

**Oracle[®] Retail Security Manager
Installation Guide
Release 12.0
May 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
Related Documents	v
Customer Support	v
1 Pre-Installation Tasks	1
Check Database Server Requirements	1
Check Application Server Requirements	1
Check Directory Server Requirements	2
Check Third-Party Software Dependencies	2
Check Client PC and Web Browser Requirements	2
Client PC Requirements.....	2
Browser Requirements.....	2
2 Database Installation Tasks	3
RSM Database Installer	3
Expand the RSM Database Schema Distribution	3
Run the RSM Database Schema Installer	3
Values to Remember for the Application Installer	4
Resolving Errors Encountered During Database Schema Installation.....	4
Customer Data	4
3 Application Installation UNIX (Sun Solaris/AIX/HP-UX)	5
Create a New OC4J Instance for RSM	5
Configure Apache for JNLP Files.....	6
Expand the RSM Application Distribution.....	7
Provide the Hibernate Jar File	7
Run the RSM Application Installer.....	7
Resolving Errors Encountered During Application Installation	8
Backups Created by Installer	8
Test the RSM Application	8
Web Help Files	8
A Appendix: RSM Configuration Files	9
Directory Server Information in security.properties	9
LoginModule Information in security.properties.....	10
User Search Information in dao_rsm.xml	11
User Information in users_rsm.xml.	11
RPM Bootstrap Information in jndi_providers_rpm.xml.....	11
Client Settings in rsm.jnlp and rsmBC.jnlp	11
Login Modules in system-jazn-data.xml.....	12
B Appendix: RSM Database Schema Installer Screens	13
C Appendix: RSM Application Installer Screens	15
D Appendix: Installer Silent Mode	29
Repeating an Installation Attempt	29
Re-Using ant.install.properties in a Different Staging Directory.....	29

E Appendix: URL Reference	31
F Appendix: Common Installation Errors	33
Database Installer Hangs on Startup	33
Unreadable Buttons in the Installer.....	33
“Unable to get a deployment manager” Message	33
“Could not create system preferences directory” Warning.....	34

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

You can find more information about this product in these resources:

- Oracle Retail Security Manager Release Notes
- Oracle Retail Security Manager Operations Guide
- Oracle Retail Security Manager User Guide
- Oracle Retail Security Manager Data Model
- Oracle Retail Security Manager Online Help

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.

Pre-Installation Tasks

RSM is a Service-Oriented Architecture application. The client code is Java-based and is launched from Java WebStart. The RSM service layer is a J2EE application that runs in the Oracle Application Server and accesses an Oracle Database server and an LDAP compliant Directory Server.

Check Database Server Requirements

General Requirements for a database server running RMS include:

- UNIX based OS certified with Oracle RDBMS 10g Enterprise Edition (options are AIX5.2, AIX5.3, Solaris 9, and HP-UX 11.11)
- Oracle RDBMS 10g Release 2 Enterprise Edition (minimum 10.2.0.1.0 patchset required) with the following patches and components:

Patches:

- 4516865 (WRONG PERMISSIONS AFTER INSTALLATION IN OH AND SUBSEQUENT DIRECTORIES)

Components:

- Oracle Database 10g
- Oracle Partitioning
- Oracle Net Services
- Oracle Call Interface (OCI)
- Oracle Programmer
- Oracle XML Development Kit
- 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 RSM include:

- UNIX based OS certified with Oracle Application Server 10g version 10.1.3. (options are AIX5.2, AIX5.3, Solaris 9, and HP-UX 11.11)
- Oracle Application Server 10g version 10.1.3 with the following patches:
 - 4992357 (ILLEGALACCESSERROR WHEN ATTEMPTING TO LOAD ORACLE.SQL.CHARACTERSET CLASS)
 - 4959854 (CANNOT RESTART MDB THROUGH OC4J ASCONSOLE)
 - 4645524 (RETEK : RMIINITIALCONTEXTFACTORY DOES NOT WORK PROPERLY WITH GLOBAL JNDI)
 - 4619599 (ABILITY TO CONTROL MDBS INITIAL STATE)

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

Check Directory Server Requirements

RSM supports both xml file and directory server based user authentication and searching. For LDAP, RSM is certified with the following directory servers:

- Oracle Internet Directory 10.1.2.0.2*
- Microsoft Windows 2000 (Service Pack 4) Active Directory
- OpenLDAP version 2.x**

There are no known limitations that would prevent RSM from running against any LDAP 3.0-compliant directory server.

