ANY TABLE
- UPDATE ANY TABLE
- DELETE ANY TABLE
- EXECUTE ANY PROCEDURE
- ANALYZE ANY
- SELECT ANY SEQUENCE
- EXECUTE ANY TYPE

1. Create the Oracle db user to be used for the AIP Oracle application.

   Log on to sqlplus as the user, *sys* and enter the following commands, replacing the text brackets < > with appropriate names.

   ```
   SQL> create user <AIP Oracle Schema user> identified by <password>
   default tablespace retail_data temporary tablespace <temporary
   tablespace name>;
   ```

2. Log on to sqlplus as the user, *sys* and grant the Oracle user <AIP Oracle Schema user>, which serves as the user of the database objects, the following permissions:

   ```
   SQL> grant connect, resource, create view to <AIP Oracle Schema user>;

   SQL> alter user <AIP Oracle Schema user> quota unlimited on retail_
   data;

   SQL> alter user <AIP Oracle Schema user> quota unlimited on retail_
   index;
   ```

Note: In addition to creating the owner schema with the `create_user.sql` script, you must explicitly grant the create table privilege to the user.

Installing the AIP Oracle Database - Patch Mode

Note: Before starting the upgrade process, it is important to take a complete backup of the Database.

Perform the following procedure to install the AIP Oracle Database in patch mode:

1. Upgrade Oracle Database to version 11.2.0.3
2. Check the Database characterset. If it is not AL32UTF8, convert the characterset to `AL32UTF8`.Refer to "Physical Database Upgrade Requirements" on page A-1,.

3. Rename the tablespace RETEK_DATA to RETAIL_DATA and rename the tablespace RETEK_INDEX to RETAIL_INDEX.

   Note: Release 14.0.1 no longer uses tablespaces RETEK_DATA and RETEK_INDEX tablespaces and they should be renamed to RETAIL_DATA and RETAIL_INDEX. It is absolutely essential that a complete backup has been taken before performing this task.

   a. Connect to the database as sys

   b. Run the command to rename the two tablespaces:

   ```
   SQL> alter tablespace retek_data rename to retail_data; Tablespace altered.

   SQL> alter tablespace retek_index rename to retail_index; Tablespace altered.
   ```

   You can optionally rename the datafiles to correspond to the newly changed tablespace names but it is absolutely essential to take a full backup before the renaming data files.

4. AIP Oracle schema owner needs to be granted the create table privilege explicitly.

Preparing Your Server for Installation

Note: If installing a patch, backup the existing database schema before continuing.

Beginning with Release 14.0, you can upgrade directly from 13.2.3 to 14.0 as described in Chapter 7, "Installing AIP RPAS-Upgrade Version."

If you are upgrading from an earlier version than AIP release 13.2.3, then the patch install is not cumulative. This means that you first need to apply the previous release patch (or patches one by one) until you are upgraded to AIP release 13.2.3.

The full install option should be chosen when there is no previous AIP release already installed.

Before you run the AIP Oracle Database Schema Installer, make sure you have performed the following:

- Set the ORACLE_HOME and ORACLE_SID environment variables with the values for your Oracle RDBMS installation. The oraenv script can be used for this.
- Set the NLS_LANG variable for your locale.

Example:

```
NLS_LANG=AMERICAN_AMERICA.UTF8; export NLS_LANG
```

The JAVA_HOME variables are set by the installer based on the ORACLE_HOME that you have defined. In the event that it does not, ensure that your JAVA_HOME is set to 1.7 or later.

In order to override the JAVA_HOME set by the installer to an alternate JAVA_HOME - set the following environment variable prior to running the installer: ORACLE_ALT_JAVA_HOME.

If you are going to run the Installer in GUI mode using an X server, which is the recommended installation method, you need to have the X server extension enabled. This setting is not always enabled by default in your X server. Verify the extension is enabled.

For example, use following command to enable DISPLAY in your X server:

```
export DISPLAY=<ipaddress>:0
where ipaddress is machine rendering the graphics
```

Running the AIP Oracle Database Schema Installer

Perform the following procedures to use the AIP Oracle Database Schema Installer. Regardless of the RIB version being used, the AIP Oracle Database Schema installation process is identical. Depending on system resources, a typical installation takes anywhere from 2 minutes to 30 minutes.

Procedure to Use the AIP Oracle Database Schema Installer

1. Change directories (cd) to the <DBINSTALL_DIR>/AIPOnlineDBServerdirectory.
2. Run the following install.sh script to start the Installer.

   ```
   ./install.sh
   ```

   Note: The command must be executed with the preceding period and forward slash (./).

   - If this process is being run on an X-Windows emulator (such as Exceed), a graphical user interface (GUI) to the Installer opens. If you are running in console mode through a terminal emulator, the text interface to the Installer opens.
   - To run the Installer in the GUI mode, which is the recommended installation method, adjust the DISPLAY environment variable. For example use following command to adjust DISPLAY in your X server:

     ```
     export DISPLAY=<ipaddress>:0
     ```

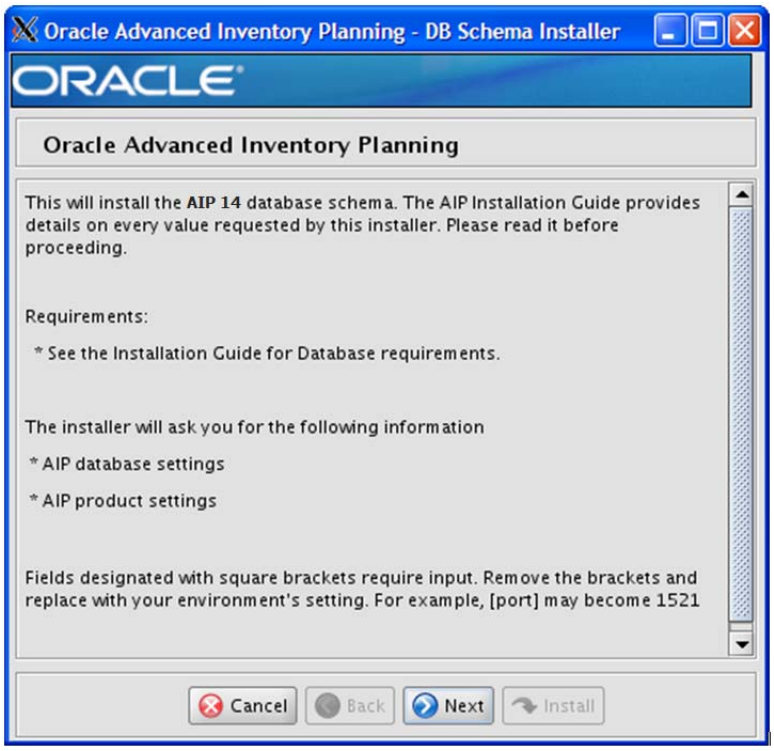
   - In both cases, the requested information is identical. In the GUI, you may be shown a check box to signal whether you want a component installed; in text mode, you are prompted for a response of **true** or **false**.

     Note: In text mode, the default value appears in square brackets []. To use the default value and continue, press **Enter**. If you wish to use a different value, enter the new value. When prompted to create a directory, respond with **yes** and press **Enter**.

     Password fields appear masked, but the previous and default values appear in plain text when running in the text mode.

3. The Oracle Advanced Inventory Planning - DB Schema Installer Window opens and displays the components that are installed during installation process, as well as the required components. Click **Next** to continue.

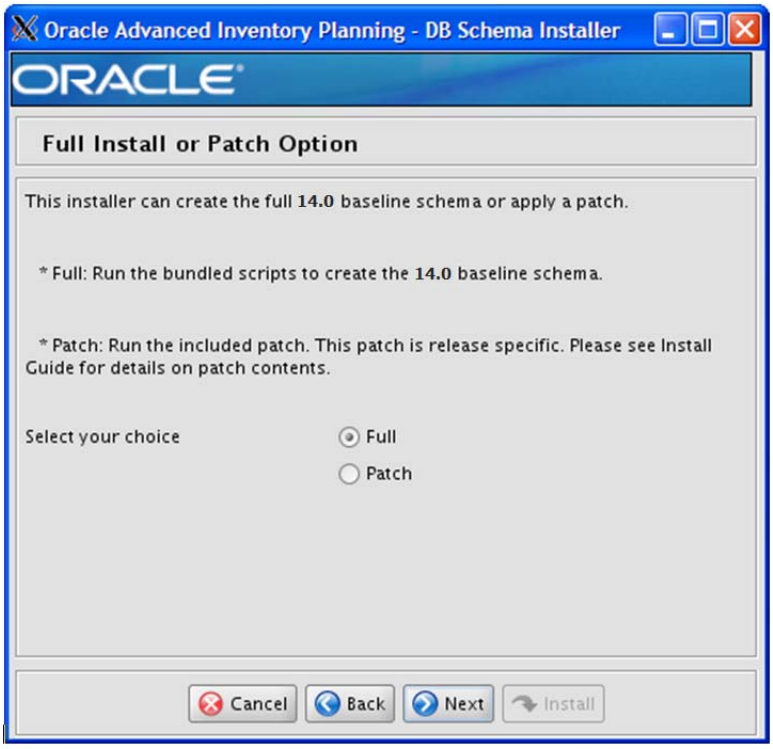
Figure 4–1 Oracle Advanced Inventory Planning - DB Schema Installer Window



4. The Full Install or Patch Option Window opens. Choose either the Full or Patch option. Click **Next** to continue.

Note: The patch install option should only be chosen when upgrading from AIP release 13.2.3 or later to the 14.0 release. The full install option should be chosen when there is no previous AIP release already installed.

Figure 4–2 Full Install or Patch Option Window

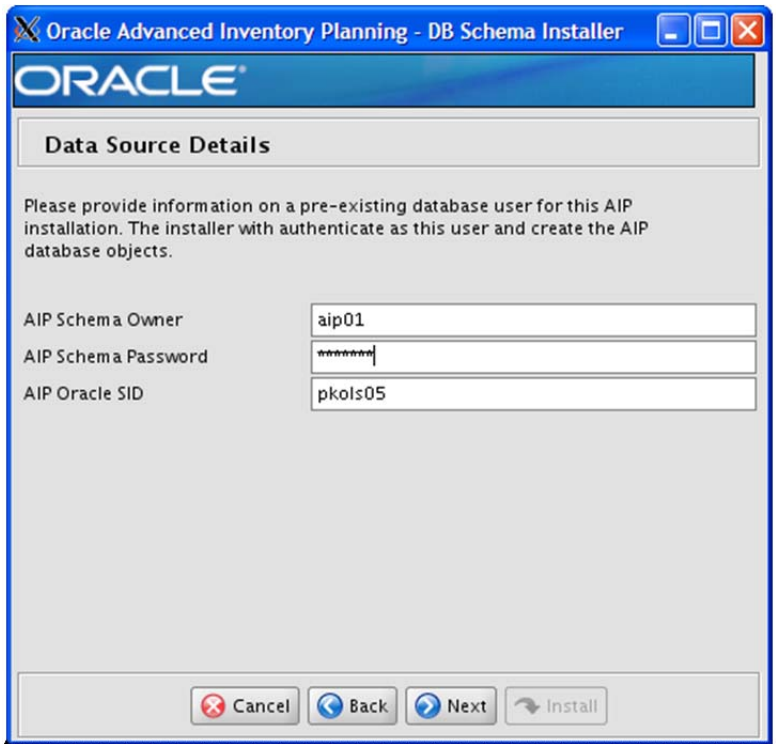


5. The Data Source Details Window opens. Enter the information described in Table 4–1 and click **Next**.

Table 4–1 Data Source Details Window Fields

Field	Description
AIP Schema Owner	Enter the AIP Schema owner's name.
AIP Schema Password	Enter the AIP Schema Owner's password.
AIP Oracle SID	Enter the name of the database where the AIP schema will be installed.

Figure 4–3 Data Source Details Window

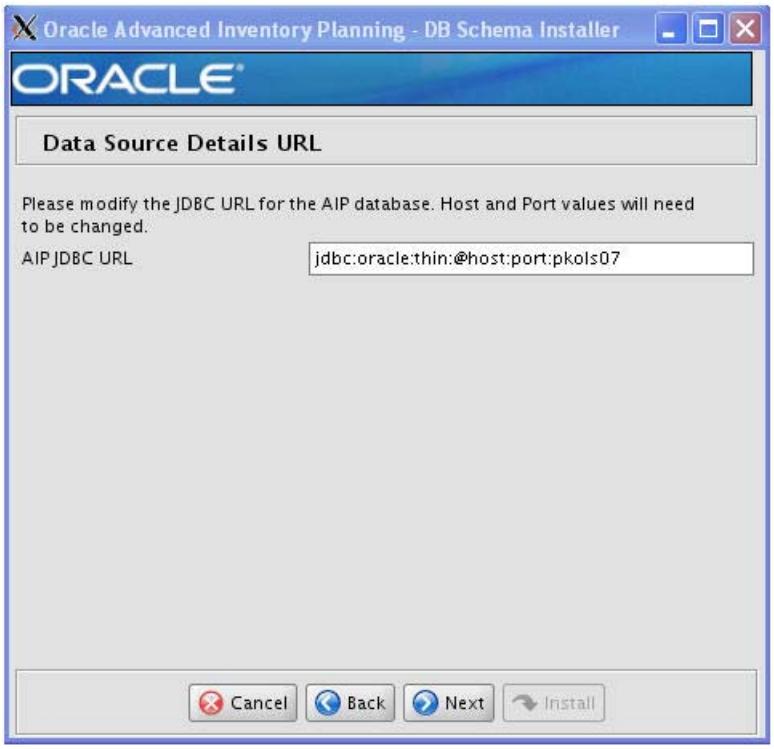


6. If running the Full Install, the Data Source Details URL Window opens. Enter the AIP JDBC URL and click **Next**.

   This is the URL that is used by AIP to access the database. The expected format for the field is shown.

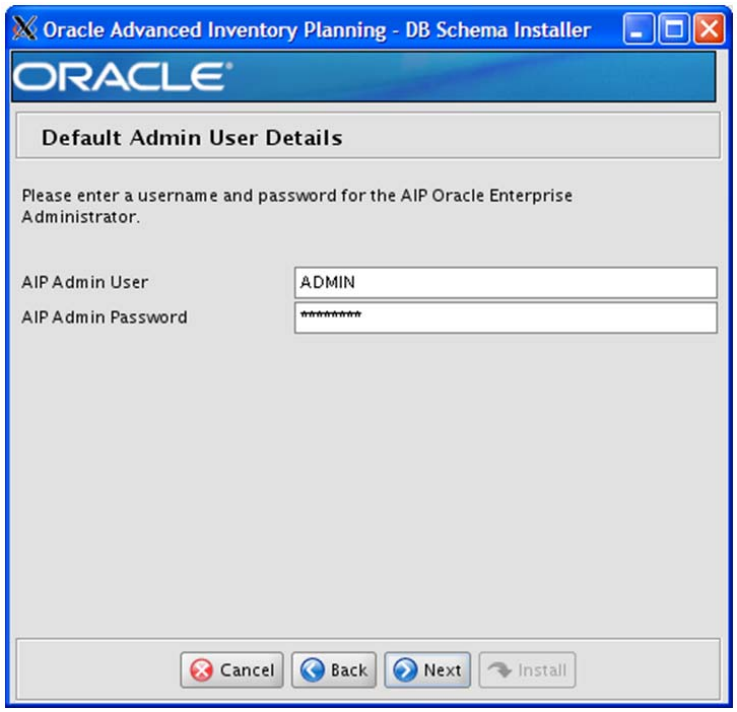
Note: If you are using an HP 64-bit or a Sun 64-bit server, you must specify the AIP JDBC URL to use the thin driver.

