

# Oracle® Retail Predictive Application Server

Release Notes

Release 13.4

December 2012

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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.

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

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**Note:** Due to known ADF issues related to the use of Google Chrome, the RPAS Fusion Client will be dropping support in the next release.

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## 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 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*, 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
```

## Functional Enhancements

The following functional enhancements are included in this release.

### Ranking and Cumulative Extended Measures

RPAS allows for the configuration of extended measures. These types of measures are display measures that are based on a given source measure and only calculated when displayed to the end user. These measures are configured at the workbook level and cannot be used within a rule. The Percent of Parent extended measures, that have been in RPAS prior to this release, can also be created on the fly in both the Classic Client and Fusion Client.

The best way to explain extended measures is to explain a percent of parent measure. For a percent of parent measure, a given source measure like sales can be selected. The extended measure for percent of parent can be either an absolute or relative percentage. In this example, the extended measure is set as a relative percent of parent. The extended measure is calculated only when visible to the end user and displays the relative percentage to the next level.

In RPAS 13.4, RPAS has introduced two new types of extended measures: rank and cumulative. For cumulative extended measures, they can either be a cumulative percentage or cumulative value. A ranking measure provides a value that indicates the relative order of positions in either ascending or descending order. The rank can be displayed for only the base level or at all levels displayed. A cumulative sum is a sequence of partial sums of a given sequence based on an ascending or descending rank. A cumulative value is a sequence of partial sums of a given sequence based on an ascending or descending rank expressed as a percentage to the total.

All of these new measures can be configured in the RPAS Configurations Tools. They are read-only measures that are visible to users of both the Classic Client and Fusion Client. Users of the Fusion Client are also able to create these extended measures on the fly in the client.

## **Consumer Decision Tree**

The 13.4 release introduces a new type of RPAS template that allows for the creation of Consumer Decision Trees (CDTs). A CDT represents an ordered decision flow for a consumer of a certain category of product made prior to buying the product. The tool within the Fusion Client allows the user to create an unbalanced tree where each decision point represents an attribute value. Instead of viewing a pivot table for a particular task and step in the Fusion Client, the user sees a hierarchy editor tool, referred to as a CDT Editor. This tool is used for creation, edit, and removal of CDTs.

## **Dynamic Position Maintenance (DPM) Updates**

Prior to RPAS 13.4, restrictions were in place that did not allow for dynamic position maintenance (DPM) to be enabled within hierarchies that either used dynamic hierarchies or hierarchy modifications. Because of the hierarchy modification restriction, this also disabled the use of DPM within workbooks that had hierarchies that contained workbook-only dimensions. These restrictions have been reduced. RPAS now allows for dynamic dimensions (both workbook and domain modified) to be DPM-enabled in the workbook in most cases. This also allows for non-dynamic dimensions to be enabled for DPM when the workbook hierarchy contains dynamic dimensions. Since dynamic dimensions can now be DPM enabled, special handling has been added to write the position information of the informal positions back to the supporting measures. This allows these positions to be reused in new workbooks even though they are not part of the dimension information in the domain-like regular dimensions.

## **Fusion Client Custom Notification Messages**

The RPAS Fusion Client has added the ability to display text-based messages on the user screens. The user can see the messages on the login screen, home page, and workbook pages. This message is set by an administrator within the Fusion Client and can be provided in multiple languages. The format of the message can be set using simple HTML tags. The messages can either be static-based on when the user logged in to the system or dynamic-based on the message changing on the server and the user performing an operation that requires interaction with the server.

## Fusion Client Usability Enhancements

The RPAS 13.4 release contains three usability improvements for the Fusion Client:

- Resizing of the favorites dialog within a wizard. Previously, this dialog was a set size and could not dynamically be resized.
- Changing the highlighting of the selected position within the page or z-axis. The border color and shading have become more apparent to the user. The previous settings made it hard for the end user to see which position was selected.
- Creating a bubble chart that is based on only two measures. In this case, the size of the bubbles are the same.

## Technical Enhancements

The following technical enhancements are included in this release.

### Convert Domain Improvements

In RPAS 13.3, a new methodology called Integer Indexing was introduced to simplify management of multidimensional data in an RPAS domain. Integer indexing aims at eliminating a lot of inefficiencies around the addition, removal, and reclassification of positions in a hierarchy and improving the performance of hierarchy operations.

Since integer indexing uses different internal data structures to manage the hierarchy, a pre-13.3 domain must be converted to the new format before it can be recognized by the new version of RPAS. This conversion is accomplished by using the convertDomain utility.

Domain conversion is an elaborate and complex process which runs on the assumption that the source domain is in a good state free of system level inconsistencies. In reality, an existing domain may be in an undesirable state due to various reasons. This can cause failure of the domain conversion process.

In order to enable a smooth transition in upgrading to RPAS 13.3 or later and enjoy the benefits of integer indexing, RPAS has made several updates to utilities to both help in the analysis of the current domain prior to the conversion as well as help in the convert domain process. These updates include the following:

- Creation of a fixDomain utility. This new utility should be run against the domain that has been updated to the latest 13.2.3 hotfix. The fixDomain utility can be used to detect and fix data inconsistencies in the domain. The utility can also be used post conversion to fix any unlinked arrays. The convert domain process may generate a list of arrays that are unlinked. An unlinked array is defined as an array which contains one or more non-standard dimensions which should be standard. This utility will fix those arrays.
- Update of the scanDomain utility. The utility has been enhanced to list all likely unused databases in the domain. This information can be used later in the conversion process to exclude these unused databases so as to not convert unnecessary information. This helps performance and reduces the risk of failure due to corruption.

- Update of the convertDomain utility. Several updates have been made to this utility to help ease the conversion process. The first is the option of suggesting a bit size. The utility can generate a table of suggested bit sizes for dimensions in the domain and may also display a warning and a list of measures whose key sizes are greater than 64 if the suggested bit size is used. This helps in setting of the bit sizes in the configuration. The second enhancement is the option of providing a list of databases to exclude. This list can be generated by the scanDomain utility.

***Oracle Retail Predictive Application Server Domain Conversion for Integer Indexing (Doc ID 1505894.1)***

This White Paper provides detailed guidelines on the domain preparation and conversion process. It is available through My Oracle Support. Access My Oracle Support at the following URL:

<https://support.oracle.com>

## **Support for IPv6 on Linux**

IPv6 (Internet Protocol version 6) is the latest revision of the Internet Protocol. It is intended to be the next generation model to eventually replace the older IPv4. The main advantage of IPv6 is its larger address space. The length of an IPv6 address is 128 bits, compared to 32 bits in IPv4. RPAS Classic Client and Fusion Client support IPv6 in RPAS 13.4 for the Linux platform. IPv4 will continue to be supported.

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**Note:** Currently, RPAS has only fully tested and certified the use of IPv6 on Linux. Additional testing has been performed on AIX and there is a known issue listed in the Known Issues section of this document. Additional testing is required on AIX, as well as other supported platforms (Solaris, HP-UX), in order to certify the use of IPv6. There are no specific issues known for these other platforms, but RPAS has not completed testing and therefore it is not certified.

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## **Fusion Client Technical Updates**

The following is a list of additional technical updates for the RPAS Fusion Client.

- The ADF version is upgraded to 11.1.1.6.2.
- Internet Explorer 9 is supported.

## **Batch Executable Configuration Tools Plug-ins**

The existing automation framework allows the creation of plug-in extensions to the functionality of the RPAS Configuration Tools. These extensions can be used to manipulate the content of a configuration in order to generate or modify configured components.

Previously, RPAS supported two types of extensions. The first was an extension that ran within the Configuration Tools workbench. The second was an extension to the rpasInstall process. For RPAS 13.4, a new third type of extension has been created that allows the execution of extensions outside of the Configuration Tools or rpasInstall. This includes updates to the existing plug-in framework as well as the creation of a utility that can be used to execute a command line extension.

This utility, called execPluginTask.sh, is the harness used to run the new types of extensions.

## RPAS Pluggable Automation Component (rpac)

RPAS is making available a utility called the RPAS Pluggable Automation Component or rpac. This utility enables the creation of highly customizable automated test suites for the RPAS server. The xml-based framework allows for rapid development of tests and ensures that test cases can be quickly copied across locations. The flexible xml schema allows customers to test a large number of RPAS features, from as simple as writing data to a domain to as complicated as building a workbook, running custom menu options, and verifying results.

The xml framework also introduces consistency, accuracy, and reproducibility in the test results. To reproduce a test case, all that is needed is the xml file and a copy of the domain. This helps customers develop automated test cases to quickly test and validate any new RPAS release, patch, or hotfix. This should reduce the amount of manual time it takes a customer to verify RPAS quality and decrease the effort required to upgrade.

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**Note:** The rpac utility operates directly against the domain itself and therefore does not test any Client/Server interaction.

