# Oracle® Retail Advanced Inventory Planning

Release Notes

Release 13.4

December 2012

This document highlights the major changes for Release 13.4 of Oracle Retail Advanced Inventory Planning Release Notes (AIP).

## Overview

Oracle Retail Advanced Inventory Planning 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 Oracle 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.

## AIP Within the Oracle Retail Suite

AIP is 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.

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 on-order or in-transit quantities.
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.

## 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 Retail Predictive Application Server (RPAS) foundation to which it is tied.

| Date | Version Category | AIP Version | RPAS Version |
|---|---|---|---|
| June 9, 2008 | Full Release | 13.0 | 12.1.2.21 |
| August 15, 2008 | Patch Update<br>(AIX, HP-UX) | 13.0.1 Patch | 13.0.1.2 |
| August 22, 2008 | Full Release<br>(Solaris) | 13.0.1 | 13.0.1.2 |
| October 31, 2008 | Patch Update<br>(AIX) | 13.0.1.1 | 13.0.1.11 |
| December 19, 2008 | Patch Update<br>(AIX) | 13.0.2 | 13.0.2.1 |
| August 7, 2009 | Full Release<br>(Solaris, OEL, AIX, HP-UX) | 13.1.1 | 13.0.4 |
| March 31, 2010 | Full Release and Patch Update<br>(AIX 5.3, AIX 6.1, HP-UX 11.31, OEL 5.2, Solaris 10) | 13.1.2 | 13.1.2.3 |

| Date | Version Category | AIP Version | RPAS Version |
|---|---|---|---|
| August 31, 2010 | Patch Update<br>(AIX 5.3, AIX 6.1, HP-UX 11.31, Linux 5.2, Solaris 10) | 13.1.3 | 13.1.2.19 |
| October 29, 2010 | Full Release<br>(AIX 5.3, AIX 6.1, HP-UX 11.31, OEL 5.3, Solaris 10) | 13.2 | 13.2 |
| January 31, 2011 | Hot Fix<br>(AIX 5.3, AIX 6.1, HP-UX 11.31, OEL 5.3, Solaris 10) | 13.2.0.2 | 13.2.1 |
| July 8, 2011 | Full Release<br>(AIX 5.3, AIX 6.1, HP-UX 11.31, OEL 5.3, Solaris 10) | 13.2.2 | 13.2.2.9 |
| November 4, 2011 | Patch Update<br>(AIX 6.1, HP-UX 11.31, OEL 5.5, Solaris 10) | 13.2.3 | 13.2.3 |
| April 13, 2012 | Patch Update<br>(AIX 6.1, HP-UX 11.31, OEL 5.5, Solaris 10) | 13.2.4 | 13.3 |
| May 3, 2012 | Full Release<br>(AIX 6.1, HP-UX 11.31, OEL 5.5, Solaris 10) | 13.3 | 13.3 |
| December 21, 2012 | Full Release<br>(AIX 6.1, HP-UX 11.31, OEL 5.8, Solaris 10) | 13.4 | 13.4.0.1 |

## Hardware and Software Requirements

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

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

# Technical Enhancements

AIP 13.4 includes the following technical enhancements.

## Batch Script Architecture (BSA)

All batch scripts that are developed and delivered as part of this application have been rewritten using the Batch Script Architecture. The Batch Script Architecture (BSA) is designed to provide a robust, enterprise-ready architecture for parallel process control, restart control, log consolidation, and dependency checks.

Functionally, the batch operability is enhanced by making it easier to diagnose and correct problems. Errors and exceptions are isolated (contained) within the domains in which they occur. Processing is designed to easily restart and proceed with execution. Parallel tasks are managed, logged, and checked for errors, to the same standard as non-parallel tasks.

#### Oracle Retail Batch Script Architecture Implementation Guide

The Oracle Retail Batch Script Architecture Implementation Guide is new for this release. It documents the features and configuration details for implementing the Batch Script Architecture.

## Data Set

A complete data set is now provided. Upon installation an end to end batch can be run to provide results for test purposes.

## Support for IPv6 Protocol

AIP is upgraded to support IPv6.

# Functional Enhancements

AIP 13.4 includes the following functional enhancements.

## Data Management Data Load API

New APIs allow you to load data related to required supply chain parameters. The data typically require synchronicity throughout the enterprise to ensure continuity between supply chain planning and execution. In previous releases, this was accomplished by maintaining supply chain data within Data Management.

## Expanded Store Pallet Rounding Capabilities

In 13.4, you can specify a store pallet multiple for store pallet rounding. The existing pallet rounding threshold is retained and used in the URP calculation.

A global switch is added to indicate whether the Cases Per Pallet value for a warehouse source should be inherited from the source warehouse (as it works now) or pulled from an editable measure.

The Cases per Pallet measure is editable and allows you to enter the number of cases on a pallet for a SKU/store. Valid values are integers greater than 0. You can build the measure into a measure analysis workbook or find it in a custom workbook configuration.