* RSM is certified with Oracle LDAP 10.1.2.0.2 on Solaris 9 and AIX 5.3.

** RSM is certified with OpenLDAP version 2.1.12 on Solaris and OpenLDAP version 2.0.19 on Windows NT.

Check Third-Party Software Dependencies

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

Check Client PC and Web Browser Requirements

Client PC Requirements

- Operating system: Windows 2000 or XP
- Display resolution: 1024x768
- Processor: 1GHz or higher;
- Memory :512MBytes or higher;
- Sun J2RE Runtime equal to v1.4.2.

Browser Requirements

The browser is used to launch the Java WebStart client. The following browsers are supported :

Microsoft Internet Explorer 5.5 or higher.

Database Installation Tasks

RSM Database Installer



GUI mode installer

Expand the RSM Database Schema Distribution

1. Log into the UNIX server as a user which has sufficient access to run sqlplus from the Oracle RDBMS installation.
2. Create a staging directory for the RSM database installation software. There should be a minimum of 8 MB disk space available.
3. Copy the rsm12dbschema.zip file to the staging directory. This will be referred to as INSTALL_DIR for the remainder of this chapter.
4. Change directories to INSTALL_DIR and extract the rsm12dbschema.zip file.

Run the RSM Database Schema Installer

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

1. Change directories to INSTALL_DIR/rsm/dbschema.
2. Set the ORACLE_HOME and ORACLE_SID environment variables with the values for your Oracle RDBMS installation. The **oraenv** script can be used for this.
3. Set the JAVA_HOME environment variable to a Java 1.4.2 JDK. The installer is not compatible with earlier versions of Java. If you have JRE instead of a JDK, set JAVA_HOME to the **jre** subdirectory (Example: /usr/java14/jre instead of /usr/java14). JAVA_HOME needs to be set such that the JAVA_HOME/bin/java binary can be found.
4. 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.
5. Run the install.sh script to start the installer.
6. After the installer is complete, you can check its log file: rsm12install-db.<timestamp>.log. The individual sql scripts leave behind various logs under INSTALL_DIR/rsm/dbschema. A .dbhistory file is created with a listing of all of the sql scripts that were run by the installer. A .dberrors file is created if any errors are encountered.

Values to Remember for the Application Installer

After it has completed the schema installation, the installer will print some database settings that you will need for the application installation. These settings are also written to the end of the installer log file (rsm12install-db_<time>.log). These settings include the JDBC URL and database users. Record these settings for use during the application installation.

Resolving Errors Encountered During Database Schema Installation

If the database schema installer encounters any errors, it will halt execution immediately and print to the screen which SQL script it was running when the error occurred. It will also write the path to this script to the .dberrors file. When this happens, you must run that particular script using sqlplus. After you are able to complete execution of the script, delete the .dberrors file and run the installer again. You can run the installer in silent mode so that you don't have to retype the settings for your environment. See Appendix D of this document for instructions on silent mode.

See Appendix F of this document for a list of common installation errors.

Subsequent executions of the installer will skip the SQL scripts which have already been executed in previous installer runs. This is possible because the installer maintains a **.dbhistory** file with a listing of the SQL scripts that have been run. If you have dropped the RSM schema and want to start with a clean install, you can delete the .dbhistory file so that the installer runs through all of the scripts again. It is recommended that you allow the installer to skip the files that it has already run.

Customer Data

Some of the data needed for RSM to function correctly is customer specific and cannot be automatically inserted during implementation. For RPM data, customers must query RMS data to get the IDs of their departments and zone groups and create permissions for these IDs. Refer to the RSM release notes for additional information on completing these tasks.

