

Oracle® Retail Replenishment Optimization

Installation Guide

Release 13.3.2

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Contents

Send Us Your Comments	vii
Preface	ix
Audience	ix
Documentation Accessibility	ix
Related Documents	ix
Customer Support	x
Review Patch Documentation	x
Oracle Retail Documentation on the Oracle Technology Network	x
Conventions	x
 1 Introduction	
Check for the Current Version of the Installation Guide	1-1
About This Document	1-1
Hardware and Software Requirements	1-2
Supported Oracle Retail Products	1-2
 2 Installing RO on UNIX Environments	
Preparation	2-1
Environment Variable Setup Script	2-1
Additional Required Environment Variables	2-2
All Platforms	2-2
Extracting the Replenishment Optimization Installation Package	2-2
Installation Instructions	2-3
Domain Scripts	2-10
Postinstallation Tasks	2-10
Configuration Files for the RPAS Fusion Client	2-10
 3 Patch Installation	
Upgrade Prerequisites	3-1
Upgrade Process	3-1
Upgrade to Key RPAS Versions	3-2
Upgrade and Patch to RPAS Release 13.2.3	3-2
Convert for Integer Indexing	3-2

Upgrade and Patch to RPAS Release 13.3 or Later	3-2
For the PC	3-2
For the Server	3-3

A Appendix: Installation Order

Enterprise Installation Order	A-1
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Oracle Retail Replenishment Optimization Installation Guide, Release 13.3.2

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- 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?

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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

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Related Documents

For more information, see the following documents in the Oracle Retail Replenishment Optimization Release 13.3.2 documentation set:

- *Oracle Retail Replenishment Optimization Release Notes*
- Oracle Retail Predictive Application Server documentation

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 recreate
- 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, 13.1) or a later patch release (for example, 13.1.2). If you are installing the base release, 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

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Introduction

This document provides detailed instructions on how to install a Replenishment Optimization (RO) domain using a configuration created with the RPAS Configuration Tools. This document does not describe how to create the actual configuration.

Supplemental installation guides are referenced in this document. The *Oracle Retail Predictive Application Server Installation Guide* and the *Oracle Retail Predictive Application Server Configuration Tools User Guide* must be obtained prior to beginning the installation process. Read these documents in their entirety before beginning the installation.

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.

About This Document

This document provides information for full and patch installations. It contains the following chapters:

- [Chapter 1, "Introduction"](#) – Refer to this chapter for hardware and software requirements and supported Oracle Retail products
- [Chapter 2, "Installing RO on UNIX Environments"](#) – Refer to this chapter if you are performing a full installation.
- [Chapter 3, "Patch Installation"](#) – Refer to this chapter if you are performing a patch installation.

- [Appendix A, "Appendix: Installation Order"](#)– Refer to this appendix for the installation order.

Read this entire guide before beginning the installation process to ensure that you understand the installation process and have all the necessary documentation, hardware, and software available.

Hardware and Software Requirements

[Table 1–1](#) provides information on the hardware and software requirements.

Table 1–1 Hardware and Software Requirements

Requirement	Details
Supported RPAS Version	13.3.2
Required Software	<p>Java Development Kit (JDK) 1.6</p> <p>Note: There are specific JDK versions needed for each of the supported operating systems for the Oracle Retail Predictive Application Server (RPAS). For the list of JDK versions, see the <i>Oracle Retail Predictive Application Server Installation Guide</i>.</p> <p>Note: When installing Java, avoid enabling AutoUpdate because it may update the Java version without prompting.</p>

Note: Refer to chapter, “Creating a Multi-solution Taskflow” in the *Oracle Retail Predictive Application Server Configuration Tools User Guide* for information about the Multi-solution Taskflow.

Note: RPAS applications, such as RO, run on the Oracle Retail Predictive Application Server (RPAS) platform. For information about the hardware and software requirements for RPAS, see the supported RPAS version of the *Oracle Retail Predictive Application Server Installation Guide*.

Supported Oracle Retail Products

[Table 1–2](#) provides information about the supported Oracle Retail products.

