

# Retek<sup>®</sup> Price Management<sup>™</sup> 11.0

## 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 requires an existing installation of Retek Security Management (RSM) for authentication services, 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 install requires that RPM Initial Price Setting is installed.



**Note:** RMS 11.0.1 should be installed or errors will occur.



**Note:** The rsm folder will be used during the RSM 11 installation.

## 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 rpm11dbserver.zip file from the CD/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 rpm11dbserver.zip file.

## Create RPM types



**Note:** All RPM database objects should be installed using the RMS 11 schema owner.



**Note:** When running the scripts in this section the following warning may be encountered “Warning: Type created with compilation errors”. These errors can be ignored. The Warnings will get cleared when we validate objects in the RMS database install.

- 1 Change directories to staging area/xml
- 2 Log into sqlplus as RMS11DEV and run the following command:  
SQL> @rpm11xml.sql
- 3 Check the log file rpm11xml.log for any errors.

## Update RPM tables

- 1 Change directories to staging area/dbcs
- 2 Log into sqlplus as RMS11DEV and run the following command:  
SQL> @rpm11dbcs.sql
- 3 Check the log file rpm11dbcs.log for any errors.

## Update RPM database objects

- 1 Change directories to staging area/db\_objects
- 2 Log into sqlplus as RMS11DEV and run the following command:  
SQL> @rpm11dbo.sql
- 3 Check the log file rpm11dbo.log for any errors.

### Update RPM data

- 1 Change directories to staging area/sqlplus
- 2 Log into sqlplus as RMS11DEV and run the following command:  
`SQL> @rpm11ctl.sql`
- 3 Check the log file rpm11ctl.log 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 product release is considered an upgrade. Therefore, in the event that the RPM IPS application has previously been installed in WebSphere, it will need to be stopped and uninstalled prior to the installation of RPM 11. However, the existing data source and J2C Authentication Data Entry can be re-used for the RPM 11 install (assuming these values remain unchanged for the RMS/RPM schema).

## 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

## Configure WebSphere 5.1 Application Server for RPM 11



**Note:** The following steps apply only if RPM IPS has NOT already been installed in WebSphere. If RPM IPS has been installed already, these steps should not be followed, in which case proceed to [Deploy rpm11.ear in WebSphere Application 5.1](#).

- 1 Open the WebSphere Administrative Console that is to be used for administering the RPM 11 application – <http://<server>:<port>/admin>. If the administrative console url is unknown, consult the WebSphere 5.1 documentation for the correct URL

- server = name or IP address of the server where WebSphere 5.1 is running
- admin\_port = WebSphere Admin Console Port

**Example:** <http://server:9090/admin>

- 2 Click on Environment->Manage WebSphere Variables.


- 3 Under WebSphere Variables:

- Click ORACLE\_JDBC\_DRIVER\_PATH and set the value field to the directory containing the oracle driver archive file ojdbc14.jar (obtained from [otn.oracle.com](http://otn.oracle.com))

**Example:** /u00/websp/jdbc/

- Click Apply

- 4 Click on Security->JAAS Configuration->J2C Authentication Data.
- 5 Under J2C Authentication Data Entries, click New and enter the following information in the fields provided:
  - Alias (alias for Authentication Data Entry)
  - UserID (RMS/RPM database schema owner)
  - Password (RMS/RPM database schema password)
  - Click Apply

 **Example:** Alias: RPM11

User ID: rms11dev


Password: retek

- 6 Click on Resources->JDBC Providers.
- 7 Under JDBC Providers, click the server radial button and then click Apply.
- 8 Create a new JDBC Provider by clicking New.
  - Select Oracle JDBC Driver (XA) from JDBC Providers list of values and click Apply
- 9 Under General Properties, click Apply.
- 10 Under Additional Properties for the Oracle JDBC Driver (XA), select Data Sources and then New, and enter the following information in the fields provided:
  - Data Source Name: RPM (must be this value)
  - JNDI Name: jdbc/RPMDDataSource (must be this value)
  - Component-managed Authentication Alias: from the drop-down, choose the J2C Authentication Alias that was created in step 4 above
  - Container-managed Authentication Alias: leave blank; CMP is not used in RPM.
  - All other fields leave as default
  - Click Apply

