

Oracle® Retail Fiscal Management and Brazil
Localization
Installation Guide
Release 13.2.1
E22640-01

April 2011

Copyright © 2011, Oracle. All rights reserved.

Primary Author: Wade Schwarz

Contributors: Nathan Young

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this software or related documentation is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. 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, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007). Oracle USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications which may create a risk of personal injury. If you use this software in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure the safe use of this software. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software in dangerous applications.

Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

This software and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

Value-Added Reseller (VAR) Language

Oracle Retail VAR Applications

The following restrictions and provisions only apply to the programs referred to in this section and licensed to you. You acknowledge that the programs may contain third party software (VAR applications) licensed to Oracle. Depending upon your product and its version number, the VAR applications may include:

(i) the MicroStrategy Components developed and licensed by MicroStrategy Services Corporation (MicroStrategy) of McLean, Virginia to Oracle and imbedded in the MicroStrategy for Oracle Retail Data Warehouse and MicroStrategy for Oracle Retail Planning & Optimization applications.

(ii) the Wavelink component developed and licensed by Wavelink Corporation (Wavelink) of Kirkland, Washington, to Oracle and imbedded in Oracle Retail Mobile Store Inventory Management.

(iii) the software component known as Access Via™ licensed by Access Via of Seattle, Washington, and imbedded in Oracle Retail Signs and Oracle Retail Labels and Tags.

(iv) the software component known as Adobe Flex™ licensed by Adobe Systems Incorporated of San Jose, California, and imbedded in Oracle Retail Promotion Planning & Optimization application.

You acknowledge and confirm that Oracle grants you use of only the object code of the VAR Applications. Oracle will not deliver source code to the VAR Applications to you. Notwithstanding any other term or condition of the agreement and this ordering document, you shall not cause or permit alteration of any VAR Applications. For purposes of this section, "alteration" refers to all alterations, translations, upgrades, enhancements, customizations or modifications of all or any portion of the VAR Applications including all reconfigurations, reassembly or reverse assembly, re-engineering or reverse engineering and recompilations or reverse compilations of the VAR Applications or any derivatives of the VAR Applications. You acknowledge that it shall be a breach of the agreement to utilize the relationship, and/or confidential information of the VAR Applications for purposes of competitive discovery.

The VAR Applications contain trade secrets of Oracle and Oracle's licensors and Customer shall not attempt, cause, or permit the alteration, decompilation, reverse engineering, disassembly or other reduction of the VAR Applications to a human perceivable form. Oracle reserves the right to replace, with functional equivalent software, any of the VAR Applications in future releases of the applicable program.

Contents

Send Us Your Comments	ix
Preface	xi
Audience	xi
Related Documents.....	xi
Customer Support.....	xi
Review Patch Documentation.....	xii
Oracle Retail Documentation on the Oracle Technology Network.....	xii
Conventions.....	xii
1 Preinstallation Tasks	1
Patch Contents.....	1
Check for the Current Version of the Installation Guide.....	1
Implementation Capacity Planning.....	2
Check Database Server Requirements	2
Check Supported Application Server Requirements	2
Verify Single Sign-On.....	3
Check Supported Web Browser and Client Requirements	3
Supported Oracle Retail Products	4
Supported Oracle Retail Integration Technologies	4
2 RAC and Clustering	5
3 Patch Installation	7
4 RTIL Installation Tasks - Patch	9
5 Database Installation Tasks - Patch	11
RMS/ORFM Database Patch Sequence	11
Option 1: Patch ORFM Database using the Patch Installer	11
Create Staging Directory for ORFM Database Schema Files	12
Run the ORFM Database Schema Patch Installer.....	12
Option 2: Patch ORFM Database using Controller Scripts.....	13
Create Staging Directory for RMS Database Schema Files	13
Run the RMS Database Controller Scripts.....	13
6 Batch Installation Tasks—Patch	15
Option 1: Use RMS Batch Installer to Patch	15
Create Staging Directory for RMS and ORFM Batch Patch Files	15
Copy Batch Files.....	16
Custom Modules.....	16
Run the Installer Patching Utility	16
Run RMS Batch Installer	17
Resolving Errors Encountered During Batch Installation	18
RETL	18
Data Conversion Scripts.....	18

Option 2: Compile ORFM Batch Directly	19
Create Staging Directory for RMS Batch Patch Files.....	19
Set Environment Variables	19
Compile Batch Libraries.....	20
Compile Batch Source Code	21
Copy Data Conversion Scripts	21
7 Application Installation Tasks - Patch	23
Option 1: Use RMS Application Installer to Patch	23
Create Staging Directory for RMS and ORFM Application Patch Files	23
Copy Forms and Library Patch Files.....	24
Custom Modules.....	24
Run the Installer Patching Utility	24
Run the RMS Application Installer.....	26
Resolving Errors Encountered During Application Installation.....	28
Clustered Installations – Post-Installation Steps	28
Oracle Configuration Manager	29
RMS Reports Copied by the Application Installer	29
Test the RMS Application	29
Option 2: Compile ORFM Toolset and Forms Directly	30
Create Staging Directory for ORFM Application Files	30
Set Environment Variables	30
ORFM Forms Installation	31
Install Helpfile.....	32
8 Reports Installation Tasks - Patch	33
Manually Copy Reports to Install Directory.....	33
Installing the RMS/ORFM BI Publisher Templates.....	33
9 Data Migration	35
A Appendix: ORFM RTIL Installer Screens.....	37
B Appendix: ORFM DB Patch Installer Screens.....	46
C Appendix: RMS Batch Installer Screens	51
D Appendix: RMS Application Installer Screens.....	57
E Appendix: Installer Silent Mode	69
Repeating an Installation Attempt.....	69
F Appendix: URL Reference	71
JDBC URL for a Database	71
LDAP Server URL.....	71
JNDI Provider URL for an Application	71
G Appendix: Common Installation Errors.....	73
Database Installer Hangs on Startup.....	73
Unreadable Buttons in the Installer.....	73
“Could not create system preferences directory” Warning	73

“Couldn't find X Input Context” Warnings	73
Unresponsive Country and Currency Drop-Downs.....	74
Could not exel robot child process: Permission denied.....	74
ConcurrentModificationException in Installer GUI.....	75
FRM-30064: Unable to parse statement select while compiling fm_ituda.fmb	75
ORA-04031 (unable to allocate memory) error during database schema installation.....	75
X Error of failed request: BadWindow (invalid Window parameter)	76
RIB Errors.....	76
“Error Connecting to Database URL”	76
Multi-Threaded OCI Client Dumps Core after Reconnecting To Database	77
Forms Installer Fails on HP-UX	77
ORFM DB Installer Fails on s11071552_extax_help_gtt_l10n_br.sql after applying hotfix 11071552.....	78
H Appendix: Application Deployment Method	81
I Appendix: Single Sign-On Resource Access Descriptors	83
J Appendix: RMS RETL Instructions	85
Configuration	85
RETL	85
RETL User and Permissions.....	85
K Appendix: Setting Up Password Stores with Oracle Wallet.....	87
About Password Stores and Oracle Wallet.....	87
Setting Up Password Stores for Database User Accounts.....	88
Setting Up Wallets for Database User Accounts.....	89
For RMS, RWMS, RPM Batch, RETL, RMS, RWMS, and ARI	89
For Java Applications (SIM, ReIM, RPM, Alloc, RIB, RSL, AIP, RETL)	91
How does the Wallet Tie Back to the Application?	93
How does the Wallet Tie Back to Java pgm batch Use (such as REIM batch)?	93
Setting up RETL Wallets for 13.2	93
Quick Guide for Retail Wallets	95
L Appendix: Installation Order	101
Enterprise Installation Order.....	101

Send Us Your Comments

Oracle Retail Fiscal Management and Brazil Localization, Installation Guide, Release 13.2.1

Oracle welcomes customers' comments and suggestions on the quality and usefulness of this document.

Your feedback is important, and helps us to best meet your needs as a user of our products. For example:

- Are the implementation steps correct and complete?
- Did you understand the context of the procedures?
- Did you find any errors in the information?
- Does the structure of the information help you with your tasks?
- Do you need different information or graphics? If so, where, and in what format?
- Are the examples correct? Do you need more examples?

If you find any errors or have any other suggestions for improvement, then please tell us your name, the name of the company who has licensed our products, the title and part number of the documentation and the chapter, section, and page number (if available).

Note: Before sending us your comments, you might like to check that you have the latest version of the document and if any concerns are already addressed. To do this, access the new Applications Release Online Documentation CD available on My Oracle Support and www.oracle.com. It contains the most current Documentation Library plus all documents revised or released recently.

Send your comments to us using the electronic mail address: retail-doc_us@oracle.com

Please give your name, address, electronic mail address, and telephone number (optional).

If you need assistance with Oracle software, then please contact your support representative or Oracle Support Services.

If you require training or instruction in using Oracle software, then please contact your Oracle local office and inquire about our Oracle University offerings. A list of Oracle offices is available on our Web site at www.oracle.com.

Preface

Oracle Retail Installation Guides contain the requirements and procedures that are necessary for the retailer to install Oracle Retail products.

Audience

This Installation Guide is written for the following audiences:

- Database administrators (DBA)
- System analysts and designers
- Integrators and implementation staff

Related Documents

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

- *Oracle Retail Merchandising System Release Notes*
- *Oracle Retail Merchandising System Installation Guide*
- *Oracle Retail Fiscal Management/RMS Brazil Localization Installation Guide*
- *Oracle Retail Merchandising System Operations Guide*
- *Oracle Retail Merchandising System User Guide*
- *Oracle Retail Trade Management User Guide*
- *Oracle Retail Merchandising System Custom Flex Attribute Solution Implementation Guide*
- *Oracle Retail Merchandising System Data Model*
- *Oracle Retail Fiscal Management Data Model*
- *Oracle Retail Fiscal Management/Brazil Localization User Guide*
- *Oracle Retail Merchandising Batch Schedule*
- *Oracle Retail Merchandising Data Conversion Operations Guide*

Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL:
<https://support.oracle.com>

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Review Patch Documentation

When you install the application for the first time, you install either a base release (for example, 13.2) or a later patch release (for example, 13.2.1). If you are installing the base release and additional patch and bundled hot fix releases, read the documentation for all releases that have occurred since the base release before you begin installation.

Documentation for patch and bundled hot fix releases can contain critical information related to the base release, as well as information about code changes since the base release.

Oracle Retail Documentation on the Oracle Technology Network

Documentation is packaged with each Oracle Retail product release. Oracle Retail product documentation is also available on the following Web site:

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

(Data Model documents are not available through Oracle Technology Network. These documents are packaged with released code, or you can obtain them through My Oracle Support.)

Documentation should be available on this Web site within a month after a product release.

Conventions

Navigate: This is a navigate statement. It tells you how to get to the start of the procedure and ends with a screen shot of the starting point and the statement “the Window Name window opens.”

This is a code sample

It is used to display examples of code

Preinstallation Tasks

Note: The RMS installer provides the option to configure multiple application deployment methods. See Appendix H: Application Deployment Method in the 13.2.1 *RMS Installation Guide* to help determine your deployment approach.

Patch Contents

Patch releases include all defect fixes that have been released through bundled hot fix releases since the last patch release. Patch releases may also include new defect fixes and enhancements that have not previously been included in any bundled hot fix release.

Check for the Current Version of the Installation Guide

Corrected versions of Oracle Retail installation guides may be published whenever critical corrections are required. For critical corrections, the rerelease of an installation guide may not be attached to a release; the document will simply be replaced on the Oracle Technology Network Web site.

Before you begin installation, check to be sure that you have the most recent version of this installation guide. Oracle Retail installation guides are available on the Oracle Technology Network at the following URL:

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

An updated version of an installation guide is indicated by part number, as well as print date (month and year). An updated version uses the same part number, with a higher-numbered suffix. For example, part number E123456-02 is an updated version of an installation guide with part number E123456-01.

If a more recent version of this installation guide is available, that version supersedes all previous versions. Only use the newest version for your installation.

Implementation Capacity Planning

There is significant complexity involved in the deployment of Oracle Retail applications, and capacity planning is site specific. Oracle Retail strongly suggests that before installation or implementation you engage your integrator (such as the Oracle Retail Consulting team) and hardware vendor to request a disk sizing and capacity planning effort.

Sizing estimates are based on a number of factors, including the following:

- Workload and peak concurrent users and batch transactions
- Hardware configuration and parameters
- Data sparcity
- Application features utilized
- Length of time history is retained

Additional considerations during this process include your high availability needs as well as your backup and recovery methods.

Check Database Server Requirements

ORFM requires that the RMS 13.2.1 database schema be installed. See the *Oracle Retail Merchandising System Installation Guide* for the supported database server requirements.

Check Supported Application Server Requirements

General requirements for an application server capable of running ORFM include the following.

Note: Files required for Oracle Configuration Manager (OCM) are removed after OPatch is used to patch a WebLogic server. This will not cause the product installers to fail, but will cause OCM installation to fail. To work around this issue back up the content of the \$ORACLE_HOME/utls/ccr/lib directory prior to applying a patch using OPatch, and recopy the content back after you apply any patches. ORACLE_HOME is the location where WebLogic has been installed.

Supported on	Versions Supported
Application Server OS	<p>OS certified with Oracle Fusion Middleware 11g Release 1 (11.1.1.3). Options are:</p> <ul style="list-style-type: none"> ▪ Oracle Linux 5 Update 3 for x86-64 (Actual hardware or Oracle virtual machine). ▪ Red Hat Enterprise Linux 5 Update 3 (RHEL 5.3) for x86-64 (Actual hardware or Oracle virtual machine). ▪ AIX 6.1 (Actual hardware or LPARs) ▪ Solaris 10 Sparc (Actual hardware or logical domains) ▪ HP-UX 11.31 Integrity (Actual hardware or HPVM)

Supported on	Versions Supported
Application Server	<p>Oracle Fusion Middleware 11g Release 1 (11.1.1.3) with the following one off patches.</p> <ul style="list-style-type: none"> ▪ 6880880 – New Opatch version for Linux 64-bit (Required for Forms 11.1.1.3 component) ▪ 10065423 - MERGE REQUEST ON TOP OF 11.1.1.3.0 FOR BUGS 9891666 9891675 ▪ 9356983 - FORMS FAIL TO COMPILE WITH FRM-30312 WHEN NLS_LANG INCLUDES UTF8 CHARACTERSET <p>Note: These patches are for Linux 64-bit only, for other OSes these patches are not required. Patch 10065423 must be applied before patch 9356983.</p> <p>Components</p> <ul style="list-style-type: none"> ▪ Oracle WebLogic Server 11g Release 1 (10.3.3) ▪ Oracle Forms Services 11g Release 1 (11.1.1.3) <p>Other components</p> <ul style="list-style-type: none"> ▪ Oracle BI Publisher 10g (10.1.3.4) <p>Optional (SSO required)</p> <ul style="list-style-type: none"> ▪ Oracle Internet Directory 10g (10.1.4.3) ▪ Oracle WebTier 11g (11.1.1.3) – not required

Verify Single Sign-On

If a single sign-on is to be used, verify the Oracle Infrastructure Server 10g version 10.1.4.3 server has been installed. If applicable, verify the Oracle WebTier server hosting Oracle Forms is registered with the Infrastructure Oracle Internet Directory.

Check Supported Web Browser and Client Requirements

General requirements for client running RMS include the following.

Requirement	Version
Operating system	Windows XP
Display resolution	1024x768 or higher
Processor	2.6GHz or higher
Memory	1GByte or higher
Networking	intranet with at least 10Mbps data rate
Sun Java Runtime Environment	1.6.0_22+
Browser	Microsoft Internet Explorer version 7.0

Supported Oracle Retail Products

Product	Version
Oracle Retail Merchandising System (RMS)	13.2.1
Oracle Retail Store Inventory Management (SIM)	13.2.1
Oracle Retail Warehouse Management System (RWMS)	13.2

Supported Oracle Retail Integration Technologies

Integration Technology	Version
Oracle Retail Integration Bus (RIB)	13.2

Note: The following integration points are not supported for ORFM/RMS Brazil Localization, but they are supported with non-Brazil RMS:

Oracle E-Business Suite integration using the Oracle Financial Operations Control Integration Pack for Oracle Retail Merchandising Suite and Oracle E-Business Suite Financials in Oracle Application Integration Architecture 2.5.

PeopleSoft Enterprise Financials integration using the Oracle Retail Merchandising Integration Pack for PeopleSoft Enterprise Financials: Financial Operations Control in Oracle Application Integration Architecture 2.5.

RAC and Clustering

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

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

The Oracle Retail products have been validated against an 11.2.0.1 RAC database. When using a RAC database, all JDBC connections should be configured to use OCI connections rather than THIN connections. It is suggested that when using OCI connections, the Oracle Retail products database be configured in the tnsnames.ora file used by the WebLogic Server installations.

Clustering for WebLogic Server 10.3.3 is managed as an Active-Active cluster accessed through a Load Balancer. Validation has been completed utilizing a RAC 11.2.0.1 Oracle Internet Directory database with the WebLogic 10.3.3 cluster. It is suggested that a Web Tier 11.1.1.3 installation be configured to reflect all application server installations if SSO will be utilized.