Table 1–2 Supported Oracle Retail Products

Requirement	Version
Oracle Retail Analytic Parameter Calculator for Replenishment Optimization (APC-RO)	13.3.2
Oracle Retail Demand Forecasting (RDF)	13.3.2
Oracle Retail Advanced Inventory Planning (AIP)	13.3.0

Installing RO on UNIX Environments

The installation of the server-side RPAS components on UNIX operating systems is accomplished using a Java-based installation program that is included with the installation package.

The RO Installer automates the following:

- Installation of the RO mock install configuration
- Custom configuration of `make_domain.ro` script for creating domains
- Creation of a sample RO domain

This document assumes that the RPAS Installer process (from the *Oracle Retail Predictive Application Server Installation Guide*) has been completed prior to using the RO Installer.

Preparation

The RPAS components required prior to this installation process are available from Oracle's E-Delivery Web site, <http://edelivery.oracle.com/>, and My Oracle Support, <https://support.oracle.com>.

If you are installing any RPAS solution on HP Itanium, you need to set the 64-bit Configuration Tools environment variable for Java as shown:

```
export RIDE_OPTIONS=-d64
```

Environment Variable Setup Script

Before running the solution installer, run the `retaillogin.ksh` script. The script is located in the root of the base directory where RPAS was installed unless the default was overwritten when specifying directory paths.

Source the script from inside the directory where the script is located:

```
. ./retaillogin.ksh
```

or

Include the full path after the period ".":

```
. /<base_directory>/retaillogin.ksh
```

Note: The preceding period and space (". ") must be included at the beginning of the command when executing the script.

Note: Include this path and script in the `.profile` in your home directory (`~/ .profile`) if you want to have this environment setup script run during login.

This script will set up environment variables, such as `RPAS_HOME` and `RIDE_HOME`, which are required for RPAS to run properly.

Additional Required Environment Variables

In addition to the execution of `retaillogin.ksh`, export the following environment variables prior to starting your installer.

Note: The commands listed in this section are an example based on common Java installation structures. To ensure that you are adding the correct path, use the Unix **find** command to locate `libjvm.so` (`find $JAVA_HOME -name libjvm.so`) and adjust the following paths as appropriate.

All Platforms

```
export RPAS_JAVA_CLASSPATH="$RPAS_HOME/applib/aaijni.jar:$RPAS_HOME/applib/aaiReplenOpt.jar"
```

Note: There are additional Java environment variables that must be set for your particular operation system. These variables are the same for all applications on RPAS. See the “Java Environment” section of the *Oracle Retail Predictive Application Server Installation Guide* for these environment variables.

Extracting the Replenishment Optimization Installation Package

Complete the following steps to extract the installation package:

1. Create an installation directory from which the RO installation routine will be run. This directory will be referred to as [RO Installation].
2. Download the RO Media Pack from Oracle E-Delivery, and transfer the archive to the [RO Installation] directory on the target server using FTP. Use binary mode to transfer the archive.
3. Extract the main package to the [RO Installation] directory.

```
cd [RO Installation]
unzip ro-13_3_1.zip
```
4. Extract the RO Installer.

```
cd CDROM
upzip [RO Media Pack]
```

Installation Instructions

Complete the following steps to install RO:

1. Change to the RO Installer directory and run the following command:

```
cd ro
./install.sh
```

Note: The command must be run with the preceding period and forward slash.

