

**Oracle[®] Retail Price Management
Installation Guide
Release 11.0.7
June 2006**

Copyright © 2006, Oracle. All rights reserved.

The Programs (which include both the software and documentation) contain proprietary information; they are provided under a license agreement containing restrictions on use and disclosure and are also protected by copyright, patent, and other intellectual and industrial property laws. Reverse engineering, disassembly, or decompilation of the Programs, except to the extent required to obtain interoperability with other independently created software or as specified by law, is prohibited.

The information contained in this document is subject to change without notice. If you find any problems in the documentation, please report them to us in writing. This document is not warranted to be error-free. Except as may be expressly permitted in your license agreement for these Programs, no part of these Programs may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose.

If the Programs are delivered to the United States Government or anyone licensing or using the Programs on behalf of the United States Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the Programs, including documentation and technical data, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement, and, to the extent applicable, the additional rights set forth in FAR 52.227-19, Commercial Computer Software—Restricted Rights (June 1987). Oracle Corporation, 500 Oracle Parkway, Redwood City, CA 94065

The Programs are not intended for use in any nuclear, aviation, mass transit, medical, or other inherently dangerous applications. It shall be the licensee's responsibility to take all appropriate fail-safe, backup, redundancy and other measures to ensure the safe use of such applications if the Programs are used for such purposes, and we disclaim liability for any damages caused by such use of the Programs.

Oracle, JD Edwards, PeopleSoft, and Siebel are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

The Programs may provide links to Web sites and access to content, products, and services from third parties. Oracle is not responsible for the availability of, or any content provided on, third-party Web sites. You bear all risks associated with the use of such content. If you choose to purchase any products or services from a third party, the relationship is directly between you and the third party. Oracle is not responsible for: (a) the quality of third-party products or services; or (b) fulfilling any of the terms of the agreement with the third party, including delivery of products or services and warranty obligations related to purchased products or services. Oracle is not responsible for any loss or damage of any sort that you may incur from dealing with any third party.

Contents

Preface	v
Audience	v
Customer Support	v
1 Hardware and Software Requirements	1
Database Server	1
Application Server	1
Oracle Retail Software Dependencies.....	1
Client PC and Web Browser Requirements	1
Client PC Requirements.....	1
Browser Requirements.....	1
2 Application Server Configuration Instructions	3
UNIX (Sun Solaris/HPUX/AIX)	4
Deploy rpm11.ear in WebSphere Application Server 5.1.....	4
3 Client Installation Instructions	9
4 Online Help Installation Instructions	15
Extract RPM Help (rpm11help_<lang>.zip).....	15
A Appendix	17
Re-signing JAR Files	17

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

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.

Hardware and Software Requirements

Oracle Retail Price Management (RPM) 11.0.7 is a client-server-server application. The client side code runs in a WebStart Java Virtual Machine (JVM) instance, while the server side code runs in the WebSphere Enterprise JavaBeans (EJB) Container and accesses an Oracle Database server.

Database Server

General requirements for a database server capable of running RPM application include:

- UNIX based OS (Solaris 9, HP-UX 11.11 or AIX 5.2) certified with Oracle RDBMS 9i release 2 Enterprise Edition.
- Oracle RDBMS 9i release 2 Enterprise Edition.

Application Server

General requirements for an application server capable of running RPM application include:

- UNIX based OS (Solaris 9, HP-UX 11.11 or AIX 5.2) certified with IBM WebSphere 5.1.
- IBM WebSphere Application Server version 5.1.

Oracle Retail Software Dependencies

RPM 11.0.7 requires an existing installation of Oracle Retail Security Manager (RSM) for authentication services, Oracle Retail Navigator for Single Sign On, and Oracle Retail Integration Bus (RIB) for horizontal integration with other Oracle Retail systems.