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

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

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

Create a New OC4J Instance for RSM

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

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

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

Example: rsm-oc4j-instance

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

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

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

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

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

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

Example:

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

Force OPMN to reload the configuration file.

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

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

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

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

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

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

Configure Apache for JNLP Files

If this is the first WebStart application that is being installed in the HTTP server, you will need to configure the **mime.types** file with the jnlp file type. If you are using the Apache distribution that is included with AS10g, 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 will be served as plain text and you will not be able to launch the application.

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

Expand the RSM Application Distribution

1. Log into the UNIX server as the user who owns the OracleAS 10g installation. Create a new staging directory for the RSM application distribution (rsm12application.zip). There should be a minimum of 60 MB disk space available for the application installation files.

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

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

2. Copy `rsm12application.zip` to `INSTALL_DIR` and extract its contents.

Provide the Hibernate Jar File

The RSM 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/rsm/application/hibernate` folder before the installer is launched. For RSM 12, Hibernate 2.1.8 should be used. You will need to download the Hibernate distribution and extract the `hibernate2.jar` file from it.

The RSM application installer will verify that `hibernate2.jar` has been provided and that it is the correct version. If `hibernate2.jar` is missing or incorrect, the installer will not proceed.

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

Run the RSM Application Installer

Once you have an OC4J instance that is configured and started, you can run the RSM application installer. This installer will configure and deploy the RSM application and Java WebStart client files.

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

1. Expand the `rsm12application.zip` distribution into `INSTALL_DIR`.
2. Set the `ORACLE_HOME` and `JAVA_HOME` environment variables. `ORACLE_HOME` should point to your AS10g installation. `JAVA_HOME` should point to a Java 1.4.2 JDK. The installer is not compatible with earlier versions of Java.
3. If you are using an X server such as Exceed, set the `DISPLAY` environment variable so that you can run the installer in GUI mode (recommended). If you are not using an X server, or the GUI is too slow over your network, unset `DISPLAY` for text mode.
4. Run the `install.sh` script. This will launch the installer. After installation is completed, a detailed installation log file is created: `rsm12install.<timestamp>.log`.

Resolving Errors Encountered During Application Installation

If the application installer encounters any errors, it will halt execution immediately. You can run the installer in silent mode so that you don't have to retype the settings for your environment. See Appendix D of this document for instructions on silent mode.

See Appendix F of this document for a list of common installation errors.

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

Backups Created by Installer

The RSM application installer will back up previous 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: rsm.200605011726

Test the RSM Application

After the application installer completes you should have a working RSM application installation. To launch the application client, open a web browser and go to the rsm.jnlp file under the HTTP url you provided during the installation.

Example: <http://myhost:7777/rsm/rsm.jnlp>

Web Help Files

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

Appendix: RSM Configuration Files

This section documents which files are configured by the installers and where you can find them to do manual configuration later.

Directory Server Information in `security.properties`

RSM supports both file and directory server based user authentication and searching. If an LDAP compliant directory server is used, follow the steps below to configure RSM to use your directory server. If file based user authentication and searching is used, the LDAP settings will be ignored. To use LDAP, update the LDAP settings in the file `security.properties` to match your organization's LDAP configuration. File `security.properties` can be found under `conf/retek` in the application's deployment directory.

- Update the authentication provider URL to point to the appropriate LDAP server.

Example:

```
ldap.authenticationprovider.url=ldap://64.238.67.60:389/  
ldap.authenticationprovider.url=<ldap://host:port/>
```

- Update the Distinguished Name where users exist on LDAP server.

Example: `ldap.user.basedn=ou=XXX,dc=XXXAD,dc=local`
`ldap.user.basedn=<ou=orgUnit1,dc=domComponent1,dc=domComponent2...>`

- Update the parameters for the administrative user that performs searches on behalf of RSM.

