

Oracle® Retail Predictive Application Server

Release Notes

Release 13.3.2

March 2013

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.

Note: After the 13.3.1 release, AIX 5.3 will no longer be supported.

Note: Due to known ADF issues related to the use of Google Chrome, the RPAS Fusion Client may drop support for Chrome in the next release until these issues are resolved. For additional details on these issues, see "[Known Issues](#)".

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 1333398.1)

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 RPAS

Do not set the `Drpas.maxProcesses` setting within the `RIDE_OPTIONS` environment variable. There is a known issue with using this option with this variable. This known issue is documented in bug 13587312 in the "Known Issues" table.

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:

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.

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*, the *Oracle Retail Predictive Application Server Administration Guide for the Classic Client*, and the *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
```

Technical Enhancements

The following technical enhancement is included in this release:

Fusion Client Port Range Settings

The Fusion Client is enhanced to a feature previously available to the Classic Client. This feature determines how connections are made to the RPAS server.server by limiting the ports on which the RPAS DB Server processes are started.

This capability is accomplished by using a new, optional tag in each solution specification within the Foundation.xml configuration file, as shown in the following example:

```
<solution>
  <name>solid</name>
  <description>description</description>
  <server-name>rpaserver</server-name>
  <daemon-port>55555</daemon-port>
  <domain-path>/path/domain </domain-path>
  <database-port-start>1025</database-port-start>
  <database-port-end>65535</database-port-end>
</solution>
```

These settings are provided to the DomainDaemon through a ConnectionConfig object when each connection is established for each solution. The resulting RpasDbServer connection respects these settings. These are equivalent to the corresponding Advanced Settings in EConfigure used by the Classic Client.

RPAS DB Server Port Range

When a user connects to a solution on the RPAS server, the initial connection is to the DomainDaemon over the specified daemon-port. Once that initial connection has been made, a separate process called the RpasDbServer, specific to that user, is started on another port and that is used for the duration of the user session. Each user session has a different RpasDbServer process on a different port. This setting limits the RpasDbServer ports that are used, perhaps to avoid conflicts with a firewall.

Foundation's solution specifications now take optional database-port-start and database-port-end tags. Each must be an integer from 1025 to 65535, and database-port-start must be less than or equal to database-port-end. The default value for database-port-start is 1025 and, for database-port-end, it is 65535.

These values are provided to the server through the ConnectionConfig. The DomainDaemon uses a port within that range. If there are no ports available within the range, the user request is denied and no RPAS DB server is started.

In multi-solution configurations, the user establishes one connection to an RpasDbServer for each solution to which they have access. If the solutions are on the same server, the user can use more than one port for a single Fusion Client session.

Solution Spec Validation

Some validation is added for the solution specifications in Foundation.xml. For each solution, the name, server-name, and domain-path must be non-empty and all ports must be valid. Invalid solution specifications are logged (an init error in rpas_fc.log or equivalent) and skipped on application startup.

Note: Updates for this technical enhancement will be made to the *Oracle Retail Predictive Application Server Configuration Tools User Guide* in a future release.

Noteworthy Defect Fixes

The following noteworthy defect fixes are included in RPAS 13.3.2:

Affected Component	Fixed Issue/Defect	Defect Number
Auto Workbook Build	<p>When a workbook category was deleted, any assigned auto workbook queue entries from local domains that were assigned to that category were not being reset back to the default category. The process of removing the workbook category and updating the existing queue entries was not looping across all domains. Now, it assigns the existing queue entries to the default category and does not loop through all domains.</p>	16297463
Classic Client: Alerts	<p>Building a workbook from the Alert Manager window by clicking an alert would result in an unexpected exception in the workbook when rolling up to a higher level and switching to the outline view. This was a client side issue. During the workbook creation process, after the workbook is opened, the alert position details were populated. To populate the alert position details, a lookup was done on the position map. But when the workbook was built from an alert window, the positions were not yet populated into the map. The lookup was returning a NULL position, which was causing the issue when the workbook was opened.</p> <p>Now, the position map is checked during the lookup to see whether the positions are already loaded or not. If not, the positions are loaded and then the lookup is done.</p>	16284069
Classic Client: Attributes	<p>The location labels in the Show/Hide tab did not match the labels from the workbook. The workbook labels were accurate. The positions names were no longer prefixed with their dimension names. Many places were already fixed to accommodate this. However, the attribute value cache in the Show/Hide dialog was missed. In the Show/Hide dialog, the hidden and visible attribute value caches are changed to have an extra level for the dimension, so that positions on different dimensions with the same name do not try to use the same attribute value list.</p>	16179440