Client PC and Web Browser Requirements

Client PC Requirements

- Operating system is Windows 2000 or XP
- Display resolution is 1024x768 or higher
- Processor is 1GHz or higher
- Memory is 512MBytes or higher
- Networking is intranet with at least 10Mbps data rate
- Sun J2RE Runtime 1.4.2 or higher

Browser Requirements

- Microsoft Internet Explorer 5.5 or higher

Application Server Configuration Instructions

The RPM server tier is packaged as an Enterprise Archive (EAR) file, rpm11.ear. Install the rpm11.ear file on the J2EE application server according to the vendor documentation. The following are typical steps for deploying an EAR file in WebSphere 5.1, assuming WebSphere Application Server (WAS) and IBMHttpServer are already installed. It is also assumed Oracle was already configured and loaded with the appropriate RMS/RPM schema for your installation.

Note: The RPM 11.0.7 Installation Guide assumes RPM 11.0 was previously installed in WebSphere. The RPM 11.0 application in WebSphere needs to be stopped and uninstalled prior to the installation of RPM 11.0.7. The existing data source and J2C Authentication data entry in WebSphere can be re-used for the RPM 11.0.7 install (assuming these values remain unchanged for the RMS/RPM schema). Any customizations made to RPM 11.0 needs to be manually replicated in RPM 11.0.7.

Note: The following RPM WebSphere installation configurations were tested. It is required that one of these configurations is utilized for RPM deployment. Alternate configurations are not supported.

1. Log into the UNIX Webserver where WebSphere 5.1 is installed as the Oracle Retail user and determine where the RPM 11.0.7 application server file (rpm11.0.7-install.zip) will be installed. There should be a minimum of 250 MB disk space available for the application installation files.
2. Copy rpm11.0.7-install.zip located at CDROM/appserverunix to a newly created staging directory on the UNIX server. This location will be referred to as INSTALL_DIR for the remainder of this chapter.
3. Change directories to INSTALL_DIR and extract rpm11.0.7-install.zip. This will create an rpm11 directory, which contains the following files and directories:
 - README
 - batch/
 - bin/
 - content_model_rpm.xml
 - lib/
 - rpm11.ear
 - template/
 - webstart/
4. RPM and RIB for RPM installed on separate WebSphere instances on separate physical servers is a supported configuration. If applicable, Navigator must also be installed on a separate WebSphere server from RPM. (It can be on the same WAS instance or on a different WAS instance.)

5. RPM and RIB for RPM installed on separate WebSphere servers within a single WAS instance is a supported configuration. If applicable, Navigator must also be installed on a separate WebSphere server from RPM. (It can be on the same WAS instance or on a different WAS instance.)

UNIX (Sun Solaris/HPUX/AIX)

Note: IBM JVM 1.4.1+ is required for RPM (and is shipped with WebSphere 5.1).

Note: IBM recommends that the IBMHttpServer be configured to run as the front-end for WebSphere application server.

Note: ojdbc14.jar is required for RPM 11. This file can be obtained from the Oracle Technology Network Web site, and must be copied to a staging directory on the Web server where WebSphere 5.1 is installed.

Note: These installation instructions assume RPM 11.0.7 utilizes the same RMS/RPM schema as the previously installed RPM 11.0 application. Refer to the RPM 11.0 Installation Guide for information regarding the RMS/RPM schema.

Deploy rpm11.ear in WebSphere Application Server 5.1

To deploy the rpm11.ear:

1. Change directories to `INSTALL_DIR/rpm11/bin` and change file permissions to read-write-execute for all shell scripts.

Example: `INSTALL_DIR/rpm11/bin> chmod -R 755 *.sh`

2. Run `INSTALL_DIR/rpm11/bin/install.sh` to automatically configure the RSM and RIB interface parameters w/in the rpm11.ear file, as well as the Java Network Launching Protocol (JNLP) codebase and property name parameters w/in the rpm11.jnlp file.

The user is prompted for the Internet Inter-Object Request Broker (ORB) Protocol address (WebSphere server name and BootStrap Port), the http URL of the RPM installation, as well as the Internet Inter-ORB Protocol (IIOP) address of the corresponding RIBforRPM and RSM installations. These IIOP addresses are copied into the respective URL parameters in the file `jndi_providers_rsm.xml`; this file is then archived in the appropriate jar file.

Note: RIBforRPM and RSM are requirements for RPM 11, and the BootStrap port for each application must be known at this time. RIBforRPM and RSM may reside in the same WebSphere instance as RPM 11, or in separate WebSphere instances.

