

Retek[®] Price Management[™] 11.0.2

Installation Guide

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Chapter 1 – Hardware and Software Requirements

RPM 11 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 WebSphere 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.

Retek Software Dependencies

RPM 11.0.2 requires an existing installation of Retek Security Management (RSM) for authentication services, Retek Navigator for Single Sign On and Retek Integration Bus (RIB) for horizontal integration with other Retek 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

Chapter 2 – Database Installation Instructions



Note: The database section only needs to be run if you are installing against RMS 11.0.2 French. If this is being installed against an English version of RMS please proceed to Chapter 3.



Note: RMS 11.0.2 French should be installed or errors will occur. The following scripts should be installed in the same schema as RMS 11.0.2 French

Create Staging Directory for RPM database files

- 1 Log into the UNIX server as retek user and determine where the RPM database files will be located. There should be a minimum of 1MB disk space available for the database installation files.
- 2 Copy the rpm1101platform.zip file from the CDROM/dbserverunix directory to the newly created staging directory. This will be referred to as staging area for the remainder of this chapter.
- 3 Change directories to staging area and extract the rpm1101platform.zip file.

Create RPM Platform tables

- 1 Change directories to staging area/
- 2 Log into sqlplus as RMS11DEV and run the following command:
`SQL> @platform11ddl.sql`
- 3 Check the log file platform11ddl.log for any errors.

Create RPM Alert Platform tables

- 1 Change directories to staging area/alert
- 2 Log into sqlplus as RMS11DEV and run the following command:
`SQL> @platform11alert.sql`
- 3 Check the log file platform11alert.log for any errors.

Create RPM Task Platform tables

- 1 Change directories to staging area/task
- 2 Log into sqlplus as RMS11DEV and run the following command:
`SQL> @platform11task.sql`
- 3 Check the log file platform11task.log for any errors.

Update RPM Platform data

- 1 Change directories to staging area/sqlplus
- 2 Log into sqlplus as RMS11DEV and run the following commands:

```
SQL> @createDataInsertAlertsSQLs.oracle.frag
```

```
SQL> @createDataInsertTasksSQLs.oracle.frag
```
- 3 Check for any errors.

Chapter 3 – Application Server Configuration Instructions

The RPM server tier is packaged as an EAR file – rpm11.ear. Install the rpm11.ear file on the J2EE application server according to the vendor's documentation.

The following are typical steps for deploying an ear file in WebSphere 5.1, assuming WebSphere Application Server (WAS) and IBMHttpServer have already been installed. It is also assumed Oracle has already been configured and loaded with the appropriate RMS/RPM Schema for your installation.



Note: The RPM 11.0.2 Installation Guide assumes RPM 11.0 has previously been installed in WebSphere. The RPM 11.0 application in WebSphere will need to be stopped and uninstalled prior to the installation of RPM 11.0.2. The existing data source and J2C Authentication Data Entry in WebSphere can be re-used for the RPM 11.0.2 install (assuming these values remain unchanged for the RMS/RPM schema). Any customizations made to RPM 11.0 will need to be manually replicated in RPM 11.0.2.



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

- 1 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 (Can be on the same WAS instance or on a different WAS instance)
- 2 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 (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 webserver where WebSphere 5.1 is installed



Note: These installation instructions assume RPM 11.0.2 will utilize the same RMS/RPM schema as the previously installed RPM 11.0 application. Please refer to the RPM 11.0 Installation Guide for information regarding the RMS/RPM schema.

Deploy rpm11.ear in WebSphere Application Server 5.1


- 1 Log into the UNIX webserver where WebSphere 5.1 is installed as the retek user and determine where the RPM 11.0.2 application server file (rpm11.0.2-install.zip) will be installed. There should be a minimum of 250 MB disk space available for the application installation files.
- 2 Copy rpm11.0.2-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 rpm11.0.2-install.zip. This will create an rpm11 directory, which contains the following file and directories:

```

README
bin/
content_model.xml
lib/
rpm11.ear
template/
tmp/
webstart/


