

Oracle® Retail Invoice Matching

Installation Guide

Release 12.0.2

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Preface

Oracle Retail Installation Guides contain the requirements and procedures that are necessary for the retailer to install Oracle Retail products.

Audience

This Installation Guide is written for the following audiences:

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

Related Documents

For more information, see the following documents in the Oracle Retail Invoice Matching Release 12.0.2 documentation set:

- Oracle Retail Invoice Matching Release Notes

Customer Support

- <https://metalink.oracle.com>

When contacting Customer Support, please provide:

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

Conventions

Navigate: This is a navigate statement. It tells you how to get to the start of the procedure and ends with a screen shot of the starting point and the statement “the Window Name window opens.”

Note: This is a note. It is used to call out information that is important, but not necessarily part of the procedure.

This is a code sample
It is used to display examples of code

A hyperlink appears like this.

Pre-Installation Tasks

Check Application Server Requirements

General requirements for an application server capable of running the Invoice Matching application include:

- UNIX based OS certified with Oracle Application Server 10g 10.1.3. Options include AIX 5.2, AIX 5.3, Solaris 9 (Sparc), and HP-UX 11.23 (PARISC).
- Oracle Application Server 10g 10.1.3 with the following patches:
 - 4992357 (ILLEGALACCESSERROR WHEN ATTEMPTING TO LOAD ORACLE.SQL.CHARACTERSET CLASS)
 - 4959854 (CANNOT RESTART MDB THROUGH OC4J ASCONSOLE)
 - 4645524 (RETEK : RMIINITIALCONTEXTFACTORY DOES NOT WORK PROPERLY WITH GLOBAL JNDI)
 - 4619599 (ABILITY TO CONTROL MDBS INITIAL STATE)

Note: This release of ReIM is only supported in a managed OC4J instance as part of OracleAS 10g. It is not supported on OC4J standalone

Check Client PC and Web Browser Requirements

Client PC Requirements

- Operating system is Windows 2000 or XP
- Display resolution: 1024x768
- Processor; minimum 1GHz
- Memory; minimum of 512MBytes
- Networking; Intranet with at least 10Mbps data rate.
- Sun JRE 1.4.2 32 bit

Browser Requirements

- Microsoft Internet Explorer; version 5.5 or higher

Database Installation Tasks

Before applying the ReIM 12.0.2 patch:

- There are no database updates in this patch.
- Ensure that ReIM 12.0.1 and RMS 12.0.2 are installed.
- Review the enclosed ReIM 12.0.2 Patch Release Notes (reim-1202-rn.pdf).

Application Installation UNIX (Sun Solaris/AIX/HP-UX)

These instructions apply to new installations and upgrades. If you are upgrading a previous 12.0.x installation, the application installer will upgrade the application and back up certain files from the previous installation (See *Backups Created by the Installer* from this section). To ensure that the previous installation is properly undeployed, you must provide the same application deployment name and context root as the previous installation.

Before proceeding you must install Oracle Application Server 10g 10.1.3 plus the patches listed in the Chapter 1 of this document. The ReIM application will be deployed to an OC4J instance within the OracleAS10g installation. You must also have the Java 1.4.2 SDK installed on your system.

It is assumed Oracle RDBMS has already been configured and loaded with the appropriate ReIM schema for your installation.

Create a New OC4J Instance for ReIM

You can skip this section if you are redeploying to an existing OC4J instance.

The ReIM application must be deployed to its own dedicated OC4J instance. For instructions on how to create a new OC4J instance, see *Adding and Deleting OC4J Instances* in the *Reconfiguring Application Server Instances* chapter of the *Oracle Application Server Administrator's Guide*.

1. Log into the server which is running your OracleAS10g installation. Set your ORACLE_HOME environment variable to point to this installation.
2. Choose a name for the new OC4J instance.

Example: reim-oc4j-instance

Create this OC4J instance as documented in the Oracle Application Server Administrator's Guide.

Example:
 \$ORACLE_HOME/bin/createinstance
 -instanceName reim-oc4j-instance

When prompted for the oc4jadmin password, provide the same administrative password you gave for the AS10g installation. All OC4J instances running Oracle Retail applications must have the same oc4jadmin password.