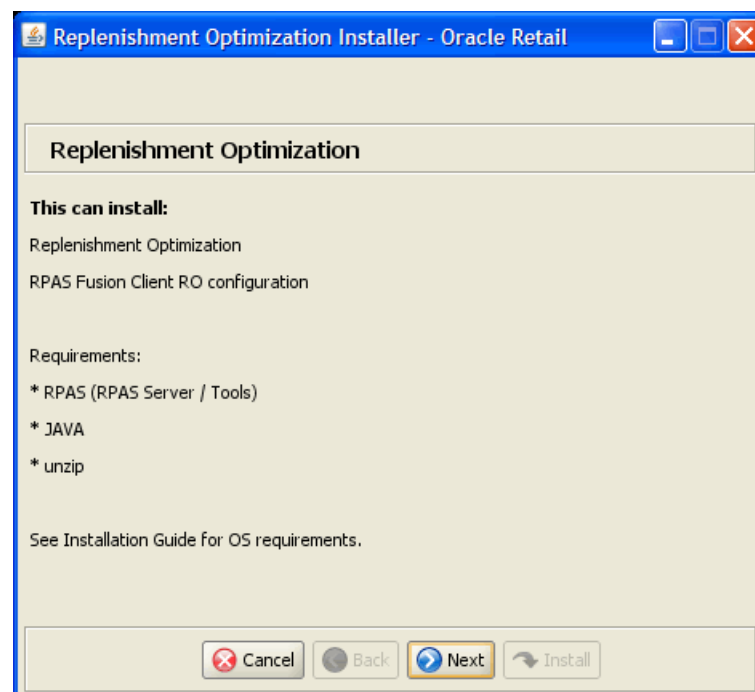
If this process is performed on an X-Windows emulator (such as Exceed), a graphical user interface to the Installer opens. If you are running in console mode through a terminal emulator, a text interface to the Installer opens.

In both cases, the requested information is identical but displayed differently. In the GUI you may be shown a check box to signal whether you want a component installed; in text mode, you are prompted for a response of **yes** or **no**.

Note: In text mode, the default value appears in square brackets. To use the default value and continue, click **Enter**. If you want to use a different value, enter the new value. When prompted to create a directory respond with **Y** or **yes** and click **Enter**.

2. The [RO Installation Window](#) opens and shows the components that are installed during installation process as well as other required components. Click **Next** to continue.

Figure 2–1 RO Installation Window

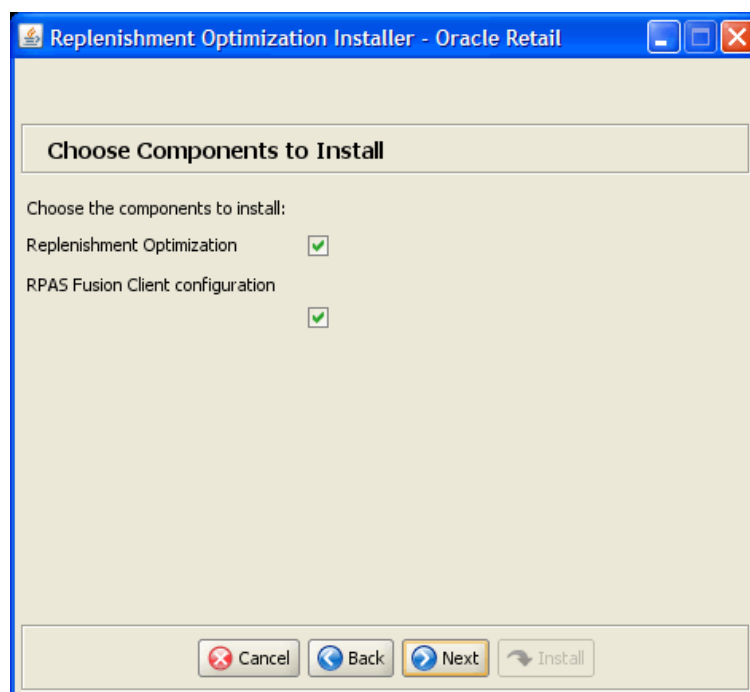


3. The [Choose Components to Install Window](#) opens.

Select one or both of the following options and then click **Next** to continue.

Option	Description
Replenishment Optimization	Select this option to install the RO server with the domain.
RPAS Fusion Client configuration	Select this option to install the RPAS Fusion Client configuration for RO. For more information on the configuration files included for the RPAS Fusion Client, see Configuration Files for the RPAS Fusion Client . If you do not want to install the RPAS Fusion Client configuration, clear this check box and skip steps 6 and 7.