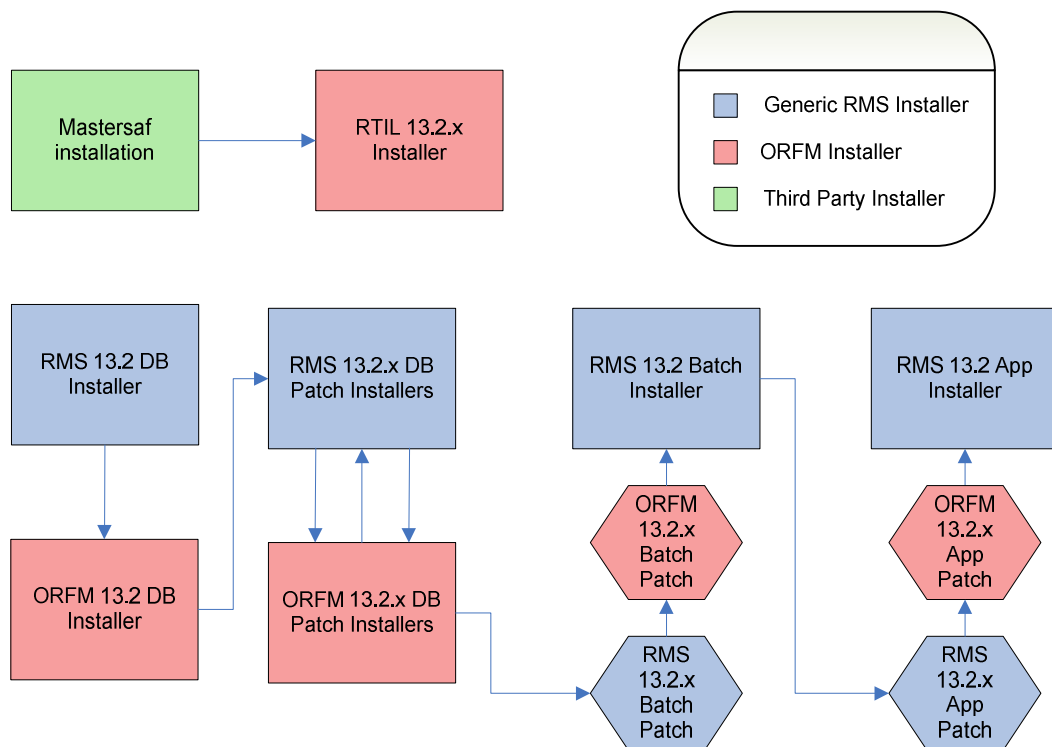
References for Configuration:

- Oracle Fusion Middleware High Availability Guide 11g Release 1 (11.1.1) Part Number E10106-09
- Oracle Real Application Clusters Administration and Deployment Guide 11g Release 2 (11.2) Part Number E16795-08

Patch Installation

The database portion of ORFM can be upgraded from release 13.2. This guide details the steps needed to perform a patch installation of ORFM.

To successfully complete the ORFM 13.2.1 patch, installers from the RMS 13.2, RMS 13.2.1 and ORFM 13.2.1 releases must be run in a specific sequence.



This guide explains the steps needed to perform an installation of RMS/ORFM. These chapters should be followed in order:

- Chapter 4 - RTIL Installation Tasks - Patch
- Chapter 5 - Database Installation Tasks - Patch
- Chapter 6 - Batch Installation Tasks - Patch
- Chapter 7 - Application Installation Tasks - Patch
- Chapter 8 - Reports Installation Tasks - Patch

RTIL Installation Tasks - Patch

The ORFM 13.2.1 patch does not contain any updates for the RTIL application. If you have already installed RTIL, you can skip to Chapter 5 - Database Installation Tasks - Patch. If you have not installed RTIL refer to the RTIL Installation Tasks chapter in the *13.2 Oracle Retail Fiscal Management and Brazil Localization Installation Guide*.

Database Installation Tasks - Patch

There are two different methods to use for installing the ORFM 13.2.1 database schema patch. Option 1 uses the installer to apply the patch. Option 2 uses the patch controller scripts directly.

Note: If any ORFM hotfixes have been applied to the schema after 13.2, be aware that using the installer or controller scripts to apply the 13.2.1 patch can have unexpected results. You will need to decide if it is safe to run all the scripts in the patch, or if the scripts need to be selectively run.

Note: If you have manually applied the required hotfix 11071552, you will hit errors when running the ORFM 13.2.1 database schema patch. See [Appendix G: Common Installation Errors](#) for the workaround and more details.

Note: Shutdown any applications that may be using the RMS schema (for example RIB) before applying a schema patch.

RMS/ORFM Database Patch Sequence

It is very important that the RMS and ORFM database patches are run in the correct sequence. Use the following sequence to determine the order to apply RMS and ORFM patches. Running patches out of sequence can cause installation errors.

1. RMS 13.2 DB Upgrade
2. ORFM 13.2 DB Install
3. RMS 13.2.1 DB Patch
4. ORFM 13.2.1 DB Patch

Option 1: Patch ORFM Database using the Patch Installer

The RMS 13.2.1 database schema patch installer may be used to apply the ORFM 13.2.1 patch to a schema from 13.2. The installer should only be used to apply the patch if the schema being patched does not contain customizations or hotfixes. The patch may also be applied outside of the installer by calling the controller scripts directly. See Option 2: Patch ORFM Database using Controller Scripts later in this chapter for details on this method.

Before you apply the ORFM 13.2.1 patch:

- Make a backup of all your objects and database schema.
- Determine which patches and hotfix bundles have already been installed.
- Make sure the required RMS and ORFM schema patches have been applied. Refer to the section RMS/ORFM Database Patch Sequence for details.

- Review the enclosed ORFM 13.2.1 Release Notes (orfm-1321-rn.pdf).

Create Staging Directory for ORFM Database Schema Files

1. Log into the database server as a user that can connect to the RMS database.
2. Create a staging directory for the ORFM 13.2.1 Patch. There should be a minimum of 20 MB disk space available in this location.
3. Copy the orfm1321dbpatch.zip file from the ORFM 13.2.1 release to the staging directory. This is referred to as DB_PATCH_DIR when patching a database schema.
4. Change directories to DB_PATCH_DIR and extract the orfm1321dbpatch.zip. This creates a orfm/dbschemapatch subdirectory under DB_PATCH_DIR

Run the ORFM Database Schema Patch Installer

Note: Appendix: ORFM DB Patch Installer Screens contains details on screens and fields in the ORFM database schema patch installer.

1. Change directories to DB_PATCH_DIR/orfm/dbschemapatch.
2. Source the oraenv script to set up the Oracle environment variables (ORACLE_HOME, ORACLE_SID, PATH, etc)

Example: prompt\$. oraenv
ORACLE_SID = [] ? mydb
prompt\$

Verify the ORACLE_HOME and ORACLE_SID variables after running this script.

Example: prompt\$ echo \$ORACLE_HOME
/u00/oracle/product/mydbversion
prompt\$ echo \$ORACLE_SID
mydb

3. Set and export the following environment variables. These variables are needed in addition to the environment variables set by the oraenv script above.

Variable	Description	Example
NLS_LANG	Locale setting for Oracle database client	NLS_LANG=AMERICAN_AMERICA.UTF8 export NLS_LANG
DISPLAY	Address and port of X server on desktop system of user running install. Optional for dbschema installer	DISPLAY=<IP address>:0 export DISPLAY

4. If you are going to run the installer in GUI mode using an X server, you need to have the XTEST extension enabled. This setting is not always enabled by default in your X server. See Appendix: Common Installation Errors for more details.
5. If the patch installer has already been run in this location you may wish to back up the ant.install.properties file. The settings from the ORFM 13.2.1 patch install will be refreshed with the latest input every time the installer runs.
6. Run the install.sh script to start the installer.

Note: Below are the usage details for install.sh. The typical usage for GUI mode is no arguments.

```
install.sh [text | silent]
```

7. On the Apply a Patch page for each product, provide the path to the corresponding controller ksh script. This path will be `DB_PATCH_DIR/rms/dbschemapatch/mom-dbpatch/<version>/orfm`. This directory should contain a `orfm_controller.ksh` file, which the installer runs to apply the ORFM 13.2.1 Patch.
8. The installer leaves behind the `ant.install.properties` file for future reference and repeat installations. This file contains inputs you provided. As a security precaution, make sure that the file has restrictive permissions.

Example: `chmod 600 ant.install.properties`

Option 2: Patch ORFM Database using Controller Scripts

While the installer can be used to apply the entire ORFM database patch, there are situations in which it is better to run the patch directly with the scripts released in the patch. The installer calls `start-all` ksh scripts named `orfm_controller.ksh` which run all of the files in the patch. If there are any customizations or hotfixes in the schema then certain statements in the patch may result in errors. In this situation it is better to investigate where the conflicts are and fix the SQL scripts accordingly.

Before you apply the ORFM 13.2.1 patch:

- Make a backup of all your objects and database schema.
- Determine which patches and hotfix bundles have already been installed
- Make sure the required RMS and ORFM schema patches have been applied. Refer to the section RMS/ORFM Database Patch Sequence for details.
- Review the enclosed ORFM 13.2.1 Patch Release Notes (`orfm-1321-rn.pdf`).

Create Staging Directory for RMS Database Schema Files

1. Log into the database server as a user that can connect to the RMS database.
2. Create a staging directory for the ORFM 13.2.1 Patch. There should be a minimum of 20 MB disk space available in this location.
3. Copy the `orfm1321dbpatch.zip` file from the ORFM 13.2.1 release to the staging directory. This is referred to as `DB_PATCH_DIR` when patching a database schema.
4. Change directories to `DB_PATCH_DIR` and extract the `orfm1321dbpatch.zip`. This creates a `orfm/dbschemapatch` subdirectory under `DB_PATCH_DIR`

Run the RMS Database Controller Scripts

To run the RMS database controller scripts, complete the following steps.

1. Change directories to `DB_PATCH_DIR/orfm/dbschemapatch/orfm-dbpatch/`.
2. Source the `oraenv` script to set up the Oracle environment variables (`ORACLE_HOME`, `ORACLE_SID`, `PATH`, etc)

Example: `prompt$. oraenv`
`ORACLE_SID = [] ? mydb`
`prompt$`

3. Verify the `ORACLE_HOME` and `ORACLE_SID` variables after running this script.

Example: `prompt$ echo $ORACLE_HOME`
`/u00/oracle/product/mydbversion`

```
prompt$ echo $ORACLE_SID
mydb
```

4. Set and export the NLS_LANG environment variable.

```
Example: NLS_LANG=AMERICAN_AMERICA.UTF8
export NLS_LANG
```

5. For each version you want to patch, configure the individual controller.cfg files. To do this:

- Copy DB_PATCH_DIR/orfm/dbschemapatch/orfm-dbpatch /<version>/orfm/templates/controller.cfg to DB_PATCH_DIR/orfm/dbschemapatch/orfm-dbpatch /<version>/orfm/controller.cfg
- Open the controller.cfg file you just created and replace the tokens for the following variables with the appropriate values:
 - i. Export PATCH_DIR= DB_PATCH_DIR/orfm/dbschemapatch/orfm-dbpatch/<version>/orfm
 - ii. export SCHEMA_OWNER=<The name of the RMS schema>
 - iii. export MMUSER=< The name of the RMS schema >
 - iv. export ORACLE_SID=<SID for the database the MMUSER schema resides in>
 - v. export TNS_ADMIN=/path/to/wallet/files/dir/
 - vi. export UP=/@<Schema Owner Wallet Alias>

```
Note: See the document,
"oracle_wallet_setup_for_mom.doc," for instructions to set
up the database wallet.
```

6. For each version you wish to patch, cd to DB_PATCH_DIR/orfm/dbschemapatch/orfm-dbpatch/<version>/orfm and run the following commands:

```
$ ./orfm_controller.ksh DBO Y
```

7. If the installation fails for any of the patches before completion, look at the logs in the DB_PATCH_DIR/orfm/dbschemapatch/orfm-dbpatch/<version>/orfm/error and DB_PATCH_DIR/orfm/dbschemapatch/orfm-dbpatch/<version>/orfm/log directories to determine the source of the error. You can continue the patch by rerunning the orfm_controller.ksh file, but only if the files generated in the DB_PATCH_DIR/orfm/dbschemapatch/orfm-dbpatch/<version>/orfm/processed directory from the last patch attempt are still there. Any scripts that ran previously will be skipped. If you wish to start a new patch, delete all files in the DB_PATCH_DIR/orfm/dbschemapatch/orfm-dbpatch/<version>/orfm/processed directory.

Batch Installation Tasks—Patch

There are two different methods to use for installing the ORFM 13.2.1 Batch Patch. Option 1 uses the RMS installer to apply patch. Option 2 compiles the batch directly.

Option 1: Use RMS Batch Installer to Patch

Note: If using the RMS Batch Installer to apply the ORFM 13.2.1 patch, the RMS 13.2.1 and ORFM 13.2.1 Batch patches should be applied at the same time. This section provides instructions on how to do this.

As shipped, the RMS 13.2 Batch installer will install and compile the batch programs for version 13.2. Patches for ORFM batch may be applied by copying the new source files and recompiling in place in the environment using the profile scripts created by the installer. This is the method to use if there is already an environment at the previous patch level. Go to the section “Option 2: Compile ORFM Batch Directly” for these instructions.

The installer method is only intended for new environments. Do not use the installer patching utility to attempt patching of batch in existing environments with the installer. If the patch is applied to customizations, they will be overwritten.

In this section, STAGING_DIR refers to the location where the RMS 13.2 Batch installer was originally expanded. The installer files from the original RMS 13.2 installation can be re-used or a new directory can be created with a fresh copy of the RMS 13.2 application installer.

Before you apply the RMS and ORFM 13.2.1 Batch patches:

- Make a backup of all your Batch files.
- Review the enclosed ORFM 13.2.1 Patch Release Notes (orfm-1321-rn.pdf).

Before copying over any files:

- Note whether customizations have been made to the module. If so, then the customizations must be reapplied over the new version of the file (or the fix may need to be applied to the custom version of the code).
- Copy the original files to a different directory before copying over them in case they need to be referred to at a later date.

Create Staging Directory for RMS and ORFM Batch Patch Files

1. Log into the database server as a user that can connect to the RMS database.
2. Create a staging directory for the RMS 13.2.1 Batch Patch. There should be a minimum of 20 MB disk space available in this location.
3. Copy the rms1321batchpatch.zip file from the RMS 13.2.1 release to the staging directory. This is referred to as RMS_BATCH_PATCH_DIR when patching a database schema.
4. Change directories to RMS_BATCH_PATCH_DIR and extract the rms1321batchpatch.zip file. This creates a batch-patch subdirectory under RMS_BATCH_PATCH_DIR.

5. Create a staging directory for the ORFM 13.2.1 Batch Patch. There should be a minimum of 5 MB disk space available in this location. This should be a different directory than RMS_BATCH_PATCH_DIR.
6. Copy the orfm1321batchpatch.zip file from the ORFM 13.2.1 release to the staging directory. This is referred to as ORFM_BATCH_PATCH_DIR when patching a database schema.
7. Change directories to ORFM_BATCH_PATCH_DIR and extract the orfm1321batchpatch.zip file. This creates a batch-patch subdirectory under ORFM_BATCH_PATCH_DIR.
8. If you do not already have one, create a staging directory for the RMS batch installation software or use the same staging directory as created in the database schema step above. There should be a minimum of 35 MB disk space available in this location.
9. Copy the rms13batch.zip file from the RMS 13.2 release to the staging directory. This is referred to as STAGING_DIR when installing the RMS batch software.
10. Change directories to STAGING_DIR and extract the rms13batch.zip file. This creates an rms/batch subdirectory under STAGING_DIR.

Copy Batch Files

For new environments, the installer can be used to install and compile the batch programs at the latest patch level using the installer patching utility included with RMS and ORFM batch patches. The utility is located under RMS_BATCH_PATCH_DIR/batch-patch/patch-util and ORFM_BATCH_PATCH_DIR/batch-patch/patch-util. This utility will accept as input the RMS and ORFM patch files and add them to the RMS 13.2 Batch installer package. After running this utility, the RMS Batch installer can be used to install the environment, and they will install the latest version of each batch module.

Custom Modules

Custom source can be provided by the user in a folder named RMS_BATCH_PATCH_DIR/batch-patch/patch-util/custom and ORFM_BATCH_PATCH_DIR/batch-patch/patch-util/custom. The source code in this folder is applied last, after all patches have been applied.

Run the Installer Patching Utility

1. Set the JAVA_HOME environment variable to point to a JDK.
2. Set the ANT_HOME environment variable to point to an Ant installation. There is one included with the RMS installer that can be used for this.
`ANT_HOME=STAGING_DIR/rms/batch/ant`
`export ANT_HOME`
3. Change directories to RMS_BATCH_PATCH_DIR/batch-patch/patch-util/
4. Modify the patch.properties file. Set the staging.dir and patch.to.version properties.

Property Name	Description
installer.dir	The directory where the RMS installer files are located under STAGING_DIR. <i>Example: /opt/rms/batch</i>
patch.to.version	The version want to patch to <i>Example: 13.2.1</i>

5. Run the patch.sh script. This script will copy the RMS files from each patch from 13.2.1 up to the patch specified in the patch.to.version property. These files are copied into the RMS installer package.
6. Change directories to ORFM_BATCH_PATCH_DIR/batch-patch/patch-util/
7. Modify the patch.properties file. Set the staging.dir and patch.to.version properties.