```

- 4 Edit the file INSTALL_DIR/rpm11/template/rpm11.jnlp by updating the jnlp codebase parameter value @web.host@ in this file with "http://" plus the values for @web.host@. Also update the java.naming.provider.url value @iiop.url@ in this file with "iiop://" plus the values for @iiop.url@:
 - web = name or IP address of the server where IBMHttpServer is running as the front-end for RPM 11
 - host = Port value in httpd.conf of IBMHttpServer
 - iiop = name or IP address of the server where WebSphere is running for RPM 11
 - url = BootStrap Port of the WebSphere instance that is running RPM 11


 **Example:** <jnlp codebase="http://server:9081/" spec="1.0+" href="rpm11.jnlp">
<property name="java.naming.provider.url" value="iiop://server:2809"/>

- 5 Run INSTALL_DIR/rpm11/bin/install.sh to automatically configure the RSM and RIB interface parameters w/in the rpm11.ear file. The user will be prompted for the IIOP address (WebSphere server name and BootStrap Port) of the corresponding RIBforRPM and RSM installations. These IIOP addresses will be copied into the respective url parameters in the file jndi_providers_rsm.xml; this file will then be archived in the appropriate jar file. 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.

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


 **Example:** Please enter the IIOP url (Bootstrap address and port) for your RSM installation [iiop://localhost:9800]:

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

 **Example:** Please enter the IIOP url (Bootstrap address and port) for your RIB installation [iiop://localhost:9801]:

iiop://server:2809


“rpm11.ear updated. It is now ready to be deployed.” should appear when the script finishes running.


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

- 6 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.

- 7 Open the WebSphere Administrative Console that is to be used for administering the RPM 11 application – <http://<server>:<port>/admin>.
- 8 Click on Applications->Install New Application.
- 9 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
- 10 Accept the default options and click Next for the rest of the application installation steps until reaching “Step 6: Summary”.
- 11 Under “Step 6: Summary”, verify all installation information is correct and click Finish. This may take several minutes. Upon completion, the message “Application rpm11 installed successfully” should appear.
- 12 Click the [Save to Master Configuration](#) link when it appears.
- 13 Click the Save button in the Save to Master Configuration section. Following a successful save, you will be re-directed to the WebSphere Application Server Administrative Console.
- 14 Click on Applications->Enterprise Applications.
- 15 Click on the rpm11 application link to load the RPM 11 application configuration page.
- 16 Set the Classloader Mode property to PARENT_LAST, and then click the OK button.
- 17 Save to master configuration once again and start the rpm11 application.
- 18 At this point, the rpm11 application should have a solid green arrow indicating successful startup.

For Solaris platforms only, perform the following steps:

- 1 Stop the rpm11 application from the WebSphere Administrative Console.
- 2 Change directories to the location of the platform-conf.jar file that exists in the lib directory of the deployed rpm11.ear. This location should be WAS_HOME/installedApps/<node>/RPM11.ear/lib, where WAS_HOME refers to the location where WebSphere is installed for RPM.

 **Example:** /u00/websp/WebSphere/AppServer/installedApps/<node>/RPM11.ear/lib

- 3 Run the following command to extract the file commons-logging.properties from platform-conf.jar:

```
> jar -xf platform-conf.jar commons-logging.properties
```

- 4 Edit the newly extracted file commons-logging.properties by replacing the existing contents of this file with the following (Jdk14Logger is being replaced with Log4Jlogger):

Original: org.apache.commons.logging.Log=org.apache.commons.logging.impl.Jdk14Logger

Updated: org.apache.commons.logging.Log=org.apache.commons.logging.impl.**Log4Jlogger**

- 5 Run the following command to add the newly modified file commons-logging.properties back into platform-conf.jar:

```
> jar -uf platform-conf.jar commons-logging.properties
```

- 6 Start the rpm11 application in the WebSphere Administrative Console.