Figure 2–2 *Choose Components to Install Window*



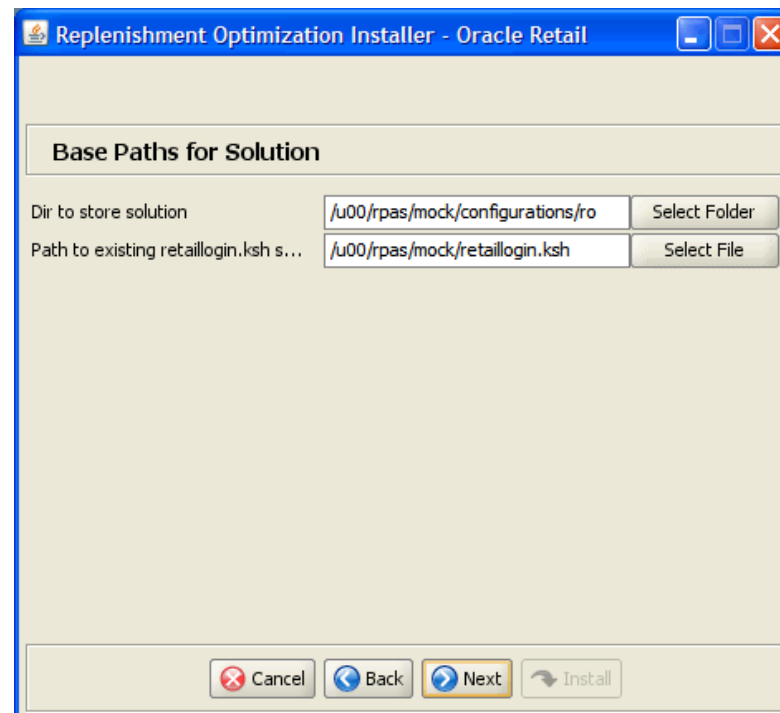
4. The [Base Paths for Solution Window](#) opens.

Enter the relevant information in the following fields and then click **Next** to continue.

Field	Description
Dir to store solution	Enter the directory path where your solution should be stored.
Path to existing retaillogin.ksh script	Enter the path and file name to the <code>retaillogin.ksh</code> script created during RPAS installation.

Note: Ensure that the installation paths are located outside the installer directory [RO_Installer].

Figure 2–3 *Base Paths for Solution Window*



5. The [Install Tasks Window](#) opens.

Note: Domain builds use the environment specified in the `retaillogin.ksh` environment setup script. If you change any environment details, edit the `retaillogin.ksh` script and any subsequent scripts called by `retaillogin.ksh`.

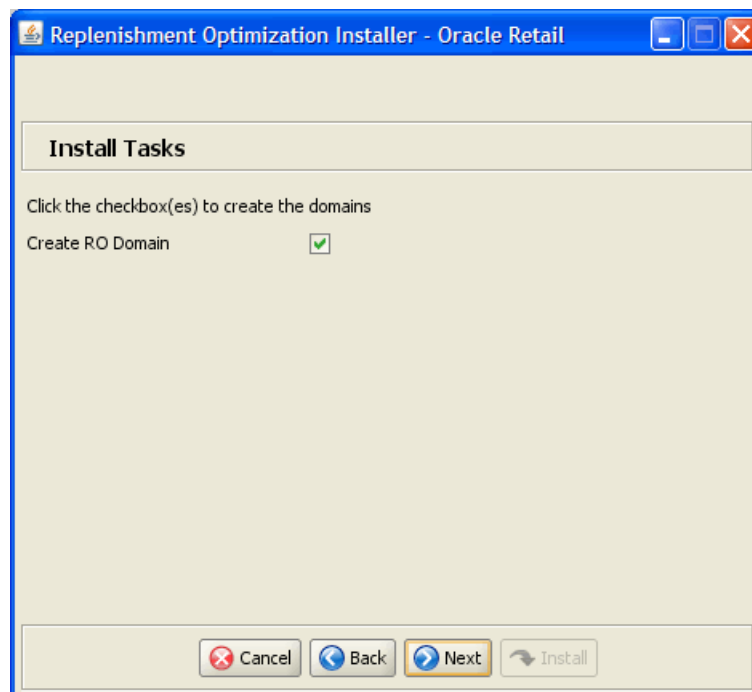
For more information about the `retaillogin.ksh` script, see the [Environment Variable Setup Script](#) section.