Classic Client: Cut, Copy, and Paste	<p>When doing a server-side paste operation, the server checked if the measure ranges were equal. If not, the paste operation threw an exception stating that the ranges were incompatible. This exception occurred even if the range of the source measure was a subset of the range in the destination measure or if all the cells being pasted were within the destination range. The server-side paste did not perform cell by cell range verification for measure ranges, although it did for dynamic upper and lower bounds.</p> <p>Now, when performing a server-side paste, each cell is verified against the destination measure's range in addition to the dynamic upper and lower bounds. If any cell is out of bounds, an exception is thrown and no cells are pasted.</p>	9893822

Affected Component	Fixed Issue/Defect	Defect Number
Classic Client: DPM	The page-axis position queries were not run after adding a DPM position. Therefore, the new informal position was visible when it probably should have been hidden by the position query. The DPM code did not accommodate page-axis position queries. DPM now re-executes the page-axis position queries after a position is added or modified.	12693490
Classic Client: Export to Excel	Export worksheet did not export column or row labels. In the export dialog, the options were not displayed. The cause is related to how the client was internally compiled. This is corrected and the export should export column and row labels.	14653040
Classic Client: Formatting	After a workbook was built with multiple maximized worksheets in different tabs, switching between tabs would render some of the worksheets in tabs to be not maximized. The windows in the new group were unhidden first. Then, the state of windows in the current group was saved and the windows were hidden. But after un-hiding windows in the new group, the state of windows in the current group got lost. The resolution is to save the state of windows in the current group before un-hiding windows in the new group and then hide the windows in the current group.	14828254
Classic Client: Grid Display and Edit Cells	Changing the format on the workbook resulted in a column width that could not be re-sized in Outline mode. The client was failing to execute when the text box's border line was greater than the final width. The user should now be able to re-size the vertical bar between dimensions in Outline mode.	9862083
Classic Client: Grid Display and Edit Cells	The row/column selection was not the same as in previous releases. When a user employed double-clicks to make a selection and then double-clicked the same column or row, the previously selected row/column would not be unselected like it was in previous versions. The client has been fixed to work the same as in previous versions.	14592789
Classic Client: Grid Display and Edit Cells	The synchronized worksheet was not working correctly in the client. Making a change in one sheet was affecting the other worksheet which was supposed to be synchronized. For example, there are 2 worksheets (worksheet 1 and worksheet 2) which are synchronized. A checkbox on worksheet 2 is clicked and now it is active. Now, the cursor is moved to worksheet 1. The worksheet 1 becomes active, but still the checkbox on worksheet 2 is active. Now, when any changes made on a checkbox cell (measure) on worksheet 1, even though the worksheets are synchronized, the checkbox cell on worksheet 2 is not getting repainted or updated properly. The resolution is when the cursor moves from one worksheet to another worksheet window, the active cells on the deactivated worksheet window are made inactive. In this way, there is no active cell locking and the cells are updated properly.	14796683

Affected Component	Fixed Issue/Defect	Defect Number
Classic Client: Locking	When a measure at a higher intersection was locked at an aggregate level, all the cells of the measure at the lower intersection were locked. The map function was not correctly mapping the worksheet intersection with the modified intersection if the worksheet intersection had fewer hierarchies compared to the modified intersection. The condition is removed and now locking should be working correctly.	14663831
Classic Client: Sort and Display Attributes	An attribute measure showed the value of a hyper dynamic picklist measure instead of its own label when using that measure in the "Show Attributes and Sort" dialog. Code was missing to pass the attribute label. The resolution is to pass the corresponding attribute label of the value to the client from the hyper dynamic picklist entries of the measure. Now, the user is able to see the attribute label instead of the value for a picklist measure attribute.	14705594
Classic Client: Translation	Opening a workbook was not refreshing recently loaded labels from the language database. It is fixed to get the labels from the language database, even for already built workbooks. This happens at workbook open time.	13976591
Classic Client: Wizards	The workbook wizard did not enable the user to remove the selected positions from the right pane of the wizards. Positions could still be de-selected from the left pane. The client has been updated and now users can de-select positions in the wizard right pane.	15897139
Classic Client: Worksheet Position Queries	When having two hierarchies on the z-axis, issues were found with scrolling functionality when position queries were utilized. When hiding one hierarchy, the user was not able to scroll through the other hierarchy. This situation is resolved.	15902095
