

# Oracle® Retail Predictive Application Server

Release Notes

Release 14.1

**E55396-02**

March 2015

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The Oracle Retail Predictive Solutions are a set of products used for generating forecasts, developing trading plans, and analyzing customer behavior. These products use predictive technology to examine historical data and to predict future behavior. The Oracle Retail Predictive Solutions run from a common platform called the Oracle Retail Predictive Application Server (RPAS) that includes features such as:

- Multidimensional databases
- Hierarchical data (product, time, and business location hierarchies)
- Aggregation and spreading of data
- Workbooks and worksheets for displaying and manipulating data
- Wizards for creating and formatting workbooks and worksheets
- Menus, quick menus, and toolbars
- Exception management and user-friendly alerts

## Hardware and Software Requirements

See the *Oracle Retail Predictive Application Server Installation Guide* for hardware and software requirements.

### Cygwin

Cygwin is required if the RPAS Server is to be installed on Windows operating systems. You can find more information about downloading this product at <http://www.cygwin.com>.

For installation guidance, see the following note on My Oracle Support (<https://support.oracle.com>):

#### **Cygwin Setup Guide for RPAS (Doc ID 133398.1)**

This document details necessary options you should select when installing Cygwin to make it function properly with RPAS.

## Upgrade Notes

When upgrading RPAS, note the following issues:

### Patching Domains

When applying any RPAS server upgrade, you should also run a configuration patch over the domains that are upgraded. There are times where the configuration resources have been updated and the domain must be patched to reflect those changes. An example of this situation is presented in bug 9680094.

### Chart Formats

Bugs 9297192 and 9837542 describe problems with uninitialized chart formats saved with saved formats. This leads to potential issues such as unavailable legends to intermittent crashing. It also prevents chart formats from being inherited from a higher level saved format. These issues have been fixed for uninitialized chart formats created in the future, but the solution does not resolve issues with preexisting saved formats.

Because the RPAS Classic Client uses a third-party chart control, it cannot be determined which chart formats have been initialized and which ones are invalid. The only solution is to determine if the window is in grid or chart mode.

A saved format schema update has been introduced that erases any chart formats for all windows in grid mode. This is a one-time update, and once completed, the user does not need to save the windows in chart mode again.

To keep a template with saved styles containing chart formats, perform the following steps:

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**Note:** These instructions are required if you are upgrading from a version of RPAS prior to 13.2. If you are upgrading from 13.2, these instructions do not apply.

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1. Before upgrading, create or open a workbook for that template.
2. Navigate to the windows with chart formatting you want to preserve.
3. Toggle the window to chart mode.
4. Save the formats to the level (user, group, or template) in which you want the chart formats.
5. After upgrading, create a new workbook for that template.
6. Optional: Toggle the windows back to grid mode.
7. Save the formats as described in Step 4.

For more information about the patching process, see the *Oracle Retail Predictive Application Server Installation Guide*, *Oracle Retail Predictive Application Server Administration Guide for the Classic Client*, and *Oracle Retail Predictive Application Server Administration Guide for the Fusion Client*.

## Default bitSizes

The rule, expr, meas, wb, and wbq dimensions come with a default bitSize. Their bitSizes should not be increased after a new domain is built. When the domain is upgraded and/or patched, these dimensions were found to get fragmented and eventually hit the threshold level for the available address space. The user gets a message to reindex them. There is no need to increase the bitSize for these dimensions and only defragging is sufficient to bring the address space back to the required level.

The following commands must be run on the domain after it is upgraded and/or patched if the message to reindex appears on any of these dimensions:

```
reindexDomain -d <dompath> -dimSpec rule -force
```

or

```
reindexDomain -d <dompath> -dimSpec expr -force
```

or

```
reindexDomain -d <dompath> -dimSpec meas -force
```

or

```
reindexDomain -d <dompath> -dimSpec wb -force
```

or

```
reindexDomain -d <dompath> -dimSpec wbq -force
```

or

```
reindexDomain -d <dompath> -dimSpec rule,expr,meas,wb,wbq -force
```

## Functional Enhancements

The functional enhancements described below are included in this release.

### Visual Planning (Fusion Client)

This release includes support for image-based planning with enhancements on the use of images.

Visual Planning is the use of images (styles/style-colors, silhouettes, colors, brand logos, fabric, and so on) to guide the planning process and navigate the solution. The following use cases are enabled in this release:

- Images as hierarchy labels (image of the style or style-color, fabric swatches, and so on) and as dimension attributes on the hierarchy panes
- Images within the planning grid (as measures)
- Configurable image pop-up window (showing multiple images, attributes and plan data) which can vary by view
- Image based, time-phased view of the assortment with alerts
- Images can also be shown on the new Tree-Map chart type

Visual Planning is enabled through the configuration of measures and rules and an external content server, same as the previously released RPAS image capabilities. In most cases, these images can be the same product images used on your commerce web sites and mobile applications. The supported image file types (jpeg, gif, and so on) depend on the file types that each browser maker chooses to support. Image file types requiring a media player are not supported in this release.

To see a practical way to use visual planning in your solutions, see the *Oracle Retail Assortment Planning User Guide* (as Assortment Planning 14.1 includes the visual planning use cases). To learn how to add these capabilities to your RPAS configurations, see the *Oracle Retail Predictive Application Server Configuration Tools User Guide*. To learn how to implement these capabilities using your own configuration, see the *Oracle Retail Predictive Application Server Administration Guide for the RPAS Fusion Client*.

Other images, along with attributes and measure values, can be browsed and viewed using a new Detail Popup given a specific position or cell selection. The Detail Popup can be configured using RPAS Configuration Tools.

Note that the previous View Image capability only shows the primary image for each position while browsing and comparing positions. It can also be used to add or update the primary image for a position on an ad-hoc basis; more extensive changes are considered a back-end load process. There are new utilities available to help load and validate images. The utility helps you prepare data for load. The load utility is still the same loadmeasure.

For more information, see the *Oracle Retail Predictive Application Server Configuration Tools User Guide*, *Oracle Retail Predictive Application Server Administration Guide for the RPAS Fusion Client*, and *Oracle Retail Predictive Application Server User Guide for the RPAS Fusion Client*.

## **White Paper**

The following document is new for this release. It is available on My Oracle Support.

### **Oracle Retail Predictive Application Server Considerations When Displaying Images in RPAS Fusion Client Release 14.1 White Paper (Doc ID 1947015.1)**

Images within the Pivot Table and Detail Popup view have different requirements and may require additional considerations to ensure that the graphics look good and the pages perform well. This document provides background information on graphics in general and then discusses considerations for creating images to be displayed in the Pivot Table and Detail Popup.

## **Master-Detail View (Fusion Client)**

This release provides a Master-Detail view capability in RPAS Fusion Client; the basic idea is that a user makes a selection in a master view, and then uses it to transition to a target view configured to act as a Detail View that provides more detail on the original selection. The user uses a configured named transition to target, and so on. The power here is that the relationship between views, and the filtering that employs, are something that is configured in and given a name that makes sense to the end user.

A new worksheet configuration property in RPAS Configuration Tools enables Auto Position Query Definition (PQD) for all the views of that worksheet. When enabled for a worksheet, Auto PQD is on for that worksheet regardless of the workbook-level setting. Another property prevents the PQD dimensions from pivoting. The Transition capability is configured by defining Workbook Transitions with Triggers for Worksheets or Measures. This is also configured in RPAS Configuration Tools for a Workbook Template.

For more information, see the *Oracle Retail Predictive Application Server Configuration Tools User Guide*, *Oracle Retail Predictive Application Server Administration Guide for the RPAS Fusion Client*, and *Oracle Retail Predictive Application Server User Guide for the RPAS Fusion Client*.

## Chart Enhancements (Fusion Client)

The following chart enhancements are made for Fusion Client:

- Users are now able to include a line which divides the trends between time-elapsd and un-elapsd periods using the RPAS\_TODAY date. This functionality is available for Line and Area charts in RPAS Fusion Client.
- Users should be able to see the Boolean flag on a graph. They can now select Boolean data cells to be charted on the Line chart.
- Treemap, a new chart-type which may be known as Heat Map, is introduced in this release. A Treemap represents data by the size and color of rectangular areas (nodes). It is used to show correlations among two types of values, and to see relative performance between several data items. For example, a Treemap chart can be used to show correlation between yearly sales versus average percent markdown for different regions. The sales data of each region determines the node size, while the average percent markdown determines its color.

For more information, see the *Oracle Retail Predictive Application Server Administration Guide for the RPAS Fusion Client* and *Oracle Retail Predictive Application Server User Guide for the RPAS Fusion Client*.

## Business Intelligence Solution Plug-In (Fusion Client)

Expanding upon the RPAS Fusion Client Extension Framework, a solution plug-in for Oracle Business Intelligence Enterprise Editions (OBIEE) reports is rolled out as part of this release. Users can launch the configured OBIEE reports using the in-context launch mechanism from the RPAS views. This supports all kinds of embeddable OBIEE objects, though only the analyses can be supplied with in-context parameter values. This solution plug-in can be installed as part of Fusion Client (earlier plug-ins had separate installers).

For more information, see the *Oracle Retail Predictive Application Server Administration Guide for the RPAS Fusion Client*. Also, refer to the following document available on My Oracle Support:

### **Oracle Retail Predictive Application Server Extension Development Guide, Volume 2 - RPAS Fusion Client Extensions (Doc ID 1606909.1)**

This document provides information on developing solution plug-ins for Fusion Client.

## Position Filtering (Fusion Client)

Enhancements are made to the Position Filtering functionality introduced in RPAS Fusion Client 14.0. Users are able to enable and also turn off the Position Filtering feature through RPAS Configuration Tools. Specifying the worksheets available in the position filtering menu is configurable. With RPAS Configuration Tools validating the association between worksheets, users are ensured that only compatible worksheets are shown for filtering. This will also help when specifying needed worksheets for filtering, when the number of worksheets is large. The configured worksheets for position filtering can be grouped by step and tab. The remove filter option is now shown at the top of the worksheet list of the Position Filtering sub-menu.

For more information, see the *Oracle Retail Predictive Application Server Configuration Tools User Guide* and *Oracle Retail Predictive Application Server User Guide for the RPAS Fusion Client*.

## Pivot Table Usability (Fusion Client)

The following enhancements are made for Pivot Table usability:

- Boolean measures (checkbox) can now be selected or deselected using a single mouse click.
- Arrow Key Navigation: This enhancement provides the use of Ctrl plus arrow keys for navigation functionality while in editing mode. The user is able to use the Ctrl-up, Ctrl-down, Ctrl-right, and Ctrl-left arrow keys to move from cell to cell while editing values in a pivot table.
- When a user moves the cursor from an editable cell over a read-only cell to an editable cell, the user no longer has to wait for protection processing to re-enable the user to edit the editable cell. The user is able to edit as soon as the cursor lands on the editable cell.