- If you want to create the Replenishment Optimization domain, select the **Create RO Domain** option, which is selected by default.
- If you want to install all required components to support the RO domain, but not create the actual domain, clear the check box.

Note: If you are not installing the RPAS Fusion Client configuration, proceed to step 8.

Click **Next** to continue.

Figure 2–4 *Install Tasks Window*



6. The [Fusion Location Information Window 1](#) opens.

Note: The Fusion Location Information windows appear when you select the RPAS Fusion Client configuration check box on the [Choose Components to Install Window](#).

If you are not installing the RPAS Fusion Client configuration, proceed to step 8.

Enter the relevant information in the following fields and then click **Next** to continue.

Field	Description
Enter the number of RPAS Fusion Client servers to install these configurations on: (1-4)	Enter the number of servers running the RPAS Fusion Client where you want to install the RO configuration. In case the RPAS Fusion Client is running on a single server, enter 1. If you have a clustered installation, you can enter up to four servers.
Enter the RPAS server hostname:	Enter the hostname of the RPAS server.
Enter the RPAS server port:	Enter the port number of the RPAS server.

Figure 2-5 *Fusion Location Information Window 1*

Replenishment Optimization Installer - Oracle Retail

Fusion Location Information

Enter the number of RPAS Fusion Client servers to install these configurations on: (1-4)

Enter the RPAS server hostname:

Enter the RPAS server port:

Cancel Back Next Install

7. Based on the number of servers you entered, the [Fusion Location Information Window 2](#) opens with the following set of fields for each server configuration.

Enter the relevant information in the following fields and then click **Next** to continue.

Field	Description
Hostname or IP	Enter the host name or IP address of the server where the RPAS Fusion Client is installed
Configuration Directory	Enter the location of the config directory available at the location where the RPAS Fusion Client is installed.
Login username	Enter the user name to log on to the server where the RPAS Fusion Client is installed
Login password	Enter the password associated with the user name.
Login username alias	Specify an alias name for the administrative user. Specifying an alias name for the administrative user enhances the security for the application. When left blank, the alias name defaults to the administrative user name.

Figure 2–6 Fusion Location Information Window 2

Note: As part of the Oracle Software Security Assurance, sensitive information such as user credentials for the RPAS Fusion Client are encrypted and stored in a secure location in the application installation directory. This location is called the Oracle Wallet.

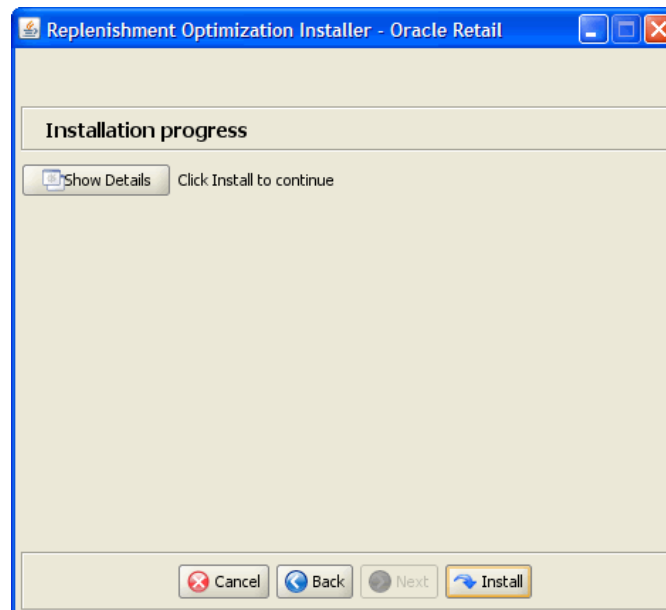
When the installation starts, the administrative user credentials will be retrieved from the Oracle Wallet based on the alias name specified in this window.

8. The **Installation Progress Window** opens. To start the installation, click **Install**.

This window also displays the progress of the installation routine. Select **Show Details** to view the log output as the installation is performed. If you do not select to view the details, a graphical representation of the installation steps opens. As each step is completed, the color changes to show you the progress.

You can toggle between detailed mode at any time during or after the installation.