Classic Client: Worksheet Windowing	<p>The user was unable to select the correct window using the Menu option Window and selecting More windows. If the user selected any one window from the windows list that appeared, the selection became random and the selected window did not display. This was found to be related to two different issues. First, when opening a workbook, the windows are shown but none of them are set to active. Second, when opening a workbook and after the windows were shown, the first tab was <i>pressed</i> by the code. This caused the tab change handler to execute with the first tab being both the old tab and the new tab. However, there was code to hide all windows in the old tab so all the windows were becoming hidden. Then, the first window was being displayed again because it did not allow for all windows to be hidden when opening the workbook. This gave the appearance that the new windows were being hidden, when in fact, all but the first window was being hidden.</p> <p>The resolution is that when the workbook is being opened, the windows must be activated, not merely shown. Also, when changing tabs, account for the old tab and the new tab being identical hiding the windows that are not in the new tab instead of hiding windows in the old tab.</p>	11938708

Affected Component	Fixed Issue/Defect	Defect Number
Configuration Tools: Domain Build	<p>The domain build would fail for certain configurations. The configurations in question contained a measure whose base intersection was defined by a labeled intersection. However, the label used was not defined in the configuration (that is, no definition for the label was present in the hierarchy configuration). This resulted in an improperly formatted input file and resulted in the build failure. The presence of an undefined labeled intersection in the measure was a configuration error. As such, the build continued to fail.</p> <p>Now an error message stating the nature of the configuration error is written to the log and reported to the user.</p>	14659841
Configuration Tools: Layered Configuration	<p>Users encountered conflicts when attempting to add a measure to a configuration when using the ConfigManager utility. The underlying cause was that the new measure made use of a measure component that was also new to the configuration. This new measure component was not properly processed because it was a minor component of a new major component. This is what caused the cascade of problems that resulted in the error encountered. To restate the base problem, when merging the addition of a major component using the ConfigManager utility, the minor components of that new major component were not being properly processed and would not also be added to the configuration.</p> <p>The problem preventing the minor component of a newly added major component is corrected. The addition of children of a new major component is be recorded and applied.</p>	14233053
Configuration Tools: Rule Group Simulator	<p>Users of the rule simulator would experience errors when selecting certain measures for edit. This error would cause the simulator to exit. The measures that would cause the error were measures that should be marked as protected (that is, unavailable for editing) either because they were forced by some other edit or were protected by the calc engine. The simulator should mark these protected measures with a light blue background and prevent them from being marked for edit. However, the simulator was failing to do so and so they could be selected. The error was a case issue caused by the move to integer indexing in 13.3.0.</p> <p>This case issue is corrected and now the simulator properly marks protected measures and prevents them from being selected for edits. This prevents the errors reported and gives a proper indication of the rule group under simulation.</p>	16165921

Affected Component	Fixed Issue/Defect	Defect Number
Configuration Tools: Rules	When editing rule expressions, users experienced an issue in which the auto-complete functionality was not working correctly. Although the auto-complete list would pop up as users entered text, it was not possible to navigate through the popup using the arrow keys to select a completion. The behavior was only experienced by users of Microsoft Windows 7. Differences in the Look and Feel for Java in Windows 7 resulted in a piece of code that previously managed the selection of the popup failing to do so. The issue with the popup selection is corrected so that users of Windows 7 should now be able to modify the auto-complete selection using arrow keys.	12874404

Affected Component	Fixed Issue/Defect	Defect Number
Configuration Tools: Rules	<p>The Apply Pattern functionality was exhibiting a number of behaviors that were confusing to the user. In particular, the interaction between this functionality and the rule pooling functionality caused the use of the "Use Existing Rule" and "Create New Rule" components to result in the opposite of the expected behavior. Using the existing rule would result in the creation of a new rule. Large portions of the apply pattern functionality have been modified or reimplemented. The following describes the new expected and actual behavior:</p> <ol style="list-style-type: none"> 1. When launching the Apply Pattern dialog, the selected rule acts as a template for the newly generated rules which recreate the template expressions using measures similar to the templates. That is, rules that are created for the PI role may act as a template for the creation of new rules that set the same expressions but that apply to the Mg role for the same Metrics and UOMs. 2. Once the candidates from this rule generation operation are set, they are presented to the user in the form of a list. This list contains two types of entries, new rules and updated rules. New rules represent rules whose measure signature did not exist within the rule group prior to the apply pattern operation. Updated rules are rules whose signature, but not necessarily expressions, did not exist in the rule group prior to the operation. 