Figure 4–4 Data Source Details URL Window



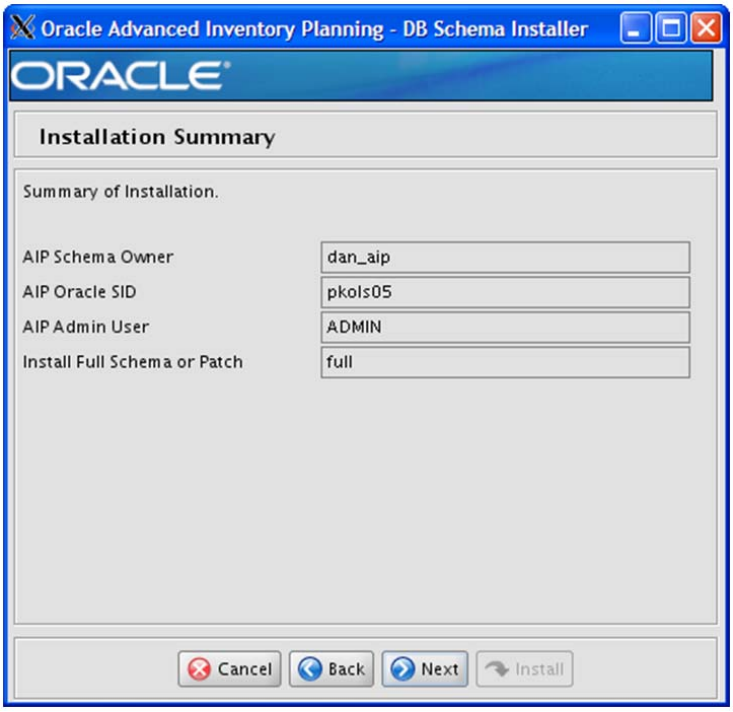
7. If running the Full Install, the Default Admin User Details opens. Enter the User ID and password for the AIP Oracle Enterprise Administrator and click **Next**.

Figure 4–5 Default Admin User Details



8. The Installation Summary Window opens. Click **Next** to continue.

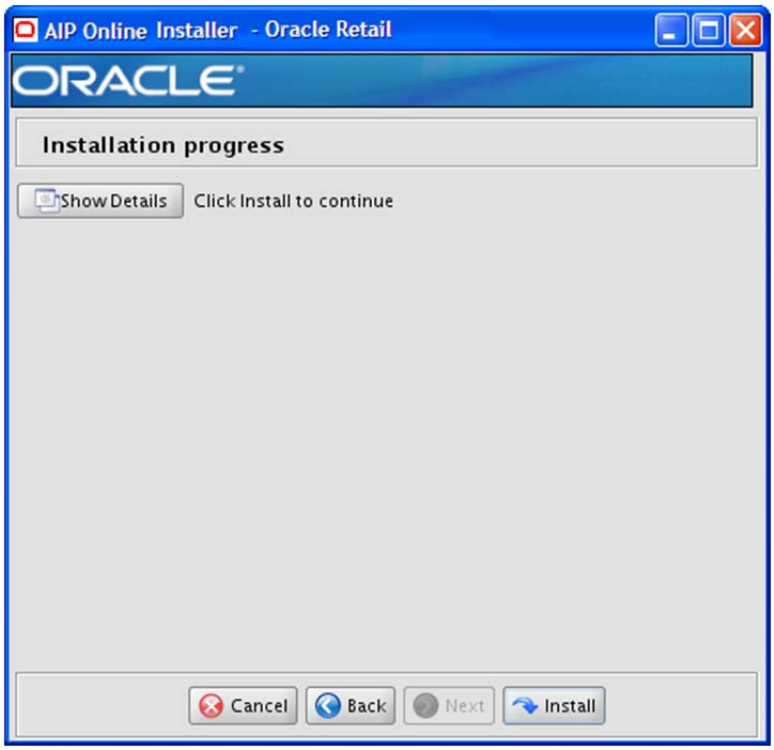
Figure 4–6 Installation Summary Window



9. The Installation Progress Window opens. Once you are ready to begin the installation, click **Install**. This window displays the progress of the installation routine.

   Click **Show Details** to view the log output as the installation is performed. If you do not choose to view the details, a graphical representation of the installation steps appears. You can toggle between detailed mode at any time during or after the installation.

Figure 4–7 Installation Progress Window



10. When the installation has finished, the Complete Window opens.

    To view the installation details, select Show Details. The window displays two tabs, *Output* and *Errors*.

    It is recommended that you review these tabs for any issues that may have occurred during the installation process.

    When performing a full install and the Installer is complete, a log file and a .dbhistory file appear in the installation directory. The log file is named aip-install-dbschema.<timestamp>.log, where <timestamp> is the date and time you ran the Installer. A .dbhistory file is also created, which contains a list of all the SQL scripts that were run by the installer. A .dberrors file is created if any errors were encountered during full install.

    The Installer also generates an ant.install.properties file for future reference and repeat installations. This file contains all inputs you provided in the Installer windows, including passwords. As a security precaution, make sure that the file has restrictive permissions as shown in this example:

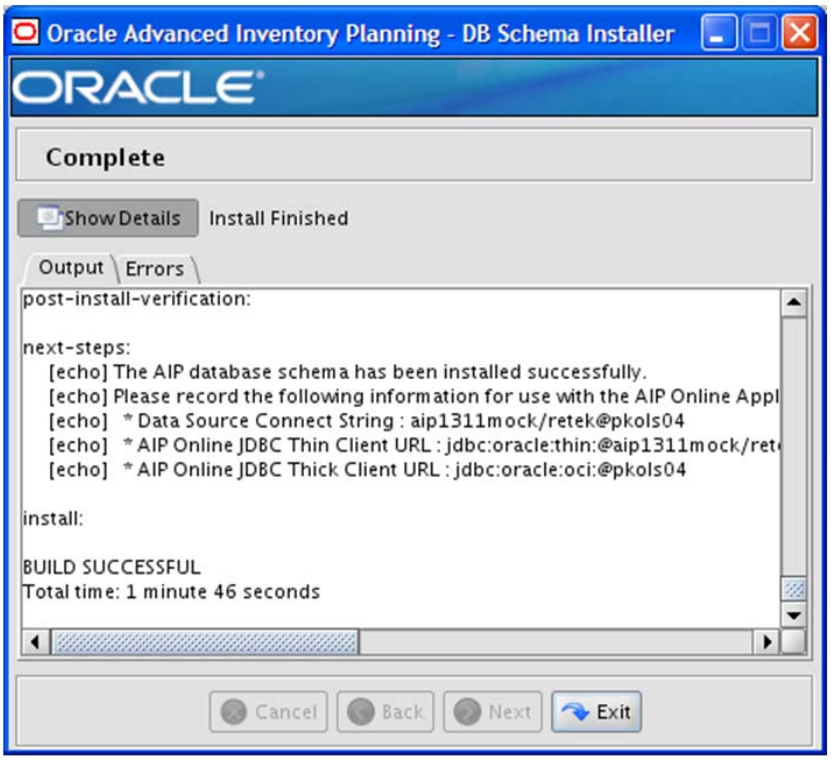
    Example: chmod 600 ant.install.properties

Note: The installer compares the actual database object count with expected object count for several different object types and displays a warning when there is a mismatch.

You should review the logs and compare the logs from the actual and expected folders to see if there are schema differences listed in the install.log located under <Db install >AIPOnlineDBServer/aip/db_verification/.

It is okay if the actual count is greater than the expected count. This could happen due to temporary internal objects being created by database during installation or if there were non-AIP objects present in the schema.

Figure 4–8 Complete Window



11. Open the installation log file and record the database settings displayed at the end of the Installer log file, aip-install-dbschema.<timestamp>.log. You will need this information when performing the AIP Application Installation.
12. Click **Exit** to close the Installer.

Resolving Errors Encountered During Database Schema Full Installation

If the database schema installer encounters any errors, it prints to the window which SQL script it was running when the error occurred. It also writes the path to this script to the .dberrors file. When this happens, you must run that particular script using sqlplus. After you are able to complete execution of the script, delete the .dberrors file and run the Installer again. You can run the installer in silent mode so that you don't

have to retype the settings for your environment. Refer to "Reinstalling in Silent Mode" on page 7-2 of this guide for instructions on silent mode.

Refer to "Troubleshooting" on page 7-2 for a list of common installation errors.

Subsequent executions of the Installer skips the SQL scripts that have already been executed in previous Installer runs. This is possible because the Installer maintains a .dbhistory file with a listing of the SQL scripts that have been run. If you have dropped the AIPOnline schema and want to start with a clean install, you can delete the .dbhistory file so that the Installer runs through all of the scripts again. It is recommended that you allow the Installer to skip the files that it has already run.

Resolving Errors Encountered During Database Schema Upgrade to 14.0

When running the installer to upgrade existing database schema to a 14.0.0 level, perform the following steps to fix errors and restart the installer:

1. Locate the last reported error in log file: upgrade.log

   This log file is generated in:

   <DBINSTALL_DIR>/AIPOnlineDBServer/aip/AIP14.0.0-db-upgrade/ directory.

2. Once the error is located, you should examine the source of error in your schema and fix that individual error.

3. Restart the installer as described in "Running the AIP Oracle Database Schema Installer".

   The installer maintains a record of all successfully applied DBC (database change) scripts in upgrade.log file. When installer is restarted after failure, it identifies the already applied scripts from looking at upgrade.log and therefore skips those.

Note: You always have the other option of restoring your schema to pre-upgrade state from the database backup (assuming that proper database backup was taken before the upgrade), fixing the individual error and restarting installer.

5

Installing AIPOnlineApp on WebLogic

This chapter contains the typical steps for installing the AIP Oracle application to your Oracle WebLogic Server.

Before proceeding, you must install Oracle WebLogic Server 11g Enterprise Edition 10.3.6, plus any patches listed in **Chapter 3, "Preparing for Installation"** of this guide.

Also make sure to first install the AIP Oracle database components as outlined in Chapter 4, "Installing the AIP Oracle Database Server Components".

AIP Oracle is deployed to WLS managed server instance or cluster within the Oracle WebLogic Server 11g Enterprise Edition installation. It is assumed that Oracle RDBMS 11g has already been configured and loaded with the appropriate AIP Oracle schema for your installation.

> **Note:** AIP uses Oracle WebLogic Server 11g Enterprise Edition, but also supports Oracle WebLogic Suite 11g.

Setting up WebLogic for AIP Oracle

Ensure that the WebLogic admin server and node manager are running for your AIP Oracle installation. Refer to the *Oracle Retail Application Server Administrator's Guide* for details on how to start the admin server and node manager.

Perform the following procedure to create a new managed server instance for the AIP Oracle installation. If the application is being installed to a clustered WLS, then create an instance for each node of the server. All such instances should be under the same cluster.

> **Note:** If you are deploying to an existing managed server instance, you can skip this step since your environment is already prepared for installing AIP Oracle.

1. Log in to the administration console which is running your WLS 11g installation.

   Example: http://localhost:7001/console

2. Choose a name for the new managed server instance.

   Example: aip_MS

3. Create this managed server instance as documented in the *Oracle Retail Application Server Administrator's Guide*.

Note: If you do not have SOA installed, make sure the DMS/Oracle JRF deployments/libraries are not targeted to the AIP managed server.

4. Log in the WebLogic admin console and navigate to the server start options for the AIP managed server that was created.
   a. In the Arguments text box enter:

      -XX:MaxPermSize=512m

   b. Save and activate the changes. Refer to the *Oracle Retail Application Server Administrator's Guide* for details.
5. Start the managed server instance. You can do this through the administration console, or on the command line. See the *Oracle Retail Application Server Administrator's Guide* for more information.
6. Verify that the managed server instance was fully started. In the admin console, the instance should have a green check mark indicating that it is running. You can also verify that aip_MS java process is running on the command line.

   Sample Syntax:

   ```
   ps -ef | grep aip_MS
   ```

Preparing Your Server for Installation

Before you run the AIP Application Server Installer, make sure you have performed the following:

1. Log in to the UNIX server as the user who owns the WLS 11g installation. Create a new staging directory for the AIP Oracle application distribution (AIP-online-appserver- installer.zip).

   Example: $ORACLE_HOME/aiporacle_staging

   This location will be referred to as <INSTALL_DIR> for the remainder of this chapter.
2. Make sure there is a minimum of 500 MB disk space available for the application installation files.
3. Copy AIP-online-appserver- installer.zip to <INSTALL_DIR> and extract its contents.

   Note: If you are going to run the Installer in GUI mode using an X server, which is the recommended installation method, you need to have the X Server extension enabled. This setting is not always enabled by default in your X server. Verify the extension is enabled.
4. Set the ORACLE_HOME and WEBLOGIC_DOMAIN_HOME and JAVA_HOME environment variables. ORACLE_HOME should point to your Oracle WebLogic Server 11g Enterprise Edition installation. WEBLOGIC_DOMAIN_HOME should point to the directory where your WebLogic domain was installed. JAVA_HOME must point to a valid Java 1.7.0_25 or later JDK.

Running the AIP Oracle Application Installer

Once you have an managed server instance that is started, you can run the AIP Oracle application installer. This installer will configure and deploy the AIP Oracle application and AIP Oracle Integration files.

1. Extract AIP-online-appserver- installer.zip to <INSTALL_DIR> directory.
2. Change directories (cd) to the <INSTALL_DIR>/AIPOnlineAppServer directory.
3. Run the following install.sh script to start the Installer.

   ./install.sh

   Note: The command must be executed with the preceding period and forward slash (./).

   When the installation is complete, a detailed installation log file is created. This file is named aip14.0.0install--app.<timestamp>.log where <timestamp> represents the date and time the installation was performed. This file is located in the <INSTALL_DIR>/AIPOnlineAppServer directory.

   If this process is being run on an X-Windows emulator (such as Exceed), a graphical user interface (GUI) to the Installer opens. If you are running in console mode through a terminal emulator, the text interface to the Installer opens.