For more information, see the *Oracle Retail Predictive Application Server User Guide for the RPAS Fusion Client*.

## Technical Enhancements

The technical enhancements described below are included in this release:

### Software Operating Environment Upgrades

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**Note:** The following list announces the addition of Oracle Retail support for the technology described. See the Installation Guide requirements section for critical information, such as whether the enhancement below replaces previous versions or is supported in addition to already existing versions.

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#### Fusion Client

The following technology has been upgraded.

- Oracle WebLogic version upgraded to 12c (12.1.3)
- Oracle Application Development Framework (ADF) version upgraded to 12c (12.1.3)

- Oracle Database 12c is needed for WLS/ ADF 12c

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**Note:** Refer to the WebLogic 12.1.3 platform matrix for other supported Oracle database versions.

WebLogic 12.1.3 and ADF 12.1.3 use the Oracle Platform Security Services (OPSS). The OPSS requires schema to be set up in the Oracle database using the Repository Creation Utility (RCU). For this purpose, an Oracle database must be made available. RPAS Fusion Client itself is not dependent on an Oracle Database, OPSS uses it to store its metadata.

Users can view the WebLogic Suite license and documentation for the RCU restricted use license. For users of RPAS HSA, the Oracle 12c database is required.

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- Flash plug-in is needed with all browsers
- Microsoft Office 2010 and 2013
- Oracle Single-SignOn components upgraded (Web tier utilities/OHS 12.1.3, OIM/OID 11.1.1.7.0, OAM 11.1.2.2)
- OBIEE 11.1.1.7.0
- Supported browsers include Microsoft Internet Explorer 11, Mozilla Firefox 24ESR, and Google Chrome 38.

## Hybrid Storage Architecture

Prior to 14.1, RPAS applications would store all the data in a domain, which is a proprietary multi-dimensional database. In 14.1, RPAS Server is enhanced with an optional Oracle database component. RPAS Hybrid Storage Architecture (HSA) combines the RPAS domain's high-performance multi-dimensional data access strengths with the Oracle Database's strengths of managing real-time data flow (without locking the database). In an HSA environment, stored data is divided into two groups based on their usage and integration characteristics. The majority of data is still stored in the domain. The Oracle database is leveraged for the storage of shared data across two or more applications. In HSA, measures can be configured to either be stored in the domain or Oracle database referred to as the RPAS Data Mart (RDM). The chief objective in an HSA deployment is to facilitate read-write access of shared data by multiple RPAS and non-RPAS applications in near real time.

The HSA enhancements are described below. For detailed information on each topic, see the *Oracle Retail Predictive Application Server Administration Guide for the Fusion Client*.

## Batch Process Sequencing

In the HSA environment, multiple domains can be integrated with the RDM. However, one domain may not be aware of what process is running in another domain. It is recommended that the sequencing be used for batch execution of domain and RDM utilities. Interdependent utilities must follow the sequence. Apart from the recommendations, HSA also provides a way to store the current RDM status, which is used by interdependent utilities to better coordinate among the utilities. The status is stored in the database. A new utility, `rdmStatus`, is provided to view them.

## New or Updated Batch Utilities

Many domain utilities have been updated to support HSA. The following are two main examples. For more details, see to *Oracle Retail Predictive Application Server Administration Guide for the Fusion Client*:

### TransferFactData

In the HSA integrated environment, shared measure data is only stored in the RDM and not replicated in any of the domains. Non-shared measure data is stored in the domain as in previous releases. TransferFactData is a new batch utility that enables a user to transfer shared measure (fact) data from the RDM to a domain and vice versa.

Following are some of the common use cases for transferFactData:

- Schema Initialization

While building an HSA integrated environment, an already existing domain can be integrated with the RDM. In such scenarios, the transferFactData utility can be used to transfer the shared measure data from the domain into the RDM.

- Batch Execution

Batch scripts are executed in a domain and can contain both shared and non-shared measure data. Therefore, before running a batch script, the fact data needs to be transferred from the RDM into the domain. And once the batch completes, the calculated shared measure data needs to be transferred back into the RDM.

- Remove a Fact

If a shared measure (fact) needs to be removed from the RDM, but retained in the domain, the fact data needs to be transferred from the RDM to the domain before removing the fact.

### Mace - Batch Calculation

Batch scripts are typically executed in the domain. In an HSA integrated domain, the batch calculations can contain shared measures. Therefore, before executing the batch script, the shared measure data needs to be fetched from the RDM to the domain and then written back to the RDM at the end of the batch script. One way of achieving this is to use the transferFactData utility. However, this method could be error prone if all the required shared measures were not fetched using the transferFactData. The batch script would also have to be updated if there were configuration changes and rules were modified. This could lead to undesirable inconsistencies.

To overcome this, mace is enhanced to automatically fetch the required shared measure data, if it has not yet been pre-fetched by transferFactData. This supports minimally-invasive changes to existing batch calculation scripts. Also, transferFactData is designed to inter-operate with the new capabilities of mace, such that it can pre-fetch shared measure data. Mace is also enhanced to automatically update the RDM with the modified shared measure data at the end of the batch calculation cycle.

In order to support these new capabilities, two new command parameters, `-beginBatch` and `-endBatch`, are added to mace to denote the beginning and end of a batch calculation cycle. This allows new domain-level metadata to track which shared measure data has been pulled from the RDM and which needs to be pushed back to the RDM.

### **Utilities Restricted for Shared Measures**

The following utilities will display an error message and exit when they are run on shared measures in an HSA integrated domain:

- exportData
- exportMeasure
- loadmeasure
- syncNAValue
- transferData
- optimizeNA
- regTokenMeasure (shared measure cannot be used as a token measure)

### **Upgrade RDM**

In an HSA integrated environment, apart from the domain, there is also the RDM. If the domain needs to be upgraded to a newer version, the RDM also needs to be upgraded. A new batch utility, upgradeRdm, upgrades the RDM schema (database) and RDM repository (directory structure in the file system). The upgradeRdm utility is responsible for updating the RDM, if there are any RPAS revisions to the schema tables, PL/SQL procedures, or RDM directory structure. Upgrade modules for domain upgrades already exist. Similarly, there are upgrade modules for the RDM. The only difference is that there are two sets of upgrade modules: one for the RDM schema and one for the RDM repository.

### **Patch RDM**

After the domain is upgraded, the domain is patched to ensure that the configuration within the domain is synchronized with any changes made as a result of the upgrade. In an integrated HSA environment, the same process is followed. Apart from upgrading and patching the domain, the RDM also needs to be upgraded and patched. A new batch utility, patchRdm, applies the user changes in the integration configuration to the RDM. The shared hierarchy, facts, and integration map components of the integration configuration can be patched.

The patchRdm utility takes the modified integration configuration as input and compares it against the existing integration configuration. If any differences are found, it updates the RDM schema. Once the patchRdm completes successfully, the existing integration configuration is replaced with the new one.

Note that most of the components of the integration configuration are patchable. However, removing a hierarchy and removing a dimension are not patchable. Also, the domain and RDM must be upgraded before patching the RDM.

### **External Integration**

In the RPAS HSA environment, since shared fact data is stored in the Oracle database, the RDM fact tables can be integrated with data to and from non-RPAS applications, provided the right set of privileges are available. The schema provided by RPAS for external integration is called Extraction, Transformation, and Loading (ETL) schema. RPAS provides PL/SQL procedures to create staging tables/global temporary tables and merge staged data into the fact tables. This facilitates data integration from non-RPAS applications to RDM.

## White Paper

The following document is new for this release. It is available on My Oracle Support.

### Oracle Retail Predictive Application Server Getting Started with RPAS Hybrid Storage Architecture White Paper (Doc ID 1927014.1)

This document provides an overview of HSA, including integration, installation, and batch operations.

## Noteworthy Defect Fixes

The following noteworthy defect fixes are included in RPAS 14.1:

Affected Component	Fixed Issue/Defect	Defect Number
Classic Client, Alert Navigation	<p>After inserting an alert into the currently opened workbook, if a user tries to navigate the alert a few times and then close the workbook and open it again, the alert navigation menu was found to be disabled. When users reopen the saved workbook, all measures in the worksheet get checked against the measures in the current measure profile and the ones that were missing from the current measure profile get hidden resulting in the alert measure being hidden as it was not part of the current measure profile, the alert navigation menu gets disabled. Even after un-hiding the alert measure, the alert navigation menu was not getting enabled. If users save and reopen the workbook again, navigation starts working again. This is because, when users un-hide a measure, the current list of visible measures does not match the current measure profile users are using and so users set the current measure profile to empty. Therefore when users reopen the workbook the next time, the users do not hide the alert measure because users are using an empty measure profile, so the alert navigation works.</p> <p>To resolve the issue, the alert navigation menu is enabled when the alert measure is un-hidden and the measure profile is correctly set after adding the alert.</p>	17230236
Classic Client, Attribute Definition	<p>Log in to a domain using Classic Client. Select any product position. Right click and select Attribute definition. Select a Source measure and click ok. The Attribute Definitions window appears. Click new and enter an attribute label and click Ok. Now when the user selected Update Selections, the newly given attribute name was removed. The reason for the issue is that the same method in the code was used to initiate and update the attribute definitions. The update selections were actually trying to initiate a new attribute which clears rather than updates the existing selections. The code is fixed to handle the init and update selections by different methods.</p>	17469952
Classic Client, Attribute Definition Dialog	<p>When the user does not select any position on the attribute definition dialog but selects All, and clicks OK, the client crashes. The user has not made any selections through the single hier select dialog, that pops up for a particular dimension to enable the user to select a position to add it to the attribute definition. To resolve the issue, the OK button is disabled when the user has not made any position selections for attribute definition and enabled only after positions are selected.</p>	17084478