3. The user can make use of a list of check box controls to select which rules to add to the rule group and which to omit. New rules are appended to the group, whereas updated rules replace existing rules that share a signature with the candidate. 4. Finally, the user may specify a policy to determine how rules created by the apply pattern functionality interact with existing rule content of the configuration through the rule pool. The policy is set through a drop-down box. If ALWAYS is set as the policy, the Configuration Tools update the rule group with a rule that already exists in the domain (if one does). If NEVER is selected, new instances of rules always are created, even if another rule in the configuration has the same expressions. If PROMPT is selected, those rules that are replicated elsewhere in the configuration trigger the rule locator dialog to allow the user on a rule by rule basis to decide whether to create a new rule or use an existing one. <p>The apply functionality now produces rules in accordance to the expectation. There are no unintended side effects on rules outside the dialog.</p>	13361559

Affected Component	Fixed Issue/Defect	Defect Number
Formatting	<p>Measure formats could be corrupted after changing the aggregation type of the measure. Measure formatting is stored by the fully extended measure name, which includes the aggregation type. If the aggregation type was changed, the server was unable to locate the formats for the measure since the key to find the saved formatting had changed. This resulted in some unpredictable irregularities on the client, one permutation of which was a corruption of the control type and read-only state. This was seen by a client where a Boolean measure was displayed as a string of True or False instead of checkboxes.</p> <p>Upon reading the saved formats, the server now verifies the visible measure list to make sure that everything listed is still valid. Anything found that does not correspond to a valid measure for that worksheet is stripped out. If this results in an empty visible measure list, all measures are visible when the workbook is first built. Workbooks now build correctly when measures have been removed or changed.</p>	15936836
Fusion Client: Activity Taskflow	<p>Clicking on cancel after the user decided to not save a new workbook threw an exception. When the user clicked cancel, the previous workbook was reopened. During this process, the windows were set to null initially to rebuild after the workbook reopen. In the case of the user not saving a new workbook, there was no workbook to open to and the windows were null throwing the above exception. A check is added in the wizard controller to only open the previous workbook if there is one to navigate to, otherwise the windows are not cleared so the navigation back to the home page happens smoothly.</p>	14392222
Fusion Client: Activity Taskflow	<p>Cancel in the select domain dialog when in the workbook page of an unsaved workbook, was causing an error. There was no workbook in context any longer, so the user should have returned to the home page. Now when cancel is clicked, the client does not automatically open the previous workbook when there is none. Instead, the user is prompted that they are returning to the home page because there is no workbook in context.</p>	14849885
Fusion Client: Alerts	<p>On using the Next Alert and Previous Alert icons, the client did not pick the next available alert. Instead, it kept navigating between the same hits. The issue occurred when the alert hit position dimension happened to be on the page edge. The search index was being reset to start the search from the beginning when the pivot layout was changed. However, the cache was also getting cleared every time the page edge position was scrolled. In this case, the page position was scrolled because alert hit positions were on the page edge and that was why the search toggled between just two positions on the page edge. The cache is no longer cleared and the user can navigate through all the alert hits.</p>	16170586

Affected Component	Fixed Issue/Defect	Defect Number
Fusion Client: Alerts	Page synchronization did not work with the Find Next Alert Functionality. When using the Find Next Alert that required the positions on the page edge to change, other pages were no longer synchronized. The Find Next Alert action was not calling the synchronization process. This is updated so the page should be synchronized when the positions on the page edge change as part of the Find Next Alert.	16237777
Fusion Client: Calculate	Calculate action took almost 15 seconds on the Fusion Client whereas it took only 7 seconds on the Classic Client. Calculate presents a splash screen to block user input. However, this was slow because it involved 2 server roundtrips. Now, a different approach is used which is completely client-side and uses JavaScript to present a previously loaded popup while the action is in process. No server roundtrip is involved.	14269812
Fusion Client: Cell Editing	When an editing error was being displayed, if the user initiated an action from the context menu or the page edge that caused the pivot table to be refreshed, the invalid value was replicated to all of the editable cells after the refresh occurred. This is an underlying ADF issue, but a workaround is provided. The Fusion Client resets the editable component that has the error before refreshing the pivot table.	13325302