Example:

```
ldap.usersearch.user=cn=Administrator,cn=users,dc=rcomad,  
dc=local
```

Example: `ldap.usersearch.password=PaSsW0rD`
`ldap.usersearch.user=<distinguishedUser>`
`ldap.usersearch.password=<password>`

- Update the search filter used to limit the records that are returned when RSM searches for users. The filter represents conditions that must be met for records to be included in the result set. The example below reflects a base Active Directory install. The `%v` parameter is required by RSM regardless of directory server implementation.

Example:

```
ldap.user.filter=(&(objectCategory=person)(objectClass=user) %v)  
ldap.user.filter=<(&(base user search filter) %v)>
```

- Update the LDAP variable mappings if necessary. The variable mappings below, used to map LDAP to the directory schema, reflect a base Active Directory install. If these variable names differ from the LDAP directory server attributes, they should be updated accordingly.

Example: ldap.firstname.attrname=givenName
ldap.lastname.attrname=sn
ldap.username.attrname=samAccountName

Note: Security.properties also contains examples of ldap variable mappings for a base OpenLDAP implementation.

Note: RSM executes only READ operations against the LDAP directory server; no ADD, UPDATE or DELETE operations.

Note: For initial login to RSM to be possible, the user inserted into the database through the rsm sql (Chapter 2 above) must also be a valid user on the LDAP Directory Server. More specifically the user name inserted into the database must match a valid entry for LDAP mapping attribute ldap.username.attrname.

LoginModule Information in security.properties

The login module setting configures the system to point to the applicable user repository (such as a directory server or xml file) for authentication. The login module value determines the JAAS login module that is responsible for accessing the user repository for authentication.

Example authenticating against an LDAP compliant directory server:

```
loginmodule=Retek.Ldap.LoginModule
```

Example authenticating against the RSM users XML file:

```
loginmodule=Retek.XML.LoginModule
```

Note: This setting should correspond with the user dao implementation setting found in file dao_rsm.xml. More information on this setting can be found below. Also, if the XMLLoginModule is used, users must be added to file users_rsm.xml. More information on this setting can be found below.

User Search Information in dao_rsm.xml

These values are used to configure the user repository that is used by RSM for user searches. The default value is to use an LDAP compliant directory server as the user repository. Besides LDAP, XML file based searches are also supported. To switch between LDAP and XML, comment (uncomment) the 'impl package' tags associated with the dao.user interface package. This file can also be found under conf/retek in the application deployment directory.

Note: This setting should correspond with the Login Module configuration information found in the security.properties file (details above).

Note: If xml is chosen as the data access implementer, users must be added to file users_rsm.xml.

User Information in users_rsm.xml.

If XML is used for authentication and user searching, this file is used as the repository for the users. It must contain the usernames, first names, last names and passwords of all valid users. This file can also be found under conf/retek in the application deployment directory.

Note: If LDAP is used for authentication and user searching, this file is ignored.

For example:

```
<users>
  <user username="Valid.User" firstname="Valid" lastname="User"
password="PaSsW0rD"/>
  <user username="Alain.Frecon" firstname="Alain" lastname="Frecon"
password="retекPassword"/>
</users>
```

RPM Bootstrap Information in jndi_providers_rpm.xml

Security Manger requires data from other applications in order to administer data level permissions. The file jndi_providers_<app>.xml contains the information necessary for RSM to communicate with other Oracle Retail applications. Change to the conf/retek subdirectory of the application deployment directory and update jndi_providers_<app>.xml with the correct RMI address of the respective application.

Example: <ejb_context_overrides>
 <provider app="app.rpm"
 url="opmn:ormi://server1:5555:rpm/rpm12" factory="
 oracle.j2ee.rmi.RMIInitialContextFactory ">
 </provider>
 </ejb_context_overrides>

Client Settings in rsm.jnlp and rsmBC.jnlp

The rsm.jnlp file points the WebStart client to the RSM application running in the application server. Within this file is the HTTP URL through which it is accessed. rsm.jnlp also depends on rsmBC.jnlp to use the BouncyCastle encryption library.

The RSM application installer will set the HTTP URLs in both of these files.