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## Noteworthy Defect Fixes

The following noteworthy defect fixes are included in RPAS 13.4:

Affected Component	Fixed Issue/Defect	Defect Number
Alerts and Exceptions	If there was an alert measure in a workbook that should also be calculated as part of the calc rule group, the workbook was not able to be refreshed. As part of workbook build, RPAS automatically inserted a refresh rule if the measure was considered an alert measure. During the RPAS workbook refresh, both the refresh rule and the calc rule got clashed as a forced measure which cannot be part of two rules and gave the exception "CalcEngineException: Rule R000 in refresh rule group <RULE_GROUP> does not have exactly one expression." The code was checking whether the measure already existed in the left hand side of any refresh rule in order to stop redundant entries. An additional condition is added to check if the measure already exists in the left hand side of a calc rule as well. This is to ensure that only one rule is present either in the calc or refresh rule group for an alert.	14456196

Affected Component	Fixed Issue/Defect	Defect Number
Calc Engine - Performance	Calculations using the timeshift function against the domain were slow. The timeshift expressions created a temporary array that took the calendar dimension from the source array and the rest of the dimensions from the destination arrays. In order to avoid a dimension registry conflict in the workbook build, the expression was making a non-standard version of the calendar dimension so it did not point to a different dimension registry. This is unnecessary overhead for a domain calculation. When creating the temporary array, the timeshift expression now checks to see if the source and destination are the same. If they are, it simply copies the calendar dimension as-is instead of doing an unnecessary copy.	14324440
Calc Engine - Procedures and Functions	Hierarchy modifier [clnd].current did not work properly in the function index. The RPAS function index had the keyword current hardcoded in the code and did a case-sensitive compare against it. As a result, it did not recognize the keyword in lowercase or in mixed case. The function is updated to use a case-insensitive compare when testing the current keyword.	13065829
Classic Client	When executing a Logout or Exit from the Classic Client, the log shows erroneous messages indicating that there was a problem when the loglevel was set to all. Because of the logger "Connection dropped unexpectedly," the message was being logged during Logoff or Exit from the Classic Client for Debug/Profile/All cases. Removing the logger message resolves the issue since Logoff and Exit should not log this "Connection dropped unexpectedly" message.	14022382
Classic Client	When the active cell changed while a drop-down list was open, the client was crashing. The previous combo box control was destroyed. But, then it was being referenced to update the cell with the combo-box drop-down selection. When leaving the active cell, it does destroy the edit control immediately. Instead, it posts a Windows message so that the control is destroyed after all pending Windows messages have been processed. Also, the drop-down box being left on the screen is fixed by explicitly closing the drop-down before posting the Windows message.	14224153
Classic Client	When executing a Logout or Exit from the Classic Client, the log shows erroneous messages indicating that there was a problem when the loglevel was set to all and the DomainDaemon was run with ssl option 1. The incorrect logging message is removed.	14406546

Affected Component	Fixed Issue/Defect	Defect Number
Classic Client - Charting	The client was accessing a null pointer and crashing when copying a window in chart mode. When copying a window, additional steps are performed if the window is in chart mode. That code was trying to initialize the chart before the containing window was initialized. This led to accessing a null pointer. The call to initialize the chart is not necessary because that was already being performed while initializing the window. When copying a window, the call to initialize the chart is removed because it is called during window initialization.	14248446
Classic Client - Charting	After doing an Edit and then Fill on the grid and then toggling to a chart, chart edits were not being properly displayed. When redrawing the chart after an edit, the deferred queue was not being properly processed. The chart refresh code is updated to process the deferred queue on each edit. Also, a minor change is made to the way the queue is processed so that all pending changes are applied.	14384192
Classic Client - Charting	<p>Some settings were not being saved to the workbook or formatting. These settings were:</p> <ul style="list-style-type: none"> <li>■ Size of points</li> <li>■ Shape of points</li> <li>■ Line weight, pattern, and color (if different from point color)</li> <li>■ Gallery (viewing multiple types of charts on the same window)</li> </ul> <p>Flags are added to save this information in the workbook and formatting.</p>	14487250
Classic Client - Commit ASAP	In RPAS 13.3, using domainprop to disable the Commit ASAP functionality did not work with the Classic Client. There was a case mismatch problem while comparing strings since all strings were kept with lower case in 13.3, but these strings were not converted yet. The user should be able to disable Commit ASAP as the case mismatch is corrected.	14163801
Classic Client - Cut, Copy, and Paste	Copy to Clipboard erred out with the message "The number of cells requested and the number of cells returned from FETCH() are different" when the user selected positions from several columns and then scrolled left enough to make a few of those selected positions invisible. The calculation for the rightmost selected column/row was not getting calculated correctly in this case. The code is fixed to set the correct column or row to be fetched. Users can copy to the clipboard even after scrolling so far left/right so that earlier selections are not visible.	14032276

Affected Component	Fixed Issue/Defect	Defect Number
Classic Client - Cut, Copy, and Paste	When working with automatic calculation and using the copy/paste to clipboard, the auto calculation was turned off. RPAS was not supporting the auto calc option in the case of paste from clipboard option as it was treated as a manual edit. Hence, in the case of paste from clipboard option, autocalc operation was turned off. Now, the auto calc is set on after pasting all the cell values from the clipboard and the edited (that is, pasted) values are calculated when auto calc is turned on.	14121464
Classic Client - Dimension Splitting	When hiding a dimension created by a logical hierarchy in a dimension split, the client would abruptly shut down. When no previous group was found, the client would loop further and try to access the data from a null node. If a previous group exists, that group is returned. Otherwise, the code breaks out of the loop instead of looping and trying to get the parent node. The user is able to hide the dimension created by a logical hierarchy.	13724396
Classic Client - Dynamic Attributes	Users could select an extended measure to drive a dimension attribute. This could lead to unpredictable results in the calculations, especially with the extended measures created on the fly since their life is tied to the workbook and the attribute lives beyond the workbook scope. Users are no longer able to create a dimension attribute based on extended measures.	14678536
Classic Client - Formatting	When saving formatting, the user can save their preference as to how they like to save their formatting. When they select "Save only changes", they have the option to include inherited settings from user, group, and template. If they selected user, the preferences were saving that they selected template and vice versa. The user and template flags were swapped when reading the saved preferences back from the server. The order of the flags is corrected so the code behaves properly.	12618263
Classic Client - Formatting	When a user modified the row height and saved the format to the template, the changes were not saved. When a new workbook was built, the format changes to row height did not take effect. A case mismatch was found that caused the client to not be able to correctly parse the formatting. Users can now save changes to the format and view the changes in any newly built workbook.	14107684
Classic Client - Formatting	After doing some format changes, when a user reopened the workbook they would notice that on tab A they would see worksheets that were supposed to be on tab B. This was due to incorrectly activating worksheets. Users will now do not get the extra worksheet on the incorrect tabs.	14188751
Classic Client - Grid Display and Edit Cells	Edits were not being preserved if the user scrolled using the scroll bars. When scrolling, the current value was not being saved before leaving the active cell. The client now makes sure the current cell value has been saved before leaving the active cell. Users can scroll without losing their edits.	13568494

Affected Component	Fixed Issue/Defect	Defect Number
Classic Client - Grid Display and Edit Cells	Floating point numbers beyond the range of -100000000000.0 and 100000000000.0 were displayed in scientific notation on the client even though the scale factor was applied. RPAS was converting the float values beyond the range to scientific notation. Here it was checking whether the value was within the above pre-defined range. If it was beyond the range, the scale factor was applied and the number displayed with scientific notation. To resolve the issue, RPAS first applies the scale factor on the original value and checks whether the resulted value is within the range. If it is beyond the range, then it displays scientific notation. Otherwise, it is displayed as it is. The user is able to see the data in normal format after setting the proper scaled factor.	14138121
Classic Client - Grid Display and Edit Cells	When trying to use the Delete button in a cell, it was not deleting the value in the cell. The user is now able to see the measures NA value once they perform a Delete operation on a cell.	14163071
Classic Client - Grid Display and Edit Cells	On selecting a column and moving to another column, the first column remained selected so both columns were selected. The code is changed to unselect the previous selection if the current selection is not accompanied by a shift or control key press, and then select the new node.	14277751
Classic Client - Grid Display and Edit Cells	A double click on the row or column header did not select and deselect the row or column. It was always selected. To deselect it, the user would have to click CTRL in addition to a left click. This was a result of around code changes made to the mouse clicks. This code is reverted so that a double click selects and unselects the row or column.	14592789
Classic Client - Other	When closing windows, the user was prompted for a close workbook dialog. When closing the workbook, an unexpected error occurred and the client would crash. The collection of hidden windows was getting out of sync during the close workbook phase which resulted in the crash. The behavior where closing the last window resulted in closing of the workbook was not correct. Now, when a user tries to close the last window, the client popups an error box telling them that they have to have at least one visible window in the workbook.	14483073

Affected Component	Fixed Issue/Defect	Defect Number
Classic Client - Page Axis	Hiding positions in the page tree did not trigger synchronized page scrolling or z-axis position queries. There is a message that is supposed to be sent to the grid view when the position that has focus changes. Hiding a node was not sending that notification. Now when the notification is sent, the synchronized scrolling and page-axis positions queries are processed. When a node on the page axis is hidden by 1) hiding a node from the right-click menu, 2) hiding all selected nodes from the right-click menu, or 3) hiding the current node in the show hide dialog, the node changed message is sent to the grid view. This triggers synchronized page scrolling and page-axis position queries.	9430833
Classic Client - Percent of Parent	Percent of parent (POP) measures were going against the next configured level on the Classic Client as opposed to the next visible level, which is how it behaves on the Fusion Client. This is changed in the Classic Client so that POP measures now rollup to the next visible level.	14622535