The script also prompts the user for the RPM Java Message Service (JMS) Queue name. This information is necessary to support the asynchronous processing functionality existing in RPM. The RPM JMS Queue was created in “Chapter 3 – Client Installation Instructions” and can be found by navigating to Resources – Generic JMS Providers. From the Generic JMS Providers dialogue select the appropriate Node and Server, click **Apply**, and then click the SeeBeyond JMS Provider. From the SeeBeyond JMS Provider dialogue select JMS Destinations. The JNDI Name listed should be provided as the RPM JMS Queue name.

The script then prompts the user for the schema owner of the RMS/RPM schema that is used by the application once it is installed.

```
> ./install.sh
```

Example: Enter the IIOP URL (Bootstrap address and port) for your RPM installation [iiop://localhost:9280]:

```
iiop://server:2809
```

Example: Enter the http URL for your RPM Web server installation [http://localhost:80/rpm]:

```
http://server:9081
```

Example: Enter the IIOP URL (Bootstrap address and port) for your RSM installation [iiop://localhost:9800]:

```
iiop://server:2810
```

Example: Enter the IIOP URL (Bootstrap address and port) for your RIB installation [iiop://localhost:9801]:

```
iiop://server:2811
```

Example: Enter the RPM JMS Queue name:

```
[jms/Generic/Queue/RPMAsyncQueue]:
jms/Generic/Queue/etTaskQueue
```

Example: Enter the schema owner for your jdbc connection: [RPMUser]:

```
RMS11EN
```

“please wait...”

“extracted: lib/retek-payload-typed.jar” and “extracted: conf/retek/jndi_providers.xml” should appear when the script finishes running.

Note: The install.sh script is a bash shell script and requires that the bash shell reside in the user’s path.

Note: Schema MUST be entered in upper case

3. Update the j2c.properties file located in the WAS_HOME/properties directory by adding an advanced-connection-properties property for the existing RPM data source.

Example:

```
<advanced-connection-properties
connectionFactoryJNDIName="jdbc/RPMDataSource">
  <testConnection>true</testConnection>

  <testConnectionRetryInterval>5</testConnectionRetryInterval>
</advanced-connection-properties>
```

Note: The j2c.properties file is associated with a particular application server. This application server must be restarted before these changes will take effect.

Note: Prior to proceeding to EAR deployment it is necessary to inject the hibernate2.jar file into the rpm11.ear file. Due to open source licensing restrictions, clients are required to manually download and install hibernate2.jar. A utility for automatically validating the downloaded hibernate2.jar version and adding the jar to the rpm11.ear file may be obtained from the Oracle Retail Fulfillment Site. Supporting documentation is also included in the zip file.

4. Open the WebSphere Administrative Console that is to be used for administering the RPM 11 application, <http://<server>:<port>/admin>.
5. Click on Applications – Install New Application.
6. Under Preparing for the application installation, select the server path radial button and set this field to INSTALL_DIR/rpm11/rpm11.ear (from step 3 above), and then click **Next**.

Example: Server path: /u00/websp/rpm11/rpm11.ear

7. Accept the default options for Steps 1 – 2; click **Next** until reaching “Step 3: Provide Listener Ports for Messaging Beans.”
8. Under “Step 3: Provide Listener Ports for Messaging Beans” provide the Listener Port created during the External JMS creation. The default value for the Listener Port is TaskMDBPort. Click **Next**.

Example: Listener Port: TaskMDBPort

9. Under “Step 4: Provide JNDI Names for Beans” select the default options and click **Next**.
10. Under “Step 5: Map modules to application servers,” select the server which will be used for deploying the application (default server is server1), check the checkbox in the header to update all modules, and click **Apply**. The server fields will be updated with the appropriate server. Click **Next**.
11. Under “Step 6: Ensure all unprotected 2.0 methods have the correct level of protection” select the default options and click **Next**.
12. Under “Step 7: Summary, verify all installation information is correct and click **Finish**. This may take several minutes. Upon completion, the message “Application rpm11 installed successfully” appears.
13. Click the **Save to Master Configuration** link when it appears.