Fusion Client: Commit	The user was unable to get commit status for a workbook owned by another user. Open a workbook that had been previously created and saved by another user with World access. The commit status text on the banner portion of the page had "Unable to get commit status." The workbook config was fetched only for the currently logged in user. This fetch is updated to get it for all the users. The user can now see the commit status.	14186591
Fusion Client: Custom Menu	<p>The Fusion Client resulted in a NullPointerException when a user with special characters in the user name performed a custom menu operation. The null pointer exception was thrown when the client tried to get the last commit status. In the client, the workbookConfig object which contains the workbook details was NULL. The workbookConfig object was not populated. The issue was happening when the user name had special characters. When having special characters, the user name and the user ID are different. If the user name has special characters, like sp.user, the system generated userId is something like uid1. This works as a mapping since the user's workbook directory cannot have special characters as it is an operating system restriction. During the process of getting accessible workbooks, the user name and user ID were compared which was creating the issue, instead of comparing user IDs.</p> <p>Now, changes are made to find the corresponding user ID of the user name for validation. This prevents any null pointer exceptions.</p>	15850686

Affected Component	Fixed Issue/Defect	Defect Number
Fusion Client: Cut/Copy/Paste	A null pointer exception occurred when "Copy to External" was executed with a blank drop-down value, when no NA value was defined for the measure. There were also other problems with copying blank cells. Copying single cells, where the last cell was an empty cell, did not copy/paste the last empty cell. Additionally, Copy to External of single cells where the first cell was an empty cell did not copy the first empty cell. The client was assuming the value of the cell was non-null and this caused the NullPointerException. The null pointer exception and the other issues described around copying blank cells are fixed.	16018886
Fusion Client: DPM	The DPM editor was invoking the Bulk Add Dialog after the root node was added. This was producing an error when the edit was sent to the RPAS server. The first edit of any DPM enabled level should show the Bulk Add Dialog. Any additional node edits should show the single node edit for that level. The bulk node flag was not set/cleared correctly when the root node was edited. The recognition that the bulk edit had occurred was based on the number of nodes edited, but should have been that an edit occurred in the primary hierarchy. The build edit flag is now tracked based on the first level being edited in the primary hierarchy.	14216677
Fusion Client: DPM	The delete position option was always enabled no matter what position was selected. If a user selected the delete position option on a non-informal position, the application would hang. The informal position check was not being performed correctly. The client is updated to disable the delete position option for formal positions.	16230935
Fusion Client: Export to Excel	The export of worksheets with dimension styles could not be opened in Excel. The exported xls file would reference a style it never defined. This is corrected.	14467563
Fusion Client: Fill	When the product dimension was on the page edge and a level higher than the base level was selected, the fill dialog did not have the spread method enabled and was also defaulting to replicate. The logic that disabled the spread was missing taking dimensions on the page edge and was only using dimensions on the other edges (row and column). Also, since integer indexing, the spreading methods had changed to lower case and the client was still using upper case to look up the spread method. The logic is changed that disables the spread to include dimensions from the page edge. Also, the spread methods are changed to look up from upper case to lower case.	16202837
Fusion Client: Formatting	The Fusion Client was not displaying dates in the format configured by a user through the "Regional and Language Settings". This was a problem which was hard-coding the date format as %m%d%Y and setting the LocaleInfo date format to this pattern. The code is changed to get the default date format pattern for the current locale and use that to set the LocaleInfo's data format.	13795910

Affected Component	Fixed Issue/Defect	Defect Number
Fusion Client: Formatting	IndexOutOfBoundsException occurred during open workbook when creating a new workbook using saved formats that hide all selected positions in a dimension. The problem was that only the positions available in a dimension were hidden by the saved format. There is code to recognize this situation and make the first available position visible, but it did not work correctly in cases where the non-base level was involved. This leaves no visible positions and leads to the exception. The client is updated to handle this situation correctly.	14566230
Fusion Client: Grid Display	Ambiguous characters were not being displayed for ambiguous checkboxes. This is corrected and should be displayed correctly.	14400001
Fusion Client: Miscellaneous	The Fusion Client log, in the log4jconfig.xml that ships with the Fusion Client, was called rpas.log which caused confusion with other server side logs. The installer is updated to change the log file name to rpas_fc.log.	15917508
Fusion Client: Miscellaneous	Sometimes returning to the homepage resulted in a BracketSuffix error. This seemed to be a timing issue where the application cleans up the workbook and window state prior to returning to the homepage. In the case of the BracketSuffix error, components on the workbook page were being rendered prior to the navigation, after its dependent state had been cleaned up. This is resolved by cleaning up the state upon returning to the homepage.	16314493