Classic Client - Performance	Workbook calculation performance was very bad using the Fill operation. There was a big difference in performance between 13.0.2 and 13.3.1. The problem was with the 13.3.1 client. When using the Fill option to edit the cell, even when the measure's default spread type and Fill dialogs spread type options were the same, the bSmartEdit flag was set incorrectly. This was causing an extra spreading operation on the server which caused the performance issue. Now, the flag is set properly and the performance has been restored to previous values.	14788709
Classic Client - Printing	Print preview disabled the portrait and landscape buttons in the page setting dialog. Changing the page orientation did not render correctly in the print preview. Therefore, it had been disabled. In order to have the page orientation changes applied to the print preview, the preview must be recreated. When the orientation is changed in the Page Settings dialog and the Apply or OK button is pressed, the current preview view is destroyed and a new one is created. Also, the order of the buttons in the preview view is changed to be more intuitive (next page to the right of previous page, and close at the far right). Users are able to change the page orientation while previewing.	13459187
Classic Client - Printing	RPAS reported an error trying to save a header or footer with an embedded line feed. The token that marked the escape sequence for an embedded line feed is the same token that marks the end of the field. This has been changed so RPAS can now distinguish between embedded line feed and the end of a file. The server longer crashes in this scenario. However, the client still collapses embedded line feeds.	14494499

Affected Component	Fixed Issue/Defect	Defect Number
Classic Client - Show Hide Measure	The client crashes after splitting a dimension and trying to open the Show/Hide dialog. The issue was that the Show/Hide dialog was caching attribute values off the position name. The positions for all dimensions are stored on the same map. This no longer worked post 13.3.0 because the position names are no longer prefixed. Thus, positions with the same name but on different dimensions try to use the same attribute values cache entry. In this specific defect, there were SKUs and style colors with common names. The crash occurred because the number of attributes on each dimension differed, resulting in an out-of-bound error accessing the attribute values on one of the dimensions. In the Show/Hide dialog, the hidden and visible attribute 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. The user is able to use the Show/Hide dialog with no issues.	14679373
Classic Client - Wizards	The selected positions panel was not getting updated when a user selected a higher dimension, made all other dimensions hidden, and then unselected a previously selected position. Wizard selections were not getting updated correctly in all cases. The client is fixed so that the wizard selections get updated correctly based on the user selections.	14468373
Classic Client - Wizards	The wizard became unresponsive when selecting all positions for a dimension with more than 10,000 positions. This process is updated to improve the performance and allow for the selection of all positions when there is a large number.	14473514
Classic Client - Wizards	Selections made in the two-tree wizard were not working. Clicking on a position would leave any previously selected position unselected. This is corrected and a user can select and unselect positions in the wizard with no issues.	14490143
Classic Client - Worksheet PQD	Moving a hierarchy with active position queries to the z-axis caused the client to crash. Moving a dimension with an active position query to the z-axis caused it to reset. In the reset code, there was a vector that was being accessed without being properly allocated. This is corrected by moving the vector access inside a control block where it has been allocated.	14467831
Classic Client - Worksheet Windowing	If a user started calculation on one tab, selected an editable cell on another tab before starting the calculation, and if the calculation process should change the value of that selected cell, that selected cell behaved like it was edited with the previous value. When a cell was selected and control was switched to another tab, it was not leaving the current active cell. The cell was ending up in an ambiguous state. The user is now able to see all cells calculated properly without leaving any one.	14469205

Affected Component	Fixed Issue/Defect	Defect Number
Config Tools - Workbook Tools	Users who deleted a dynamic hierarchy (by selecting the Remove Dynamic Roll-up operation or by removing a workbook only dimension) would notice that validation messages in the tasklist would persist after the deletion. It is standard practice within the Workbook tool to automatically remove validation messages associated with a piece of content when that content is removed from the configuration. This process was not working correctly for entries in the dynamic hierarchy table. The tools now properly clears the tasklist for deleted dynamic hierarchies.	14472787
Configuration Tools	Duplicate measures are sometimes found in the realized measure tab within the Configuration Tools. When a measure is realized, an entry is made in the map where all the realized measures are stored. The string which was formed to make an entry in the map had an extra space. This resulted in the string not being identified when the measure was checked for its presence in the map. Now, the extra space in the measure string is trimmed to avoid the duplicate entries.	13332156
Configuration Tools	Within the workbook hierarchies panel of the workbook designer, using the select measure popup would not result in the selected measure populating the field if that field was currently being edited. The existing editing session was not canceled by the selection of the measure. As a result, the value present in the editor was overwriting the value selected from the pop-up. Now, the tool explicitly checks for an active editing session when processing the measure selection. If one is in progress, it is canceled before the new value is processed.	14393951
Configuration Tools	When a workbook template is copied inside the Configuration Tools, the new copied workbook would hang and could not be edited further. Investigation into the problem showed that it was changes made to the hierarchy structure of the workbook in the workbook hierarchies panel after the copy operation that resulted in a workbook that could not be loaded into the user interface (UI). Operations performed in the Workbook hierarchies tool resulted in a hier mod graph that was not sorted (that is, dimensions appeared on the left hand side of a term before they appeared on the right hand side of a term). This caused some of the algorithms that build the display models to throw exceptions when attempting to load the workbook into the UI. The tools have corrected the operation that caused the unsorted graph. Also, a step is added to explicitly sort the graphs before initializing the UI so that other unsorted graphs should not cause problems.	14461545

Affected Component	Fixed Issue/Defect	Defect Number
Configuration Tools - Build Domain	If a configuration used separate RPAS names and tools names for dimensions, attempts to build a global domain would fail. This was found when a user changed the RPAS name of the partition dimension in the Configuration Tools. The rpasInstall process was not properly translating the tools name passed as an argument to rpasInstall to the RPAS name needed by createGlobalDomain. This caused createGlobalDomain to fail. The rpasInstall utility now passes the RPAS name of a dimension to createGlobalDomain when specifying the partition dimension.	14147058
Configuration Tools - Configuration Manager	Users of the Configuration Manager were unable to launch the utility in a Cygwin environment. This problem was experienced by users who had entered the RPAS_HOME and RIDE_HOME environment variables using Cygwin style paths as opposed to Windows style paths. The part of the script that should have standardized their path was not executing properly. The launch script is corrected so that it properly launches in a Cygwin environment.	14802771
Configuration Tools - Configuration Manager	When merging changes to configurations using the Configuration Manager utility, changes that affected labeled intersections were not being applied to the output configuration. It was not properly processing the change records for labeled intersections. The changes were improperly discarded and not applied. The utility now properly processes labeled intersection changes.	14186883
Configuration Tools - Custom Menu	Users reported custom menu items appearing in the client with incorrect labels. The labels displayed were the configured labels of menu items from other workbooks. If two menu items share the same name, their labels were improperly applied within the client. Upon examining the configuration, it was determined that such name duplication had occurred. There exists within the Configuration Tools, a mechanism to prevent the duplication of menu item names. However, the copy workbook functionality present in the workbook tool was circumventing this mechanism, allowing duplication to occur when workbooks were copied. This has been corrected so that menu items created when copying workbooks are also guaranteed to have unique names.	14000438
Configuration Tools - Domain Build/Patch	Users would experience an exception during domain build/patch. This exception provided no useful information about the cause of the problem. In the specific case identified, the exception was a result of a misconfigured dynamic hierarchy entry. The entry had not defined a dim or modified dim attribute, resulting in a NullPointerException. Feedback is added so that the cause of the failure is identified when the exception is generated. This enables users to pinpoint what piece of content needs to be fixed. With this change, the install log now contains a fail message stating that the problematic attribute is not specified.	13963596

Affected Component	Fixed Issue/Defect	Defect Number
Configuration Tools - rpasConfigMgr	The rpasConfigMgr utility was not applying all detected changes during the merge operation. If the modified version of the configuration contained a change to either measure components or realized measures in which an attribute that would have an inherited value was cleared (using the Set as Unspecified action), the change was not properly applied upon merging. The rpasConfigMgr was not properly distinguishing between attributes that were inherited and attributes that had been cleared using Set Unspecified. This caused the change to be improperly processed. It is changed to properly distinguish between the two special values of inherited and unspecified. The measure merge code is updated to properly handle the various combinations of inherited and unspecified in the base, modified, and target configurations.	14043489
Configuration Tools - Rules	Users reported unexpected behavior during workbook operations. During a calc cycle, errors would be reported when certain measures were edited. The edits triggered the calculation of a recalc measure. The recalc expression for the measure was improperly configured and could not be evaluated. However, the Configuration Tools did not flag the expression as being invalid. The Configuration Tools now flag as invalid any recalc expression that contains recalc measures on the right hand side, as well as the left hand side.	14164629
Configuration Tools - Validation	Expressions that contained the keyword elapsed would fail validation if the keyword was used on the left hand side of an expression. There was a check within the tools to find occurrences of elapsed because it must be handled differently from measure references for purposes of validation. This check was only finding uses of elapsed if it appeared on the right hand side of an expression. The check is modified to catch both left hand and right hand side uses of elapsed.	14133886
Configuration Tools - Validation	Users experienced the validation check: "This rule uses the level modifier on a recalc measure on the left hand side of its equation." However, upon examining the rule, it could be seen that the level modifier did not appear on the left hand side of any expression in the rule. The validation check to catch this condition was not sophisticated enough to properly exclude all expressions that did not violate the condition. The presence of the == or != operators on the right hand side of an expression would trigger the validation method. The regular expression is tweaked so that it should no longer create false positives for this check.	14318613

