

Oracle® Retail Analytics and Planning Applications

Release Readiness Guide



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The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

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Contents

1 Feature Summary

Noteworthy Enhancements	1-1
New Feature Description	1-3
Analytics and Planning	1-3
AI Foundation Cloud Service	1-5
Inventory Optimization Cloud Service	1-7
Offer Optimization Cloud Service	1-7
Retail Predictive Application Server (RPAS)	1-8
Assortment Planning Cloud Service	1-8
Retail Demand Forecasting Cloud Service (RDF)	1-8

2 Browser Requirements

3 Noteworthy Fixed Issues

4 Deprecated Features

Preface

This guide outlines the information you need to know about the Oracle Retail Analytics and Planning applications that have new or improved functionality in this update, and describes any tasks you might need to perform for the update. Each section includes a brief description of the feature, the steps you need to take to enable or begin using the feature, any tips or considerations that you should keep in mind, and the resources available to help you.

Audience

This document is intended for the users and administrators of the Oracle Analytics and Planning applications.

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- 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

Oracle Help Center (docs.oracle.com)

Oracle Retail product documentation is available on the Oracle Help Center at <https://docs.oracle.com/en/industries/retail/index.html>.

(Data Model documents can be obtained through My Oracle Support.)

Comments and Suggestions

Please give us feedback about Oracle Retail Help and Guides. You can send an e-mail to: retail-doc_us@oracle.com

Oracle Retail Cloud Services and Business Agility

Oracle Retail Analytics and Planning applications are hosted in the Oracle Cloud with the security features inherent to Oracle technology and a robust data center classification, providing significant uptime. The Oracle Cloud team is responsible for installing, monitoring, patching, and upgrading retail software.

Included in the service is continuous technical support, access to software feature enhancements, hardware upgrades, and disaster recovery. The Cloud Service model helps to free customer IT resources from the need to perform these tasks, giving retailers greater business agility to respond to changing technologies and to perform more value-added tasks focused on business processes and innovation.

Oracle Retail Software Cloud Service is acquired exclusively through a subscription service (SaaS) model. This shifts funding from a capital investment in software to an operational expense. Subscription-based pricing for retail applications offers flexibility and cost effectiveness.

1

Feature Summary

This chapter describes the feature enhancements in this release.

Noteworthy Enhancements

This guide outlines the information you need to know about new or improved functionality in the Oracle Retail Analytics and Planning applications update and describes any tasks you might need to perform for the update. Each section includes a brief description of the feature, the steps you need to take to enable or begin using the feature, any tips or considerations that you should keep in mind, and the resources available to help you.

Column Definitions

- **Feature:** Provides a description of the feature being delivered.
- **Module Impacted:** Identifies the module impacted associated with the feature, if any.
- **Scale:** Identifies the size of the feature. Options are:
 - **Small:** These UI or process-based features are typically comprised of minor field, validation, or program changes. Therefore, the potential impact to users is minimal.
 - **Large:** These UI or process-based features have more complex designs. Therefore, the potential impact to users is higher.
- **Delivered:** Is the new feature available for use immediately after upgrade or must the feature be enabled or configured? If no, the feature is non-disruptive to end users and action is required (detailed steps below) to make the feature ready to use.
- **Customer Action Required:** You must take action before these features can be used. These features are delivered disabled and you choose if and when to enable them.

Table 1-1 Noteworthy Enhancements

Feature	Module Impacted	Scale	Delivered	Customer Action Required?
Integration Changes between RI and PDS	Analytics and Planning	Large	Yes	No
Inventory Indicators for Forecasting	Analytics and Planning	Small	Yes	Enable POM jobs for new interface
Clustering by Price Elasticity	AI Foundation Cloud Service	Small	Yes	Set up new store cluster by price elasticity in AC
DataStudio Upgrade to v23.2.0	AI Foundation Cloud Service	Small	Yes	No

