Oracle® Retail Price Management

Installation Guide
Release 13.1
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ORACLE

Oracle® Retail Price Management Installation Guide, Release 13.1

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Value-Added Reseller (VAR) Language

Oracle Retail VAR Applications

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Contents

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 Price Management Release 13.1 documentation set:

- *Oracle Retail Price Management Data Model*
- *Oracle Retail Price Management Online Help*
- *Oracle Retail Price Management Operations Guide*
- *Oracle Retail Price Management Release Notes*
- *Oracle Retail Price Management User Guide*

See also:

- *Oracle Retail Merchandising Batch Schedule*
- *Oracle Retail Merchandising Data Conversion Operations Guide*
- *Oracle Retail Merchandising Implementation Guide*
- *Oracle Retail Merchandising Licensing Information*
- Oracle Retail Service Layer documentation
- Oracle Retail Extract, Transform, and Load documentation
- Oracle Retail Integration Bus documentation

Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL:

https://metalink.oracle.com

When contacting Customer Support, please provide the following:

- 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

If you are installing the application for the first time, you install either a base release (for example, 13.0) or a later patch release (for example, 13.0.2). 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.

Oracle Retail Documentation on the Oracle Technology Network

In addition to being packaged with each product release (on the base or patch level), all Oracle Retail documentation is available on the following Web site (with the exception of the Data Model which is only available with the release packaged code):

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

Documentation should be available on this Web site within a month after a product release. Note that documentation is always available with the packaged code on the release date.

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.

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Preinstallation Tasks

RPM is a client-server-server application. Its client side code runs in a WebStart Java Virtual machine instance, while its server side code runs in the Oracle Application Server and accesses an Oracle Database server.

Note: The database portion of RPM can be upgraded from release 13.0.2 to release 13.1. The upgrade process is performed during installation of RMS 13.1. See the *RMS 13.1 Installation Guide* for complete upgrade instructions. Use the procedures in this guide to perform the application installation.

Oracle Retail Upgrade Guide (Doc ID 837368.1)

The *Oracle Retail Upgrade Guide* describes the approach that this Oracle Retail application takes for the upgrading process, as well as this product's upgrade assumptions and considerations.

Check Database Server Requirements

General Requirements for a database server running Oracle Retail Price Management include:

Supported on:	Versions Supported:
Database Server OS	OS certified with Oracle Database 11gR1 Enterprise Edition. Options are: ▪ Oracle Enteprise Linux 5 Update 2 (OEL 5.2) for Linux x86-64 ▪ AIX 6.1 TL1
Database Server	Oracle Database 11g Release 1 Enterprise Edition (minimum 11.1.0.7 patchset required) with the following patches and components: Patches: ▪ 7036284 (LOADJAVA RUN IN A DV ENVIRONMENT CANNOT LOAD CLASSES WITH A NAME LONGER THAN 128) ▪ 7378322 (ORA-00600: internal error code, arguments: [6704], [1], [532241], [532237]) ▪ 6800649 – (AIX only) when non-oracle user uses client utilities sqlldr/sqlplus/impdp/expdp, core dump is generated. Need to "relink all" after applying the patch RAC only ▪ 7697360 ORA-00600: internal error code, arguments: [k2vcbk_6], Database crashed during transaction recovery. Components: ▪ Oracle Database 11g ▪ Oracle Partitioning ▪ Oracle Net Services ▪ Oracle Call Interface (OCI) ▪ Oracle Programmer ▪ Oracle XML Development Kit ▪ Examples CD (Formerly the companion CD) ANSI compliant C compiler (certified with OS and database version) Perl compiler 5.0 or later x-Windows interface

Check Application Server Requirements

General requirements for an application server capable of running the Oracle Retail Price Management application include:

Supported on:	Versions Supported:
Application Server OS	OS certified with Oracle Application Server 10g 10.1.3.4. Options are: ▪ Oracle Enteprise Linux 5 Update 2 (OEL 5.2) for Linux x86-64 ▪ AIX 6.1 TL1
Application Server	Oracle Application Server 10g 10.1.3.4 with the following patches: ▪ 7408340 TRACKING BUG FOR CUMULATIVE MLR#2 ON TOP OF 10.1.3.4.0

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

Check Single Sign-On Requirements

If RPM will not be deployed in a Single Sign-On environment, skip this section.

If Single Sign-On is to be used, verify the Oracle Infrastructure Server 10g has been installed. Verify the OAS HTTP server used to launch RPM has been registered with the Oracle Single Sign-On server and the mod_osso module has been enabled within the HTTP Server's configuration.

For more details on this, see the *Oracle Single Sign-On Administration Guide*.

Check Oracle Retail Software Dependencies

RMS 13.1 must be installed prior to installing RPM.

Supported Oracle Retail Products

Requirement	Version
Oracle Retail Merchandising System (RMS)/Oracle Retail Trade Management (RTM)/Oracle Retail Sales Audit (ReSA)	13.1
Oracle Retail Allocation	13.1
Oracle Retail Data Warehouse (RDW)	13.1
Oracle Retail Store Inventory Management (SIM)	13.1

Supported Oracle Retail Integration Technologies

Requirement	Version
Oracle Retail Extract, Transform and Load (RETL)	13.1
Oracle Retail Integration Bus (RIB)	13.1
Oracle Retail Service Layer (RSL)	13.1

Check Third-Party Software Dependencies

Hibernate 2.1.8 must be downloaded and the hibernate2.jar file just be extracted. The RPM application installation procedure specifies how to install this file.

Check Client PC and Web Browser Requirements

Requirement	Version
Operating system	Windows 2000 or XP
Display resolution	1024x768 or higher
Processor	1GHz or higher
Memory	512MBytes or higher
Networking	intranet with at least 10Mbps data rate
Sun Java Runtime Environment	5.0 Update 11 or newer (1.5.0_11)
Browser	Microsoft Internet Explorer 6.0 or higher

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RAC and Clustering

Oracle Retail Price Management has been validated to run in two configurations on Linux:

- Standalone OAS and Database installations
- Real Application Cluster Database and Oracle Application Server Clustering

The Oracle Retail products have been validated against a 11.1.0.7 RAC database. When using a RAC database, all JDBC connections should be configured to use OCI connections rather than THIN connections. It is suggested that when using OCI connections, the Oracle Retail products database be configured in the tnsnames.ora file used by the Oracle Application Server installations.

Clustering for Oracle Application Server 10.1.3 is managed as an Active-Active cluster accessed through a hardware Load Balancer. It is suggested that a VirtualHost be added to the OAS 10.1.3 reflecting the Virtual Server Name configured in the load balancer. It is also suggested that the OC4J select method be configured to prefer the use of local OC4J instances. The Oracle Retail products are currently not validated to be distributable at the application level in an OAS 10.1.3 cluster.

Clustering for Oracle Application Server 10.1.2 is managed as an Active-Active cluster accessed through a hardware Load Balancer. It is suggested that the Web Cache installation included with OAS 10.1.2 be configured to reflect all application server Mid-Tier installations. Validation has been completed utilizing a RAC 11.1.0.7 Oracle Internet Directory database with the OAS 10.1.2 cluster.

References for Configuration:

- Oracle® Application Server High Availability Guide 10g Release 3 (10.1.3) Part Number B15977-02
- Oracle® Application Server High Availability Guide 10g Release 2 (10.1.2) Part Number B14003-05
- Oracle Real Application Clusters Administration and Deployment Guide 11g Release 1 (11.1) Part Number B28254-07

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Database Installation Tasks

RPM Schema

The RPM database tables are installed with the RMS database schema. RMS 13.1 is a prerequisite of the RPM 13.1 installation.