14. Click **Save** in the Save to Master Configuration section. Following a successful save, you will be re-directed to the WebSphere Application Server Administrative Console.
15. Click **Applications – Enterprise Applications**.
16. Click the rpm11application link to load the RPM 11 application configuration page.
17. Set the Classloader Mode property to PARENT_LAST, and then click **OK**.
18. Save to master configuration once again and start the rpm11 application. The rpm11 application should have a solid green arrow indicating successful startup.
19. Prior to loading the rpm11.jnlp file it is necessary to resign all jar files in the INSTALL_DIR/rpm11/webstart/lib directory. Follow the directions provided in the appendix to resign the jars.

Client Installation Instructions

The following steps describe how the RPM 11client would be configured to serve its files over the IBMHttpServer as configured to be the front-end to the WebSphere Application Server where the rpm11.ear file was installed and configured.

While the RPM 11 client may already be configured and installed based on the RPM 11 installation, the following steps should be performed again before launching the RPM 11 client.

Note: Sun JRE 1.4.2+ must be installed on the client PC in order for the RPM 11client to run. Any Sun JRE 1.4.2+ contains Java WebStart, which is used to distribute and update clients via HTTP. Sun JRE 1.4.2+ can be downloaded from the Sun site, <http://java.sun.com>.

1. On the Webserver where WebSphere is installed, change directories the document root for IBMHttpServer. This location can be determined by examining the file IBMHttpServer/conf/httpd.conf; the value for the DocumentRoot directive in this file specifies the document root for IBMHttpServer.

Example: /u00/websp/IBMHttpServer/htdocs/en_US

2. Copy the modified rpm11.jnlp file from INSTALL_DIR/rpm11/webstart to the DocumentRoot (as determined in the previous step). This step will overwrite existing versions of these files (from the RPM 11 install) in the DocumentRoot.
 - a. Copy the icon.jpg file from INSTALL_DIR/rpm11/webstart to the DocumentRoot.
 - b. Copy the directory INSTALL_DIR/rpm11/webstart/lib to the DocumentRoot (if a lib/ directory already exists in the DocumentRoot, replace it with this one).

The following directory and files should now exist in DocumentRoot: /lib, rpm11.jnlp, and icon.jpg.

```
/u00/websp/IBMHttpServer/htdocs/en_US> cp
INSTALL_DIR/rpm11/webstart/rpm11.jnlp .
```

```
/u00/websp/IBMHttpServer/htdocs/en_US> cp
INSTALL_DIR/rpm11/webstart/icon.jpg .
```

```
/u00/websp/IBMHttpServer/htdocs/en_US> cp -rf
INSTALL_DIR/rpm11/webstart/lib .
```

3. Edit the file IBMHttpServer/conf/mime.types by adding the jnlp MIME type application/x-java-jnlp-file jnlp to this file (the example below shows the jnlp MIME type addition in between the x-javascript and x-koan entries. This step should have been performed during the RPM 11 installation.

Example:	application/x-javascript	js
	application/x-java-jnlp-file	jnlp
	application/x-koan	skp skd skt skm

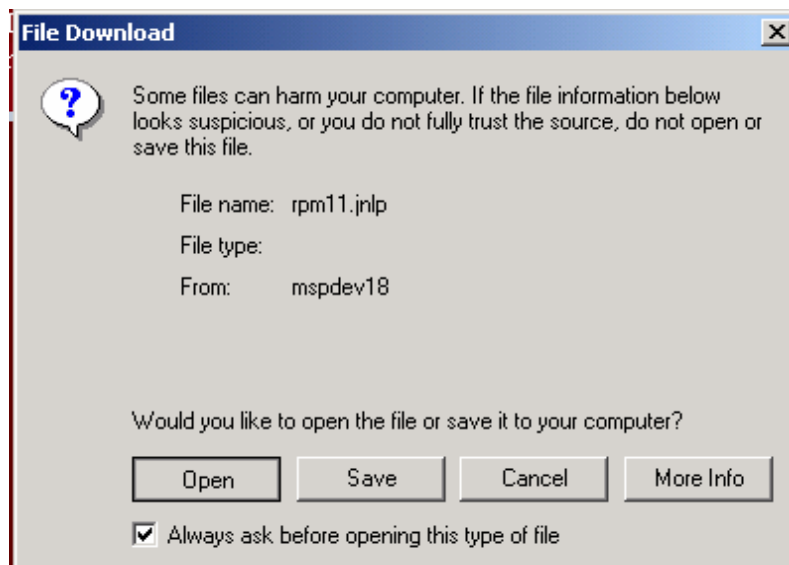
4. Reload the IBMHttpServer for the above changes to take effect.
5. Load the newly configured rpm11.jnlp file by entering the following URL in a browser: http://<server>:<http_port>/rpm11.jnlp
 - server = name or IP address of the server where IBMHttpServer is running
 - http_port = IBMHttpServer port as defined by the Port value in the file IBMHttpServer/conf/httpd.conf