Property Name	Description
---------------	-------------

installer.dir	The directory where the RMS installer files are located under STAGING_DIR. <i>Example: /opt/rms/batch</i>
patch.to.version	The version want to patch to <i>Example: 13.2.1</i>

8. Run the patch.sh script. This script will copy the ORFM files from each patch from 13.2.1 up to the patch specified in the patch.to.version property. These files are copied into the RMS installer package.

Run RMS Batch Installer

Note: Appendix: RMS Batch Installer Screens contains details on every screen and field in the batch installer.

1. Change directories to STAGING_DIR/rms/batch. This directory was created when the rms13batch.zip file was expanded under STAGING_DIR.
2. Source the oraenv script to set up the Oracle environment variables (ORACLE_HOME, ORACLE_SID, PATH, etc)

Example: prompt\$. oraenv
ORACLE_SID = [] ? mydb
prompt\$

Verify the ORACLE_HOME and ORACLE_SID variables after running this script.

Example: prompt\$ echo \$ORACLE_HOME
/u00/oracle/product/mydbversion
prompt\$ echo \$ORACLE_SID
mydb

3. Verify that the following executables are available from PATH: make, makedepend, cc, ar.

Example: Here are some locations where makedepend is commonly found:

Linux:	/usr/X11R6/bin
SUN:	/usr/openwin/bin
AIX:	/usr/X11R6/bin
HP-UX:	/opt/imak/bin

4. Set and export the following environment variables. These variables are needed in addition to the environment variables set by the oraenv script above.

Variable	Description	Example
DISPLAY	Address and port of X server on desktop system of user running install. Optional for batch installer	DISPLAY=<IP address>:0 export DISPLAY

- If you are going to run the installer in GUI mode using an X server, you need to have the XTEST extension enabled. This setting is not always enabled by default in your X server. See Appendix G: Common Installation Errors for more details.
- Run the `install.sh` script to start the installer.

Note: Below are the usage details for `install.sh`. The typical usage for GUI mode is no arguments.

```
./install.sh [text | silent]
```

Depending on system resources, a typical RMS batch installation takes anywhere from 20 to 60 minutes.

The installer will ask for an installation directory. This is the destination directory for the RMS files. This directory is referred to as `INSTALL_DIR` for the remainder of this chapter. Do not provide an `INSTALL_DIR` that is located at or underneath `STAGING_DIR`.

- After the installer is complete, you can check its log file: `rms.batch.install.<timestamp>.log`.
- The installer leaves behind the `ant.install.properties` file for future reference and repeat installations. This file contains inputs you provided. As a security precaution, make sure that the file has restrictive permissions.

Example: `chmod 600 ant.install.properties`

Note: The object counts performed by the installer may be off due to the patch adding or removing modules. The installer warnings about this can be ignored

Resolving Errors Encountered During Batch Installation

The RMS batch installer is a full install that starts from the beginning each time it is run. If you encounter errors in your environment, after resolving the issue you can safely run the batch installer again to attempt another installation.

RETL

The RMS batch installer installs the RETL files under `INSTALL_DIR/RETLfor<product>/rfx`.

See Appendix: RMS RETL Instructions of this document for more information about RETL.

Data Conversion Scripts

The RMS batch installer installs the data conversion scripts under `INSTALL_DIR/external/scripts`. To complete the setup of these files, perform the following steps.

- Create the following new directories:

```
INSTALL_DIR/external/data
```

```
INSTALL_DIR/external/logs
```

The RMS Batch installer should have already created `INSTALL_DIR/scripts`.

2. Log into sqlplus as SYSTEM and run the following commands:

```
SQL> create or replace directory rms13dev_ext_data as
'INSTALL_DIR/external/data';
```

```
SQL> create or replace directory rms13dev_ext_logs as
'INSTALL_DIR/external/logs';
```

Note: You need to replace `INSTALL_DIR` with your `INSTALL_DIR` and you can rename the external data and log directory.

Note: The user that creates these directories owns them.

Note: The data and logs directories should be `chmoded 777`.

3. Log into sqlplus as SYSTEM and grant access to them by running the following commands:

```
SQL> grant read on directory rms13dev_ext_data to public;
```

```
SQL> grant read, write on directory rms13dev_ext_logs to public
```

4. Grant the following privileges to any other users who will be using data conversion.

```
SQL> grant read on directory rms13dev_ext_data to RMS13DEVc;
```

```
SQL> grant read, write on directory rms13dev_ext_logs to RMS13DEV;
```

Option 2: Compile ORFM Batch Directly

Note: Warning messages may appear during the compilation of the batch. These warnings can be ignored if the batch executables are successfully generated.

Create Staging Directory for RMS Batch Patch Files

1. Log into the database server as a user that can connect to the RMS database.
2. Create a staging directory for the ORFM 13.2.1 Batch Patch. There should be a minimum of 5 MB disk space available in this location.
3. Copy the `orfm1321batchpatch.zip` file from the ORFM 13.2.1 release to the staging directory. This is referred to as `ORFM_BATCH_PATCH_DIR` when patching a database schema.
4. Change directories to `ORFM_BATCH_PATCH_DIR` and extract the `orfm1321batchpatch.zip` file. This creates a batch-patch subdirectory under `ORFM_BATCH_PATCH_DIR`.

Set Environment Variables

Note: `INSTALL_DIR` is the location where RMS 13 batch was installed.

To set environment variables, make sure the following variables are set. The RMS 13.2 batch installer should have created a `batch.profile` file located at `INSTALL_DIR/batch.profile`. This profile script can be used to set all environment variables listed below.

```
Example:  cd <INSTALL_DIR>
            ../batch.profile
```

The variables set by batch.profile are as follows.

- PATH must include make, makedepend and the C compiler
- MMHOME=INSTALL_DIR
- MMUSER=RMS Schema Owner
- ORACLE_HOME=Location of Oracle DB install
- ORACLE_SID=The Oracle Sid for the RMS database
- UP=/@< Schema Owner Wallet Alias >
- TNS_ADMIN=/path/to/wallet/files/dir/

AIX

- LIBPATH=\$ORACLE_HOME/lib:\$MMHOME/oracle/lib/bin:\$LDPATH
- OBJECT_MODE=64
- LINK_CNTRL=L_PTHREADS_D7

Linux

- LD_LIBRARY_PATH=\$ORACLE_HOME/lib:
\$MMHOME/oracle/lib/bin:\$LD_LIBRARY_PATH

Note: See Appendix: Setting Up Password Stores with Oracle Wallet.

Compile Batch Libraries

To compile batch libraries, complete the following steps.

Note: Verify that TNS is set up correctly by using the UP variable to successfully log in to the RMS 13 schema. For example, /u00/oracle> sqlplus \$UP.

1. Copy the files from ORFM_BATCH_PATCH_DIR/batch-patch/<version>/oracle/lib/src to INSTALL_DIR/oracle/lib/src. This step should be done with each version you want to apply in order of earliest to latest patch starting at 13.2.0 and ending with the 13.2.1 deltas.
2. Change directories to INSTALL_DIR/oracle/lib/src.

3. To make library dependencies run this command.

```
make -f l10n_rmslib.mk depend 2>&1 | tee libdpnd.log
```

 Check the libdpnd.log file for errors.
4. To make batch libraries:

```
make -f l10n_rmslib.mk 2>&1 | tee libretek.log
```

 Check the libretek.log file for errors.
5. To install batch libraries:

```
make -f l10n_rmslib.mk install
```

 The batch libraries should now be in `INSTALL_DIR/oracle/lib/bin`.

Compile Batch Source Code

1. Copy the files from `ORFM_BATCH_PATCH_DIR/batch-patch/<version>/oracle/proc/src` to `INSTALL_DIR/oracle/proc/src`. This step should be done with each version you want to apply in order of earliest to latest patch starting at 13.2.0 and ending with the 13.2.1 deltas.
2. Change directories to `INSTALL_DIR/oracle/proc/src`.
3. Create dependencies.
 - a. Run the following command:

```
make -f l10n_rms.mk depend 2>&1 | tee srcdpnd.log
```
 - b. Check the srcdpnd.log file for errors.
4. Create batch programs.
 - a. Run the following command:

```
make -f l10n_rms.mk 2>&1 | tee srcall.log
```
 - b. Check the srcall.log file for errors.
5. Install the batch programs.

```
make -f l10n_rms.mk install
```

The ORFM batch programs should now be in `INSTALL_DIR/oracle/proc/bin`.

Copy Data Conversion Scripts

1. Copy the files from `ORFM_BATCH_PATCH_DIR/batch-patch/<version>/external` to `INSTALL_DIR/external`. This step should be done with each version you want to apply in order of earliest to latest patch starting at 13.2.0 and ending with the 13.2.1 deltas.

Application Installation Tasks - Patch

There are two different methods to use for installing the ORFM 13.2.1 Application patch. Option 1 uses the RMS installer to apply the patch. Option 2 compiles the ORFM toolset and forms directly.

Note: If the 13.2.1 database schema patch has been run, the entire set of toolsets and forms must be recompiled.

Option 1: Use RMS Application Installer to Patch

Note: If using the RMS Application Installer to apply the ORFM 13.2.1 patch, the RMS 13.2.1 and ORFM 13.2.1 Application patches should be applied at the same time. This section provides instructions on how to do this.

As shipped, the RMS 13.2 Forms installer installs and compiles the forms for version 13.2. Patches for ORFM Forms may be applied by copying the new source files and recompiling in place in the environment using the profile scripts created by the installer. This is the method to use if there is already an environment at the previous patch level. Go to the section “Option 2: Compile ORFM Toolset and Forms Directly” for these instructions.

The installer method is only intended for new environments. Do not use the installer patching utility to attempt patching of forms in existing environments with the installer. If the patch is applied to customizations, they will be overwritten.

In this section, STAGING_DIR refers to the location where the RMS 13.2 application installer was originally expanded. A new directory should be created with a fresh copy of the RMS 13.2 application installer.

Before you apply the RMS and ORFM 13.2.1 patch:

- Make a backup of all your forms and library files.
- Review the enclosed ORFM 13.2.1 Patch Release Notes (orfm-1321-rn.pdf).

Before copying over any files:

- Note whether customizations have been made to the module. If so, then the customizations must be reapplied over the new version of the file (or the fix may need to be applied to the custom version of the code).
- Copy the original files to a different directory before copying over them in case they need to be referred to at a later date.

Create Staging Directory for RMS and ORFM Application Patch Files

1. Log on to your application server as a user with read and write access to the Weblogic files.
2. Create a staging directory for the RMS Application patch. There should be a minimum of 500 MB disk space available in this location.
3. Copy the file rms1321apppatch.zip from the RMS 13.2.1 release to staging directory. This will be referred to as RMS_APP_PATCH_DIR when installing application software and reports.

4. Change directories to RMS_APP_PATCH_DIR and extract the file rms1321apppatch.zip. This creates an app-patch subdirectory under RMS_APP_PATCH_DIR.
5. Create a staging directory for the ORFM 13.2.1 Batch Patch. There should be a minimum of 110 MB disk space available in this location. This should be a different directory than RMS_APP_PATCH_DIR.
6. Copy the orfm1321apppatch.zip file from the ORFM 13.2.1 release to the staging directory. This is referred to as ORFM_APP_PATCH_DIR when patching a database schema.
7. Change directories to ORFM_APP_PATCH_DIR and extract the orfm1321apppatch.zip file. This creates an app-patch subdirectory under ORFM_APP_PATCH_DIR.
8. If you don't already have one, create a staging directory for the RMS application installation software or use the same staging directory as created in the database schema step above. There should be a minimum of 600 MB disk space available in this location.
9. Copy the file rms13appserver.zip from the RMS 13.2 release to staging directory. This will be referred to as STAGING_DIR when installing application software and reports.
10. Change directories to STAGING_DIR and extract the file rms13appserver.zip. This will create an rms/application subdirectory under STAGING_DIR.

Copy Forms and Library Patch Files

For new environments, the installer can be used to install and compile the forms at the latest patch level using the installer patching utility included with RMS and ORFM Forms patches. The utility is located under RMS_APP_PATCH_DIR/app-patch/patch-util and ORFM_APP_PATCH_DIR/app-patch/patch-util. This utility will accept as input the RMS and ORFM patch files and add them to the RMS 13.2 Forms installer package. After running this utility, the RMS Forms installer can be used to install the environment, and they will install the latest version of each batch module.

Custom Modules

Custom source can be provided by the user in a folder named RMS_APP_PATCH_DIR/app-patch/patch-util/custom and ORFM_APP_PATCH_DIR/app-patch/patch-util/custom. The source code in this folder is applied last, after all patches have been applied.

Run the Installer Patching Utility

1. Set the JAVA_HOME environment variable to point to a JDK.
2. Set the ANT_HOME environment variable to point to an Ant installation. There is one included with the RMS installer that can be used for this.

```
ANT_HOME=<INSTALL_DIR>/rms/application/ant  
export ANT_HOME
```
3. Change directories to RMS_APP_PATCH_DIR/app-patch/patch-util/
4. Modify the patch.properties file. Set the staging.dir and patch.to.version properties.

Property Name	Description
---------------	-------------

staging.dir	The directory where the installer files are located under STAGING_DIR. Example: /opt/rms/application
-------------	---

patch.to.version	The version want to patch to Example: 13.2.1
------------------	---

5. Run the patch.sh script. This script will copy the files from each patch from 13.2.1 up to the patch specified in the patch.to.version property. These files are copied into the installer package.
6. Change directories to ORFM_APP_PATCH_DIR/app-patch/patch-util/
7. Modify the patch.properties file. Set the staging.dir and patch.to.version properties.

Property Name	Description
---------------	-------------

installer.dir	The directory where the RMS installer files are located under STAGING_DIR. <i>Example: /opt/rms/application</i>
---------------	--

patch.to.version	The version want to patch to <i>Example: 13.2.1</i>
------------------	--

8. Run the patch.sh script. This script will copy the ORFM files from each patch from 13.2.0 up to the patch specified in the patch.to.version property. These files are copied into the RMS installer package.

Run the RMS Application Installer

Note: Appendix: RMS Application Installer Screens contains details on every screen and field in the application installer.

1. Log on to your application server as a user with read and write access to the Weblogic files.
2. Change directories to STAGING_DIR/rms/application. This directory was created when the rms13application.zip file was expanded under STAGING_DIR.
3. Set and export the following environment variables.

Variable	Description	Example
DOMAIN_HOME	The location where Forms 11.1.1.3 domain has been installed.	DOMAIN_HOME= /u00/webadmin/product/10.3.3/WLS_Forms/user_projects/domains/ClassicDomain/ export DOMAIN_HOME
WLS_INSTANCE	The name of the managed server that contains Oracle Forms.	WLS_INSTANCE=WLS_FORMS Export WLS_INSTANCE
ORACLE_SID	The database/SID where the RMS schema resides.	ORACLE_SID=mydb
NLS_LANG	Locale setting for Oracle database client.	NLS_LANG=AMERICAN_AMERICA.UTF8 export NLS_LANG
JAVA_HOME	Location of a Java 6.0 (1.6.0) JDK.	JAVA_HOME= /u00/webadmin/java/jdk1.6.0_12 Export JAVA_HOME
DISPLAY	Address and port of X server on desktop system of user running install. Required for forms application installer.	DISPLAY=<IP address>:0 export DISPLAY

4. To install the RMS application you need to be using an X server such as Exceed and have set the DISPLAY environment variable. The installer does not continue otherwise.
5. Run the install.sh script to start the installer.

Note: Below are the usage details for install.sh. The typical usage for GUI mode is no arguments.

```
./install.sh [text | silent]
```

6. The Installer automatically sets additional environment variables based on the values of the environment variables set in step 3. At the end of the preinstall checks it will print out a summary containing these new environment variables:

Example:

```
MW_HOME=/u00/webadmin/product/10.3.3/WLS_Forms
```

```

ORACLE_HOME=/u00/webadmin/product/10.3.3/WLS_
Forms/as_1
ORACLE_INSTANCE=/u00/webadmin/product/10.3.3
/WLS_Forms/asinst_1
DOMAIN_HOME=/u00/webadmin/product/10.3.3/WLS_
Forms/user_projects/domains/ClassicDomain
WLS_INSTANCE=WLS_FORMS
ORACLE_SID=mydb
JAVA_HOME=/u00/webadmin/java/jdk1.6.0_12

```

Verify that these environment variables are correct. If any of them are incorrect, you need to verify that the Weblogic shell scripts that set them are configured properly. Check the following scripts:

```

$DOMAIN_HOME/bin/setDomainEnv.sh
$WEBLOGIC_HOME/wlserver_10.3/common/bin/commEnv.sh

```

Example:

```

/u00/webadmin/product/10.3.3/WLS_Forms/user_
projects/domains/ClassicDomain/bin/setDomainEnv.sh
/u00/webadmin/product/10.3.3/WLS_Forms/wlserver_
10.3/common/bin/commEnv.sh

```

Depending on system resources, a typical installation takes anywhere from 45 minutes to two hours.

The installer asks for an installation directory. This is the destination directory for the RMS files. This directory will be referred to as `INSTALL_DIR` for the remainder of this chapter. Do not provide an `INSTALL_DIR` that is located at or underneath `STAGING_DIR`.

Note: You may see the following warning repeated during installation:

```

[exec] Warning! One or more of your selected
locales are not available.
[exec] Please invoke the commands "locale" and
"locale -a" to verify your
[exec] selections and the available locales.
[exec]
[exec] Continuing processing using the "C" locale.