<b>Affected Component</b>	<b>Fixed Issue/Defect</b>	<b>Defect Number</b>
Classic Client, Cell Navigation	Users were not able to navigate to the next cell using the tab key. Cell navigation using the tab key was broken because the current cell resources were not getting released correctly before moving to next cell. The client code is fixed. There are no server changes.	19347212
Classic Client, Charting	On a chart view, if hierarchies were arranged such that no hierarchy was put on either the top or left axis, placing the cursor on a data point was causing the Classic Client to crash.  When the cursor was placed over any data point, the Classic Client prepares for the drag and drop action. During this process, an improper index was used to access the node data. Checking that the node is not empty and using the correct index resolves the issue.	17052127
Classic Client, Charting	On a chart view, nothing showed up when the ChartFX menu bar Help was clicked. It was found that ChartFX does not provide help contents anymore. The Help option is removed from the ChartFX menu bar resolves to resolve the issue.	17446700
Classic Client, Copy/Paste	When copying two rows of grid data and trying to paste it, only one row was getting pasted. The client code was not properly keeping track of the number of selected nodes. The client code is fixed.	17305767
Classic Client, Copyright Info	The Logon Information window was displaying an incorrect character in place of the copyright symbol. This is fixed.	17391806
Classic Client, DateTime Control	When users clicked on a date-time cell whose value was out-of-bounds, users were not able to navigate to another cell unless they first changed the value of the current cell. When the user navigates to another cell using the arrow keys or mouse pointer, the current cell remains active. In addition, when the date-time control's value was set to a value outside the range, that value was changed to one inside the range (either the minimum or maximum depending on which was closer). However, the time portion of the value remained because, even though the date was valid, the time of that day could still put the cell out-of-bounds.  A message is now displayed when leaving a date-time cell and when the value of the cell is out-of-bounds. The message displays the time even if the format was set to hide the time, because the time portion may cause the value to be out-of-bounds even though the date portion is in-bounds. Notifying the user to change the value of the date-time cell when the value is out of bounds resolves the issue.	17158083
Classic Client, EConfigure	By default, E-Configure opens/saves the foundation.fcf files from/to the AppData\Oracle Predictive Solutions folder under the user's home directory. However, the File Dialog was used to open in the user's My Documents folder, if the AppData\Oracle Predictive Solutions folder did not exist. This was not the desired behavior. The code is updated to create the AppData\Oracle Predictive Solutions folder if it does not already exist when E-Configure starts.	17207197
Classic Client, EConfigure	The copyright symbol was not showing up correctly when Help and then About was clicked in EConfigure. This was caused by an incorrect version of the Configure.RC file. This file has been updated to include the correct copyright symbol.	17469795

<b>Affected Component</b>	<b>Fixed Issue/Defect</b>	<b>Defect Number</b>
Classic Client, Export to Excel	The change that defect 18748513 was requesting was actually an enhancement for export functionality when a worksheet contained single hier select measures. The code was working as designed before it was fixed incorrectly and resulted in defect 19509751. Reverting the fix for 18748513 resolves 19509751.	18748513, 19509751
Classic Client, Grid Display	Attribute label width was not getting resized to match the measure column. When displaying attribute labels on the left axis, the position of the attribute labels after the first was off. The position of the attribute labels did not get adjusted for the width of the folder icons on the tree. The client code, that was adjusting the attribute label positions, is fixed to account for the width of the folder icons on the tree.	17050391
Classic Client, Grid Display	With a worksheet that had multi-hierarchy on the X or Y axis, multi-select did not hold when switching the select position on the other hierarchy. This was because, within the tree unselect code, the code looped through all groups even though only one group was to be processed. This is fixed.	19055468
Classic Client, Grid Display	When a workbook is built that includes multiple worksheets within a workbook tab, a style is created with at least three open worksheets that overlap each other and one is selected to be in the foreground. The format is saved to the template by saving the changes only, the workbook is closed, and a new workbook is built. The foreground worksheet displayed is not the same one which was saved with the template. When the format is saved to the template, the z-order of the most foreground worksheet and the worksheet which was not yet restored/maximized were assigned a zero value.  While opening the worksheets as part of the workbook build, the same z-order of these worksheets caused conflicts resulting in the display of the wrong worksheet. By assigning the numbers from one instead of zero for the Z-ORDER field of all the worksheets which have been opened from the foreground to the background, the issue is resolved.	19703346
Classic Client, Installer	The installer created the start menu shortcut with an incorrect label. It is fixed so that the start menu shortcut has the correct label of "Oracle Predictive Solutions."	17207274
Classic Client, Sorting	The Classic Client was aborting the attribute based sort when no dimension was found on the x-axis. When users place the measure on the Y-axis (lower left corner of the client) and keep the x-axis (upper right corner of the client) empty and select a measure and try to do an attribute based sort, the Classic Client aborts immediately. Client side code was not using the correct hierarchy to perform the attribute based sort. The client code is fixed.	17582367
Classic Client, Translation Admin	When the range string of a static picklist contained extra spaces, the validation in the Translation Admin threw an error message. The validation code was not handling the extra spaces correctly. A fix is made to trim the extra spaces before doing the validation.	17832362

<b>Affected Component</b>	<b>Fixed Issue/Defect</b>	<b>Defect Number</b>
Classic Client, Windowing	For read-only users, the New Window menu item within the Window menu was not available or was disabled when the current active window was maximized. The intention was to disable Custom Menu items for read-only users, but instead the New Window menu got disabled because of the code written to handle a specific MFC behavior. This is corrected by finding the position of the Custom Menu items and disabling it instead of disabling the New Window menu item.	19305505
Classic Client, Workbook	Trying to select multiple cells using shift + select was not selecting all the cells. The issue is resolved.	17750816
Classic Client, Workbook	Mouse click and drag did not let users select multiple cells. This issue is resolved.	17815970
Classic Client, Workbook	Users were not able to select measures on a Measure Analysis workbook unless they selected the LOC and PROD tiles on the workbook. On the client, previously selected nodes were not cleared which was preventing new selections. This issue is resolved.	17815998, 17816041
Classic Client, Workbook	The z-order index of the worksheets is now handled properly while building workbooks.	18376224
Classic Client, Workbook	Measure Profiles were listed in the order in which they were created and not in alphabetical or sorted order. The client is fixed to properly sort the profiles.	18391986, 19347036
Classic Client, Workbook	Worksheets started to appear under the wrong tabs when the user navigated across tabs a few times. The client is fixed to properly display the worksheets while switching tabs.	18392143
Java Bridge Layer	The password policy administration workbook was being shown under the Fusion Client administration task even though the password policy workbook was meant only for Classic Client. This is fixed.	17300293
Java Bridge Layer	Styles contain the header format and cell format of each cell of every measure in a worksheet. If any exception occurred while marshalling these format data, the error message did not contain the measure name, making it difficult to diagnose and remedy the problem. The error is now caught at a higher level call that contains the measure information, so that the measure name is added to the error message sent to the user.	18141214
Java Bridge Layer	The Fusion Client wizard process was affected due to a case mismatch issue in the Java interface. The dimension rollup name was getting sent in upper case. The Java bridge layer is fixed to send the rollup name in lower case.	18269610
Config Tools	Config Tools was returning an exception when the user tried to open a configuration after deleting a hierarchy. Config Tools was trying to access a hierarchy object without doing a null check. A null check is added to resolve the issue.	18269012
Config Tools, Config Manager	The RPAS Configuration Manager did not detect some changes to dynamic hierarchies. In particular, the label of the dynamic hierarchy was not being processed. An error in the logic was preventing the proper comparison of the original and modified labels when comparing two configurations. The configuration manager is fixed to properly evaluate the original and modified configurations to detect all dynamic hierarchy changes.	17306227

Affected Component	Fixed Issue/Defect	Defect Number
Config Tools, Config Manager	When using the RPAS Configuration Manager, users noticed that new Workbook Only Dimension entries, when created by the manager, would not have their attributes properly specified. The attributes of the new dynamic hierarchy entry for the workbook-only dimension were missing from the merged configuration. The RPAS Configuration Manager was using the wrong accessor method to process the initial attribute values for added dynamic hierarchy entries. The RPAS Configuration Manager is fixed to use the correct accessor method.	17306345
Config Tools, Config Manager	When using the RPAS Configuration Manager, users would notice that the activity group properties of an activity were omitted from the list of changes detected by the tool. The activity group properties (name, label, and description) were improperly added to the list of properties managed by the configuration manager. The configuration manager is fixed to check the properties at the same time as other activity properties are checked.	17307146
Config Tools, Config Manager	When using the RPAS Configuration Manager, users would notice that the tabs added to the configuration and merged into the final configuration were missing their worksheet assignments. The initial attribute value for a new tab's worksheets was not being properly processed. This resulted in the value reverting to the default value of no worksheets. The configuration manager is fixed to properly process the worksheets of a new tab.	17307342
Config Tools, Config Manager	An exception occurred which prevented the merging of changes in the Configuration Manager when both changed configurations contained changes to an alert condition. This issue is resolved. The Configuration Manager now correctly handles collisions involving alert conditions.	19385349
Config Tools, Domain Build	The RPAS domain build process was not getting aborted after receiving an exception from the Alert Manager. This was resulting in the domain getting built without Alerts registration. The RPAS installer utility, which builds the domain, was disregarding the AlertManager exception and finishing the domain build without proper Alerts registration. The utility is modified to consider AlertManager exceptions and to abort the build process when such exceptions are raised.	17440036
Config Tools, Domain Build	Attempts to create a multi-language domain would fail if the configuration used to build the domain contained measures whose name was longer than twenty-four characters. The longer measure names were incompatible with the fixed-width file format used to generate certain translation resources and would result in an exception. The measure label and measure description translation resources now create comma-separated value format files to resolve the issue.	18230736
Config Tools, Domain Patching	The configuration made use of hierarchy indirection such that the Tools name and RPAS name were different for the dimensions of the domain. When rpaInstall attempted to register the User-Defined Definitions (UDD), it used the Tools name and not the RPAS name in the call to regUserDim. This resulted in a failure from the utility. The regUserDim calls made from rpaInstall now properly make use of the RPAS name attribute of dimensions involved in the call.	18420817

Affected Component	Fixed Issue/Defect	Defect Number
Config Tools, Domain Patching	While patching a domain with updated configuration using the rpaInstall utility, a NullPointerException was encountered because the program was expecting measure config files in the repos/measures folder and it could not find the folder. To avoid such exceptions, the patch installer is updated to check for the existence of such folders before proceeding further.	19399904
Config Tools, Domain Patching	RpaInstall was providing incorrect information to the Oracle Retail Demand Forecasting (RDF) plug-ins which resulted in the plug-ins not being able to correctly update the domain. The error in rpaInstall is corrected. The RDF plug-ins now receives the correct information.	19677316
Config Tools, Hierarchy Tool	The Workbook Hierarchies panel did not provide validation to prevent a workbook-only dimension from being configured with a name longer than four characters. RPAS enforces a strict limit of four characters for dimension names. The Configuration Tools now validate workbook-only dimensions to prevent names longer than four characters.	17010865
Config Tools, Hierarchy Tool	When navigating to the hierarchy tool through tools and examining the tool tip for the width column of the dimension table, users were seeing information that the maximum value for the width was 24 which was not true. The restriction was no longer present. When the restriction was removed, the tooltip was not updated. The tooltip text is updated to remove the restriction. This resolves the issue.	17277414
Config Tools, Measure Tool	In the RPAS Configuration Tools, the CTRL+Insert shortcut was not working to add a new major component in the Measures Managers pane. The Swing appeared to be consuming the key event unlike other key combinations where the focused control was not receiving an event for the key press. After experimenting, it was found that ALT+Insert does result in an event being issued to the focused control. The tools are fixed to map the action to ALT+Insert. Now instead of CTRL+Insert, users should use ALT+Insert to add a new major component.	17178445, 17087680
Config Tools, Measure Report Generator	The Measure Report Generator now provides appropriate feedback to the user when the output location for the report cannot be written to due to Windows file system permissions.	19711383
Config Tools, Picklist Translation	Picklist measures, whose range contained several options, could result in a range value that was too long for the fixed width file format. As a result, attempts to generate translation resources for these picklists would result in an exception during the rpaInstall process. rpaInstall now generates the picklist translation resources as a comma-separated value file and long picklist ranges no longer cause exceptions in rpaInstall.	17185608
Config Tools, Picklist Validation	Config tools allows a user to enter a range value as [lowerbound:upperbound] for a UI type picklist measure, but this type of format needs to be used for non-picklist integer / real type measures. Config tools was not validating this issue, which resulted in an error being displayed. Also, when the range was not specified for a picklist measure, the config tools process without validating the condition even though the range parameter requires a value for the picklist type measure. Validation logic is added to validate these two conditions. This resolves the issue.	17263926, 17446051