Fusion Client: Sort	A data streaming error occurred when trying to do a row sort using the sorting icons. The keypath on the simple sort definition was null for row edge sorting. The code was relying on keys within the keypath of the sort definition to build it. For row sorting, there are no icons to display so the sort definition can be null. Now, the keypath is checked on simple sort definition. If null, send empty sort information as there are no sort icons to display on the pivot table header for row edge sorting. The user is able to select a row and sort columns based on a measure on page edge using the sort icons.	14532452
Fusion Client: Taskflow	A Null Pointer Exception was thrown when a user tried to create a new workbook from the manage alerts popup with an unsaved workbook open when they cancelled the save dialog. The reason for the exception was that when the save dialog was cancelled, the parent view was not updated and the alert popup that was launched was holding onto a stale view. To resolve the bug, the only possible solution was to close the alert popup when the save dialog is cancelled.	16327437
Fusion Client: Wizards	Scrolling of the available tree in the wizard took minutes when there were thousands of positions in the tree. A linear search was performed to the position with the specified key and returned the index corresponding to that key. The fix is to change this model to track the current selection by index rather than by key.	14698237

Affected Component	Fixed Issue/Defect	Defect Number
Fusion Client: Wizards	Cancel from a wizard process for building a workbook with thousands of potions took a long time (over a minute). The cancel button handler was unnecessarily rebuilding the tree structures corresponding to the available and selected position trees in the wizard page from which Cancel was executed. This was taking a long time. The fix is to remove the code that resets the available and selected trees in the current wizard page.	14698298
Fusion Client: Wizards	Issues were found in the wizard that uses prerange masks. Build a workbook that uses prerange masks with one of the partition dimensions as intersection on any local domain. The mask measure must have positions selected across multiple local domains. The workbook does not need to be built fully. Without logging out, build the same workbook template on the master domain. On the wizard that contains the partition dimension, the positions shown on the list did not contain positions other than the positions in the subdomain that was initially selected. The template cached the prerange intersection from the initial domain. That intersections dimension space is later used to build the cached prerange measure. Since it was first cached with local domain dimension space, later array creation did not have the correct list of positions. Therefore, the positions returned to the client did not change. Now, the client detects that the domain has switched and recreates the intersection.	15829589
Fusion Client: Wizards	Clicking on cancel within a wizard after a user decided to not save the workbook from which they navigated, threw an exception that stated something like "java.el.PropertyNotFoundException: Target Unreachable, 'BracketSuffix' returned null." When a user clicked cancel, the previous workbook was reopened. During this process, the windows were set to null initially to rebuild after the workbook reopen. In the case of the user not saving a new workbook, there was no workbook to open to and the windows were null throwing the exception. A check is added in the wizard to only open the previous workbook if there is one to navigate to, and otherwise, not clear the windows so the navigation back to the home page happens smoothly.	15832977
Fusion Client: Wizards	Sorting of the column headers was not happening right on the wizard. Scrolling after a sort led to runtime exceptions being thrown on the page. There was a recent performance enhancement to maintain a cached map of key to index for quicker lookup. This cache had to be cleared each time the ordering of the rows changed. After a sort, the map had to be rebuilt since the row ordering had changed. Code is added to clear the cache after sorting either through the dimension popup or sorting on column headers.	15980162

Affected Component	Fixed Issue/Defect	Defect Number
RPAS: Domain - Installation and Patching	The CreateGlobalDomain utility failed when specifying globaldomainconfig.xml which contained subdomains in different paths when called as part of the rpaInstall process. During the creation of the skeleton subdomains, the code initialized the subdomain before setting the property master_path and domain_type correctly. Domains now are able to be created with subdomains in different paths.	15867155
RPAS: Domain Patch	When patching a domain with a configuration where measures have been removed, the database files for the removed measures were not removed from the domain. This happened in a global domain environment. The measure database folders got removed from the master domain, but did not get removed from the local domains. The master domain folder path was added to the top of a list of databases that need to be removed. Since the master domain was removed first, local domain removals failed. Now, the master domain databases are only removed after all the local domains.	14822082
RPAS: ODBC	Using RPAS ODBC driver, some SQL queries of labels returned internal position names instead. When the query was in a pass-through mode (for table join), an old interface to obtain position labels was called which only accessed the master domain for label translation. If the position was on a dimension below the partition dimension, the label translation was only in the local domain and this old interface was not able to find it and returned the internal position names. The ODBC driver code is modified to use a new interface to get position label translation. The ODBC query now returns correct position labels instead of internal position names.	15868487