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Application Installation

Before proceeding you must install Oracle Application Server 10g 10.1.3.4 plus the patches listed in Chapter 1 of this document. The RPM application is deployed to an OC4J instance within the OracleAS10g installation.

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

Create a New OC4J Instance and Group for RPM

Skip to the next section if you are redeploying to an existing OC4J group in Oracle Application Server 10.1.3.4.

The RPM application must be deployed to its own dedicated OC4J group. For instructions on how to create a new OC4J group and instance(s), 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 and group.

   Example: rpm_oc4j
   rpm_group

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

   Example:
   $ORACLE_HOME/bin/createinstance
   –instanceName rpm_oc4j –groupName rpm_group

   When prompted for the oc4jadmin password, provide the same administrative password you gave for the OracleAS installation. All OC4J instances running Oracle Retail applications must have the same oc4jadmin password.
3. (This step required only if RPM will be installed on AIX 6.1) Be aware that RPM requires an upgrade of the Java version when running on AIX 6.1. The version must be at least JRE version 1.5 SR7. If RPM will be installed on AIX 6.1, then you need to modify the $ORACLE_HOME/opmn/conf/opmn.xml to upgrade the Java version that RPM uses. Locate the OC4J instance you just created for RPM, and add or modify the "java-bin" within the "start-parameters" section

   Example:

```
<process-type id="rpm_oc4j" module-id="OC4J"
status="enabled">

   <module-data>

      <category id="start-parameters">

         <data id="java-bin"
value="path/to/JAVA_HOME/bin/java"/>

         ...
```

```
      </category>
   ...
   </module-data>
   ...
</process-type>
```

4. 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 @cluster startproc ias-component=rpm_group

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

   Example: $ORACLE_HOME/opmn/bin/opmnctl status

   If you are unable to start an 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.

Configure Apache for JNLP Files

If this is the first WebStart application that is being installed in the HTTP server, you need to configure the **mime.types** file with the jnlp file type. If you are using the Apache distribution that is included with OracleAS, this file can be found under ORACLE_HOME/Apache/Apache/conf. Add the following line to the file:

```
application/x-java-jnlp-file          jnlp
```

Restart the Apache server for this change to take effect. If you do not add this line then jnlp files are served as plain text and you are not able to launch the application.

Example: $ORACLE_HOME/opmn/bin/opmnctl restartproc process-type=HTTP_Server

Expand the RPM Application Distribution

1. Log into the UNIX server as the user who owns the OracleAS 10g installation. Create a new staging directory for the RPM application distribution (rpm13application.zip). There should be a minimum of 160 MB disk space available for the application installation files.

   Example: $ORACLE_HOME/j2ee/rpm_oc4j/rpm-staging

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

2. Copy rpm13application.zip to INSTALL_DIR and extract its contents.

Provide the Hibernate Jar File

The RPM application requires the hibernate2.jar file to be installed. This file should be downloaded from http://www.hibernate.org and placed in the INSTALL_DIR/rpm/application/hibernate folder before the installer is launched. For RPM 13, Hibernate 2.1.8 should be used. You need to download the Hibernate distribution and extract the hibernate2.jar file from it.

The RPM application installer verifies that hibernate2.jar has been provided and that it is the correct version. If hibernate2.jar is missing or incorrect, the installer does not proceed.

The installer applies hibernate2.jar to the RPM application by placing it under the ORACLE_HOME/j2ee/<oc4j-instance-name>/applications/<app-name>/lib directory.

Clustered Installations – Preinstallation Steps

Skip this section if you are not clustering the application server.

> **Note:** Previous releases of RPM required the OC4J instance names and OC4J group name to be identical. This is no longer the case, as OC4J grouping has changed between OAS 10.1.3.0 and 10.1.3.4.

If you are installing the RPM application to a clustered Oracle Application Server environment, there are some extra steps you need to take before running the RPM application installer. In these instructions, the application server node whose ORACLE_HOME you used for the RPM installer is referred to as the *master node*. All other nodes are referred to as the *remote nodes*.

1. On each node, create the RPM task queue, RPM chunk queue, and factories in the OC4J JMS server by modifying the $ORACLE_HOME/j2ee/<rpmoc4jinstance>/config/jms.xml file. At the bottom of this file, before the closing </jms-server> tag, add the definition for the RPM task queue and the RPM chunk queue.

   Example with rpmTaskQueue as the queue name:

   ```
   <queue name="rpmTaskQueue" location="jms/rpmTaskQueue" Persistence-
   file= "rpmTaskQueue.persistence.file ">
   <description>RPM Task Engine Queue</description>
   </queue>
   <queue name="rpmChunkQueue" location="jms/rpmChunkQueue" Persistence-
   file= "rpmChunkQueue.persistence.file ">
   <description>RPM Chunk Engine Queue</description>
   </queue>

   <queue-connection-factory location= "jms/Queue/myQCF " />
   <xa-queue-connection-factory location= "jms/Queue/myXAQCF " />
   </jms-server>
   ```

   The RPM application installer asks you for this queue name. You must provide the same queue name that you used in jms.xml, without the jms/ prefix.

   Example: rpmTaskQueue

2. On each node, create the RPM XA wrapper object for the task queue by modifying $ORACLE_HOME/j2ee/<rpmoc4jinstance>/config/oc4j-connectors.xml. Nested within the OracleASjms connector, add this adminobject-config element:

   ```
   <adminobject-config location="OracleASjms/rpmTaskQueue">
       <adminobject-
   class>oracle.j2ee.ra.jms.generic.AdminObjectQueueImpl</adminobject-class>
       <config-property name="jndiName" value="jms/rpmTaskQueue"/>
   ```

```
    <config-property name="resourceProviderName" value="oc4jjms"/>
</adminobject-config>
<adminobject-config location="OracleASjms/rpmChunkQueue">
    <adminobject-
class>oracle.j2ee.ra.jms.generic.AdminObjectQueueImpl</adminobject-class>
    <config-property name="jndiName" value="jms/rpmChunkQueue"/>
    <config-property name="resourceProviderName" value="oc4jjms"/>
</adminobject-config>
```

3. All of the OC4J instances in the group should be restarted for the jms.xml and oc4j-connectors.xml changes to be picked up. Deployment of the RPM ear file fails if the JMS queue cannot be found by OC4J.

> **Example:** $ORACLE_HOME/opmn/bin/opmnctl @cluster restartproc ias-component=rpm_group

Run the RPM Application Installer

Once you have an OC4J instance that is configured and started, you can run the RPM application installer. This installer configures and deploys the RPM application and Java WebStart client files.

> **Note:** Appendix A contains details on every screen and field in the application installer.

> **Note:** It is recommended that the installer be run as the same UNIX account which owns the application server ORACLE_HOME files. This method will take full advantage of the installer's capabilities. If the installer is run as a different user, the Manual Deployment Option must be selected.

1. Change directories to INSTALL_DIR/rpm/application.
2. Set the ORACLE_HOME and JAVA_HOME environment variables. ORACLE_HOME should point to your OracleAS installation. JAVA_HOME should point to the Java 5.0 (1.5.0) JDK located at $ORACLE_HOME/jdk.
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 launches the installer. After installation is complete, a detailed installation log file is created (rpm13install.<timestamp>.log).

Resolving Errors Encountered During Application Installation

If the application installer encounters any errors, it halts execution immediately. You can run the installer in silent mode so that you do not have to retype the settings for your environment. See Appendix B of this document for instructions on silent mode.