When performing store pallet rounding within the URP calculation, the cases per pallet value is retrieved for these conditions:

- If the source is a supplier cases per pallet that is retrieved from the user entered cases per pallet. If cases per pallet is greater than zero (0) then pallet rounding can be performed.
- If the source is a warehouse then check the Store Cases Per Pallet Override Indicator to determine if it should be pulled from your entered value or inherited from the warehouse. If the value pulled from the appropriate method/measure is greater than zero (0) then pallet rounding can be performed.

### Location Calendar Expanded for Warehouses

The Location Calendar window is expanded to allow for maintenance of warehouse receiving calendars and exceptions. Previously only stores could use this window. Delivery Groups along with Shifts and Slots are removed.

## Fixed Issues/Defects

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

| Defect Number | Fixed Issue/Defect |
|---|---|
| 13694282 | The Cron purge step does not finish successfully. It stops the batch with the following error: *ORA-02149: Specified partition does not exist*. |
| 13962078 | The URP is calculating incorrectly when capping is applied. |
| 13962085 | The WRP Projected Stock Cover Days are calculated incorrectly. |
| 13962095 | The WRP Interactive Evaluation workbook does not display the changes that were applied in WRP Administration workbook. |
| 13981783 | The script, aip_purge, cleans all direct suppliers and their SKUs from the AIP-Oracle database that are not in the import interface table. Since the interface table is loaded with deltas from AIP-RPAS, only new suppliers are kept in the system. |
| 13981791 | In AIP online, the calculation of store schedule is incorrect. When a corporate non-release date exception is created the lead time is still being increased as if it were a non-release date. |
| 13981793 | The script, aip_validate_ro_files.sh, takes an extremely long time to process files. |
| 13981801 | In Data Management for the **Non Release/Non Receipt Days** window, shifting between the option buttons for **Non-Receipt date** and **Non-release date** results in a frozen window. |
| 13981813 | The error: *Unable to Perform Search* displays after clicking **Search**. Then the available warehouses are shown but when attempting to display the current sources of a warehouse, there is no source split shown in the window. Running the query in the database confirms there is a record for the Demand Group and Stocking point in the table. |
| 14018682 | Projected Stock Out is calculated incorrectly for SKU/str/day when end of day inventory is zero (0) and there are no customer orders for the specific SKU/str/day, but customer orders exist for other destinations. |

| Defect Number | Fixed Issue/Defect |
|---|---|
| 14086260 | When the lead time is zero (0), the next ATP day is considered the same as the current ATP day. This results in not accounting for store expected receipts while calculating the net inventory. |
| 14110331 | The discontinue date import is missing from AIP-Oracle. Discontinuation is being triggered off of the discontinuation alert with a date of today instead of the date loaded into AIP-RPAS. |
| 14138970 | When refreshing very large data from AIP-Online to AIP-RPAS, the program fails. This occurs because the AIX6.1 native tar cannot handle files sized larger than 2 Gb. |
| 14175248 | If the SRP Parameters workbook has Expected Spoilage Calculation Indicator(sr0_esind) set to False, then the following error occurs when building a SRP Interactive Evaluation workbook: *IllegalParse: netinventory execution failed.* |
| 14303795 | The Review Time calculation is not calculated correctly. Some days do not have the Store Available to Plan Receipt, but still have Review Time Value. |
| 14468585 | The Transformation scripts fail on customer domains as the input files required by the scripts are not being sent from RMS on the customer's system. |
| 14483207 | If a default does not exist in the Planning_Horizon_Default table, then the Min_Planning_Horizon system parameter is used as a default value. Because of the defaulting logic, it makes sense to no longer require a default value in Planning_Horizon_Default before allowing the user to create an exception. |
| 14483208 | The calculation in the WRP Overstock Details workbook is not correct when selecting a time period that does not have any day that is Available to Plan Receipt. |
| 14483239 | The Alert Type LOV shows no results found even though there are records in the database. |
| 14483263 | The Order Status Exceeded Maximum displays incorrectly in the Scaling Group Order Review screen. A properties file key displays instead of the correct text. |
| 14483271 | The Container Scaling logic incorrectly pulls orders from different scaling groups, usually when reusing a Pull list. The Pull list was not getting cleared on every (Scaling Group, Release Date) iteration. As a result in some cases, a pull list created for previous a scaling group was being incorrectly reused. |
| 14490049 | The Received Quantity loading is not working for commodities where the packsize is not equal to one (1). |
| 14490075 | A warehouse whose schedule has been deleted in DM Online is showing in AIP-RPAS that it is still available to plan. It appears that the changes are not successfully interfaced/integrated from DM Online to AIP RPAS. |
| 14490083 | The default_wh.txt and dmx_pckty.txt files are optional to AIP-RPAS. However, the cron_import batch job fails if these files are not there. To make it consistent, these files are now optional on the AIP-Oracle side. |
| 14490097 | The DMCMWHAL binary is failing with error: *Invalid Dimension Map Index*. |
| 14490177 | Corporate Non-order date exceptions are not being applied. The SKU does not have a lead time even if it has been set to Corporate Non-Order day exception. |