Chapter 4 – Client Installation Instructions

The following steps describe how the RPM 11 client 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 have already been 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 11 client 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/webasp/IBMHttpServer/htdocs/en_US

- 2 Copy the modified rpm11.jnlp file from INSTALL_DIR/rpm11/template 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. Copy the icon.jpg file from INSTALL_DIR/rpm11/webstart to the DocumentRoot. 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/webasp/IBMHttpServer/htdocs/en_US> cp
INSTALL_DIR/rpm11/template/rpm11.jnlp .
```

```
/u00/webasp/IBMHttpServer/htdocs/en_US> cp INSTALL_DIR/rpm11/template/icon.jpg .
```

```
/u00/webasp/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

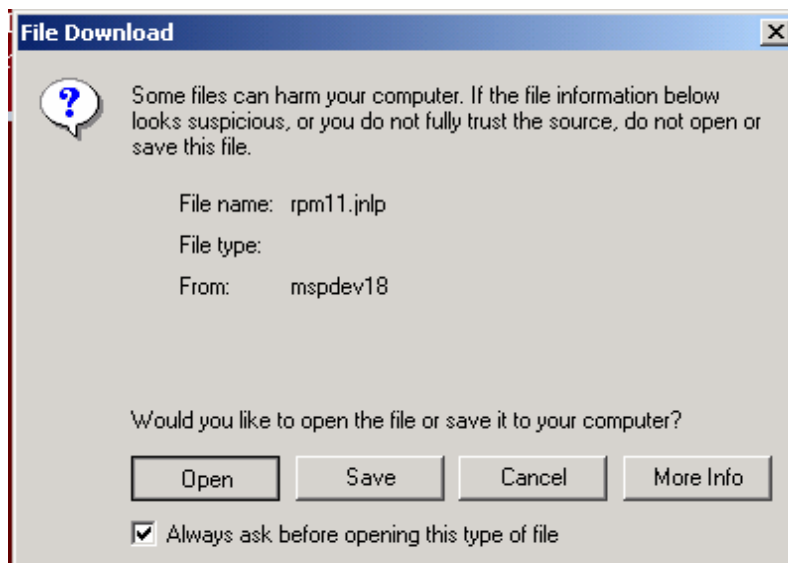
- server = name or IP address of the server where IBMHttpServer is running
- http_port = IBMHttpServer port as defined by the Port value in the file IBMHttpServer/conf/httpd.conf

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

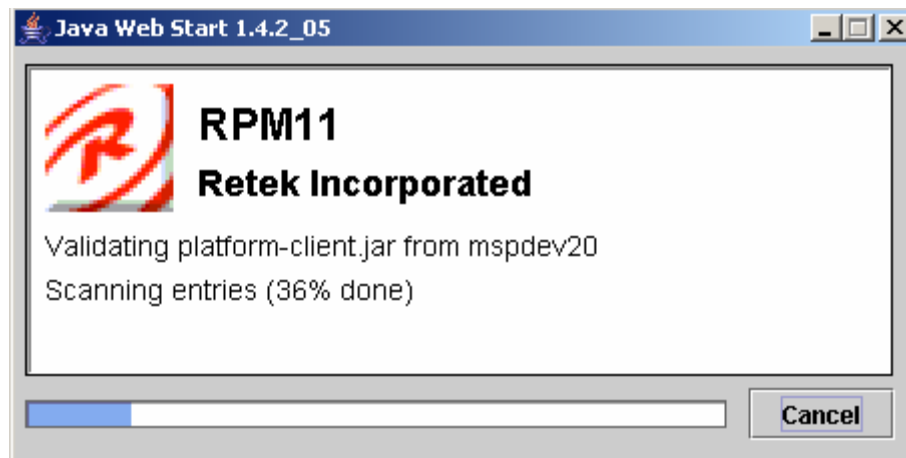
Java Web Start should launch the RPM 11 client.