```

Or

```
[exec] couldn't set locale correctly
```

This warning can be ignored.

7. After the installation is complete, you can check its log file: `INSTALL_DIR/base/log/rms.app.install.<timestamp>.log`. The `INSTALL_DIR/base/error` will contain information about possible failed compilations.
8. The installer leaves behind the `ant.install.properties` file for future reference and repeat installations. This file contains inputs you provided. As a security precaution, make sure that the file has restrictive permissions.

Example: `chmod 600 ant.install.properties`

Note: The object counts performed by the installer may be off due to the patch adding or removing modules. The installer warnings about this can be ignored

9. If during the screens you chose not to have the installer automatically configure WebLogic, after the installation is complete follow the post installation tasks by making backups of the listed files and copying the required files to the specified location.

Example:

```
#####
##                               WebLogic Configuration Tasks                               ##
#####
Contact your WebLogic administrator and have them make backups of the following
files:

/u00/webadmin/product/10.3.3/WLS_Forms/user_projects/domains/ClassicDomain/config/
fmwconfig/servers/WLS_FORMS/applications/formsapp_11.1.1/config/forms/registry/ora
cle/forms/registry/Registry.dat
/u00/webadmin/product/10.3.3/WLS_Forms/user_projects/domains/ClassicDomain/config/
fmwconfig/servers/WLS_FORMS/applications/formsapp_11.1.1/config/formsweb.cfg

Have the WebLogic administrator stop WLS_FORMS and ohs1,
copy everything in /home/oretail/rms132/install/post
to /u00/webadmin/product/10.3.3/WLS_Forms to update the files
and then start WLS_FORMS and ohs1
for the changes to take effect.

example: cp -R * /u00/webadmin/product/10.3.3/WLS_Forms
```

Resolving Errors Encountered During Application Installation

In the event a form or menu does not compile, go to `INSTALL_DIR/base/error` and see which objects didn't compile. To try and manually recompile the object run `INSTALL_DIR/base/forms.profile` and run the following command:

```
# frmcmp.sh userid=$SUP module_type=form module=FORM_OR_MENU
```

You can also safely rerun the installer to see if the form compiles.

Note: If you rerun the installer, and choose to check the box Configure WebLogic in the installer screens, you may need to clean up duplicate entries in the WebLogic `formsweb.cfg` file.

Clustered Installations – Post-Installation Steps

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

To complete the RMS forms application install, the installer provided new versions of `formsweb.cfg` and the newly-created env files for the new RMS installation. The env files

should be copied from the master node to the remote node(s). The entries added to formsweb.cfg for these new environments should be copied from the master node to the remote nodes.

Note: Do not copy the entire formsweb.cfg file from one node to another. Only copy the RMS entries appended to this file by the installer. There is node-specific information in this file that is different between ORACLE_HOME installations.

Oracle Configuration Manager

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

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

<https://support.oracle.com>

Oracle Configuration Manager Installer Guide (Doc ID: 1071030.1)

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

OCM Documentation Link

<http://www.oracle.com/technology/documentation/ocm.html>

RMS Reports Copied by the Application Installer

The application installer copies RMS report files to INSTALL_DIR/base/reports. These files should be installed into BI Publisher as documented in the RMS Reports chapter of this document.

Test the RMS Application

Oracle Retail provides test cases that allow you to smoke test your installation. Refer to the *Oracle Retail Merchandising Installation Test Cases* (Document ID) 1277131.1.1 on My Oracle Support.

Option 2: Compile ORFM Toolset and Forms Directly

Option 2 entails compiling ORFM forms directly, as described below.

Create Staging Directory for ORFM Application Files

To create a staging directory for ORFM application files, complete the following steps.

1. Log into the application server as a user with read and write access to the WebLogic files.
2. Create a staging directory for the ORFM application installation software. There should be a minimum of 110 MB disk space available in this location.
3. Copy the file `orfm1321apppatch.zip` from the ORFM 13.2.1 release to staging directory. This is referred to as `ORFM_APP_PATCH_DIR` when installing application software and reports.
4. Change directories to `ORFM_APP_PATCH_DIR` and extract the file `orfm1321apppatch.zip`.

Set Environment Variables

To set environment variables, complete the following steps.

Note:

`INSTALL_DIR` is the location where RMS 13 forms were installed.

`ORACLE_HOME` is the location where Oracle WebLogic (10.3.3) has been installed.

`ORACLE_INSTANCE` is the location where WebLogic has been installed and contains the executables to compile forms.

Make sure the following variables are set. The RMS 13.2 forms installer should have created a `forms.profile` file located at `INSTALL_DIR/base/forms.profile`. This profile script can be used to set all environment variables listed below.

Example:

```
cd <INSTALL_DIR>/base
./forms.profile
```

Variables set by `forms.profile` are as follows.

- All OS Platforms
 - `MMHOME=INSTALL_DIR/base`
 - `ORACLE_HOME=/path/to/WebLogic/as_1`
 - `ORACLE_INSTANCE=/path/to/WebLogic/asinst_1`
 - `ORACLE_SID= The Oracle Sid for the RMS database`
 - `UP=/@< Schema Owner Wallet Alias >`
 - `TNS_ADMIN=/path/to/wallet/files/dir/`
 - `NLS_LANG=AMERICAN_AMERICA.UTF8`
 - `DISPLAY=<IP address of X server>:0.0`
 - `PATH=$ORACLE_HOME/bin:$ORACLE_HOME/opmn/bin:$ORACLE_HOME/dcm/bin:INSTALL_DIR/base/forms_scripts:$PATH`
 - `CLASSPATH=$ORACLE_HOME/jlib/importer:$ORACLE_HOME/jlib/debugger.jar:$ORACLE_HOME/jlib/utj.jar:$ORACLE_HOME/jlib/ewt3.jar:$ORACLE_HOME/jlib/share.jar:$ORACLE_HOM`

- E/jlib/dfc.jar:\$ORACLE_HOME/jlib/help4.jar:\$ORACLE_HOME/jlib/oracle_ice.jar:\$ORACLE_HOME/jlib/jewt4.jar
- FORMS_BUILDER_CLASSPATH=\$CLASSPATH
 - FORMS_PATH=INSTALL_DIR/base/toolset/bin:INSTALL_DIR/rms/forms/bin:\$ORACLE_HOME/forms
 - TK_UNKNOWN=\$ORACLE_INSTANCE/config/FRComponent/frcommon/guicommon/tk/admin
 - PATH=\$ORACLE_INSTANCE/bin:\$PATH

Note: See [Appendix M: Setting Up Password Stores with Oracle Wallet](#) in this document.

Note: Verify that TNS is set up correctly by using the UP variable to successfully log in to the RMS 13 schema.

Example: /u00/oracle> sqlplus \$UP

- AIX
 - LD_LIBRARY_PATH=\$ORACLE_HOME/lib:\$ORACLE_HOME/lib32:\$ORACLE_HOME/jdk/jre/lib
 - LIBPATH=\$LD_LIBRARY_PATH
- Linux
 - LD_LIBRARY_PATH=\$ORACLE_HOME/lib:\$ORACLE_HOME/lib32:\$ORACLE_HOME/jdk/jre/lib

ORFM Forms Installation

Instructions for ORFM forms installation are as follows.

1. Copy the files from ORFM_APP_PATCH_DIR/app-patch /<version>/base/forms/src to INSTALL_DIR/base/forms/src. This step should be done with each version you want to apply in order of earliest to latest patch starting at 13.2.0 and ending with the 13.2.1 deltas.
2. Copy all libraries (.pll files) in the INSTALL_DIR/base/forms/src directory to the directories to the INSTALL_DIR/base/forms/bin directory.
3. Change directories to INSTALL_DIR/base/forms/bin.
4. Run forms.pll.sh to compile all RMS .pll's.
5. Check to make sure that each .pll file has a corresponding .plx (to ensure that all .pll's compiled successfully). Remove all newly created .plx files.
6. Copy all forms (*.fmb files) in the INSTALL_DIR/base/forms/src directory to the INSTALL_DIR/base/forms/bin directory.
7. Run forms.fm_fmb.sh (in INSTALL_DIR/base/rms/forms/bin) to compile the RMS reference forms.
8. Remove all newly created fm_*.fmx files (reference forms should not have executable files).
9. Run forms.fmb.sh (in INSTALL_DIR/base/rms/forms/bin) to generate RMS runtime forms – .fmx's.
10. Check to make sure that each non-reference form .fmb file has a corresponding .fmx file.

Note: Disregard the fm_*.fmx files that may be created. These files should be removed. They should not exist in the INSTALL_DIR/base/forms/bin directory.

11. Remove all non-reference form forms from INSTALL_DIR/base/forms/bin; the following syntax will leave all reference forms (fm_*.fmb) in the bin directory, while removing all other forms:

```
> for PROG in `ls *.fmb | grep -v fm_`
> do PROGNAME=`echo $PROG`
> rm $PROGNAME
> done
```
12. Copy all menus (*.mmb files) in the INSTALL_DIR/base/forms/src directory to the INSTALL_DIR/base/forms/bin directory.
13. Run menus.mmb.sh (in INSTALL_DIR/base/rms/forms/bin) to generate RMS runtime menus – .mmx’s.
14. Make sure that each .mmb file has a corresponding .mmx file.
15. Remove all .mmb files from INSTALL_DIR/base/forms/bin.

Note: .err files may be created by the compilation scripts above. These files are logs of the compilation process and can be removed.

Install Helpfile

To install the helpfile, complete the following steps.

1. Log into the WebLogic instance to which online help will be installed.
2. Create a server if necessary. In this example, rms-help-server is being used.
3. Select Deployments.
4. If there is an existing “rms-help” deployment, it must be deleted. Check the box next to “rms-help” and click Delete. On the next screen, click Yes. When finished deleting, bounce the rms-help-server.
5. Select Deployments.
6. Click Install.
7. Click in the Path: box and enter ORFM_APP_PATCH_DIR/app-patch/13.2.1/online-help/rms-help.ear, the ear file that will be deployed.
8. Leave Install this deployment as an application selected. Click Next.
9. Select the rms-help-server created in Step 2. Click Next.
10. Leave rms-help for the application name. Click Next.
11. Verify settings. Click Finish.

Reports Installation Tasks - Patch

ORFM Reports are included in the ORFM Application patch: orfm1321apppatch.zip in the reports directory.

Manually Copy Reports to Install Directory

If you followed “Option 1: Use RMS Application Installer to Patch” during the chapter “Application Installation Tasks - Patch” you can skip to the next section “Installing the RMS/ORFM BI Publisher Templates”. If you followed “Option 2: Compile ORFM Toolset and Forms Directly”, you must manually copy the reports to `INSTALL_DIR`. Copy the reports from the ORFM application patch `ORFM_APP_PATCH_DIR/app-patch/<version>/reports` to the reports directory created during RMS installation, `INSTALL_DIR/base/reports`. This step should be done with each version you want to apply in order of earliest to latest patch starting at 13.2.0 and ending with the 13.2.1 deltas.

Installing the RMS/ORFM BI Publisher Templates

In this section we will outline how the RMS/ORFM report templates are installed into the appropriate BI server repositories. `BI_REPOSITORY` refers to the BI Publisher reports repository. Example: `/u00/webadmin/RMS_BIP/xmlpserver/XMLP`

Report files are placed in the directory - "`INSTALL_DIR/base/reports`" and have to be copied into the BI repository directory.

1. Locate the RMS directory to hold the reports under `<BI_REPOSITORY>/Reports/Guest`.
Example `<BI_REPOSITORY>Reports/Guest/RMS13`
2. Change directory to the `INSTALL_DIR/base/reports` used for the application install. This directory contains subdirectories whose names reflect the names of report templates provided with RMS and ORFM.
3. Copy each report directory into the directory created above

For example,

```
cp -R * /u00/webadmin/RMS_BIP/xmlpserver/XMLP/Reports/Guest/RMS13/
```

Data Migration

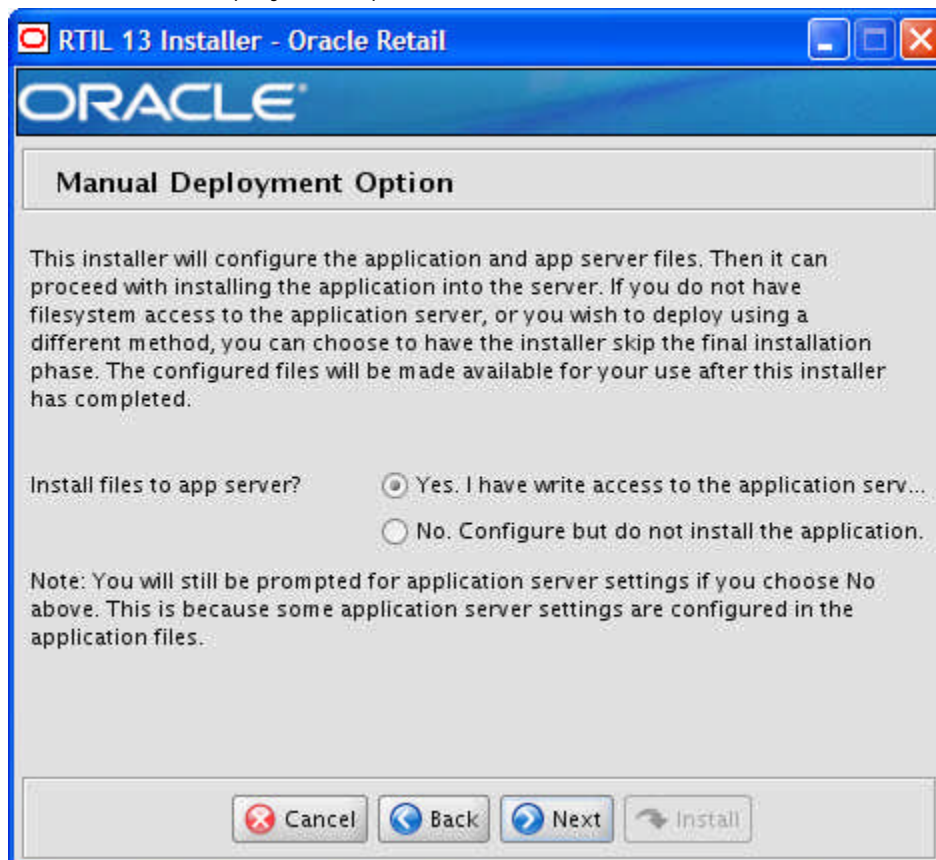
The ORFM 13.2.1 does not contain any updates to the tool responsible for upgrading preexisting data in the RMS schema after installing ORFM 13.2. If you already ran this Data Migration tool during or after the 13.2 release, you do not need to run it again.

If you have not run the Data Migration tool refer to the Data Migration chapter in the Oracle® Retail Fiscal Management and Brazil Localization Installation Guide.

Appendix: ORFM RTIL Installer Screens

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

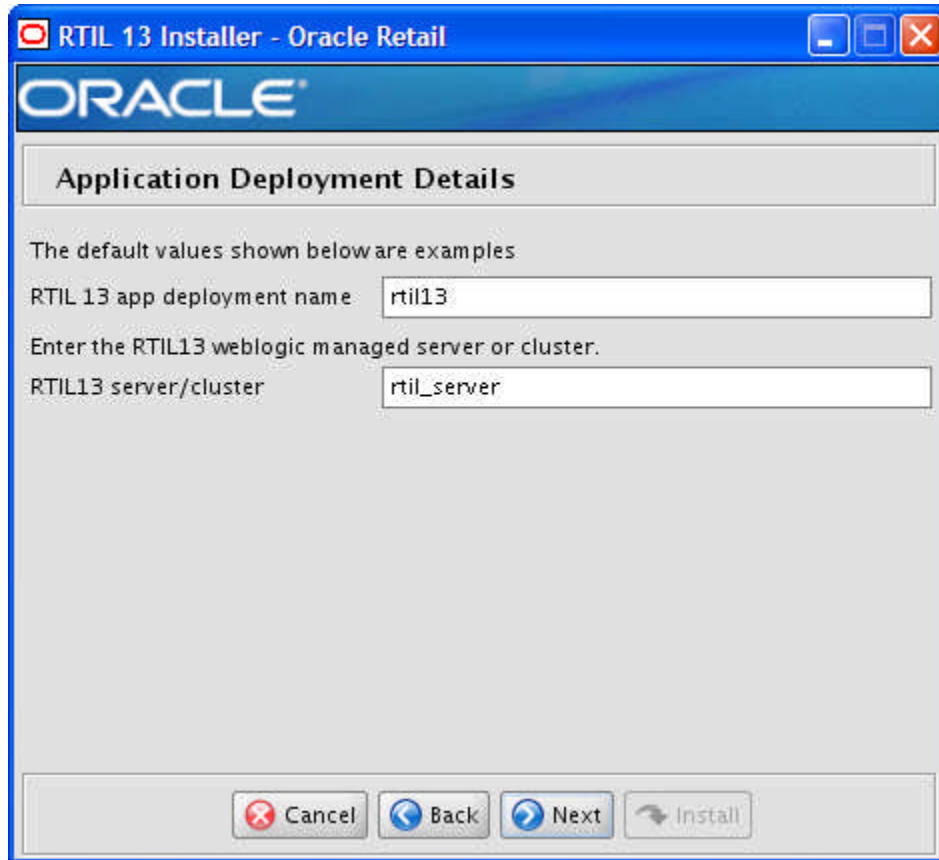
Screen: Manual Deployment Option



Fields on this Screen:

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

Screen: Application Deployment Details



Fields on this Screen:

Field Title	RTIL 13 app deployment name
Field Description	Name by which this RTIL application is identified in the application server
Example	rtil13

Field Title	RTIL 13 server/cluster
Field Description	Name of the RTIL WebLogic managed server or cluster.
Example	rtil-server

Screen: WebLogic Administrative User

RTIL 13 Installer - Oracle Retail

ORACLE

Weblogic Administrative User

Enter the administrative user and password for the Weblogic Server to which the application will be deployed.