   To run the Installer in the GUI mode, which is the recommended installation method, adjust the DISPLAY environment variable. For example use following command to adjust DISPLAY in Exceed:

   export DISPLAY=<ipaddress>:0

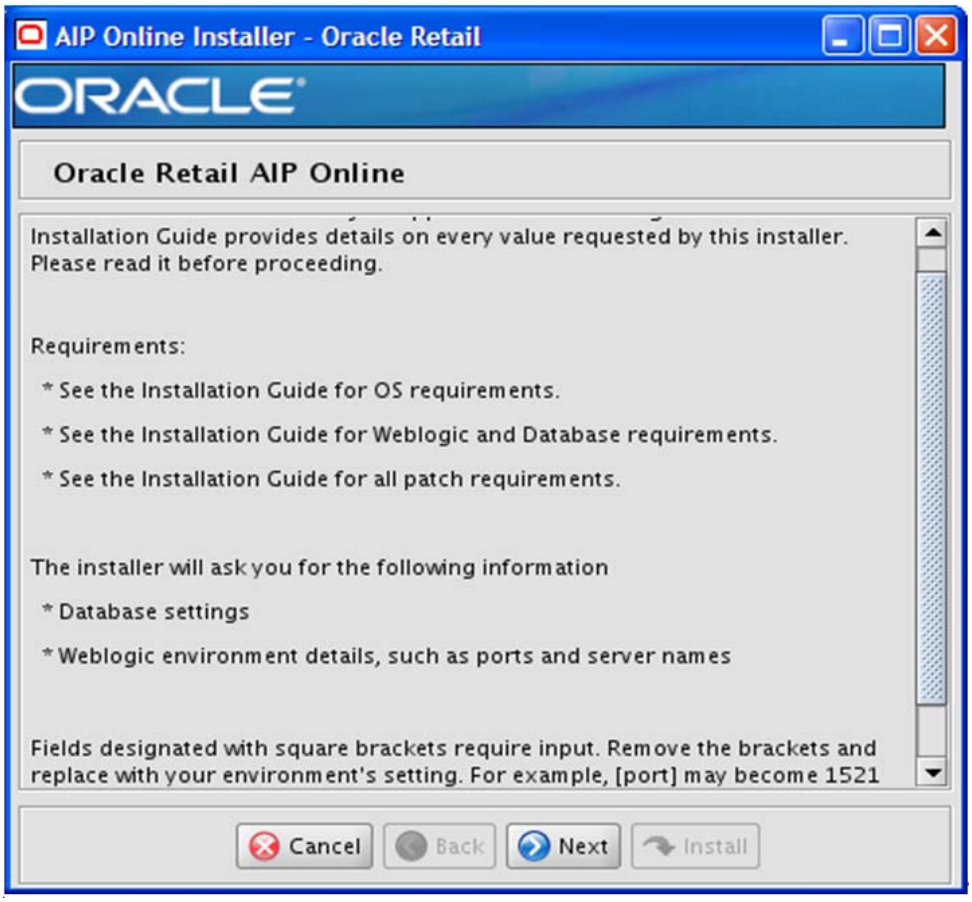
   In both cases, the requested information is identical. In the GUI, you may be shown a checkbox to signal whether you want a component installed; in text mode, you are prompted for a response of **true** or **false**.

   Note: In text mode, the default value will appear in square brackets []. To use the default value and continue, press **Enter**. If you wish to use a different value, enter the new value. When prompted to create a directory, respond with **yes** and press **Enter**.

   Password fields will appear masked, but the previous and default values will appear in plain text when running in the text mode.

4. The AIP Oracle Installer Window opens and displays the components that will be installed during installation process, as well as the required components. Click **Next** to continue to the Data Source Details Window.

Figure 5–1 AIP Oracle Installer Window



5. The Data Source Details Window opens. Enter the information as shown in Table 5–1 and then click **Next** to continue to the Data Source Type Window.

Figure 5–2 Data Source Details Window

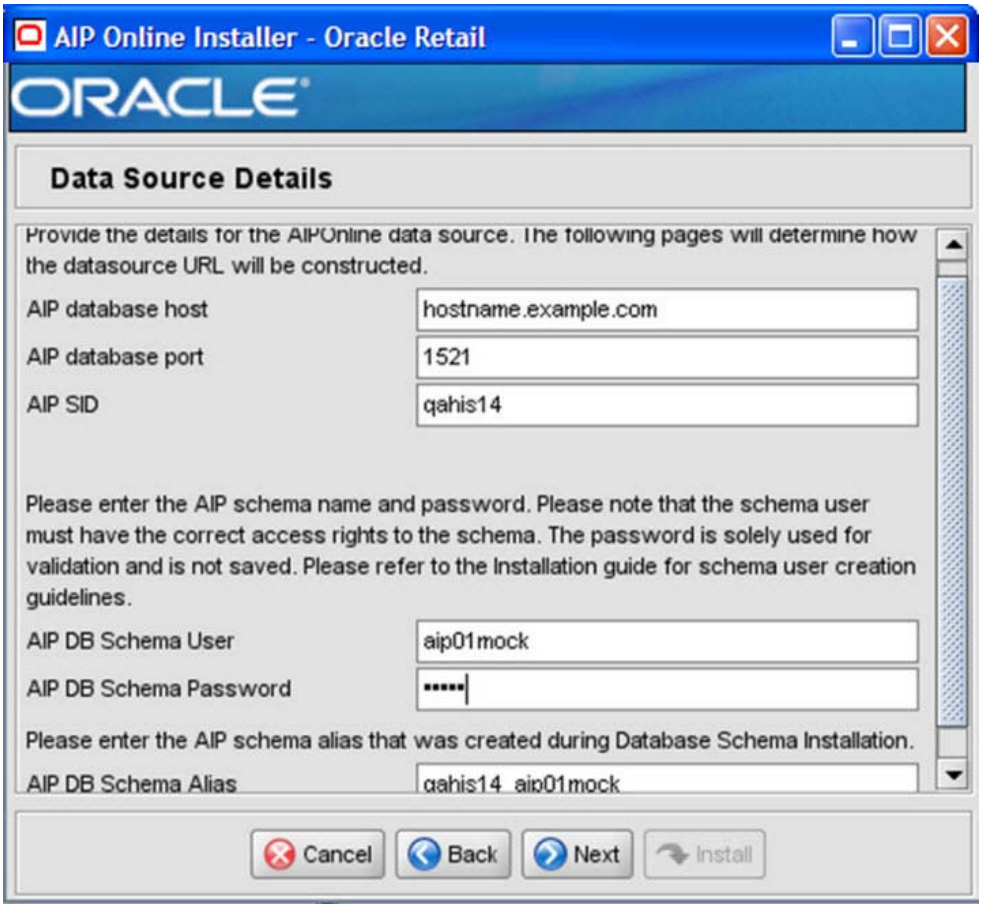


Table 5–1 Data Source Details Window Fields

Field	Description
AIP database host	Enter the AIP database host name.
AIP database port	Enter the port number on which the database listens.
AIP SID	Enter the AIP Oracle database SID.
AIP DB Schema User	Enter the AIP database schema user name.
AIP DB Schema Password	Enter the AIP database schema password.
AIP DB Schema Alias	Enter the AIP database schema alias. This is used to securely store the username/password in a wallet file.

6. The Data Source Type Window opens.
   a. If you have an RAC database, choose **Yes**.

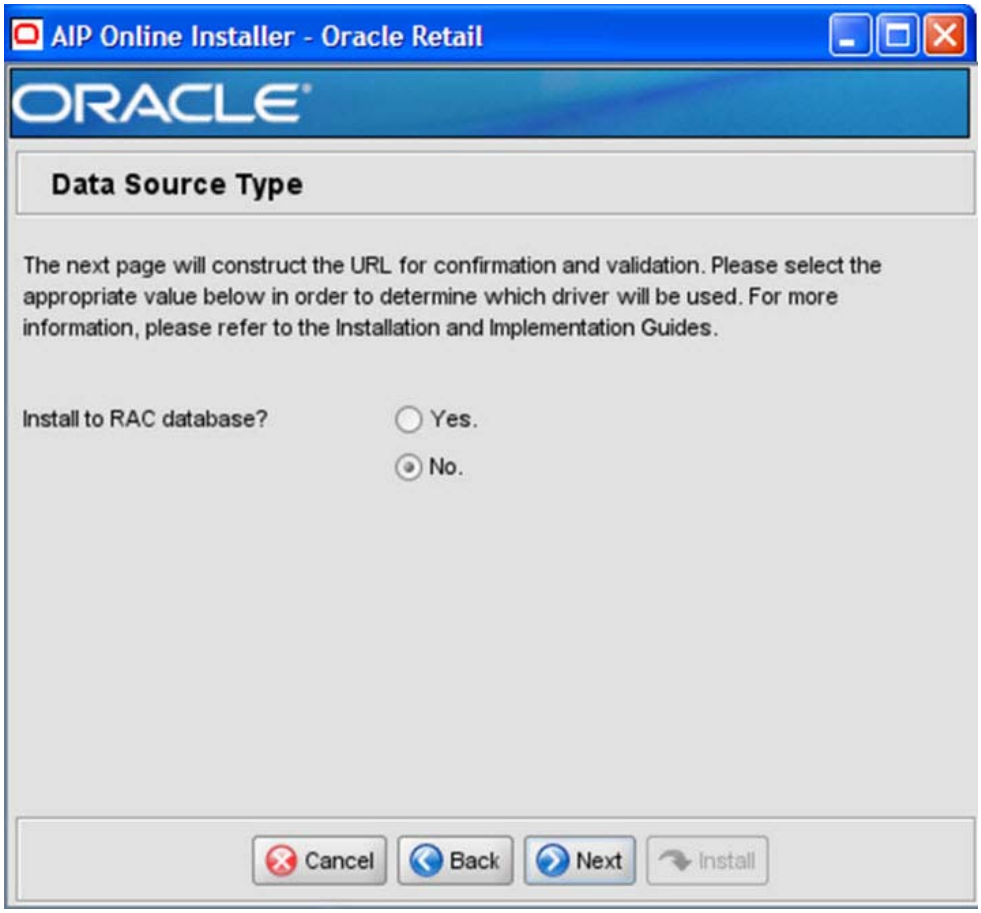
      Click **Next** and continue to Step 7, Data Source Confirmation Window.

      or

   b. If you have a non-RAC database, choose **No**.

      Click **Next** and continue to Step 9, Manual Deployment Option Window.

Figure 5–3 Data Source Type Window

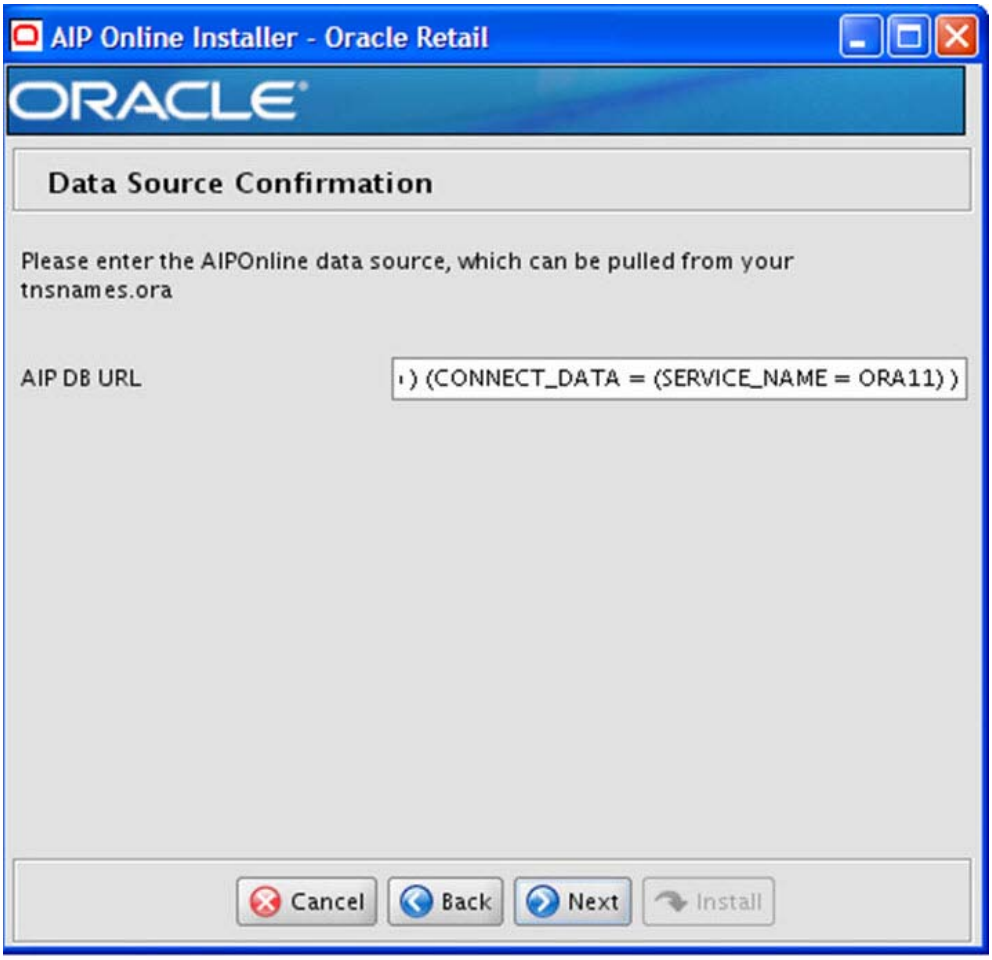


7. The Data Source Confirmation Window opens.

   Verify that the AIP DB URL string is correct and click **Next** to continue to the WebLogic Administration Window.

Note: You can obtain the AIP DB datasource URL from your DB's `tnsames.ora` file. Figure 5–4 shows a representation of a datsource URL string.

Figure 5–4 Data Source Confirmation Window



8. The WebLogic Administration Window opens. Enter the information as described in Table 5–2 and click **Next** to continue to the Application Deployment Details Window.

Figure 5–5 WebLogic Administration Window

Table 5–2 WebLogic Administration Fields

Field	Description
hostname	Hostname of the server where the AIP weblogic admin server is running.

WebLogic admin port	Enter the WebLogic admin port found in $WEBLOGIC_DOMAIN_HOME/config/config.xml file.
	Example of Port Definitions in config.xml File:
	`<server>`
	`<name>AdminServer</name>`
	`<listen-port>7001</listen-port>`
	`<listen-address></listen-address>`
	`</server>`

WebLogic admin user	Enter the WebLogic admin user name.
WebLogic admin password	Enter the WebLogic admin user password.
WebLogic admin alias	This is the alias for the WebLogic username/password to store in the wallet file during installation.

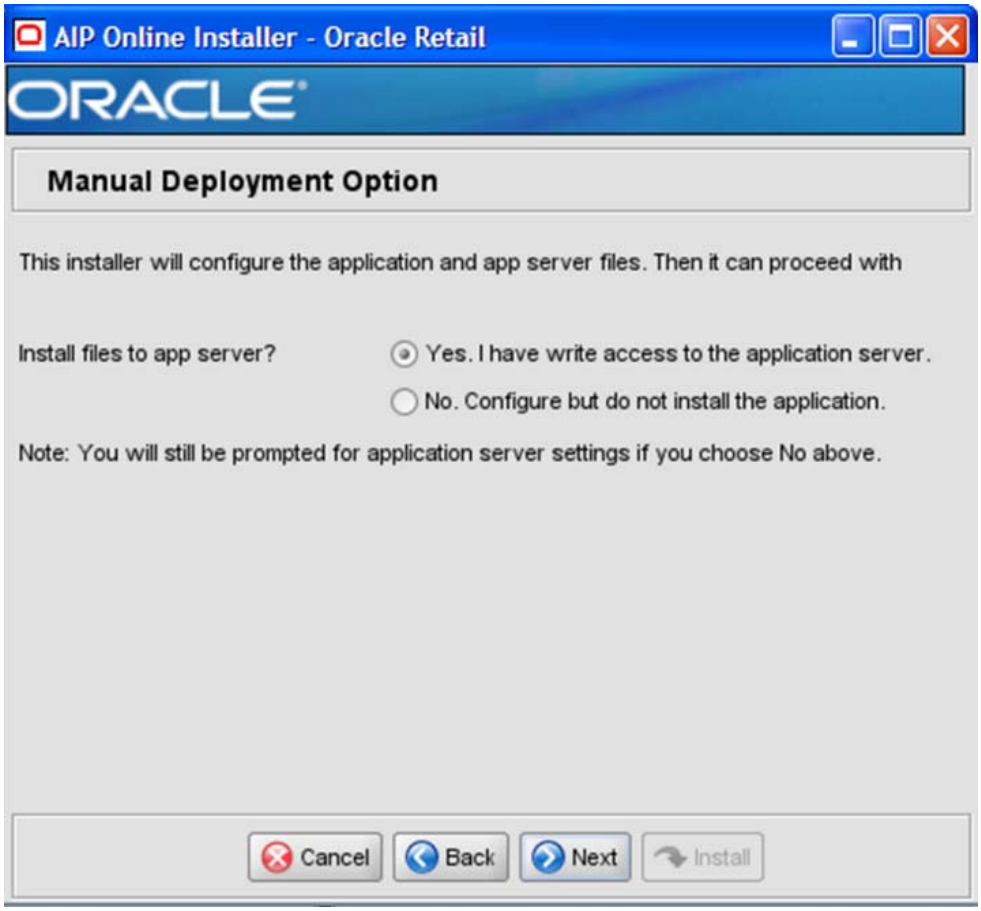
9. The Manual Deployment Option Window opens.

