

# Oracle® Retail Replenishment Optimization

Release Notes

Release 14.1

December 2014

---

The primary goal of Replenishment Optimization (RO) is to harness the replenishment methods available in the client's replenishment system. To make best use of the available replenishment capabilities, RO recommends optimized replenishment parameters at the item/location level. The recommendations take into account sales volume, volatility, availability of forecast data, seasonality, client business rules and constraints, and financial objectives to determine the optimized values.

RO automatically monitors item/location demand and supply chain variables to determine optimal inventory for greatest return. It recommends replenishment settings, either automatically approving the changes or raising alerts; for example, alerting higher impact items. The optimal replenishment settings recommended by RO may be used to update Oracle Retail Advanced Inventory Planning (AIP) replenishment parameters or the retailer's legacy replenishment system.

The automated management of replenishment settings based on item/location selling characteristics ensures accurate replenishment and allows the user to focus on maximizing profit rather than the time consuming business of managing individual item/location level replenishment.

RO can help you address the following, which vary for every client:

- Improve service levels
- Reduce inventory
- Increase turns
- Maximize stock profitability

---

**Note:** Because RO uses the Oracle Retail Predictive Application Server (RPAS) platform, Oracle Retail recommends that you review the *Oracle Retail Predictive Application Server Release Notes* for fixed and known issues that may affect RO. In addition, RPAS 13.3 has significant technical enhancements related to hierarchy management (such as integer indexing) that have an effect on the configuration and maintenance of RO. You should closely review enhancements listed in the *Oracle Retail Predictive Application Server Release Notes*.

---

## Overview of Integrated Inventory Planning Suite

The Integrated Inventory Planning Suite consists of Demand Forecasting (RDF), Advanced Inventory Planning (AIP), Replenishment Optimization (RO), and Analytic Parameter Calculator Replenishment Optimization (APC RO) as a full-suite inventory management solution for retailers.

**ORACLE®**

## Upgrade Note

While not directly related to RO, the Oracle Retail Predictive Application Server (RPAS) has undergone a major change to simplify hierarchy administration. Full details of these changes are outlined in the *Oracle Retail Predictive Application Server Release Notes*. Due to these changes, configuration updates have been made to RO, and you will need to perform additional steps to upgrade your RO domain, such as setting dimension sizes. The upgrade to RPAS 13.3 for this application includes a conversion process in addition to the normal upgrade process. For instructions about upgrading RO, see the following sections in these Oracle Retail Guides:

Section	Guide
"Converting a Domain"	<i>Oracle Retail Replenishment Optimization Implementation Guide</i>
"Upgrade Process"	<i>Oracle Retail Replenishment Optimization Installation Guide</i>
"Upgrading and Patching Domains"	<i>Oracle Retail Predictive Application Server Administration Guide for the Classic Client</i> or the <i>Oracle Retail Predictive Application Server Administration Guide for the Fusion Client</i>

## Hardware and Software Requirements

See the *Oracle Retail Replenishment Optimization Installation Guide* for information about the following:

- Hardware and software requirements
- Oracle Retail application software compatibility information

## Functional Enhancements

RO 14.1 includes the following functional enhancements.

### Like Item/Like Store

Replenishment Optimization is very good at managing replenishment settings for long-lived, established items. The items' demand history is run through the Analytical Parameter Calculator (or APC), which simulates various replenishment scenarios.

However, for new items, which did not have APC simulation results, RO (Replenishment Optimization) needed improvement.

For version 14.1. RO was enhanced to accept like items and like stores.

This way, even new items can get replenishment recommendations that are optimized with respect to user selected targets through their like items.

For more information, see the *Oracle Retail Replenishment Optimization User Guide*.

### Item Classification

Replenishment Optimization has been most effective for products that have a long life cycle and repeatable sales patterns.

To provide the most value for retailers and optimize the maximum portion of their product assortment, RO was evaluated and enhanced to manage items with a low rate of sale, as these typically account for a very large share of a retailer's product / location combinations.

In addition RO can now handle highly seasonal items and items with short selling lifecycle in a more straightforward way.