Affected Component	Fixed Issue/Defect	Defect Number
Configuration Tools - Workbook Tool	When attempting to perform operations within the Workbook Hierarchies panel of the Workbook Tool, the Configuration Tools encountered exceptions if the operation involved a hierarchy that only contained a single dimension. This case was not handled in the code. It was assumed that there would always be more than one dimension. When only one dimension was there, while creating a map it threw a null pointer exception. The add, remove, and restore functionalities are modified to handle only one dimension. At the graph level, it is allowed to have only one dimension for a hierarchy.	13970923
Configuration Tools - Workbook Tool	Users could select the Make rollup dynamic option for a dimension that was already flagged as a dynamic hierarchy. This would result in multiple entries for a single dimension, which is not valid. The algorithm used to determine whether a given dimension was the modified dimension of a dynamic hierarchy was incorrectly identifying workbook-only dimensions and not classic dynamic hierarchy dimensions. The detection algorithm is corrected. Users who attempt to create multiple dynamic hierarchy entries for a single dimension receive a pop-up telling them the dimension in question is already used in a dynamic hierarchy.	14651906
Configuration Tools - Workbook Tool	Users were able to move the modified dimension of a dynamic hierarchy through the Modify Roll-up operation in the workbook hierarchies panel of the workbook tool. The algorithm, that determined whether a dimension was the modified dimension of a dynamic hierarchy, was not properly detecting this condition. As a result, only workbook-only dimensions were being flagged. The algorithm now properly detects dynamic hierarchies. When a user attempts to use the Modify Roll-up operation on this dimension, a validation message stating that the dimension cannot be moved is displayed.	14652852
Configuration Tools - Workbook Tool	When inserting a workbook-only dimension, it was impossible to insert a dimension under another dimension. When attempting to do so, the user would receive a validation message that a workbook-only dimension could not be inserted under a dynamic hierarchy. The algorithm, that determined if a dimension was a dynamic hierarchy, was incorrectly flagging workbook-only dimensions as well as the modified dimension of a dynamic hierarchy. The algorithm that determines whether a dimension is the modified dim of a dynamic hierarchy is corrected. Users can now insert workbook-only dimensions under other workbook-only dimensions.	14653078

Affected Component	Fixed Issue/Defect	Defect Number
Configuration Tools - Workbooks	<p>It was possible to configure workbooks with dynamic hierarchies that had invalid mapping measures. The tools prevented the user from specifying a measure that had the modified dimension on its base intersection as a mapping measure for a dynamic hierarchy. However, it was possible to create a dynamic hierarchy and specify a mapping measure and then make some other change that made the entry invalid. An example is to go to the measure tool and modify the base intersection of a measure so that it contains an invalid dimension after the dynamic hierarchy entry is created. The tools did not have validation to detect this change. The tools improved the validation on mapping measures to check the intersection of the mapping measures for invalid dimensions. This validation now catches conditions where some change outside the Workbook Hierarchies tab has invalidated the mapping measure.</p>	14707325
Contention	<p>During workbook open and builds, certain databases were locked for longer than necessary. This created larger occurrences of contention among users. Changes are made to minimize the time these databases are locked in write or read mode.</p>	14158216
Contention - Workbook Contention	<p>Contention was found when users were using a dynamic attribute to create a dimension split at the same time another user was running a commit. While adding a new dynamic attribute by one user and clicking Save, and in another session, a large commit rule group is triggered, the contention lock was happening on the measdata database. The database was locked in read-only mode for the complete commit process. When any other process tried to acquire a write lock on the measdata database, it failed with timeout. Now, the measdata database is not locked for the complete commit process. It is opened and locked only when needed.</p>	14018237
Convert Domain	<p>After converting a domain to integer indexing, users were unable to commit workbooks. The rgrpinfo array's info dimension used 12 bits for the key, but after it was copied into a workbook and opened, it used 8 bits only. For the info dimension, RPAS did not use the bit size stored in the array but dynamically calculated it. It now always uses the bit size stored in the array.</p>	14845795
Domain Build	<p>When building or patching a domain, a workbook containing an Absolute percent of parent measure configured for the ALLDim would result in build errors. The tools were not properly writing out the arguments for Absolute percent of parent measures that were configured for ALLDim. This resulted in a malformed fully expressed measure name for the percent to parent measures. This in turn caused the errors in registering templates. They now write out the correct argument (that is, AllDimProd for the product hierarchy). Templates should now properly be registered and built.</p>	14746892

Affected Component	Fixed Issue/Defect	Defect Number
Fusion Client - Alerts	Page synchronization did not work with the Find Next Alert functionality. It was not calling the page synchronization as the next page action would do. Find Next Alert is modified to call the page synchronization code. The user now sees that page synchronization works with Find Next and Find Previous Alert.	14013079
Fusion Client - Alerts	When a user inserted the same alert a second time in the workbook, an error message was displayed with some extra characters that do not have any meaning. The error message from insert alert included the ServerException class name. The user now sees the correct error message without this additional information.	14619593
Fusion Client - Attributes	In a dimension setup, to show attributes in the page edge instead of the position label when the page edge was collapsed, it would change to show the position name. The attribute display now occurs when the label is hidden and the attribute name is the only thing shown. If multiple attributes are displayed, only the left most attribute is shown.	14238163
Fusion Client - Charting	Sometimes, bubbles were not displayed in the chart when in reversed mode. This was caused by the incorrect calculation of min and max values of the axes when in reversed mode. The code is changed to calculate the min and max axis values correctly in reversed mode.	14404872
Fusion Client - Charting	Clicking on the chart/split view toolbar button, with no selection in the pivot table, threw NullPointerException. A null check was missing on the selection while navigating to chart. The check is added and the user now sees an error message indicating no selection was made.	14472757
Fusion Client - Charting	When building a workbook from an existing workbook that has a view in split view, a NullPointerException was thrown. The create workbook operation closes the existing workbook before navigating to the wizard. The wizard navigation causes a refresh of the graph running to the exception. A check is added for the existing workbook in graph implementation. The user now navigates to the wizard without an exception.	14798723
Fusion Client - Commit Status	A user was unable to get the commit status for a workbook that was owned by another user. When a user opened a workbook created by another user but saved with World access, the commit status on the banner portion of the page would display "Unable to get commit status." The client is updated to correctly pull in the current commit status for any workbook and not just workbooks owned by that user.	14186591

Affected Component	Fixed Issue/Defect	Defect Number
Fusion Client - Custom Menu	A custom menu was still enabled despite workbook template rights being set to read-only. There was no check for workbook template rights for enabling of the custom menus. The user does not see custom menu buttons when the workbook templates are read-only. In addition, space normally reserved for the tool box area should be removed when both tabs and custom menu buttons are not rendered.	14519260
Fusion Client - Cut, Copy, and Paste	A user edited a value within a workbook and then selected a protected cell to do a cut operation. A warning dialog was displayed stating a warning message that the workbook must be calculated or pending edits reverted. When calculate or revert was selected from the pop-up, an error message stating that all cells must be writable and unprotected for the cut operation must be displayed and the warning message pop-up should be closed. Instead, the message remained open until the user canceled or closed the pop-up because the error message was closed without the user performing the operation. Now, the error message stays on the workbook window. It disappears after the user clicks Ok.	9293469
Fusion Client - Cut, Copy, and Paste	"Cut data at base level" and "Copy data at base level" were enabled when the base level of data was selected. A check is added to disable the base level radio buttons when the base level is selected. Also, when multiple levels are selected including the base level, the base level radio button is disabled.	13933717
Fusion Client - Cut, Copy, and Paste	When there were pending edits/changes, if the user attempted a Copy Special, the system prompted to perform a calculate first. After the calculation was performed and before the Copy Special, the user was presented with an illegalStateException error. The entire pivot table was being updated after the calculate. Following this, an update for protection processing was performed which attempted to update individual cells. The second update was occurring when the pivot table was in an invalid state since it was in the process of updating the entire table. After the calculate is performed, all other updates are cleared. Since the entire table is being updated, individual cells do not need to be updated. The operation performs as expected.	14115896
Fusion Client - Cut, Copy, and Paste	Within the copy external dialog box, clicking the Copy Formatted Values checkbox was unselecting the text to be copied. There was no script that would reselect the text area. Javascript is added to reselect the text field after clicking the Copy Formatted Values checkbox.	14668122

Affected Component	Fixed Issue/Defect	Defect Number
Fusion Client - DPM	When modifying a DPM position, the positions in the alternate hierarchies needed to be reselected after a position was modified. In setting up the edit of positions when modifying, the bulk edit structure for the alternate hierarchies was being initialized. After the position was modified, the positions in the alternate hierarchies were being reset and lost the position value. The build edit structure should not have been initialized because it was not used. Now, the non-edited positions are not changed.	14049905
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 being 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 bulk edit flag is now tracked based on the first level being edited in the primary hierarchy.	14216677
Fusion Client - DPM	The Delete Position menu option was always enabled regardless of what position was selected. If the user selected this option for an invalid position, the application would hang. The informal position check was not being performed correctly. The position is now checked to make sure it is informal and not locked. The delete position should work properly.	14407978
Fusion Client - Dynamic Attributes	Positions were not displayed correctly in the New Attribute dialog. The max pixel width of the dimension chain was exceeding more than 1024 pixels and hence the page was getting stretched. This pixel width is not specified by a property. The end result is that the dropdown in the New Attribute creation dialog is not expanded beyond the page anymore.	14119015
Fusion Client - Editing	When an editing error was being displayed, if the user initiated an action from the context menu or the page edge that would cause the pivot table to be refreshed, the invalid value was replicated to all of the editable cells after the refresh occurred. The editable component is now reset before refreshing the pivot table. This resolves the issue.	13325302