Utilities - Hierarchy Loading	When any position is moved from on partition position to another partition position within the same subdomain, rpaDataMoverServer (processes less than 1) is still being called even though there is no data moving activity. The reclass function did not check the subdomain path and only checked whether it had been reclassified to another partition position. The utility is updated to check for subdomain path before creating reclass dependency map which triggers the rpaDataMoverServer call.	14733092
Utilities - Hierarchy Loading	Issues were found during running of the loadHier utility with the forceNAConsistency flag. The first time a hierarchy file was loaded, the utility failed on the inconsistentNAHandler process. When the same process was run again with the same file, it worked fine. The inconsistentNAHandler failed while fixing NA values for new positions. When adding a new position to the dimension with the forceNAConsistency option, inconsistentNAHandler threw an exception saying position A does not exist in dimension B even though position A was not added to dimension B. The tracking array name was not correctly set and got the name mixed into a single array. The array name is fixed and the issue resolved.	14736303

Affected Component	Fixed Issue/Defect	Defect Number
Utilities: Alert Manager	An expression cannot be added to an alert using the alert manager utility (alertmgr). It was failing to handle alerts with upper case letters. This is resolved by converting the alert name into lower case while checking in the alert arrays for the existing alert. Users should be able to add expressions without any issues.	16067302
Utilities: Copy Domain	When copyDomain was used with limiting sub-domains (where only a sub-set of partitioned dimension positions were selected), it failed with an "InvalidMapOperation" exception. When the r_subdomainpath array was getting updated at the end, copyDomain had to reduce the partitioned dimension positions in this array based on the number of positions selected in the beginning and call the delete positions directly on this array which caused an issue as it triggered a delete operation on the standard dimension stored in the dimRegistry. The resolution is to create a non-standard dimension for the partitioned dimension. This non-standard dimension contains only a sub-set of positions. The new array is renamed and used to replace the existing r_subdomainpath array.	13069599
Utilities: Copy Domain	An error occurred when trying to use both the -skipConfig and -skipInput options together for copyDomain: "loadHier caught Exception: No directory for domain xml configuration file." When calling loadHier to trim the partition hierarchy, it updated files within the config directory and these were no longer in the domain. RPAS has removed the -skipConfig option from the copyDomain utility so this issue does not occur again.	15872810
Utilities: Load Measure	The loadmeasure utility left more staging arrays in the staging database than the number specified in the loadstokeep measure attribute. The wrong calculation was being performed. The loads kept were one more than the loadstokeep attribute. For non-stage only measures, the loadstokeep attribute is ignored and is always 0. The cleanup is fixed to keep the correct number of staged loads.	13003901
Utilities: Load Measure	The loadmeasure utility failed in multi-process mode if the data file contained non-parseable lines. This behavior was only observed with loads with multiple small input files. When it was called with multiple files, the error code became the number of failed lines. To recreate, create a couple of malformed ovr files for a non-higher based intersection measure. Trying to load that with a single process, loadmeasure succeeded. However, with multi-processes, it failed. The resolution is to continue to return a success code, but output the malformed data lines as warning messages.	16165727

Affected Component	Fixed Issue/Defect	Defect Number
Utilities: Mace	<p>Problems were found when running simple rule groups using the mace utility. Mace did not allow executing a rule group consisting of non-HBI measures from the master domain for the following reasons:</p> <ol style="list-style-type: none"> 1. Even though the rule group contains only non-HBI measures, mace was not designed to run it from the master domain and spawn it across local domain as it required too many checks to make it work differently for special expressions as sometimes the special expressions could take more than one left-hand side measure and some of them could be HBI and some non-HBI. 2. It is not a properly configured rule group if the expressions in the rule group have both HBI and non-HBI measures which need to be evaluated. RPAS may not be able to detect this at the time of configuring the solution as the partition dimension can be changed in the globalDomainConfig.xml. 3. The rule group may contain special expressions and regular RPAS expressions (as in 1 and 2) and that adds to the complexity to the rule engine to properly evaluate these expressions when run from the master domain. 4. The above restrictions do not apply when mace is run on a single expression where the LHS can be a HBI or non-HBI measure. <p>There is only one situation where a rule group can be run from the master domain and that is when all the LHS measures of the expressions in the rule group are HBI measures. This type of rule group cannot be run from local domains and needs to be run from the master domain.