Table 1-1 (Cont.) Noteworthy Enhancements

Feature	Module Impacted	Scale	Delivered	Customer Action Required?
Feature for Loading Fact Data into AIF at Aggregate Level	AI Foundation Cloud Service	Small	Yes	Configure the system to load aggregate data
Enhancement in Forecasting to Take in and Generate Forecast for any Measure and at any Intersection	AI Foundation Cloud Service	Small	Yes	No
Usability Enhancement in Create Run Screen in Profile Science Cloud Service	AI Foundation Cloud Service	Small	Yes	No
Enhancement in Data Load Process in Profile Science Cloud Service	AI Foundation Cloud Service	Small	Yes	No
Loading Out-of-Stock Indicators through RAP Interface	AI Foundation Cloud Service	Small	Yes	Load Out-of-Stock Indicators through RAP interface
Calculating Outlier Indicators	AI Foundation Cloud Service	Small	Yes	Turn on/off the Outlier Calculation Flag in “Manage System Configurations” Screen
Dynamic Update of Seasonality/Elasticity Start/End Dates	AI Foundation Cloud Service	Small	Yes	Verify the Seasonality/Elasticity Start/End dates in “Manage Forecast Configurations” screen
Additional Rule Types	Inventory Optimization Cloud Service	Small	Yes	Set up replenishment and supply chain rules in Rules & Strategies in AIFCS
Warehouse-to-Warehouse Transfers	Inventory Optimization Cloud Service	Small	Yes	No

Table 1-1 (Cont.) Noteworthy Enhancements

Feature	Module Impacted	Scale	Delivered	Customer Action Required?
New Forecasting Model to Support Regular Price Optimization	Offer Optimization Cloud Service	Large	Yes	Forecast run type will have to be set up with this new model
Price Override Enhancements	Offer Optimization Cloud Service	Small	Yes	No
Price History Load Updates	Offer Optimization Cloud Service	Small	Yes	No
Improved Error Message for Workbook Failures	Retail Predictive Application Server Cloud Edition	Small	Yes	No
Segment Label Creation with Unicode Characters	Retail Predictive Application Server Cloud Edition	Small	Yes	No
Like Item Recommendation	Assortment Planning Cloud Service	Large	Yes	No
Other Sales Bucket Added to the POS Measure	Retail Demand Forecasting Cloud Service	Small	Yes	No

New Feature Description

This section describes the new features.

Analytics and Planning

In this release, the RI POM batch schedule has been relabeled to "AIF DATA" to better reflect its usage within the broader suite of Analytics and Planning applications. Future release notes and documentation updates will no longer refer to the RI POM schedule unless it is specific to the Retail Insights product only.

Integration Changes Between RI and PDS

The foundation data exports from the RI data warehouse to Planning applications (PDS) include the following changes for this release in support of customizations (such as RDF extensions):

- The product dimension export include pack items and the associated pack flag to indicate the item type.
- The sales exports (both feeds for MFP/AP and RDF) has a new filter to only send `pack_flg=N` records, which keeps the data backwards-compatible with prior releases.

- A new export interface has been added in the data exchange layer (RDX) for the relationship between pack items and component items.
- New columns has been added to the inventory position export to PDS for fields already available in the data warehouse (such as in-transit amounts, reserved amounts, and so on).
- New interfaces has been added for unavailable inventory and purchase order details (these are not used in any GA integration for MFP/AP/RDF; they are for extensions and customizations).
- Purchase order integration has been enhanced to support pushing data to PDS daily instead of weekly. When the job is run daily, it is allowed to place the open order amounts into the current fiscal week based on OTB date, because some orders may still be received by end-of-week for OTB planning purposes.

Additionally, the following inbound changes have been made on RAP foundation files that have downstream effects on integrations with PDS and AI Foundation:

