

Oracle® Retail Advanced Inventory Planning

Release Notes

Release 13.1.1

August 2009

This document highlights the major changes for Release 13.1.1 of Oracle Retail Advanced Inventory Planning (AIP).

Note: Although the release number is 13.1.1, this is a full base release of Oracle Retail AIP. It is not a patch release.

Overview

This document highlights the major changes for Release 13.1.1 of Oracle Retail AIP.

Oracle Retail Advanced Inventory Planning (AIP) is a suite of modules designed to manage the supply chains of large retailers at the supplier, warehouse, store, and e commerce levels. The system couples time-phased replenishment and allocation algorithms to produce an actionable receipt plan over time. This plan is based on demand forecasts, replenishment parameters, and inventory availability at the numerous supply points within the supply chain.

The user interacts with the AIP system through a number of modules:

- Store Replenishment Planning (SRP) Workbooks are used to maintain the replenishment characteristics for stores. These workbooks allow the user to analyze system output and perform what-if style analysis when replenishment parameters are changed.
- Warehouse Replenishment Planning (WRP) Workbooks are used to maintain the replenishment characteristics for warehouses. These workbooks allow the user to analyze system output and perform what-if style analysis when replenishment parameters are changed.
- Data Management is used to maintain the supply chain and network flow information. Sourcing links, lead times, and other data are managed in this module.
- Using the receipt plan, Order Management formally prepares those orders that need to be fulfilled. This preparation includes the assignment of an order number.

Note: AIP Java/Oracle, AIP on Oracle, and AIP Online are often used interchangeably to refer to those parts of AIP that access the Oracle relational database. This includes the Data Management and Order Management GUI components and a host of UNIX shell scripts and PL/SQL modules.

Release Number

The previous release of Oracle Retail AIP was 13.0.2. In order to align the release number for Advanced Inventory Planning with the release number for the Merchandise Operations Management products, this release of Oracle Retail Advanced Inventory Planning is named 13.1.1.

AIP Within the Oracle Retail Suite

AIP takes its place as one of several integrated applications within the Oracle Retail Suite. The suite allows a retailer to manage its supply chain from demand forecasting to the generation of orders, which can then be shared with collaborative planning partners.

Note: The integration interface between RDF and AIP is not fully certified.

Viewed at a high level, the process across the Oracle Retail Suites takes the following form:

1. Oracle Retail Demand Forecasting (RDF) provides a forecast of consumer demand. This data is made available to AIP.
2. The AIP batch run produces an actionable receipt plan using replenishment parameters maintained inside AIP. Hierarchy and inventory data are provided by a merchandising system such as Oracle Retail Merchandising System (RMS).
3. The receipt plan is then sent to the Order Management module within AIP, where those orders that need to be fulfilled are formally prepared for execution. This preparation includes the assignment of an order number.
4. Order Management then submits the appropriate orders to the merchandising system, where purchase orders and transfers are communicated to other systems. These orders are returned to AIP in subsequent batch runs as in-transit orders.
5. Sales forecasts and order plans can then be shared at the appropriate level with suppliers by using a collaborative planning, forecasting, and replenishment (CPFR) product, so that trading partners can prepare for the forthcoming orders.

At the core of the AIP batch process are five replenishment sub-processes. These sub-processes perform calculations on a set of loaded static and dynamic data, using replenishment parameters, to produce a replenishment receipt plan for all locations in the supply chain. This gives retailers the ability to project their demand at all levels of the supply chain and to share these projections with their suppliers whenever applicable.

A key design in producing an actionable receipt plan is the inclusion of known inventory constraints. To implement this design, AIP performs the five replenishment sub-processes across all locations in the following order:

1. Replenishment (in the fixed period) generates an unconstrained receipt plan during the constrained period.
2. Shortfall Reconciliation (in the fixed period) modifies the receipt plan, applying inventory shortages.
3. Substitution (in the fixed period) applies product substitutions where possible to address inventory shortages.
4. Stockless (in the fixed period) pushes any remaining excess product from stockless sources.
5. Replenishment (after the fixed period) generates an unconstrained receipt plan after the constrained period.