Affected Component	Fixed Issue/Defect	Defect Number
Config Tools, Plugin Automation	If a user ran a plug-in automation, then saved, closed, and without exiting the tools, reopened the configuration, the second attempt to run the automation would result in the loss of all plug-in data for the configuration. A second attempt to run the automation would result in the popup dialog containing no information. The saving process was failing to clean up all the artifacts in the automation API. As a result, upon reloading the configuration, the plug-in data for the configuration would not be handed to the plug-ins correctly. The tools are fixed to do a proper clean-up and now the plug-in data is properly handled.	17278212
Config Tools, Real Time Alerts	The real time alerts panel was not validating real-time alerts to ensure that the alert and target measures of the alert existed in the workbook. As a result, if a real-time alert was configured and subsequently either the alert or target measure was removed from the workbook (but not the real-time alert), the user of the Configuration Tools would not receive validation that this error existed in the configuration. The Configuration Tools now validates the alert and target measures of real-time alerts to ensure that the measures exist within the workbook.	17011895
Config Tools, Real Time Alerts	The Configuration Tools would allow the user to specify an alert priority for a real-time alert that was less than or equal to zero. The Fusion Client does not support zero-value or negative alert priorities and, as a result, was discarding the alert definition at workbook build time. In addition, when a new real time alert was created within the Configuration Tools, it was created with an alert priority of zero, such that if it were not changed, the alert would not function within the Fusion Client. The Configuration Tools is modified to create new real-time alerts with a default alert priority of one and to validate for zero-value and negative alert priorities.	17300703
Config Tools, Real Time Alerts	The presence of the r_elapsed measure was preventing Config Tools from setting up the real-time alerts measure. The RPAS internal measure, r_elapsed, was not defined in the measure configuration, but was configured as a hidden measure for the workbook. This was preventing the real-time alerts editor from showing up. The code is fixed to handle the hidden measures. This resolves the issue.	19691791
Config Tools, RpasInstall	User Defined Dimensions (UDDs) were not present in the domain after domain patching was done using RpasInstall to add a new hierarchy with UDDs. This was caused by an incorrect ordering of operations, whereby RpasInstall was trying to add new UDDs before the new hierarchy had been created. The operations are reordered to resolve the issue.	17061909
Config Tools, RpasInstall	The reguserdim utility, when called from inside RpasInstall, failed to register a UDD when the RPAS name attribute of the dimension was different from the Tools name attribute. Calling it from the command line registered the UDD successfully. When RpasInstall attempted to register the UDD, it made use of the Tools name attribute while making a call to reguserdim. RpasInstall is fixed to use the RPAS name attribute of the dimension.	18420817

Affected Component	Fixed Issue/Defect	Defect Number
Config Tools, RpasInstall	RpasInstall now provides a descriptive warning message within its log when the input directory passed in as the value of the -in argument does not contain a .dat file for one or more of the configured hierarchies present in the configuration. This is intended to prevent an issue in which a domain may build without hierarchy positions for the missing hierarchy; this would cause issues when the domain was used.	19032713
Config Tools, RpasInstall	When patching a configuration using RPAS_LOG_LEVEL=Debug, erroneous error and warning messages were being displayed. This was caused by invalid new line characters in the configmeasure's description field. To resolve this issue, new line characters are now filtered out when the domain config project is loaded into Config Tools and saved.	19518165
Config Tools, Rule Tool	The Use Existing Rules checkbox was missing from the Copy Selected Rules window in the Configuration Tools. It was there in 13.3.x but was removed in 13.4.x. The <i>Oracle Retail Predictive Application Server Configuration Tools User Guide</i> still referred to this feature. The functionality was removed due to a conflict with Find/Replace. Rework of the Copy Selected Rules functionality resulted in the loss of this behavior which can be used to create a set of rules, with identical expressions to the input set of rules, but are separate rule instances and not shared rules that existed in multiple rule groups. The functionality has been restored. The Use Existing Rules checkbox is once again present in the Copy Selected Rules wizard. When the control is checked, rules will be inserted in the target rule group to create shared rule instances. When the control is not checked, new rule instances with identical expressions will be created. Note that, when the Find/Replace functionality is used, new rules instances will be created for any rule modified by the find replace. This new rule generation will still occur even if Use Existing Rules is checked.	17178085
Config Tools, Rule Tool	Comprehensive rule validation performed within the Rule Tool would report an exception when one or more of the rules, contained within the configuration, contained either a call to the calendarStart function or the first keyword. This exception was caused because no position format existed for the DAY dimension inside the Configuration Tools validation proxy domain. This exception is now suppressed so that it will no longer prevent the comprehensive rule validation from correctly identifying meaningful errors that would have been missed because of the exception.	18685582
Config Tools, Rule Validation	Config tools flagged a rule as invalid when an expression in that rule had a non-recl measure on the left hand side (LHS) with a level modifier which was allowed. This rule has more than one expression and one of the expressions was for a recl measure on the LHS. The validation logic was checking at the rule level and since both conditions were satisfied, the level modifier and recl measure, it flagged the rule as invalid. The logic is corrected to validate at the expression level instead of at the rule level.	17480630

<b>Affected Component</b>	<b>Fixed Issue/Defect</b>	<b>Defect Number</b>
Config Tools, Rule Validation	Within the Rule Tool, the presence of rules with warnings was not being properly reported. The condition was represented as an Error at the Rule Group level and no reported at the Rule Set level. Now, the presence of rules that contain warnings is reported as a warning at the rule group and rule set level.	17487174
Config Tools, Rule Validation	The Configuration Tools rule validation has been enhanced to provide feedback when the left hand side measure of an expression does not contain a hierarchy required for the expression to evaluate. This validation is performed during comprehensive rule validation as it involves validation over measure properties.	19278082
Config Tools, Validation	Config tools validation is modified to skip the CalendarPositionMap validation through JNI.	19691835
Config Tools, Workbench	When a user tried to save the base GA configuration to a different folder, the curve and forecast levels were getting removed. The Config tools workbench module is fixed to resolve the issue.	18037049
Config Tools, Workbook Template - Custom Attributes	Config Tools was not able to persist the changes made to the configuration for a custom attribute such as the wizard Title. When the user removes the custom attribute, saves the configuration, and reopens it, the removed attribute returns. The action of adding or removing a custom attribute did not result in the wizard being flagged as needing to be saved. In the absence of this flag, the change to remove the attribute never was saved to the disk. Changes to flag the wizard as needing to be saved upon the addition or removal of custom attributes resolves the issue.	17262629
Config Tools, Workbook Tool	An issue in the workbook tool of the RPAS Configuration Tools prevented the display of external measures within a worksheet profile. When displaying the set of profile measures, the workbook tool would erroneously filter out these external measures. The workbook tool now properly displays the presence and order of external measures in the worksheet profiles.	17012243
Config Tools, Workbook Tool	Dynamic hierarchy entries did not automatically update when a measure in the configuration was renamed. That prevented the workbook from being built. Dynamic Hierarchy entries, within the Workbook Configuration, now update the values of their measure and label measure attributes to reflect the new name for the measure when the measure is renamed within the Measure Tool.	19050001
Config Tools, Workbook Tool	The real time alert panel of the Workbook Tool no longer generates a validation message when the target measure of a real time alert is a Boolean measure. This is not an error and the validation message was incorrect.	19526464
Config Tools, Workbook Tool	The style override panel of the Workbook Tool now allows a style override to be created for an extended measure created in the workbook.	19553936
DomainDaemon	The DomainDaemon error message is corrected to properly inform the user when the -wallet argument is missed when starting DomainDaemon.	19692170

<b>Affected Component</b>	<b>Fixed Issue/Defect</b>	<b>Defect Number</b>
DomainDaemon	The DomainDaemon usage is changed. The wallet location must now be specified on the start command and all subsequent commands. For more information, see the <i>Oracle Retail Predictive Application Server Administration Guide</i> .	19693234
DomainDaemon	DomainDaemon is modified to not ask for wallet information when invoked with the -ssl 3 option.	19693338
DomainDaemon	On AIX machines, DomainDaemon was throwing an error when the -ipaddr option was used with IPv4 addresses. This is fixed.	17589427
DomainDaemon, Usage	The DomainDaemon help was not clearly mentioning that the wallet location must also be specified to stop the DomainDaemon. The DomainDaemon usage text was missing details about the wallet specification at the time of stopping the DomainDaemon. The DomainDaemon usage text is corrected.	17051658
DomainUtilities, Argument Validation	Invalid or redundant arguments to UserMgr did not result in an exception being thrown. Using the -user option with two users, user1 and user2, was not getting validated as an error. Proper validation checks are added to resolve this issue.	17050378
Domain Utilities, ConvertDomain	In a 13.2.x domain, an error occurred when the user created a security admin workbook, where one of the hierarchies was security enabled, saved the workbook format, tried to convert and upgrade the domain to 13.3.x, and then tried to build the same workbook. While saving the format on 13.2.x, the window names were saved in upper case, whereas in 13.3.x, the names were in lower case. The case mismatch causes the convert domain to fail. Convert domain is fixed to convert the window names to lower case before converting the domain.	17334435
DomainUtilities - ConvertDomain	ConvertDomain was failing and not reporting the error properly due to the presence of selection (.sel) files. When the selection files were deleted, ConvertDomain ran successfully. ConvertDomain is fixed to properly convert user selections.	17955431
DomainUtilities - ConvertDomain	ConvertDomain did not convert the workbook category properly. It was changing the category name from a string to an integer. The category string in the dim_wbq array was getting replaced with its internal position name which is an integer. ConvertDomain is fixed.	18269467
Domain Utilities, ConvertDomain	After converting the domain, the queued workbooks were not building properly. Some of the dimension names in the styles were in upper case. Convert domain missed converting them to lower case which caused a subsequent build issue. The convert domain utility is fixed.	18269535
Domain Utilities, dimAttrMgr	The domain utility dimattrmgr now has a -report option to provide the details about static and dynamic attributes created by the user. This option lists out the domain and workbook attributes and split definitions associated with those attributes.	18691311
Domain Utilities, Dimension Manager	Patching a domain failed while trying to modify the size of a system dimension by adding new positions. The default bit size assigned at the time of domain conversion was found to be less than the bit size required at the time of patching as, normally, system dimensions are not modified. The dimension manager utility is fixed to allow resetting of the bit size for system dimensions.	18874212