3. Configure the JDK for this OC4J instance. By default, new OC4J instances use the Java 1.5 JDK that is shipped with the application server. This release of ReIM requires Java 1.4.2.

For instructions on how to change the JDK for an OC4J instance, see the *Specifying the JDK in a Managed Configuration* section of the *OC4J Runtime Configuration* chapter of the *Oracle Containers for J2EE Configuration and Administration Guide*.

4. (AIX only) If the AS10g installation is on AIX, you must set the **ibm.cl.eagerresolution** property in \$ORACLE_HOME/opmn/conf/opmn.xml. Add the definition of this property to the startup **java-options** for the OC4J instance.

Example:

```
<process-type id="reim-oc4j-instance" module-id="OC4J" status="enabled">
  <module-data>
    <category id="start-parameters">
      <data id="java-bin" value="/usr/java14/bin/java"/>
      <data id="java-options" value="-Dibm.cl.eagerresolution
-Djava.security.policy=$ORACLE_HOME/j2ee/reim-oc4j-
instance/config/java2.policy -Dhttp.webdir.enable=false"/>
    </category>
  </module-data>
</process-type>
```

Force OPMN to reload the configuration file.

Example: \$ORACLE_HOME/opmn/bin/opmnctl reload

5. Start the OC4J instance. You can do this through the Enterprise Manager web interface, or on the command line using the opmnctl utility:

Example: \$ORACLE_HOME/opmn/bin/opmnctl
startproc process-type=reim-oc4j-instance

6. Verify that the OC4J instance was fully started. If you are using the Enterprise Manager web interface, the instance should have a green arrow indicating that it is running. On the command line, verify that the instance has a status of "Alive".

Example: \$ORACLE_HOME/opmn/bin/opmnctl status

If you are unable to start the OC4J instance after several attempts, try increasing the startup timeouts in ORACLE_HOME/opmn/conf/opmn.xml. If that does not help, consult the Oracle Application Server documentation for further assistance.

Expand the ReIM Application Distribution

1. Log into the UNIX server as the user who owns the OracleAS 10g installation. Create a new staging directory for the ReIM application distribution (reim12application.zip). There should be a minimum of 50 MB disk space available for the application installation files.

Example: \$ORACLE_HOME/j2ee/reim-oc4j-
instance/reim-staging

This location will be referred to as INSTALL_DIR for the remainder of this chapter.

2. Copy reim12application.zip to INSTALL_DIR and extract its contents.

Run the ReIM Application Installer

Once you have an OC4J instance that is configured and started, you can run the ReIM application installer. This installer will configure and deploy the ReIM application.

Note: Appendix B contains details on every screen and field in the application installer.

1. Change directories to `INSTALL_DIR/reim/application`.
2. Set the `ORACLE_HOME` and `JAVA_HOME` environment variables. `ORACLE_HOME` should point to your AS10g installation. `JAVA_HOME` should point to a Java 1.4.2 JDK. The installer is not compatible with earlier versions of Java.
3. If you are using an X server such as Exceed, set the `DISPLAY` environment variable so that you can run the installer in GUI mode (recommended). If you are not using an X server, or the GUI is too slow over your network, unset `DISPLAY` for text mode.
4. Run the `install.sh` script. This will launch the installer. After installation is completed, a detailed installation log file is created: `reim12install.<timestamp>.log`.

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. See Appendix C of this document for instructions on silent mode.

See Appendix E of this document 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.

Backups Created by Installer

The ReIM application installer will back up a previous batch script installation by renaming it from `reim-batch` to `reim-batch.<timestamp>`. This is done to prevent the removal of any custom changes you might have. These backup directories can be safely removed without affecting the current installation.

Example: `reim-batch.200605011726`

Test the ReIM Application

After the application installer completes you should have a working ReIM application installation. To launch the application, open a web browser and go to `http://host:httpport/contextroot/index.jsp`

Example: `http://myhost:7777/reim/index.jsp`

reim.properties

The reim.properties file contains most of the settings for the ReIM application. Many properties in this file are set by the installer to get a working application up and running, but you may want to modify other settings in this file.