The way the problem is solved is to classify items according to certain criteria, and take action according to their characteristics.

For more information, see the *Oracle Retail Replenishment Optimization User Guide*.

## **Subgrouping Criteria**

One of the reasons for RO's very robust recommendations comes from the fact that they are based on simulations run on a large pool of items. This way they can account for a variety of sales patterns and volumes. For more meaningful settings, RO groups similar items together. The similarity metrics are configurable, and for version 14.1, a fourth metric was added, in addition to the previous three.

The four metrics allow capturing demand details at a very granular level, and it is not anticipated that more will be needed in the future.

For more information, see the *Oracle Retail Replenishment Optimization User Guide*.

## **New Forecast-Based Replenishment Method**

For many of the items evaluated by RO, even those with supposedly better or good forecasts, the replenishment recommendation is often the calculated min/max method. The method is far smarter and more dynamic in nature than the name implies, but the poor naming makes a retailer wonder why forecasts are necessary.

For 14.1 a new replenishment method was implemented, that increases the chances that RO recommends a forecast-based replenishment method, without giving up any accuracy. The way it works is that if forecasts are available, the method generates parameters that are mapped to the time supply parameters. If no forecast is available, the method performs like calculated min/max.

For more information, see the *Oracle Retail Replenishment Optimization User Guide*.

## **Improved Workflow and Usability**

The fusion taskflow in RO was modified to make the navigation easier, as well as displaying the content in a more meaningful way.

For more information, see the *Oracle Retail Replenishment Optimization User Guide for the Fusion Client*.

## Noteworthy Defect Fixes

The following table contains issues that have been fixed for the current release.

Affected Component	Fixed Issue/Defect	Defect Number
Performance	Fixed several performance issues by redesigning the Optimization Review workbook.	11849620 11849658
Workbooks	Custom wizards are not working properly when selection is made at different aggregate dimensions. This issue has been resolved.	18308224
Forecast	RO's system recommended order point is a lot higher than the magnitude of the forecasts. This issue has been addressed.	19475943

## Known Issues

The following table contains known issues that have been identified in this release:

Description	Defect Number
Several of the translation files have the incorrect line endings. After uploading the language files to input folder of respective RPAS solutions, use the following command from the input folder before loading any language files in a domain:  <code>find . -type f -exec dos2unix {} \;</code>	20015316

## Related Documentation

For more information, see the following documents in the Oracle Retail Replenishment Optimization Release 14.1 documentation set:

- *Oracle Retail Replenishment Optimization Implementation Guide*
- *Oracle Retail Replenishment Optimization Installation Guide*
- *Oracle Retail Replenishment Optimization Release Notes*
- *Oracle Retail Replenishment Optimization User Guide for the RPAS Classic Client*
- *Oracle Retail Replenishment Optimization User Guide for the RPAS Fusion Client*
- Oracle Retail Predictive Application Server documentation

The following documentation may also be needed when implementing RO:

- *Oracle Retail Planning Batch Script Architecture Implementation Guide*

For more information about RPAS and the ODI Enabled Integration, see the following documentation sets:

- Oracle Retail Enabled ODI Integration documentation
- Oracle Data Integrator documentation
- Oracle Retail Predictive Application Server documentation

## **Supplemental Training on My Oracle Support**

The following document is available on the My Oracle Support Web site. Access My Oracle Support at the following URL:

<https://support.oracle.com>

### **Transfer of Information (TOI) Material (ID 732026.1)**

Online training is available to Oracle supported customers at product release. These online courses provide release-specific product knowledge that enables your functional and technical teams to plan, implement and/or upgrade and support Oracle Retail applications effectively and efficiently.

### **Documentation Accessibility**

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

### **Access to Oracle Support**

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Copyright © 2014, Oracle and/or its affiliates. All rights reserved.

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 is software or related documentation that 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 END USERS:** Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware 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 that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware 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 that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

**Licensing Note:** This media pack includes a Restricted Use license for Oracle Retail Predictive Application Server (RPAS) - Enterprise Engine to support Oracle® Retail Replenishment Optimization only.

#### **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.