- In prior releases, simplified fact interfaces such as SALES.csv used a “distinct” clause in the ETL that silently eliminated duplicate rows without informing the end users. These distinct clauses have been removed for any interface where duplicates are technically allowed as valid inputs. All transactional simplified interfaces (sales, receipts, transfers, RTVs, and so on) can now accept identical input rows, which may be valid transactions from the source system that will be summed together as one row in the data warehouse. This does not apply to positional facts like inventory or purchase orders.
- Inventory-related transaction exports to Planning used to require that inventory position data be loaded into RI before any PDS exports could be done. This mapping has mostly been removed as it was not functionally required. Transaction exports to PDS may now be run in any order, with or without inventory position data present. This change affects receipts, transfers, RTVs, and adjustments. The one exception is for markdown data, which does still require inventory positions for two of the fact measures (promo-clearance markdowns and reg-clearance markdowns).
- Logging has been enhanced on the simplified interfaces into RAP to capture the row counts of data being manipulated by the interface (such as number of rows inserted/merged). This information will be available in the POM logs for these interfaces. This applies to the staging table loads from CSV through to FS/DS tables.

Customer Action

All changes are automatically available after the update. You will need to enable any new load jobs in POM nightly and standalone schedules for AIF DATA to begin using the interfaces once it has been applied. Existing interface updates will begin moving data to PDS automatically (such as for sales and inventory changes).

Inventory Indicators for Forecasting

A new RAP interface will be added for Inventory indicators for out-of-stock (OOS) and outlier flags. These indicators can be loaded as part of RAP foundation data loads alongside inventory and other files. The new data is intended for use with AI Foundation forecasts specific to Retail Demand Forecasting (RDF), they will not be used in the default forecasts generated for MFP or AP applications.

The file will be named INVENTORY_OOS.csv and will have 5 required fields: item, location, week-ending date, OOS flag, and outlier flag. At a minimum, you would need to provide the item/loc/weeks where one of the flags is “Y” for all historical periods. For the ongoing nightly loads, you do not need to provide data every day if no flags are changing; you can provide an empty (zero-byte) input file for mid-week batch runs.

Customer Action

All changes are automatically available after the update. You will need to enable the new load jobs in POM nightly and standalone schedules for AIF DATA to begin using the interface once it has been applied. You will then need to create the interface file matching the RAP input interface definition and upload it following the normal process for foundation data loads.

AI Foundation Cloud Service

Clustering by Price Elasticity

Advanced Clustering has been enhanced to enable stores to be clustered based on price elasticity. This is achieved when determining if it is for markdowns or promotions and getting the latest approved PMO run mapped to the AC run type that runs the Short Life Cycle. Only the root nodes are used for flex group, customer segmentation and price zone. No time dimension is considered.

DataStudio Upgrade to Version 23.2.0

With the upgraded version of DataStudio, the way built-in resources are created and updated has been improved to be more compatible with multi-server deployments. Migrations are only triggered when their underlying resources have changed. Also, additional Java libraries can be added to the interpreter classpath by placing them into the extralibs directory.

Feature for Loading Fact Data into AIF at Aggregate Level

The customer is able to load data at any product/location intersection into AI Foundation Cloud Service (AIF). In addition, they are able to load historical data for any measure (for example receipts). The user needs to configure the system to enable loading data at the aggregate level and map the source table/columns to AIF target tables/columns. Please refer to the *AI Foundation Implementation Guide* for details.

Enhancement in Forecasting to Take in and Generate Forecast for any Measure and at any Intersection

The forecast engine is able to take in data at the aggregate or non-aggregate level and for any measure that was provided. In this release, the Auto_ES forecast method can be used to generate forecast for data that is provided at the aggregate level and/or for atypical measures (such as, measures other than sales and inventory). The user needs to configure the system to map Source table/columns to Forecasting tables/columns. Refer to the *AI Foundation Implementation Guide* for details.

Usability Enhancement in Create Run Screen in Profile Science Cloud Service

When the user changes the product/location selections in the Create Run screen, it triggers the process for populating backend tables with the size ranges associated with those products and locations. This is a time-consuming process that can take up to a few minutes.

An enhancement has been made so that the product/location drop-downs are disabled while the backend process for populating size ranges is in progress.

Enhancement in Data Load Process in Profile Science Cloud Service

The two main data requirements for PS are the size attributes for each SKU and the grouping of sizes into size ranges. The hard requirement for this data is that the size attributes for SKUs that belong to the same parent (also known as style-color) must be mapped to a single size range. Since the customer-provided data is not guaranteed to meet this requirement, an enhancement was made in the ETL process so that any “bad” style-colors are dropped during the data load into PS tables. “Bad” style-colors have SKUs living in more than one size range.