You can find this file under

ORACLE_HOME/j2ee/<instancename>/applications/<appname>/<appname>/WEB-INF/classes/com/retex/reim.

See the ReIM Operations Guide regarding the settings in reim.properties.

ReIM Batch Scripts

The ReIM application installer configures and installs the batch scripts under ORACLE_HOME/j2ee/<instance>/reim-batch.

The batch scripts are copies of the same generic file. Their file names determine which functionality is run.

The two settings that are needed for the scripts to run correctly are the REIMHOME and JAVA_HOME variables.

- REIMHOME = application directory created during deployment
- JAVA_HOME = Java 1.4.2 location on the server

Example: REIMHOME=J2EE_HOME/applications/reim
JAVA_HOME=/usr/java

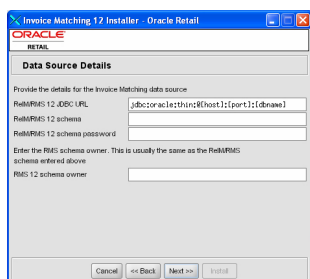
Web Help Files

The application installer automatically copies the web help files to the proper location. They are accessible from the help links within the application.

Appendix: ReIM Application Installer Screens

You will need the following details about your environment for the installer to successfully deploy the ReIM application. Depending on the options you select, you may not see some screens or fields.

Screen: Data Source Details



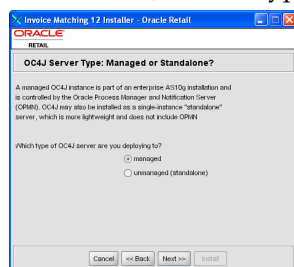
Fields on this screen:

Field Title	ReIM/RMS 12 JDBC URL
Field Description	URL used by the ReIM application to access the ReIM/RMS database schema. See <i>Appendix D: URL Reference</i> for expected syntax.
Destination	reim.properties
Example	jdbc:oracle:thin:@myhost:1525:mydatabase
Notes	
Field Title	ReIM/RMS 12 schema
Field Description	RMS database user for accessing the ReIM tables. This should match what was given in the <i>RMS 12 schema</i> field of the ReIM database installer.
Destination	reim.properties
Example	RMS12USER
Notes	

Field Title	ReIM/RMS 12 schema password
Field Description	Password for the JDBC username. This should match what was given in the <i>ReIM 12 schema password</i> field of the ReIM database installer.
Destination	reim.properties
Notes	

Field Title	RMS 12 schema owner
Field Description	Database user which owns the RMS and ReIM tables. This will usually have the same value as the <i>ReIM/RMS 12 schema</i> field above.
Destination	reim.properties
Example	RMS12USER
Notes	

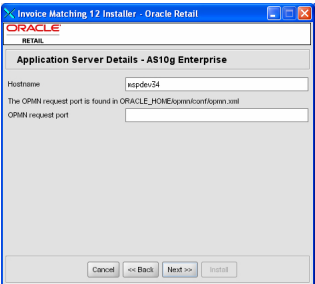
Screen: OC4J Server Type: Managed or Standalone?



Fields on this screen:

Field Title	Which type of OC4J server are you deploying to?
Field Description	<p>A managed OC4J server is part of a larger AS10g enterprise environment and is managed by OPMN.</p> <p>A standalone OC4J server is a single instance installed by itself and is not controlled by OPMN.</p> <p>This Oracle Retail application release is only supported on managed OC4J.</p>
Example	managed
Notes	

Screen: Application Server Details – AS10g Enterprise

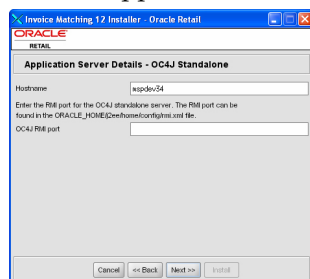


Fields on this screen:

Field Title	Hostname
Field Description	Hostname of the application server
Example	myhost
Notes	