Affected Component	Fixed Issue/Defect	Defect Number
Domain Utilities, Dimension Manager	DPM enabled on partition dimension used to result in unexpected results during domain patch. Now, the utility has been updated such that DPM on partition dimensions will be ignored during such operations.	19569840, 19680517
Domain Utilities, Export Data	Export data with the -range option did not work correctly when the innermost dimension contained only numeric positions. The numeric positions were treated as position indices, causing the range to fail. Export data is fixed to resolve the issue.	17796904
Domain Utilities, FixArray	FixArray reported some error when the -verify argument was not used, but did not report the error when -verify was used. Some array corrupted the link between the leaf page and data page which was reported when -verify was not used. However, -verify did not check the data page link from the leaf page for performance reasons. Since the goal of fixArray is to recover as much data as possible, such errors will be ignored and fixArray will continue with the next link even when -verify is not used.	17082075
Domain Utilities, LoadHier	LoadHier, with the -loadAll option, was not sending a warning when no data files were present in the input directory. The LoadHier code is modified and now logs a message to warn the user that input files are missing.	18710233
Domain Utilities, LoadMeasure	LoadMeasure was not working properly when .clr files were used to load the measure data in multi-process mode. The LoadMeasure code is fixed.	17082022
Domain Utilities, LoadMeasure	When executing the loadmeasure utility in order to load the time and date information into date measures, the time information was ignored and not loaded. The loadmeasure utility was stripping out the time portion of the value for the date time measures as it was hardcoded to use only %Y%m%d to parse the input string. To resolve the issue, the format is changed to use %Y%m%d%H%M%S to initially parse the string and, if the string length is found to be less than that, switch to a %Y%m%d format.	17082844
Domain Utilities, LoadMeasure	In the Fusion Client, a picklist measure did not display the values even when there was data present in the master domain workbook array. There were some overwrite (OVR) files with carriage return and line feed terminators. These OVR files, when loaded on a non-windows platform, get loaded into the measure array causing the picklist measure to display incorrectly. The code is fixed to remove the carriage return and the line feed terminators in the OVR file.	17174493
Domain Utilities, LoadMeasure	When using loadmeasure in multi-process mode where the base intersection was different from the load intersection, data loaded was not getting aggregated correctly. These steps included the following: Load an OVR file (size greater than 16 MB) for a partitioned measure using load measure with multiple processes. Register the measure with a load intersection lower than the base intersection. Finally, export the measure and compare the values with a single process run to find that the values were different. When splitting the data file in multi-process mode, loadmeasure was splitting it into multiple data files in the subdomain. These files, by design, were loaded individually affecting the aggregated value. The loadmeasure utility is fixed to split the data file in single process mode when it detects the base and load intersections are different.	17256037

<b>Affected Component</b>	<b>Fixed Issue/Defect</b>	<b>Defect Number</b>
Domain Utilities, LoadMeasure	In multi-process mode, an error was encountered when multiple processes tried to remove purge files simultaneously. This is fixed by putting the relevant code in the try/catch block.	19063311
Domain Utilities, LoadMeasure	In multi-process mode, loadMeasure used to split up large RPL files in preparation for parallel loading, but ended up in error. This was because RPL files were not intended to split up in multi-process mode in the original design. Now, the code is updated such that RPL load is split up only in single process mode and not split up while running in multi-process mode.	19137066
Domain Utilities, LoadMeasure	loadMeasure did not generate Publishing Measure Changes (PMC) events even though the measure was being monitored by PMC Subscription. To fix this, the measure monitor is called to generate PMC events for direct load mode.	19778766
Domain Utilities, Mace	Mace was running into a race condition when it spawned processes across several local domains. Mace was trying to remove a directory which did not exist. A check is added to determine if the directory exists.	17789253
Domain Utilities, Mace	Mace was reporting a memory allocation error as a note and not as an error. The utility base code is fixed.	17950761
Domain Utilities, Mace	Using hierarchies with security dimension as an argument for the attribute function of mace expression returned an error saying user did not have access to any position due to position security. A condition is added to check if the position security is enabled and fetch the label accordingly.	19412875
Domain Utilities, Move Domain	The MoveDomain fails on some OS platforms when moving the source global domain and when the command was run from inside the source global domain directory. OS dependent behavior existed when trying to remove the current working directory of a process. The MoveDomain utility is fixed to check the domain path and determine whether it is the current working directory, and then change it to the parent directory.	17044219
Domain Utilities, Move Domain	MoveDomain was not updating the sub-domain index arrays maintained in the configmeasdata database which indirectly affects loadmeasure from functioning properly. When an absolute path was passed in to the XML file as an input to MoveDomain, the path was not getting mapped to the relative path stored inside the domain. The utility code is fixed to properly convert the relative path to an absolute path.	18619277
Domain Utilities, Optimize Domain	OptimizeDomain is fixed to filter Higher Based Intersection (HBI) measures while processing local domains.	19703003
Domain Utilities, reconfigureGlobal DomainPartitions	Running reconfigGlobalDomainPartitions -version resulted in a crash/coredump. This was because of inadequate validation of domain attributes. This is resolved by doing all such validations only called after determining that no meta parameters (version, -help) were used.	17318003
Domain Utilities, reconfigureGlobal DomainPartitions	While reconfiguring global domain partitions to create new sub-domains, the user selections and workbooks in the first domain were getting copied over to the newly created sub-domains. The reconfiguring utility is fixed to prevent copying of the user selections and workbooks from the first domain to the newly created domain.	18398620, 18977084

Affected Component	Fixed Issue/Defect	Defect Number
Domain Utilities, ReindexDomain	The behavior of the reindex_in_progress field of the data/admin.db/domain_properties array is different between version 13.3.1 and 13.3.2 or higher versions. In 13.3.1, "false" was stored in the reindex_in_progress field to indicate that reindex was not required, whereas from version 13.3.2 onwards, empty values in the field indicated that reindex was not required. getReindexState() is updated in reindexDomainApp to handle this change.	17054005
Domain Utilities, ReindexDomain	When running ReindexDomain on a domain where a prior ReindexDomain run failed, the recovery mode did not work properly, corrupting the domain. When ReindexDomain was started a second time with a different set of parameters compared to the first run, it caused domain corruption. The second run is treated as a recovery mode and supplied parameters are ignored. Storing the first run parameters and reusing them resolves the issue.	17289627, 17533412
Domain Utilities, ReindexDomain	Forced Higher Based Intersection (FnHBI) measures, having one of the dimensions from a partitioned hierarchy, were not getting reindexed properly. The reindexDomain utility is fixed to properly set the dimension registry path.	18647068
Domain Utilities, RenamePositions	When using renamePositions to update the position name on a partition dimension, the name was not getting updated in globaldomainconfig.xml. The utility is modified to update the globaldomainconfig.xml file when positions are getting renamed on the partition dimension.	18598321
Domain Utilities, RIDE	The RIDE utility of RPAS was not working correctly when there were two or more partition dimension positions in a local domain. If there was more than one partition dimension position in a local domain, the RIDE utility prematurely exited after completing its run for the first position. The logic inside the RIDE utility is corrected to loop over all the partition dimension positions.	17569707
Domain Utilities, RPAC	The ability to set and assert values at aggregate levels is now provided in RPAC.	19703046
Domain Utilities, scanDomain	ScanDomain was taking longer to finish as user directories were included in the scanning. ScanDomain is fixed to filter user directories, which improves the performance.	18015760
Domain Utilities, SyncNAValue	This utility now has a -report option to provide a list of measures whose measure NA values differ from their measure array's NA value.  For more information, see the <i>Oracle Retail Predictive Application Server Administration Guide</i> .	19703068
Domain Utilities, usermgr	usermgr -forcePasswordChange accepted any string as an argument when the expected behavior was that it should have accepted only true or false. The code is updated to validate that the argument value is only true or false.	17024893
Domain Utilities, usermgr	Usermgr did not log a warning when a deprecated hash algorithm was specified as an argument. The usermgr code is fixed to log a warning in such cases.	17068980

<b>Affected Component</b>	<b>Fixed Issue/Defect</b>	<b>Defect Number</b>
Domain Utilities, wbbatch	The argument -processes for the wbbatch utility was causing a success status message to be generated even if the wbbatch utility failed. When wbbatch was run without the -processes option, the utility returned an error status when the workbook build failed. The same was not handled correctly when the processes option was used. The wbbatch code is fixed to properly return the error status if the workbook build fails.	17461072
Domain Utilities, wbbatch	Parallel auto workbook builds using wbbatch from the same domain were failing due to lock contention when multiple -maxProcesses options were used. There was a deadlock situation between two processes where each process was waiting on the other to release a lock. The server is modified to allow exclusive access of the locks separately to each process.	18679743
Domain Utilities, wbbatch	A segmentation or memory fault was reported when trying to build an Alert Manager workbook using the wbbatch utility. This was because wbbatch fetched active alerts from WorkbookBuildConfiguration and set them. Later, while validating the wizard, getSelection was called for ActiveAlert which led to an error because active alert selection had not been initialized. This has been resolved by calling getSelection for ActiveAlert only if active alerts were not set previously.	19629110
Fusion Client, Session Timeout	Session expiry popup is fixed to keep the session alive on timeout warning.	19335257
Fusion Client, ADF	Scroll position is now maintained on expanding and collapsing any of the positions at the row header.	7641342
Fusion Client, ADF	Issue with the date picker in the pivot table on the Google Chrome browser is fixed with ADF 12c.	10286288
Fusion Client, ADF	Calendar popup works fine when clicking calendar icon for date measure in pivot table.	12338888
Fusion Client, ADF	The shift+enter key on a cell with date format now correctly moves focus to the cell above.	13794179
Fusion Client, ADF	Issue with closing the popup on dynamic position addition on pivot table is now fixed.	17306279
Fusion Client, ADF	Session was expiring around every 25 minutes even when actively working on wizards. This is fixed with ADF 12c.	16316958
Fusion Client, Admin	Vertical scroll bar now scrolls to the last item when more than 10 items are available. Also, it is possible to pick the last group from the list in the edit user screen in the application.	15928412
Fusion Client, Alerts	The next/prev alert now work correctly when the screen is first loaded in the pivot table.	19331420
Fusion Client, Alerts	Navigation of alerts in the pivot table occurs correctly even after FindAlert is run.	19341552
Fusion Client, Alerts	The select an alert error that occurred when checking the resolved checkbox on the Manage Alerts screen is fixed.	19343411
Fusion Client, CDT-Editor	The right-click context menu in the CDT editor is rendered in the middle of the screen (instead of next to the node). This is a workaround, while ADF fix is pending.	17309466
Fusion Client, CDT-Editor	A CDT editor validation error pop-up now stays until the user dismisses the pop-up.	17648516