Login Modules in system-jazn-data.xml

RSM requires two login modules configured in its OC4J instance. These modules must be configured in the `ORACLE_HOME/j2ee/<oc4jinstancename>/config/system-jazn-data.xml` file. The RSM application installer configures them automatically. The result of this configuration is the following content under `<jazn-loginconfig>`:

```
<application>
  <name>Retek.XML.LoginModule</name>
  <login-modules>
    <login-module>

<class>com.retek.rsm.domain.security.dao.XMLLoginModule</class>
    <control-flag>required</control-flag>
    <options>
      <option>
        <name>debug</name>
        <value>true</value>
      </option>
    </options>
  </login-module>
</login-modules>
</application>
<application>
  <name>Retek.Ldap.LoginModule</name>
  <login-modules>
    <login-module>

<class>com.retek.rsm.domain.security.dao.LdapLoginModule</class>
    <control-flag>required</control-flag>
    <options>
      <option>
        <name>debug</name>
        <value>true</value>
      </option>
    </options>
  </login-module>
</login-modules>
</application>
```

Appendix: RSM Database Schema Installer Screens

You will need the following details about your environment for the installer to successfully create the RSM database schema. Depending on the options you select, you may not see some screens or fields.

Screen: Create Database User



Fields on this screen:

Field Title	SYSTEM user password
Field Description	Password for the SYSTEM user.
Notes	

Field Title	Oracle database SID
Field Description	Oracle System Identifier for your database instance
Example	mydatabase
Notes	

Field Title	RSM 12 JDBC URL
Field Description	URL used by the RSM application to access the RSM database schema. See <i>Appendix E: URL Reference</i> for expected syntax.
Example	jdbc:oracle:thin:@myhost:1525:mydatabase
Notes	

Field Title	RSM 12 schema to create
Field Description	database username for the RSM schema. The installer will create this user. Make sure the user does not already exist in the database.
Example	RSM12DEV
Notes	

Field Title	RSM 12 schema password
Field Description	Password for the RSM database schema user
Notes	

Field Title	Temporary tablespace name
Field Description	An existing temporary tablespace to use during installation
Example	TEMP
Notes	

Appendix: RSM Application Installer Screens

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

Screen: Login Module



Fields on this screen:

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

Screen: LDAP directory server details



Fields on this screen:

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

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

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

Screen: LDAP server searches



Fields on this screen:

Field Title	LDAP search base DN
Field Description	Distinguished name of the LDAP directory entry under which RSM 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 RSM when it conducts a directory search under the search base DN.
Destination	security.properties
Example	(&(objectclass=retailUser) %v)
Notes	

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

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

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

Screen: Data Source Details



Fields on this screen:

Field Title	RSM 12 JDBC URL
Field Description	URL used by the RSM application to access the RSM database schema. See <i>Appendix E: URL Reference</i> for expected syntax.
Destination	data-sources.xml
Example	jdbc:oracle:thin:@myhost:1525:mydatabase
Notes	

Field Title	RSM 12 schema
Field Description	Database user where the RSM database schema was installed. This should match what was given in the <i>RSM database user</i> field of the RSM database installer.
Destination	data-sources.xml
Example	RSM12DEV
Notes	

Field Title	RSM 12 schema password
Field Description	Password for the JDBC username. This should match what was given in the <i>RSM database password</i> field of the RSM database installer.
Destination	data-sources.xml
Notes	

Screen: Client files on the HTTP server



Fields on this screen:

Field Title	Do you want the installer to copy the client files to the HTTP server?
Field Description	<p>If the HTTP server that is serving the rsm.jnlp file is on the same host as the application server, then answer <i>yes</i> to this question so that the installer copies the client files to the HTTP server directories. The answer is usually yes since the RSM client files are usually installed to the Oracle Http Server that is a part of the same ORACLE_HOME as the OC4J instance running the RSM application.</p> <p>If the HTTP server is on a separate host, then you will have to manually copy the client files over. Copy the contents of INSTALL_DIR/rsm/application/rsm12/client under a new folder on the HTTP server.</p>
Notes	

Screen: Client Destination Directory



Fields on this screen:

Field Title	Directory path for RSM client
Field Description	<p>This is the fully-qualified path to the location in the HTTP server where the RSM client files are to be installed. The directory provided will be the parent directory of rsm.jnlp.</p> <p>By default, this path will point to an 'rsm' subdirectory of the document root of the Oracle Http Server that is a part of the AS10g installation (ORACLE_HOME/Apache/Apache/htdocs).</p> <p>This field is only shown if you selected "yes" to the previous question (<i>Do you want the installer to copy the client files to the HTTP server?</i>)</p>
Example	/path/to/oracle/home/Apache/Apache/htdocs/rsm
Notes	

Field Title	HTTP base URL for RSM client
Field Description	<p>URL which you can use to locate the RSM client files using a web browser. This URL should lead to the same directory that was given for the <i>Directory path for RSM client</i> field above. If you chose not to have the installer copy the client files over, this URL should point to the location where you will manually copy them after the installer has completed.</p> <p>See <i>Appendix E: URL Reference</i> for expected syntax.</p> <p>This parameter can be changed later by modifying the *.jnlp files on the client side.</p>
Destination	rsm.jnlp, rsmBC.jnlp, rsmconfig.jnlp
Example	http://myhost:7777/rsm
Notes	

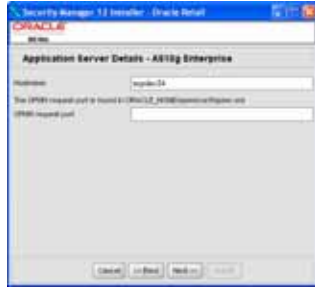
Screen: OC4J Server Type: Managed or Standalone?



Fields on this screen:

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

Screen: Application Server Details – AS10g Enterprise



Fields on this screen:

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

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

Screen: Application Server Details – OC4J Standalone



Fields on this screen:

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

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

Screen: Application Deployment Details

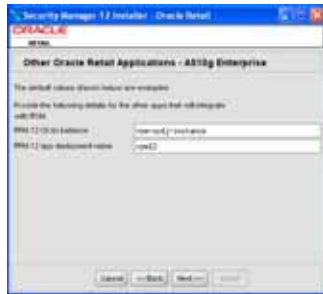


Fields on this screen:

Field Title	RSM 12 OC4J instance
Field Description	Name of the OC4J instance that was created for this RSM application.
Example	rsm-oc4j-instance
Notes	

Field Title	RSM 12 app deployment name
Field Description	Name by which this RSM application will be identified in the application server
Example	rsm12
Notes	

Screen: Other Oracle Retail Applications – AS10g Enterprise



Fields on this screen:

Field Title	RPM 12 OC4J instance
Field Description	Name of the OC4J instance running the Price Management (RPM) application. RPM is optional for RSM.
Example	rpm-oc4j-instance
Notes	

Field Title	RPM 12 app deployment name
Field Description	Application deployment name for the RPM application.
Example	rpm12
Notes	

Screen: OC4J Administrative User



Fields on this screen:

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

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

Screen: Oracle Retail Application URLs



Fields on this screen:

Field Title	RSM 12 JNDI provider URL
Field Description	URL which the RSM client will use to find the RSM application. See <i>Appendix E: URL Reference</i> for expected syntax.
Destination	rsm.jnlp, jndi_providers.xml
Example	opmn:ormi://myhost:6003:rsm-oc4j-instance/rsm12
Notes	

Field Title	RPM 12 JNDI provider URL
Field Description	URL which the RSM application will use to find the RPM application. See <i>Appendix E: URL Reference</i> for expected syntax.
Destination	jndi_providers_rpm.xml
Example	opmn:ormi://myhost:6003:rpm-oc4j-instance/rpm12
Notes	

Appendix: Installer Silent Mode

Repeating an Installation Attempt

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

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

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

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

Example: `install.sh silent`

Re-Using `ant.install.properties` in a Different Staging Directory

`ant.install.properties` is the input file for the installer back-end and is created after you answer all of the prompts. This file can be used for repeat attempts from the same staging area (see *Repeating an Installation Attempt* above). If this file is moved to a different staging directory, then the **basedir** property needs to be removed from the file before running the installer again. Simply delete the line containing the `basedir` property from the file.