Example: <http://server:9081/rpm11.jnlp>

Java Web Start should launch the RPM 11 client.

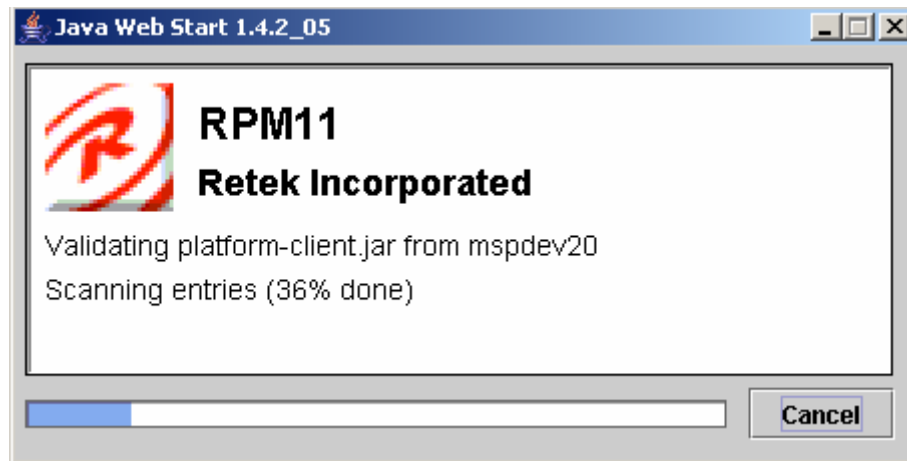
Note: Depending on whether or not the RPM 11 client has already been installed on the client machine, the following download/warning/etc windows may or may not be presented when the RPM 11 client is launched.

If a File Download window similar to the following appears, this means that Java Web Start was not installed as the requirement; along with a JRE 1.4.2+ (the browser cannot handle the jnlp mime type). Install JRE 1.4.2+ before continuing.



File Download Dialog Box

A Java Web Start window similar to the following should appear the first time the rpm11.jnlp file is accessed per PC if a JRE 1.4.2+ and Java Web Start were installed as required. This window displays the RPM11 install on the client PC.