</p> <p>Proper validation is added to the mace utility to identify these conditions and flag them to the user and exit gracefully. The <i>Oracle Retail Predictive Application Server Administration Guide</i> will be updated with these additional validation points in future release. The following validations are added:</p> <ol style="list-style-type: none"> 1. If mace is executed against a master domain and the executing expressions within the rule group contain non-HBI measures on the left-hand side of expressions, excluding special expressions, mace exits with an exception. 2. If mace is executed against a local domain and the executing expressions within the rule group contain an HBI measure on the left-hand side, excluding special expressions, mace outputs a warning message but the execution continues. <p>The end result is that mace cannot execute a rule group that contains non-HBI measures on the LHS against the master domain and provides a warning when running a rule group with HBI measures on the LHS against a local domain.</p>	16036821

Affected Component	Fixed Issue/Defect	Defect Number
Utilities: Workbook Batch	<p>The RPAS utility wbbatch threw the following error when there were workbook auto build requests in different local domains: "wbbatch: caught exception UnexpectedCellType: An NA cell cannot be converted to a DateTime type!" The WBQ dimension was centralized from 13.3.0 onwards so the WBQ dimension registry was present only in the master domain. There was a mismatch in the information stored in the master domain and the local domains.</p> <p>Now, the WBQ dimension is de-centralized. The name and status files are in the local domains dimension registry as well. The createGlobalDomain is modified to take care of this while building a new domain. An upgrade module is written to take care of the existing domain during upgradeDomain.</p>	14102982
Wizards	<p>In the wizard, the product hierarchy showed item Parent followed by the alerter roll-up tree Color/Color Group and only then came the main hierarchy followed by the other alternate rollups. The sequencing appeared to be alphabetical rather than what was defined in the configuration tools. This was only in the wizards and not the workbook. A map was used to cache the dimensions by the hierarchy manager which caused the dimension order to be sent out in sorted order. The original order of the dimension names is saved and used to pull out the dimensions from the map during batch processing to register the hierarchy.</p>	14092395

Known Issues

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

Affected Component	Known Issue/Defect	Defect Number
Attributes	Some dimension attributes are not displayed in the Select Sort/Display Attribute dialog for certain hierarchies.	16279630
Building/Patching Domains	When users set the maxProcesses argument through RIDE_OPTIONS, the patch installation would fail. The dimension manager server utility no longer supports the maxProcesses argument. When rpasInstall made the call to dimensionMgr as part of the patch, it tried to use that argument. This resulted in dimensionMgr throwing its usage. The rpasInstall utility no longer makes use of the maxProcess argument in calls to dimensionMgr, even when a maxProcesses argument is set in RIDE_OPTIONS.	13587312
Fusion Client	Sometimes clicking on a button in a dialog does not do anything in Google Chrome.	10318422
Fusion Client	When using Google Chrome and the Fusion Client, the calendar popup does not display when users click the Calendar icon of date measures. Users can enter the value manually, but not through the popup.	12338888

Affected Component	Known Issue/Defect	Defect Number
Fusion Client	<p>Several issues have been found with picklist and single hierarchy date selection measures when using the Google Chrome browser. This includes times when the drop down of a picklist measure cannot be selected to see the values. The down arrow is not available to the user because of the size of the column. For date single hierarchy select measures, the date picker will not display.</p> <p>Note: These two issues are ADF issues. To work around the date picker issue, the user can directly enter the date into the cell instead of using the date picker. If experiencing the other picklist issues, it is recommended that the user move to a different browser.</p>	13729120
Hierarchy	<p>A client found that the elapsed locking functionality was not working as expected. The issue was found to be that the same position name is used across more than one calendar dimension. Currently, both clients loop over all the dimensions of the hierarchy and set the elapsed lock for the first dimension that has a match with the position name. At this point, the Fusion Client breaks out of the loop, but the Classic Client iterates overall other calendar dimensions and sets the elapsed lock to where a match was found. This causes the incorrect behavior in the Fusion Client.</p> <p>The workaround currently provided is to have unique position names for the calendar dimension positions.</p> <p>Note: Duplicate position names across dimensions in a hierarchy should be avoided until a comprehensive fix is provided.</p>	16184712

Related Documentation

For more information, see the following document in the Oracle Retail Predictive Application Server 13.3.2 documentation set:

- *Oracle Retail Predictive Application Server Installation 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 13.3.2 Cumulative Fixed Issues (Doc ID 1532402.1)

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

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.

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For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

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Value-Added Reseller (VAR) Language

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