Affected Component	Fixed Issue/Defect	Defect Number
Fusion Client - Editing Cells	<p>After selecting a value from a picklist measure at an aggregate level and calculating, the next edit to the measure at a lower level resulted in removing the value from all other positions. This was found to be an issue with hyper-dynamic picklist measures. The list of values for the hyper-dynamic picklist was not loaded until the cell was being edited. When calculate was executed, the picklist was cleared or reset. Since the cell was already in edit mode, the client was not reloading the picklist because it could not detect that it was in edit mode. Since the complete list of values was not available, the pivot table was setting the value to null. The dynamic hyper picklists are on a per cell basis and are not preloaded for performance reasons. Since the client cannot detect that the cell is open for edit after a calculate, it now tracks the last cell that was open for edit. If the cell was the last cell open for edit, the client loads the hyper-dynamic picklist regardless of the known state. This ensures the list is available in all cases and that it works as expected.</p>	14629496
Fusion Client - Export to Excel	Export of worksheets with dimension styles could not be opened in Microsoft Excel. The exported XLS file would reference a style it never defined. This is fixed to correctly handle exports with dimension styles.	14467563
Fusion Client - Extended Measures	When the measure dimension was on the page edge, the Create button in the extended measure window was greyed out. There was no default value for the Dimension field and the dimension was not added in the Ok partial triggers. So, the create button was not getting enabled. The selected dimension fields ID is added in the Ok partial triggers and the first dimension in the valid dimensions is made the default in this case. The create button is now enabled.	14754481
Fusion Client - Fill	The Fill operation would not work when no selection was made in the pivot table. It would make the client appear to hang. The Fill action only worked when there was a selection in the pivot table. It should work when there is no selection in the pivot table. In this case, it should provide a list of all of the writeable measures for the user to pick from. The fill would be performed for all cells for that measure on the current page. The cause was that the feature of not selecting anything in the pivot table was never implemented and the Fill action always required a pivot table selection. Now, when there is no selection in the pivot table, the user is able to select any writeable measure in the workbook. This fills all cells for the measure on the current page with the entered value.	12793783
Fusion Client - Find	Find Next and Find Previous would not work properly when a dimension was split. If a position was found more than once on an axis, it would not find all occurrences and instead would stay with the first one. This is corrected to find all instances of the position even when a split is in place.	12906216

Affected Component	Fixed Issue/Defect	Defect Number
Fusion Client - Find	In a dimension setup to show an attribute instead of the position label, the Find Dialog would show the position label in the 'Only within....' text. The attribute display now displays when the label is hidden and the attribute name is the only thing shown. If multiple attributes are displayed, only the left most attribute is shown.	14238282
Fusion Client - Find	The user was unable to find a position in outline mode when using the only within option of the find dialog. Find is now able to find positions under selected positions when using the only within option.	14541978
Fusion Client - Find	Triggering the context-menu operation before performing the Find Next action on a worksheet threw an exception. The find selection defaulted to the invalid edge ending up in the exception. The context menu valid check is removed so that the application defaults to the page edge for search when no pivot table selection exists. Users should see the find operation run with no exceptions.	14822106
Fusion Client - Formatting	The dimension formatting background color was not applying to the dimensions. Shading was making bad color choices which made it look like the domain styles were not working at times. In some cases, the user would not see the original color that was defined as the style. Shading now varies the brightness component of color. The top level is always the original color chosen by the user.	13802241
Fusion Client - Formatting	In Chrome, the format dialog's Clear and Apply buttons were not aligned on the right side where they belong. This was a browser-specific issue and is resolved. The Apply and Clear buttons appear as intended.	13802842
Fusion Client - Formatting	When attempting to open a worksheet where a measure in the worksheet is linked to a date style of time format Twenty-Four Hour, the workbook failed to build and the following error message was generated "java.lang.IllegalArgumentException: com.retek.mdap.bridge.format.CellDate\$TimeForm at does not have a member associated with 24." The enum values defined for the TimeFormat enum were not matching the values in the CellDate blob. The 12-hour and 24-hour format enum values were defined as 2 and 3 which resulted in a mismatch and was throwing an exception. The enum values are corrected to be in line with the Classic Client. Now the user does not any exception. The workbook is built properly and date values are displayed properly.	14371601
Fusion Client - Formatting	Rows were not aligned with their row header when a checkbox was in the view. This was because special formatting that was in place was causing the heights to be too big and not align correctly with the headers. The additional formatting is removed for read-only checkboxes in the pivot table and the problem is resolved.	14535765

Affected Component	Fixed Issue/Defect	Defect Number
Fusion Client - Grid Display	When a custom menu was executed, the elapsed positions were not being locked. The client is updated so that elapsed locks are updated on a custom menu execution if the rules in the domain update them.	13482119
Fusion Client - Grid Display	When viewing a checkbox at an aggregate level, the ambiguous character was not being displayed when the aggregation was ambiguous. This is corrected such that the user sees the ambiguous character (?) at a parent level when the aggregation is ambiguous.	14400001
Fusion Client - Help	Clicking on the Help link from a workbook page resulted in error 404--not found. The Help link was not working from a workbook page. The relative path was incorrect. The relative path is corrected. Users can now launch the help from a workbook page.	14533973
Fusion Client - Internationalization	The date format in the wizard date picker control was hardcoded in MM/DD/YYYY format. Now, the date format is picked from the resource bundle and displayed in the locale specific format.	14103777
Fusion Client - Measure Show/Hide	In the measure Show/Hide dialog, if a user selected two or more measures and dropped them to the specific position of the visible measures, only one measure got deposited in the selected area and remaining measures got deposited at the bottom of the visible measures. This is fixed and now all measures are inserted in the correct location.	13830444
Fusion Client - Miscellaneous	The Fusion Client no longer showed the calculations for a measure when showing the measure status property. There was a condition in the server file that was short circuiting the retrieval of the measure status. This condition is resolved and the calculation can now be viewed.	14049791
Fusion Client - Other	In the search pop-up for a Single Hierarchy Select (SHS) measure, the reset did not reset the list of positions after a search. A blank or empty search did not reset the list as well. This also occurred in the Image Editor, DPM Editor, and Attribute Creation. To resolve the issue, a blank or empty search is now enabled. This allows the list of positions to be reset. When using the search pop-up, the user needs to do a blank or empty search to reset the list of positions, if desired. Repeated searches are not affected.	12366246
Fusion Client - Performance	When running a calculation through the Fusion Client, the server is performing the actions in about 6 seconds but the total time of the calculation as observed was about 15 seconds. Calculate presents a splash screen to block user input. But the mechanism was slow, mainly because it involved 2 server roundtrips. A different approach is now used which is completely client-side and uses Javascript to present a previously loaded pop-up while the action is in progress. No server roundtrip is involved. The Fusion Client performance is now faster than previously recorded.	14269812

Affected Component	Fixed Issue/Defect	Defect Number
Fusion Client - Printing	Within the page setup window of the print dialog, a null pointer exception was thrown when the left margin was null and the user clicked OK. There was no check for empty values even if they were empty. A check is added to see whether any margin is empty. If so, an appropriate error message is thrown.	14620864
Fusion Client - Show Hide Measure Positions	The Up and Down arrows were not getting enabled when searching within the Measure Show Hide dialog. This is resolved and the user sees the Up and Down arrows enabled upon successful search, in addition to measure highlighting.	14106766
Fusion Client - Simple Sort	A data streaming error occurred when trying to do a row sort using the sorting icons. This was related to having the measures on the page edge and performing a sort on the rows based on the sort icons. The user is now able to select a row and sort columns based on a measure on the page edge using the sort icons.	14532452
Fusion Client - Single Hierarchy Select	The positions that are displayed in the pivot table Single Hierarchy Select drop down were not sorted. They were being displayed in the order that they were retrieved from RPAS. The list is now sorted before being displayed.	14485808
Fusion Client - Taskflow	Select an admin template and create a new admin workbook. Once the workbook is open, the template was not highlighted within the taskflow. Now, once an admin workbook is open, the template is highlighted.	10318496
Fusion Client - Taskflow	When a task had a long name and was not visible, the user tended to increase the taskflow size by dragging the splitter. The horizontal scroll bar appeared, but did not seem to go away even when the entire name was visible. This is fixed.	12567542
Fusion Client - Taskflow	When a user clicked on the cancel button of a wizard after getting there from an unsaved workbook, the user would get an exception instead of correctly being taken to the home page. A check is added to only open the previous workbook if there is one to navigate to (that is, a saved workbook).Otherwise, navigate to the homepage without exceptions.	14392222
Fusion Client - Taskflow	The user received an operation failed error on cancelling the list of workbooks to open when accessing the list with an unsaved workbook open. On cancel, the code was trying to navigate to the currently opened workbook. Since the user did not save the currently open workbook, the workbook path was null. Reading from it was throwing a null pointer exception. Now, the client checks to see if there is a current workbook open before navigating to it. The user can hit cancel on the list of workbooks with an unsaved workbook open in the background.	14579221

Affected Component	Fixed Issue/Defect	Defect Number
Fusion Client - Undo	The Undo List was not being updated after a workbook Update or Refresh workbook action. These actions execute a calculate which clears the pending edits. The state of the Undo List was being cached. The actions were being carried out within the scope of the request and the cache was not being cleared. The Undo List is now properly updated after the user workbook actions Update or Refresh.	14072076
Fusion Client - Wizards	On the first page of the Admin Workbook Batch Category, the input controls were enabled for the radio buttons that were not selected. Radio button or checkbox selections now enable or disable input controls as specified by the wizard page configuration.	10393816
Fusion Client - Wizards	In Oracle Retail Demand Forecasting (RDF) Forecast Approval Workbook, if the user selected the "Use the most recently generated forecast" radio button, the forecasts in the "Select from list of Forecast" were not correctly disabled. This was because the client never used the associated controls information from the server to enable or disable other controls based on radio button or check box selection. Radio button or check box selections now enable or disable other input controls as specified by the wizard page configuration.	13963242