See Appendix C of this document for some common installation errors.

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

Oracle Configuration Manager

The Oracle Retail OCM Installer packaged with this release installs the latest version of OCM.

The following document is available through My Oracle Support (formerly MetaLink). Access My Oracle Support at the following URL:

`https://metalink.oracle.com`

Oracle Configuration Manager Installer Guide (Doc ID: 835024.1)

This guide describes the procedures and interface of the Oracle Retail Oracle Configuration Manager Installer that a retailer runs near the completion of its installation process.

OCM Documentation Link

`http://www.oracle.com/technology/documentation/ocm.html`

Clustered Installations – Post-Installation Steps

If you are installing the RPM application to a clustered Oracle Application Server environment, there are some extra steps you need to take to complete the installation. In these instructions, the application server node whose ORACLE_HOME you used for the RPM installer is referred to as the *master node*. All other nodes are referred to as the *remote nodes*.

1. The RPM client files should be copied from the master node to each of the remote nodes under the same path as on the master node. For example, you should take the files under $ORACLE_HOME/Apache/Apache/rpm and copy them onto the remote nodes under the same path.
2. All jnlp files in the RPM client need to be modified so that the correct host name is used on each node.
3. The RPM batch files should be copied from the master node to each of the remote nodes under the same path as on the master node. You should take the $ORACLE_HOME/j2ee/<rpminstance>/rpm-batch directory and copy it onto the remote nodes under the same path.
4. The launchRpmBatch.sh script should be modified on each remote node to point to the local RPM instance. The RPM URL is set in the PROVIDER_URL variable. This script is located at $ORACLE_HOME/j2ee/<rpminstance>/rpm-batch/scripts/launchRpmBatch.sh.
5. By default, after installation all remote RPM instances are pointing to the RSM install on the master node. Update the RSM URL in the jndi_providers.xml file on each remote node so that each RPM instance uses its own local RSM instance. This file is located at $ORACLE_HOME/j2ee/<oc4jinstance>/applications/<rpmappname>/conf/retek/jndi_providers.xml.
6. All of the OC4J instances in the group should be restarted for the jndi_providers.xml changes to be picked up.

> **Example:** $ORACLE_HOME/opmn/bin/opmnctl @cluster restartproc ias-component=rpm_group

Review or Configure Oracle Single Sign-On

Skip this section if you are not using Single Sign-On for user identification and authentication.

Single Sign-On is applicable only to the JnlpLaunch Servlet. The JnlpLaunch Servlet is a dynamically protected application. The JnlpLaunch Servlet causes the RPM client application to execute under the SSO user name with a temporary password.

> **Note:** The JnlpLaunch servlet may be configured for either an SSO or non-SSO environment.

HTTP Server configuration requirements: The HTTP Server must be registered with the Oracle Single Sign-On server and the mod_osso module enabled. The registration process typically involves running the ssoreg.sh script at the OSSO server installation and copying the output osso.conf file to the HTTP Server. This process is documented in the Oracle Single Sign-On administration documentation.

JnlpLaunch requirements: The JnlpLaunch Servlet uses the configuration file, "JnlpLaunch.properties", to control its behavior. Due to security considerations, this file must not be published or readable to the general public.

JnlpLaunch.properties has the following configuration entries that apply to Single Sign-On:

- secret.key – Used to create the temporary password, this property should contain a random string. If JnlpLaunch is deployed in a different JVM than the RPM Server EJBs, this string must be an exact match between the JnlpLaunch Servlet and the one available to the RPM EJBs. For security purposes, each separate instance of the RPM application (e.g. test versus development) should have a different secret key.
- user.validation.timeout – Number of seconds the RPM Server uses to determine if a temporary password is still valid.

The JnlpLaunch.properties file is initialized by the RPM installer and should contain valid entries for SSO when the "Enable Single Sign-On in RPM?" prompt was answered by a 'Y' or 'Yes'. However, an administrator may want to alter the `user.validation.timeout` or other property after the initial installation.

Manual Deployment Option

Skip this section if you chose the default option of allowing the installer to complete installation to the application server.

The installer includes the option to configure the application locally and skip deployment to the application server. If this option is chosen, the installer makes the configured application files available under <INSTALL_DIR>/rpm/application/rpm13/configured-output/.

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

1. Make sure there have not been any application server configuration changes since the installer was run. You can do this by comparing the backup files created by the installer in the staging area to the same files in the application server.

   Example: diff <INSTALL_DIR>/rpm/application/rpm13 /configured-output/appserver/ORACLE_HOME/j2ee/myinstance/config/jms.xml.200610300919 $ORACLE_HOME/j2ee/myinstance/conf/jms.xml

   If there are changes to the application server's configuration file, they should be merged into the local copy under configured-output before proceeding to the next step.

2. Inspect the contents of the <INSTALL_DIR>/rpm/application/rpm13/configured-output/appserver/ORACLE_HOME directory, and then overlay the files in the application server's ORACLE_HOME, using the same directory structure. This installs library files required by the application and required application server configuration changes.

3. Restart the OC4J instance(s) where RPM will be deployed.

   Example: $ORACLE_HOME/opmn/bin/opmnctl restartproc ias-component=rpm_group

4. Deploy the RPM ear file to the OC4J group using the Enterprise Manager web interface. The configured ear file is located at <INSTALL_DIR>/rpm/application/rpm13/configured-output/rpm13.ear. When deploying the ear file, you should provide the same application name you gave to the installer. These values were stored in the <INSTALL_DIR>/rpm/application/ant.install.properties file by the installer for later reference.

5. Deploy the RPM help ear file to the OC4J group using the Enterprise Manager web interface. The ear file is located at <INSTALL_DIR>/rpm/application/rpm13/online-help/rpm-help.ear. When deploying the ear file, you should provide the same application name you gave to the installer, appending –help. In other words, if you provided "rpm131" to the installer, you should provide rpm131-help when deploying the online-help ear file.

Sign the RPM Client Configuration Jar File

There is some client-side configuration that the installer performs which results in a modified rpm_client_config.jar file after installation. Because of this, the jar file cannot be pre-signed by Oracle. The user must sign this jar file after the installer has completed.

To create an example key called "foo", the following command can be run:

```
$JAVA_HOME/bin/keytool –genkey –alias foo
```

This command prompts you for a keystore password along with organizational info.

Once complete, the keystore alias resides in the default location in the user's home directory (i.e., ~/.keystore). If you get an error message saying that the keystore has been tampered with, try renaming or deleting the ~/.keystore file and running the keytool command again.

The rpm_client_config.jar is located in the $ORACLE_HOME/j2ee/<oc4j-instance>/applications/<rpm-app-name>/JnlpLaunchServlet/lib directory.

To sign the rpm_client_config.jar file using your alias and keystore, run the jarsigner utility.

Example: $JAVA_HOME/bin/jarsigner rpm_client_config.jar foo

If you are clustering the application server you need to copy the signed rpm_client_config.jar file to the same path under $ORACLE_HOME on all remote nodes.

Consult the "jarsigner" documentation from Sun for further information on the JAR signing process.

Backups Created by Installer

The RPM application installer backs up previous batch, JMS bindings, and WebStart client installations by renaming them with <timestamp> suffixes. 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.

Examples: rpm-batch.200605011726, sbynjndi.200605011726, rpm.200605011726

Test the RPM Application

After the application installer completes you should have a working RPM application installation. To launch the application client, open a web browser and access the JnlpLaunchServlet, naming the RPM JNLP template file (rpm_jnlp_template.vm).