The resulting receipt plan is exported to the Order Management module, where order numbers are produced and the orders are released to external systems. Following formal order generation, these quantities are fed back into the system, and the plan is updated to account for these orders as expected receipts. This type of planning allows the retailer to identify potential supply chain issues before they arise, so that stock-outs and excess inventory problems can be prevented or reduced.

Note: The volume of the receipt plan produced by AIP is quite large, so user involvement should be kept to a minimum. However, in order to avoid persistent costly supply chain problems, super users must be able to review plans and change parameters quickly to see the effects of their changes. Oracle Retail recommends that these parameters be managed primarily by exceptions in the receipt plan. Manage by exception means that not every SKU or warehouse is reviewed or updated on a regular basis. Items with exceptions (alerts) should be reviewed and updated if necessary.

Note: AIP 13.1.1 supports English only. When integrated with Oracle Retail Merchandising System (RMS) 13.1.1, some hierarchy description values are partially truncated.

AIP Versions and Corresponding RPAS Versions

The following table provides a history of AIP since the 13.0 release. The table lists each version of AIP together with the version of the RPAS foundation to which it is tied. For more information on compatibility and integration with RPAS, please see the Compatibility and Hardware Requirements section of the *AIP Installation Guide*.

Date	Version Category	AIP Version	RPAS Version
June 9, 2008	Full Release	13.0	12.1.2.21
August 15, 2008	Patch Update (AIX, HP-UX)	13.0.1 Patch	13.0.1.2

Date	Version Category	AIP Version	RPAS Version
August 22, 2008	Full Release (Solaris)	13.0.1	13.0.1.2
October 31, 2008	Patch Update (AIX)	13.0.1.1	13.0.1.11
December 19, 2008	Patch Update (AIX)	13.0.2	13.0.2.1
August 7, 2009	Full Release (Solaris, OEL, AIX, HP-UX)	13.1.1	13.0.4

Hardware and Software Requirements

See the *Advanced Inventory Planning Installation Guide* for information about the following:

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

Functional Enhancements

AIP 13.1.1 includes the following functional enhancements.

Order and Container Scaling

Order and Container Scaling (OCS) allows AIP to intelligently 'scale' orders across multiple products to hit a critical ordering volume - which can be described in a multitude of ways including units, dollars, or percentage of a full truck load. Unlike other similar systems, AIP scales orders by bringing forward future orders, rather than simply scaling today's orders to hit the ordering threshold. In this way, the risks associated with carrying more inventory are reduced.

Using Secondary Sources as Primaries

Planning a Secondary Source as if it were a primary allows the retailer to leverage the ability of an alternate source to deliver on a shorter lead time than any of the legitimate primary sources. If there is an alternate source who can deliver earlier than the earliest primary, then one or more of the earlier delivery opportunities may be planned from the alternate source. In effect, that alternate source becomes the primary source for a period of time until the real primary sources can first deliver.

Technical Enhancements

AIP 13.1.1 includes the following technical enhancements.

Upgrading to AIP Release 13.1.1

For new customers, AIP 13.1.1 is a base release (a full product installation). Current customers who have installed AIP 13.0.2 also have the option to upgrade to Release 13.1.1. For information about upgrading, see the following document at My Oracle Support (formerly MetaLink) at the following URL:

<https://metalink.oracle.com>

Oracle Retail Upgrade Guide (Doc ID 837368.1)

Because the upgrade process varies among Oracle Retail applications, the Oracle Retail Upgrade Guide describes the approach that each Oracle Retail application takes for the upgrading process, as well as product-specific upgrade assumptions and considerations. Actual procedures for the upgrade may be included in the application's Installation Guide.

Purging

Purging data is required to maintain a reasonable database size and to remove historical or broken relationship data. Broken relationships can be caused by phased-out items or suppliers, or inactive supply-chain networks due to new suppliers, new or closed warehouses, or closed stores.

Oracle Database Upgrade

For Release 13.1.1, AIP is supported with Oracle Database 11g (11.1.0.7). See the Oracle Retail Advanced Inventory Planning Installation Guide for complete information about requirements for your operating environment.

Integration Enhancements

AIP 13.1.1 includes the following integration enhancements.