<b>Affected Component</b>	<b>Fixed Issue/Defect</b>	<b>Defect Number</b>
Fusion Client, Chart	A chart is generated and drilled for product and location combination. After this, if a pivot swap was done between location and calendar dimensions and the chart was then generated for calendar and product combination, the previous chart level labels were still seen to be persisting in the current level field at the bottom. This is fixed and the chart refreshes correctly.	16458513
Fusion Client, Chart	In a split view, a graph draw validation error just flashed before the user could read it. Now, the error popup is dismissed once the user clicks ok.	17752411
Fusion Client, Chart	The pie chart is getting resized and not becoming unresponsive on resize anymore.	17966823
Fusion Client, Copy/Paste	In some paste cases, where there are differences in copied clipboard size to that of selected paste area, a message warning is now shown to let the user decide on the course of action.	17656881
Fusion Client, Dim Popup	The Apply button is now enabled upon adding attributes to the selected pane in the show and sort attributes tab.	17862319
Fusion Client, Dim Popup	Users can add/remove attributes after clicking the Apply button on the show attributes and sort screen.	18203886
Fusion Client, Domain Transparency	The domain map for all connected global domains is shown in the log whenever the user brings up the About dialog. This logging is at INFO level of init, if enabled. This can be used to understand the domainidx_n assignments so that friendly domain name resources can be configured properly.	18353611
Fusion Client, Dynamic Position Maintenance	Users were able to add the position without entering the Label in Position Maintenance. This is now fixed.	14460033
Fusion Client, Dynamic Position Maintenance	An incorrect error message was displayed while deleting a DPM position after moving its child level positions to a different parent. This is now fixed.	17227649
Fusion Client, Dynamic Position Maintenance	Users cannot delete all available dynamic positions. The option on the context menu gets disabled in this case.	18051199
Fusion Client, Fill	Quick fill was broken using Brazilian Portuguese (br) in a browser. This issue is resolved.	19531700
Fusion Client, Fill/Clear	The label of the fill value used to disappear when the measure type is SHS in Fill/Clear. This is now resolved.	17815840
Fusion Client, Fill/Clear	If a measure's NA value is null, when concatenated with empty string it produced a result as null. This was getting displayed instead of an empty string on clear. This also had the side effect of running into a custom menu exception. This issue is fixed.	17973824
Fusion Client, Fill/Clear	The validation for a double measure on edit/fill was incorrect. This is fixed.	18203834
Fusion Client, Fill/Clear	An appropriate warning message is displayed since read-only measures cannot be cleared.	18035673
Fusion Client, Find	The Find feature in the Wizard works fine with a large number of positions after applying the ADF patch 18886249.	19675005

<b>Affected Component</b>	<b>Fixed Issue/Defect</b>	<b>Defect Number</b>
Fusion Client, Find	Users can now enter the "(" character in the search box for a grid search in a pivot table.	19568441
Fusion Client, Format	Pinpointing the source of formatting problems will help users better remedy the situation and capture the details of bad formatting cases. Such cases are reported in the log file.	18141408
Fusion Client, Java 7	IllegalArgumentException, related to a sort algorithm change in Java 7, is now fixed.	19726492
Fusion Client, Level Split	A Java null pointer exception, while exiting select split dialog in level splitting after deleting a saved split, is now fixed. The user gets an appropriate message.	17861348
Fusion Client, Measure Profile	The Save Profile button gets enabled once the user tabs out or focuses out of the text field. Users can then save the profile in the show /hide dialog.	16622675
Fusion Client, Non-RPAS	Removing the <root> element from plugin-log4jconfig.xml allows Fusion Client logging to continue and adding additivity="false" to plug-in loggers in plugin-log4jconfig.xml prevents plug-in log messages from showing up in the FC logs.  <pre>&lt;logger name="poview.viewcontroller" additivity="false"&gt;   &lt;level value="DEBUG" /&gt;   &lt;appender-ref ref="poviewFileAppender" /&gt; &lt;/logger&gt;</pre>	16943648
Fusion Client, Non-RPAS	When the resources are externalized in solution plug-ins, only the first locale to access the application was honored. This is now resolved and different users can use their specific locales.	17936748
Fusion Client, Non-RPAS	The solution plug-ins should pick up default L10n files if the external resource files are not available.	17943398
Fusion Client, Non-RPAS	In the Purchase Order (PO) View solution plug-in, columns are now getting displayed in the selected locale language.	18279404
Fusion Client, Non-RPAS	If there is a home page Extension Framework Plug-in (Non-RPAS content) configured for a solution, users creating a new workbook from the Home Page Alert Manager were not being prompted to save unsaved changes before creating the workbook. This is now fixed.	18499485
Fusion Client, Non-RPAS	Extension Framework Plug-in menus and menu items now support localization.	18504784
Fusion Client, Paging	The synchronize page edge feature is now working fine with dynamic position maintenance activated for the workbook.	18715194
Fusion Client, Paging	In an alert workbook with multiple worksheets, synchronized page edge enabled, and horizontally tiled, if you navigate to the next/prev alert using the alert navigation buttons in the worksheet, having alerts with the panel collapsed, the page edge position was not being updated in the top collapsed panel. This issue is resolved.	19778951
Fusion Client, Performance	The java.lang.outofmemoryerror when working with the application for sometime is now resolved. Users can work uninterrupted.	17464259, 19385010
Fusion Client, Performance	Wizard code has been re-factored for performance and scalability.	18204169

<b>Affected Component</b>	<b>Fixed Issue/Defect</b>	<b>Defect Number</b>
Fusion Client, Pivot Table	Tab, Ctrl+Enter, Enter based navigation works as expected in the pivot table.	13022502
Fusion Client, Pivot Table	Single hierarchy select width in the pivot table is adjusted to show long labels.	18139582
Fusion Client, Pivot Table	An undefined cell color is now displaying correctly as per the setting in the PivotTableStyles.properties file.	19045314
Fusion Client, Print/Export	The Export dialog of Fusion now stays in the background for 30 seconds so users can save the file at ease. Users have to dismiss the dialog when done early.	14116392
Fusion Client, Print/Export	On exporting, the background color is now in sync with other positions on the workbook.	17216427
Fusion Client, Print/Export	After exporting a workbook with Dimension Format, the product column alignment in Excel was incorrect. This is now fixed.	17966774
Fusion Client, Refresh	While refreshing the workbook, a check was missing where Fusion Client inserts the alert measure only if the measure exists in the workbook. An appropriate check is added and now the refresh action does not result in any error.	19520942
Fusion Client, Single Hierarchy Select	The sort for the calendar dimension is removed. Now, if the Single Hierarchy Select component is showing positions from the calendar dimension, they are displayed in the order added in RPAS.	18315817
Fusion Client, Taskflow	A runtime exception, when trying to go to a step in a task by ignoring the hidden levels that do not belong to the current hierarchy, is fixed. This could happen with the patching and save format.	18811656
Fusion Client, Taskflow	There were cases when the left-hand navigation tree did not render properly. This is now fixed.	19501388
Fusion Client, Taskflow	Better runtime exception handling is done and appropriate message dialogs are shown to the user.	19822913
Fusion Client, Wizard	An issue with forecasts list not displayed in the forecast approval workbook wizard in Oracle Retail Demand Forecasting (RDF) is now fixed.	19695689
Fusion Client, Wizard	NullPointerException on checking synchronize hierarchies in the Wizard is now fixed.	18000987
Fusion Client, Wizard	No error message was displayed when the label field was left empty in the save favorite screen.	18039280
Fusion Client, Wizard	The random illegalargumentexception in the two-tree wizard is fixed.	18057970
Fusion Client, Wizard	An appropriate error message is displayed when next/finish is clicked on the Wizard without any selection.	18058054
Fusion Client, Wizard	The Apply button now properly gets disabled after an operation is cancelled on the show and sort attributes screen.	18058949

<b>Affected Component</b>	<b>Fixed Issue/Defect</b>	<b>Defect Number</b>
Fusion Client, Wizard	Fixed Find: With no selection, find starts searching from the first row (last row for find prev). It warns the user "No more matches found" once it reaches the end (or start for find-prev). When the user has some selection on the Wizard, the search starts from that row and wraps as necessary. The user sees the end-of-search message ('No more matches found') once find reaches back to the first search result. Any change in search text or direction (that is, if the user changes search from find-next to find-prev or vice-versa), the start point is reset to the currently selected row.	18197250
Fusion Client, Wizard	In the wizard, even though the favorite has been deleted, the message "Favorite selected:newppqd" was displayed on the bottom of the Wizard selected items panel. This is fixed.	18203721
Fusion Client, Wizard	Users can sort on date format attributes in Wizards without running into an exception.	18203855
Fusion Client, Wizard	The issue is fixed with Wizard selections being cleared when an alternate hierarchy was chosen for a selected tree.	18203894
Fusion Client, Workbook Open	Navigation among steps in a saved workbook causes the workbook to be reopened, an unnecessary step. Code has been fixed to avoid the reopen.	18499541
Fusion Client, Workbook Open	The pivot table UI component is updated to validate the current selection as part of its initialization. Any invalid selections are removed before being rendered on the page.	19797609
Fusion Client, Workbook Save	In Fusion Client, aggstate was still writable even if aggstate was set to read-only and basestate was set to write. This is now fixed.	17920370
Fusion Client, Workbook Save	The workbook Save functionality was not enabled when using text pop-up to edit string measures. This is resolved.	18062635
Fusion Client, Worksheet PQD	Saving the current selection as a favorite clears the check-mark in the Wizard. This is now fixed and users should see the check-marks after saving.	18000843
Fusion Client, Worksheet PQD	When auto PQD and Page Edge Synch were both on, the Position Query was being executed before the page edge would synch, causing the current page to not auto-execute its position query. This issue is fixed.	18391726
Fusion Client, Worksheet PQD	The automatically evaluate position queries option works correctly when switching between workbook tabs.	18910345
Platform Specific, HP-UX	Some RPAS binaries were core dumping on HP-UX servers. The PrintMeasureInfo utility was found to core dump occasionally on HP servers. The HP server makes a system call which sometimes was found to fail the first time for no exact reason. To resolve the issue, the code ensures the system call is triggered again when it fails.	17589399
RpasFunctions, ResizeProfile	ResizeProfile was aborting when the destination length was less than or equal to zero. It is now fixed to return an NA value, log a message, and continue without aborting.	18480690
RpasTemplates, Auto Workbook Maintenance	The Autoworkbook maintenance edit screen allowed invalid values such as -1 or 0.1 for the frequency in days entry since no validation was being done for frequency value. Validation is added.	17751756