Example: http://myhost:7777/rpm-client/launch?template=rpm_jnlp_template.vm

RPM also includes a status page application which can be used to verify the installation. For details see the *RPM Operations Guide*, under the *Price Management Status Page* section.

Oracle Retail provides test cases that allow you to smoke test your installation. Refer to the *Oracle Retail Merchandising Installation Test Cases* document; Doc ID 838623.1 on My Oracle Support (formerly MetaLink).

RPM Batch Scripts

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

> **Note:** Make sure that JAVA_HOME is set to the Java 5.0 (1.5.0) JDK located at $ORACLE_HOME/jdk from the application server before running the RPM batch programs.

Online Help

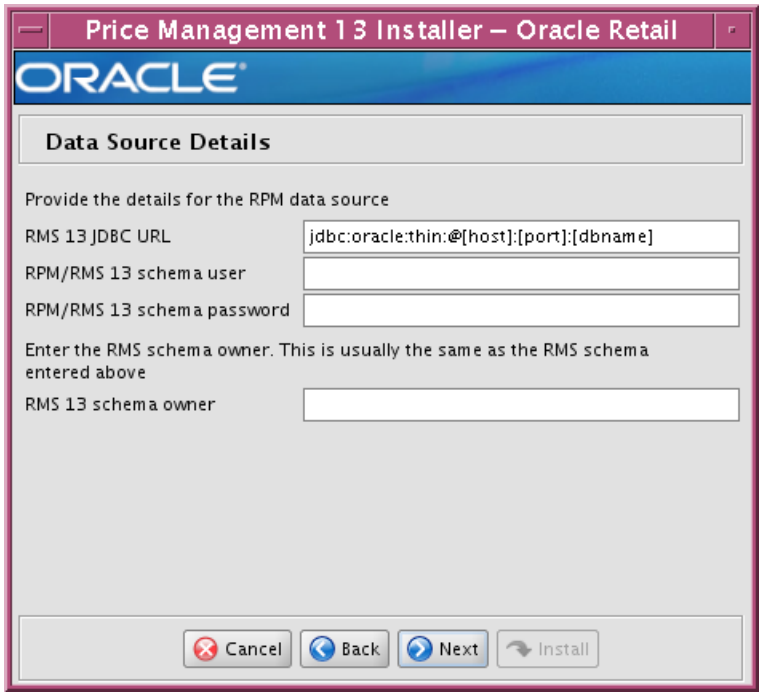
The application installer automatically installs online help to the proper location. It is accessible from the help links within the application.

A

Appendix: RPM Application Installer Screens

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

Screen: Data Source Details



Fields on this screen:

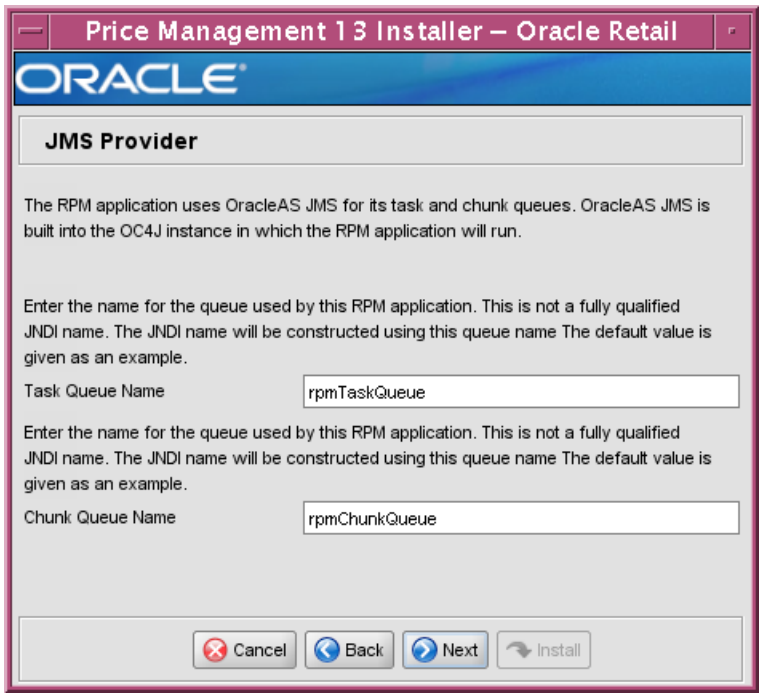
Field Title	RMS 13 JDBC URL
Field Description	URL used by the RPM application to access the RMS database schema. See Appendix D: URL Reference for expected syntax. Note: The RPM database tables are a part of the RMS schema.
Destination	data-sources.xml
Examples	jdbc:oracle:thin:@myhost:1525:mydatabase jdbc:oracle:oci:@mydatabase

Field Title	RPM/RMS 13 schema user
Field Description	Database user where the RMS database schema was installed.
Destination	data-sources.xml
Example	RMS13

Field Title	RPM/RMS 13 schema password
Field Description	Password for the RMS schema user.
Destination	data-sources.xml

Field Title	RMS 13 schema owner
Field Description	Database user which owns the RMS tables. This is usually the same as the RMS 13 schema above.
Destination	rpm.properties
Example	RMS13

Screen: JMS Provider



Fields on this screen:

Field Title	Task Queue Name
Field Description	Name by which the task queue will be identified. If this is a new RPM environment, choose a queue name that is not already in use in the JMS server. If you have already created the queue in the JMS server as part of the Clustering Preinstallation steps, you must provide the same name in this field (without the jms/ prefix). Note: This is not a complete JNDI name. The value provided will be appended to jms/ to form the full JNDI name for the queue in the OC4J JMS server.
Destination	system.properties, oc4j-connectors.xml, orion-ejb-jar.xml (platform-mdb.jar), , jms.xml
Example	rpmTaskQueue

Field Title	Chunk Queue Name
Field Description	Name by which the task queue will be identified. If this is a new RPM environment, choose a queue name that is not already in use in the JMS server. If you have already created the queue in the JMS server as part of the Clustering Preinstallation steps, you must provide the same name in this field (without the jms/ prefix). Note: This is not a complete JNDI name. The value provided will be appended to jms/ to form the full JNDI name for the queue in the OC4J JMS server.
Destination	system.properties, oc4j-connectors.xml, orion-ejb-jar.xml (platform-mdb.jar), , jms.xml
Example	rpmChunkQueue

Screen: Login Module

Fields on this screen:

Field Title	Which authentication method will you use?
Field Description	Choose whether the RPM application will authenticate users against an LDAP directory or an XML file on the server.
Destination	security.properties, dao_rpm.xml
Example	LDAP