   Choose the appropriate option and click **Next** to continue to WebLogic Administration Window.

Note: If you choose **No**, you will still need to manually complete the installation process and complete the subsequent Installer windows.

Option	Description
Yes	Choose if you have write access to the application server. The Installer installs the necessary files to the ORACLE_HOME and WEBLOGIC_DOMAIN_HOME folder.
No.	Choose if you are running the AIP Oracle Installer as a user who does not have write permissions to the file system under the ORACLE_HOME and WEBLOGIC_DOMAIN_HOME. The Installer performs all the necessary configuration changes within the staging directory, but it does not install any files to the ORACLE_HOME and WEBLOGIC_DOMAIN_HOME.

Figure 5–6 Manual Deployment Option Window



10. The Application Deployment Details Window opens.

    Enter the information as described in Table 5–3 and click **Next** to continue to the AIP Oracle Installation Directory Window.

Figure 5–7 Application Deployment Details Window

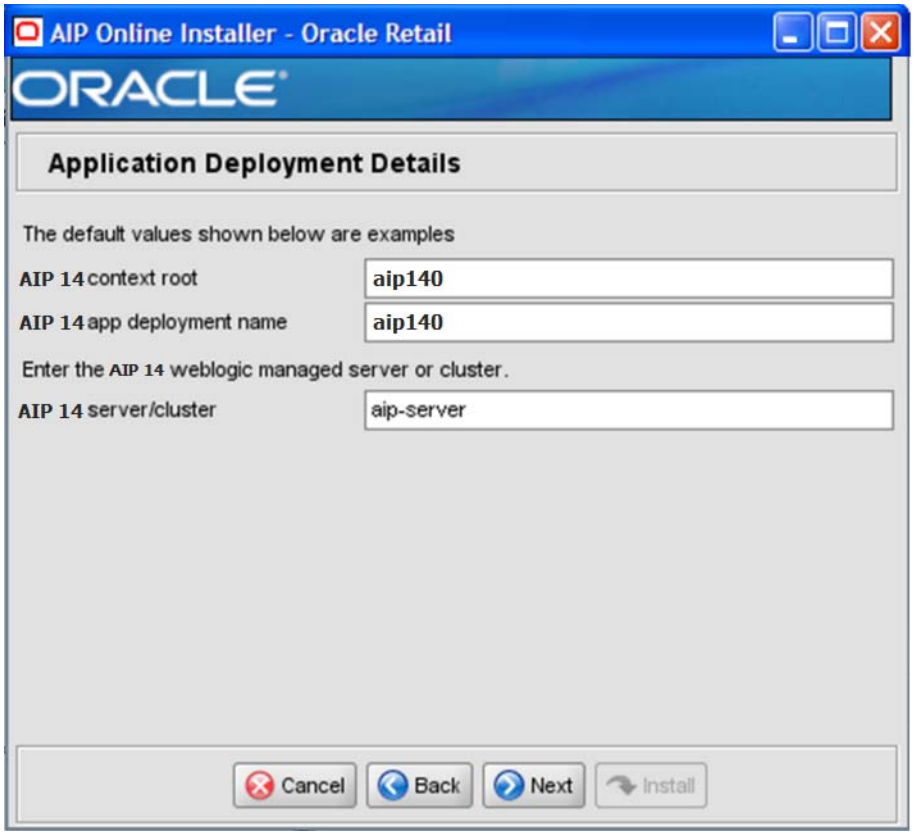


Table 5–3 Application Deployment Details Window Fields

Field	Description
AIP 14 context Root	Enter the context root that the application will use. **Example:** `http://myhost:7501/aip140` where **aip140** represents the context root required for this field.
AIP 14 app deployment name	Enter the name to be used by the application server to identify the AIP Oracle application.
AIP 14 server/cluster	The managed server or cluster to which AIP deploys.

11. The AIP Oracle Installation Directory Window opens.

    Enter the directory where AIP Oracle will be installed and click **Next** to continue to the AIP Oracle Integration Window.

Figure 5–8 AIP Oracle Installation Directory Window

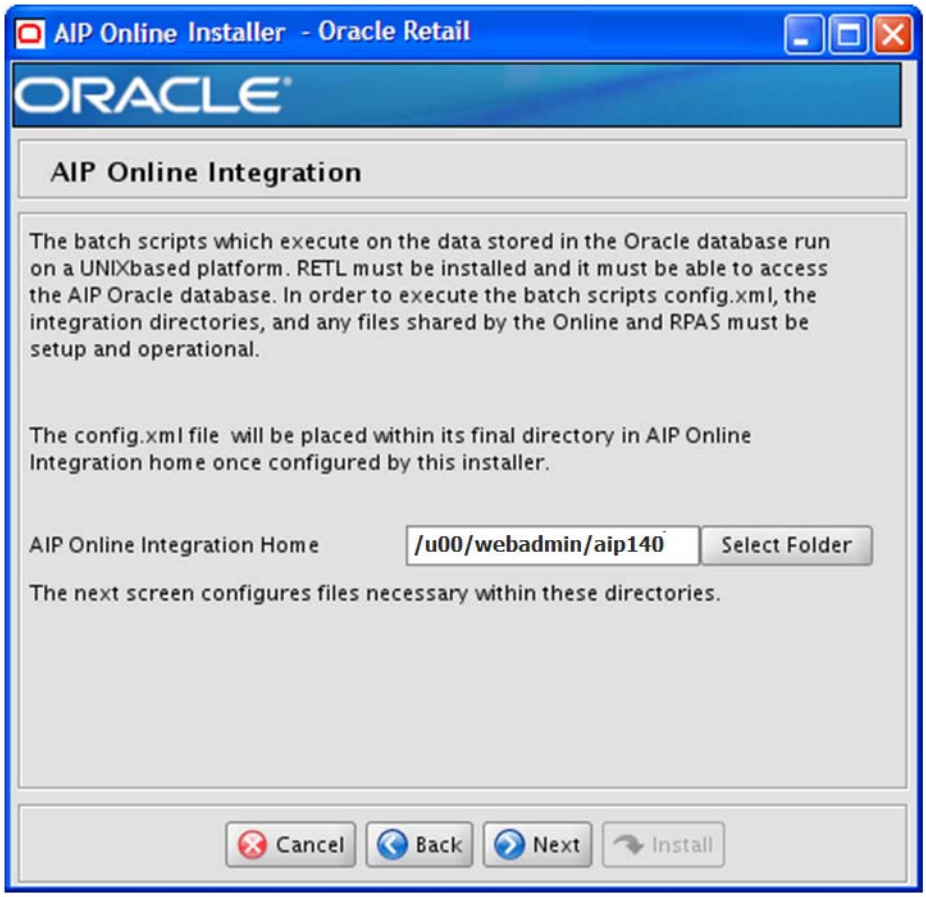
12. The AIP Oracle Integration Window opens.

    Enter the directory where AIP Oracle Integration components will be installed and click **Next** to continue to the AIP Integration Install Window.

    The AIP Oracle Integration Home field defaults to AIPONLINE_DIR.

    You may choose to install the integration components to another location on the same server at this point, or you may choose to move the installed files once the installation process is complete.

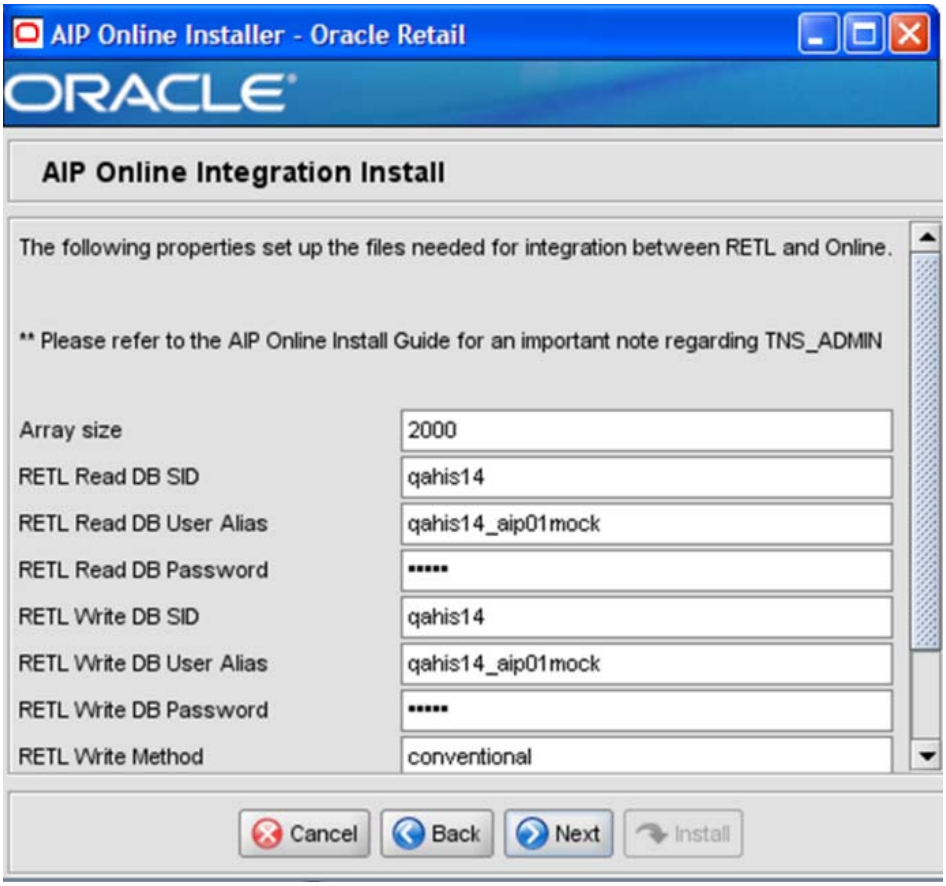
Figure 5–9 AIP Oracle Integration Window



13. The AIP Integration Install Window opens. Complete all the AIP Integration Install fields and click **Next** to continue to Enable RIB for AIP Window.

Note: Refer to the *Oracle Retail Advanced Inventory Planning Online Implementation Guide* as well as the *Oracle Retail Extract, Transform, and Load (RETL) Installation Guide* for further details on the AIP Integration Install fields.

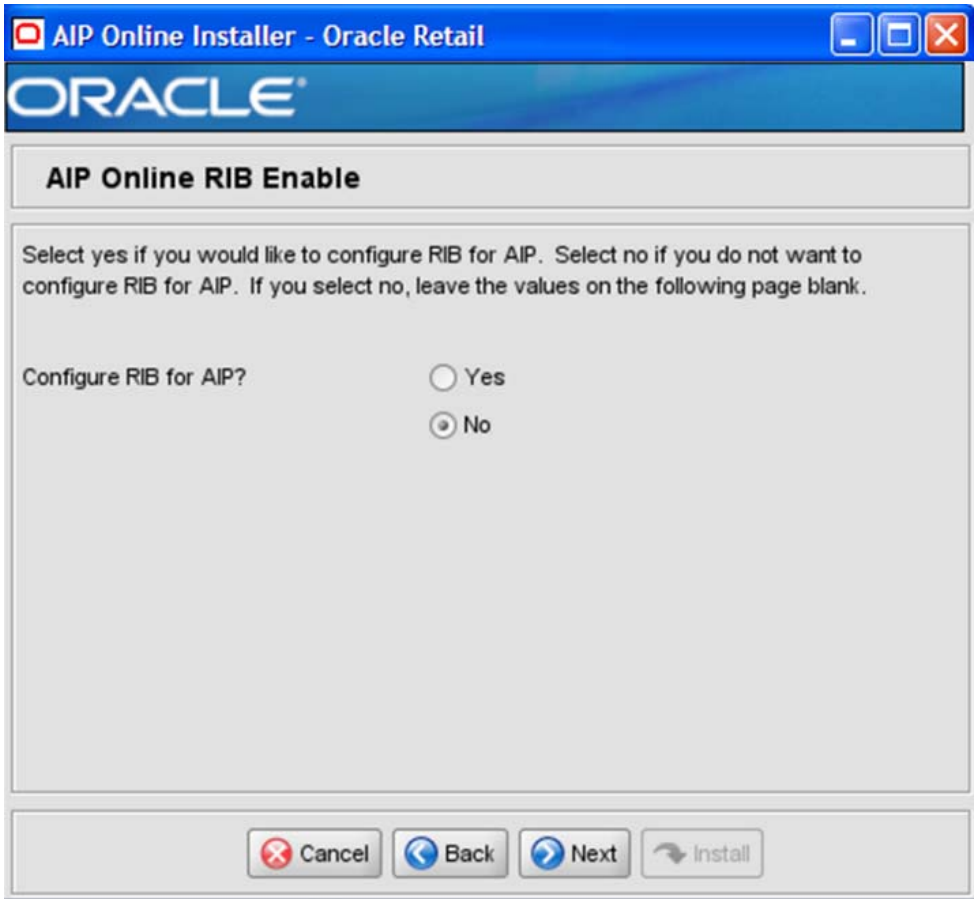
Figure 5–10 AIP Integration Install Window



14. The Enable RIB for AIP Window opens.

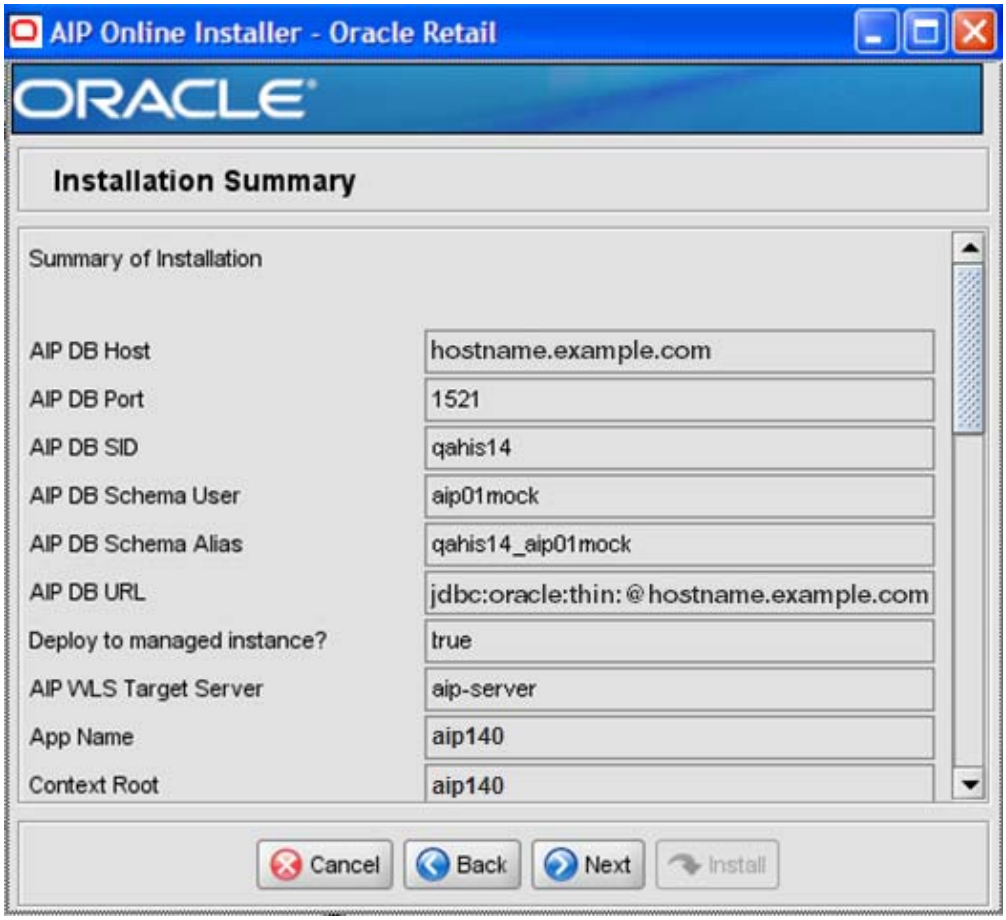
Indicate whether or not you would like to configure RIB for AIP at this point in time. If you do not, refer to the *Oracle Retail Advanced Inventory Planning Operations Guide* in manually configuring RIB for AIP.