| Defect Number | Fixed Issue/Defect |
|---|---|
| 14490216 | The Supplier Residual Excess Quantity is not calculating as expected. It should calculate for the last week in the planning horizon if the last day in the planning horizon does not fall at the end of the week. The aggregation method in the rules were modified to accomplish this. |
| 14490222 | The Baseline Safety Stock % and Units Override are always taking the Total Forecast Demand of Today plus six (6) days. Therefore, the Sum of Total Forecasted demand is always Today plus six (6) days instead of starting at the day the override is applied.<br>The rule for calculating the measure IpTtlDmdSumV was modified to calculate the sum of Forecast Demand over seven (7) days from the current day instead of Today. This affects both the Baseline, as well as Contingency Safety Stock. |
| 14490463 | The Store Source measure is not being loaded in AIP RPAS correctly because it requires that the On/Off Supply measures be loaded first. |
| 14545549 | Data in the store pack size exception tables does not show in the Warehouse To Store Exceptions screen unless the store format defaults are also populated. |
| 14642121 | Unable to load Corporate Non-Delivery Date in Data Management. |
| 14652734 | The AIP scripts do not check the return code from the TAR Unix utility. Failure to do so results in continuation of the batch. |
| 14673837 | The Safety Stock - What if and Safety Stock from batch do not calculate correctly when the Minimum Safety Stock Days are less than one (1). |
| 14750739 | The Contingency Safety Stock Override Units are being recalculated to zero (0) instead of loading the committed value. This is because the calculation rule is recalculating the Contingency Safety Stock Override Units after loading the workbook. The Contingency Safety Stock Override % should be recalculated instead. |
| 14768672 | The calculation of Store Projected Stockout What-if measure, sr0_ prjstkoutw, incorrectly uses sr0_rcppln and sr0_pckco. Since sr0_pckco is at dstk destination, it collectively uses the customer orders from other stores in the projected stock out calculation for a particular store. Also, it should use sr0_rcpplnw in its calculation instead of sr0_rcppln. |

## Known Issues

The following table contains known issues for the current release.

| Defect Number | Known Issue/Defect |
|---|---|
| 13915408 | In the workbook wizard, after selecting **SKUs**, then **Next**, and then **Back** the selected SKUS are now missing. |
| 14483231 | In the SRP Interactive Evaluation workbook, running the What if - Constrained custom menu displays the following error: *Cannot process Menu Event Workbook Exception: IllegalParse: Replenishment Execution Failed*. |
| 15935474 | The script, `aip_env_online.sh`, uses the option **-e** instead of **-f**. The **-e** option does not work properly on HP-UX. |

## Related Documents

For more information, see the following documents in the Oracle Retail Advanced Inventory Planning Release 13.4 documentation set:

- *Oracle Retail Advanced Inventory Planning Administration Guide*
- *Oracle Retail Advanced Inventory Planning Data Management Online Help*
- *Oracle Retail Advanced Inventory Planning Data Management User Guide*
- *Oracle Retail Advanced Inventory Planning Data Model Volume 1—Oracle Database Data Model*
- *Oracle Retail Advanced Inventory Planning Data Model Volume 2—Measure Reference Guide*
- *Oracle Retail Advanced Inventory Planning Implementation Guide*
- *Oracle Retail Advanced Inventory Planning Installation Guide*
- *Oracle Retail Advanced Inventory Planning Operations Guide*
- *Oracle Retail Advanced Inventory Planning Order Management Online Help*
- *Oracle Retail Advanced Inventory Planning Order Management User Guide*
- *Oracle Retail Advanced Inventory Planning Store and Warehouse Replenishment Planning Online Help*
- *Oracle Retail Advanced Inventory Planning Store and Warehouse Replenishment Planning User Guide for the RPAS Classic Client*
- *Oracle Retail Advanced Inventory Planning Store and Warehouse Replenishment Planning User Guide for the RPAS Fusion Client*

The following documentation may also be needed when implementing AIP:

- Oracle Retail Planning Batch Script Architecture (BSA) Implementation Guide
- Oracle Retail Integration Bus (RIB) documentation, based on type of deployment
- Oracle Retail Extract Transform and Load (RETL) documentation
- Oracle Retail Predictive Application Server (RPAS) documentation

### My Oracle Support Documents

These Oracle Retail Advanced Inventory Planning Release 13.4 documents are available on My Oracle Support:

- *Oracle Advanced Inventory Planning Calculations for Store and Warehouse Replenishment Planning*
- *Oracle Retail Advanced Inventory Planning SRP/WRP Replenishment Method Related Parameters*