Fusion Client - Wizards	Positions within a wizard page by default were not sorted by label. The client displayed the data as received from RPAS. It did not apply any sorting to the positions displayed on the wizard page. Also, the positions received from RPAS were not sorted by label. The sorting is now performed in the client by selecting the label as sort attribute if the sort attribute does not already exist. The user can see the positions sorted by label.	14313360
Fusion Client - Wizards	When the available tree does not have the lowest level of the selected tree, adding some positions and then removing a subset was removing all the positions. For example, removing some skus from a class was removing the entire class. The method which decides what the list of added positions were was relying on the available mode in the UI. Since it does not have the lowest level of the selected tree, the positions did not get persisted. The method is changed to not use the position list from the UI model and instead rely on the available position map to build the list of selected lowest level positions.	14391945

Affected Component	Fixed Issue/Defect	Defect Number
Fusion Client - Wizards	Cancel from a wizard process for building a workbook with thousands of positions took a long time (over a minute). The cancel operation was unnecessarily rebuilding the tree structures corresponding to the available and selected positions trees in the wizard page when cancel was executed. The fix removes the code that resets the available and selected trees in the current wizard page. This is no longer necessary. The cancel is now much faster.	14698298
Fusion Client - Wizards	The disabled behavior of the wizard List Box control is changed. When disabled, the client now makes the entire table not visible rather than just the contents. This is less ambiguous than the previous behavior, which was too easily confused with an enabled, but unpopulated control.	14730346
Fusion Client - Workbook Build	IndexOutOfBoundsException during workbook open when creating a new workbook used saved formats that hide all selected positions in a dimension. The problem was that the only positions available in a dimension were hidden by the saved format. There was code available 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 left the view with no visible positions and led to the exception. This is corrected and the workbook should be created and displayed successfully.	14566230
Fusion Client - Workbook Wizard	Sorting on the wizard did not work correctly. This was a case issue that caused a loss of sort order when the positions were displayed in the wizard by moving to the previous step or when revisiting the page after the sort was already applied. When the sort attributes were again passed back to the Fusion Client when revisiting the wizard page, the Fusion Client was getting them in upper case. This caused a comparison failure in the Fusion Client and sorting was not happening. Now, the attribute names are maintained in lower case and the user is able to see sorted positions in the wizard.	14557691
Fusion Client - Workbook Wizard	Adding an attribute during the wizard steps resulted in the Attribute column being added. However, the column was blank when the attributes should be showing their existing values. Users now see the attributes in the wizard.	14679583
Fusion Client - Worksheet Windowing	After creating a workbook, Copy View got restricted/disabled if a user performed it for more than 10 times. In other words, a user could not copy a view for more than 10 times. There was a hardcoded restriction put so that Copy View could not be executed more than 10 times. This limit is removed.	14588093

Affected Component	Fixed Issue/Defect	Defect Number
Position Queries	<p>An error occurred in the client when trying to swap hierarchy tiles from one axis to another. RPAS was throwing an exception because the intersection of a position query measure on that worksheet was incorrect. The measure in a position query must have all the parameter dimensions, the result dimension, and no remaining dimensions. In this defect, the measure was missing the result dimension. This was a problem with the configuration. RPAS still throws an exception when the position query measures intersection does not match the position query dimensions. However, there is now a higher-level verification so that a better message is displayed in the exception. The new exception message is as follows:</p> <p>"RunPositionQueryException: Cannot evaluate position query 'PositionQuery1' because the measure's intersection does not match the dimensions in the position query. The position query is defined with dimensions week, sku, and str. The measure 'positionq' has intersection sku_week."</p>	14494554
RPAS Server - Calculation Engine	<p>Incorrect results were produced by the RPAS Calculation Engine in the following case:</p> <p>Rule: <math>Z = X + Y</math></p> <p><math>Z = -2.3283064365387e-10</math></p> <p>where:</p> <p><math>X = 808887.68369967</math></p> <p><math>Y = -808887.68369967</math></p> <p>Where Z is expected to be '0.00'.</p> <p>When using printMeasure to print the data, it was truncated to 8 decimal places, whereas internally the data has 11 decimal places. The calculation is correct as shown below:</p> <p><math>(808887.68369967036) + (-808887.68369967060) = -2.3283064365397e-10.</math></p> <p>When doing the calculation, the result value is checked to see if it is less than epsilon. If true, the set the result to 0. NOTE: Epsilon equals 0.0000000001.</p>	14211184
RPAS Server - Calculation Engine	The ranksort procedure returned negative values when the recalc measure using the procedure was viewed at aggregate levels. If the output measure was at a higher intersection than the DimSpec, it led to a one to many mapping. Therefore, the logical count of DimSpec to Output mapping returned 1 even though the mapping count was greater than 1. This resulted in the naValue count being negative. Ranking is now calculated correctly even when the output measure intersection is higher than the DimSpec intersection.	14233746

Affected Component	Fixed Issue/Defect	Defect Number
RPAS Server - Calculation Engine	When selecting ALL calendar while building the workbook, measures were showing the correct value. When selecting a few months (that is, only 5 months) in Calendar wizard, measures were showing different value than in the previous workbook. If a workbook used the function today in the rules, the today position must be included in the workbook. When the user does not select the today in the calendar positions, it gave the wrong value. If the today function is part of workbook rules, but the today calendar position is not included in the workbook, it logs the message saying the workbook may contain wrong values in the log file. It logs this in all log levels. Instead of throwing an exception, it is just logging the message in the logfile so that the workbook can continue to be built.	14244947
RPAS Server - Calculation Engine	Batch calculations were running slower when moving to an integer indexed domain. One of the benefits of integer indexing is that when a position is removed, all of the arrays that contain that dimension do not need to be reshaped. As a result, however, it is possible to have entries in an array file that contain inactive positions. Because of this, a populated iterator is going to have to stop at each position to see if it is still active. This check does not scale well with large data volumes. This is not seen in all calculations because other changes in RPAS 13.3.0 are faster and cancel out the affects of this issue. Expressions with large amounts of aggregation exhibit the problem more than others due to the number of populated iterations involved. The lookup is optimized using caching and intelligent prediction.	14324423
RPAS Server - Contention	During workbook operations Build, Close, and Save As, the wbdata database was locked longer than necessary. This caused contention if other users were building workbooks at the same time. Now, information is cached like the workbook's rule group names or template name to avoid retrieving them repetitively. When wbdata has to be locked, it is closed so the lock is released as soon as the information is retrieved.	14324442
RPAS Server - Convert Domain	After converting a domain from 13.2.3, data from workbooks was no longer being committed. A cached version of the rule, expression, and rule group dimension registries caused the workbook data to be out of sync with the domain information. The dim registry cache is now cleared before copying the domain's rule, expression, and dimension registry information to the workbook.	14472663
RPAS Server - Dimension Splitting	The server was crashing when trying to create an extended measure when there was a dimension split on the worksheet. The code for determining the intersections to use for the extended measure was incorrectly handling split dimensions. This is fixed to work as expected and not have the server crash.	14591947

Affected Component	Fixed Issue/Defect	Defect Number
RPAS Server - DPM	When an informal DPM position name was modified, an illegal position name error message was displayed. The message is similar to the following: "Illegal Position Name: Array 'dim_sku' doesn't contain the Position 129 in sku dimension." When the informal DPM position is modified, the old position in the dimension registry is renamed with the new position name. When setting the label for the position in the language database, the old cached position name was used instead of the new position name. The dimension registry cache is reset after renaming the informal position name in dimension registry. Now the user does not encounter the error message.	13854506
RPAS Server - Java Expressions	Users of the Java Special Expression (JSE) framework encountered errors in the execution of the JSEs when moving from testing to production level volumes of data. Java strictly limits the amount of heap allocated to a JVM. The JVM will not continue to request more heap as memory is consumed and will instead issue an OutOfMemoryError when the initial heap allocation is exhausted. This is done to prevent a runaway process from consuming resources. However, the default limit on heap is somewhat restrictive. RPAS added support for the RPAS_JAVA_MAXHEAPSIZE environmental property. When creating the JVM, it is possible to instruct Java to allocate a larger amount of memory for its heap. This is done through the use of a JVM argument in the creation of the JCM. Setting a value for RPAS_JAVA_MAXHEAPSIZE results in that value being used to allocate a greater amount of memory. The value of this variable should be the amount of memory, in megabytes, that the JVM should request. The customer needs to test using various values to determine a value that allocates enough memory.	14357507
RPAS Server - User Administration	Use User Administration / Add User Group to add a new user group called newgroup. Then use Delete User Group. The new group appears in the dropdown. Select it and hit Finish. The following error was thrown: "The following users: 'adm', 'usr', 'tom', 'fred' have a default group of: newgroup". This was not the case because the group was new and no users had been assigned to it. The logic of checking the users within a user group was not working correctly. This is changed and now the user is able to delete the empty user groups without any issues.	14589132

Affected Component	Fixed Issue/Defect	Defect Number
RPAS Server: Workbook Dynamic Hierarchies	<p>When selecting the slice of data to be used in a dynamic hierarchy, RPAS always selected the first slice. This lead to problems that if there were multiple branches of dimensions using the same intersection of measures for different versions, only the first one would be populated and others would always be collapsed. For example:</p> <p>Dynamic Hier defines first branch of dimensions using:</p> <ol style="list-style-type: none"> <li>1. source dim = UTC</li> <li>2. modified dim = Dimensions in branch 1</li> <li>3. measure intersection = CSVDUTC_ and only slide CSVD:CSVD_1 is fully populated.</li> </ol> <p>Dynamic Hierarchy also defined a second branch of dimensions:</p> <ol style="list-style-type: none"> <li>1. source dim = UTC</li> <li>2. modified dim = Dimension in branch 2</li> <li>3. measure intersection = CSVDUTC_ and ONLY slice CSVD:CSVD_2 is fully populated.</li> </ol> <p>UTC--&gt;ITEM--&gt;... (Main Branch)</p> <p>\--&gt; branch 1 ...</p> <p>\--&gt; branch 2 ...</p> <p>Since the first position is always used as the selection slice, the second branch of dimensions (measures only have CVSD:CVSD_2 populated) would always be collapsed. To resolve the issue, limit the conditional select of the position for the selecting slice. When the server encounters a dimension that has multiple positions, it samples the measure and selects the first position that is finds populated.</p> <p>Limitations:</p> <ol style="list-style-type: none"> <li>1. When there is more than one dimension that has multiple positions, only the first dimension (order by hierarchy order) is sampled. Other dimensions randomly select one position as part of the slice.</li> <li>2. If the measure has multiple slice populated, only the first slice is selected.</li> <li>3. If for some reason no cell is found populated, the first position is used for the selection. Normally, this leads to a collapsed dimension.</li> </ol>	13720223