Figure 5–11 Enable RIB for AIP Window



15. The Installation Summary Window opens. Verify the values and then click **Next**.

Figure 5–12 Installation Summary Window



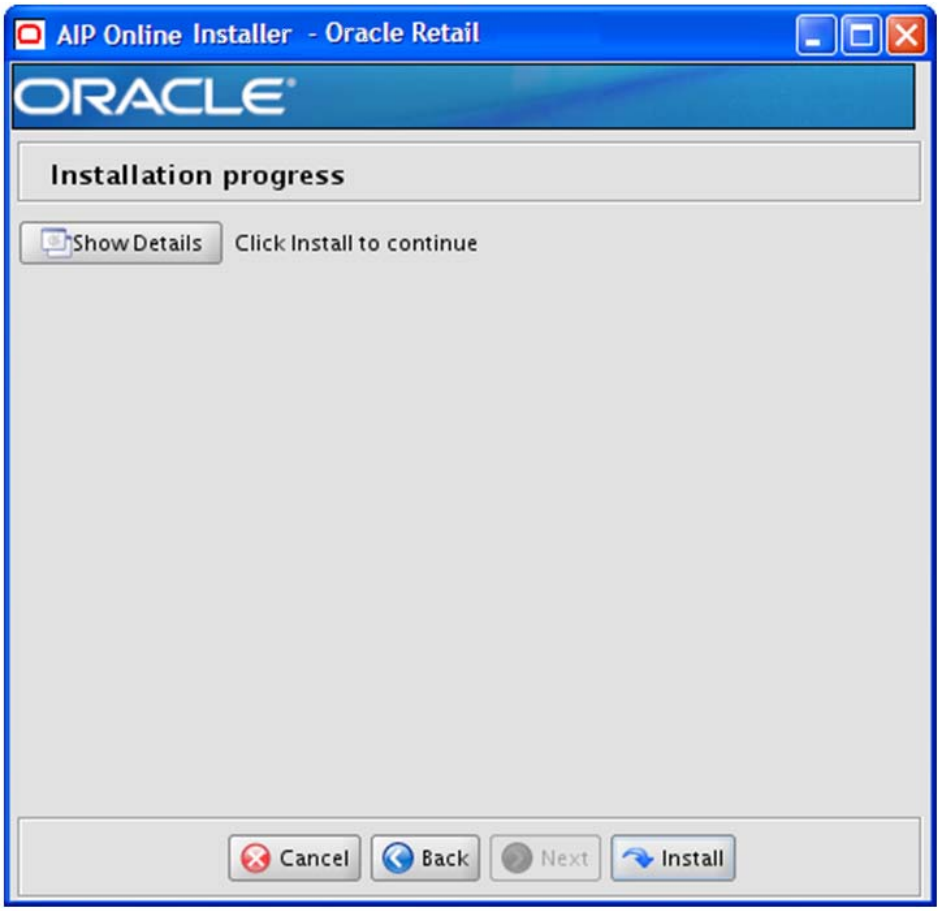
16. The Installation Progress Window opens.

    Once you are ready to begin installation, click **Install**.

    This window displays the progress of the installation routine. Select **Show Details** to view the log output as the installation is performed. If you do not select to view the details, a graphical representation of the installation steps appears.

    You can toggle between detailed mode at any time during or after the installation.

Figure 5–13 Installation Progress Window



17. When the installation has finished, the Complete window opens. Click **OK** to close the Finished dialog box.
18. To view the installation details, select **Show Details**. The window displays two tabs:
    - Output
    - Errors

    It is recommended that you review these tabs for any issues that may have occurred during the installation process.

    When the installation is complete, a detailed installation log file is created. This file is named aip14.0.0install-app.<timestamp>.log where <timestamp> represents the date and time the installation was performed. This file is located in the <INSTALL_DIR>/AIPOnlineAppServerdirectory.

Resolving Errors Encountered During Application Installation

If the application installer encounters any errors, it will halt execution immediately. You can run the installer in silent mode so that you don't have to retype the settings for your environment. Refer to "Reinstalling in Silent Mode" on page 7-2 of this guide for instructions on silent mode.

Refer to the "Troubleshooting" on page 7-2 section of this guide for a list of common installation errors.

Since the application installation is a full reinstall every time, any previous partial installs will be overwritten by the successful installation.

AIP Oracle Integration Directory (Optional)

The AIP Oracle Installer places the AIP Oracle Integration directory, AIPONLINE_DIR, with the rest of the AIP Oracle application files.

The integration directory can be located in a different location if you cannot run them from under the AIPONLINE_DIR. To install the integration files in a different location, copy the entire $AIPONLINE_DIR/AIPOnlineIntegration directory to the appropriate destination. Refer to Chapter 6, "Installing the AIP Integration Components" of this guide for more information.

Manual Deployment Tasks

> **Note:** Skip this section if you chose the default option of allowing the installer to complete the installation to the application server. Refer to Chapter 6, "Installing the AIP Integration Components" of this document for more information.

The Installer includes the option to configure the application locally and skip deployment to the application server. If this option is chosen, the installer will make the configured application files available under <INSTALL_DIR>/AIPOnlineAppServer/aip/configured-output/.

If you chose this installer option, you can complete the installation by following these steps:

1. Inspect and then overlay files from `<INSTALL_DIR>/AIPOnlineAppServer/aip/configured-output/` into your application server installation.
2. Deploy the AIPOnlineApp EAR file using the WLS Admin Console Web interface.

   The configured EAR file is located at:

   `<INSTALL_DIR>/AIPOnlineAppServer/aip/configured-output/AIPOnlineApp.ear`.

   When deploying the EAR file, you should provide the same application name you entered in the Installer. This value is stored in the <INSTALL_AIP>/AIPOnlineAppServer/ant.install.properties file by the Installer for later reference.
3. Deploy the AIPOnlineApp-help EAR file using the WLS Admin Console Web interface.

   The configured EAR file is located at:

   `<INSTALL_DIR>/AIPOnlineAppServer/aip/configured-output/AIPOnlineApp-help.ear`.

Configuring the Java Security Policy File

The weblogic.policy file requires editing if RIB was configured for AIP. The file is located at WL_HOME\server\lib\weblogic.policy. Entries should be created to grant

full permissions to the location of the deployed application as well as the EJB Compiler Cache location.

Example

An example of these entries looks like this:

```
grant codeBase "file:/u00/webadmin/product/10.3.6/WLS/user_projects/domains/soa_
domain/servers/AIP_SERVER/tmp/_WL_user/aip/-" {
    permission java.security.AllPermission;
    permission oracle.security.jps.service.credstore.CredentialAccessPermission "credstoressp.credstore",
    "read,write,update,delete";
    permission oracle.security.jps.service.credstore.CredentialAccessPermission "credstoressp.credstore.*",
    "read,write,update,delete"; };

grant codeBase "file:/u00/webadmin/product/10.3.6/WLS/user_projects/domains/soa_
domain/servers/AIP_SERVER/cache/EJBCompilerCache/-" {
    permission java.security.AllPermission;
    permission oracle.security.jps.service.credstore.CredentialAccessPermission "credstoressp.credstore",
    "read,write,update,delete";
    permission oracle.security.jps.service.credstore.CredentialAccessPermission "credstoressp.credstore.*",
    "read,write,update,delete"; };
```

Configuring Web Security

Oracle Retail Advanced Inventory Management can be accessed through a secure HTTP connection. Using a secure message transport such as SSL/TLS will provide confidentiality for messages as they traverse the network. This is the recommended configuration for Advanced Inventory Planning.

For more information on using SSL/TLS see the section "Configuring SSL" found in the WebLogic guide *Securing Oracle WebLogic Server.*

Testing the AIP Oracle Application

When you have successfully finished the postinstallation steps in the following sections, you should have a working AIP Oracle application installation. To launch the application client, open a Web browser and go to the client URL. You can find the URL in the log file that was created by the Installer.

Example: `http://myhost:7501/aip140/`

Configuring Languages

Clients using certain languages are required to edit the Java Font Configuration file on the client machine. Follow the instructions in this section if you are using these languages:

- French
- German
- Greek
- Russian
- Turkish

Adding the Cyrillic Character Set

Follow these instructions to add the Cyrillic character set:

1. Verify the Java installation path.

   Open Task Manager and while `java.exe` is running, right-click on `java.exe` to view which path is used (either **C:\Program Files (x86)\Java\jre6\bin** or **C:\Program Files\Java\jre6\lib**)

2. Go to your Java path\lib (either: **C:\Program Files (x86)\Java\jre6\bin** or **C:\Program Files\Java\jre6\lib**)

3. Make a copy of fontconfig.properties.src and rename this to fontconfig.properties

4. On fontconfig.properties, modify the line:

```
sequence.allfonts=alphabetic/default,dingbats,symbol
```

to

```
sequence.allfonts=cyrillic,alphabetic/default,dingbats,symbol
```

Creating the AIP Oracle Enterprise

This section provides the procedures to create an AIP Oracle enterprise and the initial administrator for the newly created enterprise.

1. Select the link displayed in the AIP Oracle Setup to load the AIP Oracle application System Administration.

   In the event that the page has timed out or been closed, enter the application URL in the Web browser as shown in the following example.

   Example: `http://<server>:<port>/<context root>/phantasm`

2. For the User Name field and Password field, enter the user name and password that were set for the "Default Admin User Details" on page 4-9. The System Administration page opens.

   Note: A Warning - Security window may appear asking if the signed applet that is to run the Enterprise Administration window can be trusted. If this window opens, click **Yes**.

3. Click **Enterprises** in the Enterprise Data section. The Enterprise Administration window opens.

4. Click **New**.

5. On the Company Info tab, enter the following information.

Field	Description	Example
Company name	Enter your company name	My Company
Enterprise code	aiponline	aiponline
Contact Email	Enter the AIP Administrator's e-mail address	admin@server.com

Note: The Industry and Company type fields are not required.

6. On the initial Admin tab, enter the following information.

Field	Description	Example
First Name	Enter the AIP Administrator's first name.	John
Last Name	Enter the AIP Administrator's last name.	Doe
Username	Enter the AIP Administrator's user name to be used when logging into AIP Oracle.	doejohn
New Password	Enter the AIP Administrator's AIP Oracle password. When selecting a password, make sure it meets the following requirements: ■ Minimum 6 characters; maximum 128 characters ■ At least 5 different characters ■ Must not be simple pattern of characters (such as, ABCDEF or ABCXYZ) ■ Must not be easily derivable from user name or full name ■ Must not be easily derivable from previous password ■ Must not be derivable from a dictionary entry ■ Case sensitive	aip140online
Retype New Password	Retype your password. Remember, the password is case sensitive, so you must type it exactly as it was entered in the Password field.	aip140online

7. Navigate to the Services tab. Two services are displayed, Core Administration and AIP Oracle. Perform the following steps:

Step	Direction
a.	Click the **Enabled** cell of Core Administration.
b.	Double-click the **User Limit** cell of Core Administration and enter an integer value in the cell. This integer value represents the number of users that can be created per application. If the exact number of users is not known, enter a large number such as 100. This number can be changed later by the system admin user.
c.	Press **Enter** to accept your input.
d.	Click the **Enabled** cell of AIP Oracle.
e.	Double-click the **User Limit** cell of AIP Oracle and enter an integer value in the cell. This integer value represents the number of users that can be created per application. If an exact number of users is not known, enter a large number such as 100. This number can be changed at a later time by the system admin user.
f.	Press **Enter** to accept your input.

8. On the Enterprise Administration window, click **Save**. Close the Enterprise Administration window when the save is complete.
9. On the System Administrator page, click the **LOG OUT** link located at the top right of the page.

Creating AIP Oracle Users

This section provides the procedures to create AIP Oracle users. New users should be created using the administrator account created in the previous step.

1. Load the application URL in a browser to access the AIP Oracle application login page.

   Example: `http://server:9080/aiponline/index.jsp`

2. Input the administrator username and password, and click **LOG IN**. The Application page opens.
3. Click the Core Administration link. The Administration page opens.
4. Click **Users** in the Application Setup section. The Core Administration: User Administration window opens.
5. Select the Users tab and click **New**. A user information form is displayed.
6. In the Details tab, enter all relevant user information in the form.

Field	Example
First Name	John
Last Name	Doe
Email	jdoe@company.com
Username	doejohn
New Password	aip140online
Retype New Password	aip140online
Password Status	Normal

7. Click the Permissions tab. A user permissions form opens.
8. Select the Enabled cell of the AIP Oracle service. Available Types selection box is populated with data.
9. Select **All AIP Permissions** from the **Available Types** selection box. Click **>** to move this permission type to the Selected Types box, and then click **Save**.
10. Repeat steps 5 through 9 until you have added the necessary user accounts.
11. When you have added all the necessary user accounts, close the Core Administration: User Administration window.
12. To exit, click **LOG OUT**.

6

Installing the AIP Integration Components

In order to exchange information between AIP Online, RPAS, and RMS (or an external system), the interface portion of the AIP Online suite must be installed, which consists of the following steps:

1. Installing RETL (Retail Extract Transform and Load)
2. Extracting the AIP integration/database files
3. Configuring the environment

Installing RETL

Refer to the *Oracle Retail Extract Transform and Load (RETL) Programmer's Guide* for detailed installation instructions on this product. Following the successful installation of RETL, test the application to verify the environment was set up properly and the RETL binary was installed correctly.

1. log in to the UNIX server as the *rfx* user.
2. At the UNIX prompt, enter rfx. A command-line error appears if all environment variables are setup properly, as shown in the following example.

   Example:

   ```
   /u00/retl> rfx
   Error: Flow file argument ('-f') required!
   ```

3. Verify that the RETL binary is installed properly and the database environment variables are correct by executing the `verify_retl` script. This script runs a series of validation steps and displays a confirmation message if the environment is set up correctly. Upon confirmation, the RETL environment is now ready to be configured.