Field Title	OPMN request port
Field Description	Port on which OPMN listens for requests to forward on to OC4J instances. This port can be found in the ORACLE_HOME/opmn/conf/opmn.xml file: <code><port local="6100" remote="6200" request="6003"/></code>
Example	6003
Notes	

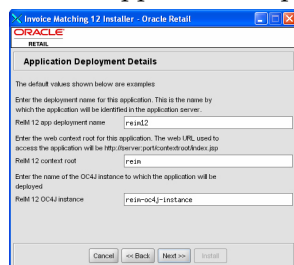
Screen: Application Server Details – OC4J Standalone



Fields on this screen:

Field Title	Hostname
Field Description	Hostname of the application server
Example	myhost
Notes	
Field Title	OC4J RMI port
Field Description	Port on which the standalone OC4J server listens for connections. This setting can be found in the ORACLE_HOME\j2ee\home\config\rmi.xml file. <pre><rmi-server xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="http://xmlns.oracle.com/oracleas/schema/rmi-server-10_0.xsd" port="23791"</pre>
Example	23791
Notes	

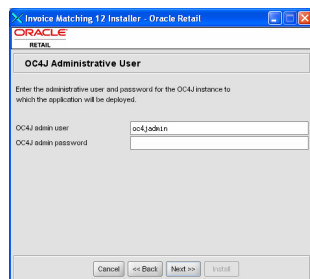
Screen: Application Deployment Details



Fields on this screen:

Field Title	ReIM 12 app deployment name
Field Description	Name by which this ReIM application will be identified in the application server
Example	reim12
Notes	
Field Title	ReIM 12 context root
Field Description	Path under the HTTP URL that will be used to access the ReIM application. For example, a context root of 'reim' will result in the application being accessed at http://host:port/reim/index.jsp.
Example	reim
Notes	
Field Title	ReIM 12 OC4J instance
Field Description	Name of the OC4J instance that was created for this ReIM application.
Example	reim-oc4j-instance
Notes	

Screen: OC4J Administrative User



Fields on this screen:

Field Title	OC4J admin user
Field Description	Username of the admin user for OC4J instance to which the ReIM application is being deployed.
Example	oc4jadmin
Notes	

Field Title	OC4J admin password
Field Description	Password for the OC4J admin user. You chose this password when you created the OC4J instance (managed OC4J) or when you started the instance for the first time (standalone OC4J).
Notes	

Appendix: Installer Silent Mode

Repeating an Installation Attempt

In addition to the GUI and text interfaces of the ReIM installer, there is a silent mode that can be run. This mode is useful if you wish to run a repeat installation without retyping the settings you provided in the previous installation. It is also useful if you encounter errors in the middle of an installation and wish to continue.

The installer runs in two distinct phases. The first phase involves gathering settings from the user. At the end of the first phase, a properties file named `ant.install.properties` is created with the settings that were provided. Then the second phase begins, where this properties file is used to provide your settings for the installation.

To skip the first phase and re-use the `ant.install.properties` file from a previous run, follow these instructions:

1. Edit the `ant.install.properties` file and correct any invalid settings that may have caused the installer to fail in the previous run.
2. the installer again with the **silent** argument.

Example: `install.sh silent`

Appendix: URL Reference

Both the database schema and application installers for the Invoice Matching product will ask for certain URLs. These include the following.

JDBC URL for a Database

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

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

Used by the Oracle ANT 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* for further details.

Syntax (managed OC4J): 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.
- <instance>: Name of the OC4J instance where the application will be deployed.

Example: deployer:cluster:opmn://myhost:6003/reim-oc4j-instance

Syntax (standalone OC4J): 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

Appendix: Common Installation Errors

This section provides some common errors encountered during installation of ReIM.

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-1.4.2 JDK. Set JAVA_HOME to a Java development kit of version 1.4.2 or later and run the installer again.

“Unable to get a deployment manager” Message

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 (see Appendix D: *URL Reference*), 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 (see Appendix C of this document).

"Could not create system preferences directory" Warning

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. See <http://bugs.sun.com> for details.

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