Screen: LDAP directory server details

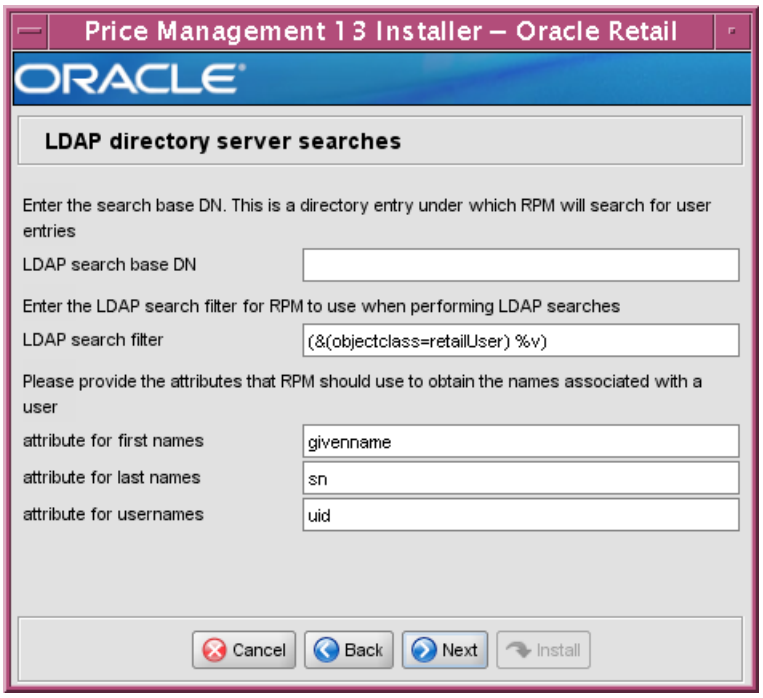
Fields on this screen:

Field Title	LDAP server URL
Field Description	URL for your LDAP directory server. See Appendix D: URL Reference for expected syntax.
Destination	security.properties
Example	ldap://myhost:389/

Field Title	Search User DN
Field Description	Distinguished name of the user that RPM uses to authenticate to the LDAP directory.
Destination	security.properties
Example	cn=admin,dc=mycompany,dc=com

Field Title	Search User Password
Field Description	Password for the search user DN.
Destination	security.properties

Screen: LDAP directory server searches



Fields on this screen:

Field Title	LDAP search base DN
Field Description	Distinguished name of the LDAP directory entry under which RPM should search for users.
Destination	security.properties
Example	cn=Users,dc=mycompany,dc=com

Field Title	LDAP search filter
Field Description	LDAP filter that determines which entries are returned to RPM when it conducts a directory search under the search base DN. See the *RPM Operations Guide* for additional information on configuring this field.
Destination	security.properties
Example	(&(objectclass=retailUser) %v)

Field Title	attribute for first names
Field Description	LDAP attribute where RPM should look for a user's first name
Destination	security.properties
Example	givenname

Field Title	attribute for last names
Field Description	LDAP attribute where RPM should look for a user's last name
Destination	security.properties
Example	sn

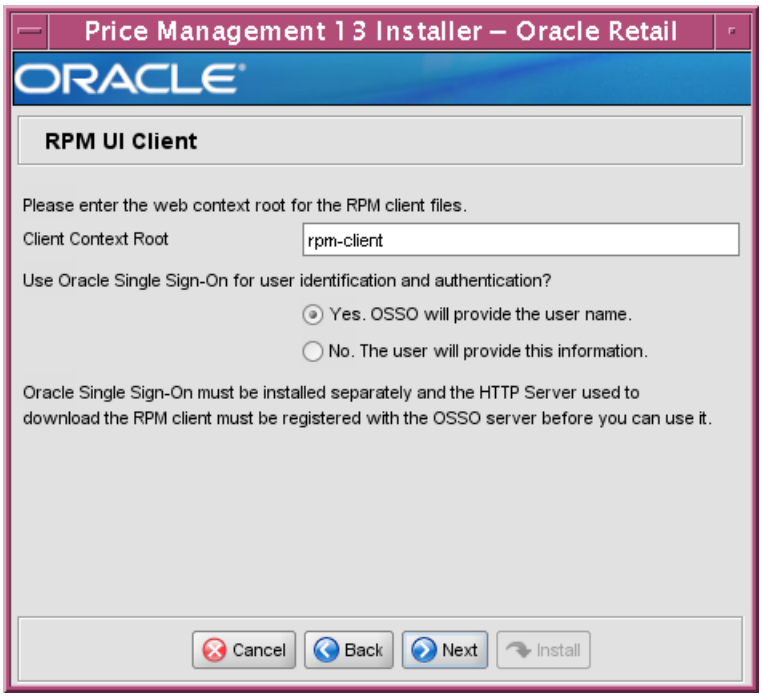
Field Title	attribute for usernames
Field Description	LDAP attribute where RPM should look for a user's username
Destination	security.properties
Example	uid

Screen: Manual Deployment Option

Fields on this screen:

Field Title	Install files to app server?
Field Description	If you do not have write access under ORACLE_HOME, you can still use the installer to gather your settings and configure the RPM files locally in the staging area. Then, at a later time, an administrator can manually copy over the RPM files and deploy the ear file. If you select this option, instructions are printed to the console and the installer log file for the steps needed to complete the installation.

Screen: RPM UI Client

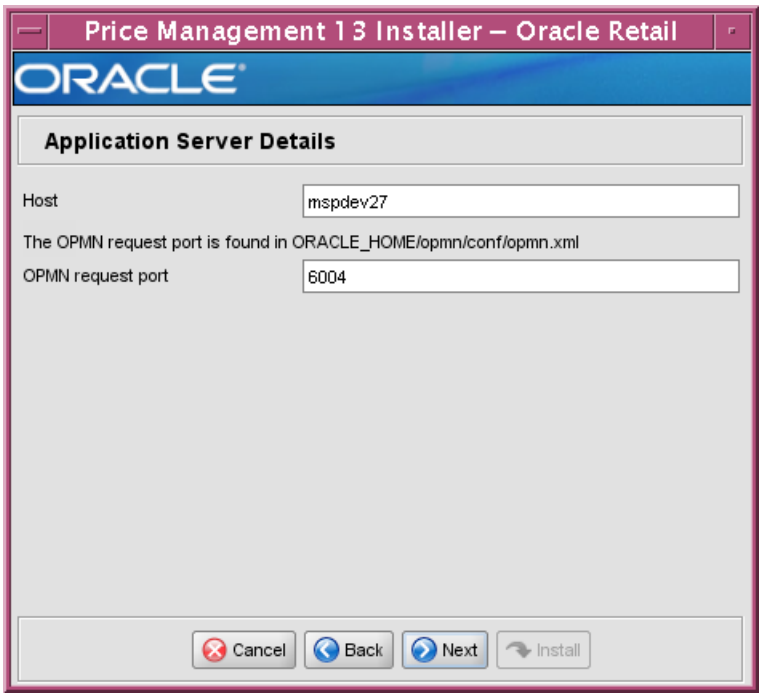


Fields on this screen:

Field Title	Client Context Root
Field Description	The Client Context Root determines how the RPM client will be accessed from users' web browsers. The RPM client URL has the following format: http://<host>:<port>/<rpm_client_ctx_root>/launch?template=rpm_jnlp_template.vm Example, with RPM Client Context Root value of "rpm-client": http://myhost:7777/rpm-client/launch?template=rpm_jnlp_template.vm
Example	rpm-client

Field Title	Use Oracle Single Sign-On for user identification and authentication?
Field Description	This version of RPM has the option to use Oracle Single Sign-On (OSSO) technology to authenticate users. If OSSO is being used in your environment, choose "Yes". A choice of "No" will configure RPM to use its own LDAP directory settings for authentication.
Destination	JnlpLaunch.properties
Example	Yes