Integration with Oracle Retail Replenishment Optimization (RO)

Replenishment Optimization (RO) is an application in the Oracle Retail footprint. Its purpose is to determine the optimal replenishment method and corresponding parameters in order to

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

In order to maximize time savings and ensure accurate replenishment, RO will be integrated with AIP. AIP will provide RO with non time-phased review time, lead time, and preferred ordering pack size for optimized SKU/stores. RO will

provide AIP with the approved replenishment method and auxiliary parameters for the optimized SKU/stores.

Overview of Integrated Inventory Management Suite

The Integrated Inventory Management 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.

RDF Hot Fix

For the Integrated Inventory Management Suite, an Oracle Retail Demand Forecasting hot fix is available for download. The hot fix download associated with the following defect number is required to implement this integration solution: † RDF Defect: 8628449

Fixed Issues/Defects

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

Fixed Issue/Defect	Defect Number
High Planned Orders Alert - This alert has been changed to do the following: The High Planned Orders alert is triggered for a SKU/store when at least one ATP day in the alert horizon, which has a release date greater than today, has an order quantity greater than the user entered threshold.	8242173

Known Issues

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

Known Issue/Defect	Functional Impact	Mitigation
Some RMS UPC item number types cannot be used with AIP.	The 'UCC12 with Supplement' and 'EAN/UCC-13 with Supplement' RMS item number types, which are 18 and 19 digits respectively, cannot be used when interfacing RMS items to AIP.	Under consideration by Oracle Retail development, but not yet scheduled.

Known Issue/Defect	Functional Impact	Mitigation
After the promotional period, the promotional SKU continues to be ordered.	<p>This issue applies to promotional substitutions where, during the promotional period, a promotional SKU is replenished instead of the normal SKU. To facilitate this functionality, various pieces of data, including the sales forecasts, are copied from the original SKU to the promotional SKU.</p> <p>However, the information is being copied to the promotional SKU for the entire planning horizon and not just for the promotional period.</p> <p>Therefore, the promotional SKU is being ordered after the promotional period has ended.</p> <p>It is recommended that the promotional substitution functionality not be used at this time.</p>	Under consideration by Oracle Retail development, but not yet scheduled.
Workbook access level.	When selecting new workbooks at the local domain level, the Inventory Capping Management workbook is available for selection.	<p>It is recommended that clients set user security permissions so that the Inventory Capping workbook can only be accessed at the Global Domain level.</p> <p>Under consideration by Oracle Retail development, but not yet scheduled.</p>

Related Documentation

For more information, see the following documents in the Oracle Retail Advanced Inventory Planning 13.1.1 documentation set:

- *Oracle Retail Advanced Inventory Planning Installation Guide*
- *Oracle Retail Advanced Inventory Planning User Guide*
- *Oracle Retail Advanced Inventory Planning Implementation Guide*
- *Oracle Retail Advanced Inventory Planning Administration Guide*
- *Oracle Retail Advanced Inventory Planning Operations Guide*
- *Oracle Retail Advanced Inventory Planning Store Replenishment Planning User Guide*
- *Oracle Retail Advanced Inventory Planning Warehouse Replenishment Planning User Guide*
- *Oracle Retail Advanced Inventory Planning Data Management Online Help*
- *Oracle Retail Advanced Inventory Planning Data Management User Guide*

- *Oracle Retail Advanced Inventory Planning Order Management Online Help*
- *Oracle Retail Advanced Inventory Planning Order Management User Guide*
- *Oracle Retail Advanced Inventory Planning Data Model Volume 1: Oracle Data Model*
- *Oracle Retail Advanced Inventory Planning Data Model Volume 2: Measure Reference Guide*

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Licensing Note: This media pack includes a Restricted Use license for Oracle Retail Predictive Application Server (RPAS) - Enterprise Engine to support Oracle® Retail Advanced Inventory Planning 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:

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(ii) 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.

(iii) the **SeeBeyond** component developed and licensed by Sun Microsystems, Inc. (Sun) of Santa Clara, California, to Oracle and imbedded in the Oracle Retail Integration Bus application.

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(vii) 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.

(viii) the software component known as **Style Report™** developed and licensed by InetSoft Technology Corp. of Piscataway, New Jersey, to Oracle and imbedded in the Oracle Retail Value Chain Collaboration application.

(ix) the software component known as **DataBeacon™** developed and licensed by Cognos Incorporated of Ottawa, Ontario, Canada, to Oracle and imbedded in the Oracle Retail Value Chain Collaboration application.

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