   Example:

   ```
   /u00/retl> verify_retl -doracle
   Checking RETL Environment...found ORACLE environment...passed!
   Checking RETL binary...passed!
   Running samples...passed!

   ------------------------------------------------------------------------
   Congratulations! Your RETL environment and installation passed all tests.
   See the programmer's guide for more information about how to further test your
   database installation (if applicable).

   ------------------------------------------------------------------------
   Exiting...saving output in /tmp/verifyretl-1843208.log
   ```

Note: The database parameter passed with the verify_retl script varies depending on the type of database to which RETL is configured. Refer to the *Oracle Retail Extract Transform and Load (RETL) Programmer's Guide* for the specific parameters permitted in this script.

Extracting AIP Integration Files

The integration files contain the necessary RETL flow and schema files that describe the integration process. In addition to the integration files, several batch shell scripts are required to transfer data between AIP Online, RPAS, and RMS (or an external system). The integration files must be extracted to the same server where RETL is installed. It is recommended that RETL and the integration files reside on the database server.

Both online integration files and batch scripts are configured and installed through the AIP Online Application Server Installer during the Integration steps.

If these files need to be moved to another server after completing the installation process, you need to perform the following:

1. Zip the contents of the AIP Online Integration directory specified during the Application Server Installer.
2. Move the zip file to the desired server.
3. Proceed to "Editing the .profile to Run cron_export.sh and cron_import.sh Scripts" and perform the necessary tasks.
4. Once the integration files have been installed, you can use the rfx or retail UNIX user account to run the integration/database scripts.

Configuring Your Environment

The AIP Online Application Server Installer configures the following configuration files, which are discussed in the following sections:

File	Description	Section
config.xml	RETL configuration file	"Configuring the config.xml File"
aip_env_online.sh	AIP configuration file	"Editing the aip_env_online.sh to Run cron_export.sh and cron_import.sh Scripts"

Configuring the config.xml File

This configuration file contains the database connection information for RETL for both import and export. Refer to the Oracle Retail Extract, Transform, and Load (RETL) documentation for detailed descriptions of element definitions. Essentially, the *Oraread* section describes the database for the export and *Orawrite* for the import; both would normally be the same. Databases can be local or remote, but if they are remote they must be reachable by normal means (that is, should be an entry in tnsnames.ora and reachable by SQLPlus). The database can be clustered or standalone. Config.xml file is created by AIP installer during installation.

The Oracle export *arraysize* needs to be set dynamically in the config.xml file depending on the server's capabilities. The recommended default *arraysize* value is

2000. Setting the value too high can cause an out of memory error. The value can be set up to 10,000 to maximize performance based on server capability.

The *dbuseralias* property should be set to the alias used for AIP database credentials in the RETL wallet. See Appendix B, "Appendix: Setting Up Password Stores with Oracle Wallet" for details on creating RETL database credentials

When installing to a RAC database, the property jdbcconnectionstring should be set using the description field of tnsnames.ora file.

The resulting saved value of this field in config.xml should look like Example 6–1:

Example 6–1 Saved Value from the Description Field of tnsnames.ora file

jdbc:oracle:thin:@(DESCRIPTION =(ADDRESS_LIST =(ADDRESS = (PROTOCOL = TCP)(HOST = mspvip92)(PORT = 1521))(ADDRESS = (PROTOCOL = TCP)(HOST = mspvip93)(PORT = 1521))(LOAD_BALANCE = yes))(CONNECT_DATA =(SERVICE_NAME = qaolr13)))

Note: The jdbcconnectionstring property is only required for RAC database and is not needed for non-RAC database.

Editing the aip_env_online.sh to Run cron_export.sh and cron_import.sh Scripts

In order for the cron_export.sh and cron_import.sh to function correctly, the AIPOnline Application Server Installer configures the aip_env_online.sh file with the following environment variable

Environment Variable	Description
ONL_SCHEMA_OWNER	This variable must be set to the owner of AIP online schema.
ONL_DB_ALIAS	This variable must be set to the Oracle Wallet alias used by AIP shell scripts to access the Oracle database.

The following environment variables are also set in aip_env_online.sh:

Environment Variable	Description
INTEGRATION_HOME	This is the path to the integration directory extracted earlier (where the cron_export.sh and cron_import.sh shell scripts reside). Refer to the *Oracle Retail Advanced Inventory Planning Implementation Guide* for information on the parameters to be set.
RETL_MAX_HEAP_SIZE	This parameter is used by the virtual machine. It is set to a default value of 700M. However, it can be changed dynamically to **xxxM** or **yG** to limit the memory usage by the virtual machine.
RETL_INIT_HEAP_SIZE	This parameter is used by the virtual machine. It is set to a default value of 200M. However, it can be changed dynamically to **xxxM** or **yG** to set the initial memory assigned to RETL.

Note: A batch scheduler should be set up to run cron_export.sh and/or cron_import.sh.

Editing the .profile to Run cron_export.sh and cron_import.sh Scripts

In order for cron_export.sh and cron_import.sh scripts to run correctly, the following variables must be modified in the UNIX user .profile file. Refer to the *Oracle Retail Advanced Inventory Planning Implementation Guide* for further details on how these values are used.

Table 6–1 Variables for the cron_export.sh and cron_import.sh Scripts t

Variable	Description
RFX_HOME	This variable points to the RETL installation home.
RFX_TMP	This variable points to the tmp directory under RFX_HOME.
ORACLE_HOME	This variable points to the Oracle database home.
JAVA_HOME	This variable points to required JRE version for use by RETL.
TEST_ONL_ INTEGRATION_HOME	This value should be the directory where cron_import.sh and cron_export.sh reside. The INTEGRATION_HOME variable in aip_env_online.sh references this externally-defined variable by default. Using this externally-defined variable allows multiple testers to use the same aip_env_online.sh while working in different test directories. If the INTEGRATION_HOME variable in aip_env_ online.sh is changed to reference a hardcoded directory, this variable is not needed.
TEST_RETL_CONFIG_FILE	This value should contain the fully-qualified path and filename of a RETL configuration file containing database connection information. The RETL_ CONFIG_FILE variable in aip_env_online.sh references this externally-defined variable by default. Using this externally-defined variable allows multiple testers to use the same aip_env_online.sh while referencing different RETL configuration files. If the RETL_CONFIG_FILE variable in aip_env_online.sh is changed to contain a hardcoded value, this variable is not needed.
TEST_AIPDOMAIN	This value should contain the fully-qualified path of the AIP RPAS global domain. The AIPDOMAIN variable in aip_env_online.sh references this externally-defined variable by default. Using this externally-defined variable allows multiple testers to use the same aip_env_online.sh while working with different test domains. If the AIPDOMAIN variable in aip_env_online.sh is changed to reference a hardcoded domain, this variable is not needed.

The source call to load the profile is to setup environment variables to enable programs to function correctly (for instance; setting ORACLE_HOME and paths so that sqlldr functions correctly).

Example:

The following sample code can be defined in user .profile file:

```
export RFX_HOME=<path from root>/rfx/rfx-13.1
export ORACLE_HOME=<path from root>/oracle/product/11.1.0.7
export JAVA_HOME=<path of required JRE version compatible with RETL version>
export TEST_ONL_INTEGRATION_HOME=<path to integration directory>
export TEST_RETL_CONFIG_FILE=<path and filename of RETL config file>
export TEST_AIPDOMAIN=<path of the AIP RPAS global domain>
export RFX_TMP=$RFX_HOME/tmp

export PATH=$RFX_TMP:$RFX_HOME/bin:$ORACLE_HOME/bin:$JAVA_HOME/bin:$JAVA_
HOME/jre/bin:$PATH
export
PATH=$TEST_ONL_INTEGRATION_HOME:$TEST_ONL_INTEGRATION_HOME/bsa:$TEST_ONL_
INTEGRATION_HOME/scripts:$PATH
```

7

Installation Questions, Reinstallation, and Troubleshooting

This chapter provides information about installation questions, reinstalling your AIP software components, and troubleshooting the installation process.

Installation Questions

Both the database schema and application installers will ask for several different URLs. This section provides information about the URLs and their syntax.

About Installation URLs

Both the database schema and application installers ask for several different URLs, such as the JDBC URL for a database and the deployer URI. The following sections describe these path statements.

JDBC URL for a Database

Used by the Java application and by the installer to connect to the database.

Item	Description
Syntax	`jdbc:oracle:thin:@<host>:<port>:<sid>`
<host>	hostname of the database server
<port>	database listener port
<sid>	system identifier for the database
Example	`jdbc:oracle:thin:@myhost:1521:mysid`

Deployer URI

The Deployer URI is used by the Oracle ANT installer tasks to deploy an application to an OC4J instance. The application installer does not ask the user for this value; it is constructed based on other inputs and written to the ant.install.properties file for input to the installation script. For repeat installations using silent mode, you may need to correct mistakes in the deployer URI.

Note: There are several different formats for the deployer URI depending on your cluster topology. Consult the "Deploying with the OC4J Ant Tasks" chapter of the *OC4J Deployment Guide f*or further details.

Managed OC4J

Item	Description
Syntax	`deployer:cluster:opmn://<host>:<port>/<instance>`
<host>	hostname of the OracleAS environment
<port>	OPMN request port of the OracleAS environment. This can be found in the <ORACLE_HOME>/opmn/conf/opmn.xml file.
Example	`deployer:cluster:opmn://myhost:6003/sim-oc4j-instance`

Managed OC4J

Item	Description
Syntax	`deployer:oc4j:<host>:<port>`
<host>	hostname of the OracleAS environment
<port>	RMI port of the OC4J server. This can be found in the ORACLE_HOME/j2ee/home/config/rmi.xml file.
Example	`deployer:oc4j:myhost:23791`

Reinstalling in Silent Mode

Once you have successfully installed the various AIP software components, you may wish to repeat the installation if needed. When the AIP installers run, they generate and store installation information to the ant.install.properties file. You can reinstall your AIP software using the information stored in this file. When using this information, there is no need to enter any information on the window, since everything required is in the ant.installer.properties file, the reinstallation can be run from the command line and is referred to as reinstalling in silent mode since no prompts or data input is required.

To reinstall your AIP software in silent mode using the information stored in the aip.install.properties file, perform the following procedure.

1. Edit the ant.install.properties file to correct or modify any settings.
2. Run the installer again from the installation directory using the following command.

   ```
   ./install.sh silent
   ```

Troubleshooting

This section provides information about potential issues that may be encountered during installation.

Database Installer Hangs on Startup

This section provides symptoms and solutions for when a database installer hangs on startup.

Symptom

When the database schema installer is run, the following is written to the console and the installer hangs indefinitely:

```
Running pre-install checks
Running tnsping to get listener port
```

Solution

The installer startup script is waiting for control to return from the **tnsping** command, but tnsping is hanging. Type Control+C to cancel the Installer, and investigate and solve the problem that is causing the **tnsping <sid>** command to hang. This can be caused by duplicate database listeners running.

Unreadable Buttons in the Installer

If you are unable to read the text within the installer buttons, it probably means that your JAVA_HOME is pointed to a pre-1.7.0-25 JDK. Set JAVA_HOME to a Java Development Kit of version 1.7.0-25 or later and run the installer again.

Message: Unable to get a deployment manager

This section provides symptoms and solutions for the error message: Unable to get a deployment manager.

Symptom

The application installer quits with the following error message:

```
[oracle:deploy] Unable to get a deployment manager.
[oracle:deploy]
[oracle:deploy] This is typically the result of an invalid deployer URI format
being supplied, the target server not being in a started state or incorrect
authentication details being supplied.
[oracle:deploy]
[oracle:deploy] More information is available by enabling logging -- please see
the Oracle Containers for J2EE Configuration and Administration Guide for details.
```

Solution

This error can be caused by any of the following conditions:

- OC4J instance provided is not running
- Incorrect OC4J instance name provided
- Incorrect OC4J administrative username and/or password
- Incorrect OPMN request port provided

Make sure that the OC4J instance is running, and then check the ant.install.properties file for entry mistakes. Pay close attention to the input.deployer.uri (refer to "About Installation URLs" on page 7-1 for more information on URL references), input.oc4j.instance, input.admin.user, and input.admin.password properties. If you need to make a correction, you can run the installer again with this file as input by running silent mode (refer to "Reinstalling in Silent Mode" on page 7-2 for more information).

Unresponsive Fields when Running Installer in GUI Mode

This section provides symptoms and solutions for when there are unresponsive fields when running the Installer in GUI mode.

Symptom

In GUI mode, you may click in a field and find it unresponsive, and the following message appears in the console window:

```
XTEST extension not installed on this X server: Error 0
```

Solution

To run the AIP Online installer in GUI mode you must have the XTEST extension enabled in your X server. Perform the following procedure to enable XTEST in Exceed.

> **Note:** As this issue is specific to Exceed, you could also use any X11 server like Cygwin + X11 packages or other tools to avoid the problem.

1. Open Xconfig to edit your Exceed configuration settings.
2. Go to the X Server Protocol settings.
3. Select the Extensions tab.
4. Make sure the XTEST extension is selected.
5. Restart the X Server and re-run the AIP Online Installer.

Warning: Could not create system preferences directory

This section provides symptoms and solutions for the warning: Could not create system preferences directory.

Symptom

The following text appears in the installer Errors tab:

```
May 22, 2006 11:16:39 AM java.util.prefs.FileSystemPreferences$3 run
WARNING: Could not create system preferences directory. System preferences are
unusable.
May 22, 2006 11:17:09 AM java.util.prefs.FileSystemPreferences
checkLockFile0ErrorCode
WARNING: Could not lock System prefs. Unix error code -264946424.
```

Solution

This is related to Java bug 4838770. The /etc/.java/.systemPrefs directory may not have been created on your system. For details on this Java error, see http://bugs.sun.com.

This is an issue with your installation of Java and does not affect the Oracle Retail product installation.

Warning: Could not find X Input Context

This section provides symptoms and solutions for the warning: Could not find X Input Context.

Symptom

The following text appears in the console window during execution of the installer in GUI mode:

```
Couldn't find X Input Context
```

Solution

This message is harmless and can be ignored.

ConcurrentModificationException in Installer GUI

This section provides symptoms and solutions for when there is an ConcurrentModificationException in the Installer GUI.

Symptom

In GUI mode, the errors tab shows the following error:

```
java.util.ConcurrentModificationException
            at
java.util.AbstractList$Itr.checkForComodification(AbstractList.java:448)
            at java.util.AbstractList$Itr.next(AbstractList.java:419)
… etc
```

Solution

You can ignore this error. It is related to third-party Java Swing code for rendering of the installer GUI and does not affect the retail product installation.

A

Appendix: Database Parameter File

This appendix provides information on database requirements and sample database scripts.

Physical Database Upgrade Requirements

At the physical database level, the following two conditions must be met in order to be Release 14.0.1 compatible:

Characterset

The characterset must be `AL32UTF8`.

Tablespaces

Rename the tablespace RETEK_DATA to RETAIL_DATA and rename the tablespace RETEK_INDEX to RETAIL_INDEX.

> **Note:** Release 14.0.1 no longer uses tablespaces RETEK_DATA and RETEK_INDEX tablespaces and they should be renamed to RETAIL_DATA and RETAIL_INDEX. It is absolutely essential that a complete backup has been taken before performing this task.