Screen: Application Server Details

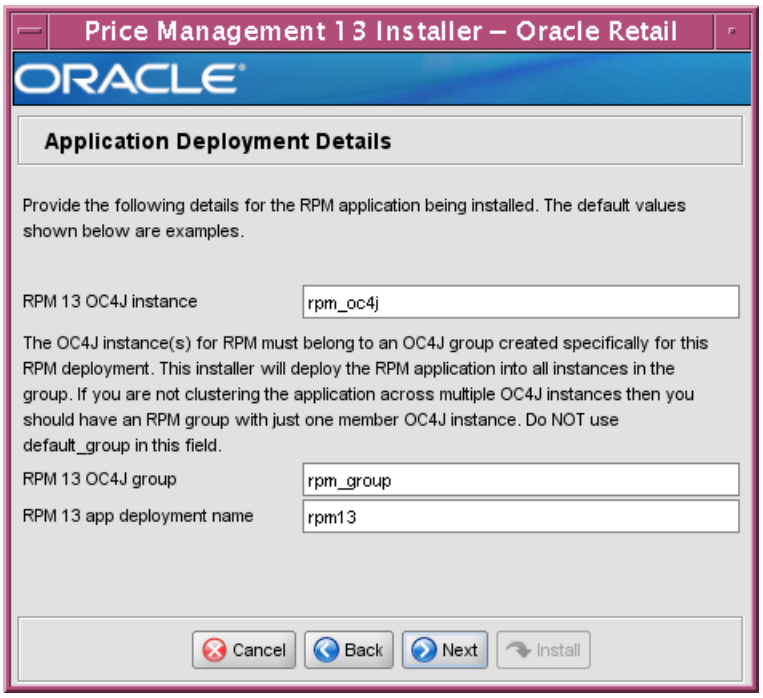


Fields on this screen:

Field Title	Host
Field Description	Host name of the application server
Example	myhost

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: <port local="6100" remote="6200" request="6003"/> The value presented in the installer is obtained from the environment.
Example	6003

Screen: Application Deployment Details



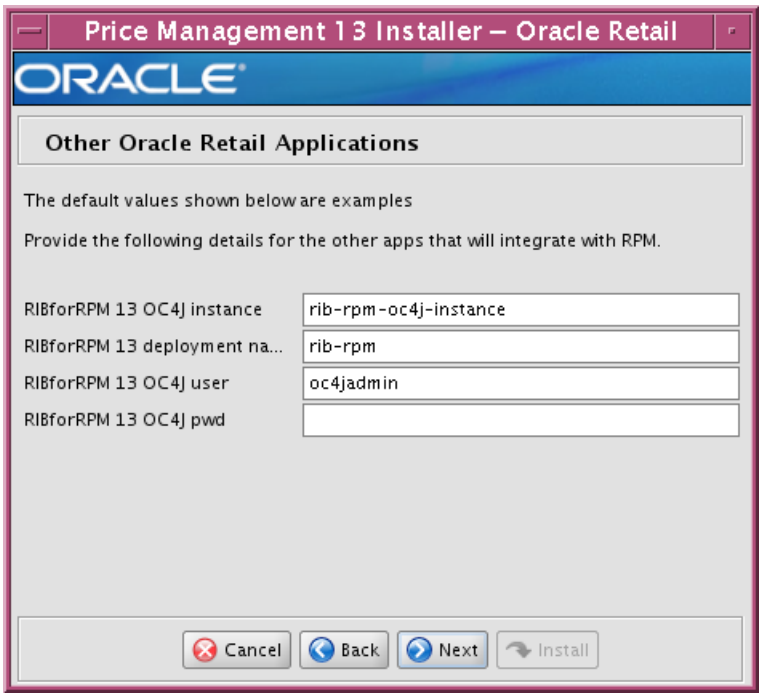
Fields on this screen:

Field Title	RPM 13 OC4J instance
Field Description	Name of the OC4J instance that was created for this RPM application.
Example	rpm_oc4j

Field Title	RPM 13 OC4J group
Field Description	Name of the OC4J group that was created for this RPM application. The OC4J instance given for the RPM OC4J Instance field should be a member of this group. The installer deploys the RPM application to all OC4J instances which are members of this group. For this reason, you should not use default_group. A new group dedicated to RPM should be created instead.
Example	rpm_group

Field Title	RPM 13 app deployment name
Field Description	Name by which this RPM application is identified in the application server
Example	rpm13

Screen: Other Oracle Retail Applications – OracleAS Enterprise



Fields on this screen:

Field Title	RIBforRPM 13 OC4J instance
Field Description	Name of the OC4J instance running the RIBforRPM application. RIBforRPM provides the connection between RPM and the RIB (Retail Integration Bus), and is optional. See the *RPM Operations Guide* for details on how to configure RPM without the RIB. This value may be anything.
Example	rib-rpm-oc4j-instance

Field Title	RIBforRPM 13 deployment name
Field Description	Application deployment name of the RIBforRPM application. See the above note about RIBforRPM under RIBforRPM 13 OC4J Instance. This value must be **rib-rpm**.
Example	rib-rpm

Field Title	RIBforRPM 13 OC4J user
Field Description	In order to make RMI calls into the RIBforRPM OC4J instance, RPM must use a JNDI username and password.
Examples	oc4jadmin riboc4jadmin

Field Title	RIBforRPM 13 OC4J password
Field Description	Password for the RIBforRPM 13 OC4J JNDI user

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 RPM application is being deployed.
Example	oc4jadmin

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).

Screen: Oracle Retail Application URLs

Fields on this screen:

Field Title	RPM 13 JNDI provider URL (read only)
Field Description	URL which the RPM client uses to find the RPM application. See Appendix D: URL Reference for expected syntax.
Destination	rpm.jnlp, launchRpmBatch.sh
Example	opmn:ormi://myhost:6003:rpm_oc4j/rpm13

Field Title	RIBforRPM 13 JNDI provider URL (read only)
Field Description	URL which the RPM application uses to find the RIBforRPM application. See Appendix D: URL Reference for expected syntax. RIBforRPM provides the connection between RPM and the RIB (Retail Integration Bus), and is optional. See the *RPM Operations Guide* for details on how to configure RPM without the RIB.
Destination	jndi_providers.xml
Example	opmn:ormi://myhost:6003:rib-rpm-oc4j-instance/rib-rpm

B

Appendix: Installer Silent Mode

Repeating an Installation Attempt

In addition to the GUI and text interfaces of the RPM installer, there is a silent mode that can be run. This mode is useful if you wish to run a repeat installation attempt without going through the installer screens again.

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 its previous run.
2. Run the installer again with the silent argument.

Example: install.sh silent

C

Appendix: Common Installation Errors

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

SeeBeyond JMS Unavailable

Error message:

[1013AS_1.mspdev27] 06/04/29 23:23:46 Notification ==>application: rpm13 is in failed state

[1013AS_1.mspdev27] 06/04/29 23:23:46 Notification ==>Operation failed with error:

Could not connect to host: mspdev33, port: 27053

[Summary] There are total 1 instances in the operation.

[Summary] Operation failed on 1013AS_1.mspdev27

[Summary] Operation on cluster FAILED since 1 instanced failed!

Solution:

Make sure the SeeBeyond e*Gate JMS server is running and that you provide the correct JMS host and port values when you install RPM. Pay special attention to the input.taskqueue.jmshost and input.taskqueue.jmsport properties in ant.install.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 B of this document).

Keystore Errors When Signing rpm_client_config.jar

Error message:

keytool error: java.io.IOException: Keystore was tampered with, or password was incorrect

This message may be encountered when you use the **keytool** utility to create an alias for signing the rpm_client_config.jar file. This usually happens when the alias for which you are generating a key already exists in the keystore file.

Solution:

Delete or rename the ~/.keystore file and run the keytool command again. This creates a fresh keystore file.

Unreadable Buttons in the Installer

If you are unable to read the text within the installer buttons, it could mean that your JAVA_HOME is pointed to an older version of the JDK than is supported by the installer. Set JAVA_HOME to $ORACLE_HOME/jdk from the Oracle Application Server 10.1.3 installation 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 B of this document).