Hostname: myhost82

Weblogic admin port: 7001

Weblogic admin user: weblogic

Weblogic admin password: ●●●●●

Buttons: Cancel, Back, Next, Install

Fields on this Screen:

Field Title	Hostname
Field Description	Hostname of the application server
Example	Mspdv360

Field Title	WebLogic admin port
Field Description	Port number of admin console
Example	17001

Field Title	WebLogic admin user
Field Description	User name of the admin user for the WebLogic instance to which the ORFM application is being deployed.
Example	weblogic

Field Title	WebLogic admin password
Field Description	Password for the WebLogic admin user. You chose this password when you created the WebLogic instance or when you started the instance for the first time.

Screen: Log 4j logger Details

RTIL 13 Installer - Oracle Retail

ORACLE

Log4j logger Details

Provide the details for the RTIL Log4j

Log4j Log Level: INFO

Output to STDOUT?:

Log4j logfile MaxFileSize (MB): 5

Log4j logfile MaxBackupIndex: 30

Buttons: Cancel, Back, Next, Install

Fields on this Screen:

Field Title	Log4j Log Level
Field Description	Specifies the level at which the logging is enabled.
Example	INFO

Field Title	Output to STDOUT
Field Description	Specifies whether the logs should be routed to the console.

Field Title	Log4j logfile MaxFileSize (MB)
Field Description	Specifies the file size threshold beyond which the log file gets rolled over.
Example	5

Field Title	Log4j logfile MaxBackupIndex
Field Description	Specifies the number of rolled over log files that will be retained.
Example	30

Screen: Tax-Service-Provider Details

RTIL 13 Installer - Oracle Retail

ORACLE

Tax-Service-Provider Details

Provide the details for the RTIL Tax-Service-Provider

Tax-Service-Provider Server: myhost82

Tax-Service-Provider port: 7001

Tax-Service-Provider context...: taxrulesruntime

Tax-Service-Provider porttype: TaxRulesAPI

Cancel Back Next Install

Fields on this Screen:

Field Title	Tax-Service-Provider Server
Field Description	Specifies the host server on which MasterSaf /Tax Service Provider is deployed.
Example	Mspdv360

Field Title	Tax-Service-Provider port
Field Description	Specifies the port number of managed Server (WebLogic) on which MasterSaf /Tax Service Provider application instance is deployed.
Example	17063

Field Title	Tax-Service-Provider context
Field Description	Specifies the application context root of the deployed MasterSaf/Tax Service Provider.
Example	taxrulesruntime

Field Title	Tax-Service-Provider porttype
Field Description	Specifies the port type of the deployed MasterSaf/Tax Service Provider.
Example	TaxRulesAPI

Screen: Summary

Summary of Installation	
App Name	rtil13
Weblogic Managed Server/Clus...	rtil_server
App Server Host	myhost82
Weblogic Admin Port	7001
Weblogic Admin User	weblogic
Log4j Log Level	INFO
Output to STDOUT?	true
Log4j logfile MaxFileSize (MB)	5
Log4j logfile MaxBackupIndex	30

All fields on this summary screen are read-only. In GUI mode of the installer, this screen provides the opportunity to review inputs and go back to previous screens to correct them if necessary.

Appendix: ORFM DB Patch Installer Screens

You need the following details about your environment for the installer to successfully patch the ORFM/RMS database schema.

Screen: ORFM Database Schema Details

Fields on this screen:

Field Title	ORFM/RMS schema
Field Description	Provide the RMS database user here. The installer logs into the database as this user to patch the RMS schema. This user must already exist in the database when the ORFM database schema patch installer is run.
Example	RMSUSER

Field Title	ORFM/RMS schema password
Field Description	Database password for the RMS schema Owner.
Field Title	ORFM/RMS Oracle SID
Field Description	Oracle system identifier for the database where the ORFM patch will be applied.
Example	mydb

The database settings provided are validated by the installer when you advance to the next screen.

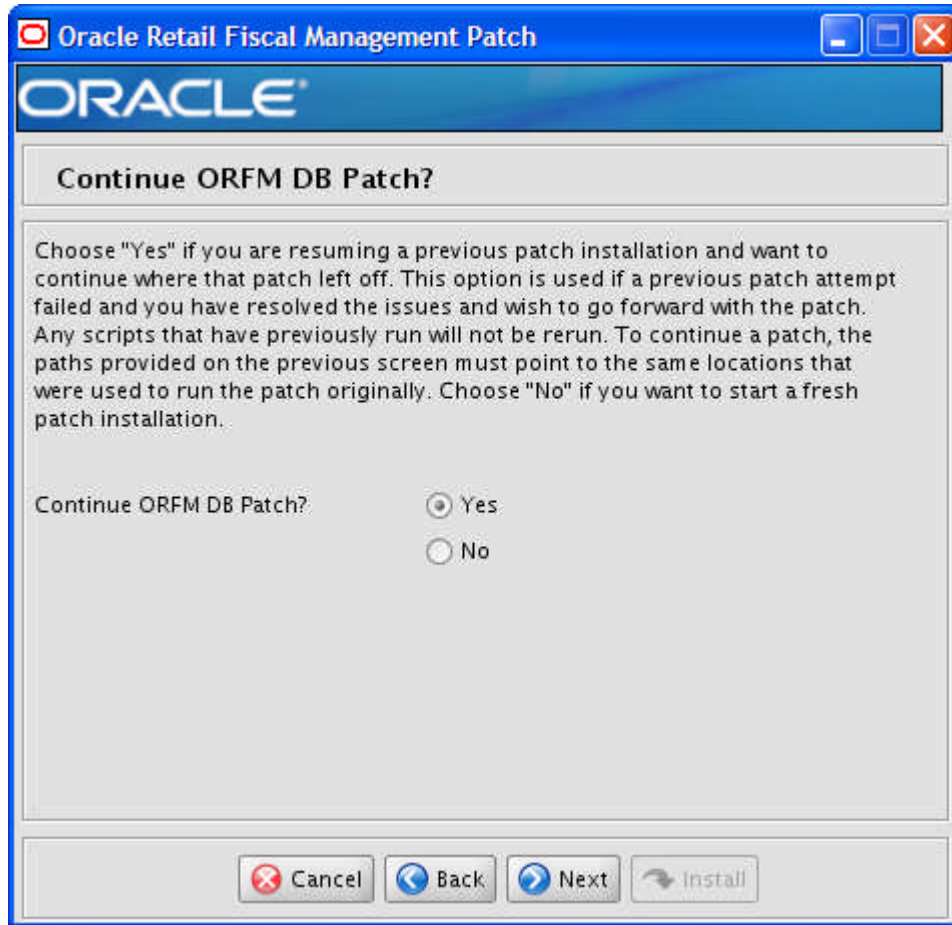
Screen: Apply an ORFM DB Patch



Fields on this Screen:

Field Title	ORFM Patch Directory
Field Description	Provide the directory path to the ORFM patch you want to install. The installer runs only the patch you provide. Note: The directory you choose must contain an orfm_controller.ksh file.
Example	/path/to/ orfm/dbschemapatch/orfm-dbpatch/13.2.1/orfm Note: The patch option is intended for patches starting with 13.2.1

Screen: Continue ORFM DB Patch



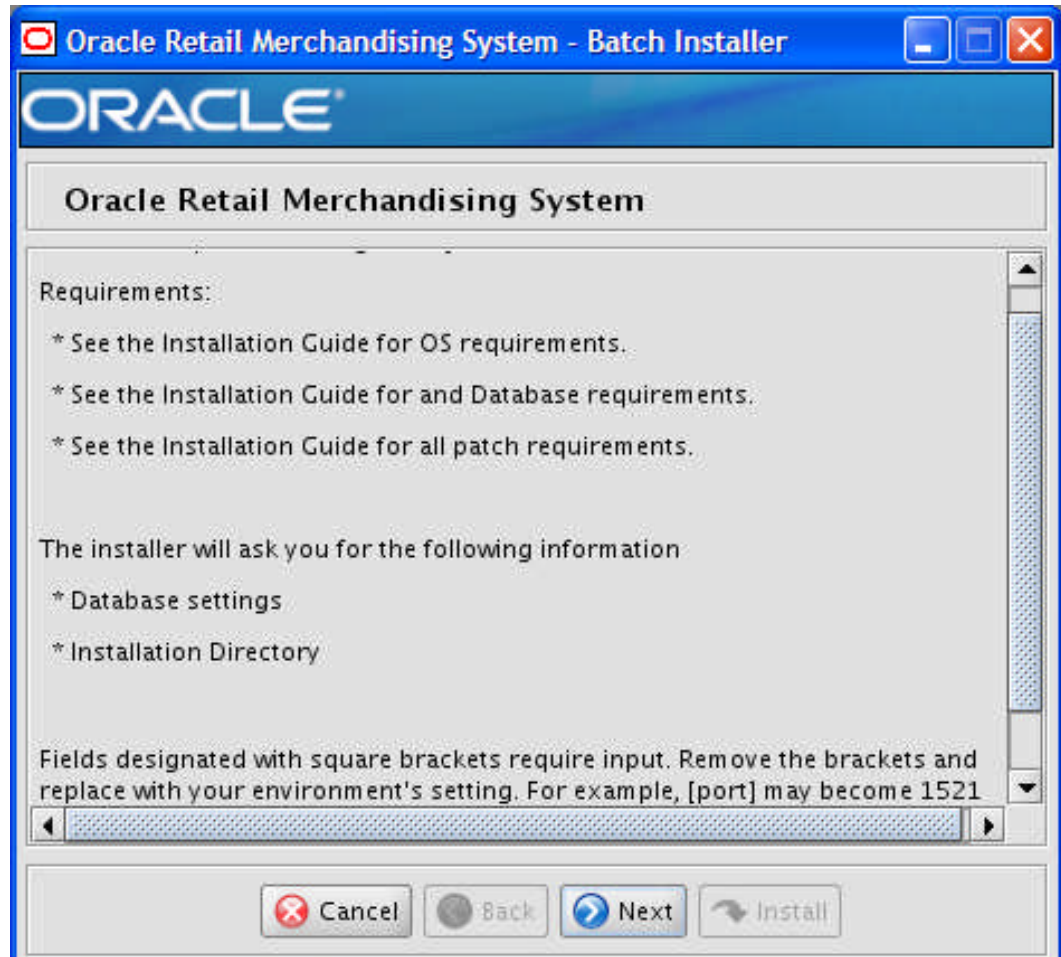
Fields on this Screen:

Field Title	Continue ORFM DB Patch?
Field Description	<p>The patch process allows you to continue a previously run patch if it stopped before completion or failed. If "Yes" is selected, any scripts that were previously run for the ORFM patch will be skipped. If "No" is selected, the patch will start from the beginning.</p> <p>Note: To continue a patch, the content of the "processed" directories in the ORFM Patch Directory chosen on the previous screen must be the same as it was after the previous patch was stopped. If you choose "No", this directory will be cleared, and you will not be able to continue this patch in the future.</p>

Appendix: RMS Batch Installer Screens

You need the following details about your environment for the installer to successfully compile and install the RMS batch programs. Depending on the options you select, you may not see some screens or fields.

Screen: Welcome



There are no fields on this screen. The Welcome screen contains information about the RMS Batch Installer and prerequisites.

Screen: DataSourceDetails

Fields on this Screen:

Field Title	RMS Schema Owner
Field Description	Provide the RMS database user here. The installer will log into the database as this user to create RMS library objects and query for data to generate batch source files. This user must already exist in the database and have the RMS tables installed.
Example	rms01

Field Title	RMS Schema Password
Field Description	Database password for the RMS Schema Owner.

Field Title	RMS Oracle SID
Field Description	Oracle system identifier for the database where RMS will be installed
Example	pkols05

Screen: Oracle Wallet

Oracle Wallet

An Oracle Wallet is an encrypted container used to store and retrieve sensitive information, such as user credentials. A new Wallet is created to contain passwords used by RMS. Every Wallet is itself protected by a password, and the field for this Wallet password must be filled out to move on to the next screen.

The password must have a minimum length of eight characters and contain alphabetic characters combined with numbers or special characters.

Oracle Wallet password

Please re-enter password

Cancel Back Next Install

Fields on this Screen:

Field Title	Oracle Wallet password
Field Description	This is the password for the wallet that will store the database credentials that were supplied in the previous screen.

Screen: Batch Installation Directory

Oracle Retail Merchandising System - Batch Installer

ORACLE®

Batch Installation Directory

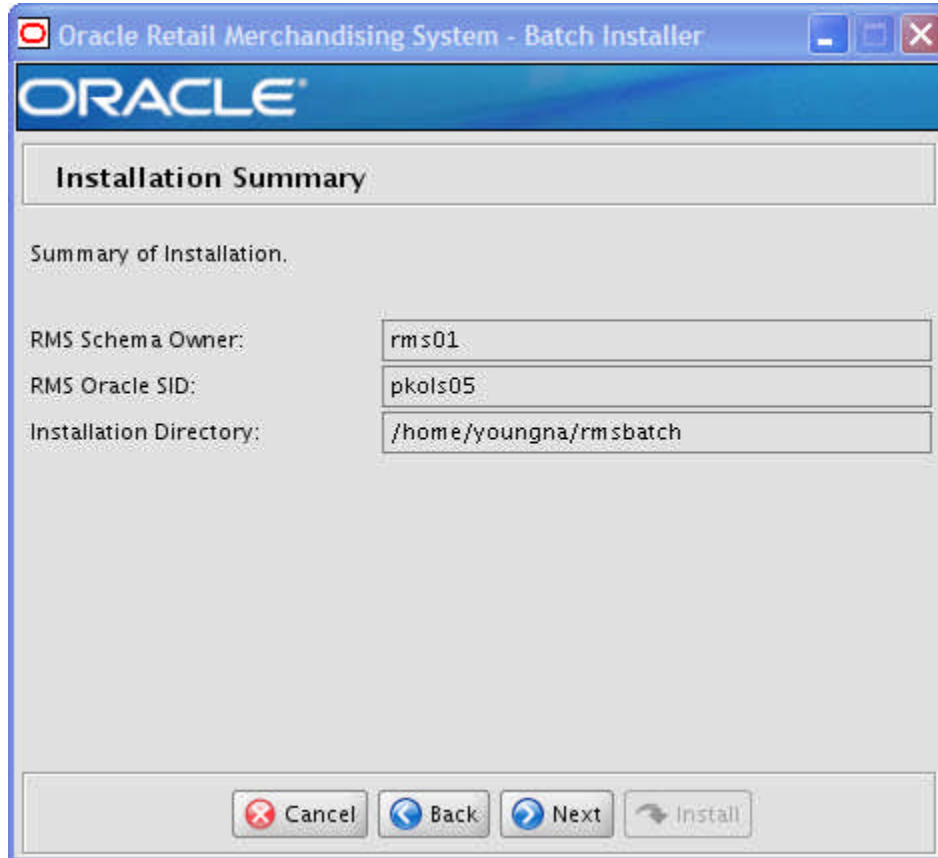
Please enter the directory where RMS Batch will be installed.

Batch Installation Directory

Fields on this Screen:

Field Title	Batch Installation Directory
Field Description	Location where the installer will install the batch source and then compile it. This is the permanent location for the RMS batch programs.
Example	/opt/oracle/retail/rmsbatch

Screen: Summary



All of the fields on this summary screen are read-only. In GUI mode of the installer, this screen provides the opportunity to review inputs and go back to previous screens to correct them if necessary.

Once you advance forward from this screen, the installer connects to the database and validate that the RMS user exists before beginning installation.

Appendix: RMS Application Installer Screens

Screen: Welcome



There are no fields on this screen. The Welcome screen contains information about the RMS Application Installer and prerequisites.

Screen: Oracle Customer Information

For information about this screen, see the "Oracle Configuration Manager" section in the *Oracle Configuration Manager Installer Guide*.