Figure 2–7 Installation Progress Window



9. When the installation has finished, the Finished message opens. Click **OK** to close the dialog box.
10. To view the installation details, click **Show Details**. The window displays two tabs, *Output* and *Error*. It is recommended that you review these tabs for any issues that may have occurred during the installation process.

If you want to view the log again at a later date, a text copy is saved in the directory [AP Installation]. The log file is named based on the product and timestamp, followed by the .log extension.

Created as part of this process is the `make_domain.ro` file located in [Solution Install Dir] entered previously. This file contains the required parameters needed to support the domain installation. If necessary, this file may be modified if the default parameters are not appropriate for your particular environment.

Note: The domain install process may also include postinstallation data loading scripts specific to the Replenishment Optimization configuration. These scripts, if present, may also be modified.

For additional information on installing RPAS domains manually, see the *Oracle Retail Predictive Application Server Installation Guide*.

11. Click **Exit** to close the installer.

Domain Scripts

Created as part of the installation process is a sample domain creation script, located in the [Dir to store configurations] entered previously. This file is named `make_domain.ro`. This file contains all of the required parameters needed to support the domain installation process. If necessary, this file may be modified if the default parameters are not applicable for your particular environment.

Note: The domain installation process also includes postinstallation data loading scripts specific to this configuration. These scripts may also be modified.

Postinstallation Tasks

After you have installed RO, perform the following postinstallation tasks.

- Before starting the DomainDaemon, you must first source the solution's `environment.ksh` script. This loads all environment variables required by RPAS to interact with your solution's workbooks. To do this, either in shell or with an addition to your `.profile`, add:

```
. [Solution Install Dir]/bin/ro_environment.sh.
```
- If you are on AIX and you have re-installed RO, you must edit a help file to use the RO online help in the RPAS Fusion Client. Manually edit the `[fusion_client installation dir]/config/ohwconfig.xml` file by removing the following duplicate line:

```
<helpSet xmlns="" id="<shortProductName>"  
location="<shortProductName>/<shortProductName>-help.hs"/>
```

Caution: If this duplicate line is not removed, a “500 Page Not Found” error occurs when attempting to access the online help in the RPAS Fusion Client.

Configuration Files for the RPAS Fusion Client

This section describes the optional installation method that involves setting up the RPAS Fusion Client configuration and online help for the RO configuration. Skip this section if you chose to install the Fusion Client configuration files using the RO installer.

Note: Before proceeding, ensure that you have appropriate access privileges on the server running the RPAS Fusion Client.

Along with the files to install the Replenishment Optimization solution and domain, the Replenishment Optimization installation media pack also includes the RPAS Fusion Client configuration and online help files that you must install if you want to use Replenishment Optimization on the RPAS Fusion Client.

These files are available at the following location within the [RO Installation] directory:

```
[RO Installation]/replen_opt/fusion
```

During the Replenishment Optimization installation, these files are automatically copied over to the configuration directory where the RPAS Fusion Client is installed.

The installation also ensures that the following RPAS Fusion Client configuration files are updated to reflect the Replenishment Optimization installation:

- `Foundation.xml` - Located in the `[RPAS Fusion Client Installation]/config/rpas` directory. This XML file includes the domain configuration available for use with the RPAS Fusion Client.
- `ohwconfig.xml` - Located in the `[RPAS Fusion Client Installation]/config/Help` directory. This XML file includes the online help configuration for the RPAS Fusion Client.

If you do not install the Fusion Client configuration files during the Replenishment Optimization installation, you can choose to do one of the following tasks:

- Run the Replenishment Optimization installer again, and select to install only the RPAS Fusion Client configuration.
- Run the RPAS Fusion Client installer again, and specify the Replenishment Optimization domain configuration. For more information on the RPAS Fusion Client installation, refer to the *Oracle Retail Predictive Application Server Installation Guide*.
- Configure the RPAS Fusion Client for RO manually. For more information, see the “Configuring Additional Domains” section in the *Oracle Retail Predictive Application Server Administration Guide for the Fusion Client*.

Patch Installation

This chapter describes how you can upgrade RO from a previous release to Release 13.3.2.