Loading Out-of-Stock Indicators Through RAP Interface Into AIF

Users will be able to load Out-of-Stock indicators at the SKU/Store/Week level using the new RAP interface. The indicators will flow directly into AIF, which will be then used in forecasting. The same interface can also be used to load Outlier indicators. More information can be found in the “Control and Tactical Center” chapter in the *Oracle Retail AI Foundation Implementation Guide*.

Calculating Outlier Indicators in AIF

Outlier indicators can be calculated directly in AIF at the Product/Location/Week level. A sale for a particular Product/Location/Week is flagged as an outlier if it is more than the average rate-of-sales for the Product/Location multiplied by a threshold. These indicators will be used in forecasting. The threshold value can be provided while setting up a forecast run in the **Manage Forecast Configurations** screen. This feature can be turned on/off from the **Manage System Configurations** screen. More information can be found in the “Control and Tactical Center” chapter in the *Oracle Retail AI Foundation Implementation Guide*.

Dynamic Update of Seasonality/Elasticity Start/End Dates in AIF Control and Tactical Center UI

In the **Manage Forecast Configurations** screen, while setting up a forecast run, the Seasonality/Elasticity Start/End dates will be dynamically updated based on the selected dates for **Historical data period for parameter estimation** within the **Scope** tab. Users can further override these values as appropriate.

Option for Estimation Only Forecast Run in AIF Control and Tactical Center UI

In the **Manage Forecast Configurations** screen, within the **Scope** tab, users can now choose to only do an estimation run for Causal-Long Life Cycle and Causal-Short Life Cycle forecast methods.

Purge Forecast Run and Run Type Data in AIF

Users can now purge forecast run and run type data based on parameters in the **Manage System Configurations** screen, and with the help of some batch and ad hoc jobs. More information can be found in the “Control and Tactical Center” chapter in the *Oracle Retail AI Foundation Implementation Guide*.

New Export From Profile Science Cloud Service

A new export is now available to export profiles based on product attribute groups. The output file for this export is `spo_custom_export.csv`. The batch/ad hoc jobs in POM are `SPO_CUSTOM_EXPORT_JOB` and `SPO_CUSTOM_EXPORT_ADHOC_JOB`.

Inventory Optimization Cloud Service

Additional Rule Types

Additional rule types have been added in Rules & Strategies screen in AIFCS. The no-replenishment rules allow the user to exclude item/locations from the replenishment process. Rules are defined by merchandise and location hierarchy as well as product attributes. The supply chain rules allow the user to define the supply chain network and set the replenishment attributes for different locations in the network. In this release, this rule type allows the user to define warehouse-to-warehouse and warehouse-to-non-stock-holding-store relationships in the network and set the replenishment attributes for warehouse locations. This supports MFCS customers who want to use Inventory Optimization for warehouse-to-warehouse transfers recommendations.

Warehouse to Warehouse Transfers

The time-phased module has been enhanced so it supports a network that includes non-stock-holding stores. This allows for optimizing replenishment policies and the inventory plan for warehouse locations that are used to fulfill online orders and allows for generating transfers recommendations between warehouse locations.

Offer Optimization Cloud Service

New Forecasting Model to Support Regular Price Optimization

A new forecasting model was added that supports regular price optimization. This model is available as part of the forecasting framework and can be used for usual demand forecasting.

Price Override Enhancements

Price Override functionality in Manage OO Recom supports additional functionalities for override.

Price History Load Updates

The pricing fact history load into RI / RAP has a new flag for populating fields relating to Promotion and Markdown Optimization (PMO). The flag is located in `C_ODI_PARAM_VW` using parameter `RI_LAST_MKDN_HIST_IND`. This populates special, internally calculated columns for the last markdown price/date/count and last regular price. These columns help PMO identify specific price changes and activities that will be factored into recommendations.