Screen: Data Source Details

Fields on this Screen:

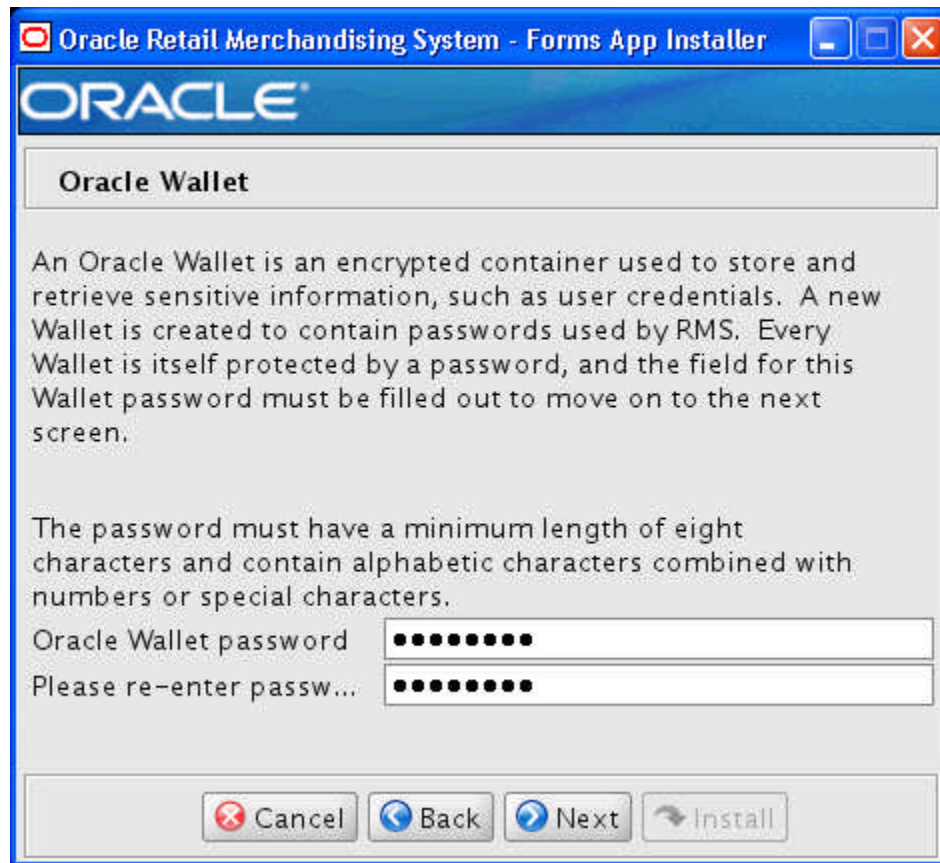
Field Title	RMS Schema Owner
Field Description	This is the same username that was used during the RMS Database Schema Installer.
Example	rms01

Field Title	RMS Schema Password
Field Description	This is the same password that was used during the RMS Database Schema Installer.

Field Title	RMS Oracle SID
Field Description	This is the same Oracle SID that was used during the RMS Database Schema Installer.
Example	pkols05

Field Title	Test Data Source?
Field Description	Attempt to validate the Data Source Details on this screen. This will happen when you click "Next" Note: If you get any errors not related to incorrectly entered credentials, please refer to Appendix: Common Installation Errors.

Screen: Oracle Wallet



Fields on this Screen:

Field Title	Oracle Wallet password
Field Description	This is the password for the wallet that will store the database credentials that were supplied in the previous screen.

Screen: Installation Name

Installation Name

Please enter the Installation Name. The Installation Name is a unique name that will be used to identify this installation of RMS. This name will be included in the RMS Application URLs and reported by the Oracle Configuration Manager.

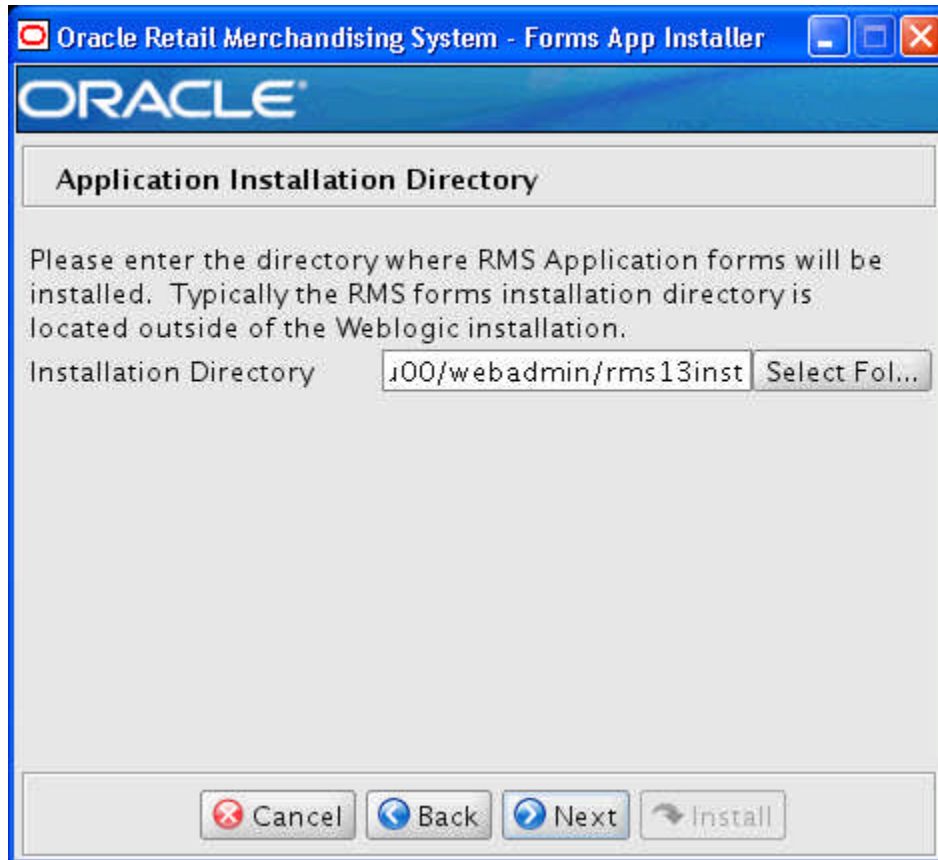
Installation Name

Cancel Back Next Install

Fields on this Screen:

Field Title	Installation Name
Field Description	This value is used in conjunction the Oracle Configuration Manager (OCM). It gives the installation a unique name so the OCM can identify different installations of RMS in the same WebLogic instance.
Example	rms13inst

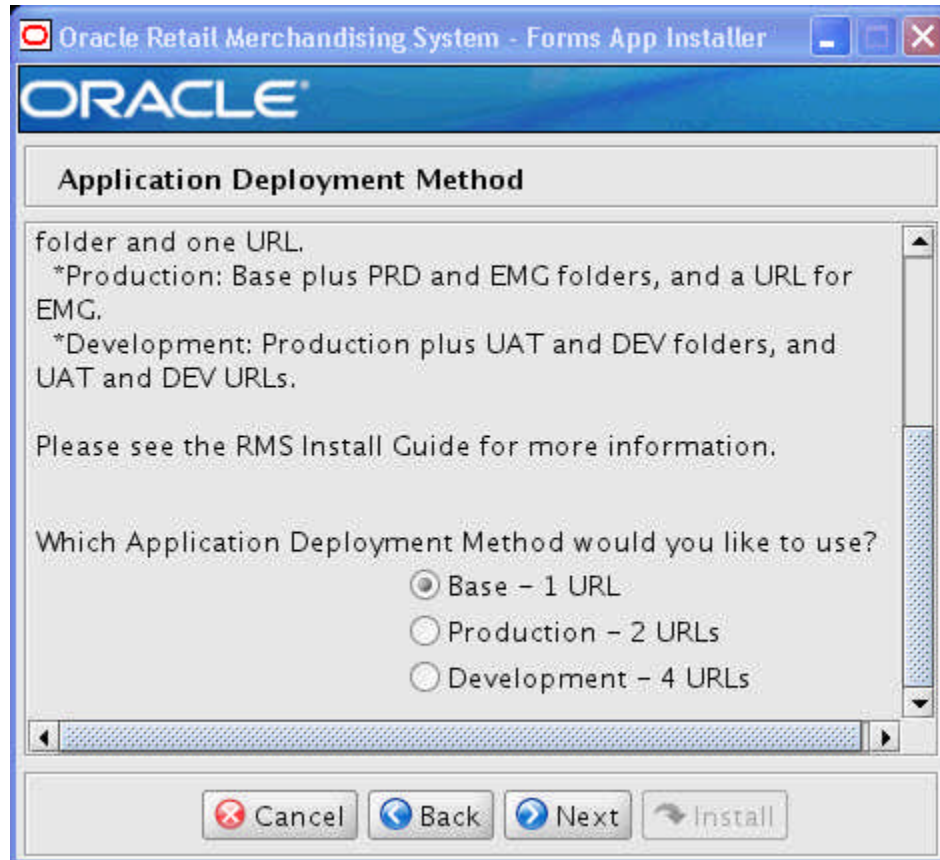
Screen: Application Installation Directory



Fields on this Screen:

Field Title	Application Installation Directory
Field Description	The location where the RMS Application (toolset, forms and reports) will be installed. The RMS \$MMHOME path will be a subdirectory of this directory, named base.
Example	/u01/oracle/retail

Screen: Application Deployment Method



Fields on this Screen:

Field Title	Which Environment Deployment Method would you like to use
Field Description	Select the Application Deployment Method you would like. See Appendix: Application Deployment Method for more information.
Example	Base

Screen: WebLogic Configuration



Fields on this Screen:

Field Title	Configure WebLogic
Field Description	<p>Make the necessary configurations to the WebLogic server to be able to run RMS forms. If you choose no, these configurations should be done manually.</p> <p>Note: If you rerun the installer, and choose to check the box in the installer screens "Configure WebLogic", you may need to cleanup duplicate entries in the WebLogic formsweb.cfg file.</p>

Screen: Weblogic Administrative Details

Oracle Retail Merchandising System - Forms App Installer

ORACLE

Weblogic Administrative Details

Enter the administrative user and password for the Weblogic Server to which the application will be deployed.

Hostname: mspdv161

Weblogic Admin port: 7001

Weblogic Admin User: weblogic

Weblogic Admin Password: ●●●●●●●●

Cancel Back Next Install

Fields on this Screen:

Field Title	WebLogic Admin User
Field Description	Username of the admin user for WebLogic instance to which the RMS Webhelp application is being deployed.
Example	weblogic

Field Title	WebLogic Admin Password
Field Description	Password for the WebLogic admin user. You chose this password when you created the WebLogic instance.

Screen: Webhelp Installation Details



Fields on this Screen:

Field Title	WebLogic Help Server
Field Description	The WebLogic managed server that was created for the RMS Webhelp application.
Example	rms_help_instance

Screen: Summary

The screenshot shows a window titled "Oracle Retail Merchandising System - Forms App Installer". The window contains the Oracle logo at the top, followed by the heading "Installation Summary". Below this is a section titled "Summary of Installation." which lists various configuration parameters in a table-like format. At the bottom of the window are four buttons: "Cancel", "Back", "Next", and "Install".

RMS Schema Owner:	rms01
RMS Database:	pkols05
Installation Name:	rms13inst
Installation Directory:	/u00/webadmin/rms13inst
Deployment Method:	Base
Configure Weblogic:	true
Hostname:	mspd161
Weblogic Admin port:	7001
Weblogic Admin User:	weblogic
RMS Help Server:	rms_help_instance

All of the fields on this summary screen are read-only. In GUI mode of the installer, this screen provides the opportunity to review inputs and go back to previous screens to correct them if necessary.

Once you advance forward from this screen, the installer connects to the database and validates that the RMS user exists before beginning installation.

Appendix: Installer Silent Mode

Repeating an Installation Attempt

In addition to the GUI and text interfaces of the RMS 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. Look for duplicate properties in the `ant.install.properties` file. Some properties are set on multiple pages to ensure default values when a page is only displayed under certain conditions. For example, if there are two instances of `input.property.name`, remove all but the last one.
3. Run the installer again with the silent argument.

Example: `install.sh silent`

Appendix: URL Reference

JDBC URL for a Database

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

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

<sid>: system identifier for the database

Example: jdbc:oracle:oci:@mysid

Thin Client Syntax: jdbc:oracle:thin:@<host>:<port>:<sid>

<host>: hostname of the database server

<port>: database listener port

<sid>: system identifier for the database

Example: jdbc:oracle:thin:@myhost:1521:mysid

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

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.

OracleAS :

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/rsm13

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

WebSphere:

Syntax: iiop://<host>:<port>

<host>: hostname of the WebSphere environment

<port>: BOOTSTRAP port of the WebSphere server that is running the application.

Example: iiop://myhost:2809

Appendix: Common Installation Errors

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

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 JRE or JDK. Set JAVA_HOME to a Java runtime environment of version 1.5 or later and run the installer again.

"Could not create system preferences directory" Warning

Symptom:

The following text appears in the installer Errors tab:

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

Solution:

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

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

"Couldn't find X Input Context" Warnings

Symptom:

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

```
Couldn't find X Input Context
```

Solution:

This message is harmless and can be ignored.

Unresponsive Country and Currency Drop-Downs

Symptom:

In GUI mode, when you click on the drop-down list selection for the primary country or currency, the list does not appear, and this message appears in the console window:

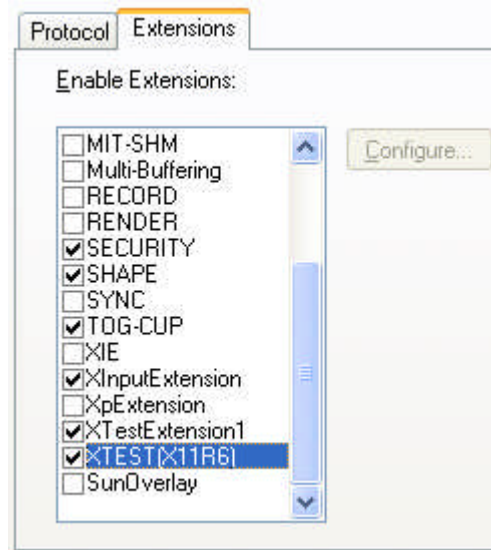
```
XTEST extension not installed on this X server: Error 0
```

Solution:

To run the RMS installer in GUI mode you must have the XTEST extension enabled in your X server.

Enabling XTEST in Exceed:

1. Open Xconfig to edit Exceed configuration
2. Go to the X Server Protocol settings
3. Click on the Extensions tab
4. Make sure that the XTEST extension is selected:



5. Restart the X Server and re-run the RMS installer.

Could not exec1 robot child process: Permission denied

Symptom:

When opening a drop-down list in GUI mode of the RMS installer, the installer freezes up and displays the following message in the console:

```
Couldn't exec1 robot child process: Permission denied
```

Solution:

As the owner of the database ORACLE_HOME (i.e. *oracle*), grant execute permissions to the *awt_robot** files under *\$ORACLE_HOME/jdk/jre/lib*. The database schema installer uses *\$ORACLE_HOME/jdk* for its *JAVA_HOME*.

Example (using SUN Solaris):

```
chmod a+x $ORACLE_HOME/jdk/jre/lib/sparc/awt_robot
chmod a+x $ORACLE_HOME/jdk/jre/lib/sparcv9/awt_robot
```

ConcurrentModificationException in Installer GUI

Symptom:

In GUI mode, the errors tab shows the following error:

```
java.util.ConcurrentModificationException
    at
java.util.AbstractList$Itr.checkForComodification(AbstractList.java:448)
    at java.util.AbstractList$Itr.next(AbstractList.java:419)
... etc
```

Solution:

You can ignore this error. It is related to third-party Java Swing code for rendering of the installer GUI and does not affect the retail product installation.

FRM-30064: Unable to parse statement select while compiling fm_ituda.fmb

Symptom:

When running the application installer you get the following error:

```
FRM-30064: Unable to parse statement select vu.uda_desc, vu.uda_id from v_uda vu
where get_primary_lang = get_user_lang and vu.display_type = 'LV' union all
select nvl(t.translated_value, vu.uda_desc), vu.uda_id from tl_shadow t, v_uda
vu where get_primary_lang != get_user_lang and upper(vu.uda_desc) = t.key(+) and
get_user_lang = t.lang(+) and vu.display_type = 'LV' order by 1.
ORA-28112: failed to execute policy function
Record Group RG_UDA_LOV
Form: FM_ITUDALST
```

```
FRM-30085: Unable to adjust form for output.
```

```
Form not created
```

Solution:

Disable the database filter policies by running drop_filter_policy.sql, run the application installer again and then run add_filter_policy.sql. Both files can be located with the database installer.

ORA-04031 (unable to allocate memory) error during database schema installation

Symptom:

When running the database schema installer you get the following error one or more times:

```
[ora:sqlplus] alter package
[ora:sqlplus] *
[ora:sqlplus] ERROR at line 1:
[ora:sqlplus] ORA-04031: unable to allocate 92120 bytes of shared memory ("shared
[ora:sqlplus] pool", "unknown object", "PL/SQL MPCODE", "BAMIMA: Bam Buffer")
```

Solution:

There was not enough available memory in the shared pool on the database at the time of compilation. There are several choices to get past this error:

- Log into the database and attempt to recompile invalid objects in the database schema. Subsequent attempts to compile the same object(s) can be successful.
- Have a DBA increase the shared pool size on the database and re-run the installer from scratch on a new schema user.

X Error of failed request: BadWindow (invalid Window parameter)

Symptom:

When compiling forms during the application installation you receive this error one or more times:

```
X Error of failed request: BadWindow (invalid Window parameter)
Major opcode of failed request: 18 (X_ChangeProperty)
Resource id in failed request: 0x1800002
Serial number of failed request: 432
Current serial number in output stream: 437
```

Solution:

This error occurs when there are too many requests made to the X server. If this error occurs manually recompile the form.

Example:

```
frmcomp.sh userid=$SUP module_type=form module=FORM_OR_MENU
```

RIB Errors

At random times, the RIB will get certain errors such as GETNEXT(?,?,?,?,?) and/or ORA-21700 object does not exist or is marked for delete. This is very confusing because you may research and find that the object exists and is valid.