Upgrade Prerequisites

In order to upgrade RO, first verify the following criteria for the RPAS system:

- Verify that RPAS is currently installed and is at Release 13.3 or later. If not, refer to the section, [Upgrade to Key RPAS Versions](#).
- Verify that the UNIX operating system is updated to the currently supported version. Refer to the “Hardware and Software Requirements” section of the Oracle Retail Predictive Application Server Installation Guide.
- Verify that the environment variables are correctly set for both the server and PC; if they are not, follow these instructions to set them:
 - Change directories to the original RPAS installation directory (such as the one created by the most recent installer), and run the `retaillogin.ksh` script to set all environment variables. For example:

```
$ cd /retail
$ . ./retaillogin.ksh
```

Notes: Once you have run the script, verify that all the environment variables point to the correct locations on your environment.

If you have updated Java since the last installation of RPAS, verify that the `JAVA_HOME` path is correct. If not, update your `retaillogin.ksh` script and source it again as previously outlined.

Upgrade Process

The following process outlines how to upgrade RO to the latest version using the RPAS Configuration Tools.

Upgrade to Key RPAS Versions

Before you upgrade to a post-13.3 release, ensure that you have upgraded and patched to RPAS Release 13.2.3.

This list defines the upgrade process that is described in the following sections.

1. [Upgrade and Patch to RPAS Release 13.2.3](#)
2. [Convert for Integer Indexing](#)
3. [Upgrade and Patch to RPAS Release 13.3 or Later](#)

Upgrade and Patch to RPAS Release 13.2.3

Upgrading your domain to a 13.3 or later RPAS domain requires that you first upgrade it to a 13.2.3 domain. For instructions, see the “Upgrading and Patching Domains” section in the 13.2.3 release of either the Classic Client or Fusion Client version of the *Oracle Retail Predictive Application Server Administration Guide*.

After upgrading, you must run a configuration patch over the domain to ensure compatibility with the RPAS version, regardless of whether there are any configuration changes.

Convert for Integer Indexing

Upgrading to a 13.3 or later RPAS domain requires the use of the `convertDomain` utility, which may not copy the entire contents of the source domain to the destination domain. For files that are not copied by `convertDomain`, you may need to copy them manually.

For information about what is and is not copied, see the “`convertDomain`” section in the 13.3 release of either the Classic Client or Fusion Client version of the *Oracle Retail Predictive Application Server Administration Guide*.

Upgrade and Patch to RPAS Release 13.3 or Later

The following process outlines how to upgrade RO to the current version using the RPAS Configuration Tools.

Note: After upgrading, you must run a configuration patch over the domain to ensure compatibility with the latest RPAS version, regardless of whether there are any configuration changes.

For the PC

Follow these instructions for the PC to upgrade to the current version:

1. Open RPAS Configuration Tools.
2. In RPAS Configuration Tools, load your previous configuration of RO:
 - a. From the Configuration Tools File menu, select **Open**.
 - b. From the Open window, locate the configuration file and click **Open**.
3. If your configuration requires updating, dialog boxes will prompt you to upgrade. Follow the instructions given in the dialog boxes.
4. In the RPAS Configuration Tools File menu, click **Save** to save the configuration.

5. Zip the configuration in Cygwin and transfer the .zip file to the RPAS server. Note where it is saved. You will need this configuration for Step 2 of the section, ["For the Server"](#).

For the Server

Follow these instructions for the server to upgrade to the current version:

1. Upgrade the RPAS server configuration by running the installer:
 - a. Begin the installer as described in the [Installation Instructions](#).
 - b. Complete steps 1-4.
 - c. At step 5, the [Install Tasks Window](#), clear the **Create RO Domain** check box.
 - d. Finish the remaining steps of the installer.
2. Unzip the updated configuration and note where it is extracted. You saved this configuration in Step 5 of the section, ["For the PC"](#).
3. Upgrade your RO domain to a 13.3.2 domain. For upgrading instructions, refer to the "Upgrading and Patching Domains" section in either the Classic Client or Fusion Client version of the *Oracle Retail Predictive Application Server Administration Guide*.

Appendix: Installation Order

This section provides a guideline for the order in which the Oracle Retail applications should be installed. If a retailer has chosen to use only some 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)