Customer Action

The changes are immediately available, but the new flag is disabled by default. If you are beginning a load of price history data and want to populate these metrics, set the flag to 'Y' from the Control & Tactical Center in AI Foundation.

Retail Predictive Application Server (RPAS)

Improved Error Message for Workbook Failures

When users select huge data sets, the application runs out of memory and throws a Java Heap Space error. This error message is too vague for the user and does not convey the corrective action to be taken to avoid the error condition. This was improved by updating the error message to “Out of memory. Please reduce the amount of data selected and retry.”

Segment Label Creation with Unicode Characters

Users can now use Unicode characters when creating a segment label. This also improves the user experience by supporting the creation of segment labels in multiple languages.

Assortment Planning Cloud Service

Like Item Recommendation

Assortment Planning now offers an AI-powered Like Item Recommendation module. This powerful AI engine recommends similar items based on the attributes loaded for new items. Business users can also override AI-generated item recommendations by manually entering a like item.

Retail Demand Forecasting Cloud Service (RDF)

Other Sales Bucket Added to the POS Measure

The POS measure usually consists of regular, promotional, and clearance sales. To allow more flexibility, for example to account for returns sales, the scope for POS is expanded to include an *Other* sales bucket.

2

Browser Requirements

 **Note:**

Oracle Retail assumes that the retailer has ensured its Operating System has been patched with all applicable Windows updates.

The following browsers are supported:

- Mozilla Firefox
- Microsoft Edge
- Google Chrome (Desktop)

Microsoft has deprecated Internet Explorer 11 in Windows 10 and recommends using Edge as the default browser. Refer to the [Oracle Software Web Browser Support Policy](#) for additional information.

3

Noteworthy Fixed Issues

Affected Component	Defect Number	Summary
History Loads (all RAP solutions)	35112729	Sales Pack CSV loads missing from ad hoc process flow in POM.
Nightly Batches (all RAP solutions)	35223079	ZIP_FILE_UNLOAD_JOB failed intermittently when ZIP has not finished processing.
Retail Insights & Planning Integration	35240219	Purchase order export to PDS should support daily data movement.
Retail Insights Cloud Service	34424149	Product dimension does not support re-using item numbers.
Retail Insights Cloud Service	35089887	Old PO revisions are being inserted into PO fact incorrectly.
Retail Insights Cloud Service	35274388	Incorrect modules on some SLSFC and LYL jobs.
MFP Cloud Service	35069212	The Configuration Tools eebatch_common.sh file was missing from the starter kit. This issue has been fixed.
MFP Cloud Service	35072929	The Configuration Tools bsa_logger.sh file was missing from the starter kit which resulted in the failure of the ra_auto_gen_config.sh script. This issue has been fixed.
RPASCE Configuration Tools	34804968	Configuration Tools was behaving inconsistently while creating the rules. The cursor was incorrectly being placed on accepting auto complete suggestions. This has been fixed.
RPASCE Configuration Tools	35073346	In Configuration Tools, the Filter By Measure, when combined with the Include External Measures, was not providing the desired outcome. This has been fixed.

Affected Component	Defect Number	Summary
RPASCE Configuration Tools	34756196	A long-running workbook was being locked and the lock was not released even after the workbook build was complete. This issue has been fixed.

4

Deprecated Features

As part of the continuous delivery model for cloud services, features and technical components of a solution may be removed or replaced to enhance the security, performance, and overall quality of the cloud service. When this occurs, the deprecation of a feature or component will be announced in advance, allowing Customers sufficient time to anticipate the change and transition to any enhanced replacement feature/component. After the deprecation is announced, the deprecated feature or component will remain in the solution until the planned removal date and will not be enhanced or made compatible with other new features.

For a full list of declared Planning and Supply Chain deprecated features, see Oracle Retail Predictive Application Server (RPAS) Cloud for Planning and Optimization / Supply Chain Cloud Services Documentation Library (Doc ID [2492295.1](#)).

For a full list of declared AI Foundation Cloud Services and Retail Insights Cloud Service deprecated features, see the Oracle Retail Insights Cloud Service and AI Foundation Cloud Services Documentation Library (Doc ID [2539848.1](#)).