You must re-initialize the reference to reference an existing object. You do this by:

1. Bringing down the RIB OAS in question
2. Running `/RIB_INSTALL_DIR>/InstallAndCompileAllRibOracleObjects.sql`
3. Running another object validate script (ex: `inv_obj_comp.sql`) to make sure objects are valid (some may have deallocated in the end of the previous step).
4. Bringing up the RIB OAS in question

“Error Connecting to Database URL”

Symptom:

After entering database credentials in the installer screens and hitting next, a message pops up with an error like this:

```
Error connecting to database URL <url> as user <user>
details...
```

The message prevents you from moving on to the next screen to continue the installation.

Solution:

This error occurs when the installer fails to validate the user credentials you have entered on the screen. Make sure that you have entered the credentials properly. If you receive a message similar to this:

```
Error connecting to database URL <url> as user <user>
java.lang.Exception: UnsatisfiedLinkError encountered when using the Oracle
driver.
```

Please check that the library path is set up properly or switch to the JDBC thin client.

It may mean that the installer is using the incorrect library path variables for the platform you are installing on. Open the file

```
<STAGING_DIR>/rms/dbschema/common/preinstall.sh and toggle the variable
“use32bit” to “true” if it is set to “false” or vice versa. This setting is dependant on the
JRE that is being used.
```


Multi-Threaded OCI Client Dumps Core after Reconnecting To Database

Symptom

If a multi-threaded Oracle client process that uses OCI to connect to a remote database loses connectivity with the database, it tries to reconnect and the client program continues to run. The program then dumps the core with the following stack trace, when Automatic Diagnostic Repository (ADR) is enabled.

```
skgfgio sdbgrfbibf_io_block_file dbgrfrbf_read_block_file dbgrmflrp_read_page
dbgrmblgmp_get_many_pages dbgrmmdrrmd_read_relation_meta_data
dbgrmmdora_open_record_access_full
dbgriporc_openrel_wcreate dbgrip_open_relation_access dbgrip_start_iterator
dbgrip_relation_iterator dbgruprac_read_adrctl...
```

Solution

Oracle Retail recommended you disable ADR (`diag_adr_enabled=OFF`, a `sqlnet.ora` parameter) while using multi-threaded OCI/OCCI application. `diag_adr_enabled` was introduced in Oracle 11g as a new method of tracing ADR. This will dump additional trace details.

Disabling '`diag_adr_enabled`' does not disturb any functionality. Therefore, it can safely be unset by doing `diag_adr_enabled=off` in `sqlnet.ora`. However, if you still want tracing, you can have following parameters/variables set in `sqlnet.ora`:

```
trace_level_server=16 -- for server side NET tracing
trace_level_client=16 -- for client side NET tracing
```

For how to set traditional tracing, see the My Oracle Support document, "SQL*Net, Net8, Oracle Net Services - Tracing and Logging at a Glance" (ID 219968.1).

Forms Installer Fails on HP-UX

Symptom

Errors occur during Forms installer screens when run on HP-UX. When you click "Next" on the installer screen "Data Source Details" you get an error message on the screen saying "'no ocjdbc11 in java.library.path" that prevents you from moving to the next screen.

Solution

This error message can be ignored. Verify that the data source details you entered are correct, and uncheck the box labeled Test Data Source? The installer screens will not attempt to validate the data source when you click Next. The installer will attempt to validate once again when installation starts, and the installer will fail if the credentials are incorrect.

ORFM DB Installer Fails on s11071552_extax_help_gtt_l10n_br.sql after applying hotfix 11071552.

Symptom

When running the ORFM 13.2.1 database patch, it fails on the file s11071552_extax_help_gtt_l10n_br.sql:

```
[exec] Executing file s11071552_extax_help_gtt_l10n_br.sql
[exec] ORA Error while executing s11071552_extax_help_gtt_l10n_br.sql
[delete] Deleting directory
/home/waschwar/RFM13.2.1/orfm/dbschemapatch/dblogs/.wallet
```

BUILD FAILED

```
/home/waschwar/RFM13.2.1/orfm/dbschemapatch/build.xml:385: The following error
occurred while executing this line:
/home/waschwar/RFM13.2.1/orfm/dbschemapatch/build.xml:236: The following error
occurred while executing this line:
/home/waschwar/RFM13.2.1/orfm/dbschemapatch/build.xml:175:
/home/waschwar/RFM13.2.1/orfm/dbschemapatch/orfm-
dbpatch/13.2.1/orfm/orfm_controller.ksh has failed. Check error logs in
/home/waschwar/RFM13.2.1/orfm/dbschemapatch/orfm-dbpatch/13.2.1/orfm/error/ for
more details
```

If you look in the file s11071552_extax_help_gtt_l10n_br.err, it reports this error message:

```
Altering table EXTAX_HELP_GTT_L10N_BR
ALTER TABLE EXTAX_HELP_GTT_L10N_BR ADD PACK_NO VARCHAR2(25)
*
```

```
ERROR at line 1:
ORA-01430: column being added already exists in table
```

Solution

This error occurs when running the ORFM 13.2.1 database schema patch after applying the required hotfix 11071552. This will fail because dbc's are not rerunable, and this hotfix contains dbcs that are called by the 13.2.1 patch. To resolve this issue, you must edit the DBC.dat file for ORFM 13.2.1 so that the dbcs contained in the hotfix 11071552 do not run during 13.2.1 installation.

1. Change directories to DB_PATCH_DIR/orfm/dbschemapatch/orfm-dbpatch/13.2.1/orfm/files.
2. Make a backup of the DBC.dat file:


```
$ cp DBC.dat DBC.dat_ORIG
```
3. Open up DBC.dat in a text editor and remove the lines beginning in s11071552 or s11071552a:

```
s11071552_extax_help_gtt_l10n_br.sql
s11071552_extax_res_retail_det_l10n_br.sql
s11071552_extax_res_retail_l10n_br.sql
s11071552_extax_stg_retail_l10n_br.sql
s11071552a_extax_stg_retail_l10n_br.sql
s11071552_extax_res_cost_l10n_br.sql
s11071552_extax_res_cost_det_l10n_br.sql
s11071552_extax_stg_cost_l10n_br.sql
s11071552a_extax_stg_cost_l10n_br.sql
s11802380_fm_ap_stage_detail_hist.sql
s11802380_fm_ap_stage_head_hist.sql
s11802380_fm_fiscal_doc_complement_hist.sql
s11802380_fm_schedule_hist.sql
```

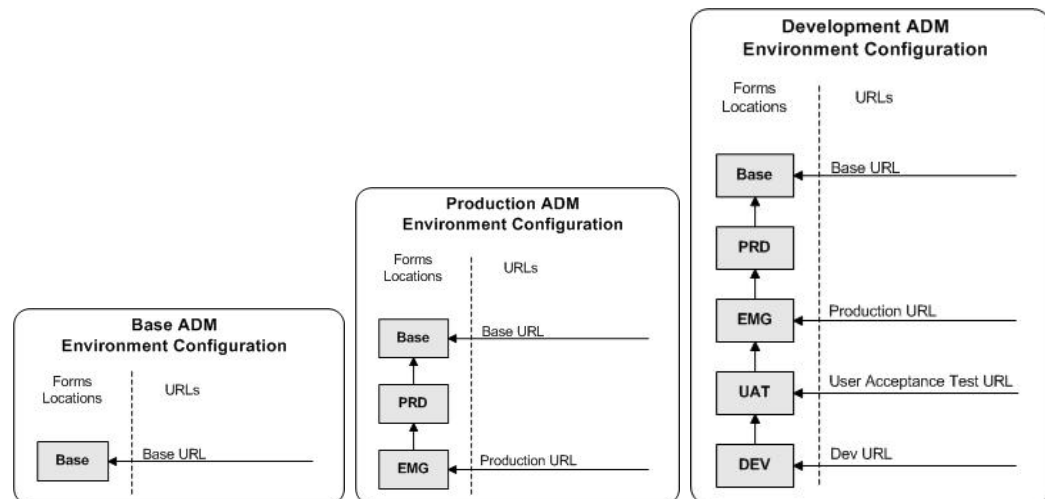
4. DBC.dat should now look like this:
s11802380_fm_ap_stage_detail_hist.sql
s11802380_fm_ap_stage_head_hist.sql
s11802380_fm_fiscal_doc_complement_hist.sql
s11802380_fm_schedule_hist.sql
5. Save and exit. The installation can be rerun after this is done. You should choose to continue the previous install when rerunning the installer.

Appendix: Application Deployment Method

The RMS installer provides the option to configure multiple application deployment methods. This is a setup where there is still a single primary RMS installation, but there are additional levels where customization can occur. This means multiple URLs configured in formsweb.cfg with cascading FORMS_PATH values.

The installer provides three choices for cascading environment configuration:

- Base: A standard RMS base installation with one application installation folder, and one URL.
- Production: Base plus two additional forms directories for PRD and EMG and an additional URL for EMG.
- Development: Production plus two additional forms directories for UAT and DEV and two additional URLs for UAT and DEV.



The above diagrams show how the application deployment method environment configurations are set up in the forms installation.

The installer creates the set of URLs, and empty directories for the other environments. All forms installed by this installer are placed in the “Base” environment. We are simply laying down the structure for customizations and fixes that the user can make after installation is complete.

Appendix: Single Sign-On Resource Access Descriptors

Oracle Forms applications such as RMS use database connections for authentication and authorization purposes. Oracle Single Sign-On, however, uses the Oracle Internet Directory (OID) user ID and password for this purpose. The Forms framework maps OID user IDs to database connections via information stored in Resource Access Descriptors (RADs). A user will have one RAD for each application accessed. RADs may be created by an administrator or by an LDIF script. Depending on the Oracle Internet Directory and/or the formsweb.cfg configuration, RADs may also be created by the user.

A user is prompted for the database connection information whenever formsweb.cfg file specifies ssoMode = true and createDynamicResources = true for an application and no valid RAD exists. RADs may become invalid when passwords have expired or have been changed.

RADs may be created by administrators or users via the Delegated Administration Services application.

Note: Users can create new RADs only if one or more RADs already exist.

RADs may be created and via LDIF scripts as well. See My Oracle Support document 244526.1.

Appendix: RMS RETL Instructions

This Appendix summarizes the RETL program features utilized in the RMS Extractions (RMS ETL). More information about the RETL tool is available in the latest RETL Programmer's Guide. More information about RMS ETL is available in the RMS ETL operations guide.

Configuration

RETL

Before trying to configure and run RMS ETL, install RETL version 10.3 or later which is required to run RMS ETL. Run the "verify_retl" script (included as part of the RETL installation) to ensure that RETL is working properly before proceeding.

RETL User and Permissions

RMS ETL should be installed and run as the RETL user. Additionally, the permissions should be set up as per the RETL Programmer's Guide. RMS ETL reads data, creates, deletes and updates tables. (This is to ensure that weekly sales data is not pulled multiple times on subsequent extractions.) If these permissions are not set up properly, extractions will fail.

Environment variables

In addition to the RETL environment variables (please see the Programmer's Guide for version of RETL), you need to set MMHOME to the base directory for RMS ETL. This is the top level directory that selected during the RMS Batch installation process. So in .kshrc you should add a line like the following:

```
export MMHOME=<base directory for RMS ETL>
```

rmse_config.env

There are a couple variables that will need to change depending upon local settings:

```
export DENAME=int9i
export RMS_OWNER=RMS13DEV
export BA_OWNER=rmsint1012
```

Also, you will need to set the environment variable PASSWORD in either the rmse_config.env, .kshrc or some other location that can be included via one of those two means. For example, adding this line to the rmse_config.env will cause the password "bogus" to be used to log into the database: `export PASSWORD=pass1`

Appendix: Setting Up Password Stores with Oracle Wallet

As part of an application installation, administrators must set up password stores for database user accounts using Oracle Wallet. These password stores must be installed on the application database side. While the installer handles much of this process, the administrators must perform some additional steps.

A password store for the application and application server user accounts must also be installed; however, the installer takes care of this entire process.

About Password Stores and Oracle Wallet

Oracle databases have allowed other users on the server to see passwords in case database connect strings (username/password@db) were passed to programs. In the past, users could navigate to `ps -ef | grep <username>` to see the password if the password was supplied in the command line when calling a program.

To make passwords more secure, Oracle Retail has implemented the Oracle Software Security Assurance (OSSA) program. Sensitive information such as user credentials now must be encrypted and stored in a secure location. This location is called password stores or wallets. These password stores are secure software containers that store the encrypted user credentials.

Users can retrieve the credentials using aliases that were set up when encrypting and storing the user credentials in the password store. For example, if `username/password@db` is entered in the command line argument and the alias is called `db_username`, then the argument to a program would be the following:

```
sqlplus /@db_username
```

This would connect to the database as it did previously, but it would hide the password from any system user.

After this is configured, as in the example above, the application installation and the other relevant scripts are no longer needed to use embedded usernames and passwords. This reduces any security risks that may exist because usernames and passwords are no longer exposed.

When the installation starts, all the necessary user credentials are retrieved from the Oracle Wallet based on the alias name associated with the user credentials.

There are two different types of password stores or wallets. One type is for database connect strings used in program arguments (such as `sqlplus /@db_username`). The other type is for Java application installation and application use.

Setting Up Password Stores for Database User Accounts

After the database is installed and the default database user accounts are set up, administrators must set up a password store using the Oracle wallet. This involves assigning an alias for the username and associated password for each database user account. The alias is used later during the application installation. This password store must be created on the system where the application server and database client are installed.

This section describes the steps you must take to set up a wallet and the aliases for the database user accounts. For more information on configuring authentication and password stores, see the *Oracle Database Security Guide*.

Note: In this section, <wallet_location> is a placeholder text for illustration purposes. Before running the command, ensure that you specify the path to the location where you want to create and store the wallet.

To set up a password store for the database user accounts, perform the following steps:

Create a wallet using the following command:

```
kstore -wrl <wallet_location> -create
```

After you run the command, enter a password for the Oracle Wallet in the prompt.

Note: The `mkstore` utility is included in the Oracle Database Client installation.

The wallet is created with the auto-login feature enabled. This feature enables the database client to access the wallet contents without using the password. For more information, refer to the *Oracle Database Advanced Security Administrator's Guide*.

1. Create the database connection credentials in the wallet using the following command:

```
mkstore -wrl <wallet_location> -createCredential <alias-name> <database-user-name>
```

After you run the command, a prompt appears. Enter the password associated with the database user account in the prompt.

2. Repeat step 2 for all the database user accounts.
3. Update the `sqlnet.ora` file to include the following statements:

```
WALLET_LOCATION = (SOURCE = (METHOD = FILE) (METHOD_DATA = (DIRECTORY = <wallet_location>)))
SQLNET.WALLET_OVERRIDE = TRUE
SSL_CLIENT_AUTHENTICATION = FALSE
```

4. Update the `tnsnames.ora` file to include the following entry for each alias name to be set up.

```
<alias-name> =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP) (HOST = <host>) (PORT = <port>))
    )
    (CONNECT_DATA =
      (SERVICE_NAME = <service>)
    )
  )
```

In the previous example, <alias-name>, <host>, <port>, and <service> are placeholder text for illustration purposes. Ensure that you replace these with the relevant values.

Setting Up Wallets for Database User Accounts

The following examples show how to set up wallets for database user accounts for the following applications:

- For RMS, RWMS, RPM Batch, RETL, RMS, RWMS, and ARI
- For Java Applications (SIM, ReIM, RPM, Alloc, RIB, RSL, AIP, RETL)

For RMS, RWMS, RPM Batch, RETL, RMS, RWMS, and ARI

1. Create a new directory called wallet under your folder structure.

```
cd /projects/rms13.2/dev/  
mkdir .wallet
```

Note: The default permissions of the wallet allow only the owner to use it, ensuring the connection information is protected. If you want other users to be able to use the connection, you must adjust permissions appropriately to ensure only authorized users have access to the wallet.

2. Create a sqlnet.ora in the wallet directory with the following content.

```
WALLET_LOCATION = (SOURCE = (METHOD = FILE) (METHOD_DATA =  
(DIRECTORY = /projects/rms13.2/dev/.wallet)) )  
SQLNET.WALLET_OVERRIDE=TRUE  
SSL_CLIENT_AUTHENTICATION=FALSE
```

Note: WALLET_LOCATION must be on line 1 in the file.

3. Setup a tnsnames.ora in the wallet directory. This tnsnames.ora includes the standard tnsnames.ora file. Then, add two custom tns_alias entries that are only for use with the wallet. For example, sqlplus /@dvols29_rms01user.

```
ifile = /u00/oracle/product/11.2.0.1/network/admin/tnsnames.ora
```

```
dvols29_rms01user =  
(DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = tcp)  
(host = mspdv311.us.oracle.com) (Port = 1521)))  
(CONNECT_DATA = (SID = dvols29) (GLOBAL_NAME = dvols29)))
```

```
dvols29_rms01user.world =  
(DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = tcp)  
(host = mspdv311.us.oracle.com) (Port = 1521)))  
(CONNECT_DATA = (SID = dvols29) (GLOBAL_NAME = dvols29)))
```

Note: It is important to not just copy the tnsnames.ora file because it can quickly become out of date. The ifile clause (shown above) is key.

4. Create the wallet files. These are empty initially.

- a. Ensure you are in the intended location.

```
$ pwd  
/projects/rms13.2/dev/.wallet
```

- b. Create the wallet files.

```
$ mkstore -wrl . -create
```

- c. Enter the wallet password you want to use. It is recommended that you use the same password as the UNIX user you are creating the wallet on.

- d. Enter the password again.