 **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.



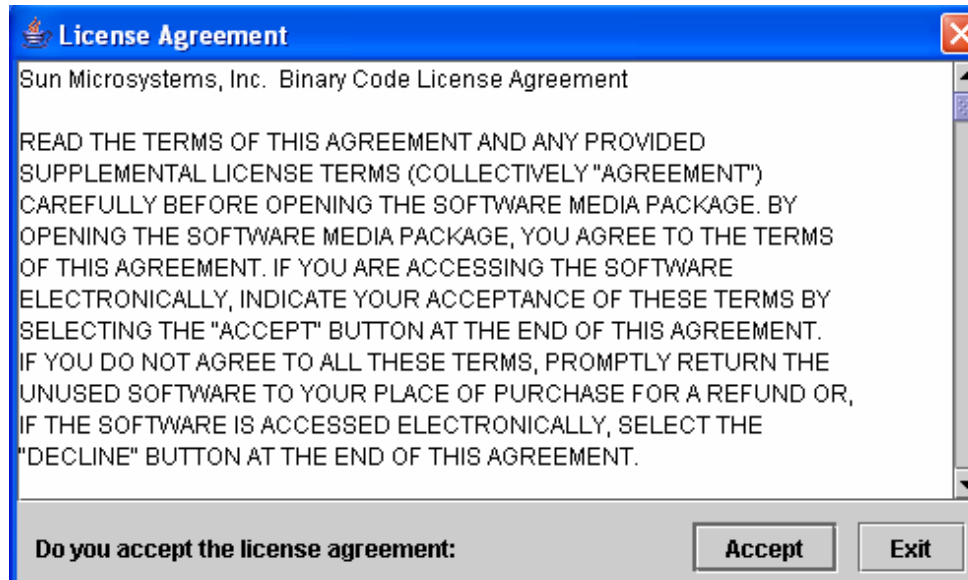
A Java Web Start window similar to the following should appear the first time the rpm11.jnlp file is accessed per PC if a JRE 1.4.2+ and Java Web Start were installed as required. This window displays the RPM11 install on the client PC.



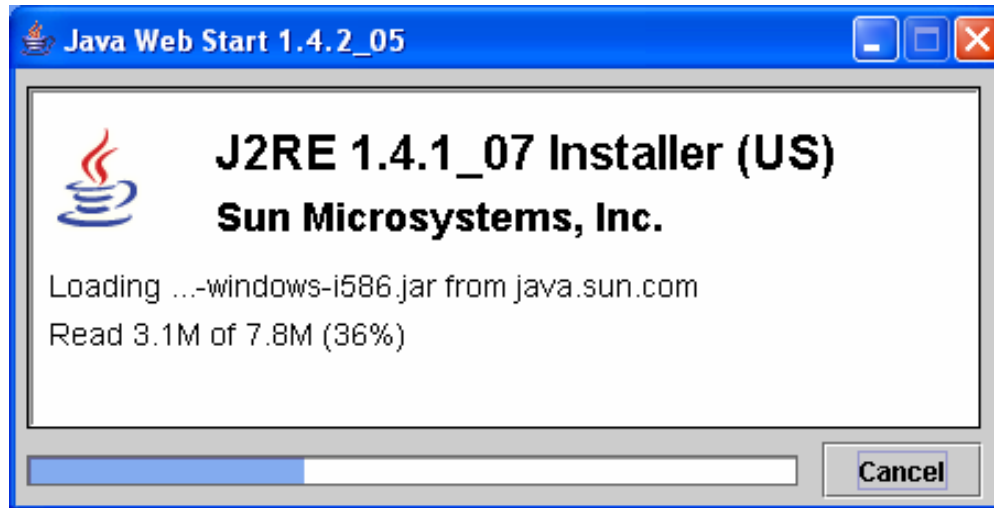
A Security Warning window similar to the following may appear. The warning can be disregarded and the Install button should be clicked so that Java WebStart can be installed.



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



JRE 1.4.1_XX will continue to be installed at this point.