 **Example:** Name: RPM

JNDI Name: jdbc/RPMDDataSource

Component-managed Authentication Alias: server/RPM11

- 11 Under Additional Properties, click Custom Properties for the Data Source. Remove all properties except for URL and transactionBranchesLooselyCoupled by checking the checkbox for each of these unneeded properties and then clicking the Delete button. Now click URL and enter the following information in the Value field:
  - Value: jdbc:oracle:thin:@<DB Server IP address>:<DB Listener Port>:<Database\_name>  
 **Example:** jdbc:oracle:thin:@dbserver:1521: prod\_db1
  - Click Apply and then OK
  - Click transactionBranchesLooselyCoupled and set the Value field to true
  - Click Apply and then OK
- 12 Save the configuration by clicking the [Save](#) link in the Message(s) section, and then by clicking the Save button in the Save to Master Configuration section.
- 13 Verify the configuration by using the “Test Connection” option in the Data Sources configuration section (Resources->JDBC Providers->Oracle JDBC Driver (XA)->Data Sources->Data Source Name->Test Connection button). A successful message in the Message(s) section should appear. In the case of an unsuccessful connection test, review all previous steps to ensure that the configuration thus far is accurate.
- 14 Click on Servers-> Application Servers.
- 15 Under Application Servers, click on the server link for the server instance created during the WebSphere installation; the default name of the initial application server instances is server1.
- 16 In the General Properties section click on the Endpoints link in the lower section of the page.
- 17 Under BOOTSTRAP\_ADDRESS, verify the Host and Port values are set correctly. Record these Host and Port values as they will be needed when configuring the RPM 11 client.
- 18 Under SOAP\_CONNECTOR\_ADDRESS, verify the Host and Port values are set correctly.


### 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 application server file (rpm11-install.zip) will be installed. There should be a minimum of 40 MB disk space available for the application installation files.
- 2 Copy rpm11-install.zip located at CD/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-install.zip`. This will create an `rpm11` directory, which contains the following file and directories:


```
bin/  
content_model.xml  
lib/  
rpm11.ear  
template/  
webstart/
```

- 4 Edit the file `INSTALL_DIR/rpm11/template/bcprov.jnlp` by updating the `jnlp` codebase parameter value `@web.host@` in this file where:
  - `web` = name or IP address of the server where `IBMHttpServer` is running for `RPM 11`
  - `host` = Port value in `httpd.conf` of `IBMHttpServer`

 **Example:** `<jnlp codebase="http://server:9081/" spec="1.0+" >`


- 5 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"/>`

- 6 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. `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.

- 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/webasp/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/webasp/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.

### Configure the RSM Content Model

The RSM Content Model file for RPM must be copied to the RSM application in WebSphere. The following steps are listed in the RSM installation guide, and so they may have already been performed. WAS\_HOME below refers to the location where WebSphere is installed for RSM.


- 1 Change directories to INSTALL\_DIR/rpm11.
- 2 Copy content\_model.xml to the RSM 11 classpath directory in WebSphere.  

```
> cp content_model.xml $WAS_HOME/installedApps/<node>/RSM11.ear/conf/retek
```