Refer to "Installing the AIP Oracle Database - Patch Mode" on page 4-3,

Sample Database Scripts

This section provides sample database scripts for:

- Sample Database init.ora
- Sample Tablespace Creation Scripts

Sample Database init.ora

The following code provides a sample database, init.ora. The commented code provides instructions about making the necessary modifications for your environment.

```
###############################################################################
# Oracle 11.1.0.x Parameter file
#
# NOTES: Before using this script:
# 1. Change <datafile_path>, <admin_path>, <utl_file_path>, <diag_path>
and <hostname>
```

```
# values as appropriate.
# 2. Replace the word SID with the database name.
# 3. Size parameters as necessary for development, test, and production
environments.
# -----------------------------------------------------------------------
# MAINTENANCE LOG
#
# Date By Parameter Old/New Notes
# +------+ +---------+ +-----------------+ +-------------+ +-------------+
#
#
###############################################################################
def#
-------------------------------------------------------------------------------
# The policy is to give 60% for sga and 40% for PGA out of Memory Target at
startup
# -------------------------------------------------------------------------------
memory_target = 2000M
# -------------------------------------------------------------------------------
audit_file_dest = <admin_path>/adump
compatible = 11.1.0
control_files = (<datafile_path>/control01.ctl
,<datafile_path>/control02.ctl)
db_block_size = 8192 # Default is 2k; adjust before db creation,
cannot change after db is created
db_file_multiblock_read_count = 16 # Platform specific (max io
size)/(block size)
db_name = SID
diagnostic_dest = '<diag_path>'
java_pool_size = 100M
job_queue_processes = 5 # Oracle Retail required; number of
cpu's + 1
local_listener =
"(ADDRESS=(PROTOCOL=TCP)(HOST=<hostname>)(PORT=1521))"
nls_calendar = GREGORIAN
nls_date_format = DD-MON-RR # Oracle Retail required; if RDW
database see later entry for proper format
nls_language = AMERICAN # Default
nls_numeric_characters = "." # Should be explicitly set to ensure all
users/batch get the same results
nls_sort = BINARY # Should be explicitly set to ensure all
sessions get the same order
nls_territory = AMERICA # Default
open_cursors = 900 # Oracle Retail required (minimum=900);
default is 50
optimizer_features_enable = 11.1.0.7
optimizer_mode = CHOOSE # Oracle Retail required
Appendix: Oracle 11g Database Parameter File
56 Oracle Retail Merchandising System
plsql_optimize_level = 2 # 10g change; use this setting
to optimize plsql performance
processes = 500 # Max number of OS processes that can connect
to the db
query_rewrite_enabled = TRUE # Oracle Retail required for functionbased
indexes
session_cached_cursors = 900 # Oracle Retail required;
undo_management = AUTO
undo_retention = 1800 # Currently set for 30 minutes; set to avg
length of transactions in sec
undo_tablespace = undo_ts
```

```
user_dump_dest = <admin_path>/udump
utl_file_dir = <utl_file_path>
workarea_size_policy = auto # Should be set to auto
when pga_aggregate_target is set
#
# *** Set these parameters for Oracle Retail Data Warehouse (RDW) database ***
#nls_date_format = DD-MON-RRRR # Required by MicroStrategy
#query_rewrite_integrity = TRUSTED
#star_transformation_enabled = TRUE
#utl_file_dir = <Windows_utl_file_path>,
<UNIX_util_file_path>
#
# *** Archive Logging, set if needed ***
#log_archive_dest_1 = 'location=<admin_path>/arch/'
#log_archive_format = SIDarch_%r_%s_%t.log
#log_buffer = 10485760 # Set to (512K or 128K)*CPUs
#log_checkpoint_interval = 51200 # Default:0 - unlimited
#log_checkpoint_timeout = 7200 # Default:1800 seconds
```

Sample Tablespace Creation Scripts

The tablespaces displayed in the following code example are required.

> **Note:** Oracle Retail recommends the use of locally managed tablespaces with auto segment space management.

create_aip_tablespaces.sql

Execute as:**sysdba**

Modify file paths and **ORACLE_SID** for your environment.

```
CREATE TABLESPACE RETEKRETAIL_INDEX DATAFILE
    '/u01/oradata/$ORACLE_SID/retekretail_index01.dbf'  SIZE 500M
    AUTOEXTEND ON NEXT 100M MAXSIZE 2000M
    EXTENT MANAGEMENT LOCAL
    SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE RETEKRETAIL_DATA DATAFILE
    '/u01/oradata/$ORACLE_SID/retekretail_data01.dbf'  SIZE 500M
    AUTOEXTEND ON NEXT 100M MAXSIZE 2000M
    EXTENT MANAGEMENT LOCAL
    SEGMENT SPACE MANAGEMENT AUTO
```

B

Appendix: Setting Up Password Stores with Oracle Wallet

As part of an application installation, administrators must setup password stores for database user accounts using Oracle Wallet. These password stores must be installed on the application database side. While the installer handles much of this process, the administrators must perform some additional steps.

A password store for the application and application server user accounts must also be installed; however, the installer takes care of this entire process.

About Password Stores and Oracle Wallet

Oracle databases have allowed other users on the server to see passwords in case database connect strings (user name/password@db) were passed to programs. In the past, users could navigate to ps -ef | grep <username> and see the password if the password was supplied in the command line when calling a program.

To make passwords more secure, sensitive information such as user credentials now must be encrypted and stored in a secure location. This location is called password stores or wallets. These password stores are secure software containers that store the encrypted user credentials.

Users can retrieve the credentials using aliases that were set up when encrypting and storing the user credentials in the password store. For example, if username/password@db is entered in the command line argument and the alias is called db_username, then the argument to a program would be the following:

```
sqlplus /@db_username
```

This would connect to the database as it did previously, but it would hide the password from any system user. After this is configured, as in the previous example, the application installation and the other relevant scripts are no longer need to use embedded usernames and passwords. This reduces any security risks that may exist because usernames and passwords are no longer exposed.

When the installation starts, all the necessary user credentials are retrieved from the Oracle Wallet based on the alias name associated with the user credentials. There are two different types of password stores or wallets. One type is for database connect strings used in program arguments (such as sqlplus /@db_username). The other type is for java application installation and application use.

Setting Up Password Stores for Database User Accounts

After the database is installed and the default database user accounts are set up, administrators must set up a password store using the Oracle Wallet. This involves assigning an alias for the username and associated password for each database user account. The alias is used later during the application installation. This password store must be created on the system where the application server and database client are installed.

This section describes the steps you must take to set up a wallet and the aliases for the database user accounts. For more information on configuring authentication and password stores, refer to the *Oracle Database Security Guide.*

Note: In this section, `<wallet_location>` is a placeholder text for illustration purposes. Before running the command, ensure that you specify the path to the location where you want to create and store the wallet.

Steps to Set Up a Password Store

To set up a password store for the database user accounts, perform the following steps:

1. Create a wallet using the following command:

   ```
   mkstore -wrl <wallet_location> -create
   ```

   After you run the command, a prompt appears. Enter a password for the Oracle Wallet in the prompt.

   Note: The `mkstore` utility is included in the Oracle Database Client installation.

   The wallet is created with the auto-login feature enabled. This feature enables the database client to access the wallet contents without using the password. For more information, refer to the *Oracle Database Advanced Security Administrator's Guide*.

2. Create the database connection credentials in the wallet using the following command:

   ```
   mkstore -wrl <wallet_location> -createCredential <alias-name>
   <database-user-name>
   ```

   After you run the command, a prompt appears. Enter the password associated with the database user account in the prompt.

3. Repeat step 2 for all the database user accounts.

4. Update the sqlnet.ora file to include the following statements:

   ```
   WALLET_LOCATION = (SOURCE = (METHOD = FILE) (METHOD_DATA = (DIRECTORY =
   <wallet_location>)))
   SQLNET.WALLET_OVERRIDE = TRUE
   SSL_CLIENT_AUTHENTICATION = FALSE
   ```

5. Update the tnsnames.ora file to include the following entry for each alias name to be set up.

   ```
   <alias-name> =
       (DESCRIPTION =
        (ADDRESS_LIST =
   ```

```
        (ADDRESS = (PROTOCOL = TCP) (HOST = <host>) (PORT = <port>))
    )
    (CONNECT_DATA =
        (SERVICE_NAME = <service>)
     )
)
```

Note: In the previous example, <alias-name>, <host>, <port>, and <service> are placeholder text for illustration purposes. Ensure that you replace these with the relevant values.

Setting Up Wallets for Database User Accounts

The following examples show how to set up wallets for database user accounts for the following applications:

- For RMS, RWMS, RPM Batch, RETL, RMS, RWMS, and ARI
- For Java Applications: (SIM, ReIM, RPM, Alloc, RIB, RSL, AIP, RETL)

For RMS, RWMS, RPM Batch, RETL, RMS, RWMS, and ARI

Follow this procedure to set up wallets for database user accounts for the applications, RMS, RWMS, RPM Batch, RETL, RMS, RWMS, and ARI:

1. Create a new directory called wallet under your folder structure.

```
cd /projects/rms14.0.0/dev/
mkdir .wallet
```

Note: The default permissions of the wallet allow only the owner to use it, ensuring the connection information is protected. If you want other users to be able to use the connection, you must adjust permissions appropriately to ensure only authorized users have access to the wallet.

2. Create a sqlnet.ora in the wallet directory with the following content.

```
WALLET_LOCATION =   (SOURCE =     (METHOD = FILE)     (METHOD_DATA =
(DIRECTORY =  /projects/rms14.0.0/dev/.wallet)) )
SQLNET.WALLET_OVERRIDE=TRUE
SSL_CLIENT_AUTHENTICATION=FALSE
```

Note: WALLET_LOCATION must be on line 1 in the file.

3. Set up a tnsnames.ora in the wallet directory. This tnsnames.ora includes the standard tnsnames.ora file. Then, add two custom tns_alias entries that are only for use with the wallet. For example: `sqlplus /@dvols29_rms01user`.

```
ifile = /u00/oracle/product/11.2.0.1/network/admin/tnsnames.ora


dvols29_rms01user =
 (DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = tcp)
```

```
 (host = mspdv311.us.oracle.com) (Port = 1521)))
   (CONNECT_DATA = (SID = dvols29) (GLOBAL_NAME = dvols29)))

dvols29_rms01user.world =
 (DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = tcp)
 (host = mspdv311.us.oracle.com) (Port = 1521)))
   (CONNECT_DATA = (SID = dvols29) (GLOBAL_NAME = dvols29)))
```

Note: It is important to not copy the `tnsnames.ora` file because it can quickly become out of date. The ifile clause (shown previously) is key.

4. Create the wallet files. These are empty initially.
   1. Ensure you are in the intended location.

      ```
      $ pwd
      /projects/rms14.0.0/dev/.wallet
      ```

   2. Create the wallet files.

      ```
      $ mkstore -wrl . -create
      ```

   3. Enter the wallet password you want to use. It is recommended that you use the same password as the UNIX user you are creating the wallet on.
   4. Enter the password again.

      Two wallet files are created from the previous command: ewallet.p12 and cwallet.sso.
5. Create the wallet entry that associates the username and password to the custom tns alias that was setup in the wallet's tnsnames.ora file.

   ```
   mkstore -wrl . -createCredential <tns_alias> <username> <password>
   ```

   Example: `mkstore -wrl . -createCredential dvols29_rms01user rms01user passwd`
6. Test the connectivity. The ORACLE_HOME used with the wallet must be the same version or higher then what the wallet was created with.

   ```
   $ export TNS_ADMIN=/projects/rms14.0.0/dev/.wallet /* This is very
   import to use wallet to point at the alternate tnsnames.ora created in
   this example */

   $ sqlplus /@dvols29_rms01user

   SQL*Plus: Release 11

   Connected to:
   Oracle Database 11g

   SQL> show user
   USER is "rms01user"
   ```

   Running batch programs or shell scripts would be similar:

   ```
   Ex: dtesys /@dvols29_rms01user
   script.sh /@dvols29_rms01user


   Set the UP unix variable to help with some compiles :
   ```

```
export UP=/@dvols29_rms01user
for use in RMS batch compiles, and RMS, RWMS, and ARI forms compiles.
```

As shown in the previous example, users can ensure that passwords remain invisible.

Additional Database Wallet Commands

The following is a list of additional database wallet commands.

- Delete a credential on wallet

  ```
  mkstore -wrl . -deleteCredential dvols29_rms01user
  ```

- Change the password for a credential on wallet

  ```
  mkstore -wrl . -modifyCredential dvols29_rms01user rms01user passwd
  ```

- List the wallet credential entries

  ```
  mkstore -wrl . -list
  ```

  This command returns values such as

  ```
  oracle.security.client.connect_string1
  ```

  ```
  oracle.security.client.user1
  ```

  ```
  oracle.security.client.password1
  ```

- View the details of a wallet entry

  ```
  mkstore -wrl . -viewEntry oracle.security.client.connect_string1
  ```

  Returns the value of the entry:

  ```
  dvols29_rms01user
  ```

  ```
  mkstore -wrl . -viewEntry oracle.security.client.user1
  ```

  Returns value of the entry:

  ```
  rms01user
  ```

  ```
  mkstore -wrl . -viewEntry oracle.security.client.password1
  ```

  Returns value of the entry:

  ```
  passwd
  ```

For Java Applications: (SIM, ReIM, RPM, Alloc, RIB, RSL, AIP, RETL)

For Java application, consider the following:

- For database user accounts, ensure that you set up the same alias names between the password stores (database wallet and Java wallet). You can provide the alias name during the installer process.
- Document all aliases that you have set up. During the application installation, you must enter the alias names for the application installer to connect to the database and application server.
- Passwords are not used to update entries in Java wallets. Entries in Java wallets are stored in partitions, or application-level keys. In each retail application that has been installed, the wallet is located in <WEBLOGIC_DOMAIN_HOME>/retail/<appname>/config

  Example:

mspdv351:[1036_WLS] /u00/webadmin/product/10.3.6/WLS/user_projects/

domains/140_mck_soa_domain/retail/reim14/config

- Application installers should create the Java wallets for you, but it is good to know how this works for future use and understanding.
- Scripts are located in <WEBLOGIC_DOMAIN_HOME>/retail/<appname>/retail-public-security-api/bin for administering wallet entries.

  Example:

  mspdv351:[1036_WLS] /u00/webadmin/product/10.3.6/WLS/user_projects/

  domains/140_mck_soa_domain/retail/reim14/retail-public-security-api/bin
- In this directory is a script to help you update each alias entry without having to remember the wallet details. For example, if you set the RPM database alias to rms01user, you will find a script called update-RMS01USER.sh.

  Note: These scripts are available only with application installed by way of an installer.

- Two main scripts are related to this script in the folder for more generic wallet operations: dump_credentials.sh and save_credential.sh.
- If you have not installed the application yet, you can unzip the application zip file and view these scripts in <app>/application/retail-public-security-api/bin.

  Example:

  mspdv351:[1036_WLS] /u00/webadmin/reim/application/retail-public-security-api/bin

update-<ALIAS>.sh

update-<ALIAS>.sh updates the wallet entry for this alias. You can use this script to change the user name and password for this alias. Because the application refers only to the alias, no changes are needed in application properties files.