Two wallet files are created from the above command:

- ewallet.p12
- cwallet.sso

5. Create the wallet entry that associates the user name and password to the custom tns alias that was setup in the wallet's tnsnames.ora file.

```
mkstore -wrl . -createCredential <tns_alias> <username> <password>
```

Example: mkstore -wrl . -createCredential
dvols29_rms01user rms01user passwd

6. Test the connectivity. The ORACLE_HOME used with the wallet must be the same version or higher than what the wallet was created with.

```
$ export TNS_ADMIN=/projects/rms13.2/dev/.wallet /* This is very import to use  
wallet to point at the alternate tnsnames.ora created in this example */
```

```
$ sqlplus /@dvols29_rms01user
```

```
SQL*Plus: Release 11
```

```
Connected to:  
Oracle Database 11g
```

```
SQL> show user  
USER is "rms01user"
```

Running batch programs or shell scripts would be similar:

```
Ex: dtesys /@dvols29_rms01user  
script.sh /@dvols29_rms01user
```

Set the UP unix variable to help with some compiles :

```
export UP=/@dvols29_rms01user  
for use in RMS batch compiles, and RMS, RWMS, and ARI forms compiles.
```

As shown in the example above, users can ensure that passwords remain invisible.

Additional Database Wallet Commands

The following is a list of additional database wallet commands.

- Delete a credential on wallet
mkstore -wrl . -deleteCredential dvols29_rms01user
- Change the password for a credential on wallet
mkstore -wrl . -modifyCredential dvols29_rms01user rms01user passwd
- List the wallet credential entries
mkstore -wrl . -list

This command returns values such as the following.

```
oracle.security.client.connect_string1  
oracle.security.client.user1  
oracle.security.client.password1
```

- View the details of a wallet entry
mkstore -wrl . -viewEntry oracle.security.client.connect_string1

Returns the value of the entry:

```
dvols29_rms01user  
mkstore -wrl . -viewEntry oracle.security.client.user1
```

Returns value of the entry:

```
rms01user
```

```
mkstore -wrl . -viewEntry oracle.security.client.password1
```

Returns value of the entry:

```
passwd
```

For Java Applications (SIM, ReIM, RPM, Alloc, RIB, RSL, AIP, RETL)

For Java application, consider the following:

- For database user accounts, ensure that you set up the same alias names between the password stores (database wallet and Java wallet). You can provide the alias name during the installer process.
- Document all aliases that you have set up. During the application installation, you must enter the alias names for the application installer to connect to the database and application server.

Java wallets do not have a password to update their entries. Entries in Java wallets are stored in partitions, or application-level keys. In each retail application, after you unzip <app>13application.zip, cd into <app>/application/retail-public-security-api/bin (for example,

```
mspd351:[1033_WLS] /u00/webadmin/product/10.3.3/WLS/user_projects/  
domains/132_mck_soa_domain/reim13/wallet/bin
```

or

Unzip to

reim/application/retail-public-security-api-bin to run the commands below to administer java wallets. The application installers should create the Java wallets for you, but it is good to know how this works for future use and understanding.

There are two scripts relating to this at that folder: dump_credentials.sh and save_credentials.sh.

Dump_credentials.sh

Dump_credentials.sh is used to retrieve information from wallet. For each entry found in the wallet, the wallet partition, the alias, and the user name are displayed. Note that the password is not displayed. If the value of an entry is uncertain, run save_credential.sh to resave the entry with a known password.

```
Dump_credentials.sh <wallet location>
```

Example:

```
dump_credentials.sh  
location:/u00/webadmin/product/10.3.3/WLS/user_projects/domains/132_mck_soa_do  
main/sim-client/csm
```

```
Retail Public Security API Utility  
=====  
Below are the credentials found in the wallet at the  
location:/u00/webadmin/product/10.3.3/WLS/user_projects/domains/132_mck_soa_do  
main/retail/reim13/config  
=====
```

```
Application level key partition name:reim13  
User Name Alias:WLS-ALIAS User Name:weblogic  
User Name Alias:RETAIL-ALIAS User Name:retail.user  
User Name Alias:LDAP-ALIAS User Name:RETAIL.USER  
User Name Alias:RMS-ALIAS User Name:rms132mock  
User Name Alias:REIMBAT-ALIAS User Name:reimbat
```

Save_credentials.sh

Save_credentials.sh is used to update the information in wallet. If you are unsure about the information that is currently in the wallet, use dump_credentials.sh as indicated above.

```
save_credential.sh -a <alias> -u <user> -p <partition name> -l <path of the
wallet file location where credentials are stored>
```

Example

```
mspdvt351:[1033_WLS]
/u00/webadmin/mock132_testing/rtil/rtil/application/retail-public-security-
api/bin> save_credential.sh -l wallet_test -a myalias -p mypartition -u myuser
```

```
=====
Retail Public Security API Utility
=====
```

```
Enter password:
Verify password:
```

Note: -p in the above command is for partition name. You must specify the proper partition name which is used in application code for each Java application.

save_credentials.sh and dump_credentials.sh scripts are the same for all applications.

Usage

```
=====
Retail Public Security API Utility
=====
usage: save_credential.sh -au[plh]
E.g. save_credential.sh -a rms-alias -u rms_user -p rib-rms -l ./
-a,--userNameAlias <arg>          alias for which the credentials
needs to be stored
-h,--help                          usage information
-l,--locationofWalletDir <arg>     location where the wallet file is
created.If not specified, it creates the wallet under secure-credential-wallet
directory which is already present under the retail-public-security-api/
directory.
-p,--appLevelKeyPartitionName <arg> application level key partition name
-u,--userName <arg>                username to be stored in secure
credential wallet for specified alias*
```


How does the Wallet Tie Back to the Application?

The ORACLE Retail Java applications have the wallet alias information you create in an <app-name>.properties file. Below is the reim.properties file. Note the database information and the user are presented as well. The property called datasource.credential.alias=RMS-ALIAS uses the ORACLE wallet with the argument of RMS-ALIAS at the csm.wallet.path and csm.wallet.partition.name = reim13 to retrieve the password for application use.

Reim.properties code sample:

```
datasource.url=jdbc:oracle:thin:@mspdv349.us.oracle.com:1521:pkols07
datasource.schema.owner=rms132mock
datasource.credential.alias=RMS-ALIAS
# =====
# ossa related Configuration
#
# These settings are for ossa configuration to store credentials.
# =====

csm.wallet.path=/u00/webadmin/product/10.3.3/WLS/user_projects/domains/132_mck_soa
_domain/retail/reim13/config
csm.wallet.partition.name=reim
```

How does the Wallet Tie Back to Java pgm batch Use (such as REIM batch)?

Some of the ORACLE Retail Java batch applications have an alias to use when running Java batch programs. For example, alias REIMBAT-ALIAS maps through the wallet to dbuser reimbat, already on the database. To run a ReIM batch program the format would be: reimbatchpgmname REIMBAT-ALIAS <other arguments as needed by the program in question>

Setting up RETL Wallets for 13.2

RETL 13.2 creates a wallet under \$RFX_HOME/etc/security, with the following files:

- cwallet.sso
- jazn-data.xml
- jps-config.xml
- README.txt

To set up RETL wallets, perform the following steps:

1. Set the following environment variables:
 - ORACLE_SID=retaildb
 - RFX_HOME=/u00/rfx/rfx-13.2.0
 - RFX_TMP=/u00/rfx/rfx-13.2.0/tmp
 - JAVA_HOME=/usr/jdk1.6.0_12.64bit
 - LD_LIBRARY_PATH=\$ORACLE_HOME
 - PATH=\$RFX_HOME/bin:\$JAVA_HOME/bin:\$PATH
2. Change directory to \$RFX_HOME/bin.

3. Run `setup-security-credential.sh`.
 - Enter 1 to add a new database credential.
 - Enter the dbuseralias. For example, `retl_java_rms01user`.
 - Enter the database user name. For example, `rms01user`.
 - Enter the database password.
 - Re-enter the database password.
 - Enter D to exit the setup script.
4. Update your RETL environment variable script to reflect the names of both the Oracle Networking wallet and the Java wallet.

For example, to configure RETLforRPAS, modify the following entries in `$MMHOME/RETLforRPAS/rfx/etc/rmse_rpas_config.env`.

 - The `RETL_WALLET_ALIAS` should point to the Java wallet entry:

```
export RETL_WALLET_ALIAS="retl_java_rms01user"
```
 - The `ORACLE_WALLET_ALIAS` should point to the Oracle network wallet entry:

```
export ORACLE_WALLET_ALIAS="dvo1s29_rms01user"
```
 - The `SQLPLUS_LOGON` should use the `ORACLE_WALLET_ALIAS`:

```
export SQLPLUS_LOGON="/@${ORACLE_WALLET_ALIAS}"
```
5. To change a password later, run `setup-security-credential.sh`.
 - Enter 2 to update a database credential.
 - Select the credential to update.
 - Enter the database user to update or change.
 - Enter the password of the database user.
6. Re-enter the password.

Quick Guide for Retail Wallets

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
RMS batch	DB	<RMS batch install dir (MMHOME)>/.wallet	n/a	<Database SID>_<Database schema owner>	<rms schema owner>	Compile, execution	Installer	n/a	Alias hard-coded by installer
RMS forms	DB	<forms install dir>/base/.wallet	n/a	<Database SID>_<Database schema owner>	<rms schema owner>	Compile	Installer	n/a	Alias hard-coded by installer
ARI forms	DB	<forms install dir>/base/.wallet	n/a	<Db_Ari01>	<ari schema owner>	Compile	Manual	ari-alias	
RMWS forms	DB	<forms install dir>/base/.wallet	n/a	<Database SID>_<Database schema owner>	<rwms schema owner>	Compile forms, execute batch	Installer	n/a	Alias hard-coded by installer
RPM app	DB	<RPM batch install dir>/.wallet	n/a	<rms schema owner alias>	<rms schema owner>	Execute batch	Manual	rms-alias	
RWMS auto-login	JAVA	<forms install dir>/base/.javawallet							
			<RWMS Installation name>	<RWMS database user alias>	<RWMS schema owner>	RWMS forms app to avoid dblogin screen	Installer	rwms13inst	
			<RWMS Installation name>	BI_ALIAS	<BI Publisher administrative user>	RWMS forms app to connect to BI Publisher	Installer	n/a	Alias hard-coded by installer

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
AIP app	JAVA	<weblogic domain home>/retail/<deployed aip app name>/config							Each alias must be unique
			aip13	<AIP weblogic user alias>	<AIP weblogic user name>	App use	Installer	aip-weblogic-alias	
			aip13	<AIP database schema user alias>	<AIP database schema user name>	App use	Installer	aip01user-alias	
			aip13	<rib-aip weblogic user alias>	<rib-aip weblogic user name>	App use	Installer	rib-aip-weblogic-alias	
RPM app	JAVA	<weblogic domain home>/retail/<deployed rpm app name>/config							Each alias must be unique
			rpm13	<rpm weblogic user alias>	<rpm weblogic user name>	App use	Installer	rpm-weblogic-alias	
			rpm13	<rms shema user alias>	<rms shema user name>	App, batch use	Installer	rms01user-alias	
			rpm13	<rpm application user one alias>	<rpm application user one name>	App use	Installer	user1-alias	

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
			rpm13	<rpm application user two alias>	<rpm application user two name>	App use	Installer	user2-alias	
			rpm13	<rpm batch user alias>	<rpm batch user name>	App, batch use	Installer	rpmbatch-alias	
			rpm13	<rib-rpm weblogic user alias>	<rib-rpm weblogic user name>	App use	Installer	rib-rpm-weblogic-alias	
ReIM app	JAVA	<weblogic domain home>/retail/<deployed reim app name>/config							Each alias must be unique
			<installed app name>	<reim weblogic user alias>	<reim weblogic user name>	App use	Installer	weblogic-alias	
			<installed app name>	<rms shema user alias>	<rms shema user name>	App, batch use	Installer	rms01user-alias	
			<installed app name>	<reim webservice validation user alias>	<reim webservice validation user name>	App use	Installer	reimwebservice-alias	
			<installed app name>	<reim batch user alias>	<reim batch user name>	App, batch use	Installer	reimbatch-alias	
Alloc app	JAVA	<weblogic domain home>/retail/<deployed alloc app name>/config							Each alias must be unique

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
			<installed app name>	<alloc weblogic user alias>	<alloc weblogic user name>	App use	Installer	weblogic-alias	
			<installed app name>	<rms shema user alias>	<rms shema user name>	App use	Installer	rms01user-alias	
			<installed app name>	<rsl for rms weblogic user alias>	<rsl for rms weblogic user name>	App use	Installer	rsl-rms-weblogic-alias	
RSL app	JAVA	<RSL INSTALL DIR>/rsl-rms/security/config							Each alias must be unique
			rsl-rsm	<rsl weblogic user alias>	<rsl weblogic user name>	App use	Installer	weblogic-alias	
			rsl-rsm	<rms shema user alias>	<rms shema user name>	App use	Installer	rms01user-alias	
SIM app	JAVA	<weblogic domain home>/sim-client/csm							
			rpm	<rpm weblogic user alias>	<rpm weblogic user name>	App use	Installer	rpm-weblogic-alias	
			rms	<rsl for rms weblogic user alias>	<rsl for rms weblogic user name>	App use	Installer	rsl-rms-weblogic-alias	
			rib-sim	<rib-sim weblogic user alias>	<rib-sim weblogic user name>	App use	Installer	rib-sim-weblogic-alias	

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
RETL	JAVA	<RETL home>/etc/security	n/a	<target application user alias>	<target application db userid>	App use	Manual	retl_java_rms01user	User may vary depending on RETL flow's target application
RETL	DB	<RETL home>/wallet	n/a	<target application user alias>	<target application db userid>	App use	Manual	<db>_<user>	User may vary depending on RETL flow's target application
RIB	JAVA	<RIBHOME DIR>/deployment-home/conf/security							<app> is one of aip, rfm, rms, rpm, sim, rwms, tafr
JMS			jms<1-5>	<jms user alias> for jms<1-5>	<jms user name> for jms<1-5>	Integration use	Installer	jms-alias	
Weblogic			rib-<app>-app-server-instance	<rib-app weblogic user alias>	<rib-app weblogic user name>	Integration use	Installer	weblogic-alias	
Admin GUI			rib-<app>#web-app-user-alias	<rib-app admin gui user alias>	<rib-app admin gui user name>	Integration use	Installer	admin-gui-alias	
Application			rib-<app>#user-alias	<app weblogic user alias>	<app weblogic user name>	Integration use	Installer	app-user-alias	Valid only for aip, rpm, sim
DB			rib-<app>#app-db-user-alias	<rib-app database schema user alias>	<rib-app database schema user name>	Integration use	Installer	db-user-alias	Valid only for rfm, rms, rwms, tafr

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
Error Hospital			rib- <app>#hosp -user-alias	<rib-app error hospital database schema user alias>	<rib-app error hospital database schema user name>	Integratio n use	Installer	hosp-user- alias	

Appendix: Installation Order

This section provides a guideline as to the order in which the Oracle Retail applications should be installed. If a retailer has chosen to use some, but not all, of the applications the order is still valid less the applications not being installed.

Note: The installation order is not meant to imply integration between products.

Enterprise Installation Order

1. Oracle Retail Merchandising System (RMS), Oracle Retail Trade Management (RTM), Oracle Retail Sales Audit (ReSA), Optional: Oracle Retail Fiscal Management (ORFM)

Note: ORFM is an optional application for RMS if you are implementing Brazil localization.

2. Oracle Retail Service Layer (RSL)
3. Oracle Retail Extract, Transform, Load (RETL)
4. Oracle Retail Active Retail Intelligence (ARI)
5. Oracle Retail Warehouse Management System (RWMS)
6. Oracle Retail Allocation
7. Oracle Retail Invoice Matching (ReIM)
8. Oracle Retail Price Management (RPM)

Note: During installation of RPM, you are asked for the RIBforRPM provider URL. Since RIB is installed after RPM, make a note of the URL you enter. If you need to change the RIBforRPM provider URL after you install RIB, you can do so by editing the `remote_service_locator_info_ribserver.xml` file.

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

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

13. Oracle Retail Predictive Application Server (RPAS)
14. Oracle Retail Demand Forecasting (RDF)
15. Oracle Retail Category Management (CM)
16. Oracle Retail Replenishment Optimization (RO)

17. Oracle Retail Analytic Parameter Calculator Replenishment Optimization (APC RO)
18. Oracle Retail Regular Price Optimization (RPO)
19. Oracle Retail Merchandise Financial Planning (MFP)
20. Oracle Retail Size Profile Optimization (SPO)
21. Oracle Retail Assortment Planning (AP)
22. Oracle Retail Item Planning (IP)
23. Oracle Retail Item Planning Configured for COE (IP COE)
24. Oracle Retail Advanced Inventory Planning (AIP)
25. Oracle Retail Integration Bus (RIB)
26. Oracle Retail Point-of-Service (ORPOS)
27. Oracle Retail Markdown Optimization (MDO)
28. Oracle Retail Clearance Optimization Engine (COE)
29. Oracle Retail Analytic Parameter Calculator for Markdown Optimization (APC-MDO)
30. Oracle Retail Analytic Parameter Calculator for Regular Price Optimization (APC-RPO)
31. Oracle Retail Promotion Intelligence and Promotion Planning and Optimization (PI-PPO)
32. Oracle Retail Analytics
33. Oracle Retail Workspace (ORW)