Server - Calc Engine	Mace threw an exception when evaluating dpos=current when dpos type was real. RPAS did not correctly handle the current keyword when the left hand side measure was a real type measure. The code is updated to handle the situation where the left hand side measure is a real type measure.	14309674

Affected Component	Fixed Issue/Defect	Defect Number
Server - Domain Daemon	When the DomainDaemon connected to a domain, it cached information about the domain's global configuration. If the DomainDaemon connected to another domain with a different master, the previous global information was replaced with that of the new domain. However, when connecting to the first domain again, the global information was not replaced and remained that of the second domain. This was found when connecting to the same DomainDaemon but different solutions (that is, MFP and AP). It would occasionally receive an error message when logging in. To resolve this, the global domain information is cached in a map keyed from the master path. When the current domain is changed, a pointer to the global domain information is updated, regardless of whether the domain is in the cache already or not. The master and all locals use the same global domain information instance.	14146901
Server - Miscellaneous	RPAS would throw an error stating "old root's pincount should be 1 for \$PATH." This happened when the very low level Btree routines detected an error in the their usage of their variables. In this case, the pin count was not the expected value while processing this BTree file. In additional testing, it was found that if any array is open in write mode and closed without accessing any cells and then opened in read mode, the next array access would result in this error message. The code is updated to correctly handle the BTree state variables.	12952454
Server - Workbook Save and Close	Performance was slow during a workbook Save As and Close. Restoring checkpoint databases and copy workbook directories was very slow during these operations. This is resolved in the following two cases. During Workbook Close, rename the checkpoint databases to the workbook to restore the workbook to the previous state. During Workbook Save As, rename the current workbook to the new workbook directory and rename the current workbook's checkpoint databases to the current workbook to avoid two expensive copies.	14377816
Translation	Spanish translations for the "Concurrent user connection" message were not translated. Spanish translated messages for "Concurrent user connection" are added to fix this issue.	12739016
Utilities - Convert Domain	The -suggestBitSize option is added to the convertDomain utility. This option prints out a suggested bit size based on the current number of positions in the dimension. The suggested bitsize provides a capacity at least twice the current size of the dimension.	14531912

Affected Component	Fixed Issue/Defect	Defect Number
Utilities - Convert Domain	Updates are made to convertDomain to report arrays that use non-standard dimensions while a standard version of the dimension exists. A -genUnlinkedList option is added to convertDomain to produce the list of such arrays. Also, the convertDomain utility is updated to skip any directories specified by an xml file, passed in using the new -exclude option.	14551785
Utilities - Convert Domain	Updates are made to the convertDomain utility to skip any directories specified by an xml file passed in using a new -exclude option.	14563435
Utilities - Copy Domain	The copyDomain with -clone option did not correctly copy the domain when there were informal positions in non-cloned domain. For example, if a user only wanted to clone ldom1 but there were informal positions on the partition hierarchy existing in ldom2, copyDomain did not copy the domain correctly. The copyDomain utility relies on loadHier to do a clean up of the positions. However, loadHier did not purge informal positions. If this position was in another subdomain, loadHier did not correctly detect which subdomain to clean and purge. The position is purged before loadHier in this scenario.	14081341
Utilities - Copy Domain	When attempting to copy a domain using the -copyWorkbooks argument, the copyDomain utility was failing and all the saved workbooks were moved to the new domain. The utility is updated to correctly handle this situation.	14366157
Utilities - Export Data	The exportData utility failed to run with the -params option and the -processes argument. When exportData was run with the -processes option, parallel processes were launched with subdomains as their domain patch. The parameter array tried to be restored from subdomains, but this array did not exist in subdomains, hence the failure. Only string type scalar measures were allowed as parameter arrays for exportData, so the format was only stored at the master level. Processing of the parameter array is modified. The utility can now export the data properly with the -processes option.	14027701
Utilities - Export Data	Usage text for the -range option of the exportData utility was ambiguous. It stated that the -range option could be specified only with the -wide parameter. The usage is corrected to be insync with the Administration Guide. It can be used to limit the export to positions in the range. The range can only be specified for the innermost dimension. It may be used in conjunction with the -wide parameter.	14227879

Affected Component	Fixed Issue/Defect	Defect Number
Utilities - Export Measure	Workbook builds may fail after running exportMeasure. When exporting a non-Higher Based Intersection (HBI) to a HBI intersection using exportMeasure, it left behind an aggregated array in the measure database. If any workbook that aggregated that measure in the load group and the workbook was built in the master domain, the build would fail with an array not found error. Now, any cached measures instances generated or used by exportMeasure are cleared out.	14264101
Utilities - Export Measure	When running exportMeasure to export a value from a scalar measure using format, the export data was incorrect. When no format string was specified, the output file contained the correct value. String measure values were not formatted. For real measures, the formatting string should be %x.yf where x is the total length and y is the precision length after the decimal point. Apply string format to string measure data before writing output.	14373066
Utilities - Hierarchy Loading	When trying to load a hierarchy that contains a header line with new positions but not at the partition level, the following message would be displayed "HierarchyException: Adding new position on partition dimension dept requires default domain parameter. If adding new partition positions for new subdomain, you must execute reconfigGlobalDomainPartitions domain utility." The loadHier utility did not honor the -headerLine option. The utility is updated to prevent the -headerLine option from being reset.	14002773
Utilities - Hierarchy Loading	The loadHier and reconfigGlobalDomainPartitions utilities threw an UnexpectedCellType exception after reindexing the domain. This was a result of another change that switched the reindex_in_process switch to be a string type instead of Boolean. Both utilities expected the type to be Boolean. The fix is to allow for either a Boolean or string.	14594159
Utilities - Hierarchy Loading and Exporting	The exportHier utility did not export the label of position of non-root dimensions correctly. It output position names instead. The utility tried to get the label from translation manager, but the labels were not loaded to the translation measure yet. It did not look into the dimension array and use the default position name as the label. Now, the utility tries to read from the dimension array if the translated label does not exist.	14303163
Utilities - Informal Position Manager	The informalPositionMgr utility was unable to delete DPM positions when running over the master domain. This was found when trying to remove informal positions on the partitioned hierarchy. DPM Add and Remove on the partition hierarchy was restricted to the local domains. The utility was not properly switching to the corresponding local domain before calling the function to delete. It is updated to switch the domain before calling delete.	14461954

Affected Component	Fixed Issue/Defect	Defect Number
Utilities - mace	<p>Running certain mace rules caused a database file size to increase 20 times its original size. Running optimizeDomain takes it back to its original size. This issue is due to processing that was done after an expression had been evaluated. After the expression have been evaluated, all Boolean measures that have been updated are checked to see if the populated size of the array is above 55% of the logical size of the array. If this condition is true, the true/false values of all cells in the array and the Na value are flipped.</p> <p>This was done as an optimization. Doing this step would drop the populated size of the array. Since these arrays are often used as a mask in later expression evaluation, this operation would hopefully speed up those later operations.</p> <p>For example if the Boolean array had a logical size of 10,000 and it was 75% populated with (7,500) true cells and an NA value of false, then doing this operation would flip all values and the array would now have a populated density of 25% or 2,500 false cell and an NA value of true. Now, in a later mask operation, the evaluation loop would require just 2,500 cycles VS 7,500.</p> <p>So the operation is needed, however the coding was incorrect for a Btree-based database. The original code attempted to do this change on the actual array. The best case is the array may remain the same size. However, in most cases, this would cause the array to be highly fragmented.</p>	14013612
Utilities - mace	Mace threw an exception while evaluating an expression at the local domain. This was coming due to a bug in the transform agg functionality. The mapping between the source measures and the Boolean map measures dimensions were getting generated correctly, but were getting picked up from the wrong map during evaluation. The function is updated to use the right mapping data structure.	14215329
Utilities - mace	While trying to run special expressions with mace, the name of the expression is converted to lowercase and may throw an "Unknown special expression" error. Mace converts the whole expression to lower case to get lowercase measure names. But this also makes the special expression lowercase. The expression table keeps the name to library as a case sensitive map. The lowered name could not be found in the map and the unknown expression exception was thrown. To correct the issue, a case insensitive map is now used.	14262059
Utilities - Optimize Domain	The optimizeDomain utility failed in multi-process mode with meta.db locking error. During initialization of subdomain processes, it held a read lock of the master domain's meta database. This read lock caused the master process to fail with the lock error. The read lock is now released once it finishes the initialization step.	13972184

Affected Component	Fixed Issue/Defect	Defect Number
Utilities - Other	The performance of the transferData utility was very bad. The utility was spending a lot of time generating the dimension information for the destination array. This was a redundant step. This has resulted in faster processing of transferData.	14509454
Utilities - Other	In converted domain, sometimes there are arrays not referencing the dimension registry correctly due to data corruption in the old version of the domain. Data corruption in a pre-converted domain may leave arrays out of sync with the dimension dictionary. When such arrays are converted, they are handled such that its won dimension is kept instead of using the standard dimension. If such a situation is detected, the fixDomain utility can be run to rebuild the array using the correct dim registry.	14531944