Left-Side Menu Buttons Missing in RPM Client

Symptom:

You can log into the RPM application but the left-side menus do not show up on the screen.

Solution:

The RSM (Security Manager) schema has not been loaded with RPM security data. There is a set of RPM data scripts that is shipped with RMS 13.1 (See Chapter 2 of this document). Run these scripts in the RSM schema and try logging into RPM again.

"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.

ConcurrentModificationException in 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.

"Couldn't find X Input Context" Warnings

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.

Error while unpacking the rpm13.ear

Symptom:

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

```
07/12/19 10:53:17 Notification ==>Error while unpacking rpm13.ear
java.util.zip.ZipException: error in opening zip file
```

Solution:

This is a known bug (BugID 6330834) related to Solaris and NFS in Oracle Application Server 10.1.3.4. Follow the workaround documented for this bug: in the opmn.xml file in $ORACLE_HOME/opmn/conf to add the following parameter to the java-options for the instance you are installing.

-Doc4j.autoUnpackLockCount=-1

After making this change you should reload OPMN, restart the affected OC4J instance(s), and retry the retail application installation.

D

Appendix: URL Reference

The application installer for the RPM product asks for several different URLs. These include the following.

JDBC URL for a Database

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

Thick Client Syntax: jdbc:oracle:oci:@<sid>

<sid>: system identifier for the database

> **Example:** jdbc:oracle:oci:@mysid

Thin Client 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

HTTP URL for a WebStart Client

Used within a web browser to access the application client.

Syntax: http://<host>:<port>/<path>

- <host>: hostname of the OracleAS environment
- <port>: HTTP port for the Oracle Http Server (OHS). This can be found in the Listen parameter in the ORACLE_HOME/Apache/Apache/conf/httpd.conf file, or in the output of opmnctl status –l.
- <path>: Path to the JNLP file, relative to the document root of the HTTP server. The document root for the Oracle Http Server is located at <ORACLE_HOME>/Apache/Apache/htdocs.

  > **Example:**
  > <ORACLE_HOME>/Apache/Apache/htdocs/rpm/rpm.jnlp

  http://myhost:7777/rpm/rpm.jnlp

JNDI Provider URL for an Application

Used by the application client to access the application running in the server. This is also used by other applications for server-to-server calls.

Syntax: opmn:ormi://<host>:<port>:<instance>/<app>

- <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 running the application
- <app>: Deployment name for the application.

Example: opmn:ormi://myhost:6003:rpm_oc4j/rpm13

Note: The JNDI provider URL can have a different format depending on your cluster topology. Consult the Oracle Application Server documentation for further details.

Deployer URI

The deployer URI is used by the Oracle ANT tasks to deploy an application to an OC4J group. 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 in ant.install.properties.

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>/<group>

- <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.
- <group>: Name of the OC4J instance where the application will be deployed.

Example:
deployer:cluster:opmn://myhost:6003/rpm_group

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

E

Appendix: Configuration Files

For the RPM application to work properly in an application server environment there are many configuration files that must be customized. Some of these files are configuration files of the Oracle Application Server and others are specific to the RPM application. The RPM application installer takes care of configuring all of these files so for a default install you do not need to manually inspect and fix the files listed in this appendix. However, for reference and troubleshooting purposes, here is a listing of the configuration files and parameters modified by the RPM application installer.

Oracle Application Server Resource Configuration

The following files are part of Oracle Application Server and are modified by the RPM application installer.

jms.xml

$ORACLE_HOME/j2ee/<rpm_instance>/config/jms.xml

If you select OracleAS JMS as the JMS provider for RPM then the installer adds these lines to the OC4J jms.xml file (reformatted for readability):

```
<queue name="rpmTaskQueue"
       location="jms/rpmTaskQueue"
       persistence-file="rpmTaskQueue.persistence.file">
     <description>RPM Task Engine Queue</description>
</queue>
<queue-connection-factory location="jms/Queue/myQCF"/>
<xa-queue-connection-factory location="jms/Queue/myXAQCF"/>
```

This is the definition within the JMS server in OC4J for the non-XA RPM task queue and the XA and non-XA JMS queue connection factories.

oc4j-connectors.xml

$ORACLE_HOME/j2ee/<rpm_instance>/config/oc4j-connectors.xml

If you select OracleAS JMS as the JMS provider for RPM then the installer adds these lines to the OC4J oc4j-connectors.xml file (reformatted for readability):

```
<adminobject-config location="OracleASjms/rpmTaskQueue">
    <adminobject-
class>oracle.j2ee.ra.jms.generic.AdminObjectQueueImpl</adminobject-class>
    <config-property name="jndiName" value="jms/rpmTaskQueue"/>
    <config-property name="resourceProviderName" value="oc4jjms"/>
</adminobject-config>
```

This admin object is an XA wrapper for the RPM task queue defined in jms.xml.

RPM Application Deployment Descriptors

application.xml (J2EE standard)

Inside of rpm13.ear and deployed to $ORACLE_HOME/j2ee/<rpm_instance>/applications/<rpm_app>/META-INF/application.xml

orion-application.xml (OC4J proprietary)

Inside of rpm13.ear and deployed to $ORACLE_HOME/j2ee/<rpm_instance>/applications/<rpm_app>/META-INF/orion-application.xml

oc4j-connectors.xml (OC4J proprietary)

Inside of rpm13.ear and deployed to $ORACLE_HOME/j2ee/<rpm_instance>/applications/<rpm_app>/META-INF/oc4j-connectors.xml

The **@task.queue@** and **@chunk.queue@** strings are replaced by the task queue and chunk queue names respectively by the RPM application installer.

> **Note:** There are two oc4j-connectors.xml files: this one at the RPM application level, and another one at the OC4J instance level which is documented above in the Oracle Application Server Resource Configuration section of this appendix.

data-sources.xml (OC4J proprietary)

Inside of rpm13.ear and deployed to $ORACLE_HOME/j2ee/<rpm_instance>/applications/<rpm_app>/META-INF/data-sources.xml

When the rpm13.ear file is deployed to OC4J it contains a configured data-sources.xml file modified by the installer. This file contains the database settings that are used by RPM. The installer configures the following lines in data-sources.xml (reformatted for readability):

```
<!-- Underlying connection pool for XA DataSource -->
<connection-pool name="RPMConnectionPool">
    <connection-factory
        factory-class="oracle.jdbc.pool.OracleDataSource"
        user="@data_source.user@"
        password="@data_source.password@"
        url="@data_source.url@">
    </connection-factory>
</connection-pool>

<!-- XA DataSource -->
<managed-data-source
    name="RPMXADataSource"
    connection-pool-name="RPMConnectionPool"
    jndi-name="jdbc/RPMXADataSource"/>

<!-- Non-XA DataSource -->
<native-data-source
    name="RPMNonXADataSource"
    jndi-name="jdbc/RPMNonXADataSource"
    description="RPM Non-XA DataSource"
```

```
    data-source-class="oracle.jdbc.pool.OracleDataSource"
    user="@data_source.user@"
    password="@data_source.password@"
    url="@data_source.url@">
</native-data-source>
```

The **@token.name@** strings are replaced with data source settings by the RPM application installer.

> **Note:** There are two data-sources.xml files: this one at the RPM application level, and another one at the OC4J instance level. RPM does not use the file at the OC4J instance level ($ORACLE_HOME/j2ee/<rpm_instance>/config/data-sources.xml).
>
> **Note:** After deployment, the RPM data source settings are also modifiable through the Enterprise Manager in the ASControl application. See the **Data Source Configuration in Container** section in the RPM operations guide document.