<b>Affected Component</b>	<b>Fixed Issue/Defect</b>	<b>Defect Number</b>
RpasTemplates, Auto Workbook Maintenance	On one of the wizards of the Auto Workbook Maintenance template, the radio buttons were not properly centered. The Auto Workbook Maintenance template code is fixed to resolve the issue.	18395025
Server, Alerts and Workbook Classic Client, Grid View	Alert navigation functionality using the View / Find Next Alert menu was not working. The presence of excessive space between two dimensions caused an issue when parsing the alert cell address. The extra space between the dimensions is removed.	17020698
Server, Alert Manager	The alert manager was throwing an exception while running findAlerts on an alert measure with a mixed case or upper case name. The alert manager utility was case sensitive, which was affecting the findAlerts functionality. The alert manager code is fixed to convert the alert name to lower case before findAlerts is run.	17167355
Server, Alert Manager	A batch run on an RDF domain fails with a position not found error. An alert name, used as part of the batch run, was found to be in mixed case string name instead of the expected lower case name. This caused the lookup to fail while looking up the alert_ grp array for the mixed case alert. To resolve the issue, the alert name is converted to lower case before the lookup.	17206712
Server, Alert Manager	Users were not able to build an AlertManager workbook on an RDF domain using the Forecast Approval template. There was a delay in ranging the hierarchy to filter non-alerted positions due to the fact that all the cells of the alert measure were impacted. This caused a time out while reading from the TCP/IP stream. To resolve this issue, the ranging is bypassed when the alert measure is fully populated.	17273237
Server, Alert Manager	Alert navigation does not start at the alert position navigated to when the workbook was saved and reopened. The navigation reverts back to the beginning. The current alert position was searched from the alert indices array at the wrong index. The server code is fixed to use a proper index.	17440207
Server, Alert Manager	Hierarchy ranging during an Alert Manager workbook build was taking a long time to finish which caused delays to the workbook build. The Alert Manager code is now optimized to efficiently iterate over the alerted cells during ranging.	18682178
Server, Alert Manager	alertmgr -sumAlerts returned an unhelpful exception if -findAlerts was not run before it. Since findAlerts was not yet run, there were no alerts in the alert_resolved array, so alertmgr was not able to convert the NA type during the -sumAlerts run. To resolve this issue, the alerts are skipped that do not yet exist in the alert_resolved array.	19125886
Server, Bridge	While marshalling position format data, the bridge transcodes the data from the client code page into the server code page. When the position format was empty, this caused an issue. The bridge layer is fixed to transcode only when the string length is greater than zero.	18391819
Server, Calc Engine	String replication was causing issues during calc engine spreading. The replp spread method was not handling the string replication correctly. The spreading logic fixed.	18269683

Affected Component	Fixed Issue/Defect	Defect Number
Server, Calc Engine - Aggregation	The calc engine was failing when both the Left Hand Side (LHS) and Right Hand Side (RHS) measures in an expression had their aggregation method as hybrid. The reason is the temporary array generated by the calc engine during the aggregation did not have its NA value set properly. The NA value of the temporary array is fixed by setting it to the RHS measure's NA value.	17905024
Server, Calc Engine - Aggregation and Spreading	While editing EOP measures at the aggregate level, the editing process was deleting other cells' data, which was not related. In some cases, a measure array was created at an aggregate level just before the calculation. Since the array changes at aggregate level did not exist, the change array got created by copying the actual array which had to be created in full mode, in this case, unlike the incremental mode. While spreading from the aggregate to base level, a precision adjustment was performed, which was wiping out the data for other cells. The server code is fixed to bypass the precision adjustment check in this case.	17486465
Server, Calc Engine - Spreading	Spreading for EOP measures was not working correctly when executed through a custom menu, which is a full mode evaluation compared to incremental mode. The spreading logic is corrected to keep the spreading behavior the same for both full and incremental mode evaluation.	17869843
Server, Copy/Paste	If cells locked at the base level were aggregated and then pasted with copied values, the locked cells were getting updated at the base level. The paste functionality on the server side is corrected to check whether a cell is locked or not.	17824763
Server, Copy/Paste	When non-elapsed cells were copied at the base or at any level other than the All level and pasted at the All level, the values were also getting pasted to the elapsed cells. There was a check to verify whether a cell was elapsed or not when users performed a single row copy/paste. This check was missing when doing a multi-row copy/paste. The server is fixed to do the check for elapsed cells when multi-row copy/paste is used.	17300239
Server, Custom Menu	Additional parameters need to be passed in to the custom menu script because the current workbook ID was not sufficient to uniquely identify it across local domains. With the introduction of the multi-solution task flow, the Fusion Client can initially log in to a global domain, but can later shift to a local domain and conduct transactions. This has created an issue for Oracle Retail Category Management, which requires a custom menu script to run on a particular workbook ID, which was not unique across all domains. The custom menu is now allowed to pass in additional parameters, such as domain path and user ID, to the script.	17422618

Affected Component	Fixed Issue/Defect	Defect Number
Server, Dimension Attributes	<p>Situations occurred where you could add a new hierarchy / dimension to the configuration and create measures with the baseint of the new dimension and use them as dimension attribute measures. If the user then patched the domain with these configuration changes, it resulted in an exception. When the user added a new hierarchy with a dimension and then patched the domain, the dimension registry updated the new hierarchy and dimension in data/meta.db and data/hmaint.db. When the user tried to add the dimension attribute, the dattmapping array which already existed did not get updated with the new dimension that was getting patched.</p> <p>This is resolved by adding a check, while registering the dimension attributes, to determine that if the dimension does not exist in the dattmapping array but exists in the domain, and then adding the dimension to the dattmapping array.</p>	17339288
Server, Dimension Split	<p>The logical dimension name was displayed instead of the logical dimension label when a dimension was split on a workbook, which was then saved and reopened. The logical dimension label was not being read from the dimension dictionary. Upon splitting a dimension, the logical hierarchy and logical dimension labels were set in the dimension dictionary. To resolve the issue, the split label is read from the dimension dictionary.</p>	17167310
Server, Dimension Split	<p>An error was encountered or split hierarchies reappeared in the view, even when the split was removed, before saving the view. This was because non-existent window hierarchies were not removed while updating window hierarchies in style.xml. This is fixed.</p>	17171377, 17470017
Server, Dimension Split	<p>On AIX machines, doing a dimension split resulted in a bad allocation error. This was caused by incorrect memory allocation during the addition of new elements. This is fixed.</p>	17379843
Server, Dimension Split	<p>An error was being thrown when doing dimension split using a clustered attribute and the cluster values were specified such that one of the clusters was empty. The empty cluster caused a problem in an internal looping mechanism which is fixed.</p>	17462835
Server, Dimension Split	<p>When doing dimension split in a workbook that contained a measure with hybrid aggregation, an error was thrown. The logical dimensions created by the dimension split were not being handled by the hybrid agg calculation and hence it threw the error. The hybrid agg calculation is fixed to handle dimension splits.</p>	17750849
Server, DPM Manager	<p>The bulk add feature of DPM positions was affected when the user provided the base name for the positions and a count of positions to be added. The server generated a sequence of numbers which got appended to the base name to generate a unique DPM position name. The server was sending an invalid prefix after the first position was added, resulting in an exception. The DPM manager is fixed to generate the correct name during bulk add.</p>	17051527

Affected Component	Fixed Issue/Defect	Defect Number
Server, Dynamic Attributes	A user connected to a domain through the client and created dynamic dimension attributes on a workbook and logged off. When a second user logged in and tried to build the same workbook, a server exception was thrown. The second user was able to see the attributes created by the first user at the user level. Upon trying to use such attributes, a server exception got generated. The function which filters user-defined dynamic attributes based on the logged in user was not working properly. The dimension attribute manager is modified to properly filter the attributes based on the user name.	17260349
Server, Dynamic Attributes	Dynamic attributes were being looked up using the user name instead of user ID which was causing an exception to be thrown. The dimension attribute manager is fixed to use user ID instead of user name.	18950058
Server, Dynamic Attributes	On Workbook build, a new measure set returned null to the measure pointer if the measure names were in lower case in the measure set and in upper case in the dynamic dimension attributes. This caused the workbook build to fail. To resolve the issue, the measure names are converted to lowercase.	19420048
Server, Elapsed Locks	Measures which were not editable became editable when rolled up to the all calendar level. Also, elapsed measures became editable when aggregated. The elapsed locking functionality was broken at the all calendar level. The server passed the wrong dimname for the elapsed positions at the all calendar level. For the elapsed position allposclnd, an empty dimname was being sent. The dimname is corrected to alldimclnd.	17422529
Server, Fetch	During a server calculation, a fetch call was getting triggered for measures not currently visible on the client. These measures were part of the hidden windows. Because the results of the server calculation need to be fetched only for visible measures, this was causing a performance delay when displaying the results on the client. The server and client code are fixed to properly trigger the fetch.	17582270
Server, Format	Saved styles were causing a forecast approval workbook build to fail. The saved styles were showing a worksheet which was later removed. The styles logic is fixed.	18521122
Server, Hierarchy Maintenance Workbook	<p>The hierarchy maintenance workbook was showing the measure name instead of the measure label after it was built, saved, closed, and reopened. To duplicate the issue, register a user-defined dimension. Enable admin to modify that dimension and create a new hierarchy maintenance workbook on that dimension. Save the workbook, close it, and open the saved workbook. Note that the measure name instead of measure label is being displayed.</p> <p>During workbook build, the measure label was fetched from the dim_meas array. However, when the workbook was reopened, the measure labels were searched in the translation table because these labels were getting translated. Translations do not exist for dynamic measures, and in such cases, the measure name gets returned. The server code is fixed to use the workbook version of the measure label if the measure label could not be found in the translation table.</p>	17290752