# 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.

 **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, 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 jnlp files (bcprov.jnlp and rpm11.jnlp) from INSTALL\_DIR/rpm11/template to the DocumentRoot (as determined in the previous step). Copy the icon.jpg file from INSTALL\_DIR/rpm11/template 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, bcprov.jnlp, rpm11.jnlp, and icon.jpg.

```
/u00/webasp/IBMHttpServer/htdocs/en_US> cp INSTALL_DIR/rpm11/template/*.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).

 **Example:**

|                                     |                 |
|-------------------------------------|-----------------|
| application/x-javascript            | js              |
| <b>application/x-java-jnlp-file</b> | <b>jnlp</b>     |
| application/x-koan                  | skp skd skt skm |

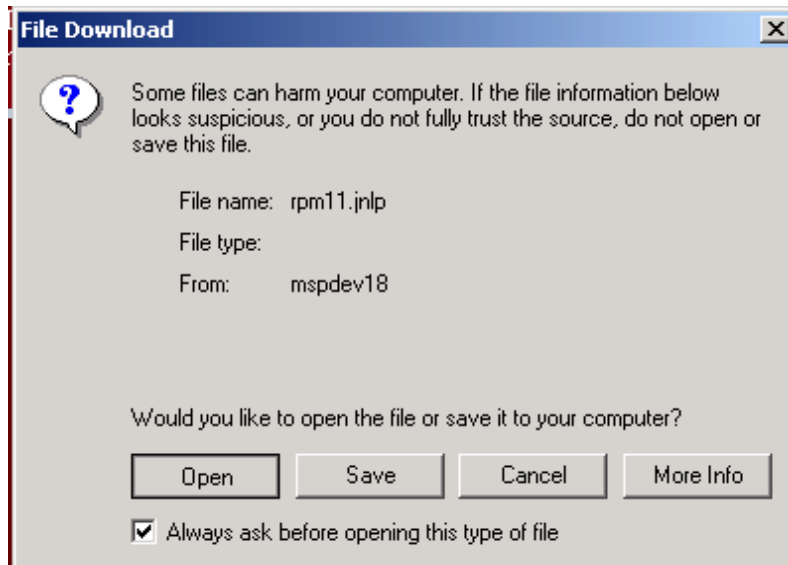
- 4 Reload the IBMHttpServer for the above changes to take effect.
- 5 Load the newly configured rpm11.jnlp file by entering the following url in a browser:  
[http://<server>:<http\\_port>/rpm11.jnlp](http://<server>:<http_port>/rpm11.jnlp)

- 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