RPM Application Configuration Files – Server Side

rpm.properties

Inside of rpm13.ear and deployed to $ORACLE_HOME/j2ee/<rpm_instance>/applications/<rpm_app>/conf/rpm.properties

This is the primary RPM application configuration file. It contains settings related to the database, security, and JMS.

```
schema_owner=@schema.owner@
security_source=RSM
delete_staged_rib_payloads=@delete.staged.rib.payloads@
hibernate_xa_resource=/hibernate.xa.cfg.xml
hibernate_non_xa_resource=/hibernate.non-xa.cfg.xml
xa_queue_connection_factory=@jms.queue.connection.factory.xa@
non_xa_queue_connection_factory=@jms.queue.connection.factory.non-xa@
xa_queue_for_publish=@jms.queue.task.xa@
non_xa_queue_for_publish=@jms.queue.task.non-xa@
queue_for_subscribe=@jms.queue.task.non-xa@
```

The **@token.name@** strings are replaced with settings based on user input by the RPM application installer.

jndi_providers.xml

Inside of rpm13.ear and deployed to $ORACLE_HOME/j2ee/<rpm_instance>/applications/<rpm_app>/conf/retek/jndi_providers.xml

RPM uses the jndi_providers.xml file to locate the RIBforRPM application that it integrates with. The JNDI provider URL and JNDI username and password for RIBforRPM are placed in this file by the installer.

```
<!-- RIB for RPM -->
<provider app="rib-app">
  <context-property name="java.naming.factory.initial"
                    value="@rib.context.factory@" />
  <context-property name="java.naming.provider.url"
                    value="@rib.service.url@" />
  <context-property name="java.naming.security.principal"
                    value="@rib.username@" />
  <context-property name="java.naming.security.credentials"
                    value="@rib.password@" />
</provider>
```

The **@token.name@** strings are replaced with settings based on user input by the RPM application installer. The context factories are always set to the OC4J setting of **oracle.j2ee.rmi.RMIInitialContextFactory**.

log4j.xml

Inside of rpm13.ear and deployed to $ORACLE_HOME/j2ee/<rpm_instance>/applications/<rpm_app>/conf/log4j.xml

This log4j configuration file determines the log level of the RPM application. There are several places in this file where the installer sets the log level. The RPM application installer is hard-coded to always set a log level of ERROR. You can raise or lower this level by manually editing log4j.xml after deployment.

> **Note:** RPM log messages are sent as console output from the OC4J server. This output is captured in the log files located under $ORACLE_HOME/opmn/logs. See the Logging section of the Backend System Administration and Configuration chapter of the *RPM Operations Guide* for more details.

RPM Application Configuration Files – Batch Client Side

launchRpmBatch.sh

Installed to $ORACLE_HOME/j2ee/<rpm_instance>/rpm-batch/scripts/launchRpmBatch.sh

launchRpmBatch.sh is the script that is invoked by every RPM batch program to set up the classpath of the batch client and connect to the RPM application running in OC4J. This file is a shell script but there is a configuration setting for the application URL that is modified by the installer.

```
PROVIDER_URL=-Djava.naming.provider.url=opmn:ormi://myhost:6003:rpm_oc4j/rpm13
```

The PROVIDER_URL line above is modified by the RPM application installer to contain the JNDI provider URL for the RPM application. This is the setting that points the RPM batch client to the deployed RPM application in OC4J.

RPM Application Configuration Files – GUI Client Side

JnlpLaunch.properties

Installed to $ORACLE_HOME/j2ee/<rpmoc4jinstance>/applications/<rpmapp>/conf/.

The main RPM JNLP file which launches the application client is provided to the user's web browser by a servlet called JnlpLaunchServlet. JnlpLaunchServlet uses a template file, rpm_jnlp_template.vm (see below), and dynamically updates its content based on the settings in JnlpLaunch.properties.

The RPM application installer configures JnlpLaunch.properties with several values:

- HTTP URL to the RPM client files (token.rpm_download property):
  `token.rpm_download_url=http://myhost:7777/rpm-client`
- The JNDI provider URL to the RPM application (token.rpm_provider_url property)
  `token.rpm_provider_url=opmn:ormi://myhost:6003:rpm_oc4j/rpm13`
- JnlpLaunch secret key (secret.key property)
  `secret.key=jkxveqX$25tvu9gZY4qL&!3L*rAMrYUEOk0s!m.N6u$ARYLN5CQsDZ5OmMIEPBXuB$e$d0J3`
- JnlpLaunch User Validation Class (user.validation.class property)
  `user.validation.class=oracle.retail.sso.uservalidation.SimpleUserValidation`
- Oracle Single Sign-On enabled/disabled setting (osso_used and token.sso_enabled properties)
  ```
  osso_used=false
  token.sso_enabled=false
  ```
- Velocity Log Directory (velocity.log_path property)
  `velocity.log_path=/u01/oracle/product/10.1.3/OracleAS_1/j2ee/rpm_oc4j/log`
- Default User for Non-OSSO (default_user property)
  `default_user=rpmuser`

rpm_jnlp_template.vm

(Formerly rpm.jnlp)

The application installer no longer modifies this file. At time of user access, JnlpLaunchServlet filters this file based on settings in JnlpLaunch.properties. There are velocity tokens ($name) that are substituted by JnlpLaunchServlet at runtime.

Installed to $ORACLE_HOME/j2ee/<rpmoc4jinstance>/applications/<rpmapp>/JnlpLaunchServlet/client/.

rpmconfig.jnlp

Installed to $ORACLE_HOME/j2ee/<rpmoc4jinstance>/applications/<rpmapp>/JnlpLaunchServlet/.

This is a secondary JNLP file that pulls the rpm_client_config.jar file into the RPM client classpath. This second JNLP file exists so that rpm_client_config.jar may be signed by any certificate and still be allowed by WebStart to run with the Oracle-signed jars listed in rpm_jnlp_template.vm.

The installer configures the HTTP URL to the RPM client files in the codebase attribute of the root level <jnlp> element:

```
<jnlp codebase="http://myhost:7777/rpm-client" spec="1.0+" href="rpmconfig.jnlp">
```

F

Appendix: Installation Order

This section provides a guideline as to the order in which the Oracle Retail applications should be installed. If a retailer has chosen to use some, but not all, 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)
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 Allocation
7. Oracle Retail Invoice Matching (ReIM)
8. 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 jndi_provider.xml file.

9. Oracle Retail Central Office (ORCO)
10. Oracle Retail Back Office (ORBO) or Back Office with Labels and Tags (ORLAT)
11. Oracle Retail Store Inventory Management (SIM)

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

12. Oracle Retail Predictive Application Server (RPAS)
13. Oracle Retail Merchandise Financial Planning (MFP)
14. Oracle Retail Size Profile Optimization (SPO)
15. Oracle Retail Assortment Planning (AP)
16. Oracle Retail Item Planning (IP)
17. Oracle Retail Item Planning configured for COE (IPCOE)
18. Oracle Retail Advanced Inventory Planning (AIP)
19. Oracle Retail Integration Bus (RIB)
20. Oracle Retail Point-of-Service (ORPOS)

21. Oracle Retail Mobile Point-of-Service (ORMPOS)
22. Oracle Retail Analytics Applications
23. Oracle Retail Data Warehouse (RDW)
24. Oracle Retail Workspace (ORW)