Affected Component	Fixed Issue/Defect	Defect Number
Server, Hybrid Aggregation	Hybrid aggregation on a measure with ambg as Defagg on clnd and total as Defagg on loc and where the values at clnd level were not the same, does not result in a "?" at the AllClnd level. The ambg aggregation initially performed on the clnd produced the correct results and a "?" was observed. However, subsequent aggregation on the non-clnd dimension where the Defagg was other than ambg, was overwriting the previous aggregation results. A check is added to prevent the ambg results from getting overwritten if the src and dest dimensions are at the same level.	17323086
Server, Insert Measure	Measures are allowed to be inserted into a workbook even when the user or the template does not have the required permission to do so. insertMeasure is updated so that required validations are done before a measure is inserted and an appropriate error message is displayed if the validation fails.	17044921
Server, Java Bridge	String interning speeds up string comparisons, which are sometimes a performance issue in applications (such as compilers and dynamic programming language runtimes) that rely heavily on hash tables with string keys. Without interning, checking that two different strings are equal involves examining every character of both strings. To resolve the performance issue, the Java bridge interface is fixed to use an intern during these situations.	17300468
Server, Java Bridge	This issue is specific to AIX. When a calculation involves multiplying two variables, which can take the values of -1 and 0, the result comes out as -0. On other platforms, the value returned is 0. The java bridge code is fixed to reset the value to 0 when it encounters a -0.	17334399
Server, Java Expression	Executing a Java expression (on a workbook) as part of a rule group using Mace caused a failure. If the base dimension in the workbook (for example, Week) was not the root dimension in the domain (for example, Day), a position calendar map got created to map the base dimension position of the workbook to the root dimension position of the domain. Using the map, when Oracle Retail fetched a DateTime through workbook, the method invoked by the map, used the index on the domain root dimension which was Day instead of using the index on the workbook base dimension, which was Week. To resolve the issue, the base dimension of the measure store (Workbook) is used to get the correct index.	17589448
Server, Measure Analysis	Using a language other than English, the window labels on a measure analysis workbook were not getting translated. If users for example, set the client language to Portuguese and logged into the Fusion Client to create a new measure analysis workbook, they found the window labels were not translated. Since the workbook was not saved yet, the server was not triggering the label translation properly. The measure analysis and workbook template code is modified to properly translate the labels.	17156919
Server, MultiSource	The existing LHS measure values were not getting cleared while executing MultiSource. The LHS measure is now cleared before the RHS measure values are set.	18391894

Affected Component	Fixed Issue/Defect	Defect Number
Server, MultiSource Expression	When trying to perform an aggregation using multisource where the right hand side measure with nearest intersection was aggregated to the left hand side intersection, the result was coming out to be incorrect. When the option to perform aggregation was set to true, multisource tried to find the nearest right hand side (RHS) measure with base intx below the base intx of the left hand side (LHS) measure. However, the map used to find the nearest intersection had other intersections which were above the LHS measure's intersection. This resulted in choosing the wrong measure's intersection by the multisource code. The multisource code is fixed to correctly choose the right hand side measure and aggregate its values.	17463000
Server, MultiSource Expression	After adding or deleting a dynamic position maintenance (DPM) position (on a DPM enabled dimension part of the base intersection of the left hand side measure of a multisource expression), when the multisource expression was run, a server exception was getting thrown. MultiSource expression was expecting the intersections at aggregated levels which were not available because DPM operations were deleting the aggregated arrays. To resolve the issue, the measure instance at aggregate levels are regenerated as needed within the MultiSource expression.	17038256
Server, Password Admin	During upgrade of domains, the password hash algorithm measure was not retained as a picklist measure because the measure was not re-registered as a picklist measure during the upgrade. The upgrade module is updated to register the password hash algorithm measure as picklist.	17750438
Server, Password Encryption	Password encryption hash algorithms have been updated. Updates include the addition of recommended new algorithms, deprecation of older ones, and making the strongest available algorithm as the default one.	19529942
Server, RPAS Functions	The RPAS Attribute function was taking longer to execute. Server code is modified to fix the performance issue.	18504538
Server, Special Expression	Running a RankSort expression using Mace resulted in a memory allocation error. The memory allocation and memory cleanup are fixed.	18422466
Server, Translations	The Single hierarchy select error message was not properly translated. By making changes to the r_msglabel.ovr file, the issue is resolved.	17463060
Server, Translations	Users were unable to edit labels in the Translation Admin workbook after loading padded translation files. Client-side validations were failing for some measures because the padded translated files had invalid characters. The invalid characters are removed from the translation files.	17084521
Server, Upgrade Module	While closing a Forecast Administration workbook, an RPAS server exception related to alerts hit count array stated that a workbook position cannot be deleted from the wb_hit_count array. The issue was that the wb_hit_count array in alert db was getting linked to the dimension registry which should not be the case. If the WB dimension in the hitcount array is the same as the WB dimension in the domain, then the array is linked. The upgradeModule is fixed to recreate the hitcount array.	17248698

Affected Component	Fixed Issue/Defect	Defect Number
Server, Wbq Decentralization and DimRegistry	When the patchWbq script was run to decentralize the workbook queue, the script was leaving behind backup files in the dimregistry. This interfered with the reindex operations, causing the resulting dimregistry to be incomplete and corrupted. The patchWbq script and DimRegistry code are fixed.	17288891
Server, Workbook	While building a workbook template using different wizard selections, hidden windows were no longer back. The user had to log out of the client and log in again to build the workbook with correct worksheets. To resolve this issue, _discardedWindow is cleared once the workbook build is done.	17050270
Server, Workbook	The creation of extended measures was failing when the cumulative intersection of all measures in a workbook exceeded eight. This was because measure r_fetch_context was registered with base intersections of all the measures in the workbook. This is changed to count base intersections of only the extended measures.	17300421
Server, Workbook	Workbook build issues were caused due to a case mismatch in the format data. The template code on the server side is fixed by converting the case to lower case.	18391847
Server, Workbook	Auto-fill of a clustered attribute did not work for never-displayed rollup levels. On autobanding, the new instance of the measure did not aggregate for dimensions above the current dimension level. The code is fixed to aggregate the new measure instance for higher dimensions.	18816430
Server, Workbook	Committed values were not showing up in the workbook when it was built from the master domain. This is a side effect of the fix made for defect 18601109. The server code is fixed to consider the corner case where the destination array need not be cleared.	18850586
Server, Workbook	Images for image measures were not getting displayed when the workbook contained hier mod. Workbook creation code bypassed setting up of image measures when the workbook contained hier mod. This is fixed.	18950319
Server, Workbook	The workbook build used to fail because of incorrect referencing of the Calendar hierarchy. This is fixed.	19346768
Server, Workbook	This bug caused a No transaction initialized error message to be shown when a context selection XML was used to build the workbook. To resolve this issue, the server transaction that handles the build workbook request is updated.	19605259
Server, Workbook	Building of a workbook failed when the measure type for attribute measures was being fetched from the source measure and the source measure was not included in the workbook. This issue is resolved by reading the measure type from the attribute measure and not from the source measure.	19627817
Server, Workbook Format	While trying to patch a domain with a modified configuration where the default aggregation of one of the measures used in the template level styles was modified, the user and group level styles were not getting updated with the modified configuration. This resulted in a workbook build error. This is fixed by updating the styles at users/groups level along with template level during patch installation.	19140829

Affected Component	Fixed Issue/Defect	Defect Number
Server, Workbook, Hiermod	Using hiermod to remove an image-enabled dimension from a workbook template used to cause an Aggregation Type exception. This used to happen because measures for the image-enabled dimension were copied to the workbook regardless of whether the dimension existed or not. To resolve this issue, the image measures are filtered out for dimensions that do not exist in the workbook.	19044635
Server, Workbook, Custom Menu, DPM	During the concurrency testing of workbook build, custom menu, and DPM operations, the Hmaint and Language databases were getting locked by one process while forcing other processes to wait for the locks to be released until the lock time-out and then to throw contention errors. To resolve this issue, the duration of these locks is optimized during all of the three operations.	18761861, 19263154, 18950175
Server, Workbook, POP	Pasting data from a POP measure at a higher intersection into another POP measure at a lower intersection was causing issues. To resolve this issue, a measure instance for the destination measure is created at the auxiliary intersection of the source measure.	18422515
Server, Workbook, Security Administration	Users were able to create more workbooks than what was specified in the Workbook Limit Per User/Template worksheet of the Security Administration Workbook because of an incorrect setting of NA and limit values. This is fixed.	17072896
Server, Wizard Page	In the Classic Client during wizard selections for a two tree wizard, rolling up to a higher level and deselecting the lower level positions did not work properly as the wizard was still displaying the lower level positions. The server created a range map with the dimension name and their positions for lookup during the wizard process. The map key was in upper case at the time of creation, but at the time of the lookup, the key was provided in lower case and the map returned an empty set for the lower level dimension. The map and lookup are fixed to use a lower case dimension name.	17424553
Server, Wizard PQD Manager	The Position query definition name becomes ineligible when saved with a Chinese name. While creating the position query description file, the server was not recognizing the utf-8 multi-byte characters and was replacing it with underscores. The issue is resolved by making sure the ASCII-based character check is not adopted when the language is not English.	17390302
Server, Wizard PQDs	Wizard PQDs were not loading properly when the domain was upgraded from 13.4.1.HF to 13.4.3. This was due to the presence of a new field in the newer version of PQDs. The version check logic is modified to handle the new PQD file format.	18977296

## Known Issues

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

Affected Component	Known Issue/Defect	Defect Number
Fusion Client	Revert/undo does not work on the drop down (waiting for ADF fix).	18266096
Fusion Client	Unable to select multiple cells on Fusion Client on Microsoft Internet Explorer 11 (waiting for ADF fix).	18731606
Fusion Client	Drag/drop not working on wizard (waiting for ADF fix). Hence, drag/drop is disabled for now.	19068576
Fusion Client	A Java null pointer exception occurs when a measure is dragged and dropped. Due to this defect, drag/drop is disabled on all tabs of the Wizard & Worksheet Dimension Popup to avoid the exception. Drag/drop will be enabled once the ADF fix is made available.	19069150
Fusion Client	CTRL+a and add/remove fails to add/remove all the items in the workbook wizard.	19443341
Fusion Client	undo list - location list only shows content partially.	19640970

## Related Documentation

For more information, see the following documents in the Oracle Retail Predictive Application Server 14.1 documentation set:

- *Oracle Retail Predictive Application Server Installation Guide*
- *Oracle Retail Predictive Application Server Administration Guide for the Classic Client*
- *Oracle Retail Predictive Application Server Administration Guide for the Fusion Client*
- *Oracle Retail Predictive Application Server and Applications Security Guide*
- *Oracle Retail Predictive Application Server User Guide for the Classic Client*
- *Oracle Retail Predictive Application Server User Guide for the Fusion Client*
- *Oracle Retail Predictive Application Server Configuration Tools User Guide*

## Supplemental Documentation at My Oracle Support

The following document is available through My Oracle Support. Access My Oracle Support at the following URL:

<https://support.oracle.com>

### **Cygwin Setup Guide for RPAS (Doc ID 1333398.1)**

This document details necessary options you should select when installing Cygwin to make it function properly with RPAS.

## **Oracle Retail Predictive Application Server 14.1 Cumulative Fixed Issues (Doc ID 1606657.1)**

This document details the fixed issues and defects for all RPAS patch releases prior to and including the current release for the 14.1 code line.

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

The following document is available through My Oracle Support. Access My Oracle Support at the following URL:

<https://support.oracle.com>

### **Release Readiness Transfer of Information (TOI) Recordings (Doc 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. Note that Oracle Retail products with minor updates often do not have an associated TOI.

## **Previous Releases**

For information on previous Oracle Retail Predictive Application Server release enhancements and additional information, refer to the release notes and documentation that accompany the previous releases.

## **Documentation Accessibility**

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#### **Value-Added Reseller (VAR) Language**

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