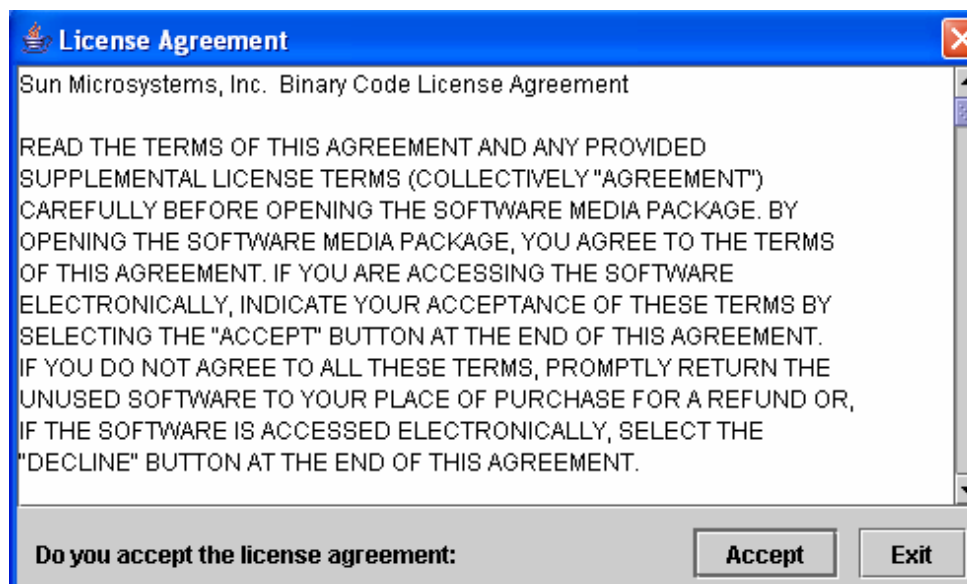
Java Web Start Window

- a. A Security Warning window similar to the following may appear. The warning can be disregarded. Click **Install** to install Java WebStart.



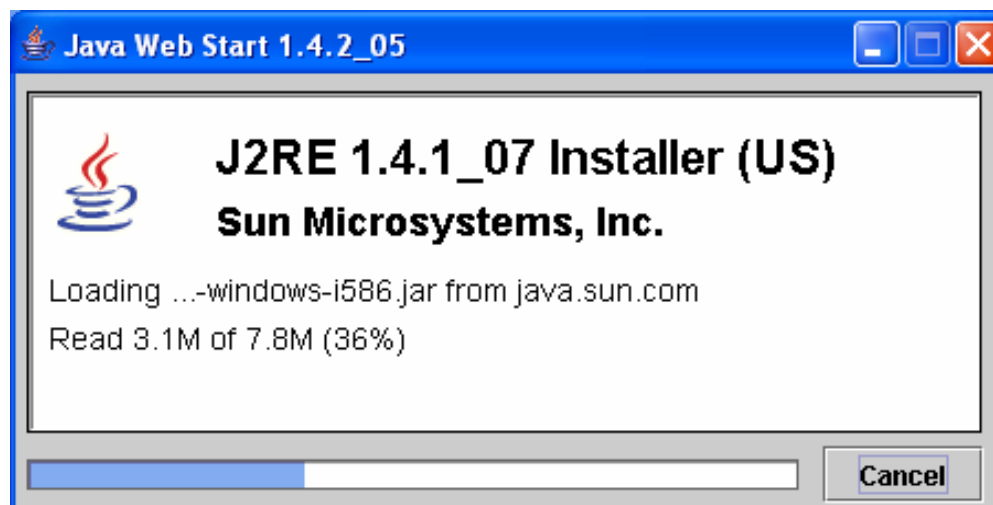
Security Warning Dialog

- b. A Sun Microsystems License Agreement window similar to the following may appear. Click **Accept** to accept the agreement and continue installing the client.



License Agreement Window

JRE 1.4.1_XX continues to install at this point.



Java Web Start Window

- c. A Security Warning window similar to the following may appear. Disregard the warning and click **Start** to launch the RPM 11.



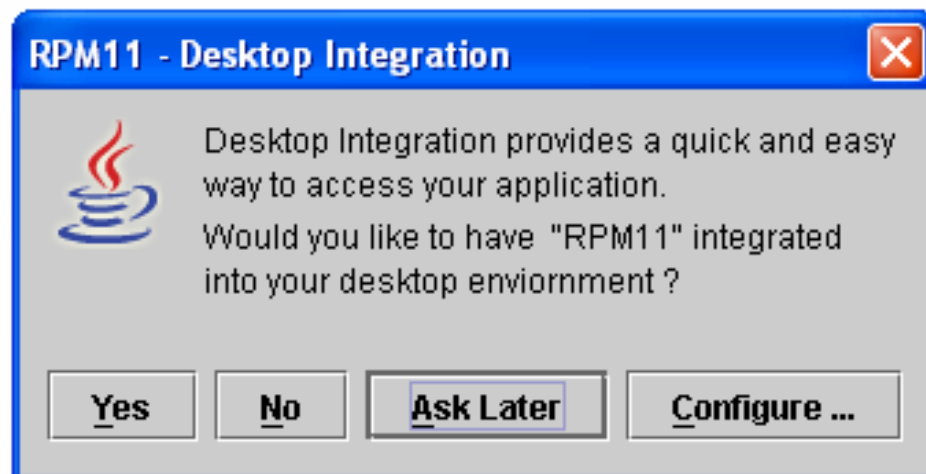
Security Warning Dialog

- d. An additional Security Warning window similar to the following may appear. Again, even though the window recommends not to install and run this code, disregard the warning, and click **Install** to launch the RPM 11 client.