Appendix: URL Reference

Both the database schema and application installers for the Security Manager product will ask 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.

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`

LDAP server URL

Used by the Java application to connect to the LDAP directory.

Syntax: `ldap://<host>:<port>`

<host>: hostname of the directory server

<port>: LDAP server port

Example: `ldap://myhost:389`

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/rsm/rsm.jnlp`

`http://myhost:7777/rsm/rsm.jnlp`

JNDI provider URL for an application

Used by the application client to access the application running in the server. 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:rsm-oc4j-instance/rsm12

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

Used by the Oracle ANT tasks to deploy an application to an OC4J instance. The application installer does not ask the user for this value; it is constructed based on other inputs and written to the ant.install.properties file for input to the installation script. For repeat installations using silent mode, you may need to correct mistakes in the deployer URI.

Note: There are several different formats for the deployer URI depending on your cluster topology. Consult the *Deploying with the OC4J Ant Tasks* chapter of the *OC4J Deployment Guide* for further details.

Syntax (managed OC4J):

deployer:cluster:opmn://<host>:<port>/<instance>

<host>: hostname of the OracleAS environment

<port>: OPMN request port of the OracleAS environment. This can be found in the <ORACLE_HOME>/opmn/conf/opmn.xml file.

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

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

Syntax (standalone OC4J):

deployer:oc4j:<host>:<port>

<host>: hostname of the OracleAS environment

<port>: RMI port of the OC4J server. This can be found in the ORACLE_HOME/j2ee/home/config/rmi.xml file.

Example: deployer:oc4j:myhost:23791

Appendix: Common Installation Errors

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

Database Installer Hangs on Startup

Symptom:

When the database schema installer is run, the following is written to the console and the installer hangs indefinitely:

```
Running pre-install checks
Running tnsping to get listener port
```

Solution:

The installer startup script is waiting for control to return from the **tnsping** command, but tnsping is hanging. Type Control+C to cancel the installer, and investigate and solve the problem that is causing the **tnsping <sid>** command to hang. This can be caused by duplicate database listeners running.

Unreadable Buttons in the Installer

If you are unable to read the text within the installer buttons, it probably means that your `JAVA_HOME` is pointed to a pre-1.4.2 JDK. Set `JAVA_HOME` to a Java development kit of version 1.4.2 or later and run the installer again.

“Unable to get a deployment manager” Message

Symptom:

The application installer quits with the following error message:

```
[oracle:deploy] Unable to get a deployment manager.
[oracle:deploy]
[oracle:deploy] This is typically the result of an invalid deployer URI
format being supplied, the target server not being in a started state or
incorrect authentication details being supplied.
[oracle:deploy]
[oracle:deploy] More information is available by enabling logging --
please see the Oracle Containers for J2EE Configuration and
Administration Guide for details.
```

Solution:

This error can be caused by any of the following conditions:

- OC4J instance provided is not running.
- Incorrect OC4J instance name provided
- Incorrect OC4J administrative username and/or password
- Incorrect OPMN request port provided.

Make sure that the OC4J instance is running, and then check the **ant.install.properties** file for entry mistakes. Pay close attention to the `input.deployer.uri` (see Appendix E: *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 D of this document).

“Could not create system preferences directory” Warning

Symptom:

The following text appears in the installer Errors tab:

```
May 22, 2006 11:16:39 AM java.util.prefs.FileSystemPreferences$3 run
WARNING: Could not create system preferences directory. System
preferences are unusable.
May 22, 2006 11:17:09 AM java.util.prefs.FileSystemPreferences
checkLockFile0ErrorCode
WARNING: Could not lock System prefs. Unix error code -264946424.
```

Solution:

This is related to Java bug 4838770. The `/etc/.java/.systemPrefs` directory may not have been created on your system. See <http://bugs.sun.com> for details.

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