Usage:

```
update-<username>.sh <myuser>
```

Example:

```
mspdev71:[1036WLS] /u00/webadmin/product/10.3.6/WLS/user_projects/domains/java_
domain/retail/rpm140test/retail-public-security-api/bin> ./update-RMS01USER.sh
usage: update-RMS01USER.sh <username>
<username>: the username to update into this alias.
Example: update-RMS01USER.sh myuser
Note: this script will ask you for the password for the username that you pass in.
mspdev71:[1036WLS] /u00/webadmin/product/10.3.6/WLS/user_projects/domains/java_
domain/retail/rpm140test/retail-public-security-api/bin>
```

dump_credentials.sh

dump_credentials.sh is used to retrieve information from wallet. For each entry found in the wallet, the wallet partition, the alias, and the username are displayed. Note that the password is not displayed. If the value of an entry is uncertain, run save_credential.sh to resave the entry with a known password.

```
Dump_credentials.sh <wallet location>
```

Example:

```
ddump_credentials.sh location:/u00/webadmin/product/10.3.6/WLS/user_
projects/domains/140_mck_soa_domain/retail/sim14/config

===========================================
Retail Public Security API Utility
===========================================
```

Following are the credentials found in the wallet at the location:

```
 /u00/webadmin/product/10.3.6/WLS/user_projects/domains/140_mck_soa_
domain/retail/sim14/config

Application level key partition name:reim14
User Name Alias:WLS-ALIAS User Name:weblogic
User Name Alias:RETAIL-ALIAS User Name:retail.user
User Name Alias:LDAP-ALIAS User Name:RETAIL.USER
User Name Alias:RMS-ALIAS User Name:rms140mock
User Name Alias:REIMBAT-ALIAS User Name:reimbat
```

save_credential.sh

save_credential.sh is used to update the information in wallet. If you are unsure about the information that is currently in the wallet, use dump_credentials.sh as indicated previously.

```
save_credential.sh -a <alias> -u <user> -p <partition name>  -l <path of
the wallet file location where credentials are stored>
```

Example:

```
mspdv351:[1036_WLS] /u00/webadmin/mock140_
testing/rtil/rtil/application/retail-public-security-api/bin> save_
credential.sh -l wallet_test -a myalias -p mypartition -u myuser

===========================================
Retail Public Security API Utility
===========================================

Enter password:
Verify password:
```

> **Note:** -p in the previous command is for partition name. You must specify the proper partition name which is used in application code for each Java application.
>
> save_credential.sh and dump_credentials.sh scripts are the same for all applications. If using save_credential.sh to add a wallet entry or to update a wallet entry, bounce the application/managed server so that your changes are visible to the application. Also, save a backup copy of your cwallet.sso file in a location outside of the deployment path, because redeployment or reinstallation of the application will wipe the wallet entries you made after installation of the application. To restore your wallet entries after a redeployment/reinstallation, copy the backed up cwallet.sso file over the cwallet.sso file. Then bounce the application/managed server.

Usage:

```
===========================================
```

```
Retail Public Security API Utility
==========================================
usage: save_credential.sh -au[plh]
E.g. save_credential.sh -a rms-alias -u rms_user -p rib-rms -l ./
 -a,--userNameAlias <arg>              alias for which the credentials
needs to be stored
 -h,--help                             usage information
 -l,--locationofWalletDir <arg>        location where the wallet file is
created.If not specified, it creates the wallet under secure-credential-wallet
directory which is already present under the retail-public-security-api/
directory.
 -p,--appLevelKeyPartitionName <arg>   application level key partition name
 -u,--userName <arg>                   username to be stored in secure
credential wallet for specified alias*
```

How Does the Wallet Relate to the Application?

The ORACLE Retail Java applications include the wallet alias information you create in an <app-name>.properties file. Below is a sample from the reim.properties file. Database information and the user are presented below. The property called datasource.credential.alis=RMS-ALIAS uses the ORACLE wallet with the argument of RMS-ALIAS that is at the csm.wallet.path (Java wallet) with the csm.wallet.partition.name of reim14 to retrieve the password for application use.

Reim.properties code sample:

```
datasource.url=jdbc:oracle:thin:@mspdv349.us.oracle.com:1521:pkols07
datasource.schema.owner=rms140mock
datasource.credential.alias=RMS-ALIAS
# ===================================================================
# ossa related Configuration
#
# These settings are for ossa configuration to store credentials.
# ===================================================================

csm.wallet.path=/u00/webadmin/product/10.3.6/WLS/user_projects/domains/140_mck_
soa_domain/retail/reim14/config
csm.wallet.partition.name=reim
```

How Does the Wallet Relate to Java Batch Program Use?

Some of the ORACLE Retail Java batch applications have an alias to use when running Java batch programs. For example, alias REIMBAT-ALIAS maps through the wallet to dbuser reimbat, already on the database. To run a ReIM batch program, the format would be: reimbatchpgmname REIMBAT-ALIAS <other arguments as needed by the program in question>

Setting up RETL Wallets

RETL creates a wallet under $RFX_HOME/etc/security, with the following files:

- cwallet.sso
- jazn-data.xml
- jps-config.xml
- README.txt

To setup RETL wallets, perform the following steps:

1. Set the following environment variables:
   - ORACLE_SID=retaildb
   - RFX_HOME=/u00/rfx/rfx-13.2.5
   - RFX_TMP=/u00/rfx/rfx-13.2.0/tmp
   - JAVA_HOME=/usr/jdk1.7.0-25
   - LD_LIBRARY_PATH=$ORACLE_HOME
   - PATH=$RFX_HOME/bin:$JAVA_HOME/bin:$PATH
2. Change directory to $RFX_HOME/bin.
3. Run setup-security-credential.sh.
   - Enter 1 to add a new database credential.
   - Enter the dbuseralias. For example, retl_java_rms01user.
   - Enter the database username. For example, rms01user.
   - Enter the database password.
   - Reenter the database password.
   - Enter D to exit the setup script.
4. Update your RETL environment variable script to reflect the names of both the Oracle Networking wallet and the Java wallet.

   For example, to configure RETLforRPAS, modify the following entries in $MMHOME/RETLforRPAS/rfx/etc/rmse_rpas_config.env
   - The RETL_WALLET_ALIAS should point to the Java wallet entry:

     export RETL_WALLET_ALIAS="retl_java_rms01user"
   - The ORACLE_WALLET_ALIAS should point to the Oracle network wallet entry:

     export ORACLE_WALLET_ALIAS="dvols29_rms01user"
   - The SQLPLUS_LOGON should use the ORACLE_WALLET_ALIAS:

     export SQLPLUS_LOGON="/@${ORACLE_WALLET_ALIAS}"
5. To change a password later, run setup-security-credential.sh.
   - Enter 2 to update a database credential.
   - Select the credential to update.
   - Enter the database user to update or change.
   - Enter the password of the database user.
   - Re-enter the password.

Quick Guide for Retail Wallets

Table B–1 Quick Guide for Retail Wallets

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
RMS batch	DB	<RMS batch install dir (MMHOME)>/.wallet	n/a	<Database SID>_<Database schema owner>	<rms schema owner>	Compile, execution	Installer	n/a	Alias hard-coded by installer
RMS forms	DB	<forms install dir>/base/.wallet	n/a	<Database SID>_<Database schema owner>	<rms schema owner>	Compile	Installer	n/a	Alias hard-coded by installer
ARI forms	DB	<forms install dir>/base/.wallet	n/a	<Db_Ari01>	<ari schema owner>	Compile	Manual	ari-alias	
RMWS forms	DB	<forms install dir>/base/.wallet	n/a	<Database SID>_<Database schema owner>	<rwms schema owner>	Compile forms, execute batch	Installer	n/a	Alias hard-coded by installer
RPM app	DB	<RPM batch install dir>/.wallet	n/a	<rms schema owner alias>	<rms schema owner>	Execute batch	Manual	rms-alias	
RWMS auto-login	JAVA	<forms install dir>/base/.java wallet	<RWMS Installation name>	<RWMS database user alias>	<RWMS schema owner>	RWMS forms app to avoid dblogin window	Installer	rwms14inst	
			<RWMS Installation name>	BI_ALIAS	<BI Publisher administrative user>	RWMS forms app to connect to BI Publisher	Installer	n/a	Alias hard-coded by installer

Table B–1 (Cont.) Quick Guide for Retail Wallets

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
AIP app	JAVA	<weblogic domain home>/retail/<deployed aip app name>/config	aip13	<AIP weblogic user alias>		App use	Installer	aip-weblogic-alias	Each alias must be unique
			aip13	<AIP database schema user alias>		App use	Installer	aip01user-alias	
			aip13	<rib-aip weblogic user alias>	<rib-aip weblogic user name>	App use	Installer	rib-aip-weblogic-alias	
RPM app	JAVA	<weblogic domain home>/retail/<deployed rpm app name>/config	rpm13	<rpm weblogic user alias>	<rpm weblogic user name>	App use	Installer	rpm-weblogic-alias	Each alias must be unique
			rpm13	<rms shema user alias>	<rms shema user name>	App, batch use	Installer	rms01user-alias	
			rpm13	<rpm application user one alias>	<rpm application user one name>	App use	Installer	user1-alias	
			rpm13	<rpm application user two alias>	<rpm application user two name>	App use	Installer	user2-alias	
			rpm13	<rpm batch user alias>	<rpm batch user name>	App, batch use	Installer	rpmbatch-alias	
			rpm13	<rib-rpm weblogic user alias>	<rib-rpm weblogic user name>	App use	Installer	rib-rpm-weblogic-alias	

Table B–1 (Cont.) Quick Guide for Retail Wallets

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
ReIM app	JAVA	<weblogic domain home>/retail/<deployed reim app name>/config	<installed app name>	<reim weblogic user alias>	<reim weblogic user name>	App use	Installer	weblogic-alias	Each alias must be unique
			<installed app name>	<rms shema user alias>	<rms shema user name>	App, batch use	Installer	rms01user-alias	
			<installed app name>	<reim webservice validation user alias>	<reim webservice validation user name>	App use	Installer	reimwebservice-alias	
			<installed app name>	<reim batch user alias>	<reim batch user name>	App, batch use	Installer	reimbatch-alias	
Alloc app	JAVA	<weblogic domain home>/retail/<deployed alloc app name>/config	<installed app name>	<alloc weblogic user alias>	<alloc weblogic user name>	App use	Installer	weblogic-alias	Each alias must be unique
			<installed app name>	<rms shema user alias>	<rms shema user name>	App use	Installer	rms01user-alias	
			<installed app name>	<rsl for rms weblogic user alias>	<rsl for rms weblogic user name>	App use	Installer	rsl-rms-weblogic-alias	
RSL app	JAVA	<RSL INSTALL DIR>/rsl-rms/security/config	rsl-rsm	<rsl weblogic user alias>	<rsl weblogic user name>	App use	Installer	weblogic-alias	Each alias must be unique
			rsl-rsm	<rms shema user alias>	<rms shema user name>	App use	Installer	rms01user-alias	
SIM app	JAVA	<weblogic domain home>/retail/<deployed sim app name>/config	rpm	<rpm weblogic user alias>	<rpm weblogic user name>	App use	Installer	rpm-weblogic-alias	
			rms	<rsl for rms weblogic user alias>	<rsl for rms weblogic user name>	App use	Installer	rsl-rms-weblogic-alias	
			rib-sim	<rib-sim weblogic user alias>	<rib-sim weblogic user name>	App use	Installer	rib-sim-weblogic-alias	

Table B–1 (Cont.) Quick Guide for Retail Wallets

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
RETL	JAVA	<RETL home>/etc/security	n/a	<target application user alias>	<target application db userid>	App use	Manual	retl_java_rms01user	User may vary depending on RETL flow's target application
RETL	DB	<RETL home>/.wallet	n/a	<target application user alias>	<target application db userid>	App use	Manual	<db>_<user>	User may vary depending on RETL flow's target application
RIB	JAVA	<RIBHOME DIR>/deployment-home/conf/security							<app> is one of aip, rfm, rms, rpm, sim, rwms, tafr
JMS			jms<1-5>	<jms user alias> for jms<1-5>	<jms user name> for jms<1-5>	Integration use	Installer	jms-alias	
WebLogic			rib-<app>-app-server-instance	<rib-app weblogic user alias>	<rib-app weblogic user name>	Integration use	Installer	weblogic-alias	
Admin GUI			rib-<app>#web-app-user-alias	<rib-app admin gui user alias>	<rib-app admin gui user name>	Integration use	Installer	admin-gui-alias	

Table B–1 (Cont.) Quick Guide for Retail Wallets

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
Application			rib-<app>#user-alias	<app weblogic user alias>	<app weblogic user name>	Integration use	Installer	app-user-alias	Valid only for aip, rpm, sim
DB			rib-<app>#app-db-user-alias	<rib-app database schema user alias>	<rib-app database schema user name>	Integration use	Installer	db-user-alias	Valid only for rfm, rms, rwms, tafr
Error Hospital			rib-<app>#hosp-user-alias	<rib-app error hospital database schema user alias>	<rib-app error hospital database schema user name>	Integration use	Installer	hosp-user-alias	

C

Appendix: Installation Order

This section provides a guideline for the order in which the Oracle Retail applications should be installed. If a retailer has chosen to use only some of the applications, the order is still valid, less the applications not being installed.

> **Note:** The installation order is not meant to imply integration between products.

Enterprise Installation Order

1. Oracle Retail Merchandising System (RMS), Oracle Retail Trade Management (RTM), Oracle Retail Sales Audit (ReSA). Optional: Oracle Retail Fiscal Management (ORFM)

   > **Note:** ORFM is an optional application for RMS if you are implementing Brazil localization.

2. Oracle Retail Service Layer (RSL)
3. Oracle Retail Extract, Transform, Load (RETL)
4. Oracle Retail Active Retail Intelligence (ARI)
5. Oracle Retail Warehouse Management System (RWMS)
6. Oracle Retail Invoice Matching (ReIM)
7. Oracle Retail Price Management (RPM)

   > **Note:** During installation of RPM, you are asked for the RIBforRPM provider URL. Since RIB is installed after RPM, make a note of the URL you enter. If you need to change the RIBforRPM provider URL after you install RIB, you can do so by editing the remote_service_locator_info_ribserver.xml file.

8. Oracle Retail Allocation
9. Oracle Retail Central Office (ORCO)
10. Oracle Retail Returns Management (ORRM)
11. Oracle Retail Back Office (ORBO)
12. Oracle Retail Store Inventory Management (SIM)

Note: During installation of SIM, you are asked for the RIB provider URL. Since RIB is installed after SIM, make a note of the URL you enter. If you need to change the RIB provider URL after you install RIB, you can do so by editing the remote_service_locator_info_ribserver.xml file.

13. Oracle Retail Predictive Application Server (RPAS)
14. Oracle Retail Demand Forecasting (RDF)
15. Oracle Retail Category Management (RCM)
16. Oracle Retail Modeling Engine (ORME)
17. Oracle Retail Assortment Space Optimization (OASO)
18. Oracle Retail Replenishment Optimization (RO)
19. Oracle Retail Analytic Parameter Calculator Replenishment Optimization (APC-RO)
20. Oracle Retail Regular Price Optimization (RPO)
21. Oracle Retail Merchandise Financial Planning (MFP)
22. Oracle Retail Size Profile Optimization (SPO)
23. Oracle Retail Assortment Planning (AP)
24. Oracle Retail Item Planning (IP)
25. Oracle Retail Item Planning Configured for COE (IP COE)
26. Oracle Retail Advanced Inventory Planning (AIP)
27. Oracle Retail Integration Bus (RIB)
28. Oracle Retail Service Backbone (RSB)
29. Oracle Retail Financial Integration (ORFI)
30. Oracle Retail Point-of-Service (ORPOS)
31. Oracle Retail Markdown Optimization (MDO)
32. Oracle Retail Clearance Optimization Engine (COE)
33. Oracle Retail Analytic Parameter Calculator for Markdown Optimization (APC-MDO)
34. Oracle Retail Analytic Parameter Calculator for Regular Price Optimization (APC-RPO)
35. Oracle Retail Analytics