Security Warning Dialog

- e. The RPM11 – Desktop Integration window similar to the following appears, asking whether to add the RPM11 shortcut on the PC desktop. The RPM11 client will automatically launch no matter which button is selected.



RPM 11 – Desktop Integration Window

Once a button is selected, the RPM front-end appears.

- f. The Oracle Retail Login screen appears. For the initial login to RPM to be possible, the RPM database user must also be a valid user in the organization's LDAP Directory Server. Click **Login** after entering the Username and Password.

Example: User Name: Abby.Dawkins
Password: retek

- g. The final configuration step for RPM 11 is to save the system options data and system defaults to the database. To save system options, click **System Options** task in the left action pane.
- h. Click **System Options Edit**. The default system options displays.
- i. Click **Save** to save system options.
- j. To save system defaults click **System Options** task in the left action pane.
- k. Click **System Defaults Edit**. The default system defaults display.
- l. Click **Save** to save system defaults. RPM 11 installation/configuration is now complete.

Online Help Installation Instructions

In order to access online help through the RPM application, the helpfile zip file (rpm11help_<lang>.zip) must be copied to the document root of IBMHttpServer and extracted.

Extract RPM Help (rpm11help_<lang>.zip)

To extract RPM Help:

1. On the Webserver, change directories to the document root for IBMHttpServer. This location can be determined by examining the file IBMHttpServer/conf/httpd.conf; the value for the DocumentRoot directive in this file specifies the document root for IBMHttpServer.

Example: /u00/webasp/IBMHttpServer/htdocs/en_US

2. Create the directory /rpmhelp in the document root.
3. Copy the rpm11help_<lang>.zip (where <lang> represents the language in which the application is being installed) from /INSTALL_DIR to the newly created /rpmhelp directory in the document root.
4. Extract rpm11help_<lang>.zip.
5. Validate that RPM online help can now be accessed through IBMHttpServer with the RPM online help URL:
http://<server>:<http_port>/rpmhelp/start.htm

Example: http://server:9081/rpmhelp/start.htm.

Note: This URL is used for configuring the client_master.properties file.

6. Verify Help was successfully installed by accessing the application and selecting RPM Help – RPM Help. The help dialogue is displayed.

Re-signing JAR Files

In order for the RPM application to be delivered via WebStart, all client libraries must be signed cryptographically. Initially, all client Java Archive (JAR) files are signed by the standard valid Oracle Retail signing certificate. If modifications to a client JAR are made, all client JAR files must be re-signed with the client's certificate. This is required so that all client JAR files are signed with the same certificate. Once all JAR files have been re-signed with the client's certificate (valid or self-signed), subsequent modification of client JAR files will only require that the modified JAR file itself be re-signed.

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

Note: JAVA_HOME/bin must be in the PATH variable.

```
keytool -genkey -alias foo
```

This command will prompt 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 (that is, ~/USER_NAME/.keystore).

The resign.sh script in INSTALL_DIR/rpm11/bin was created to re-sign all client libraries (after removing the Oracle Retail signature. Consult the "jarsigner" documentation from Sun for further information on the JAR signing process.

Note: resign.sh syntax – resign.sh <alias>
Alias – keystore alias of the signing certificate

Example: resign.sh foo

Enter the keystore password when prompted. This script resigns all jar files in the directory INSTALL_DIR/rpm11/webstart/lib. Once all jar file are resigned with your keystore certificate, copy the entire INSTALL_DIR/rpm11/webstart/lib directory to the IBMHttpServer DocumentRoot directory (this replaces the existing lib directory). The DocumentRoot directory can be identified by looking in the IBMHttpServer http.conf configuration file.