Utilities - Other	The fixDomain utility is enhanced to support one new task option called FixArrays. This option detects and fixes unlinked arrays which contain one or more dimensions not linked to a dimension registry. The fixDomain utility is also now a public utility.	14725795
Utilities - Reconfig Global Domain Partitions	In some cases, reconfigGlobaldomainPartitions failed during adding new domain. The error occurred during measure cleanup. When a new domain is created from one of the existing local domains, all its measures are required to be reset to the measure NA value. It threw an error if the measure array of the suffix array did not exist for the measure. This error now does not stop the reconfig process.	14405324
Utilities - Reindex Domain	The reindexDomain utility, when run with the -analyze option, output nothing when used with the -processes option. The reindexDomain -analyze option only works on a master domain or a simple domain. It does not do any processing on a sub-domain and just returns when the current domain is a sub-domain. The utility failed to check and prevent usage of -processes with the -analyze option. A check is added during the verification module to let the user know -processes cannot be used with the -analyze option.	14084763

Affected Component	Fixed Issue/Defect	Defect Number
Utilities - Reindex Domain	The reindexDomain utility would not work properly in domains that had informal positions. After the reindexing or increasing, the bit size in the domain, some positions would change their status from formal to informal. The utility would not reindex all arrays when using -processes on a global domain. The utility did not handle the -prepend switch correctly, did not handle restarting correctly, and did not handle DPM positions correctly for the sub-domains. Most of the issues were due to the reindex_in_progress property being cleared when the application exited or not determining the correct dimensions that were to be reindexed, or mishandling the rebuilding of the dimension registry for the sub-domains. The domain property reindex_in_progress is changed to contain the dimension being reindexed. The code is changed to correctly update the property and use it to determine what dimensions are being reindexed. Finally, the rebuilding of the dimension registry of the sub-domains is totally reworked. This resolves the initial issue of formal positions changing to informal status after a reindex.	14375803
Utilities - Reindex Domain	A typo is corrected in the output of the reindexDomain utility. The output incorrectly had "directies" instead of "directories".	14637531
Utilities - Reindex Domain	After deleting positions in a dimension to be reindexed, the reindexDomain utility failed with NA cell error. The routine used to update the dimension database is updated to open the source array correctly which resolves the error.	14652715
Utilities - RTD	Workbooks built using RTD were sometimes bringing in all positions into the workbook. This was caused by two issues. First, the user used the wrong case in the wizard page names in the xml sent to RTD. Second, the positions being specified as selections in the RTD xml did not exist in the domain. Even if one position name was incorrect, all positions for the dimension would get brought in the workbook. RTD is fixed to throw exceptions whenever the two conditions described are detected. Workbook builds proceed if either of the conditions are met and a diagnostic message is thrown in the exception.	14349883
Utilities - Transfer Data	The transferData utility failed with an exception when run using a mask measure. The utility was not able to find the private helper utility it calls during processing. The code is fixed to call the private helper utility from the correct location.	15831723
Utilities - Update Array	The updateArray utility would crash for unknown reasons. Some measures would work while others would produce a segmentation fault. This issue is resolved.	14228610

Affected Component	Fixed Issue/Defect	Defect Number
Utilities - Upgrade Domain	<p>When building workbooks in an upgraded domain, the rule and expr dimensions in the workbook are created with 32-bit sizes. However, those dimensions are 16-bit in the upgraded domain.</p> <p>During workbook build, the dimension registry for those dimensions is copied from the domain to the workbook. However, the rules arrays already exists in the workbook that was created with 32-bit sizes for those dimensions. The data in those arrays can no longer be read correctly. This causes the calc engine to not load the rules. The protection processing and commit do not work because there are not any load, commit, or calc rules. The bit sizes for rule and expr dimensions was increased from 16 to 32 bit in 13.3.0.11. However, the upgraded domain still had 16 bits for those dimensions.</p> <p>When creating dimensions in the workbook that are not workbook-only dimensions, use the same bit size that is in the domain or source measure.</p>	14202835
Utilities - User Management	An error occurred creating first user in domain if the user name was not a valid user ID (that is, special characters such as a dot or dash in the user name). A test for existing user IDs had bad logic when no users were present in the domain. The utility is updated to ensure that the user ID generation code works correctly when no users are present in domain.	14021431
Workbook - Other	After building a domain and making changes to the configuration by changing the measure label within a workbook template from the Measure Tab in the workbook designer window, these new changes were not showing up on the workbook in both the Fusion and Classic clients. The label was acquired from the incorrect array. The label is now fetched from the correct array which has the proper workbook label.	13697589
Workbook - Other	When trying to build a large number of workbooks concurrently, approximately 10% were hitting an unexpected timeout error. The dimension registry had a hard-coded timeout of 60 seconds. It did not utilize the RPAS_LOCK_TIMEOUT environment variable. Many users accessing the dimension registry in the domain by building workbooks, and such, could cause the 60 second timeout to be insufficient. The dimension registry now utilizes the same timeout value as the database locks, thus allowing RPAS_LOCK_TIMEOUT to work on the dimension registry.	14080686

## Known Issues

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

Affected Component	Known Issue/Defect	Defect Number
Calculation Engine	When defining a sales curve with an entirely downward trajectory (such as 40, 30, 15, 10, 5), the resizenorm procedure returned a curve that actually had an upward trajectory at the end. Also, if a flat curve with only a few weeks (that is, a series containing 10, 10, 10, 10) is provided to resizenorm, the resulting curve actually has upward and downward sections rather than a resulting flat curve.	13955224
Classic Client - Editing	When the Special Value Type field is set to User Entered for a Date measure, a date in the format of YYYYMMDD should only be allowed to be entered by the user. This is not happening and the user can enter any format they desire and any random numbers.	14094418
Classic Client - Formatting	In an RDF domain that was upgraded from 13.3.1 to 13.4.0, the promoenable measure within the Promotion Management workbook shows true and false as a string instead of check boxes. Also, the measure is not editable when it should be. When the style xml for this template was removed, the measure displayed correctly.	15936836
Classic Client - Scrolling	With auto-position query set, a user is not able to scroll through positions in one of the hierarchies of the z-axis if all positions of the second hierarchy are hidden.	15902095
Configuration Tools - DPM	The DPM panel is not getting updated when changes are made in the workbook for dynamic hierarchies. It shows dimensions that are not allowed to be DPM enabled as being enabled.	14652486
Configuration Tools - Hierarchies	Configuration Tools does not allow for the same RPAS and Tools name for newly added dimensions.	14498293
Fusion Client - Attributes	A scalar measure is showing the value of the measure instead of the label when using that measure in the Show Attributes and Sort tab. As the scalar measure is identified as an attribute, it should be displayed as an attribute.	14705594
Fusion Client - Online Help	Online help does not display content below the top level in the Table of Contents. Selecting a subordinate level results in a Topic Not Found error. <b>Note:</b> The <i>Oracle Retail Predictive Application Server User Guide for the Fusion Client</i> is included in Release 13.4. The online help content is a duplicate of the User Guide.	15925679
Fusion Client - Pivot Table	After changing dimensions to another axis, changing the measure profile produces the error "Dimension failed. Please contact the System Administrator."	14786432

Affected Component	Known Issue/Defect	Defect Number
Fusion Client - Scrolling	Synchronized worksheets is not working correctly. Making a change to one sheet is affecting the other worksheet in the wrong way. When a checkbox is selected on one worksheet and the view changed to another, the checkbox on the first worksheet remains active.	14796683
Fusion Client - Taskflow	The client crashes when hitting cancel in the workbook wizard when navigating there from an open workbook that is not saved or committed.	14849885
Fusion Client - Taskflow	When building a workbook using the select by partition level in the domain selection window followed by building another workbook selecting the domain by domain name, the second workbook is not listing all the positions. It is only listing the positions that were available to the first workbook.	15829589
Fusion Client - Wizards	Users are not able to make a large number of selections in a wizard because the performance takes so long. The addition of the positions to the selected window could take over one hour.	14829045
Server - Admin Workbooks	After converting a domain to integer indexing, users get an error on the Edit Workbook Settings wizard of the Auto Workbook Maintenance workbook. This happens when in the master domain and not the local domains.	14730272
Server - IPv6	The Fusion Client and RPAS DomainDaemon are not able to communicate with each other over an IPv6 network when both Fusion Client and RPAS are on the AIX platform.	15898484
Utilities - Workbook Batch	The RPAS utility throws the following error when there are workbook auto build requests in different local domains: "wbbatch: caught exception UnexpectedCellType: An NA cell cannot be converted to a DateTime type!" This is seen either when trying to start the queue or printing the queue. There is no issue in running wbbatch when there are only entries in the queue from the master domain. However, in this case two workbook are created for each individual auto workbook queue entry. One of these workbooks opens without error. The second workbook cannot be opened because of an illegal position error message.	14102982

## Related Documentation

For more information, see the following documents in the Oracle Retail Predictive Application Server 13.4 documentation set:

- *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 Configuration Tools User Guide*
- *Oracle Retail Predictive Application Server Installation Guide*

- *Oracle Retail Predictive Application Server Licensing Information*
- *Oracle Retail Predictive Application Server User Guide for the Classic Client*
- *Oracle Retail Predictive Application Server User Guide for the Fusion Client*

## **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 13.4 Cumulative Fixed Issues (Doc ID 1357743.1)**

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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Oracle® Retail Predictive Application Server Release Notes, Release 13.4

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#### Oracle Retail VAR Applications

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(ii) the **Wavelink** component developed and licensed by Wavelink Corporation (Wavelink) of Kirkland, Washington, to Oracle and imbedded in Oracle Retail Mobile Store Inventory Management.

(iii) the software component known as **Access Via™** licensed by Access Via of Seattle, Washington, and imbedded in Oracle Retail Signs and Oracle Retail Labels and Tags.

(iv) the software component known as **Adobe Flex™** licensed by Adobe Systems Incorporated of San Jose, California, and imbedded in Oracle Retail Promotion Planning & Optimization application.

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