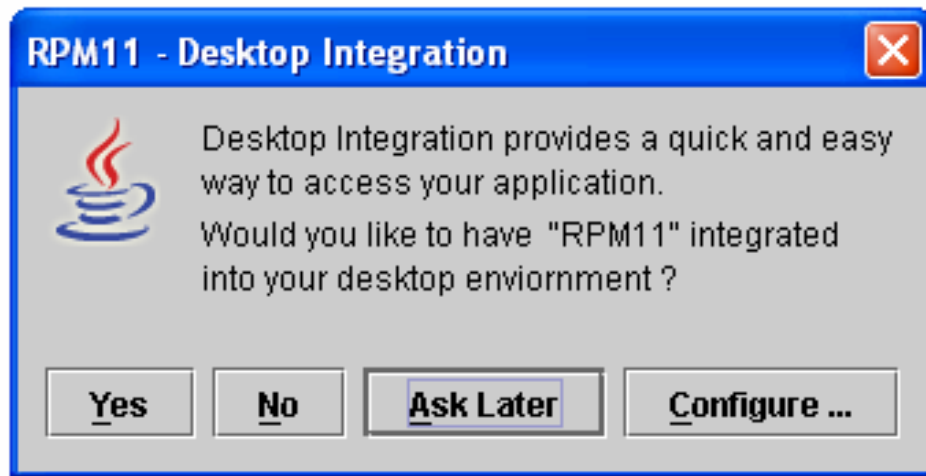
A Security Warning window similar to the following may appear. The warning can be disregarded and the Start button should be clicked so that the RPM 11 client can be launched



An additional Security Warning window similar to the following may appear. Again, even though the window recommends not to install and run this code, the warning can be disregarded and the Install button should be clicked so that the RPM 11 client can be launched.



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



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

The following Retek Login screen will appear. 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



The final configuration step for RPM 11 is to save the system options data to the database. This is accomplished by clicking on the System Options task in the left action pane and then clicking on System Options Edit. The default system options will be displayed. Click the Save button to save system options. RPM 11 installation/configuration is now complete.

Chapter 5 – 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. Then, the client_master.properties file must be configured. This file exists in the jar file rpm11-ui.jar. Instructions for extracting rpm11-ui.jar, configuring client_master.properties, and re-jarring rpm11-ui.jar with the updated client_master.properties are listed below.

Extract RPM Help (rpmhelp.zip)


- 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 will be used for configuring the client_master.properties file

Edit client_master.properties

- 1 Copy rpm11-ui.jar from INSTALL_DIR/rpm11/webstart/lib to a temporary directory.
- 2 Change directories to the temporary directory where the copied rpm11-ui.jar is located and extract this jar file


 **Example:** jar xvf rpm11-ui.jar

- 3 Edit the file retek/client_master.properties, updating the HELP_URL parameter with the new url created in step 5 above:


HELP_URL=http://<server>:<http_port>/rpmhelp/start.htm

 **Example:** HELP_URL=http://server:9081/rpmhelp/start.htm

- 4 Remove the existing rpm11-ui.jar file
- 5 Create a new rpm11-ui.jar file including the updated files

 **Example:** jar cvf rpm11-ui.jar *

- 6 Copy the new rpm11-ui.jar file to INSTALL_DIR/rpm11/webstart/lib, overwriting the original version of this file.

- 7 Re-sign the rpm11-ui.jar file and all other jar files in this directory (see Appendix A: Re-signing JAR Files)
 **Note:** The online help will be available in subsequent RPM sessions.
- 8 Copy the update jar files to the IBMHttpServer DocumentRoot/lib directory (see Appendix A for more details)
- 9 The final step for online help setup is to select a Browser from the RPM help menu. This can be done by completing the following steps:
 - a Access RPM 11.0.1 application
 - b From the RPM Help menu select 'Choose Browser'
 - c Navigate to C:/Program Files/Internet Explorer and select IEXPLORER.EXE
 - d Click Open -> an Information Message is displayed stating 'Your browser choice has been saved.'
 - e Click OK
 - f From Help menu select RPM Help -> RPM help dialogue is displayed.

Appendix A – 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 JAR files are signed by the standard valid Retek 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 will reside in the default location in the user's home directory (ie ~/USER_NAME/.keystore).

The resign.sh script in INSTALL_DIR/rpm11/bin was created to re-sign all client libraries (after removing the Retek 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 have been resigned with your keystore certificate, copy the entire INSTALL_DIR/rpm11/webstart/lib directory to the IBMHttpServer DocumentRoot directory(this will replace the existing lib directory). The DocumentRoot directory can be identified by looking in the IBMHttpServer's http.conf configuration file.