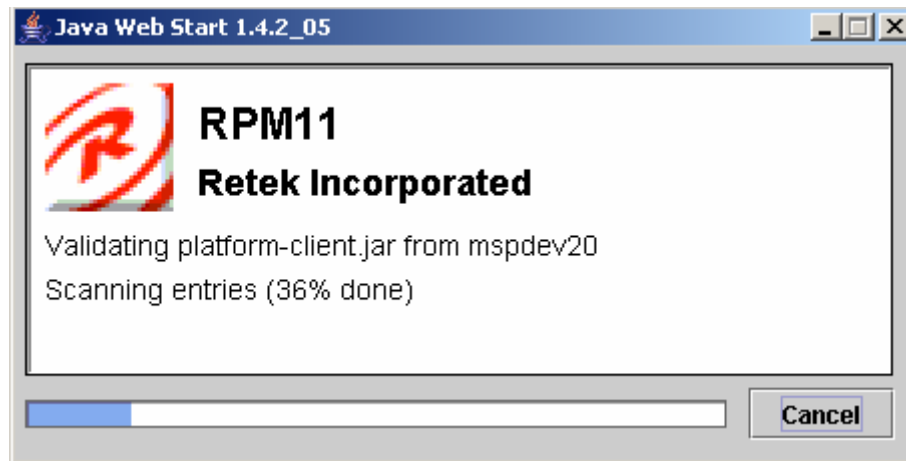
 **Example:** <http://server:9081/rpm11.jnlp>

Java Web Start should launch the RPM 11 client.

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.



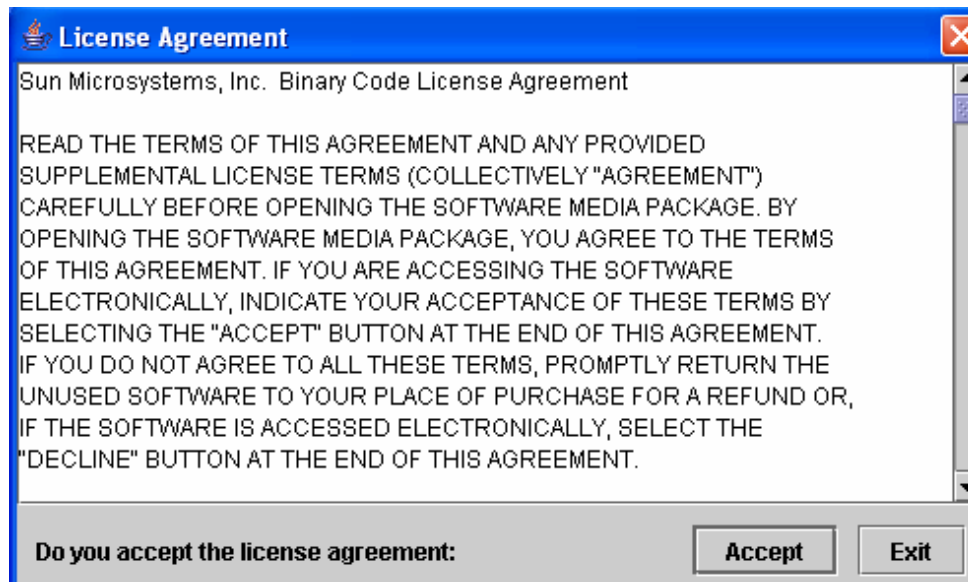
A Java Web Start window similar to the following should appear the first time the rpm11.jnlp file is accessed per PC if a JRE 1.4.2+ and Java Web Start were installed as required. This window displays the RPM11 install on the client PC.



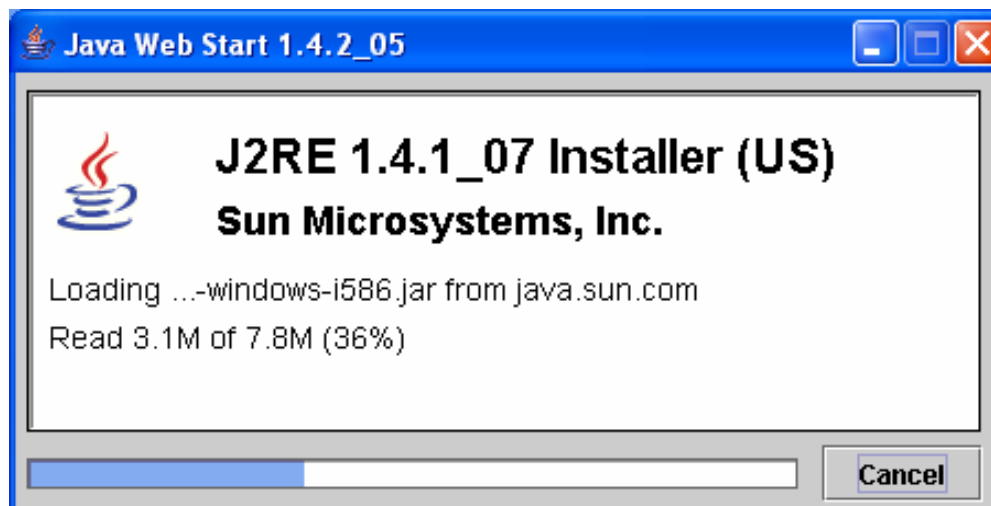
A Security Warning window similar to the following may appear. The warning can be disregarded and the Install button should be clicked so that Java WebStart can be installed.



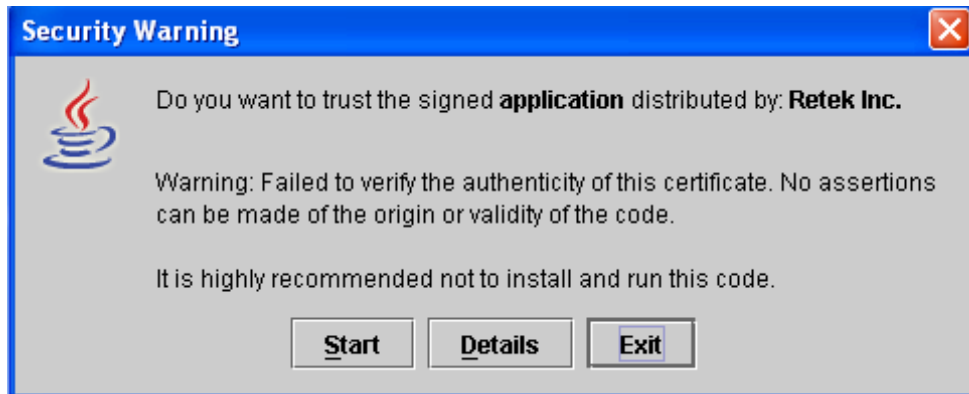
A Sun Microsystems License Agreement window similar to the following may appear. Click Accept to accept the agreement and continue installing the client.



JRE 1.4.1\_XX will continue to be installed at this point (following window)



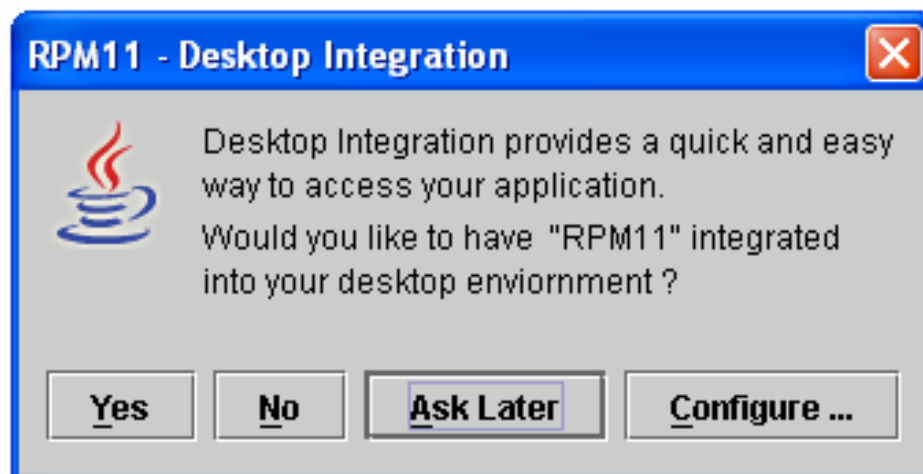
A Security Warning window similar to the following may appear. The warning can be disregarded and the Start button should be clicked so that the RPM 11 client can be launched



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.